

Webinar: The Response to COVID-19 in South Asia Panelist Transcript

Moderator

- **Vikram Patel**, *Pershing Square Professor of Global Health, Harvard Medical School*

Panelists

- **Dr. Richard Cash**, *Senior Lecturer on Global Health, Department of Global Health and Population, Harvard University T.H. Chan School of Public Health*
- **Dr. Sabina Faiz Rashid**, *Dean and Professor, BRAC James P. Grant School of Public Health, BRAC University*
- **Dr. Shamika Ravi**, *Senior Fellow of the Governance Studies Program, Brookings Institution*
- **Dr. Srinath Reddy**, *President, Public Health Foundation of India (PHFI)*

What has been the impact of the policy response to COVID-19 on the ground in South Asia? Were these policies proportionate and appropriate? What consequences might they have? This panel will offer an overview of the varied in-region responses to the virus and their impact on the health system and social sector.

BEGIN TRANSCRIPTION:

Chelsea Ferrell: Hello and welcome to today's seminar in response to COVID-19 in South Asia. I'm Chelsea Ferrell, the Assistant Director of the Lakshmi Mittal and Family South Asia Institute at Harvard University. The mission of the Institute is to engage through interdisciplinary research to advance and deepen the understanding of critical issues relevant to South Asia and its relationship with the world. As part of this engagement, the Institute is running a series of webinars on a number of topics related to COVID-19. We're so glad you joined us today and please consider joining us for next week's seminar as well.

Before we get started, we have a couple of housekeeping items for today. During the Question and Answer session, you can submit questions directly to moderators via the Q&A function on Zoom. Due to the large number of attendees in today's seminar, we unfortunately will not be able to cover all questions. There will be a short survey automatically sent to you at the end of this session. We ask that you kindly fill this out. Finally, today's session will be recorded.

Without further ado, I would like to introduce the moderator of today's panel Dr. Vikram Patel. Dr. Patel is the Pershing Square Professor of Global Health at Harvard Medical School and holds honorary, professorial appointments at the Harvard T.H. Chan School of Public Health and London School of Hygiene and Tropical Medicine. His work has focused on child development, adolescent health, and mental health in India for over two decades. He's moderating his call from his home in Goa, India. Thank you for being with us today, Dr. Patel.

Vikram Patel: Thank you very much Chelsea and let me first of all start by welcoming all of you to this webinar. I would like to particularly thank the panelists who I will introduce in a moment. But before I introduce them, I wanted to give some context and background about the purpose of the seminar and what we hope to achieve during the next one and half hours.

Friends, I think we all know that the lives of billions of people around the world have been completely upended by the COVID-19 virus, not only on the impact of the infection directly on the lives lost but also the result of the policies that have sought to control its spread, particularly the policies that have sought to control its spread through shutting down to various degrees social and economic lives in countries. Nowhere is this more true than in South Asia, where more than a billion people have now been under a lockdown, which according to the University of Oxford, ranks as the most stringent anywhere in the world. For four weeks now and possibly another couple of weeks ahead.

There have been raging debates, both in the region but also across the world about the most appropriate way to contain and ultimately defeat this pandemic. These debates touch on many issues,

it's not possible for us to cover all those issues in this webinar, but instead we have decided as a panel to focus on three overriding issues that keep cropping up in these debates. The first is the tension between saving lives and saving livelihoods. Now, some have argued that this is an immoral question as lives must always come before livelihoods, yet others have argued that it is a meaningless question because lives and livelihoods are inseparable, and that policies must take into account the balance of livelihoods because the loss of livelihoods will directly or indirectly, lead to the loss of lives.

The second issue is the continuing challenge about testing, about having an accurate count of the number of people who are infected, and the real challenge isn't only the numbers of tests that are carried out but also the kind of individuals who are being tested. And because, there seems to be no standardized protocol for this, there are enormous variations in testing and protocols, which means in turn that it is impossible to compare estimates across time and space. As one example are the much larger numbers of—

—We seem to have lost Vikram Patel for the moment, so just bear with us as we get him back online.
Hi Chelsea, am I back on?
Yes, we can hear you Vikram

Sorry, I got disconnected there briefly, So I was saying that the second challenge is the challenge of numbers, and I think the issue here has been the variation of the way testing has been done, both in absolute numbers and kinds of people tested is that it is almost impossible to compare estimates across time and space. For example: We are told that the number of cases in the state of Maharashtra are much higher than the number of cases, say, for example in the North East of India. But also, the absolute number of tests is vastly different between these two regions. Is it that the number of cases are simply reflecting the numbers of tests carried out. Related to this of course is the other big concern that people have had in the region about the accuracy of some of the earliest mathematical models, whose predictions really I think drove a lot of anxiety about the potential impact of this pandemic on lives lost in the region, and I think also perhaps potentially drove some of the policies that followed.

The third issue is the way the information about the pandemic has been communicated. For example: The ghoulish reporting of the numbers dead reported each day on the front page of our newspapers and the numbers of cases rising day upon day cumulatively has no nuance really about the epidemiological precisions of this number or what they actually mean or equally, the scary numbers that are being communicated about the numbers dead from rich countries failed to address for example the extremely different aid structure of those societies or the social circumstances of the dead.

For example: Very few people know that the average age of death in Italy is around 80, and about a third of all the people who died in Italy died in old age care homes, and I think we can begin to see that generalizing from those numbers to South Asia is extremely difficult, given not only there are small numbers of older people in the region, but also the fact that old age care homes are not of our landscape. Similarly about the number of those people who have died numbering about 400 in India as per the latest count needs to be put in the context on the fact that this constitutes less than 0.1 percent of all the deaths that have occurred in India since the first case was reported at the end of January.

Friends, our goal today is not to do a post-mortem of the policies to date. No, I think the real goal is to be forward looking, and what we really want to do is to harness the lessons that we have learned in the last many months with a focus on the region but also drawing on global experience. To really think about what should policy look like in the coming weeks, we need to interrogate what has been the impact of the policies so far. We need to look into the future to ask questions about how prepared is the region in order to address what is inevitable, the future searches and clusters which will emerge as the lockdown is lifted because of course the lockdown has not eliminated the infection but has only slowed down transmission while the lockdown is in place. At the same, we also need to consider how can the lives of those whose livelihoods have been shattered be rebuilt, how can we prevent, for example, the deaths due to hunger and despair that are looming on the horizon. Now for this very

ambitious task, we have assembled an amazing incredible interdisciplinary panel spanning expertise in epidemiology, health policy, public health, anthropology and economics. And importantly, all our panelists are deeply rooted in South Asia, and indeed, three of the four panelists, like myself, are in fact joining this webinar from their homes in India and Bangladesh. I'd like to briefly introduce all four of them and then we will turn over to the panel. Each panelist will have about 10 minutes to respond to some questions that raise the issues that I have highlighted and then we will have a Q & A session between the panelists and as well as questions that those of you on the webinar have submitted.

So, let me start with the introductions. My dear friend Richard Cash is with the Department of Global Health at the Harvard T.H. Chan School of Public Health, he is currently at his home in Cambridge, Massachusetts. He has worked on infectious diseases issues in South Asia for over 50 years, don't be fooled, Richard is a very young man as you can see on the camera, but he has in fact, had expertise for 50 years as a scholar in residence, as a researcher, and as a teacher in the region, much-loved by many, many people in the region and currently directs the course at the Chan School on sociopolitical and economic dimensions in infectious diseases in — (9:56) —very things very germane to our conversation today.

Professor Srinath Reddy, my mentor in India. Srinath is the president of the Public Health Foundation of India and formally the head of the Department of Cardiology at the All India Institute of Medical Sciences in New Delhi, he also serves as an adjunct professor of epidemiology at Harvard and the Rollins School of Public Health at the University. Srinath is very well known as the chairman of the high-level expert group that drafted the universal health coverage or framework for India and is also currently serving at number of technical universities in form policy making at state or central level.

Dr. Shamika Ravi is an economist, she is a senior fellow at the Governance Studies Program of the Brookings Institution, she is a former member of Prime Minister Modi's economic advisory council, she trained in economics at New York University, and is very accomplished in publishing in the field of economics, particularly developer economics and economics as applied to health care.

Finally, Dr. Sabina Rashid has been working since 1993 at a range of different organizations in Bangladesh including BRAC, the Grameen Trust, and UNICEF. She joined BRAC at the James P Grant School of Public Health in 2004 and was appointed its Dean in 2013. Her expertise is largely in implementation research and advocacy in the area of reproductive health program for young women and for adolescents.

Right. Let me now turn to our first panelist, as I said, we have three broad issues and the panelists are free to address any of those but also I have some specific questions for the each of the panelists that they may choose to respond to in their remarks.

Question: Richard, you're living in a country where we now have the largest number of lives lost due to this infection, and interestingly enough, similar to India, there are very raging decisive debates on a number of issues, for example the number of tests that have been carried out, the balance between lives lost and livelihoods lost, and also, I guess, particularly from the US perspective, the fragmentation response across states. Paradoxically of course, one of the biggest complaint people have in the US, which is opposite to India is that the President of the US did not respond quickly enough, even when he should have been, in contrast to India where people have been remarking on how strong, how early the response of the Prime Minister was. So my question to you really is what can we learn about the US experience and indeed that of other countries around the world which can serve to guide what we might be doing in South Asia and what is your opinion about this controversy around inadequate testing as the bedrock of epidemic containment. Richard over to you.

Richard Cash: Thank you very much Vikram. Let me cover this in the following way. I'm going to speak a bit about the global pandemic then the response and then I will turn to India and put India within that context. I want to emphasize the word 'context' because the epidemic itself and the response is highly affected by the context. We know that is caused by the coronavirus SARS COVID-2, it's a respiratory disease with a R zero about 2.4, that is about 2.4 individuals are affected every case, it plays out differently depending on the demographics, that is the age structure, the density of the population, the behavior.

Of a thousand infections, not cases, but infections, about 85% and these are estimates are either mild or asymptomatic cases, and the remainder are clear clinical cases of which a small percentage less than 5% of the remaining 15% are severe and may lead to death. The infection to fatality ratio is estimated as either between .3 or .7% that is three to seven deaths per thousand infections. Not cases, but infections. Incubation period is about 5 days and the time from symptoms to death is about 20 days.

Now, the response globally has been very, very different depending on context. In Wuhan, in China, they picked up the epidemic fairly late into the spread of the coronavirus. There was a very severe lack down, which reduced the spread, which reduced a what is called the surge, which is the number of severe cases. But it was an afterthought. The places that we should look for a very appropriate response are South Korea and especially Taiwan, where because of their experience with SARS earlier on ten years earlier or so, they were geared up to respond very aggressively to this particular outbreak, that is they screened early, they isolated early, they provided care, there was quarantining, there was contact tracing. This was all done very, very early in the course of the disease.

Now, in the United States, it was taken up much later, by the time responses were picked up the epidemic was already well established. Now, in United States, there are about 92 people per square mile or 76— people per square km, we see the difference when we look at India. The mean age is about 38.5 years, physical distancing is possible, many people live in their own homes but there are some regions, some areas, some communities where there is very, very intense living together. Again, the context, the demographics, cultural, government resources, and so on.

Now, let's look at the situation in India, here the population density is 464 per square km over almost five times greater than the US, in Bangladesh it's 1,115 people per square km over almost 11 times more densely populated than in the US. Mumbai, and this is not looking into the actual intense populations in Mumbai, where 70 percent is considered slum, where there maybe 4-5 people staying a room. The median age in India is about 28 years, let's say much younger population issue with 28 percent below the age of 14 and in the US it's 18 % and about those above 65, in India it's about 6 %, in US it's about 17%. Why do I mention this, because most of the deaths that have occurred, have occurred in the older age group. 80% of the deaths in the US and this is reflected in many other places are in over the 65 years age group. Now, what has then been the response well, to talk about India as one place of course, is -- because there are many, many cultures and different states in India and a state like Kerala has done a remarkable job, in terms of creating a message of physical distancing and a intervention that is built on over 50 years of social support for their community. That is not the case in much of India, and that is what we are trying to address.

So, let's take a look at what is possible and what is the situation there. As I noted that the age structure is much younger in India than, I'm looking now at all of India, although I gave you the example of Kerala and there are other examples that I could give but overall, the age structure is much lower, and why is that important, because for those infections under the age of 14 there is essentially no disease, there have been essentially no deaths in children under 14 years of age, and that is important to recognize. So, 30%, almost 30% of India will not experience, even if they are infected, any mortality. The elderly people in India, the 6%, most of them are looked after in their home. They are not in chronic care facilities, old age homes, and so on, there are in India but very very few. Most of the deaths, 30% estimated in New York and other places have been directly related to people living in these extended care facilities. what about this idea that by locking down, that is by keeping people forcibly from physical contact, not social contact because that is what we are trying to do, this is very difficult because 80-90 percent in India are daily laborers who are not salaried unlike government employees and so on who are salaried, these individuals are not, they live on daily wages.

What about the whole issue of healthcare, that is one of the reasons for lockdown was to reduce the surge of illness. The fact remains that within India, given their health infrastructure, the few ICU hospital beds with limited number of physicians, and nurses, and respirators and so on. Every day is the surge day within the Indian hospital system, so by preventing a surge, you will really not have accomplished much of anything. The epidemic will continue to spread, it will not be stopped by any

type of lockdown situation. The epidemic will continue to spread and will spread maybe a bit faster. What about testing? The issue of testing has been brought up. In Korea, at the height of their testing, population 1/15th the size of India, they were doing 10,000 a day. India has just announced that they are doing 13,000 a day for a population of 1.3 billion. Widespread testing is not going to go forward and will be useful only in defining small epidemics. Much of the diagnosis in India, now and in the future will be through syndromic diagnosis.

So, the health system, the testing and so on are all at very different level than in Europe or in East Asia. And my strong message is that whatever intervention is planned for the future because as you noted Vikram, what is done is done, must take into account the context that is India, its demography, its age structure, its health infrastructure, its resources and so on, it should not try to mimic a system where in the US they spent 11,000 dollars per capital in health and India spend \$75 per capita in health. They should not try to mimic this particular intervention strategy because I do not believe that it is appropriate within the Indian context, so let me stop at that point.

Patel: Thank you so much Richard, let me move swiftly on to Srinath. Srinath, I wanted to pick up on a couple of pieces that Richard mentioned as well in your response. One of the curious things about India, which you have also written about is fact that we have despite the very densely packed population not seen the kind of spread that one would have feared and I wonder to what extent that could also be attributed to apart from the age structure of the population to the early actions that were taken by the government. While there is a lot of critiques about the lockdown, I would also like to hear you thought on what may have been some of the positive impacts of the lockdown. I'm also curious about the notation where you've also observed that there has been apparently a rising number of cases in the last week. Is that a sigh of success that we're doing a better case finding or how does one interpret those rising numbers, those are indeed a sign of perhaps the epidemic was already in place even before the lockdown, and finally I think something that Richard also spoke about this idea of 'one size fits all' you know what is your thought about having a single policy for a continent nation like India with such enormous epidemiological and socio cultural diversity. Srinath, over to you.

Srinath Reddy: Thank you Vikram. Let me start by saying that a decision to have a complete lockdown is never an easy one. Frequently, looking at the global cases, even OECD countries are in a state of collapse in terms of their health systems, it becomes a question of damned if you do, damned if you don't. So, you still have to take some decisions, there are some negative consequences, very unfortunate, in terms of social and economic impact, and I'm particularly distraught about what has happened to the migrants and the problems being faced by the informal work force. Nevertheless, public health considerations pushed it to the forefront, now let me deal with what might have been the positives that we can still take away.

Firstly, it does appear from a variety of sources of data that we have actually accomplished the result of slowing down the epidemic in terms of reducing the infection spread rate, and therefore I think, how do we say that? Firstly, look at it as a triangle, the top of the triangle are the serious cases getting hospitalized, in the middle of the triangle are cases who are staying at home isolated, and the bottom of the triangle are the people who maybe totally asymptomatic or very minimally symptomatic. Testing may not be able to get to the bottom of the triangle, but syndromic surveillance of households is taking place in many states and that is giving you the middle of the triangle. No major case load there. You're also seeing at the top of the triangle, hospitals not being crowded. There's no big rush for the hospital admissions right now, at the moment. Therefore, all of this would suggest that there has been some impact in trying to markedly reduce if not completely disrupt the chain of transmission. But that is one public health objective that has been achieved.

Secondly, many other positive outcomes. Firstly, there has been a much greater degree of appreciation overall of public health and the need to strengthen the public health systems. The neglect of the past could possibly be redressed as we move along, there is much greater element of partnerships emerging, not only strengthening the public sector but also mobilizing the care and non-health care sectors of the private sector in order to provide a cohesive response. The private sector is also stepping in now to produce more APIs rather than importing from China. They are stepping to produce ventilators, to produce personal production equipment, and all that is happening now when there is an importance of building a strong healthcare system, belatedly though, nevertheless, it's

being realized. Then you have a much greater degree of social solidarity that has been mobilized across the people. There is a great deal of citizen participation, particularly in states like Kerala, Andhra Pradesh, and Odisha, and even elsewhere too.

Finally, the tone and tenor of the political debate has softened, from being a very ascorbic nature of conversation to a much more accommodative unity-focused conversation and therefore there is a much greater political unity, which is also reflected in much better center state coordination. The center and the states are all on one page now. These are all the positives that I believe we should take away. Now let me come to some of the points that Richard has raised, saying that India should not have followed the same pattern as some of the countries with much older population, but the comorbidities that actually predict adverse outcomes like hypertension, diabetes, chronic respiratory disease, all of them are actually seen at a much younger age in Indian population. At least 10 to 15 — in the western population, we have high prevalence of those at least in the urban areas, we also have malnutrition at the younger age groups, even in the reproductive health age groups of women and even in the teenagers. So you have a challenge there, you cannot predict exactly how the virus is going to affect us.

Lastly, Richard also mentioned that we have a very poor health system, yes, we do have a weak health system relative to many of the OECD countries and that's why we must be extra cautious in preventing a huge surge of cases that can overwhelm us. On one hand, Richard cannot say and should not say that we are not going to have too many cases, on the other hand say you are going to have a daily surge. Of course we must be prepared for reducing the surges we can, and lastly, also the testing business, if we feel that we are at a low risk population, then you should not hold us to account for the testing numbers even then for every 20 case detected, 24 tests have been performed. And I don't think we ought to be looking at testing as the sole mantra that we should be depending upon, if you look for example Kerala, which most of you are familiar with Kerala has achieved excellent success in control despite a low testing rate compared to international averages.

But if you want to go global, look at Bolivia and Belgium, same population, very different testing rates and death rate in Bolivia is extraordinarily low and you have on the other hand Belgium a 100-fold higher rate of deaths. Now, therefore, Richard's position in point that conditions in each country differ are very important and you should not apply to same testing logic in India as to other countries, we have to have differentiated approaches in our own context.

Now, as far as, whether we are actually seeing the spillover of cases even from the past exposure into the three weeks or four weeks of the initial lockdown, of course there are bound to be, given the incubation period of the virus which can extend unto 14 days, we are going to see at least in the initial period of the lockdown that some of the cases are going to spillover, even when you shut the tap in the garden hose, there is some water left in the garden hose but also remember, the lockdown is never 100% successful, there are slippages so there will be cases mounting, we are going to see more rising cases, we are still in the ascending limb but the idea is to reduce the flow and quickly bend is as we can and we'll see what success we have achieved when the lockdown is finally over but at the moment the indicators are suggestive, and Shamika is going to talk about more doubling times, I'm not going to get into that, but all of these actually suggest that we have achieved some public health success as well, apart from all the other benefits that I've stated.

Now, coming to the question of strategies, certainly we must have differentiated strategies. India is a very large country and we cannot afford to have a single strategy for the entire country. Yes, at the central level, with consultation and consent from the states, policy must be made in a variety of areas. At the state level, planning must be made for the entire state but implementation with flexibility depending upon context specific realities must be made at the district level, and that is where we are actually going in now, we are profiling each district, we are looking at the realities of whether the district is hot, warm, or cold, and decentralized decision-making will guide our path forward. And finally, I would also actually like to tell Richard that yes, a lot of our elderly people stay at home, they don't live in old age homes. That is exactly the lockdown was needed to give enough time for reducing the virus levels so that we can deal with it later now because if we had actually not imposed it, the young people would have straight away carried it to the homes where joint families are living and the elderly would have been vulnerable.

I think there have been many challenges and everything is not defensible but I'm not going to play Monday morning quarterback when the play is still in progress, it is for us to look at the future with a certain degree of hope, plan better, critique when necessary, but I think the final analysis will come up after we have seen the experience when the epidemic starts ebbing and that is the time for post-mortems, not now.

Patel: Thank you very much, Srinath. Let me turn to I think what you have. You and Richard have presented somewhat different perspectives, but I actually think you are speaking from the same hymn book. The question really, I think for us, is not whether or not a lockdown works. The question really is how should it be implemented, in what kind of manner should it be monitored and most importantly, and I'm hoping each of you are going to comment on as we end, when we end the webinar is I'd like you to prepare this as a question up that I think we are flagging up on the chat box is that, looking forward what do you think should be the role of strategy with view towards the freedom of movement of the people and the a return to the socio-economic life. This is going to be the closing question. So, but for now let me turn to Shamika.

Shamika, I think one of the most important debates surrounding the lockdown we've heard from Srinath very much about the public health positive impacts of the lockdown and I don't think anyone can really question that for sure, the lockdown must have reduced transmission by the very nature of the fact that if you are locked into the house, the virus cannot spread to anyone else, and the question is really about the balance between the lives that have been clearly saved as a consequence of lockdown and this other counter view that is there in the debate which is about the loss of livelihood. Is the loss of livelihood also in one way or another affecting mortality.

I'd like you to comment on this factor, do you think in fact that this is a meaningful choice or is it something that one has to take both of these into account in this context. For example: someone reminded me that about 2,000 children, according to the global burden of disease data under the age of 5 die in India of malnutrition every single day, 2,000 in a day. Just to put this in context about 500 people have died of COVID-19 in India since January the 30th. So, if one assumes that poverty is related to hunger, which I guess is a rhetorical assumption, then one would assume that malnutrition related deaths are going to go up. So, what is your view about striking the right balance between saving lives and saving livelihoods in a region where more than 75 percent of the workforce is in the informal sector with no social security network or a little social security network. Shami.

Shamika Ravi: Thank you, Vikram. Thank you for the opportunity. Let's start out by basically acknowledging one very big gap in our own understanding, even as experts. You know, a lot of the predictions which were made by the epimodels, and many many epimodels, were really taking into account the parameters from either early stage China or the Diamond Princess cruise ship, and because of that ,you know, of course we saw very alarmist numbers. We were saying 400 million, someone said 700 million, and those of the kind of early predictions we were working with in the beginning, and yet we know that whether it is the contact tracing whether it is the R lot these parameters are not a matter of faith of belief, they have to be estimated for different populations. They can't just be airlifted from one country and applied to another, and in fact I'd argue in the Indian case, we need these parameters to be estimated at the state level to really make sense out of the lot of the predictions that have been made.

The other issue is also that you know, based on our understanding, we are also assuming that human beings remain the same throughout, right? And yet we know that the elasticity of the demand for self-protection really rises as the epidemic grows, so even if the lockdown is lifted tomorrow, it is likely we will go about hugging people and shaking hands or moving back into life as we knew it before, and that will not just include ordinary citizens, it will include institutions, firms, and I think also at the policy level, there is a lot of dynamism in the way we respond to this situation. So let me just start out by presenting some early numbers, just to give you beyond the epimodels, let's just put out simple statistics for what we know is true for India.

Now, this is the log scale graph that I think most people are familiar with now because it was made popular by the Financial Times and here if you look at the hotspot countries and I define them as

countries with more than 50,000 cases, look where India is. This is the left panel, our total numbers as of last night, and we update this early morning is 13,430 cases, right? I mean it's really very, very small compared to what you say in the big hotspot countries. Look at the total number of deaths in countries like Belgium and Netherlands which actually have fewer case but have a large number of deaths. India's death rate again is extremely low.

Now this is what we have been sort of grappling around, this is the reference what Srinath made earlier. This is the Indian total confirmed cases growing, what you have to study is the change in the curvature which tells you the change in the growth rate of the total number of cases, and you know this is not random. It's quite systematic if you look at the fact that until the 23rd of May, we had a growth rate where we were doubling every three days, of course there is a base effect so we are growing fast in the beginning, but 23rd onwards what you see is a decline and you obviously take this back to the policies enacted what happened in India two weeks before that.

To acknowledge that while first cases of COVID was announced or reported by most countries the OECD India in the last week of January, what you saw is in the Indian case they airlifted a lot of students from Wuhan, from Iran, from Milan. Many people were quarantined very early on, and kept separate from the rest of the population, so very early on the government started to do and take steps which on the hindsight prove to be quite smart, now what you observe from the 29th of March is an escalation where the total number of cases started to grow every four days, so after initial rise there was a decline in the growth rate because of the early steps taken but 29th is where there this super spreader massive congregation from the Jammatt was discovered and then very quickly we realized that it has spread to 17 states of the country, and then it started to escalate, the total number, right?

So that's one infection point and then where you see is the latest inflection Vikram is on the 6th of April, from the 6th of April what you see is the steady decline in the growth rate, of course overall numbers are increasing because we are still in the growth phase but look at the rate at which it is increasing. In fact, as of today, our numbers are doubling every eight days, right? So there has been a steady decline and it's important to take it back to happen two weeks before the 6th of April and obviously the national lockdown happened. Now, we're all looking at day to day fluctuations, you know, it is important to look at moving averages.

So, we look at 5-day moving averages, you see that while there is an increase, you know, the increase is very muted. In India, I mean the 5-day averages for the new confirmed cases is about 1,100, if you look at daily death, it's about 40 daily deaths. So again, in the context of the international conversation, India is really looking pretty okay, if you look at the COVID death rate, very very low. Even in Japan for instance, after all the early great successes, you see the death rate is actually beginning to rise very rapidly and so you see that they are going back to declaring national emergency etc. There was a reference made to Belgium, Belgium lies absolutely at the bottom of this graph, where you see not only is that the death rate very high, but it is still growing. So, every country is really with this situation, which is very very contextual and specific to that country.

Now, here what you see is you know China, of course, it is incredible, they've almost fitted the central limits here, I mean it's like a wonderfully fitted normal distribution, but if you look the democracies, look at Germany, south Korea, France, Italy, Spain, it's a slow decline, and there are fluctuations on a day to day basis. In fact, you have days, when death rise and recoveries decline but on the whole, while it is slow, there is a steady improvement. Now, this is the graph that I really want people to look carefully. This is India for you. It is a very large country, I think it is the fourth time we have said that in this webinar, and that's because there are 28 states, very large states. These are the different states of the country and I have included graphs from states which have reported at least 150 cases. Look at Maharashtra, still steadily increasing in fact the national numbers are largely driven from Maharashtra and even within Maharashtra it's really Bombay and the surrounding areas.

Delhi has had a couple of massive increases, but it looks like it's on a better path. Tamil Nadu again high and flat, but look at Kerala, if you go down in the bottom second row, Kerala looks like it's over the hill, it really has brought it down to under 5 in the case of new confirmed cases, Haryana looks like across the hill, increasingly, if you look at Telangana and Andhra Pradesh, they seem to have things under control and yet Maharashtra, Madhya Pradesh, UP, these are states where the increase is

pretty high. Remember, while we have a national lockdown, but health is a state-subject in India. It's the state administration, the local administration which determine exactly what are going to be the policies enacted to counter this infection. This is telling you what is the death rate per million across the states of the country, again, enormous variations. Kerala has .06 deaths per million, very low and it has maintained it at very low position. Uttar Pradesh is low but it's increasing, of course Uttar Pradesh has 235 million people, Kerala has about 35 million people so again, enormous variations. Delhi and Maharashtra are at the bottom of this, and you can see that not only are the death rates high but also increasing.

Now this is coming back to— because overall what we are seeing is the overall increase in the number of total tests, the confirmed cases per 100 tests, they are rising but you know they are not rising the way you are seeing the, you know the growth rate of total tests are far higher, which means that with the conservative testing strategy that the government is following, you know, maintaining this level at around 4.2 percent means that they're targeting is perhaps good, and we have while we still say, we continue saying that we need more testing, but clearly something in this strategy of targeted testing is working, right? Now this is to tell you, going back to the early question you put to all of us, we are working with such limited data that it's quite, you know, almost you feel a bit blindfolded when you're really trying to analyze such a complex, massive crisis, this dynamic phenomenon with a limited amount of data.

But again, if you look at the Johns Hopkins data, you look at the ECD, you know, look at the WHO data, significant discrepancies, right? ICMR, of course, has pretty poor reporting protocols, so they are not very regular, they tend to report at different times, they're usually PDFs, sometimes they forget certain variables, sometimes they add a variable, so the regularity or the lack of it really makes it difficult to analyze based on that. But the other thing is, there are nodes, the contact tracing parameters based on which we are having this conversation needs to be estimated for the local population, which means you need patient-level data, you need massive surveys happening right now so that we can actually try and understand at the dynamics, the way the epidemic is unfolding in India beyond the national and the state averages.

So this is where I want to end my presentation, with a sense that you know 2,000 dollars per day per year capita income, India is a resource-poor economy, we shouldn't forget that when we compare our stimulus or the testing numbers of just the response within the OECD countries, and yet we have a national lockdown. The opportunity costs to life and livelihood is enormous because beyond COVID death, there is something called all-cause mortality, where OPDs are shut down for many days, we do know that patients suffer from the health-seeking aspect as well, access to healthcare. But of course, in terms of the economy if you look at it, with the 21-day lockdown, the first phase, our estimate you know our prediction for GDP growth for this year has come down to 1 to 2 percent.

Close to 10 million workers, mainly in the informal sector have very serious risk to livelihood. If you look at the non-performing loans in the country, and you do know the banking sector has been undergoing tremendous stress over the last almost decade. The NPA is going to rise 4-5%, now obviously all of this is weakening the economy further. If the lockdown continues because now we are in Phase 2, now suppose this continues until mid of May, then we are talking about a negative growth rate of -2 to -3%, now you can imagine for a \$2,000 per capita income what this means for ordinary citizens, livelihood rise, 40 million people, mainly informal, and this is almost an underestimate frankly. NPAs rise above 10%, means the banking sector weakens further, firms are not able to pay back loans, it's just a vicious cycle which becomes worse and worse.

So, we are arguing that given that the state of the infection is nowhere as severe as it is in the OECD countries, given the preparedness of the country in terms of ramping up health infrastructure, at least fever clinics, and having beds, having protective equipment etc mobilized. We're saying that we now need to lift the lockdown, of course in a calibrated way, which means if it is geographically done, and by the way right now we have about 325 districts in the country, which are COVID-free. Of course, the only way to tell that is that we start to also test for community spread in those places, but you know, based on the symptoms we're saying that a very large part of the country is not affected. A 170 districts are hotspots, so the focus needs to continue in those places. But we need to ramp up testing further, we need to continue to measure community spread simply because this lockdown is very

expensive and to make an informed decision on how to lift this lockdown. If it has to be calibrated then it has to be based on knowledge of the spread of — — because once we open we have to have onsite testing.

Punjab, for instance, has declared that we are going to open our manufacturing firms, for all firms which have the capability to do onsite testing and screening of the employees. You're going to see new protection protocols, which means firms are going to require for people only to come back if they do not show symptoms, which means they have to be necessarily tested. So, I think, it's important to realize we know what we know Vikram, we have certain amount of data, we have to make the best use in terms of informing policy on a day to day basis, but it looks like India is nowhere close to the OECD countries as far as the severity of the outbreak is concerned. So we need to minimize our cost on the economy front. Thank you.

Patel: Thank you Shamika, thank you so much, and I want to turn to our last panelist who represents one of the other very populous countries of the South Asian region. Sabina, I actually want to really hear from you about your impression about the impact of these policies that have focused on individual behavior, on the social structure, and particularly the inequities that are very prevalent in South Asia. Is there a differential impact of these policies, and I also want to draw on some of the questions that have been submitted.

We have a bunch of questions coming in, and I thought I'll also perhaps use this opportunity to wrap some of those in, for example, the differential impact on women and girls, which I think is a particular area of your expertise as well. The differential impact on migrant workers, I don't know if you've had the same situation in Bangladesh as we've seen roll out in India. So drawing on your understanding of the social stratification of the South Asia, how do these focuses on individual behavior impact differentially across the different strata of our society, and what is happening in Bangladesh, if you could update us all on the current state of policies and do you see the level of constriction of the economy being the price that people will have to pay in order to control the spread of the epidemic.

Sabina Faiz Rashid: It's night here, so I think it's good morning in the States and everywhere else has different timings. I'm a medical anthropologist so it's been fascinating listening to the different perspectives. I'm going to speak a little bit from the community perspective as I've been taking some rapid surveys around urban-rural Bangladesh, and also case studies in the slum settlements and amongst the marginalized groups.

One thing that, there's a couple of areas I want to cover is that the structure of how we understand disease and models of disease, the second point I want to cover is how do people who live in the bottom of the social-economic hierarchy experience these policies, and then finally, what are the implications as we move forward. So, one thing is that in Bangladesh, it's the first time in history, there's been such a big shutdown, so you can imagine the magnitude of how people are viewing coronavirus, COVID-19, and this is across all socio-economic classes and I'm going to come back to this point of stigma and fear that's much more widespread. The fear of infection, the fear of dying. With the poor, it's amplified, it's magnified, they have no social safety nets, all they have is their hands, their feet, they can work, they earn daily.

As Richard was saying, and Shamika earlier, a majority of our population work and rely on daily labor. If you have a shutdown which has restricted movement, restricted transport, shutting down educational institutions, I as someone from a better economic background, will still sit and work at home. But many of the poor, their entire lives have come to a halt, and the reality of this is that when we have an approach, I agree, shutdown is not an easy decision, I don't have any easy answers but I would say, these are moral, ethical dilemmas we are talking about here. Hunger versus health risks, hunger versus dying. What would the poor people say if you talk to them?

We did a survey of 1306 I mean this in longitude and we are going to continue this rapid assessment, they actually talk about yes I'm scared, I'm nervous, and the reality is that less than 38% of the 1306 had any clear ideas of the symptoms of the coronavirus, so many of them are conflating it with a cough, cold, or fever. So one of the problems with that is that there is a lot of surveillance now between each other and internalized fears of coming out with the symptom and being socially

ostracised. So there's a lot of fear around what is corona, what does it mean against the whole backdrop of a shutdown that reinforces the message that this is a huge, huge deadly pandemic. The reality is we don't know enough, we have low levels of testing, we've got reports of deaths that some would argue are probably underestimated, people don't know about the co-morbidities.

What I really wanted to say is that public health, although it's changing, one of the most predominant approaches is looking at individual determinants of health and going back to the whole point about context, we can't take away the contextual realities, the structural and social inequalities of most of these individuals' lives, the rickshaw puller, the garment worker, the daily laborer, they live in conditions that don't allow them to maintain the basic precautionary guidelines, mask, social distancing. You've got 11 members of a family in one crowded room, in a very crowded slum. We are one of the most densely populated countries in the world. We can get into debates well if we didn't have lockdown it'd be greater spread of transmission. But the reality is, they have very precarious lives and there are various kinds of social disruptions, we see violence, we see arguments, we see social unrest, particularly with relief distribution.

The government has rolled out a national stimulus package with food, it's been slow to start, there are criticisms around mismanagement, there's also criticisms around food being given to all members of the particularly, particularly the poor, and there's a lot of criticism that certain groups are being favored. You know in our case studies we found that many of them talk about —where even though you have these lives, and these spaces, there's now these frictions and fractures because everyone's competing for resources and now it's for food. People can't work, people are using savings, people are borrowing loans on higher credit, people are talking about the uncertainty of the lockdown because when we first started the lockdown it was March 26, it was extended the lockdown for two more weeks under 'it's a holiday' and now it continues to be extended.

One major issue that keeps coming up is fear and stigma and this is not just amongst the poor, we have entire streets and buildings shut under a lockdown in many parts of Dhaka city one person is found to be infected. So if you can imagine at the most poorest communities and settlements and poor rural areas, this is sort of magnified and amplified, so people talk about I try and hide my cough or we have stories of people who have fled slum settlements to go back to their village, people who've fled villages their stories and incidences of relatives being dumped. If they have suspected infection, and I think one of the real challenges, it's a couple, it's a very complex situation, how long can a shutdown can be sustained in low-income countries while you know, there are certain steps that need to be taken to control transmission but how long can a lockdown be sustained when we have a differential set of pool of resources when most of the poor don't have safety nets and other sectors are getting increasingly affected.

You know, business sectors and what is the longer term impact, we are seeing it unfold, and one of the questions I ask myself when I read through all the transcripts and the survey material is what would the communities say? Have we ever ask them as decision-makers and policymakers, would they say that let me work? I'd rather choose to die but have food in my stomach than die of an illness because everyday life is precarious, they deal with multiple challenges, dengue is coming. You've got other kinds of health problems, you've got children dying, infant mortality, neonatal death, you've got diarrhea, you've got all kinds of co-existing challenges.

So, I think for me one of the questions is when I do my research and I look at what the narratives are and when I look at the surveys, some of the key takeaways is there is stigma and fear and we need to take this away through health messaging because the shutdown kind of reinforces that we don't have a lot of choices maybe, maybe we have to take these steps because to contain transmission, at the same time, if food is not given and distributed towards to farmers and the poorest, there will be starvation. If this continues for another couple of weeks and months and this is not handled in a way that acknowledges that for the poor health is much more broader, health is not siloed in the way we have siloed it into biomedical disease and individuals, it's very much integrated, health socioeconomic is very much a broader perspective of everyday life and living. I'd like to leave you with that as my initial thoughts. Thank you.

Patel: Sabina, thank you so very much for that. We've had a huge flood of questions coming in and

there's no way at all that we're going to cover them but I wanted to actually make sure that every panelist has a chance to answer I think the question that Sabina posed so beautifully and that really is how long can we go on with a lockdown, in particular not only balancing the potential adverse effects of the lockdown on health due to impairments of livelihoods but also due to other pathways.

One of our participants has asked, for example, the impact the lockdown has for accessing routine healthcare for conditions like diabetes, cancer, and so on, which obviously when public transportation is no longer available, therefore how do you get to a clinic for a regular visit, so on and so forth. The question to all the panelists and then we'll see how many more questions I can address is in how long do you think a lockdown should continue and what should the government be doing in order to actually prevent what is inevitable that is the kind of the spread of the epidemic that'll happen when the lockdown lifts.

So, just for all our participants to be on the same page, the lockdown doesn't actually demolish the virus, it isn't going to vanish, it basically delays the epidemic, it slows it down so that instead of what I'm sure everyone's heard of 'flatten the curve' so to speak so the question for each of the panelists, and Richard of course, you've also heard some specific points that Srinath had and you're free to address them but can I request each of you to just take two minutes so that we can also gather some other questions and then respond to them. Richard, first to you.

Cash: One of the first ethics that we learn in medicine is "above all, do no harm," and I'm concerned that present policies, in fact, will cause far more deaths than this epidemic will cause, and I think Sabina asks a critical question, what will the community say? And for the 70 or 80 or 90 percent, whatever it is that is in the informal sector, that is earning daily wages, my guess is that they would say 'let us go back to our life, we will try to maintain some degrees of distancing, we will wear mask when we can, we'll wash our hands whenever we can if there is water available and so on but let us get on with our life.

And I would then, for the question you posed 'how long should this go', I would say it should be lifted as soon as possible in a staged manner but it should not go for another two or three or four weeks, I think that will only lead to increased overall mortality, not just mortality from COVID but overall, so above all we should do no harm, we should reduce our this narrative that we need to protect the tertiary facilities and deal with community-based intervention, community-based care and not punish people for things they now have a narrative that says we've got to be terribly afraid, this is the plague, we're going to do all sorts of terrible things to each other. So Sabina's comments were absolutely were spot on. Thank you.

Patel: Thank you, Richard. Srinath, one of the things that Richard spoke about was also focus on hospitals and you know there have been commentaries about that too wherein a region when most deaths actually occur at home, how misplaced is this anxiety about hospitals and should we be focusing on community-based care and actually manage respiratory tract infections at home but also please answer my broader question about how long the lockdown?

Reddy: Vikram, firstly, I do not think the lockdown should proceed beyond what has already been extended. Secondly, even during this period, a considerable amount of differentiated implementation has been proposed. Those which do not have currently a very high caseload are able to relax many restrictions that are there even during this extended period. Agricultural operations have started and number of informal occupations have been permitted, it is only in highly densely affected areas with high caseloads that there are greater restrictions, so I believe that differentiated slowing down of the implementational lockdown should be there but beyond May 3 I don't think we should be proceeding with a lockdown unless there are extraordinarily hotspots which need to be restricted.

Secondly, regarding the question of whether we should have focused much more on primary care, yes, that has been done, for example in Kerala and Andhra Pradesh and Odisha, that has been done. Now, the question was if there is a surge and if there is as such we've already said in this panel, inevitably there will be a surge, then are we better prepared in terms of protecting lives of the people who are most sick? I think time has been bought for preparing a little better in terms of hospital capacity, personal protection equipment, getting more ventilators despite a huge international

competition and may I say hijacking of supplies bought for by Indian states by some international lead OECD countries despite all that I think a lot more time has been made available for preparing but ultimately this battle will have to be fought to the primary healthcare level and that is where I think that Kerala, Andhra Pradesh, Odisha, these are the some of the states that are setting the models, and these need to emulated elsewhere as well.

I fully agree that preparing the ground even in primary healthcare was important, it could not have come overnight, so I think lockdown has given an opportunity for strengthening the healthcare response at all levels, but certainly not beyond May 3 should the lockdown continue.

Patel: Thank you, Srinath. Let me now ask Shamika the same question as before but Shamika there's also been a number of questions which again I think we'll share with after the seminar is over, the Mittal Institute will send the webinar questions and people can choose to maybe answer them on our website but in addition to the general question, I wanted to also hear from you about any specific prescriptions you might have in order to mitigate the livelihood calamity that so many millions of Indian workers are facing during and the week ahead.

Let's not fool ourselves, lifting of the lockdown does not mean everyone's job is going to miraculously come back on May 4, this is for some people a permanent end of employment for the foreseeable future, so what do you see in the context of India's economy, a kind of essential basket of services that the government should provide, in addition to my first question on how long?

Ravi: You know, I think Vikram the lockdown must be lifted as soon as possible, other than the hotspots I think the states have the capacity to manage and that's why I think you know this list of essential services is growing and it's growing every day and that's because I think there is a realization there is that there is a certain amount of resilience in the system. People are far more aware, that's why I keep talking about this concept for demand elasticity for self-protection. People are not sitting ducks either, firms are also innovating.

I think one thing we have and should mention that we've forgotten to mention is that of course this has turned into a humanitarian crisis but the state has responded in terms of the first set of announcements that the government at the center made, I think the second day of the lockdown of about 1.7 lakh crore was almost entirely focused on the bottom to quarantines of the bottom tier population, so there was a very specific package announced in terms of construction workers because those are the usually the migrant informal workers in the cities and those are the ones when you saw the reverse exodus happen. So there's a large concentrated sort of a cash transfer and food transfer program for construction workers, that's one.

The PDS was enhanced, which is the Public Distribution System, that was enhanced. The self-help group women were basically were told they will get a certain amount of front-loaded credit, the PM Kisan which is a form of directed cash transfer, covering very large number of farmers across the country, that was frontloaded, so there have been announcements in terms of, and these are only the central government I'm talking about.

Many state governments have also announced their different complimentary packages, so one thing is to understand there has been some response, now actually quite decent response, when I say some I still — reverse information flow, what we need to now figure out how is the PDS working right? How many people have got it, so now that level of information requires the third tier of the government, it's not just the center announcing and the states agreeing to do that but now we're talking about local administration, block development officers etc. at that level we need to start collating information to see how well is the security, the safety net which the government has announced, how well is it percolating to that level.

But I think and of course, there is the rabi crop, the wheat crop is now standing to be harvested and there's great political sensitivity around it so that has been allowed. Therefore agriculture I think should be relatively unaffected, now I think the overall we should also see a window of opportunity in this and I think Srinath will be very happy to hear what I have to say on this, I think the health sector has the capability to do for India what the IT sector has done for the last 30 years, so you know

perhaps this is the time when we need to say, you know our next growth strategy, India's growth strategy has to be healthcare investment center.

We really can go this big economy on the back of investments in healthcare, both public and private because I think everyone in the country is now acutely aware of the shortages. Private sector as well as public sector, so I think from an economy perspective, I really think we have to drum down this fact to all the policymakers and think of exactly now what are those investment strategies. Can we pay our doctors almost twice as much so they come back to India? Can we increase the primary health centers, right? Can we improve our health IT system? Why am I still working on Johns Hopkins data Vikram? I should be getting data from every state on a real-time basis, right? That's where investment is needed. Thank you.

Patel: Thank you, Shamika. Now I'm gonna ask Sabina and then I'm going to ask you some general questions that have come. There are so many that I'm going to curate them, I'm going to request you to put up your hands if you want to answer that. But first, Sabina, I also want to say Sabina, I thought your remarks about how these policies differentially affect the poor was quite timely because I just read in the newspapers today some other commentary written by someone that wasn't it interesting that India when we had to get all our people back from abroad, we put on chartered flights but for the migrant workers in India who needed to go from Delhi back to Uttar Pradesh, we stopped their trains. I kind of, it struck me that this was a complete paradox. I also want to turn back in the general questions about the issue of fear and stigma but first, what is your prescription to the issue of the next few weeks in terms of policies and I'd like you to speak about Bangladesh.

Faiz Rashid: So as I said earlier, if there is a level of management and governance to providing food to all the poorest and most affected farmers, migrants, the poor, and you have a health system which is robust, then a lockdown which goes down for longer than fine, we have reasons to understand you're trying to protect communities and everyone, and you have also a health sector that is being able to reach out these needs. The reality is that that's not what's happening, right? The government has been very proactive in rolling out the stimulus package, they're working with community health workers, they're giving health messages.

I think longer-term, if this continues for a couple more weeks, there's going to be some very real effects economically, and also I was reading somewhere Iran it's backed by sanctions, it's trying to look at partially lifting stage by stage, their lockdown because they cannot afford to be in a continued shutdown mode and it's unknown chartered territory because the overwhelming message and model is lockdown, lockdown, lockdown.

I think we won't have a choice at some point, I think what we need is, at least in the context of Bangladesh, is the private sector, the civil societies, different actors who are quite active but to come together and mobilize with the government, some strategy and planning because there is going to be longer-term consequences even just for the impact for this shutdown, it's almost going to be, a month next week, and I think there needs to be some thinking around how do we do this. I mean I don't know, I'm just an outsider coming in from the perspective of what the communities and what I see and what I hear.

Patel: Thank you, Sabina, and now I'm going to ask questions that I said to all the panelists if any of you would like to take that question, just show me your hand and you'd be welcome to take it on. The first question that I'm getting and a lot of people have commented and Sabina also mentioned is the issue of fear and stigma and not just the, the first point is of course is the fearful reaction when death is part of your everyday life and then suddenly the whole country locks down because of this infection, and how do people incorporate that sense of oh my goodness is this going to be much worse thing that has always been happening for generations and could the messaging have been done in a much more sensitive way, particularly for the large groups in our country for whom understanding this issue of risk has to be conveyed in a very specifically clear way.

Similarly, there's another question related to that about the language that has been used in the media, for example, some words that our participants have mentioned our super spreaders, patient zero and of course the most worrying of all, the human bomb reflecting of course also the kind of tensions that

are happening in our region between different communities, in this particular case in India, with the Jammatt congregation. I want to hear from anyone of you about what is the single most important lesson you take away about future pandemics, how do we communicate information to our population in a manner that does not inspire fear, worsen stigma, discrimination and indeed even fuel hate.

I think we've lost Sabina for now, but Richard.

Cash: I think this one of those terrible collateral damages that occur. The vast vast vast majority of people will never experience any of the illness at all, that's what the epidemiology tells us and yet this level of fear that has percolated and victim-blaming, which of course is the very first thing that happens with any epidemic, whether it's HIV or anything else, the first thing we do is we blame the victim, it's your fault this happened. That's been one of the terrible things that's come about because of this.

Particularly, in South Asia, so I would say that yet again, we are not supposed to harm, we're supposed to make the situation better, we're supposed to boost mortality and my great concern is in fact if these programs continue much longer, the mortality will in fact increase. It's one thing to and it's wonderful that all these policies have come about but the time from the policy until the food actually gets to somebody in the home will be weeks or months, if you're hungry you want to eat today, maybe tomorrow if you're lucky but these policies will do nothing to assuage the immediate concerns the people are facing.

Let me say one thing, I think your example of people being flown home and the migrants not receiving anything speaks to the class differences the way this disease in fact has played itself out and the way most diseases play themselves out, that is the middle class and those who can benefit and those who are the vast majority are not and that's the brat tragedy with stigmatization or any of these activities. Thank you.

Patel: Shamika.

Ravi: See Vikram, if you this class issue which I, perhaps it is a class issue in South Asia anywhere class is a very real aspect of day to day life but in many ways it is part of the whole world. But let me make another point, given that all the cases that we have in India are truly imported cases Vikram. If we had not chartered and brought these people and kept them in quarantine camps, can you imagine what would have happened? Perhaps, we would be in a similar situation as Italy or the US really, where the travel bans happened at a much-advanced stage.

So, I do understand the fact that of course the migrants, laborers should have been provided because you also have infections spreading from the urban areas into rural. Now very few cases have come up that could again be an outcome of the testing itself because the testing so far we're looking for the needle where the light is, so we don't know what's happening in the rural areas but I think in the hindsight — getting people from different places, airlifting, I think was one of the reasons why we were able to contain the overall numbers. The second aspect of this is, what we have also seen in India, that health workers are being attacked and they're being driven away.

Now, this is not new by any stretch of imagination. In fact, if you are familiar with Kerala and I'm from Kerala so I can tell you that Malapural for the longest time Malapuram administration has struggled with vaccination. Nurses and doctors have been attacked and sent away because there is fear against a vaccine. If you don't get your child vaccinated the cost for you and the family and the child in these kinds of infectious diseases, the negative externalities is so severe that there is a community, I think that balances very important, that's where the communication aspect comes in.

It's very important point that you're making and I think beyond national leadership I think this is also a time where we need community leadership, great balance and trust in the sense that if you do see symptoms, people should be brought out for testing and particularly right now the Home Ministry is observing more than 30,000 people who are part of the congregation that happen in Nizamuddin, so these are the real network effects that this country is dealing with and we should keep that in mind that the costs are enormous.

Patel: Srinath, you had your hand up as well. I also wanted to whether you could take one extra comment from Samika and Sabina and then we'd have to wrap up about the role of the community. My observation over the last many weeks is that I haven't heard many civil society voices working in strong partnership with the government, but I could have missed it. I would like to hear you thought about have we done enough to engage civil society in a collective effort apart from just staying at home but actually engage them as active partners in controlling the pandemic. Srinath.

Reddy: Okay, very brief comments on the three issues. Firstly, the role of the media, I think the media was substantially influenced by information flowing from abroad, seeing the experience of OECD countries getting swamped and of course a large number of people appearing on different TV channels, saying that there will be millions of deaths in India but even then there should have been greater maturity in the media. I think there's also a failure of risk communication adequately by not only the government but the various public health expertise that precedes the country. I think we should have anticipated this, we should have actually reached out to the media, even if certain sections of the media are immature, it is absolutely necessary that we use all channels necessary to communicate to the people directly in a much more mature fashion, as far as the media is concerned.

Secondly, migrants, I believe it was absolutely essential that we should have escorted them back to their places because these are not the people who were likely to have been exposed to the first wave of virus carriers. Neither the returning travellers from abroad, nor their immediate contacts with the families or the drivers who drove them from the international airport would have mingled with the people who work at construction sites or other low-income occupations. Their dwellings were different, they would not have carried the virus back into the villages, and we unnecessarily locked them up and that is one area I feel we could have acted very differently if we had a mature aspect to the situation then.

Third, in terms of the community participation, I entirely agree that the community participating is absolutely critical and we have seen that work to great advantage in Kerala, where the local panchayats as well as their volunteers have been taking part in contact tracing as well as providing a lot of services, and I think that's been one remarkable partnership but it's also happening in Andhra Pradesh, volunteers were earlier appointed even before this COVID outbreak that are called the village and ward volunteers officially appointed after applying. They are working with the primary healthcare teams in order to do not only contact tracing but also trying to do syndromic surveillance but also providing certain degree of connectivity to the overall health system and for getting people checked up. I think all of these are important examples of community participating which have to be emulated across the whole country. I would say, what we really require ICT is the intelligence, communication and technology together. That is my idea of ICT.

Patel: Thank you, Srinath. The final word to Sabina and then I'll round up.

Faiz Rashid: I just wanted to say that the government is working with BRAC, which is one of the largest NGOs to get community health workers to do appropriate health messaging and also for contact tracing and give better information around, symptom identification. About two weeks ago, there was call for actions by different civil society groups and NGOs and other actors in the country. What I'd like to see more of is more mobilisation across with the business, the private sector but there has been all kinds of mobilisation on the ground as people anticipate how to manage this if the community transmission increases.

Patel: Thank you all very much. I'm afraid we've run out of time and I'm really going to disappoint many many people who have questions pending but I'm going to figure out with the Mittal Institute if some of those questions could be sent around and perhaps we can have an online blog, but I want to summarise what we have just heard from this amazing panel is that we don't have a choice, the lockdown must be lifted, the question of the extent to which it has impacted on the curve, there are mixed opinions on that but I think generally there is consensus that if you keep people lockdown you will ultimately see a reduction in transmission and it goes without saying that's the very nature of a lockdown.

The question now is where do we go from here and I heard consensus from all the four of our panelists that we need to have a clear strategy for a staggered lifting of the lockdown by focusing on real prime data from the many different clusters in our country, it could be at the level of districts, where we have a very clear strategy of counting the cases in order to inform the gradual lifting, as we lift I think I also heard a lot about the importance of communication. I'm sorry I can't remember Srinath's acronym I was trying down intelligent but I missed the C and the T, I'm sure this is one of your wonderful acronyms but I think we got the point that intelligent and sensitive communication is a very important piece and I think it needs to go beyond the daily briefings at the government level.

I think there needs to be a much better communication of risk so that anxiety and fear about the infection can be reduced, and very importantly, the issue of stigmatising people must be addressed head-on because I think too much of that is already happening. The third thing I heard was very much need of having an equity lens through which all the lockdown procedures, the lifting of the lockdown and future procedures are implemented with a particular focus on women and on the migrant and the informal economy, which is of course the majority of the country and that finally, as the lockdown is lifted, I think we can all anticipate cases reemerging and therefore we need to have hopefully used these precious few weeks in having put into place across the country a robust strategy of case finding, strengthening hospital services where needed, and also the contact tracing.

In fact, I think many people mentioned the Kerala model, I'd urge everyone who is interested to know how to manage an epidemic through local action. Please do look up an extensive amount of writing on how Kerala has done this, not only for this pandemic but also previously from NIPA many years ago. It's a textbook case on how one should impact reduce the spread of an epidemic. So, with that I'd like to thank our four panelists very much. I'd like to thank nearly 600 participants who were on the webinar and handover back to you Chelsea for your closing remarks.

Ferrell: Thank you. Thank you to our attendees, and a very big thank you to all of our panelists and moderators who are joining us today. Please visit our institute's website for more information and join us next week during the same time for our next panel, "The Science Behind COVID-19." That's all for today.

END TRANSCRIPTION