Test Everyone

Delhi Government Testing Trial (Short Proposal)

Summary

In concert with the Delhi government, Test Everyone (https://testeveryone.in) proposes to run a month-long trial of universal weekly at-home rapid testing for 2,10,000 (2.1 lakh) people in the National Capital Territory. This will cost $2 million -- $1.15 million for 4 rounds of rapid antigen tests (assuming a cost of Rs. 100 / $1.37 per test), an additional $400,00 for confirmatory tests as necessary for symptomatic patients, and $450,000 for logistics and administration. This trial aims to demonstrate that universal weekly at-home rapid antigen testing of people in an area will reduce the incidence of symptomatic and severe COVID-19 in that area.

Trial aims and design

This trial intends to investigate whether testing each individual in an area weekly using self-administered at-home rapid antigen tests, and asking those who test positive to proactively self-isolate, reduces the number of symptomatic and severe cases of COVID-19 in that area, in particular those that result in hospitalization and death. As such, it will be structured as an RCT, where universal weekly testing is the intervention applied in the experiment group, and no additional testing (beyond what individuals choose to perform themselves at their own cost, as they already do) will be provided to the control group.

Both the arms of the trial will consist of 2,10,000 (2.1 lakh) people each -- 3000 people per arm (so 6000 total) in each of Delhi's 70 legislative assembly constituencies, with 1000 from a building or local grouping of high socioeconomic status, 1000 from a building or local grouping of middling socioeconomic status, and 1000 from a building or local grouping of low socioeconomic status. To the extent possible, each socioeconomic strata group in a given arm in each constituency will be matched demographically with its opposite number in the other arm in that constituency. The Delhi government will help identify these buildings or groupings in matching pairs. For each such constituency, the arm assignment of each building or grouping will be randomized.

At the beginning of the month, we will distribute 4 tests per member to each household in the experiment arm, one for each week of the month, along with instructions on how to use the test, and advice to self-isolate proactively if they turn out to be positive. We will advise each member of the household to test themselves on a different day of the week from the other members where possible, and also advise that if a single member tests positive, each member of the

household should self-isolate and test themselves the next day to determine if they too have contracted COVID-19. We will provide additional confirmatory tests to participants where required (as allocated in the budget above), in particular where many members of a household test positive but one or two test negative, and there is a significant enough likelihood of those latter negatives being false.

We will then attempt to send an SMS each day advising that one family member be tested, where a mobile phone number for a given household is available. We will also provide a helpline number for participants to ask questions in case they need assistance.

Trial outcomes

Throughout the month, we will collaborate with the Delhi government and the local DM's offices to capture data about which participants in both the experiment and control arms display COVID-19 symptoms or are admitted to the hospital for COVID-19. We may supplement this with Delhi government phone calls to each household asking for this information if the Delhi government judges this to be appropriate and allowable. At the end of the month, we will analyse the number of such cases across both arms to evaluate whether the intervention produced a significant positive difference in health outcomes. Either way, we will aim to publish this data publicly, at least as a pre-print, to better inform policy decisions around testing during the pandemic.

More information

For more information on the existing academic research and real-world data that supports this strategy, visit https://testeveryone.in