
Technical paper
COVID 19
ICMR Sero Surveillance 2nd Round - Kerala



Department of Health & Family Welfare

Government of Kerala

Results of ICMR Seroprevalence studies: Kerala

ICMR is doing population based sero epidemiological studies to measure the extent of spread of infection in an area and recommend containment measures accordingly. Strategy for population based surveillance adopted is repeated cross-sectional investigation in the same geographic area to establish trends in an evolving pandemic. Two rounds of such studies have been completed – one in May and another in August. The survey was conducted in the general population among individuals aged 18 years or more in selected representative 736 districts in India. Samples are collected from three districts of Kerala (Ernakulam, Palakkad and Thrissur). ICMR has communicated the results of second sero-survey as per D.O.No. ECD/COVID 19/ISC./2020 Dated, the 30th September, 2020 . The current paper discusses the results of the sero-surveillance and its interpretation for Kerala

Table 1: Summary of results- Kerala

Date of sample collection	May 18-23 th	August 24-26 th
Total IgG Positive	4	11
Total Tested	1193	1281
% IgG positive	0.33%	0.8 %

Table 2: Comparison of Results with National Average

	May 2020	August 2020
Kerala	0.33%	0.8%
National Average	0.73%	6.6 %

Observations:

1. Kerala's sero prevalence in August was 8 times less than the national average.
2. The state's sero prevalence increased by 2.4 times over three months. National average increased by 9 times during the same period. Different states increase may be further higher than the national average.
3. This shows the effectiveness of robust containment measures including quarantine norms, following of sanitized corridors for travellers coming from outside the state, effective contact tracing, rapid detection of cases through improved access to tests and isolation of COVID positive cases, picking up clusters' formation at the beginning through surveillance and containment measures within clusters and the 'break the chain' measures that were adopted in the state.
4. It is worth noting that the estimated gap of unidentified cases was very less in Kerala as compared to national average.
5. All credits for lower prevalence of COVID in the state goes to the responsible citizens of the state who followed all COVID protocols rigorously and co-operated with all containment measures. All line departments coordinated actions have contributed towards maintaining low infectivity rates in the state till August.
6. This also implies that further cutting down transmission is possible if all citizens strictly follow physical distancing by reducing the number of primary contacts, use masks and practice hand hygiene and all shops/establishments/markets follow 'COVID compliance'.
7. In order to understand how the infection is spreading in the country, all states comparative analysis is possible. It will clarify the rate of infection spread in various parts of the country and the state.
8. It is imperative that all the states to take uniform actions to ensure that the infections come under control. If not, the virus will keep circulating in the community and cause illness and fatality till it reduces its virulence.

Discussion

ICMR study suggests that the IgG positivity has gone up from 0.33% to 0.8%. This needs to be seen in context of the vulnerability in the state such as high density of population, inflow of people from outside the country and other states, high percentage of elderly population, high percentage of people with morbidity. In spite of all these adverse situations, the state is maintaining low infection transmission is reflected through ICMR study. It shows the sincere efforts of all at the grass roots.

The reduction in infection rate and absolute number of cases is possible only if PEOPLE follow health advisories and change behaviour by taking prevention measures.

We look forward to the comments and suggestions to improve our fight against COVID.