



Indian Public Health Association (IPHA),

&

Indian Association of Preventive and Social Medicine (IAPSM)



**4th Joint Statement on COVID-19 Pandemic in India –
Public Health Approach for COVID-19 Control**

June 6, 2021

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A Joint Task Force of eminent public health experts of India was constituted by IPHA, and IAPSM in April 2020 to advise the Government of India for containment of COVID-19 pandemic in the country.

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Preamble

The ongoing pandemic with its massive second wave of COVID-19 signifies well-established community transmission with a reported test positivity rate ranging from 20-25%.

The Fourth Joint Statement focuses on the second wave and the imperatives for the next two months with a special emphasis on the challenges that India's rural and peri-urban areas will face. The tools, techniques and focus employed during the first wave of pandemic may no longer be valid in its entirety. New knowledge about the epidemiology of the disease and newer tools to control it i.e. vaccine, must be used in a manner so as to make a dent at the population level, rather than individual level. The task of the health services is cut out but the cost shall entail immense economic and humanitarian losses too.

As a professional body, we have scientifically analysed and made recommendations regarding following area that we consider are important:

1. Testing Strategy
2. Management of COVID-19 through syndromic approach
3. Integrated response across primary, secondary and tertiary levels of care
4. Vaccination
5. Genomic surveillance and molecular epidemiology

Decision makers have the unenviable task of choosing an option that best reflects the fine balance between lives and livelihoods taking into account many other inputs to which they are privy.

1. Testing Strategy

a. Testing-tracking-tracing being evidence-based measures to curb transmission of most of the communicable diseases has been India's most resource intense activity to control the COVID-19 pandemic. In all states, the entire district administration along with the health department is involved in this activity, but it has not yielded the desired outcomes.

b. Most RT-PCR laboratories are located in urban areas in select government tertiary care centres like medical colleges and a limited number of private institutions. Some of the district hospitals in few states have True-NAAT (Nucleic Acid Amplification Test) facility but few if any are available at the sub-district level.

c. All laboratories are facing challenges due to extraordinary case load often resulting in delay in reporting.

d. The two commonly used test RTPCR and RAT (Rapid Antigen Test) have advantages and disadvantages. The sensitivity of RTPCR is better than RAT. But RTPCR requires a centralized laboratory to process the test and it is time consuming; whereas RAT get results in few minutes. RAT does not require centralized laboratory and it is low cost and quick. Thus, RAT can facilitate higher volume testing.

The choice of testing kit should be guided by the objective of the testing. If the objective is to diagnose and treat then preference should be given to RTPCR. But if the objective is to limit the spread of the disease which should be the main objective of current containment measures against SARS-COV-2, then RAT should be preferred in community setting. Early detection of cases shall help early isolation, and prevention of further spread of the disease. Another advantage is very high specificity of RAT. The RAT has low sensitivity which might lead to a higher rate of false negative report.

Recommendations:

a. RT-PCR tests should be used judiciously and all unnecessary and unwarranted use of it should be stopped.

b. A meaningful proportion between RT-PCR and RAT should be maintained, and it should be monitored. This data should be in the public domain to improve transparency and build public trust. The recently approved self-testing kit can also be used at home by general public and by frontline workers in rural areas. Those suspected of disease and/or contact can get tested and then isolate themselves with other routine support from the government sector.

c. The hub and spoke model put in place under the Free Essential Diagnostic Initiative of National Health Mission launched in 2015 should be further strengthened to cater to the needs of suspected COVID-19 cases.

Research agenda:

a. How effective is RAT in community settings?

2. Management of COVID-19 through syndromic approach

a. There is an acute shortage of testing facilities for SARS-CoV-2 in rural and peri-urban areas. The sensitivity of RAT is quite low; there are chances that some truly positive cases would remain unidentified and thus continue to spread the disease. Timely testing of each and every symptomatic patient is not possible and will put a huge burden on the health system and will delay the isolation and treatment. The optimal solution in such a situation is to adopt a syndromic management approach. It should put focus on making diagnosis based on clinical symptoms and epidemiologically linked suspects.

b. Some states have already implemented syndromic approach with the aim to ensure access to early treatment, without waiting for the confirmation of diagnosis. Thus, individuals can be immediately isolated and put on COVID-19 treatment.

Recommendations:

b. Syndromic management approach should be rolled out in a planned manner after sensitisation of healthcare staff, along with the optimum utilization of laboratory testing.

c. Cases identified should be notified as COVID-19 cases under this criterion and included in the case count.

Research agenda:

The vaccination status of all individuals tested for COVID-19 must be entered into the Sample Referral Form (SRF) in the RTPCR app both for individuals tested by RTPCR and RAT. The collected information must be analysed periodically to know the status of vaccinated individuals with regards to COVID-19 and its severity including mortality.

3. Integrated response across primary, secondary and tertiary levels of care

- a. There is a need for an integrated plan ranging from home care (in the rural context) to the tertiary care for complicated cases.
- b. Surveillance measures incorporating a syndromic approach shall be crucial for populations where testing options are limited.
- c. Supply logistics in terms of both testing and treatment facilities will need to be significantly ramped up.
- d. Community mobilisation and COVID-19 appropriate behaviour will continue to be essential pillars for slowing down or interrupting the ongoing transmission.
- e. Synergy between frontline workers, community leaders and Panchayati Raj Institutions (PRIs) shall be central to all COVID-19 management activities.
- f. Prompt implementation of house-to-house survey, as was done in few states, to strength treatment at home or institution as appropriate. Each Panchayat may be given some basic instruments (e.g., digital thermometer, pulse oximeter, RAT and medicines like paracetamol, etc. They can become the hub for diagnosis and treatment for their respective village and inform the health system through frontline worker. Quick fever survey can be done by frontline worker once a week and self-reporting by patients to the panchayat daily.

Recommendations:

- a. Large Scale procurement of pulse oximeter, antipyretic, and few drugs as per national guidelines.
- b. Plan for appropriate referral
- c. Development of SOP specifically for rural areas.
- d. Sensitization and Training HCWs as frontline workers.

Research agenda:

Impact of COVID-19 on rural population -- social, economic and medical.

4. Vaccination

- a. The present situation of the pandemic in the country demands that we should be guided by the logistics and epidemiological data to prioritize vaccination rather than opening vaccination for all age groups at this stage. Opening all fronts simultaneously will drain human and other resources and would be spreading it too thin to make an impact at the population level.
- b. Vaccine is a strong and powerful weapon against the novel coronavirus. And like all strong weapons it should neither be withheld nor used indiscriminately; but should be employed strategically to derive maximum benefit in a cost-effective way.
- c. Vaccination of young adults and children is not supported by evidence and would not be cost effective. Unplanned vaccination can promote mutant strains.^{1,2,3}
- d. Persons who have recovered from natural infection should be low down in priority for vaccination. Moreover, we can conserve considerable resources if we exclude adults who have recovered from natural infection.⁵⁻¹²
- e. While it makes perfect sense to vaccinate all adults, the reality is that the country is in the midst of an ongoing pandemic with limited availability of vaccines. In this scenario the focus should be to reduce deaths majority of which are among older age groups and those with co-morbidities or obesity. Vaccinating young adults, given the present constraints, will not be cost-effective.
- f. Mass, indiscriminate, and incomplete vaccination can also trigger emergence of mutant strains. Given the rapid transmission of infection in various parts of the country, it is unlikely that mass vaccination of all adults will catch up with the pace of natural infection among our young population.
- g. There is a global demand-supply mismatch in COVID-19 vaccines. Many developing countries that cannot produce the vaccine will fall behind in the race. There is growing criticism of vaccine inequity between rich and developing countries. India has taken lead in the 'vaccine diplomacy' by sending vaccines to many countries and some more are still awaiting approval. This goodwill gesture has won praise from many world leaders and must be continued in national interest.
- h. If very large number of individuals are vaccinated at a fast pace with limited resources for monitoring of adverse events following immunization (AEFI), some adverse events and deaths will be missed. Also, while some of these AEFI may be coincidental, it may end up contributing to vaccine hesitancy.

Recommendations:

- a. There is no need to vaccinate people who had documented COVID-19 infection. These people may be vaccinated after generating evidence that vaccine is beneficial after natural infection.
- b. The overall objective of vaccination should be the control the disease at the population level.
- c. Experience in microplanning for polio and other immunization activities should guide the strategy for COVID-19 immunization to achieve equitable coverage and progress towards herd immunity. The micro plans should prioritize the vulnerable groups.
- d. Vaccinating the vulnerable and at risk, instead of mass population wide immunization including children, should continue to be the aim in its current phase.
- e. Evidence based flexibility in vaccine schedules may need to be considered for areas or populations experiencing surge on account for specific variants; for example, a reduced interval for the second dose of Covishield for areas with surge due to the delta variant.
- e. Vaccine supply to the rural primary healthcare institutions should be prioritised.
- f. Risk communication and community engagement strategies should be designed for promotion of vaccination and blended with messages on COVID-19 appropriate behaviour.
- g. The 'liberalized' strategy should be reviewed and the procurement centralised at the national level. The global experience shows that centralized procurement of vaccine is more effective.

Research agenda:

- a. Design and implement repeated local level serosurveys in real time at the end of the second wave to map the vulnerability at district level to guide vaccination strategy.
- b. Long term follow up of the cohort of recovered COVID-19 patients to document re-infection, severity and outcome to provide evidence base on duration of immunity after natural infection.
- c. Prioritize ongoing research on vaccine effectiveness under field conditions by following cohorts of vaccinated and unvaccinated in different age strata.

d. In-depth review of Adverse Events Following Immunisation (AEFI) and Adverse Events of Special Interest (AESI) to identify post-vaccination ‘embolic and thrombotic events and other signal events, and issue appropriate advisory for vaccine recipients and healthcare providers.

e. Conduct research on vaccine hesitancy across diverse contexts to enable designing of tailored risk communication and community engagement strategies.

5. Genomic surveillance

a. The current wave is largely attributable to multiple variants.

b. The setting up of the Indian SARS-CoV-2 Genomics Consortium (INSACOG) of 10 national laboratories was timely and their contribution is appreciated. Addition of 17 more laboratories is also a welcome step.

c. New variants have been identified, both imported and indigenous. These have and will continue to spread both within the country and globally as the pandemic progresses.

d. Delta (B.1.617.2) has been labelled a variant of concern by the WHO and now spread to at least 62 countries.

f. India has done genome sequencing of less than 1% of its positive samples and also lags behind other high incidence countries in another crucial measure, sequence per 1000 cases.

Recommendations:

a. Achieving a target of genomic sequencing of 5% positive samples looks challenging at the moment. But all efforts should be made to reach at least 3% mark.

b. The molecular epidemiology investigations need to be accelerated with INSACOG scientists, field epidemiologists and clinical specialists working in synergy to delineate the epidemiological features of the variants with specific reference to transmissibility and fatality.

Research agenda:

a. Genetic sequences need to be tracked to delineate virus transmission both across the community and in health care settings. It can detect outbreaks that may otherwise be missed by traditional methods.

Way Forward – Return to Normalcy

District level sero surveillance may be planned with the methodology of EPI cluster sampling. If the seroprevalence at district level, is more than 70% (on account of a combination of natural infection and vaccination,) there should not be any lockdown and return to normalcy should be attempted. This will also help in prioritizing the districts for vaccination i.e. districts with lower seroprevalence should be given priority for vaccination. A fine balance is needed to be maintained between life and livelihood.

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