Coming up on Mayo Clinic Q&A,

This is the worst the pandemic has been worldwide since its' start. And we've got some just tragic hotspots that we're seeing, for example, in India and Brazil are probably the best known.

With much of the world still suffering from the effects of COVID-19. Why is the US in a better position?

And we've had over 100 million Americans vaccinated. 40% of adults are now fully vaccinated. And 83% of Americans who are 65 and older have now gotten vaccinated. The reason that cases are falling here in the US is that immunization rate.
Welcome to Mayo Clinic Q&A. I am DeeDee Stiepan, sitting in for Dr. Halena Gazelka. We are recording this podcast on Monday, May 3, 2021. Here for our weekly COVID-19 update is Dr. Greg Poland, a Mayo Clinic virologist and infectious disease specialist. Hey, Dr. Poland. Thanks so much for being here.

Dr. Gregory Poland

Good to see you and to work with you.

DeeDee Stiepan

Great to see you too. So, give us a status update. What is the latest on COVID-19 here in the US and worldwide?

Dr. Gregory Poland

So, you know, this is an interesting and it’s kind of a study in contrast. This is the worst the pandemic has been worldwide since its’ start. And we’ve got some just tragic hotspots that we’re seeing, for example, in India and Brazil are probably the best known. At the same time, and again, related to vaccination rates, we’re starting to see a fall now in the number of cases, hospitalizations and deaths in the US, which had trended upwards after all the spring break travel that we talked about and warned people about. So, we’re starting to see that decrease. Why has that happened? We’ve had over 100 million Americans vaccinated. 40% of adults are now fully vaccinated, and 83% of Americans who are 65 and older have now gotten vaccinated. We’re at about 40% of all adults, you know, age 18 and older. So, that’s a very, very good statistic. And the reason that cases are falling here in the US is that immunization rate. 245 million doses of COVID vaccine have been given in the US. Nonetheless, we have to be vigilant. TSA has extended the mass mandate until mid-September. I think we might talk about if you’re interested, we could talk about the new CDC mask guidelines later. But all of this is good news. And at the same time, there are still people that need more information and need to be persuaded about the safety and the value of getting a COVID vaccine.

DeeDee Stiepan

Right, and you know, you mentioned the 40% vaccination rate, is there still a chance that we’re going to reach herd immunity worldwide? It seems unlikely that we’ll get there in the US, but can COVID be controlled even if we don’t reach herd immunity?
Dr. Gregory Poland  03:22
No, I don't think so. I think the nature of the transmissibility of this virus, as we have seen is that you probably have to have immunity levels in the 85, maybe even 90% range. Now you could get there by a combination of infection, and so people who have gotten infected people have gotten vaccine, the problem is to get to that higher level on the infection side means a tragic number of deaths, hospitalizations, and long-term health consequences that no one wants to see. By contrast, the safety of these vaccines and the efficacy has been beyond what any of us as vaccinologists thought would be possible in a first-generation vaccine. So, might we reach that in the US? We're hopeful. My guess is because we're such an interconnected global community, until everybody's safe, none of us are safe, and we're going to likely, no one knows for sure, but likely see continued circulation of the virus. And that virus will seek out whoever is not immune.

DeeDee Stiepan  04:43
So, let's go back to talking, you mentioned some masking guidelines. Last week, the CDC changed outdoor masking recommendations. Tell us what the current guidance is, and what's the science behind it?

Dr. Gregory Poland  04:55
Yeah. So, what they're really looking at is saying you know, once you reach a certain level of immunity. And unless that changes which it could, right we still have a large number of people have not been immunized. But if that trend continues, the transmission outdoors is such a small part of overall case burden that particularly for those who have been immunized, they can be out in public without a mask. The one exception being, you know, if they're in a crowded outdoor venue, like, you know, I don't know, a concert or something like that. For indoors, the recommendation continues to be even for those of us that have been fully vaccinated to wear masks when we're in crowds, when we're at a movie theater, when we're around people outside of our family who have been unvaccinated. Now, a small group like your neighbor, could come over, for example, even unvaccinated and have dinner with you, they should probably wear a mask, but not us. The other thing is that CDC just released over the weekend, their initial guidance for summer camps for kids. So, by definition, almost all those kids are below the age of 16. There are some exceptions, and so they've not been able to be immunized. And the recommendation is not only distancing, but mask wearing at all times.
Good to know. Let’s get to some listener questions that we have.

Dr. Gregory Poland 06:36
Sure, yeah.

DeeDee Stiepan 06:37
The first listener says asks, have there been any issues with ringing in the ear or head problems for people after they get the vaccine? I had ringing in my ears after the vaccine, and I wondered if that’s a side effect.

Dr. Gregory Poland 06:52
So, this is a very interesting question that you asked me. About an hour after my second dose, I developed severe ringing in my ears. About 10 weeks later, it’s starting to decrease. This is called tinnitus. It’s a very common phenomena. I’ve queried the CDC about it. Some 1000 reports have been received in regards to this. So, like any side effect, if you feel you’ve had a side effect from a vaccine, we ask people please report it, you can go online, and just type in vaers. And it’s an online reporting system that you can report, it’s the only way that we can find out about rare safety signals. So, so far, the number of people who have developed ringing in their ears has not exceeded the expected baseline if there were no COVID vaccines being given. So, what you want to know is by giving a vaccine, are you seeing a higher rate than among people who have not gotten the vaccine, and it has thus far not reached that state, but something to be aware of. By way of encouragement, and I’ve talked to a number of ENTs about this, they believe that if that’s real, it’s on a transient or temporary inflammatory basis, and that most all of those will resolve in the six-to-12-month time period. We’ll see if that’s true. But that seems to be the trend.

DeeDee Stiepan 08:41
Oh, very interesting. Definitely something to continue to follow. The next question, what will be the deciding factor for the time of year when boosters will be most effective since as we know people have gotten COVID-19 and its variants your round?

Dr. Gregory Poland 08:57
Yeah, it won’t be based on time of year I don’t believe DeeDee, more likely, on evidence of immune evasion. In other words, by having a large group of people who have not been immunized and who still get infected, you give the virus more and more room to mutate.
Eventually, that virus could mutate such that for those of us who have gotten vaccinated, the virus may be able to evade or escape that vaccine immunity just as it is learning how to escape prior infection. And so, now we’re seeing people who never got vaccinated but got infected get reinfected and that’s a real issue and problem. So, if we start to see cases rise and we start to see that happen even in people who were immunized, then you would think about giving a booster. Now, having said that, there is likely to be some seasonality, just like we see with influenza, for example, and there are companies working on a combination, single shot of influenza, and SARS-COV2. So, we’ll see how that plays out.

DeeDee Stiepan 10:18
That is interesting. Our next listener question, what is the latest on treatments for people who do contract COVID-19? I understand the vaccine may be less effective for some people like immunocompromised or transplant patients. So, we need to know if there will be an easy access to treatment if we need it.

Dr. Gregory Poland 10:39
 Yeah, that’s a great question, DeeDee, and it’s a really important and practical one, as you pointed out, for people who may not respond with full protective immunity. Now, they tend to be developing much less severe disease, even if they have so-called breakthrough infection. But nonetheless, what’s important to know is that if that happens, the physicians in your area know that they have access to convalescent plasma. This is plasma that contains proteins, antibodies from people who recovered from infection, and we infuse those antibodies. There are antiviral drugs like remdesivir, there are monoclonal antibody drugs that are being developed. Right now, the ones that are available are by infusion.

Soon, in fact, there’s a couple of companies, Merck is probably the closest, to developing an oral pill that could be taken, that’s still in clinical trials not yet routinely available. That’s actually somewhat the irony is that these are under EUAs. So, you have people who don’t want to get the vaccine, because it’s under EUA, who get infected, who are then treated with something that’s under EUA. So, I find that, you know, kind of paradoxical in a way. So, there are treatments, and I think that’s a key point is that people shouldn’t just assume, well, I’ve gotten infected, there’s nothing I can do. If you are high risk, in other words, you have medical problems that make you high risk, or because of age or high risk, then definitely go get tested. If you have COVID, the treatment is better early in the course, not waiting until it becomes obvious that you’re really getting sick and are going to have to be admitted to the hospital or be on a ventilator. You want to treat way before that.
And our last listener question comes from an expecting mom. She says, I’ve been fully vaccinated, and so has my husband. I wonder what recommendations you Dr. Poland have for when baby arrives in terms of visitors, especially those who are choosing not to get vaccinated. She asks, should we allow visitors who are unvaccinated to visit? If so, is having them wash their hands and be masked safe enough for baby?

Yeah, it’s a great question. We’re going to be having our first grandchild. So, this is something that means a lot to me too. And so, first of all, congratulations to our listener who’s expecting, what a blessing. The second thing is, we’re in the realm now of what’s the safest, and what is safe. The safest thing is that baby is not within six feet of anybody who is unvaccinated and unmasked. That represents to me an unnecessary risk that one doesn’t need to undertake. So, when you have vaccinated people who are healthy and responded to the vaccine, I think when you’re talking about members of the family, that’s not an issue, they can go ahead and hug and love on that baby. That baby needs that actually for proper growth and development. That’s a really important thing. But for people outside of the family, particularly who are unvaccinated, I would say that represents an unnecessary risk.

And what about visitors who are vaccinated? Can they, is it okay for them to be with baby without a mask?

I would probably still with a baby ask them to wear a mask. That may be a belt and suspenders approach, but this is a little baby. And fortunately, we have not had a lot of severe disease in babies. There has been some, I would point out, that there has been a lot of hospitalization and death among babies in Brazil, for example, so you don’t know which potential variant somebody could be carrying an expose that baby to. So, I personally would be very reticent to have somebody you know, in the kind of proximity we’re talking about with holding a baby, who was unvaccinated. Wearing a mask helps, but it’s not the same thing as a mask and vaccinated if you’re from outside the family.
Great information. Dr. Poland, is there anything else that you’d like to add this week?

Dr. Gregory Poland 15:27
You know, again, just to encourage people, I know that some people have misperceptions about the vaccine. Let me just mention that 98, 99 plus percent of physicians, when offered the vaccine, get the vaccine. They’re not being forced to. They’re doing it because they are convinced of the safety and efficacy. So, you would have to ask yourself, do I know more? Do I have more data than what’s published in the scientific literature? I’m not talking about anecdote. Well, I heard, something like this. The only real safety signal that has been seen is anaphylaxis, which occurs at about the same rate with all vaccines. It’s true that people after the second dose, frequently have low grade fever, headache, you know, a variety of symptoms that are very temporary, very transient. And believe me, that’s nothing like the consequences of not getting the vaccine and getting infected with COVID. When you look right now, in the US, one out of every 9.8 Americans have gotten infected. So, if you haven’t been vaccinated, what makes you think you’re special and not going to get infected. As a physician, I want to preserve your health and your well-being, I would not be saying to you get a vaccine if I didn’t get it myself and if I had not thoroughly looked at the safety and efficacy data. In America, one out of every 555 Americans is now dead of COVID. That is just a tragic number. Just to make it round numbers, one out of every 550, that says that’s a stunning number. How many people have died from getting a COVID vaccine? It’s an easy decision. And it’s a decision I would caution you not just for your own health, but for the health of your family, the health of the people that you work with, or worship with, or go to school with. Very quickly we’re going to have vaccines available for 12 years old and up. And we’re studying it all the way down to birth ages just like we do other vaccines. So, just by way of encouragement, it’s a safe vaccine, and it’s a highly effective vaccine. Well said, Well our thanks to Mayo Clinic infectious disease and virology expert Dr. Greg Poland. Thanks as always for the great information Dr. Poland. My pleasure, be well.

Narrator 18:11
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