



Editorial Comments

Second Wave of COVID-19 Pandemic and Vaccination

A recent report on **"The Lancet COVID-19 commission India task force"** came up with a list of urgent steps for managing the second wave of COVID-19, the recommendations focusses on key aspects of vaccination, non-pharmaceutical interventions, strengthening of health systems and economic activities. The recommendations have been directed to balance the impact of the raging pandemic and economic output.



Dr. Akash Prabhune,
Senior Programme Officer, PAC

This editorial presents a commentary of recommendations given by Lancet COVID-19 India task force regarding the vaccination drive with respect to Karnataka, a southern Indian state.

Figure 1, presents a comparison on density of cases across various Indian states between the first and second wave.

Karnataka's transition through the first and second wave presents that the density of cases was higher in the first wave and affected all the districts in the states, though the second wave the density of cases is lesser as on April 2021.

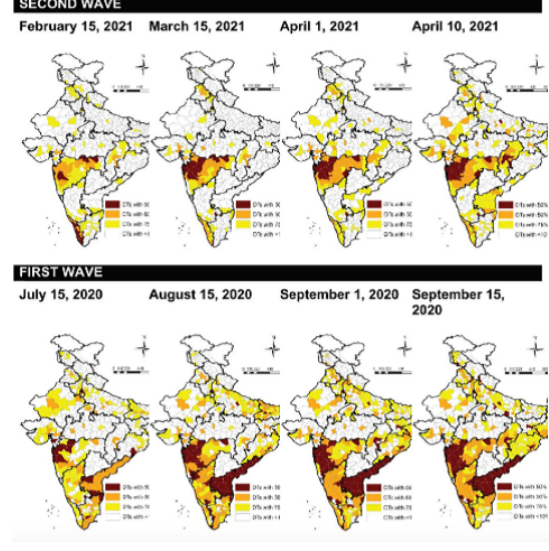


Figure 1 - Comparison of case density across Indian states First and Second Wave

The Lancet COVID-19 commission report highlights the need for an aggressive vaccination with a prioritised approach for high risk population. Figure 2 presents the vaccine statistics across four South Indian States. Compared to its peers in South India, Karnataka is leading in vaccination drive with highest number of individuals registered, highest number of vaccination sites, highest number of individuals administered first and second dose.

Indicators	Karnataka n (%)	Tamil Nadu n (%)	Kerala n (%)	Andhra Pradesh n (%)	Total South India n (%)
Number of registered Individuals	184088818 (30%)	142541080 (23%)	147831022 (24%)	136491788 (22%)	610952708 (100%)
Number of sites	538615 (42%)	300639 (22%)	135922 (10%)	306847 (24%)	1282023 (100%)
First Dose administered	156045042 (34%)	108272419 (22%)	121002345 (24%)	104139270 (21%)	489459076 (100%)
Second Dose administered	22823224 (31%)	11838617 (16%)	18816169 (26%)	18513353 (25%)	71991363 (100%)

Figure 2 - Vaccine Statistics South India, Source - Public Affairs Centre, Bengaluru

Vaccine Hesitancy –Very few studies have been done in India, South India or specific to Karnataka which have identified populations with high hesitancy to get vaccinated. A study by **Local Circles** indicated about 42% Indians were ready to get vaccinated as on 1st of February 2021. A study by **Jain et.al** on medical undergraduates across India indicated about 10% expressed concerns about vaccine safety. There is clear need to conduct studies on larger population and profile populations with higher hesitancy, understand the factors leading to hesitancy, and develop interventions to address the factors, reinforce belief in vaccination programme.

Broaden the eligibility for Vaccination – Based on the manufacturing capacity vaccination drive was limited to health care workforce, followed by individuals above 60 years and above 45 years with comorbidity, then extended to any one above 45 years of age. However, the 10-day average Rate of recovery fell between January 1 to ^h April 19, 2021 by 6% from 97% to 91%. Figure 3 presents the three months statistics for the state of Karnataka, and decreasing rate of recovery again highlights need to broaden the eligibility of vaccination drive.

Dates	Rate of recovery	Rate of Spread	Case Fatality Rate
1 to 10 January	97.61	6.27	1.31
11 to 20 January	97.81	5.84	1.31
21 to 30 January	98.01	5.58	1.30
1 to 10 February	98.07	5.37	1.30
11 to 20 February	98.08	5.21	1.30
21 February to 2 March	98.08	5.05	1.30
3 to 12 March	97.91	4.88	1.29
13 to 22 March	97.32	4.73	1.28
23 March to 2 April	95.78	4.65	1.25
3 to 19 April	91.14	4.78	1.19

Figure 3 - Rate of Recovery, Spread and CFR for Second Wave Karnataka

The clustering of second wave around Maharashtra, Chhattisgarh, Andhra Pradesh and Delhi provides some breathing time for the state of Karnataka and much needed learnings to improve healthcare response and increase vaccination coverage. Karnataka should utilise the reward of time and strengthen its vaccination infrastructure, focus on key risk groups, hesitant population.

Interview with Stakeholder

Q: India is facing 2nd wave of COVID-19 and from a public health perspective, the health response has been sub-optimal due to inadequacy of staff, vital medicines, hospital beds, ICU beds, ventilators; the above problems were highlighted during the first wave of the pandemic, indicating health systems neglected to address the issues with long term plan in place and focus on short term remedies; thus arising question about how should long term strategy for management of COVID-19 be developed and adopted by states and centre?



Dr S Pruthvish, MD, FAMS,
Public Health Consultant, President- SOCHARA

Thanks to Public Affairs Centre for this introspection. Health system strengthening is the solution. Let us introspect! The government needs to be congratulated for its effort in ensuring lockdown at early phase, managing International travel, creation of COVID Management Centres, Vaccine research, Vaccine Production, Vaccine logistics. Reporting and documentation and use of computers have been very good and exemplary.

- Developing National Pandemic Policy – experiences of Covid 19 first wave, second wave, SARS, Chikangunya and Dengue epidemics should be consolidated to evolve this.
- Strengthening health system at Village, sub-centre, PHC, CHC, Taluk Hospital, District level.
- Strengthening efforts include:
 - Periodic training and retraining of all personnel –Anganwadi workers, ASHA Workers, Health Workers, Staff nurses, Panchayath members and workers in Epidemic management, disaster management.
 - Provision of Critical Care facilities at District level in first phase and Taluk level in second phase
 - Strengthening Public-Private- Civil Society participation and efficient and effective utilization of Private facilities; involving private sector in Public Health Programmes.
 - Strengthening sanitation, drinking water, fire safety measures in all health care set ups.
 - Strengthening Biomedical Waste Management, Infection Control.
 - Curriculum on Pandemic Epidemic management, Disaster management, Tele medicine, death registration, notification should be strengthened.
 - To do all, health sector budget also should be enhanced in Central and State budgets.
 - Media –Especially private TV channels need to be trained in Pandemic and Disaster management issues and they should take a more positive role in risk communication. Often, during the pandemic and even now private TV channels are scaring the community.

Q: What strategies must be adopted to improve vaccination drive in India?

A: India has done, doing good job. The Government of India has given due importance to vaccine research, vaccine production, importation and efforts are commendable. One of the best things it has done is prioritization for health staff, geriatric population, and population with co-morbidities and now it has opened up for people above 18. Government has provided vaccines free of cost to a large segment. It has followed all precautions in Government Health Centers and effort is laudable. More contact, education, counseling is needed. Myths, false beliefs should be discouraged. Community to be involved. Uptake by health staff and people need to be increased. Uptake by Health staff and community should be enhanced. Then only positive effects on herd immunity will be noted.

Q: While India is facing the 2nd wave many European countries (France, UK) are facing the 3rd wave of COVID-19, what steps must be taken by the state health system to improve health care response in anticipation of the 3rd wave in India?

1. **Work for epidemic is between epidemics and in routine circumstance, of preparedness. Community education/counseling to be enhanced to ensure: Use of mask as a culture; sanitation and hygiene as a way of life, Physical distancing a habit.**
 2. **All Social, religious gatherings should be banned, virtual platforms to be used instead.**
 3. **The Health system should maintain mastery expectancy, alertness and Epidemic preparedness in all three tiers of Primary Health Care System –including General ward bed, ICU beds, Oxygen and important drug supply, Biomedical Waste management, Infection Control, Use of Personal protective equipment. Also, "Triage" "should be practiced and people with NCDs, women needing maternal and child health care and rest of health services should be built and sustained to be managed simultaneously. This is a big challenge, but required.**
1. **Govt/Private sector should now take up rapid self-appraisal of :**
 - COVID Care set ups, Clinical Management and Provision of Counseling, Triage in Covid Care set ups
 - Surveillance of COVID among Health Care workers, stress among Health care staff
 - Communication strategies to the communities
 - Oxygen need, supply, production
 - Essential drug availability
 - Biomedical Waste Management, Infection Control
 - Dead body management process
 1. Training/retraining of Health and front line staff.
 2. Research into virus strains, Vaccine efficacy, finding out drugs /innovative therapies.
 3. Involve NGO sector, Health Professional Institutions (Medical, Ayush, Dental, Nursing, Pharmacy, Physiotherapy, etc) in all aspects of Management of Pandemic.

I want to conclude remembering Address by Ugandan President Honorable Kaguta Museveni to his countrymen:

"... Thankfully, (Corona) Army has a weakness and it can be defeated. It only requires collective action, discipline and forbearance. COVID-19 cannot survive social and physical distancing. It only thrives when you confront it. It loves to be confronted. It capitulates in the face of physical and social distancing. It bows before good personal hygiene. It is helpless when you take your destiny in your own hands by keeping them sanitized as often as possible"

Project Update

PAC is working closely with Government of Karnataka to provide analytics support for COVID-19 management. A comparative analysis of cause of deaths reported between 2019 and 2020 was undertaken by PAC-CODR team, the analysis found deaths due to Cardiovascular Diseases was 4 times higher than deaths reported due to COVID-19 pandemic in 2020.

PAC is working closely with the Karnataka State Drug Logistic and Warehousing society on a 3-year project. **The project** aims to primarily use Artificial Intelligence, Machine Learning techniques and optimising models to streamline procurement and supply of drugs and equipment. PAC is working on a 3-year project with the Department of Health and Family Welfare and AYUSH Services. One project is with the Karnataka State Drug Logistic and Warehousing Society Artificial Intelligence, Machine Learning techniques and Optimisation models is used to streamline the procurement, and supply of drugs and equipment. The next project with Karnataka State Drug Logistic and Warehousing society (KSDLWS) aims at corporatising the department by providing technical support to KSDLWS. The project with AYUSH Services aims to identify vacancies of staff across all the public health institutions in Karnataka and develop Artificial Intelligence, Machine Learning based dashboard for adequacy, accessibility, of Health Institution across the state.

Public Affairs Centre (PAC) engages in action research focussing on Sustainable Development Goals (SDG) in the context of India. PAC is a not for profit think tank established in 1994 with a mandate to improve the quality of governance in India. The Centre is also a pioneer in deploying innovative Social Accountability Tools (SAT) to measure the quality and adequacy of public services.

