

POSSIBLY FIRST SUCH SURVEY IN INDIA

After sero-survey in Pune, IISER to study 'neutralising antibodies' that prevent infection

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PUNE, AUGUST 19

AFTER THE recent sero-survey in Pune revealed that nearly 50 per cent of samples of local residents from five high-incidence areas had antibodies against coronavirus infection, the Indian Institute of Science Education and Research (IISER)-led survey has now begun a study to detect 'neutralising antibodies' in an effort to understand the human body's response to the virus. This will possibly be the first of its kind survey in the country.

"The sero-survey has been completed in the five highly-affected areas. It was found that 51.5 per cent of the 1,664 residents from whom samples were



An auto-rickshaw being sanitised. *Ashish Kale*

collected had developed antibodies against SARS-CoV-2 infections, ie coronavirus, but it does not indicate immunity through it. So, this is a further study to detect 'neutralising antibodies' that protect from the viral infection," said Professor I S Sashidhara of IISER.

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IISER study

Sharing details of the survey, IISER Associate Professor Aurnab Ghose said the outcome of the study on detection of 'neutralising antibodies' will take time, at least six weeks, as it is a slow process. "The study will be done from the same samples collected during the initial study of sero-survey. We will not be collecting fresh samples but use the same ones collected earlier," he said.

Ghose said the sero-survey in many cities has been conducted by the Indian Council of Medical Research (ICMR), except the ones in Mumbai and Pune. "We are not aware of whether a similar study of detection of 'neutralising antibodies' is being taken up in any other city," he said.

Ghose said the outcome of the sero-survey has concluded that the infection is prevalent in all types of communities. "There is infection in slums, tenements, apartments and bungalows. It is also prevalent in houses of all sizes and those with shared or independent toilets... It is important to stress that the infection is widespread and in all categories of accommodations," he said.

On the low prevalence of antibodies in those above 66 years of age, Ghose said that may be due to various reasons and further study was required to ascertain them. He added that there is no information right now on the time period for which antibodies last and can fight against the virus.

Five highly affected *prabhags* in Pune – Yerawada, Kasbapeth-Somwarpeth, Rastapeth-Raviwarpeth, Lohiyanagar-Kasewadi and Navipeth-Parvati -- were selected for the sero-survey.

While the densely-populated *prabhags* were among the worst affected after the beginning of the pandemic, they have seen a low growth rate of patients in the last two weeks. The *prabhags* that were least affected initially are now witnessing a higher rate of transmission.

The sero-survey was jointly conducted by the Pune Municipal Corporation (PMC), Savitribai Phule Pune University (SPPU), IISER, Translational Health Science and Technology Institute (THSTI) of Faridabad and Christian Medical College of Vellore, with funding from Persistent Foundation. The B J Medical College, D Y Patil Medical College and National Institute of Virology have also expressed their willingness to undertake independent sero-surveys in different parts of the district.