Dr. Deepti Gurdasani speaks on the Delta variant and against the policy of “living with the virus”

Part two

Benjamin Mateus
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This is part two of a two-part interview. Part one can be found here.

Deepti Gurdasani is one of the world’s leading experts on COVID-19. She is one of the lead authors of the BMJ *article condemning the UK government’s promotion of “herd immunity through mass infection,” calling its actions a “dangerous and unethical experiment.”*

With a background in clinical epidemiology and statistical genetics, Dr. Gurdasani received her medical degree in internal medicine at Christian Medical College, Vellore, India. Her doctoral work, completed in 2013, examined genetic factors associated with disease in genetically diverse populations. Specifically, she developed machine-learning algorithms for large-scale clinical data sets.

During the COVID-19 pandemic, Dr. Gurdasani has provided indispensable information and public commentary on the pandemic, becoming a harsh critic of government s and their criminal response to the public health crisis. She has used her Twitter account and the media to share information on the evolving situation. Her work on exposing the connection between school-aged children in community transmission and research on the incidence of Long COVID have been of great service to the public. She has also been involved with the COVID Action Group, a multidisciplinary global network of experts with the stated mission to eliminate COVID-19.

Recently, Dr. Gurdasani accepted our invitation to sit for an interview to discuss the state of the pandemic. This is the concluding part of a two-part report on this discussion.

Benjamin Mateus : What are your thoughts on the data on breakthrough infections from Israel and the Pfizer vaccine? There were some criticisms that the population investigated was older and not representative of the general population.

Deepti Gurdasani: I can’t fully comment on Israeli data because of course the paper hasn’t been published. I think the suggestions are that people who were vaccinated earlier on—so, for example, January or February—are more likely to become infected than those who were vaccinated later. But how that teases out the effect of waning immunity, which we have observed in laboratory studies, but not in real-life studies yet, how that separates from the fact that older groups were also obviously vaccinated early on, is not clear to me yet.

Certainly, if there is a correction for that, and we’re correcting for age and looking at people of the same age group who were vaccinated early and later, who are masked for other factors, and showing that those vaccinated earlier are at higher risk, that really worries me. It wouldn’t be necessarily surprising, because we’ve seen in laboratory studies, particularly with Delta, that we see waning of neutralizing antibodies, particularly in elderly people, over a period of six months or so. And there was a recent *Lancet* study that was published on this, and it does really raise worries, particularly in elderly people, who start at lower levels of neutralizing immunity. This might suggest that we may need booster doses sooner rather than later.

I’m also really concerned about recent data that has not been released yet, but I think there are recent suggestions from the CDC, who reversed their policy on providing more freedoms to people who are vaccinated. I think they had a policy about three months ago that masks would be removed or were not required for people who were doubly [fully] vaccinated.

And now they’ve reinstituted masks for adolescents in schools. They found that people who are vaccinated do have a reasonable risk of getting infected, and not only do they get infected, but some of them also even have high viral loads and can infect other people as well. And this is similar to experience from other parts of the world, like South Korea and Vietnam, where recently we’ve seen massive surges of infections after they imported the Delta variant. And at the point in time in which they imported the variant, both of those countries had policies that allowed people who were vaccinated to essentially enter the country without needing mandatory quarantine. They both had to reverse that policy. All this global experience to me suggests that vaccinated people are more susceptible to infection and passing on infection than has been previously thought, particularly with the Delta variant.

We have to look at the science carefully before we start making exceptions for people who are vaccinated, particularly with a variant that is highly transmissible and more able to escape vaccines, because it looks like, while the vaccines are able to provide good protection against severe disease, the protection against infection transmission may lower.

BM: The CDC may have called for reinstating masks, but how many states will readopt these measures is not clear. But for me, it seems like masks by themselves are insufficient to stop the transmission, and especially in the United States, where we’re now seeing high levels of transmission again. What else needs to be done, or what would you advocate for, besides a mask mandate?

DG: We always need multi-layered mitigations. I do think masking is important, but I think equally important is ventilation. And I think we need actual investment in ventilation in the form of air filtration devices and supplemental ventilation rather than just opening doors and windows. And we need to do that in schools and in other indoor environments, like businesses, shops and workplaces in general. These sorts of things are happening in some parts of the world. For example, in Belgium, businesses are required to display carbon dioxide monitors so that before you enter the shop you can see the level of risk. In Japan, if you want to

go to a cinema, you can stand outside and see what the level of carbon dioxide is for the movie you're going to watch and whether that risk is something that you want to take. And I think that incentivizes businesses to protect the public as well. That is very important because this is not going to go away anytime soon, and we need to invest in this for the long run.

There also needs to be very strong public messaging around the need for longer-term mitigation, as well as vaccination. I think, for example, the US uptake, particularly in younger people, has been lower than desired. That also means bringing in a discussion on Long COVID and chronic illnesses in young people, which I think has been dismissed by many governments and even scientists.

Unless young people know that they do face a very real risk by getting infected, why should they want to get vaccinated? They've been told constantly that they don't get severely ill. They think it's going to be something like the flu, so they decide they might just weather it. In this regard, too, the public messaging has been unclear and has not prioritized young people explaining why it's so important and advantageous for them to get vaccinated.

Besides public health messaging, good mitigation strategies, educating about the vaccines and addressing vaccine hesitancy, we also need effective surveillance systems in place, better variant monitoring and identification, which are critically important at this point.

BM: Do the vaccines appear to protect against Long COVID?

DG: The data on this is still quite early now. We don't have systematic data analyzed. Let's remember that Long COVID only happens when you get infected. To the extent that vaccines do protect against infection, and they definitely provide some protection against infection, they will protect against Long COVID.

But I think the question is, "Do you have protection over and above the risks posed by infection without vaccination?" I think that is less clear. There's recent data from Survivor Corps, which is an advocacy group for people with Long COVID, based on online surveys, that shows that there was a level of breakthrough Long COVID where 50 percent of those who got infected post-vaccination developed the condition. But this is obviously a biased survey because it's not done in the general population and the people who come forward may not be representative of the general population. But it does give an indication that people who are vaccinated can also get Long COVID. Whatever protection the vaccines provide is far from complete, but there will be some protection because it does protect against infection.

Unfortunately, I am quite frustrated that despite the large number of studies that we have on vaccine-based protection of severe disease and infection, there are very few people who appear to be studying Long COVID, which is a critical part of the protection that we need to understand vaccines can provide.

BM: You had recently written in your article published in *The Lancet*: "Mass infection is not an option. We must do more to protect our young." You also wrote, "The root cause of educational disruption is transmission, not isolation." As we are nearing the end of our discussion, could you speak to the issue of COVID-19, children and education?

DG: It has become very evident over the past year that children play a massive role in [the spread of] infection. I mean, there's been a lot of misinformation and disinformation around this and minimization of the role of children in infection. We've heard that children are less susceptible to infection, or they're less likely to transmit, or even they are not an important part of community transmission. This is absolutely not true!

I think, regardless of susceptibility and transmissibility, we need to remember that children come in contact with many more people than adults do, given they attend schools in person. There are recent studies, including ones from the CDC, that show that when you correct for the fact that most infections in children or many infections in children are asymptomatic, they're not detected because children may not come forward for testing because they don't feel unwell, when you correct for that in these studies, you find children are equally susceptible to adults and equally likely to transmit. But the fact that they have many more contacts makes them a critical route of transmission back into the community. These studies also demonstrated that parents of children are at high risk of infection and requiring hospitalization.

These studies have been conducted across the world and they all show the same thing. But these same studies have also shown that if you put mitigations in classrooms, multi-layered mitigations, you can actually reduce the risk, not just to the children, but to their parents. This is a problem we know exists in different parts of the world and it is solvable. I think the big question is [that] despite all this knowledge, which has been available for some time, many countries in the West have done so little to address this issue. Why? While they say they prioritize reducing educational disruption, they've actually done very little to reduce it. The way to reduce educational disruption, which has sadly impacted many children across the globe, is not to deny that they contribute to transmission, which is an evidence-based fact, but rather to address it by making schools safer with mitigations that work.

Sadly, it's the very scientists and politicians that have minimized the role of children in transmission who say that they want to prioritize education, but then expect children to go into schools without any mitigations, which almost always leads to high levels of transmission and school closures.

And this is even more [the case] with the variants. We saw with the Alpha and Delta variants that transmission began in school-aged children and spread back into the communities. More transmissible variants spread very rapidly through schools and back into the communities. Unless we address that with mitigation at schools and with vaccination of children, unfortunately, we are never going to get on top of this pandemic. And this is something that governments need to understand and scientists need to understand.

BM: Is there any data that the Delta variant is more dangerous to young children than previous strains? There is data emerging from Indonesia, Brazil and even in the US and UK that they're seeing higher rates of hospitalizations and deaths.

DG: Yeah. Overall, it looks like the Delta variant is most severe. We know from the UK and Scotland data that it is two times more likely [for patients] to be hospitalized with the Delta. There's recent data from Canada that suggests that it might be more deadly as well. But whether this is worse for certain age groups is unclear. But frontline experience seems to suggest that this may be the case. We are definitely hearing from pediatricians and critical care doctors from different parts of the world, including the US, suggesting that the adolescents that they're seeing ill in this particular wave are requiring more intensive care, [are] more likely to get ventilated than those that they've seen in previous waves. And I think we need to listen to those frontline experiences as more evidence accumulates. We heard similar from Singapore, similar from India when Delta was spreading there. And I think we need to be very cautious about exposing children to this. In the UK we've seen hospitalizations increase far more rapidly than we have in previous waves. Currently we have about 50 to 60 children being hospitalized per day, which is quite significant.

BM: What is your opinion about vaccine mandates? What are the political concerns in favor of or against mandates?

DG: Perhaps I have different views on vaccine mandates. I understand the need for vaccine mandates in health care settings and care home settings. I'm a medic myself and before I went to the hospital, I had to get my hepatitis B vaccine and that's a requirement. And I understand why because the decisions that we make influence the risks that our patients are subjected to many of whom are vulnerable. And if they were to get

infected, they could get very ill. So I think I understand mandates in that setting. Population-level mandates I'm less comfortable with and I'll explain the reasons for that.

I think vaccine hesitancy is a very heterogeneous thing, and it's not all anti-vax conspiracy theory. There are people who are hesitant about taking vaccines because of very legitimate reasons. They don't trust our government because our government has let them down. They don't trust health services because they've let them down. And here I'm talking about ethnic minorities specifically because these is a historical context here. These are groups that have previously been subject to unethical experiments by our scientific community who've been let down repeatedly by government, immigration and even discriminated [against] by health care. We know for example that I think minorities have worse experiences in health care, often their symptoms are not believed, and they have worse outcomes. And I think addressing that with the mandate is not appropriate and is rather unfair because it risks further marginalizing groups that already don't trust the systems for very good reasons.

I think the way that needs to be addressed is through active community engagements and acknowledging those failures and understanding why hesitancy exists and trying to address that directly rather than forcing groups that already distrust government to engage in something that they're not comfortable with without actually trying to understand why and address that directly.

BM: My last set of questions: So, what is to be done? How should we exit the pandemic and what needs to be done against future pandemics? Does the political will exist to make such preparations?

DG: The only way I see to exit this pandemic is not the "live with the virus" strategy, which is what many countries are following right now. I hope at some point in time they will learn that's not possible. The only way to exit this in any reasonable way that protects public health, society's education and economy is a globally coordinated elimination strategy where countries support each other, share vaccines, share resources, share information and support each other in getting there.

I'm very skeptical about whether we will see something like that. With the level of vaccine inequity we have right now and the way we are following the strategy, "living with the virus," I'm really worried about variant evolution. I'm really worried about new variants emerging. And I'm really worried that at some point in time elimination will become impossible because what we're seeing right now is the emergence of highly transmissible variants threatening former elimination zones who got things right, who protected public health, protected economy. Places like South Korea, Vietnam, Taiwan and Australia have all suffered huge surges because of Delta. And the more transmissible variants get, the harder it gets to eliminate them because elimination depends on keeping variants out and preventing small clusters of outbreaks getting into the community. But when highly transmissible variants enter the country, you can no longer keep up with them with just surveillance because they enter the community so quickly, even before you know they are there, and begin spreading rapidly.

Even the rapid response systems that many countries have are not sufficient in getting top of that. And that's what we're seeing in many elimination zones. This is not something we have the luxury to wait on. I think we need a formal, coordinated global strategy for elimination where vaccines are a part, but not the entire whole, because we actively need to get transmission down while we vaccinate. Unless we do that, vaccines are always going to be behind new variants and we're going to have massive surges with their devastating consequences. And I think we need long-term investment in things like ventilation while we do this, because it has beneficial impacts for this pandemic, but also for our future.

It's good to change the way that we are living, to protect people and workplaces and our children, which allow people more freedoms. I think we should stop looking at these things as restrictions, but rather things that allow us to actually become freer as a society, go out and meet the people we want to by keeping levels of transmission low, because that's the only way to do it. You cannot go out into a society where one in 70 people are infected, which is what the UK has been trying to.

BM: Any final thoughts or comments?

DG: I think leaders need to drop their ideologies and work with stakeholders to come up with policies based on evidence. But follow evidence alongside people who are motivated to effect change. Leaders have often done things on behalf of the public thinking that this is what the public wants, when the public actually is far more cautious and far more informed than governments tend to think.

And I would like to see governments working with groups like business groups, with teachers, with unions, with advocacy groups, with scientists, with parents, with students to co-create policy in a way that's beneficial to everyone and not prioritize one thing over the other.

And I'd like to see them work with scientific evidence and not misinformation or ideology and stop prioritizing one aspect of society over the other, because all aspects depend on us getting past this crisis, which means being honest with the public and containing the crisis that confronts us rather than ignoring it and dismissing it, which has never worked because there's no way to spin our way out of this. We must address the problem in front of us.

BM: Dr. Gurdasani, again, thank you for all your time.

DG: It was my pleasure. Thank you for having me.