

Physician leaders discuss COVID-19 vaccine misinformation

On May 26, 2021, the AMA hosted the eighth webinar in the "COVID-19: What physicians need to know" series.

Hosted by AMA physician leaders, each installment of this COVID-19 webinar series aims to gain fact-based insights from the nation's highest-ranking subject matter experts working to protect the health of the public, particularly during the COVID-19 pandemic.

Physicians are facing a barrage of patient questions about the COVID-19 vaccine based on extensive rumors, misinformation and disinformation circulating amongst the American public. Meanwhile, numerous studies have shown that physicians and other health care professionals are the most important—and most trusted—voice in answering patient questions about the vaccine.

In addition to debunking existing myths, the panel addresses pre-submitted attendee questions.

Host

- Mira Irons, MD, chief health and science officer, AMA

Guests

- Susan R. Bailey, MD, president, AMA
- Gerald E. Harmon, MD, president-elect, AMA
- Megan Srinivas, MD, infectious disease specialist
- Brian C. Castrucci, DrPH, president and CEO, de Beaumont Foundation

Transcript

Dr. Irons: All right. Hello, and thank you for joining us for the latest in our "What Physicians Need to Know" webinar series. I'm Mira Irons, chief health and science officer at the American Medical

Association, and it is my pleasure to welcome you in and to serve as host for today's discussion about building confidence for COVID-19 vaccines among our patients and exploring the challenges we face in widespread vaccine adoption.

We've arrived at a critical moment in this pandemic, where states are relaxing mask guidelines and restrictions around indoor gatherings based on new recommendations from the Centers for Disease Control and Prevention. COVID-19 case numbers, and most importantly, COVID-related deaths continue to decline across the United States as more and more people become fully vaccinated. To date, half of adults in the United States are now fully vaccinated against COVID-19, and nearly two-thirds of adults have received at least the first dose. So this is progress.

And yet, while there's much hope and optimism that the worst days of the pandemic are behind us, we know that we still have a lot of work ahead of us to vaccinate enough of the population to conquer this virus. The latest research shows increased vaccine acceptance among most demographics, including in the black and Latinx communities, which have been disproportionately impacted in this pandemic.

But obstacles still remain, as vaccine supply now is far outpacing demand in some states. Whether they're objecting for medical, political, religious or other personal reasons, roughly one quarter of U.S. adults remain outright opposed to receiving the vaccine. And so as physicians, we have more work to do to reach all communities with a clear and consistent message, that the vaccines for COVID-19 are safe, they are effective and that they have followed the same rigorous scientific process that every vaccine does before it reaches the public.

To do this well, we need to be part counselor, part research scientist, and part myth-buster, but always a trusted physician. In recent years, we have seen how misinformation and disinformation is shaping the way physicians provide care, from the questions we get from our patients to the care and treatments that patients request or decline. Helping us explore these and other issues this afternoon is AMA President Dr. Susan Bailey, and allergist immunologist from Fort Worth, Texas, who has been one of the AMA's leading voices on vaccine science, efficacy and acceptance since the beginning of this pandemic.

Also joining me is Dr. Gerry Harmon, AMA's president elect, who is a family physician from coastal South Carolina, and who will be sworn in as AMA president at a virtual inauguration next month. Also with us is Dr. Megan Srinivas, an infectious disease specialist and healthy policy researcher from the University of North Carolina, who practices in Fort Dodge, Iowa. And we have Dr. Brian Castrucci, president and CEO of de Beaumont Foundation, which is a health policy organization that has done interesting research into overcoming hesitancy for COVID-19 vaccines.

Thank you all for joining us, and let's get started. So I'm going to start by asking Dr. Bailey the first question, and it's a timely one, given that we are beginning to vaccinate adolescents. Why are we vaccinating children with vaccines that are untested and they have a low risk of severe illness from

COVID-19?

Dr. Bailey: Well, thanks for that question, Mira. It's one that I'm getting fairly often. There is a general feeling that children don't get COVID. They get mild disease. They don't die from it. But the fact of the matter is that children are not immune from COVID. There have been thousands of cases reported, hundreds of deaths, and we know that children, of course, can be asymptomatic carriers and then if they do get COVID can have long-haul symptoms plus that very frightening multisystem inflammatory syndrome in children that resembles Kawasaki disease.

We need to immunize children because they comprise a significant percentage of our population if we're going to reach herd immunity. I disagree with the premise that it has been untested, because there have been one million 16- to 17-year-olds have already received the Pfizer vaccine. There were thousands that were in the Pfizer trial, thousands more that are in the Moderna trial in the 12- to 15-year-old age group.

And there's really no reason to think that the vaccines are going to affect them any differently than they are an older adolescent or a young adult, so I think it's critical to help get everybody back to normal again, get kids back in school, get our activities back the way we want them to be, is that it's important to vaccinate adolescents, and I hope soon, younger children.

Dr. Irons: Great. Wonderful answer. I'm going to open it up to the other participants. Any additional comments or thoughts on that question?

Dr. Harmon: One of the things that caught my attention in preparing for this discussion today is the evidence now that one out of four patients with COVID right now, 24 to 25 percent, are children. There's a transmissibility and a preponderance now that that's taking hold in the pediatric population, so I think if we can immunize them as soon as we can, it'll protect them for all the reasons you just heard from Dr. Bailey. Absolutely.

Dr. Irons: Great.

Dr. Srinivas: And just talking about the transmissibility that Dr. Harmon discussed and Dr. Bailey was alluding to, it's not just about the child getting severely ill. It's about them also bringing it home to their parents, their caregivers, their grandparents, and the best way to keep that transmission low, to protect the actual family, is to also ensure that your children aren't going to become carriers that could introduce it to your family.

Dr. Irons: Dr. Harmon, another question that we've heard about to you. How much did the pause in administering the Johnson & Johnson vaccine hurt public confidence in the vaccine?

Dr. Harmon: Dr. Irons, I think what that pause illustrated was that we are very closely monitoring the results from our vaccination problem. We started out with an emergency use authorization with 15,000, 30 to 40,000 clinical trial into phase three, and now we have, as you heard from Dr. Bailey and others, millions of Americans having received these vaccines. That the Johnson & Johnson vaccine paused for two weeks was actually a validation that we're being incredibly safe. That means the VAERS, the Vaccine Adverse Event Reporting System, which physicians are very familiar with, works.

We are monitoring what's going on. We found a slight uptick in a very unusual central venous sinus thrombosis that was a little more evident in the vaccinated individual. We drove down to this science to show that it affected women age 18 to 44, and so we've identified what's going on. We've been able to actually validate, I think not only the safety of the vaccine itself, but the monitoring of that.

So I found it to be very minimally impactful in my patient population, and I know that that's an approach that some of our vaccine-resistant patients may bring to their individual physician, but I would reflect then to that patient who might question, this system works. And we have done millions now. We've seen no other problems with it. I think it's a reasonable consideration. Furthermore, that Johnson & Johnson vaccine is a single-dose vaccine, so it's a one and done. It really helps validate that we're giving a safe vaccine.

Dr. Irons: Any additional comments?

Dr. Castrucci: I think for patients, it's really easy to say you are twice as likely to get hit by lightning than you are to get a blood clot from the COVID-19 vaccines. You're putting it in language that patients can relate to, is important, and will help you get your message across and then sets up a conversation for additional questions that they may have.

Dr. Bailey: And I also think it helps to remind patients that if you get COVID, you are very likely to have some type of clotting event, because COVID does affect blood vessels, and up to 20, 25 percent of patients with COVID that are hospitalized do have some sort of clotting event. So your chances of getting a blood clot are much, much less if you get the J & J vaccine.

Dr. Srinivas: Also, sharing the numbers has been very effective for my patients, because the Johnson & Johnson one was paused, it had only really been out there for about a month. And so people don't realize that almost 8 million people had gotten the vaccine. So the number of cases that were found were so small, and so just reminding people of the number of safe doses that were given helps to show just how safe this vaccine really is.

Dr. Irons: Wonderful. Moving on. Dr. Castrucci, what does your research tell us about vaccine hesitancy? Where's the hesitancy coming from, and how can we as physicians help build confidence?

Dr. Castrucci: So the politicization of this public health crisis has been challenging from day one, and the hesitancy, really, right now, does break along party line. We've announced in the last couple days 50 percent of the American people have been vaccinated; however, there were nine states where it's less than 40 percent. Herd immunity is often discussed when we should be discussion community immunity, because just because the nation gets to 80 or even 90 percent doesn't mean that that's what that is in your community.

And so what we've learned about hesitancy is what people want are facts and they want facts from apolitical sources and people they trust. So it most assuredly is physicians, pharmacists and other health care workers. It's pastors and other faith leaders. It's parents. It's peers. All of those folks have an amazing responsibility to be trusted one-on-one messengers, and what I would encourage every physician listening to do: make it a vital sign.

There was a time when smoking wasn't a vital sign. We made it a vital sign. We put the five "A's" in so that you could do a brief intervention. Every patient, every visit, every physician. I don't care what your specialty is. "Did you get vaccinated for COVID?" If yes, you're good. If not yet but I want to, make sure they have information about where they can get it.

And lastly, if they say no, give them the facts. We didn't cut corners. We cut red tape to get it to the American people. Tens of thousands of people have received this vaccine, and it will help you get back to what you want to be doing. It's the path back to normalcy.

Dr. Irons: Great. Dr. Srinivas, this was a great segue. I'm going to ask another question, sort of a follow-up question to that. How is the research and production timeline for the COVID-19 vaccines now in wide circulation different from that of a typical vaccine? And what's the simplest way for physicians to explain this process so that patients understand?

Dr. Srinivas: So there's a lot of confusion surrounding this timeline. One of the big things that people don't realize and that patients often wonder about is that mRNA technology, how did it happen so quickly? It didn't. We've known that it's actually been in development for more than two decades. The Pentagon really has been a huge force in promoting this over the last couple of decades and doing the behind-the-scenes research along with academics.

And so this is not new technology. We've used it when we've been developing flu vaccines, even in the development of the Zika vaccine, that was in the works. So we know how it works. So when the pandemic hit, we already were hitting the ground running with this technology we'd been working on for so long, and that is one thing that we really need to really connect with our patients on, to reassure them that we know how this technology works because we've been working with it for so long.

The other big issue, too, when it comes to this process is the concern about the approval process and how it works. Why was this so much faster than the typical approval process? The real reason is

because we did a lot of things in conjunction, overlapping, that normally happen in a more linear timeline. So as the private industry was really working on the development of the vaccine, we had our administrative side, the FDA, the CDC really overlapping with the review of the data at the same time, speeding up that process and working in more of a partnership that we have in the past.

When I talk to patients, one way I explain this is I talk about ordering a pizza from Domino's. When I order two pizzas, it takes longer if they make the first pizza and then go to make the second pizza. But when they overlap that process and are able to make them simultaneously, either because they have another worker with them or they're able to do both at the same time, my pizzas are both done in 10 minutes instead of waiting 20 minutes. And that's what the FDA, the CDC and private industries did. They worked together to make their pizzas or the vaccines much more quickly.

Dr. Irons: That's great. Dr. Bailey, Dr. Harmon, any other thoughts about how you'd handle this question from your patients?

Dr. Bailey: I also will tell patients that one reason that we were able to get things done so quickly is that we had so many wonderful people working on it and lots and lots of money from Operation Warp Speed. I read an analogy yesterday that I thought was great. It's like building a house. If you have only a few workers and not much money, it's going to take you a really long time to get that house built, but if money is no object and you have 200 people building your house, it's going to happen really, really quickly.

Dr. Castrucci: If I can add, I think the message testing, and just for the audience, I'm not a physician. I'm a public health doctor and what we work on is messaging around a vaccine, and so bureaucracy, we cut bureaucracy. We cut red tape. That plays well with the general population. And taking some of that language to say the FDA has been there at every trial, every study, every step along the way ... and hit that every.

The other thing that I think is super important for everyone on this call, I took it. As soon as it was available to me, I took it, and if people know that physicians are taking it, health care professionals that we trust with our most intimate information, that will help and it will make a great deal of difference in people's decision-making.

Dr. Irons: Wonderful. All right. Dr. Bailey, back to you. What could you say to a patient who says the vaccine could impact your fertility or make your menstrual cycles irregular?

Dr. Bailey: These myths have been making the rounds, and we think where the fertility came up was that some researchers realized that the spike protein on the SARS-CoV-2 virus was somewhat similar in structure to the syncytin-1 cell that helps the placenta attach to the uterus. And so the theory being that the vaccine would attack that cell and you would have a pregnancy loss. But the good news is is that there really is not any homology between those two proteins, and it doesn't recognize it.

The confirmation is different. The size is different. So that myth has fortunately been disproven. There were a number of women in the Pfizer trial who actually got pregnant during the trial, and to me, that's a pretty good testimony that it doesn't affect fertility. And out of I think 30 births, there was only one pregnancy loss, and that was in a woman that was in the placebo group. So the American College of Obstetricians and Gynecologists now is recommending that pregnant women get the vaccine. We know that pregnant women have more trouble with COVID and can have more severe disease.

And as far as the menstrual cycle irregularities, this is something, another, I think, reason that the CDC should get so much credit for taking every comment and every side effect seriously, as a sign that this reporting system really does work. There have been some menstrual irregularities reported, but it's not clear that these are any more frequent than they would be in the unvaccinated population.

Menstrual irregularities in adolescents and young women in menstruating women of all ages, are very common and can come and go, especially with the stress of the pandemic. So we don't think that there's any correlation, but we're following it very carefully.

Dr. Irons: Great. Wonderful. Any other comments?

Dr. Srinivas: Touching on that, we've actually had even more studies that have come out, just one on May 13 in *JAMA*, and another just two weeks prior to that that was written by a bunch of ACOG researchers that actually specifically looked at pregnant women and women in fertility age and found that this is much safer. One thing that I always remind my patients is that taking the vaccine is actually the number one way to protect their babies, because COVID can cause miscarriage. It can cause stillbirth. It can cause preterm delivery. And it's much safer to be vaccinated and prevent that additional increased risk for those things.

Dr. Irons: Great. All right. Dr. Harmon, what could you say to someone who has severe food or seasonal allergies and they are concerned about getting the vaccine?

Dr. Harmon: Very good question. Our studies have shown that the pre-existing severe food or seasonal allergies is not a contraindication to getting this vaccine. I would even argue that those folks who are more likely to have allergies and allergic-type symptoms might, if they were to get the virus, become more ill, as it were, because of their preponderance to already having an altered immune system. And so they could become ill and even worse. They might confuse early signs of the disease—congestion, headache, malaise, cough, even a little shortness of breath—with their seasonal allergies, and meanwhile get a little bit sicker before they could avail themselves to some early treatments that we know are now beginning to work as the science and experience has been gained with treating the SARS-CoV-2 virus.

So I would not contraindicate that. On rare occasion, if you're concerned about having a hyperallergic response, or maybe in the past you've had to use an EpiPen or something for a hypersensitivity or a

serious allergic reaction, talk to your doctor. Talk to your allergist. Talk to someone that knows your medical history and get clearance and advice from them. I will tell you that all of our vaccination centers have prepared on hand EpiPen®, the standard EpiPen, the adrenaline that we would use to treat hypersensitive reactions. And they have the ability to transport and provide medical transport. We do it in our local vaccination sites. All of us do that for all three of the vaccines, the Moderna, the Pfizer, and the Johnson & Johnson product. Thank you.

Dr. Irons: Great.

Dr. Bailey: I can't believe you didn't give me the allergy question, since that's what I do every day. The only contraindication is if you've had an anaphylactic reaction to that vaccine before or have known allergies to polyethylene glycol, which we think is what's triggering the anaphylaxis in the mRNA vaccines. I recommend to my patients, Listen, tell the vaccine provider about all your allergies. They'll watch you longer. They'll have a 30-minute waiting period instead of just a 15-minute waiting period. Bring your EpiPen with you. You know what it feels like to have a reaction, so at the first sign of something happening, let somebody know so that reaction can be treated. And then also reassuring them that you're about as likely to be struck by lightning as you are to have an allergic reaction to the vaccine. So I think that's really good news.

Dr. Harmon: And I'd like to add one thing to my allergy specialist colleague, Dr. Bailey, one of the things as a primary care physician I've learned as I become educated, remembering our audience of health care providers and physicians here, I've learned that something's a little antithetical to what I might have been taught before. If you have a person who is bothered by allergies, in the past I've thought about giving them a pretreatment with an antihistamine.

Said, if you think you might have an allergic reaction, why don't you take a Benadryl or diphenhydramine ahead of time? Actually, that's not good advice, and I would tell you that what that may do is mask the symptoms of anaphylaxis, the early warning signs, the itching, the rash, and then you could be in overt anaphylaxis without realizing it. So want to be careful what you advise your potentially high-risk patients that have hyperallergic anaphylaxis in their history. Something as a primary care specialist I didn't realize until I became more educated and experienced in the COVID pandemic vaccine response. Thank you.

Dr. Irons: All right. Dr. Srinivas, What could you say to someone who says, "If the first vaccine shot is 80 percent effective, why do I need that second shot?"

Dr. Srinivas: With the shots, as we've actually seen, that first shot has varying efficacy, but the thing we also have to keep in mind is it's going to change based on which variant somebody comes in contact with. With the initial variants that we tested against here in the United States, we saw that initial shot had up to 56 percent efficacy, really, one to two weeks out. Still not perfect, and really that second shot is what adds that more robust response.

And with the most recent variants that we've been seeing, like E1167, that was the one that had emerged in India, we've seen that that first shot, if it has lower efficacy, only about 30 percent initially, but then getting that second shot really boosts up your efficacy significantly. The studies coming out of Denmark, out of Israel, it all supports this. That first shot is not as effective as having both shots.

And the way I try to reflect this to my patients is I tell them that I'm making brownies, and the first part of the brownie recipe is mixing all of the dry ingredients together. But I'm not going to get brownies, that great fudgy brownie unless I also bring in the second part of the recipe, which is the liquids and the baking. That's when you really get the goodness. That's when I get that 100 percent delight.

And that's what happens with the vaccine. You need that second shot to increase efficacy but also the duration of which the vaccine will protect you, and more and more data coming out supports that.

Dr. Irons: Any other comments on that?

Dr. Harmon: You guys are making me hungry here for the brownies and the pizza now ... and maybe after lunch, maybe pre-lunch.

Dr. Megan Srinivas: Maybe I'm just thinking too much about food all the time when I see my patients.

Dr. Irons: Great. Dr. Castrucci, how important is the physician voice in this equation? How much does a recommendation from a physician matter? What are you finding in your focus groups and your research?

Dr. Castrucci: So our research as well as research from Kaiser Family Foundation and others have shown that the physician voice, nurse voices, health care providers, pharmacists are all critically important. This is really about mobilizing our ground game, and we need folks in their offices, talking to people one-on-one. And I think some of the analogies we've heard are really, really good. You've got to remember messaging needs to be simple, relatable and repeatable.

So you don't get points for different messages with each patient. Get a good script together. Know what you want to say. We have a toolkit available for physicians at [changingthecovidconversation.org](https://www.changingthecovidconversation.org) where all of our messaging is, but know the facts, give folks the facts, and stay away from the complex messaging that is in medicine, but we need to find a way to make it super simple.

Brownies, pizza, another analogy that we've heard is when you wear your seat belt in a car, it's not because you know you're going to get into an accident. You do it to make sure that if you get into an accident, you're protected. This vaccine is the same thing. If you were to get COVID, it keeps you safe.

Dr. Irons: Great. Back to Dr. Bailey. What do you say to a patient who says that they're concerned about the long-term health effects of the COVID-19 vaccine and wants to wait to see what happens before they get it?

Dr. Bailey: Boy, I hear that one a lot. I have patients, "Well, I just think I'm going to wait and see." And I resist the urge to ask them, well, what are you waiting for? Since we've had hundreds of millions of people vaccinated. But there is ... we have never had a vaccine of any kind ever that has caused long-term side effects. All side effects pop up between, really in the first two months. And there's just really no mechanism that makes sense that would all of the sudden cause something to happen years later.

We know folks are concerned about safety, and when a parent brings that up to me, I say, everybody wants what's best for their children. Everybody want what's best for their family, for their parents, their grandparents. And right now, everything we do has a balance of risks and benefits. You got in your car to come to the doctor today, although there was a chance that you might have had a wreck, because you felt that the benefit of going to the doctor was worth it. There's nothing that's completely risk free, but we feel very, very strongly that the risks of not vaccinating and getting COVID are much worse than the theoretical risks of getting vaccinated.

So you've got to present it to patients in that way and say, yes, this was authorized after just two months of observation, but we've never seen vaccine side effects occur after that. So I feel very confident. We're continuing to look at folks. But I try to reassure patients that they're going to be okay long-term.

Dr. Irons: Great. Others? Any comments? Additions?

Dr. Harmon: Maybe I would comment that Dr. Bailey's point, I know the question and the resistance from some folks has been they're uncertain about the long-term effects of the vaccine. I think we need to remember that the long-term effects of this COVID virus are known. They're starting to become known. We have over a year of experience, now 18 months of experience, and we know that there is a long-hauler syndrome. We know that there's an arterial vascular component.

Not only does this virus affect the linings of your lungs, and again, we're speaking to health care professionals, it's an arthritis-type inflammation. You get cardiovascular problems. You get myocarditis. You get a decreased ejection ... you get hypercoagulability. You get all these bad things, but we know and we actually see the data that the more seriously ill patients have a longer recovery.

Two-thirds of the people, 60 percent I'm looking at, and we've seen these reports in the literature, 60 percent of those 60 and over have substantial symptoms 60 or more days into the virus recovery, and it can have long-term cognitive effects. It affects your ability to mentate. You have serious neurologic long-term events. That's such an important risk that you can mitigate or prevent by becoming vaccinated.

Again, not to try to patronize our patients as physicians, but try to explain them the risk-benefit. The seat belt analogy's an excellent one. You don't plan on getting in an event. Occasionally the seat belt, on very rare occasion, can trap you in your vehicle, but overwhelmingly it's there for safety in case bad things happen. This is an insurance policy that's well worth the investment. Thanks.

Dr. Srinivas: Dr. Harmon, you touch on a really important point, and one thing I try to, on that point, reflect my patients to, is it's not just the severe or moderately ill that can have those long-term side effects. It's actually a really good paper came out in *JAMA* last month that showed in the mild cases even, people who really don't have their life affected that much, we've seen a 50-percent increase in all-cause mortality in the six months after illness. And that's for the people who don't even really get that sick. So we know there's long-term consequences of the disease, and we can prevent that with the vaccine.

Dr. Irons: Great. So Dr. Harmon, back to you for this one. What could you say to a patient who fears the COVID-19 vaccines are experimental gene therapy that changes your DNA?

Dr. Harmon: I'm glad my audience is physicians here, because it's a bit challenging to explain messenger RNA and DNA to even the bright patient, because it's just not in their common vocabulary, their lexicon. They read about the human genome and things and it's something you read about in *Scientific America* and *National Geographic*. It's rarely something you think about when you get up in the morning. "How's my DNA going today?" It's unusual.

But what you've touched upon is something I as a family medicine specialist have to be able to then convey to my patient, and I'm thinking through the science of it. These two messenger RNA vaccines, and even the adenovirus vector vaccine, the former being Pfizer and Moderna, and the later on J&J, they go in to the cytoplasm of the cell. Remember the genome and the genes and the DNA is in the nucleus. And if you think about it as a scientist, as health care professionals, these vaccines enter the cytoplasm, which ordinarily there is ... I read the science.

There's 200,000 bits of messenger RNA working in our cells at any given time telling it to make proteins, to make enzymes. That's what cytoplasm of cells do. They don't just serve themselves. They serve the entire body. So this messenger RNA, or the adenovirus vector RNA, tells our cytoplasm, get busy making a spike protein of the SARS-CoV-2 virus, and put it out into the outside the cell, and then that's pretty much cleared by that cell within a couple of days at most, and it's all gone.

It never touches your DNA or genome, and if you can think, and I try to tell my patients that it won't touch your DNA. It has nothing to do with your DNA. It tells your cells that are outside your DNA what to do so your DNA doesn't get harmed. Thanks.

Dr. Irons: Any additions?

Dr. Bailey: Yes. I have found in this situation that sometimes visual aids work. I'll draw a big circle, picture of a cell with a nucleus in it, and do some scribbling for the chromosomes. "Okay, here's where your chromosomes are. This is where the mRNA goes. The mRNA can't get in here. That doesn't happen." And sometimes that can make an impact on someone that these abstract terms don't mean very much. Megan, you've got great analogies. Do you have a good analogy for this one?

Dr. Srinivas: I think I'm going to really owe Dr. Harmon a plate of brownies after this analogy, but with this one, I tell people that the mRNA is like a recipe. If I want to make my grandmother's brownies, I get her recipe and I try to make it exactly like that so that way I can feed the crowd. And your body's doing that. It's getting the recipe on how to prepare to make the brownies that will protect you from COVID when the time comes.

Dr. Castrucci: Also, I think everyone on the call needs to be very cognizant that some of this misinformation is coming from folks wearing white coats, that everyone on this call may be well-intentioned and want to have people vaccinated, but that is not universally shared by every provider, and so I would encourage you to be cognizant of what the misinformation is and where it's coming from so you can more actively hit on those points that those are spreading misinformation are propagating.

Dr. Srinivas: And actually, what Dr. Castrucci's saying times well with, a misinformation think tank published a paper just this week that discussed how people are being paid. Influencers are being paid to intentionally spread misinformation. One influencer in France who's one of the biggest influencers in the French culture, he has 1.2 million social media followers, and he came out and shared how a consulting company had approached him to specifically tank sales of Pfizer by spreading misinformation that they knew was wrong.

And he's not the only social media influencer they're reaching out to. They're reaching out to anybody with followers, both in the medical field and outside, but especially those in the medical field who we might think of as allies. They're reaching out to them because people trust doctors. They trust nurses, and these are the people they can really get to propagate this misinformation.

Dr. Castrucci: And this is probably one of our biggest challenges beyond the physical of it, is social media is a challenge for us going forward, and this is medicine and public health. I never thought in my public health career I would be debating whether something existed. Not how to treat it, now what we should do from a public health standpoint, just the basic "I heard it was a hoax." And so this is going to require a change in all of our training going forward.

How do we deal with misinformation? And at what point is misinformation tantamount to yelling fire in a crowded theater? So we have some heavy first amendment issues to think through, but people have died because people have spread misinformation.

Dr. Srinivas: And one of the ways we as physicians could really combat that is take what we look at as sometimes the enemy, social media, but use it as a tool. So throughout the pandemic, I've found it extremely effective to directly reach out to patients, to my colleagues, by just sharing daily quick facts that are true and sourcing them to where they can find more information so people can dig in and make sure that I'm not spreading misinformation.

And as physicians, just having that connection with our community members, it increases the chance that they're going to listen to what you post on social media. So don't let social media just be that foreign object that other people can take advantage of. Be somebody on there that can try to purvey some of that correct information, because whether we like it or not, it's a place that people look to. Twitter, Instagram, Snapchat, Facebook, it's a place that people look to for information, so we might as well be a part of the solution on it.

Dr. Bailey: And a plug for the AMA here. AMA senior management has been working from the beginning of the pandemic with the large social media outlets to asking them not to publish misinformation, and so that has been a concern of the AMA's, really, from the very beginning.

Dr. Harmon: And you've seen ... In the chat, I've seen where Dr. Irons posted a couple of good references on the web for conversations about vaccines from the AMA and from de Beaumont Foundation. I tell you, I was precepting this morning with resident physicians, and they brought this same topic up to me. And I was talking to them about vaccine hesitancy and other leadership roles for the community physicians and influencers, of which all of us doctors or the resident physicians will be when they finish their residency, and they did have some distress to me and they voiced it about the preponderance of social media disinformation, and how they almost daily, especially the younger generation of patients, have to deal with the social media disinformation campaign.

It is an uphill battle, but it's one we're actively engaged in. It's one we as health professionals need to be that trusted source. And again, probably one of the best counterpoints is to take it point by point, to talk to your hesitant patients, and talk to them as a trusted source of information, someone with whom they've trusted their lives and their families' lives for extended periods of times, in my case, for generations. But take advantage of your relationship with your patients. Thanks.

Dr. Irons: Dr. Castrucci, I'm going to have you ... We will post the link to the de Beaumont Foundation's messaging tips, and we also have some that we've developed at the AMA. But do you have any specific strategies in terms of how to address the misinformation that people are hearing and that they're reading and that their friends are talking to them about? Are there specific strategies of words to use or not to use that are important?

Dr. Castrucci: I think this is tough because for us, we have a very narrow lane of facts. Those spreading misinformation have a whole football field of stuff. Zombie apocalypse, you're going to have these types of new cancers. I think one of the most disturbing things I had seen on social media was,

it was someone watching TV, and on the TV it said "Have you ever had the COVID-19 vaccine? Call 1-800," and it was that suggestion that, like mesothelioma or the other things we see on TV. "Call now and you can get this big settlement."

These are really challenging, but as much as ... I'm a bulldog. So when someone trolls me on Twitter, I want to go at them. I want to start talking about it and take it apart piece by piece. And most of the misinformation people that I've talked to, it's like that doesn't help. It brings misinformation forward. So if you go to a website called publichealthcollaborative.org, it is the home of the Public Health Communications Collaborative, we actually have a misinformation alert on that website, and not only does it tell you what the misinformation is, it tells you what you should do to address it.

And despite my bulldog mentality, most of the time, it says just don't talk about it. Don't buy into it. Pivot back to the facts. Pivot back to what we know. Help people understand. I think many of you have mentioned this kind of calculus between the theoretical impact of the vaccine to the documented and real possibilities of the virus. And I think we, in our communications, have not done enough to really help the American public have some concern about the virus.

And unfortunately, I think about Trevor Lawrence, who was the starting quarterback for Clemson University. He had COVID-19, and he was on the sideline. He couldn't play that week. But he was throwing the ball and he was fine. We've never had, with COVID, that Magic Johnson moment. I was in high school when Magic Johnson made a disease that was essentially a disease of gay men to a disease among all of us and something we all feared.

And we haven't had that yet. With COVID, we have far too many people who say, "Oh, I had it and I'm fine. And look at this guy. He had it for a day and he's fine." So I think we have to do a better job of helping people understand the potential devastation of COVID, because the seat belt analogy is kind of built on the fact that we've all seen horrific accidents, and so it's a little easier to click that seat belt because we've seen it and we fear. So I know fear's not the best communication strategy, but an absence of fear, when you have fear being generated on the other side, I think is something we have to think about a little more.

Dr. Srinivas: Touching on what you're saying, Dr. Castrucci, even looking at the political world and rhetoric, they found that the candidates who don't repeat what their opponent says but instead just build that positive lining themselves are far more effective in their rhetoric, whereas if you repeat, that's what gets stuck in people's minds. And the same on social media. By not engaging with somebody who's spreading misinformation, you're not enabling that conversation to be seen by other people.

But by engaging, it actually increases the likelihood that somebody will see that by about four to five times every single time somebody engages. So that's why it's so important to just be positive message forward and not to really address the trolls or the misinformation that's out there.

Dr. Irons: Great. All right. Dr. Srinivas, I'm going to stay with you, and I'm going to stay with you for a process question. What do you say to a patient who says that if the vaccine for COVID-19 were safe, it would have already received FDA approval?

Dr. Srinivas: The thing that we've discussed multiple times throughout this is how the FDA and the CDC has really overlapped their entire time with the development of this vaccine, and so there's really not any nook or cranny that is obscured by the FDA or the CDC. And so we know that there has been clear transparency from the beginning. The fact that we had the Johnson and Johnson pause so quickly shows that there's a lot of transparency.

But when it comes to full approval process, not just an emergency-use approval, it requires a lot of administrative work, a lot of paperwork, a lot of that bureaucracy. And it takes time to do that. And so the fact that we went to the EUA was to really cut out that paperwork process even though that we know that the vaccine is safe. And that paperwork process is happening in the background.

I tell people, for once not a food analogy, Dr. Harmon, to think about when they go to get their car registration. I have to renew that every single year. It's the exact same thing. I pay the money. It goes through like this, but it still takes me a month for me to get that registration sticker in the mail to put on my car. And that's because of the bureaucracy, the paperwork in the background.

And that's what going on with the approval. Both Pfizer and Moderna are in the midst of that process. We anticipate that they will likely have full approval in just a few months, but it's really because of the paperwork that's just been taking a while to get it caught up to where the science is.

Dr. Bailey: And I think it's important to emphasize, of course you don't want to get too down in the weeds about this, because it can get really wonky, but that the EUA process that was adopted last summer for vaccines is actually not that much different than the licensing process. It's just missing the bureaucracy, and AMA has been on top of this from day one. And no corners were cut. It was just an incredibly rigorous trial process, and the approval versus authorization in many ways is just semantics.

Dr. Castrucci: However, just be mindful of those, because when that changes, it will create an opportunity for those who had been concerned. Our data have shown that just the emergency, the idea that they're experimental, it does contribute to some concern, and so if you've had patients that you've talked to who are concerned in having that vaccinated, when we start seeing these go from EUA to full authorization, it's an opportunity to re-engage with those patients, to say "Hey, now it's full authorization. How you feeling about that today? No, you said it was an experimental issue. Now it's not. So what do we think? How do we get you to vaccinate today?"

That's an opportunity that we have moving forward as with school openings. Many of you are in communities where we're having this conversation. Are we going to open schools? Masked or unmasked? Vaxxed or unvaxxed? And what we've seen in our data is that a return to school

unmasked and not distanced, if you're vaccinated, is a major drive to get parents to choose to make that decision.

The idea of we're getting back to a normal school is a real carrot, and the more that states are taking that option away, it just takes a tool out of our toolkit. But if you're talking to local school boards, if you're engaged with your local school districts, encourage them to put out that carrot and stick. And it could be effective.

Dr. Irons: All right. So now that we're going to be wrapping up in a few minutes, what I'm going to do is just go around to everybody and ask whether there are any questions that you're getting commonly that we haven't brought up today, any final thoughts, and things that you have found. A best practice, so to speak, that's been really effective in addressing these questions. Let's start with Dr. Bailey.

Dr. Bailey: Thanks. I have found, and there's recommendation, I know Dr. Castrucci's foundation has emphasized this and others that have done research into how to talk about vaccines with your patients, is to encourage questions, to make sure the patient understands that it's natural to have questions about something new, that their questions are welcome, and to be very empathetic when handling their concerns.

Just making sure ... I had a patient that was just like "Nope. Not going to do it." And I was like, "Okay. Would you mind telling me why? I'd really like to know what your thinking is." And I had a long-term relationship with this patient. And it turned out that she had some legitimate concerns and some concerns that were totally out in left field. And although I'm not sure I changed her mind, I asked her, I said, "At least keep thinking about it. Keep looking at it. Keep studying. Keep listening, and if you have any questions, please, please, please let us know."

Dr. Irons: Great. Dr. Srinivas, why don't we go to you next?

Dr. Srinivas: So really, similar to what Dr. Bailey was saying, trying to talk to patients from a way that doesn't judge them but really reflects what you've done and the information that's out there. So many times I'll use my own personal example when people ask me about fertility. I tell them, "Hey, I plan to have children, and I got the vaccine." That has changed quite a few people's minds as "Oh, okay. She did it herself." Or same about, one of my best friends is pregnant, and I encouraged her to get the vaccine and drove her to the appointment, and she's doing great, as is her baby, now that she has delivered.

One other thing that I do want to highlight is that language really matters. So there's a lot of conversations out there about how to address the crowd that has vaccine hesitancy. One of the biggest things that we've seen is don't call people anti-vaxxers, because it puts that label in your mind as it's a confrontational relationship instead of a a relationship where we can discuss concerns and get to, hopefully, a similar point because we have similar values to build upon.

It also creates that confrontational aspect in other people's minds instead of making it a team aspect. So we've seen that one of the biggest ways to combat vaccine hesitancy is to change the language around which we address it.

Dr. Irons: Great. Dr. Castrucci?

Dr. Castrucci: I'm going see your "Don't use anti-vaxxer" and raise you "Don't even call them vaccine hesitant." We've tried to use vaccine concerned. What we're all saying here: Don't blame and shame. Make sure we keep these conversations about health. There's a very fine line with COVID between having a health conversation and having a political conversation, and the second that people think you are trying to persuade or manipulate, now it's a conversation about liberty, freedom and government overreach.

So we want to stay fact based. You want to let people know this is their decision. And I agree with both of the folks who've said it's about giving them safe spaces to ask questions, because there really aren't a lot of safe places to ask questions about COVID without getting immediate backlash. And that's really unfair, because I'm glad that you are comfortable with this vaccine, but I'm just not yet, and that's okay. Normalizing concern instead of ... and again, I think the blaming, the shaming evolved out of the politicization of the virus and the vaccine. And we have to do everything we can to de-politicize the conversation. If you politicize a public health crisis, you delay the end of it.

Dr. Irons: And Dr. Harmon, I'm going to let you have the last words.

Dr. Harmon: Thank you, Dr. Irons. I appreciate that. I've learned a lot in this webinar today, so thank you for allowing me to participate from my perspective. What I want to do is address my personal experiences and successes I've had with the vaccine resistant or vaccine questioners, as it were. You heard Dr. Castrucci say, first, don't give credibility. You heard Dr. Srinivas say don't repeat the negativism. Don't go on social media attacking the misinformation. And don't give them more credibility in media spaces. Well, that's a good thing. Talk to your patients as individuals.

One of the things I've found to be effective in my community ... and while my state, South Carolina, is not at the 50th percentile. We're still in the 40s, about total immunity, so we're working at it, but I've heard the term today from Dr. Castrucci, community immunity. And I use that in my local community, we're 75 percent vaccinated, which is pretty good. We're among the leaders in our state. I think it's because of our positive efforts.

We have had community-based vaccine centers. We have been out in the rural areas in communities of color, which ordinarily have a little bit higher resistance to vaccinations of all types, and even sometimes confidence in the health care system. So we get the influencers at those communities to host ... I've had it in churches, I've had it at community centers, in rural health centers that are ordinarily difficult to get to.

And we've been out there vaccinating, and then when we're out there, we thank people for coming. We appreciate them getting the vaccine and being confident in what my recommendation is and taking care of their community with immunity. That's a great perspective, and now that we've opened it up to the 12- to 15-year-old age group as opposed to just the 16 and up or 18 and up, depending on the vaccine available, now we're going out to the school events.

We're going out to the school nurses. I've got the school administrators. All the school nurses vaccinated. They were first in line, and now they're helping vaccinate the students at pre-participation sports exams. You don't require the vaccine when you give a pre-participation sport exam, but you make it available. We've got a little corner with a vaccine over in the corner. While they're there getting their pre-participation check, "Hey, by the way. Your parents ... give you permission or your guardian to get permission to get your exam? Well, how about getting a vaccine while you're there?"

Reach out into those communities. And at sporting events. We've actually been there. You've got to take advantage of targets of opportunity, is a word used in my military background. And it's been very effective at getting that done. This is a wonderful opportunity to be, again, using the sports analogy, on offense against this virus. Let's take an offensive position and not just wait until it whacks us. Thanks.

Dr. Irons: Thank you all. This has just been a wonderful, wonderful hour with you all. Thank you again to Doctors Bailey, Harmon, Srinivas and Castrucci for your time and effort and your incredible insights. And thank you all, all of you, for joining us and for all of your great questions.

We will be in touch with the dates and times for future physician webinars. If you are interested in sending this webinar to a friend or watching past episodes, this "What Physicians Need to Know" web series is available for free on our website at [ama-assn.org/COVID-19-webinars](https://www.ama-assn.org/COVID-19-webinars). Or you can simply visit our main page and search for COVID-19 webinars. Thank you again, and we hope that you'll join us next time. Be well, everyone.

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