

Apoorva Mandavilli

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Female: Welcome to Conversations on Health Care with Mark Masselli and Margaret Flinter, a show where we speak to the top thought leaders in health innovation, health policy, care delivery and the great minds who are shaping the health care of the future. This week Mark and Margaret speak with Apoorva Mandavilli, investigative journalist in science and medicine writer for The New York Times. She's been writing compelling series of pieces on the COVID-19 pandemic. With more in-depth analysis of how the coronavirus spreads even from asymptomatic people, how schools should be prepared for the new school year, and how this pandemic is yielding an impressive new body of science for preparation for future pandemic.

Lori Robertson also checks in, the Managing Editor of FactCheck.org looks at misstatements spoken about health policy in the public domain, separating the fake from the facts. We end with a bright idea that's improving health and well-being in everyday lives. If you have comments please e-mail us at chcradio@chc1.com or find us on Facebook, Twitter, or wherever you listen to podcast. You can also hear us by asking Alexa to play the program Conversations on Health Care. Now stay tuned for our interview with The New York Times science writer Apoorva Mandavilli here on Conversations on Health Care.

Mark Masselli: We're speaking today with Apoorva Mandavilli, award winning investigative journalist and science and global health writer for The New York Times, currently focused in on the coverage of COVID-19 pandemic. She has written for numerous other publications including the Atlantic, The New Yorker Slate and Scientific American, and is the 2019 recipient of the Victor L. Cohn prize for excellence in medical reporting.

Margaret Flinter: Ms. Mandavilli is the Founding Editor in Chief of Spectrum an online news site focused on autism that reaches millions of followers. She was the co-founder of Culture Dish, a nonprofit dedicated to advancing diversity in science journalism, and she was an adjunct professor at NYU Science Health and Environmental Reporting Program and recently was the science writer in residence at the University of Wisconsin. Apoorva welcome to Conversations on Health Care.

Apoorva Mandavilli: Thank you for having me.

Mark Masselli: Apoorva, you've been writing a compelling series of pieces for the New York Times to help us better understand the rapidly evolving science around the COVID-19 pandemic, what it is and how it spreads, what the scientific community is gaining consensus on and what public needs to know to better navigate their way through this crisis.

Apoorva Mandavilli

Really, as someone who's an award winning science reporter accustomed to cover medical mysteries, I wonder if you could help our listeners understand the complexity of this challenge of communicating credible, empirically driven information on COVID-19. What's been the biggest challenge you faced in doing this?

Apoorva Mandavilli: You just mentioned that this pandemic has been rapidly evolving and the knowledge has been evolving, and I think as a reporter that has been the biggest challenge. I think to the people outside of the situation, it might seem like we haven't gotten the answers fast enough. But in reality in some ways, this is the fastest I've ever seen science move. We didn't know anything about this virus six, seven months ago, and now we know a lot more. We know a lot more about how it spreads. We know a lot more about how people's bodies react. We know a lot more about what does and doesn't help with treatment. All of those things have come at breakneck speed. It's been really overwhelming as a journalist to be looking at the volume of papers coming through. A lot of them aren't peer reviewed yet, they're just pre-prints, so we're having to do our own sort of peer review and sending them to experts we trust and having to figure out, which ones are worth covering, which ones are good, which ones are not. I think just the volume and the pace have both been challenging.

Margaret Flinter: Well Apoorva, to that point. One area that you know growing consensus, though, we are waiting for more papers that are peer reviewed. Is that the virus is being spread through airborne transmission, and there's really hundreds of experts that they're citing now from countries all over the world. But the World Health Organization still seems to be lagging a bit on confirming that consensus. Schools and places like Georgia and Texas are opening without mandatory mask rules, though most public health experts agree that's the best protection against airborne transmission. Now, New York state Governor Cuomo has determined New York schools could open the superintendent's can make up their own minds about protocols. Different approaches across the state and the country, but here we are in mid-August, and based on your research as we send kids and teachers back into schools, what protocols should absolutely be put in place to prevent flare ups like we've already seen in some of the early opening school districts around the country?

Apoorva Mandavilli: This is a very complicated issue, as you know. I think the aerosol part of it has been extremely complicated. As you mentioned, the World Health Organization has been somewhat reluctant to really acknowledge that this might be contributing to the pandemic. I think their objection has been that nobody has been able to capture infectious virus from the air, that people have been able to see viral genetic material but not live virus. Well, in fact, there are two new papers, bullets, sort of suggesting that it is possible to see infectious

virus. I think some scientists have called this sort of smoking gun evidence, and I think that does tell us that it's very important to pay attention to indoor environments like schools.

I think Governor Cuomo made the right call in many ways for New York City because we do have one of the lowest rates of transmission in the country. We have done very well since the spring at keeping our case counts low. However, a lot of the schools in the city are not really ready to provide the kind of safe environment that would limit transmission of the virus. For example, a lot of the school buildings are over a 100 years old, they have really outdated ventilation systems. For a lot of them ventilation just means opening the windows and having a roof duct. Those things are not going to necessarily keep the air flowing well enough to make sure that the virus doesn't linger in the air.

On average, they say school buildings should have three to four full air exchanges, meaning all of the air in the room needs to be replaced by fresh air. Most schools are averaging maybe one for an hour. They're really far below where they need to be. Also, schools will need to make sure that kids wear masks as much as possible. Certainly teachers and staff will need to wear masks. They'll need to have plans to make sure that kids are separated enough from each other physically that anybody who is sick -- there's a protocol for how they would treat a sick kid or a sick staff member. What would they do? Would they shut the schools down for one case? There are just so many questions that superintendents and principals and teachers and parents need the answers to before we open the schools.

Mark Masselli:

Well, that's very helpful. I wonder if we could look just beyond the schools to the broader population. You recently wrote a piece concerning a study out of South Korea that examined asymptomatic transmission, while roughly 30% of the coronavirus cases are asymptomatic, the South Korea study showed these people still carry a very high virus loads in their lungs and in mucous membranes, which can mean they can transmit the disease even if they feel fine. I'm wondering if you could talk to our listeners more about this worrisome revelation, and how it could lead to more so called super spreaders events, as many Americans are participating in these large public gatherings. I saw that there were, whatever, hundreds of thousands of people on their bikes recently, but talk to us about the implications here.

Apoorva Mandavilli:

I think asymptomatic transmission of the virus is something that really came as a surprise to scientist. It's not that it doesn't happen for other viruses, but they didn't really expect it to be playing a major role to have as many people be infected and not be symptomatic, as we found now that people with coronavirus are that it's up to 30%. Some

studies have said even more, said 40%, 50%. The South Korean study you mentioned that I recently wrote about that did come at about 30%. That study was done pretty well. They tracked these people over time. They looked at people who had no symptoms at the beginning. Some of them did develop symptoms later on, which is this slice of population we call pre-symptomatic. But then some people never develop symptoms at all, and they still had a lot of virus in their systems.

You said when you were describing this that they can easily transmit the virus, and I think that's a piece that we're not actually fully sure off yet. It's clear that they probably can. It's likely that they probably transmit less easily and less efficiently than somebody who was, for example, coughing or sneezing. People who are coughing or sneezing and feeling really sick are probably more likely to stay home, than go into a crowded situation and spread it to other people. The worry is not so much how much they are spreading, but that enough of these people are out there that it does probably contribute to keeping the virus going.

You mentioned super spreader events, and there's more and more thinking that those events in particular happen with aerosol transmission. An asymptomatic person may not cough or sneeze, they would still be breathing out aerosols, so they might still be triggering these super spreading events. It's very important that even if people aren't feeling sick, that they do get tested if they've been exposed to anyone, and they stay home and wear a mask and practice physical distancing.

Margaret Flinter: Apoorva one piece you recently wrote really put the COVID-19 pandemic in a big global context even beyond COVID, if there's anything else we can think about these days and the title, The Biggest Monster is Spreading and it's not the Coronavirus, I think really captured people's attention. You noted that Coronavirus is leading to a spread of some long-standing health scourges that we have not yet eradicated but had actually been making quite good progress on particularly Tuberculosis, Malaria and HIV infection which had been coming under better control in recent years. Help us to understand the gravity of this situation, and why are we seeing such a spike in these long-standing scourges in the wake of the pandemic?

Apoorva Mandavilli: Long-standing scourges is exactly right. I mean, these things have been around forever. TB is an old disease, and people are used to take it a lot more seriously back in the day because it did kill a lot of people. It does still kill a lot of people. The TB and HIV and malaria were coming under better control, and that's absolutely true. But still in 2017 TB killed almost 1.5 million people. There are particular parts of the world that have really struggled with it. One of the things I

discovered in reporting that piece is that all of these public health experts are just so desperate for attention to this issue because they are watching decades of their work being essentially washed away by the coronavirus pandemic, because of the lockdowns people are not able to get to clinics that they need to get to, to in order to be diagnosed with TB or diagnosed with malaria and HIV, or people with HIV and TB are not getting access to the drugs that they need in time.

Lockdowns in various parts of the world have also made it really difficult for supplies to get to the countries. A lot of countries simply didn't have the time to stockpile all these TB and HIV drugs for their citizens, and so they're running out. Meanwhile, the companies that make these diagnostic test, that make these drugs are either shut down or they have completely pivoted to making diagnostic tests and medicines for COVID because, as you can imagine, there's a much bigger demand for that now from richer countries who are willing to pay much higher prices, and so they are completely switching to the coronavirus. In the meantime, just hundreds of thousands of people who need to be diagnosed with these other diseases are not getting the help that they need.

Once you don't get diagnosed, you don't get treatment. If you don't get treated in time, you might develop drug resistance, you may die. These are just chains of events that are being set into place right now. Unless countries really take very big steps to stop this from happening, I think we're looking at a resurgence of all three of those diseases.

Mark Masselli:

We're speaking today with Apoorva Mandavilli an award winning investigative journalist in science and global health writer for The New York Times. She is also the Founding Editor in Chief of Spectrum an online publication covering autism. Apoorva you've crafted really a unique journalistic specialty covering emerging science behind medical mysteries and certainly COVID-19 is certainly an opportunity to flex that muscle. You spent considerable time though also covering autism, a condition still rife with many unknowns in this information, and perhaps really the biggest belief is that vaccines cause autism. While the science is clear, it's really spawned a significant anti-vax movement throughout the country, really throughout the globe. Now we're watching the development of a number of vaccines for COVID-19, really with a widespread global deployment expected sometime next year. I'm wondering if you could just share your insights that you've gained about vaccine safety, and perhaps really the challenge that the science community faces in getting widespread adoption of whatever vaccine proves to be the most efficient.

Apoorva Mandavilli:

I'll say up front here that I have not been writing as much about vaccines for the coronavirus, that my colleagues Carl Zimmer and

Denise Grady and Jen Hoffman, at the New York Times have all been writing about it much more and especially about vaccine hesitancy. But I will say that based on my 13 years at Spectrum, an autism magazine. One thing I learned is that there is no convincing, the really hardcore anti-vax contingent. You may get to some small number of them, but the vast majority have made up their minds and they are not going to listen.

I think the strategy, really, public health strategy needs to be focused on the people who are undecided, who aren't sure how safe this vaccine is. We're not sure how effective it is. We're not sure how safely it's being tested and whether it's being rushed through in dangerous ways. I think that's where a public information campaign would be the most effective and helpful is to sort of counter the anti-vax misinformation campaign with equally widespread clear scientific straightforward information about what the vaccine can do, and also to be transparent about what it cannot do. I think sugarcoating things is not actually going to help because people look right through it, or at the very first time that they hear anything negative, they'll feel lied to. It's very important to be honest.

For example, there are early reports that some of the vaccines are causing some side effects. Nothing really crazy, just a throbbing arm and some pain, similar to what we see with some other strong vaccines. But I think being very transparent about that upfront and weighing the cost and benefits and saying, yes you may feel these things, but on the other hand you will be protected to this degree. That kind of straight talk can go a really long way to making sure that people really trust what they're hearing.

I also want to say, I mean, it's -- I think it's not unusual that for a new vaccine for people to be a little wary. I saw the other day that there was a poll about the polio vaccine when it first came out in 1954. Very similar numbers of people about 30% or 40% said they wouldn't get it, and they did eventually, because they realized how important it was. I would like to stay optimistic and think that the vast majority of people will see the benefits. We also can't discount the possibility that the vaccine will be mandated by businesses and schools and local governments, so I think there's some hope.

Margaret Flinter: Well Apoorva we find your reporting so compelling. A big piece of that is the way you incorporate the human element into stories that are also packed full with vital empirical information from frontline clinicians in the ICUs to health workers in Sub-Saharan Africa researcher in an infectious disease lab. These voices really bring the stories home. You're in a rare position, I think, to illuminate the reality of this pandemic to a population that maybe still hasn't fully comprehended the gravity of the situation. Hard to believe, but you

Apoorva Mandavilli

know there are people who haven't had any first, second or third degree contact yet with anybody affected, and so that's still an issue out there. I wonder if you would take a minute or two to just share some of the more compelling dispatches from those frontline people that you've spoken with, that have really brought this crisis home to you.

Apoorva Mandavilli: I think one of the most recent example I can think of is Uche Blackstock, who's a black doctor in Brooklyn that I talked to for a recent school story I did. I think that she really is a good illustration of what you were talking about just now about how complicated these things can be, because she is an emergency room urgent care doctor, so she has cared for hundreds of COVID patients and seen people die. She's also a mother of two young kids and has to figure out what to do about the school situation. She's also done a lot of work on public health equity and racial inequities in health care. She wears many hats, and I think there -- in some ways, we all are doing that with this pandemic.

We are all parents and sisters and brothers and professionals who have to figure out how to go back to school. An armchair epidemiologist trying to figure out the best information to protect ourselves and our families, and so that's one of the reasons that I've really found it helpful to talk about the real people doing the work because it's easy to get lost in the numbers. It's easy to just hear 160,000 deaths and not really think about how each of those is a person with all of these societal connections and impacts and roles in life. I try to do that, it's not always easy. As you noted in the global health piece, for example, I mean some of those stories are heartbreaking, so it's not easy to wade into those stories.

But I think it's much more compelling for Dr. Giorgio Franyuti from Mexico, whom I quoted in my global health story who is living the front lines, in a makeshift hospital treating people. It's much more powerful for him to say what the difference between TB and coronavirus is, and that TB is the biggest monster of all and much less effective for me to just say that, not really living the day-to-day scenario.

Mark Masselli: Apoorva, I was thinking that you were talking earlier about Tuberculosis, Malaria and HIV and how labs have sort of shifted away from focus in on that -- all the scientific laboratories it seems to be in the globe are focused in on COVID-19 which continues to be really captivating the scientific global communities, time and attention. I'm wondering just it has -- it may be too early to think through this, but what new scientific discoveries do you think might emerge out of all the focus in on this virus, anything that you're seeing or is there any conversation going on of collateral benefits that might arise in the

attempt to find a breakthrough around this vaccine?

Apoorva Mandavilli: I think absolutely, I think there's so much concerted attention being paid to this coronavirus right now, and so many brilliant people working on it that we will uncover some insights that will translate to other diseases. For example, the airborne transmission that we were talking about, that's not just true for coronavirus. That's also true for influenza. There are experiments that were never really done with influenza, but now because of the urgency to do them for the coronavirus we are learning a lot more about the flu virus and how that is transmitted by air. Similarly, there will be insights we'll gain from vaccine studies. We're learning a lot more about the seasonal coronaviruses because we're studying this new one, something that people have never really paid much attention to, it was never seen like a priority. Yet they cause most of the common colds, about 30% of common colds and so it is important for us to know how they operate.

There also just infectious disease insights into immunology. I think the general public is learning a lot more about how our human body works, how they respond to infectious disease works. I mean, I did not really think that I would be able to use the word plasma blast in a New York Times story, and yet that's what I'm able to do, because people want to understand. People want to understand what antibodies are, what the virus really means, what all of these things mean. I think it's a great opportunity for us as a society and for scientist to really learn some new insights and to make sure that we all sort of share in that common knowledge, because we're going to need it. There will be another pandemic and we will need it.

Mark Masselli: Apoorva, just a conversation about monoclonal antibodies. What are we seeing? What are you hearing about the work that's being done there? I think we've had a couple of people on who say keep your eye on this, because if the vaccines really don't work, this might be the only life jacket out there for us.

Apoorva Mandavilli: Yeah, I agree with that. I'm actually working on a story right now about a team that's developing them. There's multiple ones in trials already. There's one from Regeneron and one from Eli Lilly. There are some that are cocktails and one some that are just single, I think the cocktails are probably the best bet. I think that's probably where we'll get the most benefit. But yeah, absolutely, those will be ready sooner than the vaccine. They'll probably be a better option for, for example, older people who can't get vaccinated or for kids who may not be able to get vaccinated, or people with certain conditions. There are a lot of people whom we're not necessarily testing it in the vaccine trials, so we won't know about safety, and they might be able to safely get the monoclonal antibodies.

Apoorva Mandavilli

Mark Masselli: It doesn't sound like there's been a lot of conversation around that broadly, so we look forward to your reporting on that.

Apoorva Mandavilli: Yeah. I'm hoping to change that.

Margaret Flinter: We've been speaking today with Apoorva Mandavilli, an award winning investigative journalist and science and global health writer covering COVID-19 for the New York Times. You can find her impressive body of work on the pandemic by going to www.nytimes.com by Apoorva Mandavilli or follow her on Twitter @Apoorva_nyc. Apoorva we want to thank you for your commitment to producing great science journalism, especially at this time when the world most needs it, and for taking the time to join us on Conversations on Health Care today.

Apoorva Mandavilli: Thank you very much. It was my pleasure.

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Mark Masselli: At Conversations on Health Care, we want our audience to be truly in the know when it comes to the facts about health care reform and policy. Lori Robertson is an award winning journalist and Managing Editor of FactCheck.org, a nonpartisan, nonprofit consumer advocate for voters that aim to reduce the level of deception in US politics. Lori, what have you got for us this week?

Lori Robertson: In recent press briefings, President Donald Trump has made false and misleading statements about COVID-19 the disease caused by the new coronavirus. In late July, Trump falsely said that large portions of the country are "corona free". We found that only 35 of the nation's 3144 counties or county equivalent had not reported a single coronavirus case in the previous week. That accounts for less than 0.02% of the total US population. The majority of these counties are located in the sparsely populated west, including multiple in Alaska, Montana, Nebraska, Idaho and Texas.

The President also claimed without evidence that Portland and Seattle were seeing a rise in COVID-19 cases because of protests. Both cities have observed a recent rise in cases but the health department for both areas told us the available data do not show the protests are responsible for an uptick in cases. For example, Dr. Jeffrey Duchin, the Health Officer for Public Health for Seattle and King County told us that of the approximately 5000 people who said they attended a protest event and were tested at a city sponsored testing site only 0.2% were positive for COVID-19. He said that case investigations were finding that a majority of the recent cases could be tied to a general increase in activity in the community, including social gatherings and exposures within households and at workplaces.

Trump has noted that other nations are currently experiencing

worrisome upticks in cases. While this is true, his emphasis and description of these surges could leave audiences incorrectly believing the US is in better shape than certain parts of Europe and Asia. In a July 30th briefing, he pointed to a resurgence in cases in Japan, China, Australia, Belgium, Spain, France, Germany, Israel and Hong Kong. But all of those places had successfully reduced their case numbers to low levels in May and June, which the US did not manage to do and all of them, other than Israel are far below the US' seven day average per capita case count. That's my fact check for this week. I'm Lori Robertson, Managing Editor of FactCheck.org.

Margaret Flinter: FactCheck.org is committed to factual accuracy from the country's major political players and is a project of the Annenberg Public Policy Center at the University of Pennsylvania. If you have a fact that you'd like checked, e-mail us at www.chcradio.com. We'll have FactCheck.org's Lori Robertson check it out for you here on Conversations on Health Care.

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Margaret Flinter: Each week Conversation highlights a bright idea about how to make wellness a part of our communities and everyday lives. People living in Sub-Saharan Africa have tougher odds at overcoming diseases. The problem is not just the lack of access to health care providers, but once someone is diagnosed with an illness, access to vital life saving medicine is out of reach for many who are sick, simply because they can't afford them.

Gregory Rockson: Africa has some of the highest drug prices in the world, simply because it's a free pricing market. You can take a single medicine and two pharmacies next to each other will sell that same drug at wildly different prices.

Margaret Flinter: Gregory Rockson is the founder of mPharma, a nonprofit organization that's seeking to address inequities in drug prices in Africa, and the supply chain that often puts these life saving drugs out of reach of the people who need them. mPharma operates in four African countries, it decided to tackle the problem by redirecting the supply chain that forces small independent pharmacies and clinics to source their own drugs and health, offers these entities the chance to outsource their procurement for pharmaceuticals.

Gregory Rockson: We realized that if we could begin to bring together all these independent pharmacies and remove the pressure that they have to face in sourcing their own drugs, we can begin to address the issue of medicine availability and affordability.

Margaret Flinter: Rockson says they help improve the drug procurement supply chain by collecting data on actual drug sales, which allows health care

entities to avoid over or under stocking. It reduces their vulnerability to fraud and corruption which sadly is rampant in drug supply chains in parts of the world.

Gregory Rockson: The beautiful thing about the service that we offer them is that not only are we taking ownership of the supply chain, we're also providing the financing to purchase the inventory. We offer them a simple value proposition, pay only when you dispense the drug to the patient. Beyond having the price available, we actively help them manage their inventory.

Margaret Flinter: Rockson says another important benefit more affordable drug supplies, health clinicians better manage patient outcomes. mPharma was a 2019 recipient of the School of Foundation's Entrepreneurship Award.

Gregory Rockson: With our focus on bringing down the cost of drugs that there will be a systemic change like even other actors will be forced to reduce their prices.

Margaret Flinter: mPharma, a nonprofit entity that utilizes reliable data on drug usage, eliminates fraud and waste in the drug supply chains, makes life saving medications more readily available to some of the world's most vulnerable people, improves outcomes and saves money. Now that's a bright idea.

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Mark Masselli: You've been listening to Conversations on Health Care. I'm Mark Masselli.

Margaret Flinter: And I'm Margaret Flinter.

Mark Masselli: Peace and Health.

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