Covid 19 Epidemic: The Kerala Experience

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Let me thank the Tamil Nadu Science Forum (TNSF) for giving me this chance to share the Kerala experience with a larger audience. I have close contact with the TNSF, ever since its inception in early 1980 and have taken part in many of their programmes. My book on Indian Drug Industry was translated to Tamil by TNSF in 2014.

I am happy at this invitation, but I have changed the title. Instead of the “Kerala Model” I shall be talking of the “Kerala Experience” in the face of the pandemic threat, that has infected over 50 lakh people worldwide and has taken away about 3 lakh lives till now.

We in Kerala, do not want to establish a “model” for Covid control to be emulated by others. The Kerala Model of Covid control is something that others are talking about. What we have done, is applicable in our state, in order to ensure that the spread of the epidemic is controlled and lives are not lost. This model is thus Kerala specific and is not to be taken as a universal model. We would rather talk about the Kerala Experience of Covid control. This experience also was in a way our learning process to confront a major Pandemic of this nature. Our strategies for Covid control as in the case of other states and other countries, may change in details, as situation changes and new challenges arise. We can say that we have weathered the first phase of the storm. But the attack is not over and we are prepared for any danger that may come in future. One of the dangers is that while we are fighting the Covid threat, we are also susceptible to other epidemics too, against which we cannot lower our alertness.

I want to repeat that our experiences are Kerala specific and we do acknowledge the efforts of other states and of the centre. We would also like to learn about the commendable control of the spread that we have seen in states like Odisha, Himachal Pradesh, Tripura, Bihar etc. In India, cases are rising but situation is still controllable.

The so far successful Kerala experience certainly needs to be analysed. As far as Tamil Nadu is concerned, it is a matter of concern that the number of cases and mortality are rising. I am aware of the robust health infrastructure in Tamil Nadu, which comes next to that of Kerala and hence I am sure that Tamil Nadu will also weather the storm in the coming days,

We are indeed proud that our efforts are acknowledged world over. As we know, our Health

Minister, Comrade K.K. Shylaja has become a global icon and our Chief Minister's leadership is recognized everywhere. We owe this success to the basic structure of the so called Kerala "model" though as I said earlier, would like call it our own specific "experience". The basic ingredients of Kerala experience are (1) socially committed political leadership (2) presence of social movements mostly led by the socially backward classes (3) voluntary social activism at all levels, (4) empowerment of the down- trodden and toiling masses, starting from the grass roots. It is important to note that the administration cannot succeed unless people recognize that the political leadership and state administration are sensitive to the people's needs. These recognitions cannot be forced, they come with people's aspirations and experiences.

Lots of articles and interviews have appeared about the way Kerala is fighting the challenge of Covcid I would thus try to present things in their essentials and try to talk of things that may not be known to many of you.

Background: when did the process start?

As you know, in China, Wuhan city's Centre for Disease Control and Prevention had notified about a few unknown cases of pneumonia between 27th and 31st December 2019. The National Health Commission of China sent experts the same day and notified the World Health Organization about the pneumonia the next day. On 8th January , 2020 the new virus was identified as the cause of the pneumonia. The WHO declared it as a cause of public health emergency on 30th January 2020 and as a Pandemic on 11th March 2020.

We, in Kerala, had taken notice of it on 30th December, 2020 itself, and got ourselves vigilant. This is because many students from our state are studying in China especially in the Wuhan Medical College. We kept in touch with them and followed the way things were developing. We were also conscious that we must ensure safe return of these students from China and also return of lakhs of Keralites, who work in different parts of the world. Our major concern was that we must ensure return of our people from abroad and also protect others from being infected.

We first put ourselves on a massive data hunting job, which still continues. Especially Malayali, contacts were approached, everywhere in world to give us information about the epidemic. By 23rd and 24th of January, 2020 the health department got ready to confront the epidemic, when it arrives in Kerala. As you know, Kerala had the first Covid 19 case in India, from a student who returned from Wuhan. That was on 30th January, 2020. In February first week we had two more positives cases who came from Wuhan. Thereafter no case was reported. From March onwards more positives cases were reported as many people started returning from different countries. It was highest in April. The total infected cases rose to around 400 and the active cases came down to 16, by the end of April. After the lockdown and suspension of international travel, cases came down and by 4th May, the total positive cases were 499 with 4 deaths. Before the lock down eased out the percentage of positive cases per tested is 1.3%, while it is 4% nationally. In Kerala, the active cases is 0.6 per lakh (100,000) and the doubling time is 22 days.

Let us note, Kerala has a high density of population, being 860 per square-kilometre. This is much higher than the national average of 382 per square-kilometre. This number is next to those of Bihar, West Bengal and is comparable to that of Uttar Pradesh. Also the population size of the elderly and with co morbidity are more in Kerala. These were our major challenges.

Social Background:

With that timeline as the base, let us look into the socio-political situation in Kerala. We have a

highly decentralised administration which makes the people feel that they are responsible stake holders. They have very rich experience of local self government, from the Panchayat level onwards.

The People's Plan for Decentralisation, initiated in 1996, was a major game changer in Kerala. All health institutions from Primary Health Centres to District Hospitals were handed over to the Local Self Government Institutions. This in consonance with the WHO's 1991 recommendation, to solve the health problems of the developing countries. Decentralization of health facilities in financing, management and planning are necessary to ensure people's participation in health care. In Kerala, we implemented this without being aware that WHO had recommended it a few years back.

As part of the decentralised planning, 25% of the state's plan allocation goes to institutions of local self government and they can spend up to 40% of their budget on social welfare measures like health and education. Moreover, by consulting the public through Gramasabhas and Development Seminars they can decide how this amount can be spent for formulating health projects relevant to local needs.

Since 2016, i.e. after the present government came to power, special attention was given to improvement of governmental health infrastructure. A campaign called Aadram Mission was initiated to improve the functioning of Government hospitals from PHCs to Medical Colleges. About 6000 posts in the Health department were created and filled. Conditions of government hospitals were upgraded in all levels, with training for personnel, so much so many of our government hospitals have facilities and service deliveries that are comparable to those in the super speciality private hospitals. Those who utilise government hospital services increased from 28% to 48% from 1996 to 2019.

The robust public health system helped us to manage successfully the Nipah virus in May, 2018. It was a highly virulent virus epidemic in 2018 that killed 17 of the 23 infected people.

This synergy between the state's and people's initiatives could be seen during the unprecedented floods in August, 2018. The infectious diseases that usually come after a flood that kills a lot of people were very well controlled in Kerala. This experience with managing Nipah and the flood gave a lot of confidence to the people in general and the health administration in particular in managing any such public health emergency that may come in future. So in a way when Covid came Kerala was very well prepared to face such a threat. Our preparations had started by 8th January, 2020, the strategies for testing, contact tracing, treatment were prepared well in advance, taking ICMR recommendations also into consideration

Basic approach:

As you know, Kerala's Human Development Index is high, being 0.78, comparable to that of Cuba, while India's is 0.645. This means that life expectancy in Kerala is high and we have about 15% of people who are aged and many have high blood pressure, diabetes, cardiac diseases, cancers and respiratory problems. We had to plan to take care of these vulnerable people.

We started the , **"Break the Chain"** campaign i.e. social distancing, mask use, and hand washing quite early and people at large cooperated with the campaign.

The following strategies were followed,

1. Strict Screening at airports

2. Testing those with symptoms
3. Isolation and treatment of those who were tested positive
4. Rigorous contact tracing
5. In-house quarantine, which would be monitored by the local ward committee of the panchayat, municipality and corporation.
6. Reverse Quarantine for the elderly and those with co morbidity
7. Ensuring participation from the Private Sector.

The "War Room" ,set up at the Secretariat in the Chief Ministers office, monitored the campaign - getting feed back from people from all walks of life. .

The health department constituted the following committees to plan the medical aspect of the campaign.

A. State Expert Group
B. State Medical Board
C. State Rapid Response Team.

Inputs from all the above groups are given to the Chief Minister and Health Minister on a daily basis. The CM convenes a meeting of high officials and chairperson of the Expert everyday following which the Chief Minister. addresses televised press conference every evening at 5:00 PM, being watched live all over the state and also by Keralites, everywhere in the world.

I need to tell you, the Chief Minister's press briefings are almost like a public education class and people eagerly hear and follow his advices.

The **State Expert Group:** I shall tell a little bit about the State Expert Group of which I am the Chairperson. It is an 11 member team. It has members from the following disciplines: Epidemiology, , Virology, Critical Care Medicine, Emergency Medicine, Science Discipline , Public Health and Social activists. We directly report to the Chief Minister.

Further, one can notice that the group had professional scientists. This is an important issue. The Chief Minister himself told me, " Your task is to advice government based on scientific facts and you have full freedom to do so. You ought to be free and frank. You are free to make critical observations, which are scientifically supported." For that to happen, we have to be completely abreast with scientific data. We are securing these data continuously by all possible means. This is done not only by the members of the group but also by a team of advisers and volunteers, outside the group too. These people are from different walks of life in Kerala and we have many Non Resident Keralites who are supporting us from different countries in the world.

We have developed a very well-knit social networking. All information is available round the clock on-line. In all these deliberations, People's Science organizations like the Kerala Sasthra Sahithya Parishad (KSSP) are deeply involved.

This group meets every morning at 9:00 AM and sends the previous day's reports to the Chief Minister, Home Minister and Chief Secretary and Health Secretary, by 8:30 AM, i.e. before this meeting starts. We meet the CM at 3:00 PM. <u>These take place on a daily basis.</u>

We keep notes about the day's proceedings and meet again to finalize the minutes of the meetings during the day and incorporate all the developments that we came across during the day. This meeting for finalization of minutes and reports takes place at 9:00 P.M. and lasts till 11.00PM every

night. The report is ready and sent by 08:30 A.M. next day, as I have said earlier.

Challenges faced: For us the major challenge was that in the beginning, we did not have adequate testing facility, there being only one such in Alapuzha. At present we have 20 testing labs under the state government and 11 labs under the private sector. We can do 5000 tests per day.

In February, in our planning stages, we understood mere technological approach cannot succeed unless it is supported by people's efforts and their “will” to help. All socio-political institutions were put to action. It is here that the political leadership of the Chief Minister, Comrade Pinarayi Vijayan became a driving force for all levels of operation, giving freedom as well as guidance and leading from the front.

As we progressed, our plans also progressed. Thus there is no fixed model that I could present. We kept our contacts with scientists in Research Institutes and specialists in various Medical Colleges and academics in the Universities in Kerala.

Now we are using RT PCR tests for diagnosis and Antibody tests for surveillance. The RT PCR tests are done
1. Routine tests: As per eligibility criteria
2. Sentinel surveillance tests: for surveillance and
3. Augmented surveillance tests, to assess community transmission of the disease.,. As for the present, we have no community transmission.

Before we conclude this part, let us list the strengths that we have , which helped us to win this battle.
A. Early planning
B. Early preparedness,
C. Airport and entry screening , conducted from an early stage,
D. Contact tracing,
E. Home and institutional quarantining (till now 200,000 have gone through quarantine).
F. Reverse quarantine: quarantine the elderly, who have the risk of developing serous complications on account of infection
G. Breaking the chain campaign by community involvement
H. Protection of the marginalised sections of the society.
I. Reaching food to people: there were 1300 community kitchens that were run with the help of Women's Self Help Groups and 300,000 meals were served daily.
J. Committed Political leadership with a vision
k. Private sector involvement

Future challenges:

What we have got till now is a temporary success. Our major challenges would appear later and we are getting ready for that . The Challenges appear when:

A. People return from abroad and also from other states, after relaxation of lockdown.
B. Onset of monsoon may give rise to other seasonal diseases, which we have to fight, while fighting the Covid 19. These diseases are, dengue, rat fever,f H1N1 etc.
C. Socio-economic problems due to Covid 19 and lockdown.

Our strengths , again: We have to fight with what we have. What we possess are people's

goodwill. This is because we have not treated the present problem, lockdown or otherwise, as a law and order problem. Moreover, the Chief Minister himself is the Home Minister of the state. Our administration is very sensitive that the police should be treated by the citizens as “Jan Maitri (people friendly)” police force.

The other important asset that we have lies in our functioning medical infrastructure including the human resources. Our doctors, nurses, supporting staff and administration are sensitive to the duties, as everywhere they are. Our Primary Health Centres are well staffed and well stocked with essential medicines. We also have a good secondary and tertiary health care system.

Our referral hospitals are also well staffed and have modern facilities and transferring the patients to those hospitals would take place smoothly whenever need would arise.

One major challenge, however, is to keep our health staff, Anganwadi workers, ASHA workers protected from infections.

We have a large contingent of labour who have come from outside. We do not call them “migrant workers” but “GUEST WORKERS.” They are treated as guests, but many have settled now in Kerala and have also picked up Malayalam and there is also a government programme to teach them Malayalam. Many in Kerala too, have picked up a working knowledge of Hindi. We feel that though 25 lakhs would leave, but we would welcome them back when they return. They belong to Kerala.

Centralization and decentralization: However, all these months we have faced severe economic hardships and the centre has not been friendly. This is nothing new for us. During the 2018 floods when we had to evacuate a million people, we sought Central assistance of Rs. 40,000 crores. What was received from the centre was a mere Rs.4000 crores. However, we received help from many state governments and and also from people, all over India. We are grateful to all of them.

In this moment of crisis, Kerala would need central aid. But Kerala would not be alone who would be in need. All states would need it. Thus, the Rs. 20 Lakhs crores Covid 19 package does not meet the needs that the country requires. What is needed, is a special package that should have been of the scale of Rs. 2,00,000 crores for health sector . But only a paltry 15,000 crores was set apart.

The same applies to the economic incentives. These are incentives, only for the rich and not for the people who need it most. This has been spoken of many times and we would not go into it here.

If you ask me as to what is the distinguishing feature of our pattern of work, it is that we have decentralised our operations so that people have a stake in what we do and they participate, voluntarily in it. The decentralised operations may not be liked by many since they put power in the hands of the people. But we do not wait for centre's clearance in all cases. We have seen that lot can be done without centre's clearance and we do not wait for those.

Learn from All: Lastly, we would humbly state that though we have been adored for the Kerala Model, we would also take lessons from other states. I feel that Tamil Nadu, in spite of rising number of cases, has done quite well to control deaths. To us, controlling deaths is the ultimate success. Kerala's record is 0.55% of those who are infected, Odisha's 0.5 % also is comparable. Tamil Nadu also has controlled death rate to 0.7% which is noteworthy, as are those of Himachal Pradesh and Tripura. I am particularly interested in Tamil Nadu, since Tamil Nadu has the best health infrastructure, next to Kerala. As we can also see, Tamil Nadu has conducted the most number of tests per population. In India too, even with rising infection rate and death the situation can be controlled. This needs flexibility of approach, with fundamentals being the same

everywhere, i.e. test, isolate and treat. In addition, people's livelihood question has to be kept in mind and citizens have to be taken into confidence.

An invitation: As we conclude here, let us remind ourselves that in Kerala the first phase of the battle has been won by the people of the state. We are now ready for the challenges that are to come. We will overcome that too.

Apart from fighting the disease we have to overcome several social issues. One of them concerns school and college education. When should we open our schools and colleges and what should be the nature of the infrastructure and students participation? What should be the class room arrangements? How to reallocate teachers' duties? We are trying to address these issues.

Many such challenges would visit us. We would have overcome them. As the risks of Covid 19 recede, I would invite you to come to Kerala and see for yourselves about the health infrastructure in our state. We would welcome suggestions from you. I would look forward to meeting you in Kerala in not too distant a future.

Certain broad reminders to People's Science Movement:

This is a part that is very important to all of us, and I am an activist of the People's Science Movement, as all of you are and my evolution as an intellectual and professional has also been "infected" by my experiences in the movement. So, my plea to all of you is to evaluate the above Kerala Experience in combating Covid 19, as an experience that would enrich the movement.

In this, this question of social inequality has to be kept in mind. As Rabindranath Tagore has said in his poem, "Apamanito", it is disgrace upon our country to perpetuate such inequalities and if we let them continue, famine would not spare anyone of us, death would be the equaliser for ALL. This poem in Bengali and its translation in Hindi has been circulated by the AIPSN and is also available in the AIPSN website. That warning has to be repeated over and over again.

Similarly, when it comes to the question of health and medicine, people are generally astounded by the power of super-speciality, but the costs have also to be accounted. This is what PSM's have to do more vigorously. The way, the Covid 19 has devastated lives in multi-trillion dollar economies, shows that GPD growth is not the real progress. This debate is ideological and health gives the most glaring illustrations for that.

As a doctor myself, with 30 years in the discipline, I cannot but remind myself, the experiences of eminent people like Norman Bethune and Che Guevara, who too were doctors. They used the profession to serve people. Take, for example, the case of Norman Bethune. A tuberculosis survivor himself, he took tuberculosis like a personal enemy and had pledged to eradicate it. What surprised him was that the number of cases was growing! And it was growing mainly amongst the poor, while the rich were largely protected from it. Why was that so? He later came to know about the global depression and understood about the role of political systems that make people incapacitated to fight diseases. He noted that capitalism was the cause. Bethune was then determined to fight capitalism. He joined to serve the anti-fascist republican forces in Spain in the mid 1930 to fight Franco's take over. From there he moved to China, joined to help the Chinese People's Liberation Army , as a doctor, to fight Japanese invasion. Unfortunately, he died there while still fighting , shoulder to shoulder with Chinese combatants, just as Dr. Dwarkanth Kotnis also died there.

There are several dedicated people in our country too. I wish Comrade, Dr. Lakshmi Segal could write some such experience as a doctor, which would have inspired many. But she is no more. We

also have the experience of Dr. Ramachandra Reddy of Nellore in Andhra Pradesh and the institution that he had set up. We in the All India People's Science Network are now a part of a nationwide movement, called Jan Swasthya Abhiyan, with live contacts with global health movements like the World Health Assembly.

Let me end with another example of a doctor who had inspired people everywhere. That name is Che Guevara. He was a doctor himself. He also suffered from asthma. He has recorded that as a student of medicine, he dreamt of becoming a famous doctor who would find treatment for some of most dreaded diseases from which humans suffered. His experience showed that the most dreaded disease was capitalism. He thus set out to find cure from that. He found that his efforts could be best served if he moved to Cuba to join the revolutionary forces in Cuba under the leadership of Fidel Castro.

We all know, about the liberation of Cuba and what progress they have achieved in the field of health. While big economies, export arms to other countries, Cuba sends health workers, even now, at the time of Covid 19.

This contrast is what we should keep in mind. Kerala's experience is not so great as that of Cuba but even with our own limitations we share the same aims as them, i.e. universal health for all. That is your aim too. This is an important component of scientific temper.