

- Speaker 1: It felt weird. It protects you from COVID 19, which is a bad virus,
- Speaker 2: Vaccination. It just makes you feel secure.
- Speaker 1: I'm worried. I am gonna get it still. I miss not having to wear mask. It's not gonna be forever.
- Speaker 3: What we know about COVID seems to be ever, especially when it comes to our kids with changes to protocols, updates on vaccines and revised masking mandates, it can be a lot to wrap your head around [00:00:30] today. We're discussing what researchers are finding out about how kids are handling the disease, what the long-term symptoms are and what prevention strategies make sense for. Welcome to on the pandemic. I'm Mary Marchetta Odo today. I'm joined by Dr. Larry Kleinman pediatrician and population health researcher at Rutgers Robert Wood Johnson medical school. Hi, Larry. Welcome back.
- Speaker 4: Good morning, Mary. It's nice to be here. Thank you.
- Speaker 3: So let's [00:01:00] just start with the big picture. What is the headline about how kids are doing right now relative to the impact on the, with the pandemic?
- Speaker 4: I think that headline is nuanced. Kids are surviving the pandemic, but they're struggling as well.
- Speaker 3: Tell me more about how they're struggling,
- Speaker 4: What we know that children are much less likely to get seriously ill or die [00:01:30] than adults. That's not because it's safe for children, but because this is such a dangerous disease for adults. And
- Speaker 3: If, and also, and also we do know that there have been a good number of children who have both been hospitalized and do, um, it's just relative to the numbers we've seen in adults. It seems small.
- Speaker 4: That's correct. And if, if we took the numbers in isolation and said, we've got something [00:02:00] that is making millions of children, sick, putting thousands of children in the hospital and killing hundreds of children and it's preventable, we would be up in arms if we weren't doing something about it.
- Speaker 3: And also if it was 2019,
- Speaker 4: Yes, that's correct. If it wasn't a political, uh, atmosphere or political response to a health issue in this country, a politicized response to a health issue.
- Speaker 3: [00:02:30] Well, even more than that in, in retrospect, right? Like we think now we think in terms of these much bigger numbers that we're used to in terms of illness and death and before the pandemic, we really, you know, if there were only a handful of cases of a

pediatric illness, there was a, a very big response. And so I, I often remind people if this, if these numbers were the numbers in, you know, say 2000, 2001, uh, 2011, people would be [00:03:00] reacting very differently, but because of our new learned experience of the pandemic, it just doesn't seem as big anymore.

Speaker 4: I, I think that's a very important point. We are living amidst numbers that were unimaginable. We used to look at the 9 19 18 flu pandemic and it was seen as the epitome of what bad could be, but something that would never happen [00:03:30] and now we're living it. And so then, um, we have, we have lost sight of the meaning, uh, of each individual case. The forest is, is making us, um, forget what the experience of the trees are of each individual who is suffering loss. And children, of course are suffering loss as parents, grandparents, and other people's in their lives are dying. That's one thing. And then there's suffering [00:04:00] loss as a result of, um, of illness and, and, and, uh, and that's another, and then of course their life experience has been altered in ways. Uh, that can be challenging at the same time regarding that last bit bit.

Speaker 4: We know the children are incredibly resilient and if we can, at some point approach normalcy, they will benefit, recover, and catch [00:04:30] up with many of those things that they have missed. So I, I'm more worried about the impact of the illness at the moment. Um, but that also for, for some children can, can, uh, also represent, um, isolation or loneliness as a, as a, um, a factor as well. So it's very complicated. That's why the headline, it's hard to put in a single direction much as in the spring, when we last spring, [00:05:00] when we loosened masking restrictions, children were among the ones who really suffered that. There's now some momentum. And we, we see that masking restrictions are being loosened even in schools or a masking requirements are being loosened in schools, um, in the tri-state area, uh, that children will again, bear a large brunt of the consequences of that.

Speaker 3: Okay. That's a lot, that's a, let's unpack [00:05:30] some of these things a little bit more. Um, congratulations. I know you were awarded a, a grant from the national Institute of health to look at some of the long term effects of co infection in children. And some people call that long COVID. Um, can you talk a little bit about that work? Um, and you know, why are we doing this? How many people, um, who get COVID get these long term symptoms and what do they look like?

Speaker 4: [00:06:00] Sure. So thank you for that. We, we are very fortunate. We have now two NIH grants, one of which is looking at which children are more likely to get sick in the short term, the acute COVID and then a, uh, who and, and, uh, who gets long term effects, which may or delayed effects, cuz that also includes this, um, multisystem inflammatory syndrome of children or M I C, which [00:06:30] typically occurs about a month after infection and then long COVID are persistent symptoms or symptoms that result over time. I, I think we are still trying to figure out, uh, how many and who gets it. I've seen estimates that range from a little under 10% of infected children to as many as 47%. And then of course there are, uh, there are children who are infected, who we don't know are infected. So they out would lower the percentages.

Speaker 4: Some [00:07:00] because it's an unseen part of the denominator, uh, uh, of risk. But, um, there are substantial numbers of children in any case who have long term symptoms. Sometimes, uh, this can be in the form of exercise intolerance. So, uh, high school athletes who, uh, can't walk around the block, uh, so it can be pretty profound or it can be more mild. Uh, you can also have, uh, brain fog, [00:07:30] uh, forgetfulness, lack of concentration. This is an ill defined, um, uh, situation. But one of those, it's kind of like if it walks like a duck, if it cracks like a duck, it's a duck. If your, your mind and your brain and your thinking, isn't quite right, that falls into the brain fog category. Um, we're trying to characterize that further with our research. Um, it can be, uh, headaches. Um, there [00:08:00] are any, uh, some, some kids have, uh, musculoskeletal, uh, issues.

Speaker 4: There, there are just a lot of manifestations. And of course we don't know exactly what's attributable to COVID, what's coincidental in terms of the time of onset, but not related to the COVID. And that's why this work is so important one, so we can count how frequently it actually happens. Two, we can describe what it looks like [00:08:30] three, we can assess how much of it is due directly to COVID infection and how much not keep in mind two that children may bear the psych, uh, impacts of, uh, either being sick or having been sick or having seen someone around them be sick or in, in the, the most extreme suffer, a loss, uh, of someone who dies from illness. And so there's the potential that there's, post-traumatic stress. That's a part of that as well. [00:09:00] And we've just submitted a supplement to this grant. We don't know if it's funded or not, where we would like to look at the extent to which that contributes

Speaker 3: To Larry. Let me ask you, let me ask you, there's been a lot of, um, publications recently about for a adults, an increased risk of diabetes, um, post COVID, is this something you're looking at for kids as well?

Speaker 4: It, it is something we're looking at. I, I have heard anecdotal reports of diabetes. Um, I haven't seen numbers [00:09:30] in kids that convince me that it's there, but neither am, am I, I, uh, sang when that it's not, it will be a part of what we assess.

Speaker 3: And so far based on what you see out there, does vaccination help reduce the risk from getting these long term COVID symptoms? I mean, I've, I've read that it helps with miss C, but what about some of these other things? Do we know that

Speaker 4: We don't know that, but we have good reason to suspect it.

Speaker 3: Okay. So let's go back to some of [00:10:00] your earlier comments about these sort of constantly evolving, um, situations and challenges. You know, we've been at this now for two years and, um, you know, this last surge and the Omicron variant seems to have been significantly different some than some of the prior ones. Part of that I think was because of the way we were managing through the, um, surge, less shutting down, more potentially mask [00:10:30] wearing, or other types of prevention strategies. There were a lot more vaccines available for example, but rather than shut down, we maintained operations in society. We kept things going, kids stayed in school. Some, some school shut down for a short period, but not too long. Um, and it almost felt to me

as a parent of three kids in school, that we were moving a little bit more towards managing through this like a flu season than what we had seen with the prior surges [00:11:00] of COVID.

Speaker 3: And, um, you know, one of the concerns that you have said, and I share because I have a three year old, is that, you know, we, most of us have the choice to be a little bit protected from the severity of illness, through vaccination, except for those kids that are zero to five, because there's no vaccine available to them, but you know, what do you think in terms of this most recent surge in Omicron? How is it different? I'll tell you, I know a lot more people who [00:11:30] got COVID even some for a second time in this last surge than I did in the other two.

Speaker 4: And I think that description of a lot more getting, it reflects our experience in many ways. Um, the variant was clearly more contagious, which made it more likely that folks would get it even with, uh, some protective behaviors. [00:12:00] Um, there, I've used before. I don't remember if I mentioned it last time I was here, uh, a, a guy named James reason created something. He called a Swiss cheese model when looking at safety events. So, um, uh, failures in, in, in, um, protection in industrial accidents or patient safety or other things. And, um, the idea behind the Swiss cheese theory is no defense is perfect, but if you line [00:12:30] up a bunch of layers of Swiss cheese, unless the holes line up, one of them will protect it. And I think so we took a few of the layers of the Swiss cheese away this time.

Speaker 4: Plus it was better able to, to jiggle through when the holes weren't quite in alignment and therefore we got, uh, many more infections. Now, the good news is many people who got it were vaccinated. Therefore they didn't get as sick. The Omicron variant seemed [00:13:00] to be, uh, a little bit less likely to cause some of the severe illness, but still we saw lots of hospitalizations, lots of deaths among the unvaccinated and a lot of children in the, and some of whom died including locally. So, um, when you have the sheer numbers of people getting infected, who got infected, you're going to have bad outcomes. And [00:13:30] to me, um, it was a good news and bad news situation. The good news was in the, the volume of numbers of people who were vaccinated and suffered serious harm from, from OCN was way down despite our living through it.

Speaker 4: But the bad news is there are a lot of people who did suffer severe harm because this was a contagious illness. And of course the, the unvaccinated are also more likely to get sick in the first place. [00:14:00] So therefore more likely to spread it. And that's a, that's a part of the, the challenge with this too. Um, is it multiplied very quickly? Um, I, I think that, uh, it suggests that moving forward, we will need to have some level of a layered response and some level of a measured response. It's not binary shut everything down or not shut everything [00:14:30] down, but neither is it an all clear and I'm afraid that a lot of the pressure and what we're seeing from a pot policy point of view is as if there's been in all clear that puts us at risk and particularly puts children at risk.

Speaker 3: So one of the other things you said earlier on was that you were more concerned about their physical health, the physical health implications of the disease than some of the other sort of social and [00:15:00] emotional, um, isolation elements. I have to say that

sometimes I'm with you and sometimes I'm not so sure. Um, I, I feel like the, the social and emotional, um, you know, impacts on my kids and some of the kids that I've seen are affecting their physical health. So I'm not, I, I feel like it's not, you know, totally separated and that for some kids with the right support systems in place, [00:15:30] you're right, they are resilient. That doesn't mean this isn't difficult, but, you know, we can work our way back, but not everybody has the resources to really get back. And so, you know, some of the research that I've seen shows that there's been a doubling in the prevalence of depression and anxiety in for it since before the pandemic. And that seems remarkable and very concerning. And, and I wanna get your sense on [00:16:00] how, how real do you think this is? And will you be looking at these types of effects in your research as well?

Speaker 4: So thank you, Mary that's. I, I agree with your observations to start with, I, I think that unpacking, um, what I said, uh, is important because of the things that you raised there. So there is, um, there [00:16:30] are levels of anxiety and depression may result from the fact that kids see their parents having to respond to something that is out of control, right? That has nothing specific to do with any response. So that's one piece of this. Then there are children who are, um, for whatever reason by their nature or experience more [00:17:00] at risk for depression, for anxiety, for having, uh, uh, some, some form of behavioral or mental, uh, health, negative mental health outcome. And they, and so they may be pushed over from okay, to not okay by either this broad thing or some of the specifics. So I think that's all real, I think on average, [00:17:30] children will get through this fine, but there is a substantial proportion who are struggling with that. The question then becomes, where does one achieve a balance and how does one mitigate against these kinds of, um, of risks versus mitigating against the physical risks? And that is really something I don't think we know exactly [00:18:00] the balance point for that.

Speaker 3: So in terms of the increased depression and anxiety that we're seeing in children, is there a role for schools to play in either screening or helping to support kids?

Speaker 4: I, I think that there are things schools can do. I think, um, screening can be helpful. The concern about screening is when you have what [00:18:30] is fundamentally a low risk population and you use a screen, a positive screen is less likely to mean a positive condition. So if there's a way to identify kids who's, um, who there are, is either parent reported or teacher reported concerns, maybe a slightly filtered screening rather than universal screening might [00:19:00] be more accurate and more helpful. I think there also are tools that might be, uh, useful for children in general. And I'm thinking here, uh, teaching, um, mindfulness exercises or simple guided meditations, yoga is another, these are things that are life skills that could [00:19:30] help to come the mind and may, may be enough to deal with at least the first level, not that's not going to take care of kids who have depression, but kids whose mood is tending towards depressed, whose anxiety levels are a bit up. It creates a sense of control and calm. And there is very good evidence, um, long standing in adults and emerging in [00:20:00] children that mindfulness as a practice can be very helpful. And, uh, so I think that might be the kind of thing that could be introduced into curriculums and it can be done at, uh, pretty much, much all ages in the school setting.

Speaker 3: My first grader loves yoga and his teacher, um, has incorporated into the classroom. And I can say, I think it's, he still has his outbursts here at home, but it certainly is improvement. Um, [00:20:30] so let's just talk about, you know, I really like your Swiss cheese analogy and we have a few different flavors of Swiss right now in terms of how we are, um, trying to add prevention components to, um, the pandemic. Let's talk about masks. You've brought them up a few times and we are living in a country where, depending on where you live and what, um, the current environment is like relative [00:21:00] to cases, you could be experiencing a very different kind of rule relative to mask wearing inside, outside in school, um, at the playground, a lot of different rules and, you know, people, I think their heads are spinning a little bit, frankly, in terms of, um, does it help and when to wear it. And I think you've already said that it, and I think there's a lot of evidence on [00:21:30] that, but what's your rule of thumb about, you know, when to wear a mask and especially for kids?

Speaker 4: Yeah, well, I think as someone who, um, uh, who, who spends time around children under five and therefore UN vaccinated children, uh, I haven't, for example, eaten indoors in a restaurant, I guess that's not entirely true. I did once, um, [00:22:00] at five o'clock in a very large restaurant when they closed the outdoor and I was, we were shuffled in, but, uh, and that was in, in, at the point of the low, in the spring land year, spring, early summer. So, but, but I don't eat out. I don't go where people, I know they're gonna be large numbers of unmasked people. And I wear a mask and often a, a, a surgical phone mask on top of an N 95 when I'm around people or if I'm in the office setting. So that that's my personal practice. [00:22:30] I agree the red recommendations have been head spinning, and I think they have been insufficiently sensitive to the realities of children and people who are around children. So I think many of the recommendations that we've seen make sense of one considers the adult population.

Speaker 4: I, I think that we still need to protect children, um, adolescence and younger children, [00:23:00] the, uh, get, or don't get vaccination because of either the availability of the vaccine or their parents' decision. Right? So to my mind, there's a communitarian responsibility to try to help to protect them. And that's where the mask wearing comes in. I think indoors masks are essential now that we know that the virus spreads, uh, as an aerosol one way to think about it. And, and I have [00:23:30] to attribute this to Sanja Gupta whom I heard say this for the first time more than a year ago is, um, think about if you had a cigarette smoker in the room, if you would smell their cigarette smoke, you might be exposed to the VA the virus. So it's not enough to be six feet away. It's not social distancing helps, but like, I, I like the Swiss cheese model suggests each of these are imperfect methods. And, um, I mean, a hazmat suit [00:24:00] maybe gets closer to a perfect method, but short of that, um,

Speaker 3: But not a practical method to certainly not for kindergartners, no, or,

Speaker 4: Or for any of us really. So, so it's a question of how do we reduce, but not eliminate risk masks are helpful. Good quality masks are helpful. A mask that is worn and that fits well is better than a mask. That's not worn. So for kids, dinosaurs, [00:24:30] Panas, flowers, colors, happy things. That mean something to the kids, make it more likely that they'll be worn teachers and adults around them, maybe the same thing.

Speaker 3: So, Larry, last question, what's some good news out there that you want people to know about.

Speaker 4: I think there's a lot of good news one. This will end, I hate wearing a mask. I, I was annoyed by it initially. [00:25:00] Then I got used to it and now I'm just tired of it. But I also sometimes am tired of wearing a seatbelt and you know what? I clicked my seat belt every time I go in the car, even though sometimes I don't want to. And I think if we can think of things that way we can be optimistic knowing this is not forever, or maybe it's something we use situationally in the future, when there's an outbreak or maybe even a flu outbreak in the future, then it's a tool that can serve us. That's one thing, [00:25:30] secondly, vaccines are coming for young kids one way or another. We'll get, we'll get it right. Third, there are a lot of people working very hard to try to figure out how best to address this developing therapeutics. Um, and, uh, fourth that the, the pandemic we in one manner or another burn itself out, and we will develop a new normal that is in a better place than we are right [00:26:00] now. We are, I think on the backside of it, we, we may have hiccups along the way, but we are, um, we, we, we have gotten through it and if we come together to do it together with one another, I think we can all feel better as we get there.

Speaker 3: Thanks, Larry. Um, thank you for joining us today.

Speaker 4: My pleasure, Mary, I'm delighted to be here with you and delighted [00:26:30] to have been asked. Thank you.

Speaker 3: Thanks. Thank you for joining us for this episode of on the pandemic. This is Mario Dowd, executive director of health systems and population health integration for Rutgers university. For more information on how Rutgers is meeting the challenges of the COVID 19 pandemic, please visit [coronavirus.rutgers.edu](https://coronavirus.rutgers.edu).