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## Letter to the Editor

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## **Serosurveys for SARS-CoV-2: need of the hour**

Sir.

This letter is regarding tackling the highly infectious coronavirus disease (COVID-19).1 Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has spread across the globe, causing a worldwide pandemic. The total number of cases across the globe is about 11.6 million with over 5 lakh deaths. The number of individuals detected is always less than the actual number of infected, in nearly all respiratory viral pandemics.<sup>2</sup> Rapid Point-of-Care Antigen detection test can detect SARS-CoV-2 early in the field setting. It has moderate sensitivity and high specificity yet limited availability.3 This test can be employed in the hospitals and containment zones and would aid in contact tracing, isolation of the affected individuals, localized containment and quarantine measures. 4 IgG antibodies usually appear after one week of onset of infection and may last for several months. Serosurveys that detect these antibodies using Enzyme-linked immunosorbent assay (ELISA) help in the assessment of asymptomatic infection in close contacts, enhance the current understanding of the spread of disease, individual's immune status and in identifying potential plasma donors. 4,5,6 Case fatality rate is positively associated with SARS-CoV-2 seroprevalence as was demonstrated in the survey conducted in the Spanish population.<sup>7,8</sup> Immuno-compromised patients, healthcare workers, relatively young working population comprising of bankers, media persons, individuals working at airports, overseas operations and industries, staff in municipal bodies, shopkeepers, vendors, courier services, telecommunication offices, drivers ofhospital ambulances, hearse vans, buses, auto-rickshaw, taxies; bus conductors, farmers, electricity workers, migrant labourers who have travelled back from urban and peri-urban areas to rural/tribal; inhabitants of hard to reach areas, prisoners, densely populated regions of the country as well as natives after coming in contact with returned migrant; police and security personnel, those staying in institutional settings and hostels and inhabitants of containment zones should all be tested for the presence of antibodies against the virus.<sup>3,9,10</sup>

Every state may design its testing protocol for serosurveillance and have nodal officers designated who would report the serosurvey results to the National Disaster Management Authority and epidemiological expert in their respective states and a collated data can then be formulated at the national level for each country. Involvement of every level of the working system must be ensured starting at the grass root level in the villages to metropolitan cities, hospitals and offices in the country for conducting the

serosurvey and collect necessary history and pertinent details that would facilitate contact tracing. Services of primary health care workers, paramedical staff, including nursing officers, resident doctors in the hospitals and the working personnel in the regional/local head offices of every department may be utilized and repurposed in coordinating the serological testing activities, preparation of contact tracing details in their locality along-with data compilation and submission of the same to the designated health authorities. Needless to say, implementation of this strategy is the need at present for countries passing through a phase where the community transmission is rampant. It would be wise to enable all government and private hospitals, offices and public sector units to perform the antibody-based testing. Serosurveys in a phased manner which however may be scaled up later would help identify hotspots, areas of high and low disease transmission and areas for containment. Policymakers can direct the efforts judiciously with particular focus directed to the vulnerable groups, including the elderly and children under ten years of age. Clarity on the current status of infection would help COVID care centres, and hospitals direct their focus on relatively sick individuals allowing better and lifesaving

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