Kerala & Mizoram; High COVID-19 case load but low mortality: Role of precautionary principles

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Abstract

A small state in Northeast, Mizoram, with credentials in education sector similar to Kerala, like Kerala is attracting attention for the wrong reason; the high COVID-19 case load. So, what may be driving the high case load in these high literacy level states. Is the low mortality level (due to COVID-19) leading to a lack of emphasizing caution to prevent infection transmission behind this surge?

Keywords: Kerala, Mizoram high case load, precautionary principles

Context: With the once globally-acclaimed “Kerala model” for handling public health emergencies coming under scrutiny for State’s (Kerala) continued contribution of high case load of COVID-19 cases in India, questions are being raised as to what went wrong in this Palm-fringed state of 35 million people located in the southwest of India.¹ One of the five states in the linguistic-cultural area known as South India, Kerala with the highest literacy rate in India, is noted for its achievements in education and health, including the lowest infant mortality rate in the country.² Kerala is continuing to struggle with a high COVID-19 caseload and high-test positivity rates (TPR).³ A small state in Northeast, Mizoram, with equally good credentials in education sector, is also attracting attention for the wrong reason; the high COVID-19 case load.⁴ So, what may be driving the pandemic in these high literacy level states. Is the low mortality level (due to COVID-19) leading to a lack of emphasizing caution to prevent infection transmission behind this surge? Holding us back to link use of precaution to prevent infection transmission?

Background: Kerala was the first state in India to report a case of COVID-19 on January 30, 2020.¹ However, Kerala, based on its experience of managing Nipah virus disease in 2018, appeared to be in control of COVID-19 by early May 2020 when daily new infections in this southern Indian state fell to less than five. This early success was attributed, by the experts, to the aggressive testing, tracing contacts of the infected, and isolating the infected and their contacts. The strategy, hailed as the “Kerala model” was considered to have worked.

However, exactly, a year and five months later, a major contribution of case load in India from COVID-19 is coming from Kerala. Almost 70% of the total COVID-19 positive cases reported in India by the end of August 2021 were from Kerala and the trend continues like that with 60% of total cases reported on 22nd September in India coming from Kerala only.⁵ This continued situation may have given people (including the media) a reason to raise questions about the efficacy of the “Kerala model”, but the state compared for its health indicators with the better performing countries of the world on health parameters cannot be put under scrutiny without going into the details of what may have gone wrong in Kerala?

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Contrasting views on the surge: As per officials of the Kerala Government, unlike in other states where the second wave began and ended early, in Kerala the second wave's outbreak was delayed and is continuing. The fact that as per July 2021 Sero-survey by the Indian Council of Medical Research (ICMR), while 68% of the Indian population has COVID-19 antibodies, only around 42% of people in Kerala have them, making more people vulnerable, say the Kerala officials. Furthermore, the fact that the pandemic surveillance is better in Kerala than in other states where it floundered maybe leading to a high number of cases.

Some independent researchers have a different take on this. As per one of them, the number of COVID-19 tests conducted by the state was low earlier and so the number of confirmed cases was low and the tests have only increased since May 2021. Subsequently, there has been a spike in the number of cases confirmed as COVID-19 positive, he adds.

It is also pointed out that while almost 70% of the COVID-19 tests conducted in Kerala are antigen tests, which are considered less credible, the majority of tests conducted by other Indian states are Real-Time Reverse Transcription Polymerase Chain Reaction (RT-PCR) tests considered much more reliable.

Possible factors: A state known for its robust primary health care and willingness to follow the healthcare guidelines as evidenced by its management in the first phase of pandemic, seems to be struggling and despite these contrasting views, a further review of possible contributing factors points will always be helpful.

1. Elections and COVID-19 protocol: December 2020 saw the elections to local bodies in in Kerala. Candidates (contesting elections) with thousands of supporters crisscrossed the state as part of the campaign with little attention to COVID-19 protocols. This was followed by elections to the Kerala State Assembly in April of this year.

2. Weak Tactics: Infections began to rise during the 10-day religious festival of Onam, held between August 12 and 23. People mingled with one another, even though the state had banned large group gatherings ahead of the holiday. The policy to home quarantine, in absence of stringent protocols may not have worked as; as per a study by Kerala Health Department, 35% of people in the state were found to have been infected with the disease from home only.

3. Mobile population: The state has one of the largest migrant populations in India, with 2.5 million workers from other parts of the country traveling across its borders per annum. This includes a recent return of thousands of medical and paramedical staff to Kerala after serving as frontline medical staff in other parts of the country. Add to this an estimated 4 million Kerala residents, who live and work abroad, mostly in Gulf countries like the United Arab Emirates. Importantly also, an estimated 1.2 million or so of the state’s residents have returned to Kerala from overseas since the beginning of the pandemic.

4. Urban Predominance: The state with a high population density is highly urbanised with faint urban-rural divide as compared to rest of the Northern Indian states, where rural and urban areas are separated by farmlands which act as natural barriers for the spread of infections. Kerala’s coast runs 580 km in length, while the state itself varies between 35 and 120 km in width making its geography more like a “City State” where people can commute from one end of the state to another within a day causing an increase in the risk of spread of infection.

A case for Precautionary Principles: The probability of these and other factors responsible for the surge will continue to be a matter of public health debate for long time to come, but the fact that most or all of these factors are subject to intervention and therefore prevention raises concerns. And to see this coming from the state with the highest literacy (including female literacy) demands further investigation. A large-scale study looking into the complexity of the science involving pandemics will be able to clearly identify the factors attributable to this surge in Kerala.

However, for now, probably a window to our investigations has been opened by another state in India, the state of Mizoram.

Mizoram, a state in North east of India with a population of about 1 million only has recently been seen as one among the top states of country as far as reporting of daily new cases of COVID-19 is concerned. The state has been reporting higher numbers despite small population for past some time now. The state is ethnically and geographically different from Kerala. Therefore, the investigations beg the question that whether these high number of new cases being reported daily by Mizoram, like Kerala is an aberration or is there a common connect we have failed to address earnestly. For a fact, this 2nd least populous state in the country, like Kerala is high on literacy, with 91.33% of its population literate, the 3rd highest in the country, a key factor (literacy) for planning prevention.

To the credit of both the states, however, goes the fact that despite a continued rise in number of COVID-19 cases, the states have been able to keep the mortality at relative low level when compared to other states or the national averages.

So is this capacity of the states to keep the mortality at low level actually driving the surge probably riding on the average citizens failure to follow the precautionary principle when dealing with COVID-19.

Or is it because the likely hazard from COVID-19 has been set as “death” and therefore people considering precautions as “not important” in low mortality settings is acceptable? Afterall are we dealing with communities, high on literacy and therefore more aware of the hazard settings in COVID-19. Is not the story same in several countries of Europe, who with high vaccination rates against COVID-19 (United Kingdom, Norway, Denmark) have declared victory and relaxed various preventive measures despite continued, even record, infections riding on this concept of “few deaths?”
**Conclusion:** When the value of life itself is diminished (by setting it as default), why should we care for the ill and prevent infection. Humans, in their failure to respect lives, are losing that which they value the most – safety. Time to reset our settings.

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