**Vaccine Ambassador Training**

[00:00:00] **Dr. Susana Morales:** [00:00:00] Okay. All right. We're going to get started in the interest of everybody's time and everybody's empty stomach cause it's dinner time. We're really honored to have you join us this evening for our event become a vaccine equity ambassador co COVID-19 vaccine update for clinicians. Let's empower our patients and our communities.

[00:00:27]We are excited to introduce our panel to you which I will do in one second, but I wanted to just tell you what the game plan is for the seasoning. Well actually I'll tell you that in a second. So thank you all for coming. I think that we have guests from both within Cornell, our students, how staff, faculty, and staff, but also.

[00:00:48]Many guests from other institutions. I know that we put the word out on social media, that our friends from the national medical association and the national Hispanic medical [00:01:00] association also reached out to their networks. And so we're really excited that you're going to be joining us.

[00:01:07] We have been engaged as have many people in a lot of efforts around addressing COVID vaccine questions and empowerment because our communities we know have been incredibly hard hit by COVID and and have a lot of questions. So many of us have been doing community educational events and so forth, but we wanted to give an update on the COVID vaccine, but also about how to talk to people with our patients in the office.

[00:01:34] And community organizations and other venues as well. So that's going to be our focus today. I would like to introduce our esteemed panel to you. We have a varied panel that's representing several specialties first I'll firstly have Dr. Kevin Holcomb them, who is our associate Dean vice chair of the department of obstetrics and gynecology.

[00:01:59]He's a [00:02:00] member of the division of gynecological oncology. We have Dr. I'm not sure if she's here yet because she's on service, but hopefully she'll be joining us. Dr. Linnie Golightly, who is our associate Dean for diversity and inclusion and an associate professor. Medicine and microbiology and immunology, Dr.

[00:02:17] Marcus Lambert. Who's our assistant Dean for diversity and student life in the Weill Cornell graduate school of medical sciences, and an assistant professor in the department of medicine here at Weill Cornell. I want to acknowledge the fact that this is the last few weeks of Dr. Lambert's being part of our Cornell family, but he's always going to be part of our Cornell family, but he's decided to take a position and wonderful position as the associate vice president for research strategy and operations.

[00:02:48] And he'll be an associate professor in the school of public health at SUNY downstate with some of our other buddies that were Cornell folks. So we're really, we're really excited for your new your new adventure [00:03:00] Marcus, but you're always going to be our brother and part of our family here. Dr. Joy Howell, who is our assistant Dean for diversity in student life, and is also the vice chair for diversity in the department of pediatrics and an associate professor of clinical pediatrics.

[00:03:15]And Dr. John Moore is a professor of microbiology and immunology here at Weill Cornell medicine and an expert in all of the things that we're going to be talking about. So we're very honored to have you with us, talk to you more. And finally, the Dr. Avelino Amado is our diversity program manager here at the Weill Cornell graduate school of medical sciences.

[00:03:36] And Dr. Amado will be moderating our Q and a and a little little while. So I'm going to be doing a brief slideshow. It's just some vaccine basics and followed by Dr. Lambert who will talk about issues in vaccine education, empowerment, acceptance. Et cetera, especially in communities of color.

[00:03:56] And then we hope to, to speed through [00:04:00] that part, to open up for Q and a, because we have a wealth of information here and experts in, in many different areas to both share to have the, the audience, the participants today share their questions. And we'd like you to put them into the chat as, as we go along.

[00:04:17]Dr. Amado will be curating them, but we've also collected some questions that we've received from patients and community members at various community forums that many of us have done so that we can share those with you as well. And what we want to do is model how we would answer to lay people, not try not to use too much medical jargon but how we would answer to lay people to community members, to patients about some of these questions.

[00:04:48]Because I think one of the things that people also struggle with is all the, the over, over technical content that sometimes is available to them. So that's our major agenda. At the [00:05:00] end of the session, we will ask you to fill out a very, very fast evaluation. And and so we look forward to your feedback because we will be, you know, doing the, as we go along.

[00:05:14]All right. I'm going to, I'm just going to share my screen and once you to our slides.

[00:05:36] All right. Okay. So as I said, this is our to become a vaccine equity, ambassador slideshow. And I want to acknowledge our many collaborators on a lot of these COVID vaccine education and equity efforts that I listed. This is only, I think, a partial listing that it listed here.

[00:05:56] We've also been working with with Columbia [00:06:00] and other medical schools and the the Dahlia center for health justice and with the New York city department of health.

[00:06:12] So as I said, we're going to review vaccine mechanisms. Talk about the current COVID-19 vaccines. Do an overview of vaccine acceptance, hesitancy, and education, and then proceed to the questions and answer interval, which includes how to talk to patients and community groups about COVID-19 vaccines.

[00:06:34]Sorry. My my gadget is acting up. Yeah.

[00:06:43] Okay. Forgive me. So as of a couple of days ago, the there were.

[00:06:54] There were 116 million globally confirmed cases of [00:07:00] COVID-19. And in the United States, we've had 524,000 deaths from COVID-19. And our, our hospital, we get a daily, a daily briefing on how many cases are in New York Presbyterian hospitals network. And every, it hasn't really been below 700 for many weeks.

[00:07:22] So COVID is actively going on. It's a vicious this has pandemic and we are grappling with it on a daily basis. In, in the interest of time, I'm not going to show you this video, but I wanted to just point you to the Gavi website, which is the vaccine Alliance. The family members are who Gates foundation and UNICEF.

[00:07:44] And this this YouTube video, which we'll we'll give to the group access to our slides is a four minute intro introduction to vaccinology. So it's, it's a great resource. It has a lot of other patient information and up to date information about [00:08:00] vaccines. So while we're dealing with our COVID pandemic and the crisis that we are all struggling with and this is very personal for many of us, many of us that have had COVID bad family members or friends with COVID, some of us may have lost people due to COVID.

[00:08:13]And so, and of course we're seeing COVID in the office, I've diagnosed several people with COVID in the last two weeks of my own practice in my own practice. But at the same time, we have new measures for prevention. Multiple COVID 19 vaccines are in development. And of course the FDA's emergency use authorization process speeds up availability and use of medicines and vaccines during public health emergencies, such as the current COVID 19 pandemic.

[00:08:43] And one thing to remember is that COVID-19 vaccines are being held to the same safety standards as all vaccines. All that scenes must go through clinical trials. And as as you are aware the the clinical trial process is a [00:09:00] four-phase process. The there's phase one, which in general is 20 to a hundred healthy volunteers.

[00:09:07]Phase two. And during that phase one, basically researchers try to answer the questions. Is the vaccine safe? Are there any serious side effects? How does the vaccine dose relate to any side effects? Is the vaccine causing an immune response during phase two, there are several hundred volunteers. And again, there's a focus on common short-term side effects, what the body's immune response.

[00:09:31] And there's an effort to see. Are there any, are there signs that the vaccine appears to be protective? Phase three though, is where the big, the big effort is where that a thousand in the case of the COVID vaccine trials, tens of thousands of volunteers participate to answer the questions, do disease rates between the people who are vaccinated and those were unvaccinated differ and how well the protection how well the vaccine [00:10:00] protects people from disease.

[00:10:01] We're right now in phase four of all the trials. All the the, the approved vaccines, which is even after emergency use authorization approval, the FDA and the CDC still monitor the, the, the post-marketing post distribution effects of the vaccine outcomes side effects.

[00:10:26] So the questions that the patients ask, one of the questions I had, and what I tell patients usually is I needed to do the research. I promise you, I will do the research about COVID vaccination to decide whether I could recommend vaccines to you and whether I was going to accept the vaccine myself.

[00:10:45] And I would say that one of the biggest questions that patients have is how was the bag? How are these vaccines. Created so quickly. So the things to recall is that the clinical trial phases, which are usually in sequence first phase one, then phase two phase, and then [00:11:00] phase three were overlapped somewhat to try to expedite the evaluation.

[00:11:05]I would say some of the biggest reasons that the vaccine was created so quickly and, and, and the answers were reached so quickly, is that really thousands of diverse people, both diverse in race and ethnicity and diverse in medical problems volunteered very quickly. You can imagine that vaccine scientists may sometimes have difficulty recruiting participants in this case.

[00:11:29] You know, just for the three vaccines that have been approved in the U S so far 100,000 people from around the world and from the United States, volunteered to participate very, very quickly. And then the other thing that was different than other types of vaccine trials that are done in a non pandemic setting is that when a raging pandemic is going on, the outcomes came quickly that the vaccine investigators could quickly see that the vaccinated people did a lot better.

[00:11:57] In addition, the, the food and drug administration [00:12:00] and the centers for disease control, prioritized review and authorization of the COVID-19 vaccines. And one of the things that will tell if the organization the governments of the U S Canada European union, and other developed countries, high-income countries decided was to invest in production that.

[00:12:21]That they, you know, the, the vaccine scientists from around the world mobilized to turn their attention to COVID-19 vaccination. And what they told the vaccine teams was a money, was no object B start producing a vaccine, even before we know that the vaccines work, because we will get that. You know, if the vaccines don't work, we'll throw the, throw the manufactured vaccine away.

[00:12:49] But if they do work, then they're ready for deployment because that's one of the things I think that's also been startling to the public that overnight you're told, Oh, the FDA has approved the vaccine and [00:13:00] then overnight they're being, they're shipping it out to your pharmacy or your hospital. So it's, I have found it useful to explain this to patients.

[00:13:08] So the Pfizer vaccine just to review what messenger RNA vaccines are. Of course messenger. RNA is like an instruction manual on how to make the spike protein on SARS COVID two. And of course ourselves then ourselves can make copies of the spike protein and teach the immune system to make antibodies and immune cells against the virus.

[00:13:33] And the examples of this are Moderna and Pfizer. So th most of the vaccines have selected, at least the ones that have been confirmed so far approved so far have in some way, targeted the spike protein. So in this case, an MRI that that codes, the spike protein is placed in lipid nanoparticles. That's what makes the vaccine content.

[00:14:00] [00:14:00] And as I said, the the MRNs could then enter the cytoplasm code for the spike protein and the spike protein serves as the antigen that's in recognized. And antibodies and immune cells are secreted. So they fought the Pfizer trials tested 30, over 36,000 people with two doses, 21 days apart.

[00:14:20]It's some of the, of the volunteers were were between 16 and 18, but they went from 16 to, in their eighties. 36,000 people, as I said, were tested. And what we've found was that this vaccine was 95% protective against symptomatic COVID-19 infection. The Missouri and a trial is two deaths is 28 days apart.

[00:14:44] The, this trial studied non-pregnant adults, 18 and above. And about 30,000 people were tested. And their results were similar about 95% protection against symptomatic COVID-19. Now that's something important too, to remember, because it's [00:15:00] something that's peculiar to a lot of people, including late people.

[00:15:03]The fact that it's, it's not necessarily protective against asymptomatic or mildly symptomatic COVID. And that one has to explain that people still need to wear a mask practice, social distancing, although the risk of getting even asymptomatic COVID is felt to be low. And we, you know, it's an important part of, of addressing the pandemic.

[00:15:26]Just so you're aware the demographics, because this comes up a lot, the demographic characteristics of the Pfizer trial, you can see here that about 9% of the participants were black, 4% Asian, 27% Hispanic. That people were recruited from many countries specifically Argentina, Brazil, South Africa, the U S had the predominance.

[00:15:50]And there were there was a large percentage that was obese. The new journal article, I don't think published that the underlying medical problems, but a large percentage [00:16:00] of the patients who are hypertensive diabetic and had chronic lung disease, the majority of vaccine also had a large number of multiracial people.

[00:16:12] And sorry if this is a little distorted, but specifically about 10% of the maternal volunteers, a total of 30,000 people were, were were black and about 20% were Hispanic. These this, these trials happens also around the world. There was about 5% with chronic lung disease and other 5% with heart disease, almost 7% with severe obesity, almost 10% with diabetes.

[00:16:39] So they were fairly represented if of of an adult population with multiple medical problems. The the patients that were excluded from all the trials were people with severe severely immunocompromised conditions or on severely immunocompromised drugs, [00:17:00] pregnant women, young children, and people with advanced cancer in the middle of aggressive treatment.

[00:17:06]The the Johnson and Johnson vaccine of course, was just approved two weeks ago. And most of the following is from FDA materials. The Johnson and Johnson vaccine is a different form of vaccine. It's a viral vector vaccine viral vector vaccines use DNA instead of messenger RNA, to tell ourselves how to make copies of the spike protein bound on the SARS cov two virus.

[00:17:32] And instead of being packaged and fight, the DNA is inside and add no virus. This is an ad, no virus that normally causes the common cold, but has been unactivated inactivated, but delivers the DNA information about about SARS COV-2 and both Johnson and Johnson and AstraZeneca used that methodology in so that the, the the inactivated virus does inject DNA into the [00:18:00] nucleus of the cell.

[00:18:01] But that's all it does. It's, doesn't replicate, it doesn't affect our DNA. But it does make MRNs that can also encode a spike protein. This type of technology has been used for other approved vaccines. Specifically the Ebola vaccine that was approved a few years ago, utilizes this technology, the MRN, a vaccine technology of course was the first approved vaccine that uses an MNR M RNA technology.

[00:18:29] But MRD technology has been studied for vaccines for decades, especially the last decade. One of the big challenges was finding that lipid that, that lipid envelope and keeping it stable. And that was a big breakthrough in the last few years, but it has been, the MRN technology has been used. To try to find vaccines for Zika, for Ebola, et cetera.

[00:18:56] So since the, the JNJ vaccine [00:19:00] is new I'm going to go through some of the data more in a little bit more detail because most people have not necessarily seen it yet. And these, these documents are from the FDA's briefing document. The average you know, the mean age of the participants of the 43,000 participants was about 50.

[00:19:18]The, the enrollment started at 18 and the bulk of the patients were in the 18 to 59 age group, but there were as a small group, even above 75 there were slightly more men than women in the trial. The there were, there was a large percentage of American Indian, Alaska natives in the trial.

[00:19:37]About 20% of the participants were black. About 45% of the participants were Hispanic. And the countries that the Johnson and Johnson vaccine were studied in include many countries of Latin America, especially Brazil South Africa had a large percentage as well, and that's relevant. And I [00:20:00] think I'm sure Dr.

[00:20:00] Maura will talk to us about this that's especially relevant because of the new, some of the new strains that have popped up in part in South Africa and Arjun and Brazil. We think that the participants in the J and J trial may have been more likely to have You know, seeing them. And so the fact that the, that the trial ended up quite protective is encouraging.

[00:20:24]The co-morbidities within the Johnson and Johnson trial include mainly hypertension, about 10% of participants and many participants who were obese. There was a smaller number of participants with other chronic illness, but there were about almost two, almost 3% of participants had HIV. And about 7% of participants were diabetic.

[00:20:50] The and these are the results. The vaccine efficacy against centrally confirmed, moderate to severe critical COVID-19. First. The first [00:21:00] endpoint was at least 14 days after vaccination. The second endpoint was at least 28 days after vaccination. And what we see here. Is that the vaccine efficacy is about 66%, which is quite different from the other vaccines, but we'll come back to that because that is not enough of an implant to go by.

[00:21:22] This is the thing that we really are most, I think, interested in that, in this trial, the Johnson and Johnson trial this is, this is COVID-19 requiring medical intervention, hospitalization, ICU, and of course, death that in

[00:21:44] nobody that was vaccinated was hospitalized placed in an ICU or died. And that's actually similar to the, the Pfizer and maternal vaccines, no recipient of a Pfizer Moderna or Johnson and Johnson vaccine in the clinical trials was [00:22:00] hospitalized placed in an intensive care unit or died. The people that did die in the J and J trial there were, there were three people that were vaccinated.

[00:22:08] That side. Two of them were from non COVID infections. One person had a non COVID pneumonia and other person had a lung abscess and somebody else died from shortness of breath, but it was felt to be of unknown causes. And the issue of deaths and side effects is important because it was all all deaths in all trials are adjudicated by the research team to decide whether they are vaccine related.

[00:22:37] And it, it has, it was felt that in all three trials, the Pfizer, the Moderna and the J and J trial that no patient died from a vaccine related effect. So no deaths from the vaccine, no deaths from COVID in the vaccinated people. Unfortunately, the unvaccinated people in the J and J trial at six of the, of the [00:23:00] placebo recipients died of COVID,

[00:23:05] there were no, there were not felt to be major safety concerns about the Johnson and Johnson vaccine. There was, there were not felt to be major, say to concerns about the Pfizer or Moderna vaccines. That's why they have all been approved from all three trials. Some participants experience, mainly local effects, pain, and swelling at the vaccine site.

[00:23:28] And then some people, a fair percentage, at least 20 to 30% of the. Of the vaccine recipients, although it was interesting is how many of the placebo recipients also felt tired, headaches and myalgias. But these were relatively mild and and not necessarily not a major safety concern. So we are city.

[00:23:49]The current criteria for vaccine eligibility is all healthcare workers, nursing home residents. That was the first phase. Then it was opened up [00:24:00] to essential workers which are, have a broad definition, which include police officers, firemen, and grocery store workers, et cetera. At this point in your city and your state it's person 16 and up with eligible underlying conditions.

[00:24:17] As well just have one thing for you to know all of you providers, because this has come. I mean, I don't know about you, but I was barraged with a million phone calls about, I need a letter. Patients do not need documentation about underlying conditions from a healthcare provider to obtain a vaccine.

[00:24:33] The decision was made that self at testation only was what was required. If they are an essential worker, though, they do need some type of documentation of essential worker employment that can include a pay stub. It can also include just a letter from the employer. There is a clear demarcation for between immigration authorities and vaccine sites.

[00:24:57] There's no ICE you know, ice doesn't [00:25:00] get near the vaccine sites and they're not allowed to, and there's more information available at the New York city department of health website on COVID vaccines. And again, we'll, we will be sharing these slides. The, one of the things that's been very challenging about the COVID vaccine process has been that the, it is rather decentralized.

[00:25:19] So in New York state has its own vaccine effort that is different from New York city's vaccine effort. And then the Somos network is also running a vaccine effort. That's in partnership with the state and then multiple healthcare organizations like us at New York Presbyterian. And I think pretty much every major hospital network is running its own vaccine efforts.

[00:25:43]So the de-centralization has been part of what's driven patients crazy, but luckily the availability has been improving. And other resources that again, the cdc.gov website for, for both, for [00:26:00] just general COVID information, but specifically they have an excellent FAQ site about about COVID vaccines.

[00:26:07] There's also the near city.gov website has lots of logistical information about the COVID vaccine, but also some excellent patient information documents in multiple languages and short videos with COVID-19 vaccine information in multiple languages as well. And the new, new England journal of medicine website, all their COVID information is open-access and they have as well, some excellent information about the COVID vaccine.

[00:26:37] And FAQ's about the COVID vaccine.

[00:26:39]Just before I hand you over to Dr. Lambert, if you're interested in doing educational events for community organizations, please reach out to me at srm2001@med.cornell.edu or grace , who's working with us in this effort. There are many community organizations that are very interested in [00:27:00] having providers do work.

[00:27:01] And what we're planning to do hopefully is to do well, actually we've already started doing is co-presenting faculty with residents and medical students and graduate students on these areas. There are patient facing slideshows. That's a collaboration between Columbia Cornell, New York Presbyterian and the ACN on the COVID-19 vaccines that have been continuously updated and are available for you.

[00:27:26] So you don't have to reinvent the wheel every time with patient education information. And just so you know, we'll be, we are planning to kick off a new program. That's a collaboration between the six medical schools in New York city to train college STEM and pre-medical students about COVID-19 and about COVID-19 vaccines and we're recruiting.

[00:27:46] We're going to be recruiting, obviously the students to join the program imminently, but we also are recruiting medical and grad students, resident and faculty reviewers to attend their end of their mini course presentations. So we'll, we'd love [00:28:00] to have you the students are I'm sure will be eager and innovative.

[00:28:04] They've been there. They've been charged with coming up with a Tik TOK and infographic, a PowerPoint some type of mini presentation that they can post on social media and also that they have to commit to each speak to 10 people about COVID vaccines. So I'm going to stop my share there. And as Dr.

[00:28:24] Lambert can see, I shortened my talk as he advised, cause I'm always have too many slides and I'm going to hand it over to Dr. Lambert to talk about vaccine education and vaccine hesitancy.

[00:28:35]**Dr. Marcus Lambert:** [00:28:35] Thank you, Dr. Morales. I thought that was really helpful to just have that information fresh on our minds. As we began to think about how we engage with colleagues, family members, patients, and others.

[00:28:47]I even appreciated the, the, the piece at the end about the Tik TOK videos and other creative messages. I look forward to seeing that because I think, you know, I'm not on Tik Tok, but I spend a lot of my time [00:29:00] probably more than needed sprout browsing through social media and these messages can be really, really impactful.

[00:29:06]So I actually want to talk pick up some sense where you left off and talk a little bit about our communication tools and how we speak to others. Particularly individuals who we know are a little bit hesitant vaccine hesitant you know, sometimes with, with good reason based on their experiences or things that they're hearing or seeing how we begin to combat

[00:29:37] Dr. Lambert, you went on a muted you're muted. You have to unmute. Okay. Can you hear me now? I'm not sure what point I went on mute, but to combat how we begin to combat, thank you, Dr. Howell individuals who have sometimes mistrust or are hearing misinformation about the vaccines. And, you know, I think we all have known for [00:30:00] some time that people, you know, are not necessarily definitively stuck in a decision about whether or not they're going to get vaccinated.

[00:30:08] They're often on this continuum. And sometimes they're on the part of the continuum where they would like to refuse the vaccine and we'll say, Hey, it's not for me, not at this time. Or maybe even anti-vaxxers. But there also is the other side of the continuum where they're eager to, to, to get it and they want to, or they already have but for a large majority of, of individuals oftentimes this tends to be individuals who come from certain groups, which we'll talk about, they have this sort of wait and see attitude.

[00:30:41] Well, you know, I'm not going to be the first in line or, you know, how many times have you heard people say, well, I don't, I don't have enough information or I'm not sure about the vaccines or I need to know more (Sound Interruption) if anyone I think is not on mute, I [00:31:00] think we can hear some of your backgrounds.

[00:31:01] You might want to go on mute, but. So I think we're in a, in a stage now where we can go over some of those communication techniques and then towards the end of this program maybe we can even model how some of the panelists might respond to some of those common questions. So again, many of us the people that we interact with are within this middle tier of being vaccine hesitant.

[00:31:27] And I think this is an opportunity for us to, to engage them now, oftentimes individuals are coming from, from different groups that we know to be more likely to be vaccine hesitant. There've been a number of studies around this, this particular study put Republicans at the top of the list of individuals who are vaccine hesitant, others.

[00:31:48] Within the ages of 30 to 49 rural residents followed by black adults, followed by essential workers. This essential workers were, was even [00:32:00] surprising to me a little bit. But you know, not surprising to some extent because we're all humans and we all come from, you know, our various backgrounds and various families.

[00:32:09] And here are certain messages sometimes when we go home it just shows that there are a number of groups who at one point, and this was earlier on, I think back in December, based on a poll that said that they would probably not get it or definitely not get it. But what are those reasons? And I think that is an opportunity for us to engage and really try to understand a little bit, a little bit more about what people are concerned about.

[00:32:32]At the top of those reasons are potential side effects. People want to know that the vaccine is safe. And ultimately that is effective when people are concerned about what the experience might be going through the vaccine. Oftentimes it's being compared to other things or other vaccines in the past followed by, you know, a couple other reasons of, I think it may not be safe or, you know, I don't think COVID-19 is dangerous to my health.

[00:32:59] You know, I've heard [00:33:00] it all. So the bottom line is that the possible causes of COVID-19 vaccine hesitancy may vary. It may be because of personal or group experiences of racism. You know, let's take a pause moment, a moment here, because oftentimes, you know, I think the excuse of Tuskegee experiments or historical context are given, but we also have to recognize, especially those of us who are not necessarily seeing patients, you know, every day, A lot of times people's own experiences help them to sort of have a sort of view or a distrust or a certain level of hesitancy about engaging with healthcare or engaging with vaccines.

[00:33:43] And I think we have to be a little bit empathetic to people's own experiences as well. Obviously the vaccines mass COVID-19 is, is very much being politicized and, you know, even saw on the news yesterday, in some States they had a mass burning [00:34:00] and I think we have to recognize just the times that we're living in as well.

[00:34:03]There's a lot of anti-vaccine advocacy. There's suspicion regarding the pharmaceutical industries and their motivations. And oftentimes just sometimes flat out mistrust of government authorities or science or healthcare. I think even sometimes from, you know, very knowledgeable people, very well-informed individuals have a certain level of mistrust.

[00:34:25] So as we begin to have these conversations, as, as, as we be prepared to have these conversations, the first step that's often advise, even by the CDC is being comfortable in your own decision, making your own decision about vaccination. First, I think one of the effective tools that we'll get into is really sharing your story.

[00:34:45]Sharing your story, not just at the point where you've decided now maybe to take the vaccine, but even in your. Decision process. People want to hear that because humanizes it especially from those of us who might be involved in research or [00:35:00] science or healthcare. And then you're able to engage in effective conversations, not, you know, yelling at your uncle or aunt, you know, because they decided not to take it at this time, but really having that empathy, really being able to listen, understanding what their concerns are and engaging in a, an effective conversation back and forth.

[00:35:19] And then of course be prepared for the questions, the common questions. We have our own Dr. Miralis who stepped up to take the vaccine quite quite a number of weeks ago. I wanted to go over quickly, some of the elements of effective vaccine conversations. Again, you have to start from a place of respect.

[00:35:36] Empathy and understanding. And then I think addressing misinformation by sharing some of the key facts is really important. And we'll talk about some of these common miss some of the common information misinformation that's out there. We want to listen to and respond to questions. You know, again, if you have someone who, you know, has all of this perception or perspective about it, or a vaccine hesitancy about [00:36:00] themselves, try to understand where they're coming from, understand what their concerns are, understand what their questions are proactively explain the side effects.

[00:36:08] I wouldn't skirt around this issue, be upfront about what the side effects are and help people be prepare for that as they walk into vaccinations and then share your story. And then finally, if you're not just gauging, engaging with one person and you're actually speaking with a group, know your audience and target your message to that, to that audience.

[00:36:25]And have individuals who are trusted messengers address the questions and concerns you don't want to make it seem all negative not presenting so much of the horrible story of COVID-19, but really emphasizing the safety and effectiveness. Those are two of the key things that I've, I've found to be really, really helpful that it's safe, that it's effective.

[00:36:45]We don't want to overuse statistics or graphics, even though it might be helpful for explaining, you know, for some layman groups it, it can, you can lose them. And you also want to speak about your own personal experience, your own personal journey and making your decision. And then, you know, of [00:37:00] course there are plenty of, of groups that you may have an opportunity to speak to about COVID vaccines, including your family members civic organizations, colleagues, Faith communities classmates, community leaders and online communities as well.

[00:37:15] And with that, I think it would be good to, to transition to our panel. And maybe we can get into some of the questions.

[00:37:24] **Dr. Avelino Amado:** [00:37:24] All right, everyone take it away. I want we're going to begin with just some questions that we've had actually collected from patients in different lay audiences that we've had a chance to talk to over the last couple of weeks.

[00:37:40] And just to give you a broad idea, I think some of the biggest questions that have come up have been largely related to pregnancy how this might affect children how the, the vaccine may ultimately interact with other health inspectors. And so that's where I'll be pulling some of the questions from, and let's just get into it.

[00:37:59] So [00:38:00] during the trial, did anybody. Get Bell's palsy. I have, I've heard things about people having troopy faces.

[00:38:10] **Dr. Susana Morales:** [00:38:10] If, is there a way to have the whole panel highlighted there Daisy and Lawrence,

[00:38:24] I can respond to the Bell's palsy question. There were a few, a few cases of Bell's palsy in the in the Pfizer Moderna. One of the, I think it was the Pfizer trial. It wasn't necessarily to the point that it was felt to be causative and of course Bell's palsy can happen even you know, without anything to do with vaccines.

[00:38:44]It is something that's being monitored, but not something that's felt to be clearly a side effect of the vaccine.

[00:38:52] **Dr. Marcus Lambert:** [00:38:52] And I'll, I'll also add that. A lot of what we saw in the clinical trials [00:39:00] happened in would happen in normal populations. At that level. You have to remember also that these clinical trials included tens of thousands of people, you know, Pfizer Moderna together over 70,000 at the point that the emergency use authorization came out.

[00:39:14] But these are things that would naturally occur and come up naturally in the population. And it wasn't any, any higher number than what you would normally expect to see.

[00:39:25] **Dr. Susana Morales:** [00:39:25] One of the challenges I'll just add one more thing about you know, of course people would be afraid of any kind of neurologic symptom or complaint related to a vaccine, but of course, one of the very difficult things about COVID is how COVID can cause very severe neurological problems COVID related has been linked to strokes.

[00:39:45] It's been linked to neuropathy it's been linked to to kind of a brain fog that, that COVID survivors experience, even if they are able to get through the COVID. So you know, the, the neurologic, my fears about neurologic [00:40:00] problems are actually much more related to the COVID to having COVID than to, to anything to do with the vaccines.

[00:40:09] **Dr. Avelino Amado:** [00:40:09] Great. One of the next questions we received that is common is does it matter what vaccine I get? And if I get a Moderna shot, does that mean I can get a Pfizer shot? Or is the Johnson Johnson because of the single shot better?

[00:40:24] **Dr. John Moore:** [00:40:24] Well, I can answer some of that. The FDA allows in what it calls extraordinary circumstances to have first Pfizer, then Moderna or vice versa.

[00:40:36] And that's really down to availability. It's not recommended. But it doesn't matter. The two vaccines are very, very similar and no one would suffer additional harm or we can protection by mixing and matching those two. So the FDA allows it, but doesn't recommend it. So far J and J is approved only for use by itself.

[00:40:58] And [00:41:00] most people in most trial sites won't get a choice. They they're going to just be offered what is available at that trial site on that day. So it's not like going into Walmart, going down the, you know, the aisle and say, I'll have that one, but not that one. You probably won't get a choice in most places.

[00:41:20] **Dr. Kevin Holcomb:** [00:41:20] I think it's important though, that while it's true, I wasn't given a choice. I came and showed up and it was. Moderna being given up the day I I shut up and I rolled up my arm because whatever they were giving out and I was taking. But yeah, right to say, you know, that, that there, there are no differences between the vaccines.

[00:41:39] I, I think it's, it's it's, it's probably causing some confusion among people and people have this idea that I read in the newspaper the other day, where I think the mayor of Detroit said that he was not going to accept the J and J vaccine because he wanted to, you know, advocate for the better vaccine for his constituency.

[00:41:58] And you know, there are [00:42:00] differences between the vaccine. There are differences in the side effect profile, but I think what Dr. Morales has said is really important when you look at the end points of hospitalization and deaths they all are very protective against the most severe outcomes that we're trying to prevent.

[00:42:16] But I think we have to admit that there are differences between you know, the people, in fact, for example, Johnson, Johnson, some people say it's less effective, but there are a lot of people sitting on the fence cause they're worried about side effects. And you can point to the fact that there's less, you know, the, the studies, it was a lower rate of fever.

[00:42:32] For example, in the, in the, on the Johnson Johnson trial, let's talk to compare across trials, but you know, for the right person, that might be the argument why they go for a J and J vaccine over over a Moderna for example. So I think we have to acknowledge that there are some differences, but you know, I think we have to be consistent with the messaging that says when you're a numbers call and you get there, don't give up your shot because you're under the mistaken idea that one's better than the other to that [00:43:00] degree.

[00:43:01] **Dr. John Moore:** [00:43:01] Yeah. Look, I agree with that. I said that the Moderna and Pfizer are very similar and I'll stand by that, that the immunogenicity is. Pretty similar. The efficacy is virtually identical. Moderna has slightly higher rates of sore, arms and headaches and transient side effects. It's a bit fiercer and that's because there's more vaccine dose.

[00:43:24] I don't think it's fair to say that Moderna Pfizer are identical to J and J because they're clearly not their efficacy levels are different. And you're right. It's saying that initially the mayor of Detroit had a pushback and was kind of slapped around by federal health authorities and told that his messaging was, and, and yet they're not identical.

[00:43:45] I mean, we're aware of, of this, and I've seen some very good articles trying to get the facts across and trying to get the messaging straight. And it's complicated because you certainly want people to get any vaccine rather than no vaccine. [00:44:00] And ideally people would have a choice so that they can freedom of expression, freedom of choice, but it's probably not going to be possible in the trial sites.

[00:44:09] So you're quite right, that Johnson and Johnson is not identical to the marinade vaccines in terms of its efficacy against, against mild disease. But it seems pretty solidly equivalent in protection against severe disease and death.

[00:44:28] **Dr. Susana Morales:** [00:44:28] I want to add one more thing. The single vaccine aspect is something that a lot of people resonate with. I mean, obviously, and at first I was feeling like, Oh, is that just, you know, not wanting convenience, which I mean, part of it is that obviously, and not wanting to have to get a needle in your arm twice.

[00:44:48] And a lot of people have needle phobia, but there are issues I think, around a couple of issues. One is that There are certain groups that may have a real difficulty in getting the [00:45:00] second vaccine either because they're essential workers or you have to take time off from work or you're, you know, you're homeless or things like that.

[00:45:07] That the second vaccine really is like a really big barrier. And then yeah, so I think that, you know, we have to respect that reality. And I think the other thing is that there's data try, you know, and I, I was thinking about it with my own patients. Anytime you have a multi vaccine series, a lot of people never come back for the second one.

[00:45:27] So hope, I mean, presumably the, the sense of urgency around COVID vaccines is greater. So that will make people more people be compliant with the followup vaccine. But statistically, when you look at prior vaccine roll-outs, that is an issue. And so it is, it is an advantage of the Johnson and Johnson, despite some of the other possible disadvantages.

[00:45:48] **Dr. Marcus Lambert:** [00:45:48] Okay. Okay. I feel compelled to say a little bit because, you know, I, I, even in my own sort of education, I have been trying to, you know, when the, [00:46:00] the emergency use authorization, but even before then there was a press release about the Johnson and Johnson and its effectiveness you know, numbers thrown out of, you know, 66% and, and us populations and whatnot.

[00:46:11] But, you know, I think one thing we have to be careful of is, is being able to kind of, sort of comparing almost apples and oranges, you know, one vaccine, one that that is of a very different, you know, type, but then the efficacy of both of these vaccines that were done in very different clinical trials at very different times.

[00:46:30] And the bottom line is that they are really effective at preventing severe COVID and hospitalizations and death, which is what we're all really, really concerned about. But one thing that I, you know, I was like, well, I want to be cautious here because. I don't want it to seem like, you know, the Johnson and Johnson or the one-shot is being pushed off on certain marginalized groups.

[00:46:55] And I just, I thought that there is some value in choice, but right [00:47:00] now we're not at that stage. We just don't have the supply for that. And the bottom line is that we want to protect against severe COVID hospitalizations and deaths. And I think that in some senses, the messaging that needs to be put out.

[00:47:14] **Dr. John Moore:** [00:47:14] Yeah, I think J and J is being seen as quite useful in rural areas in particular, where there's a long distance with people traveled to trial sites and they only want to do it once. That's sad to be in the media, one advantage that's being seen, but you know, this, this choice issue. I mean, I'm originally British, so I, you know, citizen, but I'm born in Britain and I keep in touch with what's going on over there, where they have AstraZeneca and which is home grow.

[00:47:42] And it's a sort of British vaccine and a downer and Pfizer. And there are two different reactions. Some Brits go in, I want the British vaccine, it's the best wear. Amazing. Give me the British vaccine. And there are others are going, I don't want this one. It's not as good as Pfizer and Moderna. And you know, it's different people.

[00:47:58] See it in different ways and [00:48:00] it's a public debate as to what goes on. But again, the British authorities are trying to prevent I dunno, disorder at the trial sites. They just don't, can't really deal with people pushing back on, not wanting to be given, not wanting to take what's available on the day.

[00:48:17] It's it's just too chaotic of that happens. It's a very difficult issue.

[00:48:24] **Dr. Avelino Amado:** [00:48:24] Thank you very much for all that input. Dr. Howe, I have a question specifically for you in terms of the effects of the vaccine on children. The efficacy for children has, is a data and how might this affect diabetic children.

[00:48:41] **Dr. Joy Howell:** [00:48:41] So the short answer to your question is not yet in terms of data on children both Pfizer and Moderna their trials are now enrolling adolescents between 12 and 15 or 12 and 16. Right now, both [00:49:00] the Pfizer and the Moderna vaccines are approved for individuals as young as 16 years of age.

[00:49:06] But we as a medical community and as a society are awaiting the data on adolescents and in an effort to to be safe about how. These vaccines are distributed. There's a step-wise approach. So first the older adolescent, and then the 12 to 15 year olds. And in time, the trials will enroll children below the age of 12, but we don't have cold, hard data as yet.

[00:49:36] What we do know is that in the adult population, individuals with co-morbidities including diabetes seem to have a more severe course of COVID than do adults. And right now we don't have any evidence from the, the adult trials that there were any untoward side [00:50:00] effects in the population or in the, the subjects with diabetes who were vaccinated.

[00:50:07] So often in the pediatric world, we're forced to make inferences until we have data of our own. We're forced to make inferences from the adult population, diabetics who were enrolled in the trials didn't fare any worse than non-diabetics. So we don't have any reason to believe that children with diabetes will fare any differently than children without diabetes data to come.

[00:50:31] **Dr. Avelino Amado:** [00:50:31] Thank you, Dr. Hall, Dr. Holcomb the next round of questions is surrounding pregnancy, and then we'll dovetail into some of the cancer questions of that that are related to that. So one patient asked if I receive a COVID vaccine after my baby is born, while I've had the immunity through my breast milk to my child

[00:50:52]**Dr. Kevin Holcomb:** [00:50:52] A lot of what Dr. Howell just said, you can take children and put pregnant and lactating women in there. And it's the same [00:51:00] answer. You know pregnant and lactating women were not pregnant women were not on the maternal North Pfizer trials. And, and so we don't really have evidence of safety in those populations, but when it comes to lactation the American college of obstetrics and gynecology feels that you should offer a lactating, a woman, and the vaccine just like an online tending, tending their stance on that as much stronger, and then pregnant women where it's a, little bit less of a, of an endorsement, you know, the messenger RNA vaccines in particular, there's not real scientific way that it would get into your breasts.

[00:51:37] No. Or to change that. So we're not sure that, that there's anything that I shouldn't say. I'm not sure this is no evidence of any danger at all of vaccinating, a lactating woman, whether you can actually pass on the antibodies to the, to the baby. That's not known yet. In pregnancy, I could say that that Pfizer.

[00:51:56]Has already started a trial on pregnant women that they are, that's one of the [00:52:00] endpoints that they're vaccinating women in the third trimester between 24 and 34 weeks. And one of the things they want to look at us to see if we can pass antibodies onto the baby, but that's not specifically looking at breastfeeding.

[00:52:13] **Dr. John Moore:** [00:52:13] Yeah. And there's a study on that exact issue being set up in in this institution. There are people getting the approval to do exactly what you said here.

[00:52:27] **Dr. Avelino Amado:** [00:52:27] Thank you very much, Dr. Holden follow up question, not from another patient I'm currently on cancer medication. How will the medication affect me taking the vaccine?

[00:52:36] Are there any other ares? Should I be worried about more serious side effects because of it?

[00:52:40] **Dr. Kevin Holcomb:** [00:52:40] Yeah. As you, as you, I think Dr. Morales mentioned in both of the messenger RNA studies, and I'm not sure about Johnson Johnson, but I don't think they allow. People taking chemotherapy on those trials either.

[00:52:51]It's another one of these situations where you've got a group of people who we know do worst outcomes. If they get a COVID [00:53:00] and yet we don't have the safety data from those studies. At least they got emergency use authorization showing the safety and people on chemo, but the concern wasn't that they would have safety concern.

[00:53:12] It was more of an efficacy concern that somebody who had an immune suppression that was being suppressed might not map this robust an immune response to vaccination. And so there really isn't any I, now I will tell you as an oncologist, I have advocated for my patients who are on chemo to get vaccinated, and even in the absence of that data because they do have a chance of the worst outcome, should they become infected?

[00:53:36]But right now there's, there's no safety data on those patients because they will not allow it on who have severe immunosuppressant medications. But again, that wasn't a safety concern for side effects. It was more of an efficacy concern. And I guess my feeling is even if you have a less than robust response than the average person, it's still likely better than nothing.

[00:53:57] And the safety of the vaccines has already [00:54:00] been established.

[00:54:02] **Dr. Susana Morales:** [00:54:02] And I had just had one thing to that. And because of that, you know, it's not uncommon that for things like vaccine trials and, and other trials of drugs that certain populations will not be included. Either because they're too sick or, or, you know, for pregnant women and for children, it's really ethical reasons that it's unusual to enroll pregnant women and F and children in a trial before you've proven that that the drug is, or the vaccine is safe in a non-pregnant grown-up.

[00:54:33] But the so that often doctors are left in the situation of having to make recommendations without all the data being in yet. But looking at current data, looking at past experience with things like vaccines and so forth. And so as a result, the the American society of hematology, the American society of clinical oncologists, Memorial Sloan Kettering cancer center, and other groups have [00:55:00] recommended that cancer patients.

[00:55:02] Get vaccinated, even if they're, you know, people would act in, in the middle of active cancer treatment, weren't necessarily enrolled that the risk to cancer patients whose immune system is, is, is affected by being sick and maybe by getting chemo that they would be benefited by by getting the vaccine that the risk of COVID to them as much greater than the possible risk of I mean, it's not really that it's like Dr.

[00:55:26] Holcomb said, it's not necessarily that the vaccine is riskier for them is that they may not get as good an immune response, but that's not a reason not to get the vaccine.

[00:55:35] **Dr. Kevin Holcomb:** [00:55:35] And I just want to say one thing about the pregnant women though. They were not allowed on the trial. Moderna both Moderna flies it all three of them actually Jensen also have done developmental and toxicity studies in animal models.

[00:55:50] And in those studies, they using the rats. I think Jackson used 'em. Rabbits, but they inject the animals pre gestation during the pregnancy [00:56:00] at different points. And none of these, the vaccines have shown any toxicity towards fertility rates or pregnancy abnormalities. And that was that safety data that allowed Pfizer to safely start enrolling pregnant patients.

[00:56:13] But one of the things that I was really surprised to see is how many pregnant women have gotten vaccinated already. So through that handout, the V cares app the tracking safety data, and there there's already been tens of thousands of pregnant women who have already been vaccinated because the CDC considers pregnancy one of the high risk factors.

[00:56:32] So, you know, you'd wonder how did all these people in that age wouldn't get vaccinated just by being pregnant. They can get vaccinated. And clearly there's a lot of women who aren't afraid to get vaccinated during pregnancy. And so that's gonna go there. There is a longitudinal study through V cares as well.

[00:56:46] It's already got about 1800 women. On that trial. And so there's going to be all this data that will eventually be available. But there's, there's been a number of pregnant women, a large number of who have already been vaccinated.

[00:56:58] **Dr. Avelino Amado:** [00:56:58] Thank you, Dr. Moore, [00:57:00] this question is coming for you. And some of the, some of these vaccine education series that we've done, people have been warned specifically worried about potentially the vaccine being rushed or the development of the marinade platform.

[00:57:13] So one of the questions that we get is why, why is an MRN a platform better than a viral vector platform? And is this a new technology or is this something that's been around for a, and can you just maybe address how we might tell a patient about that?

[00:57:29] **Dr. John Moore:** [00:57:29] Sure. Well, the mRNA is a relatively in the before 2020.

[00:57:35] They'd never been in tens of thousands of people before, but the technology goes back to about 2012. And DNA vaccine technology, which is broadly similar, goes back a decade before that. And all of these vaccines, the COVID vaccines were developed in 2020. They all built on a bedrock of mostly HIV, vaccine [00:58:00] science.

[00:58:00] I'm an HIV vaccine guy before COVID. And the technologies that we're using today for COVID were all developed in HIV and then Zika and Ebola vaccine programs. And we're repurposed. So Johnson and Johnson has a large HIV vaccine trial in Southern Africa, although very, very similar at an a virus factor to the one they're using now in the States.

[00:58:24] And the licensed vaccine also includes a protein boost component. So it's not brand new technology for the MRNs. They were tested in around 2016 to 2019 as part of Zika and Ebola vaccine projects. They never went into this kind of scale because the public health threat was that much less as equal in a bowl, but it certainly, they had human experience and a lot of animal experience with the SMR and ASMR before 2020, before the four year ago.

[00:58:55] So it didn't come out of nowhere.

[00:58:58] **Dr. Avelino Amado:** [00:58:58] And as a, as a follow-up question to all [00:59:00] of that, how do we as society quell our fears of maybe the new streams and how might some of the back things that are available right now handle some of the new screens.

[00:59:12] **Dr. John Moore:** [00:59:12] Yeah, the variants. So the variants are also not new in the sense that in 2020, in around may and June a variant called D614G took over from the original root strain.

[00:59:29] So the pandemic in New York, in April. March April of last year, it was mostly the wheel hand sprain, but within weeks of that, a new variant started to spread and dominated the U S pandemic because it's more transmissible and it becomes the dominant strain worldwide. And it's called D614G as a shorthand. So, and then we kind of lost interest and variants until around December of last year, when a new one [01:00:00] surfaced in the UK, it's commonly called the UK Varian a better name for it, B117 or b.1.1.7, if you want to be pedantic, but B one, one seven, and that is more infectious.

[01:00:14] It's more likely by about 30 to 50% or to be transmissible. And there are recent reports out of the UK suggesting it's a bit more lethal, about a 30% increase in best rate for people who get it. So it's a troubling area and it's, it's. Projected to be the dominant variant in the USA within well, a few months, if not sooner, but the call variants of concern fonts, they're not called variants of panic freak out.

[01:00:45] The world is coming to an end. You still prevent a variance from being transmitted through masks. They haven't got little pairs of scissors that will cut through masks. They don't bounce around and jump 30 feet. They still are [01:01:00] preventable by exactly the same public health machine measures that everyone should be using.

[01:01:05] And B one, one seven is not a vaccine or antibody resistant virus. It's it's its impact on vaccine. Rollout is going to be minimal. I think we've got more than enough data to say that the somewhat more troubling variants there's one that arose in South Africa called and one in Brazil or P one. Both of them are now being found in the States and they, the transmissibility isn't completely as clear cut whether they have a transmissibility advantage, but they do have a degree of resistance to antibiotics.

[01:01:43] Now, again, it's a degree of resistance. They are not vaccine wipe out strains, but they may diminish the efficacy of the vaccines to an extent. And we don't know how much yet, but one thing we do know is the [01:02:00] AstraZeneca vaccine, which isn't licensed here anyway, that could not deal with B1351 in South Africa.

[01:02:06] It was just, it has failed. So for that particular vaccine in that country, that's a big problem. And the South Africans essentially gave away their AstraZeneca stock to other neighboring countries and replaced it with Johnson and Johnson, which does have some efficacy against it. And it's one of the strongest arguments, why to get your second dose of the MRNs is the second dose boosts your antibody level by 20 to 50 fold and the higher the antibody level.

[01:02:37] The more likely you are to deal with a variant. So you have spare capacity and two. And if you reduce your antibody level, if, if you go down a bit, you still have plenty to spur. So it's a very strong argument for getting your second dose on time. Because when you get your second dose, you have that much stronger and antibody response, and you're that much more able to resist [01:03:00] infection by these other variants.

[01:03:02] And I think that's a very compelling reason. One of the most compelling reasons why the U S is sticking with this policy. So look, we're aware of the variance, the scientific community is dealing with them. In the vaccine context, there may be tweaks to vaccine rollout for vaccine protocols. There's talks of eventually, perhaps we may need a third dose of vaccine or a second dose of J and J it's not there yet, but it's being discussed.

[01:03:29] The designs of the vaccines are being tweaked in case we need to immunize with an MRI and a based on the South African strain based on B3 one, three, five, one sequence. So there's precautions being taken on adjusting case basis. But in the meantime, everybody should just follow exactly the same precautions against infection that we've hopefully all been doing for the past year.

[01:03:53] **Dr. Kevin Holcomb:** [01:03:53] Okay. Can you stop the more question that's the more I I'm wondering One deep, I've [01:04:00] seen some evidence that suggests someone who's already had a natural infection. The community acquired infection with a COVID could get one dose and that those would be a booster in a sense.

[01:04:10] **Dr. John Moore:** [01:04:10] Yeah. That's. Yeah, it does.

[01:04:14] It has legs in my mind. And it has a lot of it's now being paid attention to by the FDA and, and indeed the French already done this as a matter of policy. So this is what happens. Once the, the vaccine started being used in hospitals and areas, hospitals, not including ours set of vaccine cohorts, and they studied what happened when you gave the mRNA vaccine to convalescent patients, and you see a very rapid boost after one dose that takes your antibody levels.

[01:04:50] Past the level that you would get after two doses in a naive person. So you're triggering a very rapid recall response and you [01:05:00] also see fewer side effects. There are side effects. When, you know, again, just the headaches, the fever, you know, short term, self limiting side effects. They seem to be potentially quite stronger in convalescent patients.

[01:05:12] And if you can avoid the second dose then it's perhaps well-advised. So I I'm in favor of this and I've written that I'm in favor of this and the FDA is now looking very seriously at it, but it's not policy yet. So, you know, it's a dilemma. Do you follow policy or do you use a bit of judgment? It's, it's very difficult that I'm not a physician in that context, so we need to be looked at, and if you think about it, you know, there's 28 million known and a lot more unknown convalescent patients in the States.

[01:05:44] That's a lot of vaccine doses that could be saved. So I, I take this quite seriously. I think it's it's, it's something that I'm glad is now being properly looked at.

[01:05:55] **Dr. Avelino Amado:** [01:05:55] Thank you very much. So we're going to, we're moving into the last few minutes of this conversation here. So I'd [01:06:00] like to just kind of get to some more general advocacy, advocacy type questions and making sure that we're understanding how to maybe if a family member comes for us or general more general questions real quick doctor Dr.

[01:06:11] Morales, can you just speak a little bit about the anaphylaxis that may be generated from the taking the shot? Yes, I'll respond to that, but I just want to acknowledge that Dr. Golightly has been working hard in the hospital and I see she's still there in her office. So thank you for joining us after such a long day.

[01:06:31]To have to go lightly is very important part of our family too.

[01:06:36]**Dr. Linnie Golightly:** [01:06:36] I know that you've been carrying on well, so I welcome everybody. I'm so glad you're here. And I know that you you've been learning a lot and I will hand the floor back to Dr. Morales

[01:06:47] Thank you.

[01:06:48] **Dr. Susana Morales:** [01:06:48] So just a quick comment about anaphylaxis.

[01:06:51] I didn't mention it about side effects because anaphylaxis did not occur in the clinical trials of Pfizer Moderna. Anaphylaxis, as everybody [01:07:00] knows, is a, a severe allergic reaction where people's throat swells up. They, you know, have trouble breathing. They usually ends up in the emergency room, completely treatable problem with Benadryl and sometimes epinephrin or steroids, but it's that emerged.

[01:07:15]After the rollout of the vaccine, the initial rollout of the vaccines that some people were developing anaphylaxis, it's turned out to be a very, very rare event. You know, there were like a few events in the first few days and that kind of scared everybody so that the, the, the, but it's actually, now that we've had over 60 million people get vaccinated in the U S alone we've seen, it's been seen quite rarely since it's not since it's a completely treatable problem and it's not a contraindication for people to get the vaccine, it's just a precaution that, that people with a history of anaphylaxis, if you're carrying your epi pen, you should bring it to the vaccine site and tell the vaccinators and they watch you for longer.

[01:07:57] But it's actually turned out, I think to be maybe like [01:08:00] one in a million, some very low number. Regular other allergies are not an issue. If you have an anaphylactic reaction to the COVID vaccine, that's a different story. And then there are a few people that maybe have had a reaction to something that's in the COVID vaccine, but it's, again, it's a very rare thing, but it's a concern that patients have, which is why I wanted to mention it.

[01:08:18]**Dr. Avelino Amado:** [01:08:18] Dr. Howell back to the issue of children. And we know that this is something that many parents are facing, and this is a hot topic in the media. Now, is, is it safe to essentially come back to school? Do you think that our parents have much to worry about?

[01:08:34]**Dr. Joy Howell:** [01:08:34] So that's one, that's another question that's difficult to answer because the jury is yet out.

[01:08:41]However I have to acknowledge a colleague of mine, Dr. Patricia, Ella, Maura, who is an infectious disease specialist. And I, I picked her brain. In preparation for today she shared with me a study recently published in pediatrics where [01:09:00] some folks down South looked at a population of 90,000 students and teachers, school staff who who were engaged in in-person schooling in North Carolina.

[01:09:16]And out of those 90,000 people they identified 773 cases of community acquired SARS or community acquired COVID and 32, three, two. So double digits not quite three dozen infections acquired in the school again out of 90,000 individuals. And that was over. That was a study that was done over about a two month period.

[01:09:46]Another resource cited that in a very non-scientific study when Y MCA groups across the country why YMCA groups that were, were [01:10:00] engaged in providing a safe place for school for students to go while school was not in session. And while parents went to work th there were the infection rate was 1% among staff and 0.1% among students.

[01:10:19] What's the bottom line there. The, there is evidence that we can draw from schools, as well as para educational organizations that had in-person engagement. That seems to suggest that in school or in institution, transmission was very low here in New York city. Mayor De Blasio is already making statements about having schools opened up before some elementary schools opened up before the end of this school year and high schools by September.

[01:10:53] And I think that we will see in time, the, the things that I think are encouraging are [01:11:00] that teachers are getting vaccinated. And the point that I would reiterate is that just because we're vaccinated doesn't mean that our masking and our social distancing. Draws to a close I would like to believe that with more widespread vaccination, more, few more progress toward herd immunity with the teachers being vaccinated with ongoing social distancing and, and masking that it should be say.

[01:11:29]But, but the jury is yet out. And then just, I want to correct a misstatement that I made earlier. The Pfizer vaccine is actively in is approved for individuals down to 16 and individuals between 12 and 15 are being enrolled. The modern of vaccine is approved only down to 18, but it's also enrolling individuals in the 12 to 18 range.

[01:11:58] Thank you Dr. Howell [01:12:00] so we're,

[01:12:00] **Dr. Avelino Amado:** [01:12:00] we're moving into the last five minutes here and I have one last question. This one hits particularly close to home. I'm gonna aim this directly at Dr. Lambert. The rest of the panel feel free to chime in as well. So I've had issues with my family members particularly being resistant to some of the misinformation being out there.

[01:12:18] And as you know, communities of color, as you mentioned earlier are facing particular resistances. Can you, can you address some of the issues that you think community colors, communities of color are facing and how we might address that head on as a medical and scientific community? And then I'll open it up to the rest of the panel.

[01:12:37] **Dr. Marcus Lambert:** [01:12:37] Yeah, thanks. Dr. Mato, I mean, this is a really good, good point. I've been thinking a lot about it as even as I engage my own family members and you know, those in the barbershop and other places, you know, I think you know, at the beginning of this vaccine rollout, a lot of people were concerned about, you know, the side effects and safety and that sort of thing.

[01:12:58] And now, you know, we [01:13:00] we've as the country vaccinated over 50 million people or more, you know, and I, and there's fewer and fewer sort of, you know, reports through the great bind that people are passing out or, you know, people turning into monsters or growing arms because of the vaccine. So it makes me think that with time, you know, some of these things will clear up, but I still think that a lot of people are.

[01:13:24] They just have a lot of distrust, you know, like I have, you know, relatives who, I mean, my grandparents got the vaccine. Right. But I still have relatives that are like, I don't want, don't stick me with anything, you know, in my arm that I don't trust or people that I don't know, or I don't know what's in that, you know, it's just and even when you do sort of tell them what's in it, it's still this general mistrust.

[01:13:47] So I think we have to really be empathetic and really sort of engage people, you know, sort of consistently, you know, not in a, in a place of, you know, I know what's better for you or, you know, [01:14:00] I'm more knowledgeable, but just really try to, I understand concerns. I mean, you know, from where they are. And you know, if you tell your story, your experiences.

[01:14:11] Engage them on the facts and really have a conversation about what some of the, the, the truth is and what some of the misconceptions are. I think it helps people in their decision making process. And I, and I just think about one of my relatives too. You know, we had a conversation this past weekend and they were trying to figure out the word nano bot and, you know, its association with vaccines.

[01:14:36] And they had me, you know, they're up in age and they had me Googled nano bot just to see like what comes up. And then they were like, yeah. And I've heard also about nano box, which is different from nano bot and, you know, I, and I, and all of this is, you know, may have an ounce of truth related to vaccines and, and, you know, maybe even nanotechnology or obviously the MRA technology, but there, it just reminds me [01:15:00] that there's a lot of science that people just don't know or, or just don't have like as detailed knowledge of that we might have.

[01:15:09] And if there's that knowledge gap, there's a lot of room for misconception or a lot of room for guessing. And I think. As physicians, as scientists as well, meaning people who understand a little bit, we have a sort of responsibility to be able to engage people about what we understand to be the truth that helped to fill that knowledge gap, and then it's up to them to make their decision.

[01:15:33] But I think repeated engagement, repeated empathy, active listening, it will ultimately help chip away at the rock.

[01:15:42]**Dr. Kevin Holcomb:** [01:15:42] Right. Want to say also, I, I found that you know, you mentioned earlier, I think Marcus, you mentioned in your talk that people tend to go

[01:15:49] back to the Tuskegee experiment and keep on mentioning that as if there are other examples of, you know, abuse of people, of color by the medical establishment.

[01:15:58]And, and [01:16:00] definitely people have their own experiences that are going to be taken into account, but I'm as shocked with how many people don't understand what happened during Tuskegee. In a conversation with my own mother she thought that people were given syphilis. I'm sure people got syphilis or shouldn't have gotten the syphilis during the study because they weren't treating these men.

[01:16:17] But what the horror was that they withheld the treatment for syphilis, from these folks to see what the national, you know, the natural history would be. And so there's, to me, there's a correlate there. But you know, of, of, of a group not receiving you know, adequate treatment or an intervention in the face of, of a, of a life-threatening disease.

[01:16:36] And so I found when I, when I explained to her, that's not what happened in Tuskegee, he went to what happens. Tuskegee is sort of what we may be doing to ourselves, not availing ourselves of the of this vaccine. And I, I did it a talk the other day with a community organization, with an infectious disease doctor.

[01:16:53] And he talked about the history of HIV medications that I, I don't remember this, but he said that the black [01:17:00] community and Hispanic community was led later to start using a lot of the antiretroviral cocktails and that our death rates stayed high for longer unnecessarily. And it's like the same story happening again.

[01:17:12] So I think sometimes you have to put things in historical perspectives clear up misperceptions of things that happened. And then she'll, CarLotz where we've been here before. Let's not do this again.

[01:17:22] **Dr. Linnie Golightly:** [01:17:22] Yeah. I just have to add in, because I think that's so true and that, you know, my own family in the South, it was deprived of healthcare for many, many years.

[01:17:31] And, and it's, so it is the opposite now, right? I mean, the majority, if you will, is knocking down the doors to get the vaccines and we are not availing ourselves of protections that other people want. So I think that it's not that anybody's experimenting on us. The experiment, if you will, was done already through the trials.

[01:17:51] And now it's a matter of, are you going to avail yourself to what's out there? So in a way, in terms of Tuskegee, you would be as if penicillin was available, they offered it [01:18:00] to you and you said, no, I'm not going to take it. So that that's more what's happening. And the same thing with the antiretrovirals, you don't know there is this new treatment available and you say, no, I'm not going to take it.

[01:18:09] I'm going to take my chances. So now something is out there. It's available. Are we going to avail ourselves of it or not? In one way or another, we just need to make an informed decision. And Marcus, I think you're absolutely right for everybody on here, who's getting educated. It's to help everybody and to try to spread the word.

[01:18:27] And if you've got to look up what it is, they're really talking about when they're talking about nanobots or nano box or whatever, look it up with them. And in one of the viral things that actually Dr. Howell said to me, a woman was reading very carefully. What was on the package, insert, read a with it, you know, read the, read it with them and, and say, what are we really talking about?

[01:18:49] But from an informed, educated point of view and, and I think that's the best that any of us can do.

[01:18:55]**Dr. Avelino Amado:** [01:18:55] All right. Thank you, everyone. Appreciate everyone's input on that. I'm going to swing it over to Dr. [01:19:00] Morales real quick to close this out for the evening and thank everyone for being here tonight.

[01:19:06] **Dr. Susana Morales:** [01:19:06] Thank you so much to our panel and to Lawrence and Daisy in the background for all your hard work in this area.

[01:19:14] So all of you that attended today stay safe. God bless. We hope this was helpful. We'd love your feedback. We will share our slides and this tape, and keep up the good work out there, serving our communities. Thanks so much.

[01:19:31]