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The Kerala Model to battle COVID-19

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Summary

The early recognition and prompt planning to face the COVID-19 pandemic by the Kerala government has benefitted the state and country immensely. The state modelled its entire COVID-19 strategy on the deep roots of decentralised local self-administration and inherent strength of the public healthcare system. The state adopted an aggressive strategy of locating, testing, tracking and containment, which has paid rich dividends. It sees the curve flatten, as India moves out of the four weeks of the national lockdown. Kerala is now poised for phased relaxation of the lockdown from 20 April 2020.

Introduction

To be able to appreciate the Kerala model which has been handling the COVID-19 pandemic, we need to understand the administrative set up at the district and sub-district level in the state. In the mid-1990s, Kerala undertook a massive policy initiative to decentralise and transfer power to local self-government bodies at the gram panchayat (village council) and the district panchayats. These bodies were entrusted with public health and public education functions of the government up to the district level. Thus primary health centres are functionally managed by gram panchayats though the government pays the salaries of the doctors. Similarly district hospitals are managed by the district panchayat. Once the power was transferred to these bodies, they were entrusted with the responsibility to prepare 'People Plans' – which signalled the government's intent of people doing tasks for the government. These plans took into consideration locally available natural resources matched with financial resources allocated to the particular panchayat for the developmental needs of that area. Such people's participation at the ground level has helped to mobilise spontaneous community support whenever the need arose. This investment in public health services and education and the decentralisation of governance have been the game changer for Kerala – a state with a very high density of population.

Early Intervention

As early as 18 January 2020, on receiving warnings from the World Health Organization (WHO) and others on COVID-19, the state which has a large number of its citizens working abroad, issued an advisory and started *suo moto* testing of all overseas arrivals at its four international airports. Initially, the concentration was on passengers arriving from nine countries, including China, Iran and South Korea, but soon all persons with a record of foreign travel were screened. They were given a health card in which they had to list their travel details and health condition.

The health unit at the airport was provided with ambulances to convey any passenger detected with cough, sore throat or fever to an attached hospital. Then onwards the

passenger was captured by the intensive surveillance system that the state had devised and his health condition was diligently tracked. Realising the lethal capability of the virus, the state set up district control rooms and began procurement of personal protection equipment such as masks and gloves. By the end of January 2020, all district hospitals were instructed to designate separate COVID-19 isolation wards. On 4 February 2020, COVID-19 was declared a state disaster threat. By 10 February 2020, temporary quarantine shelters were established to accommodate tourists and non-residents of Kerala.

Whilst contact tracing and surveillance was progressing, a family of three, arriving at Thiruvanathapuram airport from Italy[1] on 29 February 2020, travelled all the way to Ranni in Pathanamthitta district, without declaring its travel history. It was a whole week later, after showing signs and symptoms of the virus, that they were tested positive. The district under the guidance of the district collector P B Nooh constituted a team comprising police officers, volunteers, panchayat workers, revenue officials and health workers. This team commenced spatio-temporal mapping and prepared detailed flow charts which depicted the time, date and movement of each person the family based on mobile call details and closed circuit television footage. Since it was felt that the family had not declared all details of its travel and contacts, the family members' particulars were put on social media urging persons who had come in contact with them to get tested and stay quarantined. Soon, the control room was flooded with calls and necessary action was taken.

Lockdown and Effective Action

On 11 March 2020, the WHO declared COVID-19 a pandemic. Kerala's Chief Minister, Pinarayi Vijayan, ordered a lockdown: shutting schools, barring large gatherings such as marriages and processions while also advising against congregations in places of worship. This was a fortnight before of the national lockdown.

Kerala has the highest test rate in the country. It has also achieved success by its 'Break the Chain' campaign to encourage social distancing. This has been done on the assumption that a mere lockdown would only confine the virus within the household, where it may multiply. The state advised home quarantine for a 28-day duration which was double of that prescribed nationally. The administration had intense public engagement to educate the people that the virus is transmitted through the community and the solution has to come through the community. Through effective communication, the state was successful in energising intense engagement among local bodies, cooperatives and women's neighbourhood groups. The various agencies had handled the Nipah crisis and gained experience by scientifically handling that situation so they were psychologically prepared.

The state continued to concentrate on home quarantine measures and, by 18 April 2020, the number of people in home quarantine had exceeded 130,000. These persons would get two to three calls every day from health workers, constituted in 16,000 teams across the state, seeking details of their health condition, temperature, etc. These teams also maintained vigil to ensure that the quarantined persons actually stayed confined in their

[1] 'Kerala family with COVID-19 concealed travel history to Italy, Min says it's a crime', *The News Minute*, 8 March 2020. https://www.thenewsminute.com/article/kerala-family-covid-19-concealed-travel-history-italy-min-says-its-crime-119764.

homes. By this time, about 15,000 samples had also been drawn for testing depicting the aggressive testing protocol that the administration followed. Neighbouring Tamil Nadu and Andhra Pradesh, which are three times its size, had done only 8,000 cases each.

The government has now divided the state in to three zones for graded relaxation after 20 April 2020. The first zone comprises four districts of Kasargod, Kannur, Kozhikode and Malappuram (Red). These account for 124 of the 147 people in the state undergoing treatment. Here, the lockdown will continue till 3 May 2020 and borders of hotspots will be identified and sealed. The second zone is that of Pathanamthitta, Ernakulam, and Kollam (Orange A) which have only 14 cases and, hence, the proposal is to have the lockdown till 24 April 2020, for which central government permission has been obtained. The state proposes partially restoring normal life in the districts of Thiruvananthapuram, Alappuzha, Thrissur, Wynad and Palakkad (Orange B) as they have only nine cases. Public transport and takeaway services from restaurants will be allowed till 7.00pm, while continuing to the ban on public gatherings remains. The remaining two districts of Idukki and Kottayam (Green) will be permitted normal life with precautions, but travel outside the district will not be permitted till 3 May 2020. Odd numbered vehicles will ply on Monday, Wednesday and Friday and even numbers on Tuesday, Thursday and Saturday.[2]

Decentralising Administration Pays Off

The first and most critical factor which went in favour of Kerala was the foresight of the leadership in being able to see the early warning signals of the approaching pandemic and act decisively. The public health expertise was able to see the potential lethality of the virus and forewarned the administration to take appropriate measures far ahead of any other state in the country and even the central government. Being conscious of the fact that Kerala has a very sizeable proportion of its population working in different parts of the globe, it realised that they could be potential carriers as when they travel back home.

Once this realisation dawned, the administration moved to the next step: preparing a plan of action. For such measures, Kerala always relies on its core strength – the well-developed public healthcare system. The department receives priority in funding and provision of equipment and trained staff. Its next core strength is the decentralised local administration system which operates from the village panchayat to the district panchayat and on to the local self-government department in the state secretariat. This network facilitates mass participation in any critical mission of the government such as floods, famine, epidemic or any other disaster. Coordinated at the district level by the Collector, this robust community force provided very effective mass mobilisation of information and action for, inter alia, preventive and palliative health care, especially in vigorously pursuing the campaign for social distancing and 'Break the Chain'. The efficacy of the structure was tried and tested during the outbreak of the Nipah epidemic in 2018 which caused 17 deaths[3] and later during the massive flood havoc the same year.

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2 'Kerala set to open restaurants, start odd-even for cars', *Times of India*, 19 April 2020. https://timesofindia.indiatimes.com/india/kerala-set-to-open-restaurants-start-odd-even-for-cars/articleshow/75227893.cms

3 'Nipah Outbreak In India Leaves 17 Dead', *Asian Scientist*, 17 June 2018. https://www.asianscientist.com/2018/06/health/kerala-india-nipah-virus-outbreak/.

The administration set up a control room to monitor and direct actions. They even conducted mock drills. This gave the officials experience in handling cases that may come to them as also helped to sensitise them of the life threatening quality of the virus. Since foreign travellers were identified as carriers of the virus, the four international airports in the state were equipped with staff and equipment to test foreign returnees especially from the seriously affected countries of South Korea, Italy, Iran and China. These airport teams were attached to specialised hospitals to which passengers showing signs of fever, cough or sore throat, could be taken. Once they reached the hospital, the patient's particulars were stored in a master data bank such that he could be kept under surveillance. Contact tracing in cases which showed positive signs was done most meticulously. The protocol was to question the patient and then trace the persons he had been in contact. They encouraged the patients to cooperate and provide complete details of their movements and meetings with people. A rigorous record was complied of all the persons to create a data bank. They were encouraged to go into self-quarantine and teams ensured that the prescribed discipline was sincerely adhered to by at least two telephone calls to each person every day. As a measure of abundant caution the quarantine period prescribed was 28 days.

Community Spirit Wins

Kerala has a very compassionate approach to migrants. Having a large proportion of its own population working in different countries, it understands the pains and tribulations of migrant workers. Much before the lockdown, a package of assistance was announced and made known to migrant workers. They were assured of accommodation in relief camps, food packets from community kitchens and a food kit along with a sum of ₹2,000. Camps were set up for migrant workers under the supervision of local bodies who monitor food, water and sanitation requirements. Cooked food is arranged through community kitchens with local citizen groups pooling in. About 400,000 meals are provided daily. These community kitchens are run by women of the non-government organisation, 'Kudumbashree'. Recognising the reality that a lockdown leads to loss of livelihood, the government made available an average of ₹2,000 from welfare funds. An interest free consumption loan of ₹2,000 has also been provided to the inmates of these camps.

The alertness of the community networking is best illustrated in an instance where a lady in Pathanamthitta district went for a routine medical check up to a public health centre as she was pregnant. The doctor advised her to not strain too much and asked if she was undertaking any strenuous activity. The lady replied that her house was on a higher incline where piped water does not sometimes reach due to low pressure and hence she had to walk down to her sister's house to carry water. The doctor sent her back advising her not to over strain herself. The lady reached home to soon find that a fire station bowser arrived at her house to pump water into her overhead tank – an amazing story of compassion and alertness in the administration. The doctor who treated her informed the control room of the difficulty being experienced by the lady, which then relayed the information to the fire officer to depute an idling fire brigade bowser to perform this good deed.

The leadership and involvement of the senior functionaries in the government is the defining factor of the Kerala model. The state's Health Minister, K K Shailaja, is totally involved in the day-to-day monitoring and planning. A teacher by profession, she commands

immense credibility and her dedication to the effort has motivated medical professionals, paramedics and health workers to undertake a rather stupendous task with untiring sincerity. The Chief Minister monitors the progress on a daily basis. Every day, at 6.00pm, he addresses a press conference which is televised live. In a very earthy and avuncular manner, he explains the steps taken, motivating the public to cooperate with the administration while also clarifying all issues. In one such dialogue, he issued a very stern warning against anyone attempting to create a communal divide. It is reported that his address every evening is much-awaited. The district administrative has responded admirably. Collectors have been supervising operations around the clock approaching issues with compassion or strictness as the situation demands. The state police has done a remarkable job with a humane approach to people's problems. The state has also leveraged technology to release essential information in a real time basis and has launched a mobile App 'GoK Direct' to check the spread of fake information.

Road to Recovery

Kerala appears to be on the threshold of flattening the COVID-19 curve. It has reported only 32 new cases from 11 to 18 April 2020. The total number of cases reported so far is 395. Of this, 277 cases are those of people who came from abroad. The state is, however, not lowering its vigil and proposes to remain on high alert with the entire infrastructure and paraphernalia in position. For gradually relaxing the lockdown, it has prepared a well calibrated schedule grouping the districts into four groups described earlier. Local bodies have been entrusted with the task of arranging tele-medicine for senior citizens with underlying health issues.

As mentioned earlier, Kerala has a very large non-resident population spread over various countries. These persons are in different lockdown destinations and appear to be keen to return home. It thus faces a huge challenge for return migration. The state is also prepared for this eventuality. It has already identified 150,000 beds in hotels, hostels and such similar premises with more than 100,000 ready to be occupied.

The lockdown has deprived persons of livelihood and rendered families into penury. The Kerala government recognises the urgency of regenerating economic activity to ensure jobs are created to provide means of livelihood to the lowest strata. To undertake a pro-active campaign in this direction, the government has set up a 17-member body under the chairmanship of a former chief secretary, K M Abraham, Chief Executive Officer of the Kerala Infrastructure Investment Board, to advise on the post COVID-19 economic roll-out plan. The report of the Task Force has been submitted and it is hoped that the state will be able to muster adequate resources to exploit its full economic potential.

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