Coming up on Mayo Clinic Q&A,

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Today on Mayo Clinic Q&A, we'll take a look back on 2021 and review the COVID-19 pandemic with infectious disease specialist, Dr. Gregory Poland. He'll address what we've learned and give us his thoughts on what to expect in the year ahead.

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Welcome, everyone to Mayo Clinic Q&A. I'm your host, Dr. Halena Gazelka. Can you believe
that we have reached the end of 2021. Today, Dr. Greg Poland is with me, and we thought it would be fun to look back at the year a little bit and to look forward to 2022. Thanks for being here, Greg.

Dr. Gregory Poland 01:33
My pleasure. It is hard to believe that 2021 seems to have sped by.

Dr. Halena Gazelka 01:39
It sure has, they go faster and faster every year it seems like. Greg, let's look back. What an incredible year we have had. We've had vaccines and variants in the news. When you look back, what do you remember the most about 2021?

Dr. Gregory Poland 01:56
Well, you know, it's an interesting thing. A friend of mine said, You've been on a long journey with this and he hand carved a walking stick for me.

Dr. Halena Gazelka 02:06
Wow.

Dr. Gregory Poland 02:06
After all the work we've done on COVID, and it does it represents that this has been a long journey for all of us. I think the things that I look back on are the amazing speed with which science moved. I mean, when you think about it, as we said way, way back, the canvas regarding COVID-19 was absolutely blank when we kind of woke up to this in early 2020. And when you think that we've had antivirals, three now, monoclonal antibodies, three vaccines licensed under EUA in the U.S., that's really incredible to think of.

Dr. Halena Gazelka 02:53
It doesn't even encompass the medical literature, Greg,

Dr. Gregory Poland 02:56
No, that's right, it is incredible 1000's upon 1000's. But at the same time, with all that progress, the thing that has weighed the most heavily on me, is from the time we started till today, about one out of every 396 Americans has died. When you think about when the first vaccines came out a little over a year ago, 300,000 Americans had died. Since then, 500,000 Americans have
died, and those are for the most part preventable. And that just oh weighs on my heart. And we, you know, we still are experiencing that. I think from a science point of view, we have never seen the evolution of a virus this quickly. I mean, we are on our fifth major variant inside a little more than a year. That is really astounding. And I think the other thing that will forever change pandemic and epidemic preparedness is nobody had really accounted for what I call the distorting effects of human behavior. Right on the surface of this with masks, distancing, then add vaccines, this is eminently controllable. But we made a collective decision not to do that by avoiding masking and distancing by not getting, I mean, even a year on after vaccines have been available, only some 60% of America is vaccinated who are eligible.

Dr. Halena Gazelka 04:47
Isn't that something.

Dr. Gregory Poland 04:48
Only a third have gotten boosters, that's more recent. So, you know, a lot of work to do in trust, equity, human behavior. So, it has exposed, I think, both the incredible feats of science and at the same time humans haven't changed much in hundreds of years. And we have a lot of work to do in that regard.

Dr. Halena Gazelka 05:15
So, Greg it is hard to think of any area of life that hasn't been changed by COVID, the economy, the political scene, how we live our lives personally, how we work and function as a society. It's really just amazing. And let's talk a little bit about how life has changed over the past year. You know, I'm always looking for silver linings, and I do see silver linings in this.

Dr. Gregory Poland 05:44
Sure.

Dr. Halena Gazelka 05:44
I think that some good can come out of something bad. And what are the biggest life changes that you've noticed?

Dr. Gregory Poland 05:55
I think an awareness of how fragile life and human health is. It has been a profound wake up. I mean, I've spent my career dealing with vaccine preventable infectious diseases. I can't even count the number of tabletop exercises. And again, I'll go back to human behavior seems to change with the political landscape, with economics, and we're going to have to set aside what I've called our cultural narcissism, our me rather than we attitude, and I hope that will be a
change for the better. You know, there's still endless arguing over masks. But it's hard to dismiss the fact isn't it that when we were wearing masks, there was no flu. I mean, there was no flu. So, we know that they're effective, we have the best real world effectiveness possible. I think we've also learned that if your life is built upon the amusement park of life, rather than the close personal relationships with family, friends, whatever type of church you might be involved in, etc. When those things are stripped away, we've seen where there's no resilience, we've seen the suicide and substance abuse rates skyrocket.

Dr. Halena Gazelka 07:36
Yeah.

Dr. Gregory Poland 07:36
And those are sad things. So, I think there's, you know, you see the bad of something like this, but it also serves as sort of a lamppost to understand what we have forgotten, what we have ignored, and what needs to be paid attention to. Schooling, education, as you said, work, the economy. I personally cannot think of a major area of life that has not been touched by this. And as I say, I think good things will come out of it. Now as long as there's internet access, for example, you can have school anywhere in the world from any instructor. I mean, that is miraculous. I hope, I doubt it in the U.S., but I hope that we'll be wise enough to wear masks during the winter time, for example. But there's another piece of this that we just simply are going to have to reconcile. You and I won't be here Halena, but our great, great, even great grandchildren will be getting immunized against this virus. By failing to control this very early on, we've seen how it continues to mutate, and you know God willing, it will become something more akin to influenza and a little better, controllable. But my evidence for that is that when you and I got our flu vaccine this year, we were being immunized against a variant of flu virus that first arose in 1918. So, we're getting immunized over 100 years later, with a variant of that virus.

Dr. Halena Gazelka 09:34
That's fascinating.

Dr. Gregory Poland 09:38
All of this is fascinating.

Dr. Halena Gazelka 09:40
It really is. You know, we work in healthcare, Greg. So, one of the things that I have noted is a pulling together to take care of our patients and to take care of each other as workers. You know, there's sort of a mantra in health care that apparently, we're never supposed to become ill. But I have seen people pull together because kids are quarantined, because they're too young to get vaccinated. So, they're having to stay home from daycare for weeks. Well,
coworkers have to have to cover that and, you know, family members are ill, so someone needs to stay with them, and people are covering for each other. And so, I think that the capacity of graciousness and kindness has also been expanded like the Grinch's heart growing two sizes larger.

Dr. Gregory Poland 10:36
That's very nicely said, Helena, and you anticipate what I was going to say is, I hope will be the final silver lining. I think that the magnanimity of how health care providers have sacrificed in many cases, their own health, their own lives, for the care of strangers, who nonetheless are our patients who have not taken care of themselves in terms of getting immunized or wearing masks, and yet we take care of them. I hope that, you know, the Nobel Peace Prize, or the person of the year, whatever category you choose, I hope it will be the health care provider.

Dr. Halena Gazelka 11:30
Yeah, that's a great point. Greg, I think one of the big challenges, and you and I hear this from our listeners all the time in emails and such, one of the big challenges during COVID has been that information is moving so quickly. And so, you can get behind if you, you know, don't stay up on things. But the other side of that is that mis and disinformation are also rampant in the news, on the internet. And how should our listeners know that they're getting credible information when they hear things?

Dr. Gregory Poland 12:09
Yeah, this, of course, has been an amazing issue. A piece of mis or misinformation seems to propagate about 1000 times faster than truth. And once somebody has bought into that, they kind of are in a rabbit hole that they find very, very difficult to get out of, often can't get out of until they themselves are infected, or hospitalized, or even dying, unfortunately. So, you know, how will an intelligent society handle that? You know, just like you can't stand up in a theater and yell fire when there's no fire because of the harm to people. I hope we will take steps to say that mis and disinformation makes you liable for injuries that are sustained by others. That's different than free speech allowing questioning. That's very different. People seek to make them the same, and they are fundamentally different. But when you give knowingly mis and disinformation, or wild speculations that go on to harm people, that's just unacceptable. And so, I think one of the things that all of us are doing, this podcast is a good example, is how do we get credible information out quickly. And I am very proud of the fact that we have diligently done these every week. We were the first ones to recognize and say publicly that this was a pandemic. And we have been extraordinarily transparent. When we don't know or when we're speculating, we say so. And yet, at the same time, attempt to give the best advice possible given the data that we have. So, I'm proud of the work we've done together.

Dr. Halena Gazelka 14:15
Dr. Gregory Poland 14:23
Yeah.

Dr. Halena Gazelka 14:25
Now I am really putting you on the spot.

Dr. Gregory Poland 14:27
You know, it gets really hard to predict the future, doesn't it? So, vis a vis, what I just said, this is speculation. The best modeling shows that unfortunately in the U.S., we are going to have a major surge of Omicron. It's doubling about every two, two and a half days. For the unvaccinated, I don't know what to call it other than a tragedy that's going to happen. I mean, even if they've escaped it so far, for people who have who have misinformation and think because I've been infected previously, I'm safe. They're sadly wrong in the face of Omicron. So, I think we're gonna see that.

Dr. Halena Gazelka 15:18
Greg, can I ask you, I just want to interrupt there. Do we know yet if Omicron, the severity of the illness is how it appears to be?

Dr. Gregory Poland 15:27
Yeah, this is where the modeling estimates begin to diverge. Because on the one hand, we have data from South Africa, very different context, younger population, high previous infection rates, recent immunization programs. The U.S. an older population, much less infection, and an immunization program that started early, not late, and therefore is waning. So, if you look at the best data that just came out, it literally is hot off the press from London, a context much more like our own, they do not see a decrease in hospitalization or severity, but a much higher increase in transmissibility. That combination is what leads me to think in our context in the U.S., we're going to see super spreading events, we're going to see devastation among the unvaccinated, and we're going to see high illness rates among those who were vaccinated but not boosted. Among the boosted, we're much less likely to see hospitalization or severe disease. My prediction is that we will see variant focused vaccines coming in 2022. We'll see immunization down to age six months. We'll see a standard regimen being three doses of vaccine. And I don't think we're gonna see equal liberalization of the pandemic into 2024.

Dr. Halena Gazelka 17:15
Okay, well, in spite of what might be to come, which we are speculating on, we nonetheless are grateful. I've shared with you before that I love to ponder what I'm grateful for, I do so on the way to work in the morning. And my daughters also know that if we sit down to a meal
together, they are very likely to be asked at the end, three things that they are grateful for.

Dr. Gregory Poland 17:39
That's great.

Dr. Halena Gazelka 17:40
So, I'm gonna ask you today, I'll tell you three things I'm grateful for in 2021, and then I'd love to hear from you. I have so many, I love doing this podcast with you. I'm grateful for the opportunity of my job of Mayo Clinic that allows me to reach our listeners and to participate with you in this, which is so meaningful. I've shared, I've been very open in sharing that I've gone through treatment for breast cancer this year, and I am delighted to be cancer free and to be healthy and going healthy into 2022. And I am incredibly, incredibly grateful for the relationships in my life of my children, of family members, of friends, of coworkers. There are so many things I could list.

Dr. Gregory Poland 18:28
Yeah.

Dr. Halena Gazelka 18:28
Have you got three for us, Greg?

Dr. Gregory Poland 18:29
Yeah, you know, it's so hard to confine it to three. I am grateful for you, Halena, and your friendship and the work that we've done together. I am, you know, people have asked me, gee aren't you exhausted after two years of, and it literally has been 14 to 16-hour days. And I would say for the most part, I'm invigorated. This is an opportunity to do for health and get messages out that have been very hard. And in that context, I'm extraordinarily grateful, beyond privileged to be working at the Mayo Clinic. I just, it is extraordinary the support that we have gotten from the clinic, and the taking care of one another. I'm grateful for my family. And, you know, we literally prayed for effective vaccines, and we got them. There's very little reason for somebody with an otherwise normal immune system to actually die of COVID now. That was not the case just a scant year to two years ago. I mean, I'm so grateful for the pace of science, but also grateful for the fact that pandemics have purposes. They really do, philosophically, spiritually, and otherwise. And as I said, they point out where we've strayed. They point out where we are better off fixing our hopes and dreams. And in an odd way, I'm grateful for that.

Dr. Halena Gazelka 20:21
We are grateful for our listeners too, which is why we're gonna sing to them right now, Greg. They might not thank us after they hear me sing.

Dr. Gregory Poland  20:28
Here we go. We wish you a Happy New Year. We wish you a Happy New Year. We wish you a Happy New Year and a healthy 22. We might get a lot of email that says keep your day job.

Dr. Halena Gazelka  20:48
I don't know what I was thinking. That's all I can say. But thanks for being here today, Greg, and Happy New Year.

Dr. Gregory Poland  20:53
Thank you. Merry Christmas to you too.

Dr. Halena Gazelka  20:56
We are so grateful to you, our listeners. Thank you for joining us today. I hope you learned something. I know that I did. We wish each of you a wonderful day and a very happy 2022.

Narrator  21:08
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