India's large young population could actually make Covid herd immunity strategy work

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Mumbai: Controversial given the high risk of deaths, a coronavirus strategy discarded by the U.K. is being touted as the solution for poor but young countries like India.

The herd immunity strategy, which would allow a majority of the population to gain resistance to the virus by becoming infected and then recovering, could result in less economic devastation and human suffering than restrictive lockdowns designed to stop the virus's spread, a number of experts have begun to argue in the nation of 1.3 billion people.

"No country can afford a prolonged period of lockdowns, and least of all a country like India," said Jayaprakash Muliyil, a prominent Indian epidemiologist. "You may be able to reach a point of herd immunity without infection really catching up with the elderly. And when the herd immunity reaches a sufficient number the outbreak will stop, and the elderly are also safe."

A team of researchers at Princeton University and the Center for Disease Dynamics, Economics and Policy, a public health advocacy group based in New Delhi and Washington, has identified India as a place where this strategy could be successful because its disproportionately young population would face less risk of hospitalization and death.

They said allowing the virus to be unleashed in a controlled way for the next seven months would give 60% of the country's people immunity by November, and thus halt the disease.

Mortality could be limited as the virus spreads compared to European nations like Italy given that 93.5% of the Indian population is younger than 65, they said, though no death toll projections were released.

The radical proposal underscores the challenges that poorer developing countries — including nations like Indonesia and some in sub-Saharan Africa — face in

curbing the epidemic using the lockdown measures that have been adopted by advanced economies.

The impossibility of social distancing in crowded living conditions like in many cities and villages in India, the lack of testing kits to detect infections and the human suffering that occurs in lockdowns suggests a different path may be needed in these places.

To do this, the Princeton and CDDEP team recommends lifting India's strict lockdown — which has been extended to May 3 — and letting most of the population younger than 60 return to normal life, though social distancing still would be encouraged, masks would be required and large gatherings would be banned. The reopening would be accompanied by an effort to test as many people as possible and isolate confirmed and suspected cases.

The government of Prime Minister Narendra Modi has given no indication it plans to adopt such a strategy.

Yet the government has laid out criteria that effectively rations coronavirus tests, limiting them to the very sick or most at risk. Critics who suspect the disease has spread much more widely than the official numbers suggest say the government's restrictive criteria amounts to allowing the disease to spread.

"In some sense, you are saying, we will let them get infected and recover, and take care only of those who are sick," said T. Sundararaman, the New Delhi-based global coordinator of the People's Health Movement, a public health group. "That's the policy, that's what it amounts to."

The government has maintained its testing criteria gives an accurate tally of India's number of cases, and says the disease is not spreading untracked in the community. Nevertheless, as India has ramped up testing, it is finding more cases each day, bringing the nationwide tally to 18,658, with 592 deaths, as of April 20.

But if questions remain as to the extent and severity of India's outbreak, the costs of the government's lockdown are clear. Local governments have had to set up camps to house 1.25 million migrants who left cities when they lost work, while food camps feed 7.5 million daily wage earners also rendered destitute by the lockdown. There are already signs these stopgap measures are starting to fray.

"We're dealing with a trade-off against starvation, hunger, all this other stuff," said Ramanan Laxminarayan, the director of the CDDEP and a Princeton researcher. By allowing the coronavirus to spread in a controlled way, "undoubtedly there will be deaths, but it will be much smaller this way, and it opens us up for business by November," he said.

But the strategy has already proved controversial internationally. The U.K. adopted and then abandoned it early in the pandemic after projections showed its health care system would be overwhelmed by the resulting hospitalizations. That brief dalliance is still being blamed for the British government's slow response in testing for the virus.

Risky Strategy

Even in a country like India with a young population, the concept has inherent risks. Allowing people to become infected will inevitably bring many more patients to hospitals. The researchers say India will have to urgently expand critical care and isolation-bed capacity to ensure that multiple waves of patients don't become casualties before herd immunity is reached.

Another risk is that India's worst-in the-world air pollution and high rates of hypertension and diabetes have compromised young people's health, meaning that mortality from the virus could be higher than expected. People may let their guards down and fail to follow social distancing guidelines.

"I would worry that it would relax concerns of younger individuals, who still remain at substantial risk themselves," Jason Andrews, an assistant professor of medicine at Stanford University, said in an email. "The messaging in particular may lead younger people to perceive themselves as at lower risk than they are, and to fail to understand their potential role in transmission."

And given the novel coronavirus only made its debut in humans some time late last year, there's still a lot that's unknown. Immunity from the virus may be a more complex process than expected. One group of researchers estimated as much as 82% of the population would have to be infected before herd immunity is reached.

"My view is there are a number of questions about whether it can work," said Marc Lipsitch, a professor of epidemiology at Harvard University's T.H. Chan School of Public Health. "The main questions being how much immunity do we need in the population, and how much immunity does each person get as a result of infection."

Then there's also the question of whether it's possible to wall off the higher-risk portion of the population in densely packed India, where multiple generations commonly live under one roof.

Ultimately, the researchers lobbying for the strategy argue that cultivating herd immunity may be the best of various bad options.

"I think eventually all countries will follow this Indian model," Laxminarayan said. "Because otherwise we are going to be in lockdown on and off all the way through until June of next year." —*Bloomberg*