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India's Tryst With Covid-19

By: Vikram Patel

The lockdown will not eliminate the coronavirus. Instead it could harm the livelihood & health of many. We must repair broken lives with economic measures, use evidence-based strategies to slow the virus & strengthen hospital capacity to care for the very ill.

As India endures a fourth consecutive week of a nation-wide lockdown (ranked as the most stringent in the world by the University of Oxford) to contain the spread of the Covid-19 virus, it seems an opportune moment to reflect on its rationale, its impact, and where we might need to head from here.

The singular goal of the lockdown was to save lives, both by protecting every individual in the population from being infected in the first place and by slowing the surge of cases which might overwhelm scarce intensive care resources. This is a moral goal that no one can argue with. Two questions spring to mind in relation to this goal: first, whether the lockdown will lead to reduced numbers of lives lost due to Covid-19; and second, whether a policy focused on saving lives from one disease might inadvertently lead to more deaths due to other causes.

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Let us consider the impact of the lockdown strategy on mortality due to Covid-19.

Contrary to what one might have expected, the number of deaths due to Covid-19 has actually been *increasing* with each week of the lockdown. This suggests that there was much wider spread of the infection even *before* the lockdown and a very limited impact of the containment policies in those crucial weeks. Still, there is no doubt that the longer the lockdown is in place, the curve of infections will ultimately flatten and then fall. After all, if everyone is forced to stay at home, there is no way for the virus to jump from one person to another (apart, of course, between those in the same home). Such a lockdown would have an impact on all contagious diseases—those that spread through direct contact with an infected person.

But it is a fundamental mistake to think that the coronavirus would then have been eliminated. Only a vaccine or the acquisition of “herd immunity”—when a specific proportion of the community has been exposed to the infection due to its gradual spread in the population—can ultimately lead to us defeating the virus. In the absence of a vaccine, we should expect to see more people infected whenever the lockdown is lifted, a small fraction of whom will die. This is simply because the virus will once again have opportunities to spread in a population that remains just as vulnerable to the infection as it was before the lockdown. At some critical point in the evolution of the epidemic, transmission will stop and the epidemic will peter out, just like it has for all similar infectious diseases in the past.

Whether more Covid-19 deaths would have occurred without a lockdown will be, at best, a speculative exercise prone to all the uncertainties inherent in modelling based on numbers with uncertain significance (which I turn to later). We may never know the truth.

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What about the impact of the lockdown on other causes of death? Since the first case was reported in late January, there have been (as of 15 April) about 400 confirmed deaths. During this same period of roughly 75 days, if we extrapolate data from recent years on mortality, over 1.5 million Indians will have died due to other causes. Thus deaths due to Covid-19 account for 0.0002% of total deaths in this period. Most would agree that this is a vanishingly miniscule proportion. More people would have died from virtually any of the hundreds of other deadly diseases that stalk our lives. About 1,000 persons die due to respiratory tract infections alone *every day*. These infections spread in similar ways to Covid-19. By forcing people into their homes, it is possible that their spread between people sharing crowded and insanitary housing would have in fact increased during the lockdown.

Simultaneously, there have been dramatic reductions in the numbers of patients seeking medical care in many parts of the country. This is because of several reasons. The prohibition of public transportation has meant that those who cannot afford private vehicles, the vast majority of our population, would have found it extraordinarily difficult to access health care. Private nursing homes, which are critical providers to the health needs of the poor and rural populations, have been unable to function effectively because their staff cannot get to work. Scarce public-health resources have been reallocated to focus on Covid-19 preparedness. Deaths due to deterioration in the care for chronic diseases such as diabetes, cancer, and heart disease may have increased as a result.

The number of suicides may increase during these stressful periods. Women are at higher risk of serious injury from violent partners from whom they cannot escape. And then there is the likely surge of deaths due to poverty, by some estimates affecting over 400 million workers (more than the entire population of the United States). This toll will unfold in the coming months. Malnutrition in children is estimated to kill several thousand children every day. Given the very strong association between poverty and hunger, these numbers could escalate further.

On the other hand, mortality due to at least two causes will have plummeted during the lockdown: road traffic accidents and air pollution. The net reduction in loss of lives, the ultimate goal of the policy, may hang in the balance between these different factors.

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Whichever direction the lockdown takes, there is little doubt that many people, hundreds of millions perhaps, have had their lives and livelihoods devastated. Every policy, particularly one that ceases freedom of movement and all economic activity in a continental nation of over a billion people, requires thoughtful consideration of the balance of costs and benefits. In my reckoning, it seems that the lockdown was implemented in too much haste: given the human tragedy that unfolded in the days following the lockdown with epic numbers of migrants trying to get back home, evoking memories of Partition. Paradoxically, this may have set the stage to exponentially expand the footprint of the epidemic to rural areas.

Relatedly, it is important to consider whether the lockdown should have been a progressive and dynamic policy—as is now being planned for its staggered lifting—focusing the most stringent controls in areas designated as ‘hot-spots’ of clusters of cases and promoting less coercive strategies to contain the epidemic in other areas. These are the strategies which actually *do* work, such as testing and contact tracing. But such a strategy would have required proactively collecting real-time data on the numbers of those infected in a standardised way so that these numbers are comparable across time and space. This has been one of the weakest links in our response to the pandemic.

Despite the importance of testing, data from the Indian Council of Medical Research suggests that by 9 April just about 150,000 tests had been conducted in the country, a per capita rate of testing that is amongst the lowest in the world. Even these small estimates are impossible to interpret because the number and type of people tested has varied hugely over time and place. One does not need to be a rocket-scientist to figure out that the more one tests, the more one will find. Thus the higher numbers of cases being reported in some states and as the lockdown has progressed, may at least in part, simply be a reflection of the greater number of tests conducted.

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Then, there is the question of *who* one tests. If one tests random people in the community, the numbers of infected will be much smaller because most of these individuals do not have any symptoms. On the other hand, the numbers of the infected will be much higher if one tests people in a hospital who have fever and respiratory distress. Without these important caveats about the variations in the testing strategy, the daily report of the numbers splashed across newspaper front-pages, their charting across time and states, and their comparisons with other countries, has as much value to estimating the scale and location of the problem and what impact policies are having as say, counting grains of rice held by fists of different sizes.

What we should have expected by now is a standardised protocol being implemented in every state. For example: testing everyone who attends nominated Covid-19 hospitals with the recognised syndrome of symptoms and signs of the infection. Indeed, simply tracking the numbers of patients coming to any health-care facility with fever and respiratory distress could provide a more accurate picture of the unfolding of the epidemic.

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Some argue that the true impact of Covid-19 would have been much worse without a lockdown. Of course they are right. But if saving lives is the sole goal of a lockdown, then this begs the question why the country should not also consider similar lockdowns to reduce road traffic accidents and air pollution mortality. India has for many years now secured the leading place in the global ranking of mortality due to these two causes. The impacts would be even more dramatic and in all probability result in much larger numbers of lives saved. Yet, we seem to have shown no urgency at all to deal with these known, avoidable, and deadly factors. This is because such stringent policies have unwanted adverse impacts. We are forced to consider all the possible scenarios and options, ultimately choosing a policy with the least likelihood of harm.

Furthermore, preemptive strikes in medicine are rarely justified. For example, consider the surgical removal of both breasts when a woman's genetic code suggests a very high risk of developing a rare form of breast cancer. One does not want the cure to be worse than the disease for the many people who would never have developed the cancer in the first place. When one balances the vast uncertainties about Covid-19 when the lockdown was imposed—at a time when there were just 10 deaths in the entire country—with the absolute certainty that such a lockdown would massively disrupt the lives and well-being of most of our population, it is hard to conclude that such a preemptive strike was justified.

But, surely, this is not the time to quibble with what is now history. The lockdown has happened and we are in the midst of it. The nation has showed remarkable solidarity with the policy and this is to be welcomed. Instead, now is a time for us to consider the next steps and, in particular, what lessons can emerge from this epochal event. The immediate priorities must be to restore the livelihoods of our poorest. This means the restoration of public transportation and the informal economy. This will not magically return upended lives to normal. During the difficult months ahead, the energies to have been put into a National Register of Citizens survey might be used to identify those who are unemployed and guarantee for at least a year a basic income pegged to the MGNREGA daily rates. I am no economist, but it seems to me that such a strategy would certainly go a long way to addressing hunger and destitution.

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Simultaneously, we need massive investments in active case-finding, contact tracing and humane quarantining procedures, and in strengthening the capacity of the health care system for intensive care for future surges of infections. (This will also help prevent countless other causes of deaths.) I am aware that these strategies will require a lot of money that is hard to find when the economy has tanked, but I am sure money can be found, perhaps by imposing a one-year moratorium on arms purchases which exceed billions of dollars.

In the longer-term, one fundamental lesson is not to plan epidemic containment policies solely on the basis of mathematical models built on assumptions and observations from other contexts. I believe the initial models that predicted apocalyptic numbers (and which have subsequently turned out to be so wildly off the mark that even just a random guess could have been more accurate) seeded some panic in the government which, knowing the shambolic state of our public health-care system, could ill-afford to countenance mountains of dead bodies.

I sympathise with the impossibly difficult dilemma and tight timelines that policymakers had to face. But there is an alternative: to make strenuous efforts from the first day to obtain accurate local estimates of the numbers of cases. This, as I noted earlier, does not need to rely only on laboratory tests as we can much more readily count the sick in the meantime.

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Policies must be appropriate, dynamic, and proportionate. This means that their potential for harm must also be taken into account while planning. A one-size fits all approach for a country with such continental diversity should be avoided. It is utterly absurd, for example, to lock down my home state of Goa, which has witnessed zero deaths and just seven cases in total (and none in the past 10 days). We have such good experience from controlling epidemics through local action in this way in the past, from Nipah in Kerala to Zika in Rajasthan. It is our past successes that we should draw upon in the future. We do not even look so far back in time. As I

write this, Kerala has yet again shown how to contain this particular epidemic in a manner that combines the values of both humanity and science.

The crushing of hundreds of millions of livelihoods may lead to a surge of what Angus Deaton and Anna Case describe as "deaths of despair", referring to the increased mortality in working-age Americans following the last major recession in 2008. These deaths are related to poor mental health arising from hopelessness and uncertainty about one's future social and economic prospects, and are driven by suicide and alcohol abuse. India's mental health care system is its Achilles Heel, with less than 10,000 mental health professionals in the country.

Yet, the ingenuity of our scientists and civil society has time and again shown that community-based interventions, typically involving the delivery of brief psychosocial interventions by lay counsellors and peer providers is an effective, acceptable and affordable strategy. (The work of Sangath, with which I have been associated since its founding 25 years ago, is internationally recognised for this particular innovation.) This is a critical moment for the state and philanthropy to invest in such home-grown solutions to stem the tide of misery looming ahead.

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Finally, a major lesson for both the government and the media is to get the messaging right. They need to communicate accurately and proportionately. For example, instead of spreading panic by ghoulishly reporting meaningless numbers of those dying, they should promote stories that demonstrate that the overwhelming majority of those infected survive it. (Indeed, most people do not even know when they are infected!)

Another example of needlessly stoking fear is the nonsense of generalising numbers of the dead from other countries to India without noting that the average age of mortality of Covid-19 in Europe hovers around the age of 80 years, many of whom lived in care-homes which have become clusters of death. Barely 1% of India's population is in this age group and almost none live in care-homes. Communicating the age-stratified risk of mortality, and indicating that the vast majority of our youthful workforce would not have been significantly affected by the virus, might have stopped the biblical migration of millions to their villages and prevented the stigmatisation of those who are infected or at-risk. Such an understanding would also have emphasised physical distancing *in the home* to minimise the risk of transmission to vulnerable elders.

India's tryst with Covid-19 is far from over. It will continue to fester away for months, even years. Only time will tell what longer-term impact the lockdown will have and whether the government was able to catch the balls still hanging in the air. But even beyond this particular tryst, this will certainly not be the last epidemic of a novel infectious agent to hit our shores. It is so very important that we ensure that the lessons we have learned from this experience will enable us, the next time around, to be better prepared to, at the very least, do no harm.