

To Suppress or to Mitigate COVID-19: That is the Question

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In India, public health experts have been debating the most effective way of combating COVID-19 (or SARS-COV-2 virus) while balancing the amount of lives lost and trying to preserve the economy. This virus is particularly challenging for India as the population is so large, and the healthcare system is still developing to meet the needs of its citizens. While social distancing has been and is being widely practiced worldwide to mitigate the further spread of COVID-19, it is apparent that more aggressive public health measures are needed to further decrease the numbers of infected people. Already, India has extended its lockdown from March 24th to the end of May.^[1] By better understanding how this virus propagates, as well as by considering the unique needs of India, experts can better determine the best measures to fight further spread.

COVID-19 has primarily been shown to transmit between people through respiratory droplets and contact with objects used on or by an infected person; these objects or surfaces act as fomites. Some scientific publications provide initial evidence that there has been airborne transmission as well.^[2,3] Government officials and the media have often focused on this transmission, but a meta-analysis by the New England Journal of Medicine displays the abundance of studies elaborating on fecal-oral transmission of COVID-19. Gastrointestinal symptoms seem to be common symptoms of COVID-19, with a prevalence of 18% among all the infected and that fecal viral shedding continues throughout the disease and perhaps beyond its duration.^[4,5] Due to the multitude of possible ways to spread COVID-19, aggressive public health measures should be taken.

There seems to be a debate about two viable approaches to control the spread of COVID-19: suppression and mitigation.^[6] While suppression is essentially a drastic lockdown and sealing of COVID-19 hotspots, mitigation involves separating suspected cases, quarantining families with suspected cases and socially distancing those most vulnerable. Using an age-structured SIR model (Susceptible, Infected and Recovered) to study the variation in the number of infections in India, a single lockdown of 49 days would lower the number of infected people below ten. The study also anticipated that if no action would be taken, an expected 0.9 billion people would be infected, in total, with a peak infection of 167 million people in 114 days.^[7] Gabriel Leung, a public health expert from the University of Hong Kong, has suggested for countries to prepare themselves for several rounds of “suppress and lift” cycles.^[8] This suggested cycle switches back and forth between enforcement of strict policies and relaxation thereof, in ways that can maintain the pandemic under control but at a reasonable economic and social cost. Leung’s strategy is essentially a three-way compromise between preventing COVID-19 related deaths, sustaining the economy and allowing society to function normally.^[9] As opposed to the above approaches involving different techniques of implementing suppression, Jayaprakash Muliyl, a community health expert in India, propagates for mitigation over suppression. He says that in a non-organized country like India, if complete suppression is employed, people

will suffer and potentially die for various reasons besides the pandemic, such as starvation or other health emergencies. Therefore, Muliyl believes that the government’s response must be rational when enforcing community suppression, and it should be considerate of all possible consequences that may arise from strict lock downs. Overcrowding in public places should be avoided, and symptomatic subset of COVID-19 patients who have difficulty breathing should be hospitalized. Meanwhile, the non-symptomatic should be quarantined at home. Social distancing should continue for six to nine months.^[10]

In India, the lockdown, which has been extended to the end of May, has already hit the Indian economy. As of May 10th, the unemployment rate is at 24%, according to a report by the Center for Monitoring Indian Economy.^[11] The services industry, which has been hugely affected by the mass migration of workers back to their villages, remains suspended. The lockdown has occurred during harvest and planting seasons for many crops, which is when a multitude of laborers work on farms. A large challenge is helping farmers sell their crops, while also securing the future crops for the next season.^[12] Panic-buying from worried citizens is not assisting in economic growth. Rather, it ends up breaking social-distancing rules and destroying the supply chain.^[13] It is apparent that further lengthening this chaotic lockdown or initializing new lockdowns could have dire consequences. Overly strict social-distancing means that people are forced to stay at home and therefore cannot work. This is devastating for those who depend on a daily wage. The government can only support a large number of non-working citizens for so long.^[14] It is for these reasons that mitigation is India’s solution to managing the COVID-19 epidemic.

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