

Q. & A.

# HOW COVID-19 WILL HIT INDIA



By Isaac Chotiner

April 1, 2020



*In India, the epidemiologist and economist Ramanan Laxminarayan said, the coronavirus “likely . . . will just rip through the population.”* Photograph by Indranil Mukherjee / AFP / Getty

ast week, Indian Prime Minister Narendra Modi ordered a three-week lockdown of the country, telling citizens that they were not to leave their homes, because of the coronavirus pandemic. The scope of this order is hard to comprehend: India is a country of more than a billion people; it has extreme poverty in many areas; and many of its cities, such as Mumbai and Kolkata, are extraordinarily dense. Since people who live in India often travel between different states for work, the lockdown also left hundreds of thousands of migrant workers stranded; many of them are trying to return home on foot. So far, there have been only a few more than sixteen hundred confirmed cases in India, and forty-five confirmed deaths, but a major outbreak in a country with huge public-health deficiencies is likely to have devastating, far-reaching consequences.

To try to understand India's predicament, I spoke by phone with Ramanan Laxminarayan, an epidemiologist and economist who directs the Center for Disease Dynamics, Economics, and Policy in Washington, D.C., and who is currently in New Delhi. He previously served on President Obama's Council of Advisors on Science and Technology's antimicrobial-resistance working group. During our conversation, which has been edited for length and clarity, we discussed why India is at such grave risk from the coronavirus, the different ways that rural and urban India are likely to be affected, and what the disease has laid bare about the long-term consequences of insufficient health systems.

### **How would you describe what India is facing right now?**

So, India is in an earlier stage of the epidemic. It's probably running about two weeks behind the United States, and about four weeks behind Italy, in terms of when the first seeding of cases happened. Like in these other countries, it probably happened because of airline traffic—but not because of people coming from China, all of whom were quarantined very early, but likely because of Italians who had carried the virus, who were tourists here. And a number of the early cases actually involved Italians. So it arrived after it had fully seeded in Italy, and the testing was pretty small at the beginning. It was restricted to people who were stepping off the plane, or someone who had been in contact with a confirmed COVID-19 case.

And so we've had a very limited read on how the disease is progressing to date. It's only a thousand cases and just over thirty deaths. [This was true during the time the interview took place; both numbers have since grown slightly.] So that's small for a country the size of India. What we expect is

that this is probably because of testing not being adequate, similar to what happened in the early stage of the epidemic in the United States, as well, where it suddenly catches fire in some population, like in Seattle—in India, it is unclear where it will actually happen—and then it really takes off.

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*The New Yorker's* coronavirus news coverage and analysis are free for all readers.

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There is no evidence that the temperature and the humidity are slowing down the virus, even though it's still rather cool across most parts of India, especially the north of India. And we've got a lot of compounding problems, which are that the health-system capacity is generally weak across the country. The number of hospital beds [roughly half a bed per thousand people] is remarkably low. It's probably a fifth of what the U.K. has, for instance.

And it's also got a population that has tuberculosis and respiratory issues and pneumonia and high rates of smoking and air pollution. So, the trajectory of the disease in this population is going to be unclear. The other thing is that India also has a lot of hypertensives. About a third of the country's adults are hypertensive, and about one-tenth of them are diabetic. And, so, all of this is likely to compound the problem. Of course, we don't know anything for sure until the numbers actually start going up. But these are all the reasons why people of India are worried.

**To what degree is your concern about the density in Indian cities and the inability to stop this if it reaches cities in a major way?**

I think it probably has reached some of these communities. We've already seen cases in the slums of Mumbai, which, as you know, are some of the biggest slums in the world, with millions of people living next to each other. And, so, the virus has appeared where it sort of stays quiet until it hits the target population, and shows up in symptomatic cases, typically the elderly.

So, on the one hand, yes, we've got people living in close proximity to each other, but the other side of that is that a lot of these people living in close proximity with each other are young people. [Per capita,] India's population above the age of sixty-five is much smaller than that of Italy and certainly of China as well. That's something which has a bit of a protective effect. But, certainly, the conditions for a rapid spread of the disease are all there in the urban areas. And, without question, it's likely that

it will just rip through the population, unless something fundamentally changes in the virus itself in India, for which we have no real evidence.

**The government's shutdown order, at one level, seems sensible. At another level, it appears akin to a lot of what this government does, like demonetization: implemented quickly, without a ton of thought about how it was going to be put into effect. And you see these horrific stories of laborers trying to get back across the country from state to state with no way to do so. And the horrific human cost of this lockdown, even if it's necessary. What have you made of the government's decision to do what it did, and was it the only alternative? Should it just have been planned better?**

At the stage we were at, the lockdown had to have happened, to slow down the epidemic. Otherwise, given all the reasons I spoke of earlier, we would have had a really sharp peak headed into April. And, generally, for politicians to act proactively to prevent death is not very popular, because the public will never give credit for deaths they averted. The public will only blame them for the damage they caused. So, from that perspective, Modi was very decisive and acted quickly.

Now, could there have been better planning of the lockdown? Certainly, yes. I think, given the complexities of India, some things were focussed on, like supplies and food and so forth, but not others, like how these migrants would get home or how people would cross borders if they lived in a different state and had to get home and couldn't afford to live in the place where they were, or the homeless, or whatever it is.

You're right. It was rushed. But, I think, in the case of demonetization, that's a different experience, because there wasn't a rush to do it at a particular time. They could have waited a week and done it probably better. In this case, I would say that there was very little time available, just because everyone is learning from everyone else. I think the scenes from Italy just shook people here. And then what started happening in the United States was even more disconcerting.

And then when the modelling estimates came out, saying, "Look, this is going to be even worse here because we're not prepared for it," that really was something which shook the government into action. I think, in this case, they legitimately had less time, but I certainly think that a bit more planning and organization should have been brought into it.

And it is absolutely gut-wrenching to see what's happening in the news stories. But, remember, the news stories are only reporting on what they can see in the urban areas. We have no idea about the rural distress, what's happening out there, whether farmers are okay, whether people are eating, and so forth. So I suspect we have not seen the end of this lockdown story.

**What are your biggest concerns about rural India right now, which gets less reporting at any time, but especially now?**

Let's start with the disease. India has a really weak surveillance system for reporting diseases even in the best of times, and forget about a crisis situation like right now. So we won't actually get to observe rural deaths or rural cases, because if someone who is poor in a village is dying of respiratory distress it won't record. It won't show up in any sort of death statistic; only around a fifth of India's deaths are actually certified and recorded. The remainder have no official cause of death. So we won't even know what's happening on the health side. That's the start.

Then, the other part is that we don't actually know what's going to happen to them in terms of immediate issues which relate to hunger and poverty. And hunger is something which I'm deeply concerned about. India actually has enough food to feed its entire population, just from a public stock. But it's not clear that the food is getting to those places, or that it can in such a short period of time. In India, even if the intentions are good, the execution can be challenging, because there are a million blocks along the way.

The third thing is that all of the other infectious diseases or chronic diseases—whether they be tuberculosis or pneumonia or diarrhea—just didn't take a holiday because of the lockdown. They are there in full force. And, with the entire health system geared toward COVID-19 response, as it correctly should, we may also see some of the other things get out of control, as happened in West Africa during Ebola, for instance.

And the one thing India has a short supply of is health-care workers. And if we lose our health-care workers, either to COVID or anything else . . . In other countries which are facing these kinds of pandemics, we see all the rest of the health services take a hit for a while. In West Africa, after the Ebola outbreak, measles-immunization rates took a real dive for three or four years. These are the effects that we won't see immediately but will certainly happen over a period of time.

**There are a lot of people in the United States who've been saying, "We can't shut the economy down," because it will have all these other bad effects. India is a country where people are much more at risk from the serious consequences of poverty if they go several weeks without working. What is your view of what's likely to happen to the Indian economy if things are basically shut down for a month or two? The economy there is already growing more slowly than it was several years ago.**

Think of restarting the economy as multiple gears and cogs all connected to each other. Someone supplies goods to someone else, and they have to get paid in order to supply, but that person needs to get paid by someone else. So, to start an engine like that, which has so many gears moving, is complicated, and it takes a huge amount of effort to start that churn back. Certainly, the government's trying to do what it can to ease things by saying that you don't have to pay for your loans, you don't have to pay your mortgage for three months, and the mortgage lenders won't be considered to have nonperforming assets if they wait for that three months.

They've talked through a lot of this and have announced this proactively in order to try to get the economy back after three weeks, so I give them credit for what they've tried. But there's a reality, which is that government doesn't control everything. This is a large economy, and the government revenue and expenditures are small in this economy. In India, it's only about seventeen per cent of G.D.P. that is really the government, compared with higher levels in the U.S. and certainly in the Scandinavian countries.

So, bringing this back up is going to take a fair amount of time, and the damage will probably last months, if not even further than that. But this was a trade-off that was made. The trade-off was that we take a huge hit with the visible impact of the disease, or we give ourselves some time to prepare and risk the economic consequences, and I'm glad that they chose the latter. I understand there are trade-offs here, but some decision had to be made, and this was the decision that was made.

**And what about specifically in terms of poverty and issues like hunger? India is a poor country. How serious and immediate might the impact be of shutting things down?**

A large part of the country is really in the informal economy. They're not in the formal sector. So they depend on agriculture. [More than] half the country depends on agriculture. The production side is

impacted in places where farmers are affected by the lockdown, and they are unable to sell their crops. Additionally, there is going to be a crush of migrants, who were previously working in cities and sending money back to villages, who are now out of work and back in villages themselves, so that adds to the rural burden. Rural India will certainly take a hit in terms of health, but hopefully we can find ways to protect the farm economy.

**Do you have concerns about leaders in India not following the science? We have seen that with a number of so-called populist leaders, from Trump to Jair Bolsonaro to Boris Johnson to Imran Khan. Because, obviously, Modi has given cause for concern in other areas along these lines.**

No, I think in this case I'd give him some credit for acting. Because he could have just waited, and he could have made this "cure worse than the disease" kind of an argument that President Trump is making. But I think he didn't hesitate, and I think he saw that this was not going to be reversible if he didn't make the call at that time. There is nothing populist about shutting the economy down, believe me. It's probably highly unpopular outside of the chattering classes in the cities. Think of a poor farmer who's never heard of anything called a virus, first of all, and then you're saying that everything is shut because of that virus. They're going to be heaping blame on the Prime Minister. And, again, like I said, he will get no credit for it. I feel this repeatedly in public health. Generally, politicians are happier to respond to a disease or an outbreak than to prevent it.

**Successive governments—both Modi's and the Congress Party's governments before it—have made promises about improving India's health system. Has the health system gotten stronger in the past couple of decades? Or is this something that largely comes down to different state decisions? I imagine in southern India, which has better human-development indicators, they are more prepared, but maybe that's wrong.**

Health indicators have improved, and part of it is things that happened from the central government. Some things, like immunization, have gotten strengthened from the center. But some of it is the states, and some is just people getting wealthier, and they can afford clean water, or they can afford to protect themselves from disease.

So it's a combination of things, but the system itself is not particularly strong, and it is highly variable across states. Kerala has health indicators as good as New York. And, in Bihar, many health indicators



are as bad as Sierra Leone. And you have this all in the same country. And, as a senior bureaucrat from Kerala recently said, you can't build a health system to handle an emergency in the middle of that emergency.

So we are stuck with the health system we have, and I think we will see great variance in what the outcomes look like between the states that have spent time on building a health system, such as Tamil Nadu, Kerala, and to some extent Karnataka, but definitely Maharashtra and Punjab. And the other states are going to have a much more difficult time.

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