

Sawbones 553: Medical Update: Vaccines

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[theme music plays]

Justin: Hello everybody, and welcome to Sawbones: a marital tour of misguided medicine. I'm your cohost, Justin McElroy.

Sydnee: And I'm Sydnee McElroy.

Justin: And Syd, it'll come as no surprise to any of our listeners that it's been a busy time in—here in the States. Uh...

Sydnee: Here in the States?

Justin: Here in the States.

Sydnee: I bet it's probably been busy...

Justin: That's true. That's true.

Sydnee: ... everywhere.

Justin: That's not an exclusionary thing. It could be busy other places. But things have been, uh, on the political front, changing quite a bit here, in the Stateside.

Sydnee: It has. And I will say, on a personal note, we've been—it has been very busy here, which is why we weren't with you last week. Can I blame you for being out of town?

Justin: Sure, yeah, yeah.

Sydnee: Can I blame—

Justin: And Labor Day. It's both.

Sydnee: Yeah. It was Justin and Labor Day's fault.

Justin: And both of our kids got sick at the same time and had to come home from school early.

Sydnee: That's true. That was a rough one.

Justin: All the same weekend.

Sydnee: The important thing we can all agree on is that it was not my fault.

Justin: It was not your fault.

Sydnee: Yeah. I was in no way to blame.

Justin: That's—we are all agreed that you are not to blame.

Sydnee: I was ready.

Justin: You were ready.

Sydnee: I had an episode ready to go.

Justin: Yep. Yep. Not your fault.

Sydnee: Not my fault. Um, but we did want to kind of update. So, I tend to stay pretty plugged in to healthcare news because, you know...

Justin: Doctor and all that.

Sydnee: ... I'm a doctor. Uh, and probably—and you know what? You're listening to Sawbones, so you may also. Um, but there's a lot coming at us fast right now, I think. In terms of science, and medicine, and specifically vaccine... law, coverage, recommendations. Things are shifting very quickly. And so, I think it's worth—I think that's part of what we do here, is talk about that.

Because what is concerning to me... if you are listening to this show, you probably know that vaccines are safe and effective, and you probably already... I don't want to say "believe," because it's not a belief. It's a fact. You probably already know that, and use that to guide your decisions.

Justin: Sure.

Sydnee: But I think that it is worth addressing some of, uh, the misuse, the abuse of science and research that I'm seeing in the conversation around vaccines right now. Because I think no matter how much you know something, if you are an open-minded person, and especially if you're a scientist, then you recognize that things change, that we do see changes, right?

I mean, medical recommendations have changed so dramatically in the years that I've been practicing. There are definitely things that I was told were one way in medical school that we then had, you know, further studies and understanding, and we critiqued our knowledge of, and came back to a different conclusion at some point.

So, part of science is being open to the idea that things can change. And so, if you start hearing the, you know, Secretary of Health and Human Services, RFK Jr., if you start hearing him cite studies that contradict the things that you thought you knew, or the things that maybe we talk about on this show, I think it is very valid if you stop and go, "Now, wait a minute. Is that right?"

Or at least wonder, where did that come from?

Justin: Where is this—right. Where are we getting this?

Sydnee: Yeah. And so, I think it's important to, as misinformation is thrown at you, make sure that we combat that.

Justin: Right.

Sydnee: Um, because the truth is that nothing that has been said recently by RFK Jr. or any of his... cadre of vaccine skeptics, as they would call themselves—I would say they are, um...

Justin: Idiots.

Sydnee: ... spreaders of disinformation—

Justin: Oh.

Sydnee: —and misinformation that endangers public health.

Justin: That's even more... yeah, that's more firm than me.

Sydnee: Yes. Um, but nothing that they have said—no studies that they have cited have changed the fundamental truth that vaccines are safe and effective, that vaccine mandates are important, and they're not just—I would not just say that they are good public health policy. They're ethically necessary.

Justin: Yes. I agree.

Sydnee: And there is nothing—and even as he cites studies—and you're gonna hear a lot more of this. Because you are going to have people that he has appointed to the Advisory Council on Immunization Practices, they are going to have letters after their name that indicate that they have degrees in things. MDs and PhDs. They are going to sound like people you are supposed to trust and believe about science policy, and they're gonna cite studies that sound like studies, that sound like research. And so, I think it's important that we are prepared to critique that.

Justin: Right.

Sydnee: You know? So, first of all, RFK was asked to come testify before the Senate, because... because of everything that's going on at the CDC. I mean, and even—even the President himself said that the CDC is being—I believe he said ripped apart, shredded, torn apart.

Justin: Something, yeah.

Sydnee: Something to that effect.

Justin: Nothing good.

Sydnee: Nothing good. Um, and the reason I think that the main impetus for this is that the guidelines on the new COVID vaccine, the next booster that is supposed to be available to you now, that has been FDA approved, but the Council on Immunization Practices is not going to meet about it until September 19th, I believe. So perhaps that's why, at least I know in this area, there's nowhere I can get it. I couldn't get it right now.

Um, the controversy is that the new guidelines suggest that only people who are 65 and older, or are at increased risk for severe disease, should be getting—are recommended, that's the wording—are recommended to get the COVID vaccine.

Justin: Okay, what does that mean?

Sydnee: There's two ways to answer that question. What that means from their standpoint—when we say recommended—I mean, from a scientific, medical standpoint, that means we think this is the patient population that will benefit the most, and whose benefits will outweigh risks of getting this vaccine.

If it isn't recommended—and we're not saying—and saying, like, "not recommended for" or just not making a comment on, it's like, everybody under 65 who doesn't have a risk factor.

What that means is that for those people, we don't have enough evidence to say if the benefits outweigh the risks, so we're not gonna recommend it for you.

Justin: Okay.

Sydnee: That's what that means, from a medical standpoint. Now, I am not saying that that is right. I am not saying that is true. But that is what those recommendations are supposed to make you believe.

Justin: Okay.

Sydnee: As a person in the public. What it means from a more practical standpoint is the concerning part. 'Cause we all know that RFK Jr. is an anti-vaxxer. We know that the CDC has been gutted, um, in many ways, and a lot of people who tried to follow scientific method and practice good, evidence-based science to arrive at the recommendations—a lot of those people have been fired, have left, have been pushed out.

Justin: Yeah.

Sydnee: We know that. We know that the entire Council on Immunization Practices was fired and replaced with a bunch of conspiracy theorists and skeptics, and we've gone over all the people who are on that.

Justin: Right.

Sydnee: So, for you to say, "Well, I don't believe these recommendations, because I know they're coming from people with ill intent, and so I'm gonna do my own thing," that would be—that'd be fine, right? So—and that's RFK's point. "You can still get it. I didn't recommend it for you, but if you really want it you can still get it."

Justin: Uh, yeah. Except...

Sydnee: Except...

Justin: Except...

Sydnee: ... insurance companies don't have to cover vaccines that aren't recommended.

Justin: Mm-hmm.

Sydnee: This has been a struggle. I think a good example of this was the HPV vaccine, Gardasil.

Justin: Mm-hmm.

Sydnee: So, when Gardasil was first introduced, the guidelines said it's recommended up to age 27. And also, it was only for women. It was only initially, you know, for assigned female at birth, and up to 27. And the reason was, uh, one, we were trying to—they were trying to target who was most likely to get cervical cancer, so they were trying to target people with cervixes, and not people who might also carry and spread the disease to people with cervixes. Just people who had them.

And then, two, people who were unlikely to have been exposed to HPV at that point. So, what they were saying is, most people by the age of 27, if they were gonna get exposed to the virus, probably have. They're also kind of guessing that, like, you've probably had sex by then. That's sort of intrinsic to this data.

Justin: Right.

Sydnee: So, if you were a 28-year-old with a cervix who had never had any kind of sexual activity, who has never had sexual intercourse, the likelihood that you've been exposed is pretty low. And so, you would be a good candidate for the vaccine. But because it wasn't recommended for you, it wasn't gonna get paid for. And the Gardasil vaccine, when it was first introduced, was really expensive. So, this was already, like, an issue, right?

And now they've expanded recommendations, and that's changed over time. But it really illustrates why that recommendation can impact your accessibility to a vaccine. I could give it to a 28-year-old back then, but they would have had to pay—I believe at the time it was, like, 350 bucks.

Justin: Mm-hmm.

Sydnee: So, if we are saying that you can only get the COVID vaccine if you are 65 or older, or have a risk factor for severe disease, everybody else could have to pay out of pocket for it. So that's one accessibility issue.

And, um, I'm not sure the exact cost of this new vaccine, but I know Elizabeth Warren referenced it in the Senate committee that it is probably around 200 bucks. So, if you—for a lot of people, you may as well say it doesn't exist.

Justin: Right.

Sydnee: If you have to pay 200 dollars for every member of your family who doesn't qualify to get the vaccine to get it, the average American family cannot afford that.

Justin: Right.

Sydnee: So, it is not accessible. That is exactly why they convened this Senate panel is because this is going to dramatically increase the number of people who contract COVID, 'cause fewer people can get the vaccine. And so then we are going to see more severe complications of COVID, and we are likely to see more COVID deaths as a result. Now, I will say, so that we're not just providing information that freaks you out, I would encourage you to visit the CDC website and look at what is on there, that they list, that the CDC currently lists, as risk factors for severe disease.

It is more than maybe you would assume, and there may be something on there that does apply to you. And so, if you are someone who is concerned, "I want to get the COVID vaccine but I'm afraid I don't fall into that category," um, you should check out the list, because there's stuff that I think we would kind of assume. Like, if you have any kind of chronic lung disease, if you have asthma, if you have any, um, diabetes, heart disease, things like that, those sort of chronic illnesses. Those, you may assume.

But there are also a lot of things on there that you might not assume. So, if you check the list, there—again, some pretty obvious things like cancer or kidney disease, liver disease, lung disease. All those things that you may have guessed. Um, there are also, if you have any sort of dementia.

Parkinson's is a risk factor. There are a list of different types. It's interesting, 'cause they also include people with certain types of disabilities. So, um, cerebral palsy, learning disabilities, Down Syndrome, ADHD is listed on there. Uh, sickle cell, HIV, heart disease. And there are also people who have more sedentary lifestyles? How did they word it It's like, low physical activity.

Justin: Whoa. Did you see my—did you hear my ears perk up just then, Syd? I hear "sedentary lifestyle" and I'm like, "Hello! Maybe I just found my way in." Finally, it's all paying off. Sitting, bad for my health? Doesn't sound like it! Sounds like Papa's gonna get himself a [through laughter] free COVID vaccine from the couch!

Sydnee: There are a lot of—mental health conditions are listed. Mood disorders.

Justin: Whoa! I'm about to get it double free!

Sydnee: Um, yes. Physical and—

Justin: Did you say mood disorders?

Sydnee: Mood disorders.

Justin: Right!

Sydnee: Physical inactivity. Um, your BMI—and I understand BMI, there are so many criticisms we could level at body mass index as a way of dictating any sort of health concerns. But for this purpose, based on your BMI, you may be eligible for a COVID vaccine.

There are a lot of, um—pregnant people are high risk, so that would qualify you for a COVID vaccine. And ACOG, the American College of Obstetrics and Gynecology, still does recommend that. Um, and smoking. So, there's lots of—

Justin: Wait a minute. [laughs] Now, hold on. That may be a bridge too far to pick up smoking for this, but I'm—listen. Whatever it takes.

Sydnee: There are—the concern for me personally is that—

Justin: You have just one concern?

Sydnee: Well, I mean, for mys—like, as I was thinking for myself.

Justin: Oh, for Sydnee, the person. Gotcha.

Sydnee: I'm using myself as an example, here. So, I am under 65, and... not to overshare, but other than the fact that I probably could get more physical activity, right? Like, probably, honestly. Other than that, I don't qualify for the COVID vaccine.

Justin: I heard one about mood. Wasn't there one about mood?

Sydnee: I don't have any—

Justin: I could've sworn there was one about mood.

Sydnee: I don't have anything diagnosed, Justin. So...

Justin: Oh. Oh. Oh!

Sydnee: You can—

Justin: Ohh!

Sydnee: You have diagnosed me, Doctor Justin.

Justin: You don't have anything diagnosed. Got—no, I gotcha! I gotcha.

Sydnee: But I had this concern for myself, because even if I wasn't a healthcare worker, I would want to get the COVID vaccine. But I also am a healthcare worker, and I know I am going to be exposed to COVID this season. I guarantee I will be. I work in a shelter for people experiencing homelessness. Um, mask use is very rare. A lot of people don't have regular access to healthcare services, so when they are sick, they are not getting

tested anywhere else but in my office with me. And they are als—we are also all in one big communal shelter all the time. So, I am gonna be exposed to COVID. I want to get the booster.

Justin: Right.

Sydnee: I am not eligible. So, I will say that this is something that I think—check this list. See if any of this stuff applies to you. Um, hopefully insurance companies will decide to cover it anyway. But then, we're hoping for the goodwill of insurance companies.

Justin: Right, yeah, right.

Sydnee: In that case. Uh, but when RFK Jr. makes a claim that the vaccine is still accessible to all who want it, that's a lie. It's a lie, unless everyone who wants it has 200 dollars.

Justin: It's a barrier, right?

Sydnee: Yeah.

Justin: Like, accessible is a barrier, just like illegal is a barrier. You know what I mean? Like, it's the same when we talk about, like, drugs. Like, the fact that they are against the law is a barrier, but they're still accessible, right?

Sydnee: Yes.

Justin: These are still accessible, in the sense that anything else is. But the barriers are what you have to look at, and this is a huge barrier! Like, it might as well—especially since the people that are not—it's this thing where, like, the people who are not eligible to get the price reduced to free are the people who physically are statistically in the least amount of danger, and are therefore least incentivized.

Sydnee: Yes.

Justin: So, like, you're asking people not just to, like, pay it, but pay it because it helps other people to reduce the spread of COVID.

Sydnee: Exactly. And there is the fear that—

Justin: Which is the reason we subsidize it in the first place, you friggin' dolts. Like...

Sydnee: To remove as many barriers as possible. Because it's not just for your personal health. This is an issue of public health. That's the thing about public health. Public health—and this is something that I think sometimes freaks people out. The idea of public health, we are concerned for the idea of the public. It's not about you, the individual. So, we remove all the barriers we possibly can to incentivize people to go get the vaccine.

Yes, it's good for the individual who gets it. Of course. There is that benefit, too. But it's for the broader good as well. That's why we do it. He fundamentally—I mean, he doesn't understand science or medicine, so it's not shocking that he also doesn't understand the concept of public health. But he's the Secretary of Health and Human Services, and he fundamentally does not understand public health.

And his defense of all this is that we've never proven the vaccine was safe and effective in people under 65 who don't have a risk factor for severe disease, and these are lies. He also says that we don't—we didn't test the vaccines in healthy individuals. Well, hello. I'm a member of a vaccine trial Justin and I both participated in, and I participated in it as a healthy—quote-unquote "healthy" individual who did not qualify for any of the vaccines under the current guidelines, who went and got the vaccine.

So, I mean, yes, we did! We tested it in a broad swath of the population. All of the vaccines were. We have tons of science to say that they are safe and effective in this broad generalization of the public. And again, he couldn't even tell you how many people died of COVID in America. This is on the CDC website!

So, 1.2 million people died of COVID so far.

Justin: Yeah.

Sydnee: And he can't—I mean, he is—he's misrepresenting that data. And it's on the CDC website! He could have looked at it.

Justin: Yeah.

Sydnee: Um, so—

Justin: Well, maybe he doesn't believe the stuff on the CDC website. Which, I mean, fair.

Sydnee: Well, he says he doesn't. I mean, he says that the CDC has been misguiding the public and confusing people, and that we, uh—the CDC was responsible for the worst public health guidance during the COVID pandemic. It's why we had a disproportionate number of deaths in the US. And... that masks never worked. I mean, he's still on that. So...

Justin: Hey, here's what I'll say. Back in January, I bet you thought you couldn't get through a week of this. But look, you're already through eight months. Good on you. Crankin' it.

Sydnee: There we go.

Justin: You're doing it! You're doing it. I'm talking to everybody, not just you. Everybody.

Sydnee: I want to unravel some more of the stuff that's happening around vaccines, 'cause this isn't—the COVID vaccine is not the only concerning thing to pay attention to. But before we do that, we do have to go to the billing department real quick.

Justin: Let's go!

[ad break]

Justin: What else is happening out there, Syd? What else is a-movin' and a-shakin'?

Sydnee: [laughs quietly] So, aside from the COVID vaccine, which I think that the reason this is getting a lot of attention is also a political reason. If you remember... [laughs quietly] It was Trump's administration who was responsible for Operation Warp Speed, which delivered the COVID vaccine in a very shortened period of time. Not that we cut any corners, as we have talked about extensively on the show. The vaccine was safe and effective. This technology had existed for over a decade. We just had to plug in the new virus. That's the great thing about mRNA platforms.

Justin: Right.

Sydnee: You have the technology ready to go, and all you need is the new threat to introduce to it, so that you know what kind of vaccine to make.

Revolutionary science. Used it to save, I don't know, what's the estimate? 20 million lives, or something, so far, is the estimate, what we've saved with the COVID vaccine. So, revolutionary, fantastic science. And there are many people who think Trump should get a Nobel prize for it. Um... [laughs quietly]

Justin: [wheeze-laughs]

Sydnee: I am not one of those people. But there are many people who do. And so, I think that this is getting a lot of political attention as well, because it's—they're trying to create a wedge between RFK and Trump, because he is criticizing Trump's... maybe the only accomplishment that I would say, yes, I agree with this. The COVID vaccine is good. [laughs quietly]

A lot of us would say, like, yeah, I mean, he did the vaccine. The vaccine's great. Like, the vaccine is good. We all agree on that one. Nothing else. And so, they're trying to drive a wedge. That's why this is getting so much attention. Like, maybe they'll fire him.

And I will say, there was a letter written to the Presidential administration saying, from 20 different medical organizations, saying, "Please fire him. He's an idiot. He's gonna destroy this country. He's gonna kill all of our kids. Please fire him."

Justin: I don't know if—I just don't know if—I'm trying to right-size this whole thing in my head, right? Because sometimes I understand the sky is falling mentality, and I do get that. I try to look at the places where, like, there are still normalcy, because I think it's important to track the changes. and be aware of the changes, and look at the changes.

Justin: I will be interested to see if... I feel like there—we're starting to see some, like, rubber meets the road moments with some of this stuff where it's like, do you have the frigging... [pause] fortitude's not the right word. But, like, how hard on this are you willing—do have the, you know—how far on this are you willing to take it?

Because there's a lot of people who know they're acting with ill intent. There's a lot of people who know that this is a bunch of nonsense. And now we are seeing the practical ramifications of it. And it will be interesting to see as, like, more—if there is a stomach to, like, really, you know, go through with this stuff. Or, you know, what the—where we're at.

Sydnee: I think—if you watch the Senate hearings—which I've watched quite a bit of it. I didn't watch the entire thing, but I've watched quite a bit. Um, it was not just Democrats who were questioning. And I would—attacking might be a strong word from the Republican senators. But very forcibly refuting what RFK was saying. There were Republican senators who were saying, "This is wrong. This is, like, settled science. We do not need to reinvestigate autism and vaccines."

This is coming from Republicans as well, so this isn't just a partisan issue at this point. I do think you're going to start to see—I mean, heck, I said it this morning. Jim Justice [laughs quietly] is—who is our representative, if you can believe it, still, here in West Virginia—Jim Justice—

Justin: We have two, so he can be your representative, and I'll take... the other—no, never mind. [laughs]

Sydnee: You want to take Capito?

Justin: [through laughter] I'll take Capito!

Sydnee: Yeah, no.

Justin: Oh, god.

Sydnee: But he said, today, he made a comment—

Justin: I'll take Baby Dog. [wheeze-laughs]

Sydnee: —about how, um, important vaccines are. I mean, today. Jim Justice knows how important vaccines are.

Justin: Well, do you know who that is? That's Baby Dog, though. That's Baby Dog saying "My—the crown jewel in my administration, as the First Dog of West Virginia, was do it for Baby Dog."

Sydnee: Yes.

Justin: The vaccine campaign that we detailed here on Sawbones. So maybe he's looking at, you know... Baby Dog doesn't have a lot of great years left.

Sydnee: [laughs quietly]

Justin: We pray he has more than Jim. But, you know, you never know.

Sydnee: And he doesn't know if this next COVID strain is gonna be aimed at dogs.

Justin: Maybe. No, actually, I saw a huge sign when we were in Atlanta. Actually, you know what's fascinating? I saw a big—I meant to tell you this. I saw a big billboard in Atlanta, in the year of our lord 2025, that said "Dogs do not spread COVID." [laughs quietly]

Sydnee: [laughs] Phew!

Justin: Phew! Alright.

Sydnee: Good. Not the doggos.

Justin: Not the dogs. Thank you.

Sydnee: Um, so the other issue that the senators had with—I mean, I think they have many. Um, has to do with autism and vaccines. Vaccines do not cause autism. I don't know how many times I should say that as we discuss this, just to, like—

Justin: Lots of people, a lot of people say that.

Sydnee: And I—

Justin: Like, a *lot* of people, smart ones.

Sydnee: I will say, too, that, you know, I see such good journalism around this these days. Like, any time—and I see this both on TV and as I'm reading news articles, like, fact checking RFK.

Justin: For fun. [laughs quietly]

Sydnee: Heh. You see a lot of journalists point out very quickly... there is no study, there is no research that shows a link between vaccines and autism.

Justin: Right.

Sydnee: None. And we have studied this. So, every time RFK says, "We haven't looked at it," that's just a lie. I don't know how else to characterize it. Yes, we've looked at it.

Justin: He's just lying, because there's no one above him to say, "You're lying."

I mean, that's—that's it, right? I mean, that's pretty much it.

Sydnee: He referenced a study during the Senate hearing that basically—what he said was, "The CDC published data that showed there was no link

between the MMR, the measles, mumps, rubella vaccine, and autism." And there was one scientist who teased something out of the data and pulled a study out and said, "No, look. Actually, it increases the rate of autism, specifically in Black boys." Children who were tested in this study.

And that this study was suppressed by the CDC, and now he's got this data. And so he references this—I mean, this dramatic story of, like, the CDC withholding data from the public, specifically to target, you know, Black children. And the study that he's referencing, if you go back—I mean, first of all, it was retracted and discredited because the methodological—like, the way that it was put together, the way the data was collected, the way that it was analyzed, the lack of excluding for confounders, other variables that might have altered it—the study was done terribly. It meant nothing.

Justin: Okay.

Sydnee: It was a bad study, and it was retracted. And it should never have been published in a journal. But the fact is, as we've talked about on the show, there are a lot of journals out there that are... they have their own agenda.

Justin: Right.

Sydnee: And so if you look at, like, who RFK trusts, Dr. Mawson, Dr. Anthony Mawson, who is a, um... a vaccine critic, published a study comparing vaccinated and unvaccinated children. In one group it was home schooled children—and he's done multiple studies, and these are the ones that Kennedy is most frequently citing. Mawson also wrote a book. He's made a big career off of being a doctor who doesn't trust vaccines.

Justin: Which, there's money in it, you know. If you—if you're willing to trade your credibility and soul away for a very short-term gain, my friend. [laughs quietly]

Sydnee: Follow the money.

Justin: Yeah.

Sydnee: He established the Chalfont Research Institute. It's a charity that operates out of his home. It received contributions of 150,000 from the National Vaccine Information Center, which is a group whose mission—it's an anti-vax group. Um, they—he's also connected—he's had study funded by Generation Rescue, which is a nonprofit that Jenny McCarthy is associated with, if you remember. Jenny McCarthy, of Singled Out fame.

Justin: [wheeze-laughs loudly]

Sydnee: [laughs quietly] I don't know. What else?

Justin: Devastating. Just go on. No, you don't need to say anything else. [crosstalk].

Sydnee: Hates vaccines.

Justin: Best in the biz. The former Ms. Jim Carrey. [laughs] Former Ms. The Mask! [wheezes]

Sydnee: Anyway...

Justin: Former Ms. Cable Guy! [wheezes]

Sydnee: So... he—so this is who he's citing his studies from. Um, the journal that published the study was Science, Public Health Policy, and the Law. It says it's peer-reviewed, but the, um... the people that are associated—the journal's editor-in-chief is a longtime ally of Mr. Kennedy's who describes themselves as in a years-long fight across 20 states for vaccine exemptions. So it's an anti-vax journal, is my point.

Justin: Yeah, right? It's like, it's against them.

Sydnee: So, like, just follow the money. And if you look at, like, these organizations, like the Children's Health Defense, which Kennedy has been a lawyer for before, and he is very much associated with, and this is an anti-vax group who spreads disinformation about vaccines. If you look on their board, they have people who sell supplements to try to fix the vaccine injuries that you have—

Justin: It's the money! It's money.

Sydnee: Um, like spike detox supplements. They're gonna get that spike protein out of you that—the evil spike protein from COVID that all the vaccines—so, anyway, you just follow the money. So, these studies are deeply flawed. The thing about data is that collecting it is part of the battle, and you have to know how to collect it appropriately, right?

Justin: Right.

Sydnee: You have to know how to get the right answers from the right study population with the right diversity among it, right? Depending on what you're looking at. And then you have to know what to do with the data. You have to know how to tease out all the stuff that's gonna lead you to other conclusions. If you don't know what you're doing, you can come to the wrong conclusions.

Justin: Right.

Sydnee: Right. And if you want a specific answer, you can probably make it happen.

Justin: It is interesting that—it is a big issue with AI, actually, because AI, you would think, would be very good at data analysis. But it's actually very bad. I was reading in a—it's like an entertainment study about the entertainment industry, and they have all this data about—from focus groups. Like, you would think that you would be able to program into the thing, like, "Here's the movies that were popular last year. Here's how tastes are evolving. Calculate for us what the next big hit will be." Right?

But looking at data and synthesizing data is something that the AI routines are relationship bad at. Which, to me, shows you how much, like, art is a part of that, is a part of data synthesis. How much of that is, like, storytelling through data?

Sydnee: Right. No, you're exactly right. And that's—it's so important to understand that, because, like, this study—this is a great example. So, if we

compare kids who are not vaccinated and kids who are vaccinated, and then, how do we—okay. If we're gonna do this, without going house to house, kid to kid. So, we collect data from a medical record to see, is there a diagnosis code for autism spectrum disorder on this child? That's how we're gonna decide if they have autism or not. 'Cause we need to know, did they get vaccinated, and do they have autism?

If you're not gonna ask that question, you're gonna look for the diagnosis code in an electronic medical record. Okay.

Justin: Right.

Sydney: So, in order for that diagnosis code to have been put in there, the child would have had to be taken to a doctor, evaluated by them, and then diagnosed with autism spectrum disorder. Now, typically this is not something we do in one appointment, right? You wouldn't go to a walk-in clinic and walk out with a diagnosis of ASD. That would be inappropriate, right? Like, this is something that we take time, and we collect information, and, you know, we have—we have certain screening tools. Like, there are things we do.

Well, would you guess that a child who is completely unvaccinated, whose guardians have made that choice to not have them vaccinated—do you think there's a chance that maybe they haven't had as much contact with physicians as a child who's received every single one of their childhood vaccines?

Justin: Yeah, Sydney, yeah!

Sydney: Don't you think that's possible? So, don't you think the likelihood that they would've been sitting in a doctor's office enough times to have that diagnosis made and recorded in their medical record—don't you think that likelihood would be less? Yeah.

But they didn't control for how many times the kid was taken to a doctor. If you never take your kid to a doctor, or any other sort of healthcare professional, yeah, they're not gonna get diagnosed with ASD! Or anything else, 'cause you didn't take 'em to a doctor!

But none of that was controlled for in the study. But the problem is, most people—like, if you didn't go to medical school, or to, you know, pharmacy school, or to nursing school, or to any of the science-based healthcare tracks, right?

Justin: Right.

Sydnee: If you didn't go have an education in any of that, if you're not an epidemiologist, you wouldn't know to tease that out of the data. And so when someone says to you, "The CDC suppressed a study that showed that the MMR vaccine causes autism in Black boys... " you might believe it! And especially if we talk about marginalized communities, a population like in the US, the Black community, who historically have been lied to, abused, mistreated, you know, systematically oppressed by our medical—by our healthcare system, who already have historical basis to be skeptical about institutions, you know, doctors, the CDC, all—the NIH, the federal government, all of it.

And then you present them with that. You might be inclined to believe it's true, or to at least question, or to at least wonder, "Should I get my child vaccinated, then?"

Justin: Yeah.

Sydnee: Um, and that is the problem, is RFK has been doing this so long, he knows—he knows how. He's wrong. He's lying. I mean, I assume he's lying. I don't know if he—I don't know what he believes. I don't know if he knows.

Justin: Who knows? We can't see in the contents of somebody's heart. You can only judge by their actions, and his actions are... truly, truly despicable.

Sydnee: They're dangerous. It's malicious. Children are going to be harmed by this. But I think it's important that we're all well-versed in these tactics, because they're gonna use bad science, and it's not gonna look like bad science on the surface. It is bad science, but we're gonna need to be smart about understanding why it's bad science. 'Cause you can't just say, "Well,

that's a lie," 'cause they're gonna hold up the—they're gonna hold up the study, and they're gonna say, "Well, it was a double-blinded, placebo-controlled—why don't you want placebo-controlled?"

That's what they're gonna say about vaccines. "Why don't you want placebo-controlled?"

Because it's unethical, if we have a vaccine that saves lives, to not give it to half of the study population. It is—I mean, we don't do that. We don't do those studies, because they're unethical.

Justin: Syd, it occurs—you and I have talked a lot about feelings of helplessness, I think, in recent months. And sort of combating that, and trying to stay... you know, I think that it is unrealistic, maybe, to stay, like, positive, or optimistic, or hopeful, or whatever. I don't know how helpful that is to anybody. But I do think that it is important to not be overwhelmed to paralysis, I think.

So, how have you been sort of, like, processing what's been happening? How are you, like, contextualizing it for yourself? What's been your mindset?

Sydnee: Um... well, I will say a couple of things that have given me... I don't—hope may be too big a word, but I'll use it. Hope. One, as I mentioned previously, the push back on this sort of, um, total misinformation, especially when it comes to vaccines, is bipartisan. It is not just Democrats versus Republicans, because right now if that's the battle, the Republicans are gonna win.

Justin: Right.

Sydnee: It's not. It is a bipartisan effort to trust evidence-based science and push back against these lies. So, that's a hopeful point.

Justin: It's also good—that's a good note to remember, that if you have a representative that does not agree with you politically, there still may be daylight for you to call and make those, you know, make your voice heard to that representative that could be swayed on this, because I don't... I think that you've gotta look for those sorts of individual battles, at this point.

Sydnee: And I think that it's important to remember that, um, as people are seeing these—like, the measles outbreaks—in real time. And unfortunately, I feel like we're gonna see a lot more of these—not just measles, but other preventable childhood illnesses—in Florida, soon. Because they—

Justin: Amplifying those stories, I think, is helpful, right?

Sydnee: It is, and I think it's—I mean, unfortunately part of the problem, part of why we have so much push back on vaccines is that I have never seen, um, a child with diphtheria. Thank goodness. It's—I didn't—my kids were not in an iron lung. You know?

Justin: Yeah.

Sydnee: And, uh—and so I think as we have, like—as we're starting to see that stuff return, you are gonna hear more public outcry, and you are gonna have people who maybe agree with RFK politically who will not stand for this—you know, for childhood illness and death. Unnecessary, preventable, childhood illness and death, which is what we're gonna see.

So, I think that's one thing. I think the other thing is, um, all of the major medical organizations are continuing to put out their good, evidence-based, scientific, medical advice. So, you can go to AMA, AAFP, AAP, um, the ACOG. The American College of Obstetrics and Gynecology are always such... I can't say bad-As. I can't say that. I can't say the A-word. They're cool! They're always out there fighting. [laughs]

And I'm—you know, I'm family practice. We're part of the AAFP. We tend to be a little more chill, I know. But, like, we're all united on this. If you read all of our statements, if you go to those websites, if you go to those medical organizations—Infectious Disease Society of America—you can find good, solid information on what vaccines you should get, what the risks and benefits are, who should get them. That information is still widely available.

Justin: Mm-hmm.

Sydnee: You don't have to go to the CDC for everything. And right now, I don't know that I would recommend that as your primary source of medical information.

Justin: I think the important thing is that if you look at those organizations that are continuing to fight, even though it does feel so imbalanced in power, like, at the very least you're keeping them fighting. And they can't fight—if you're fighting everyone all at once, it's a lot harder than, you know, if no one's fighting back. So, I think that, like, continuing to remember that even a fight is a use of their resources, and is keeping them occupied from doing some other heinous crap—like, every little bit, I think, is helpful.

Sydnee: And those of us who work in healthcare, this is really, uh... and I'm gonna speak to physicians, because I'm a physician, so I feel like I have the right to. We tend to be, as a collective, really wimpy about this stuff. We don't stand up and speak out. We're exhausted. I know. I know we're burnt out. I know we're overworked and, um, constantly living in fear of, you know, insurance companies and pharmaceutical companies and getting sued and all of the stuff that comes with practicing healthcare in the US that sucks. I know. I totally get it. But we have—this is where we have to fight back. This is where we have to stand up and say, "Absolutely not. I will not accept this. I know better than RFK Jr. I know better." And you do, too, my colleagues in medicine. You know better.

Justin: It feels to me, if you're a physician and you have any sort of public platform, or you just know people in your day-to-day life that you speak to, it feels like a, uh—it feels like you are duty-bound to be speaking up about this. Like, you need to let your voice be part of the conversation, I think. 'Cause the more voices that are speaking reason and logic—like, I feel like the onus is on you to speak up a little bit.

Sydnee: And you can do that in your practice with your patients. I mean, that's the thing. Like, at least I know my patients, I think, like and trust me. I think they do. And I can continue to give them good, solid advice, based on evidence-based medicine, that I believe a lot of them will hear more loudly than these false voices in Washington right now.

Justin: Right. Um, thank you so much for listening to our podcast. Uh, we appreciate you. Uh, I wanted to mention, we haven't mentioned in a little bit, immunize.org is a group that we've worked with a lot, that has a ton of great information about immunization, and you support them through several of the merch purchases on our website. So, that's—we're all working together here on this thing.

Uh, mcelroymerch.com is that website, if you want to check out some stuff there. Uh, thanks to The Taxpayers for the use of their song, Medicines, as the intro and outro of our program. And thanks to you for listening. That's gonna do it for us. Until next time, my name's Justin McElroy.

Sydnee: I'm Sydnee McElroy.

Justin: And as always, don't drill a hole in your head.

[theme music plays]

[chord]

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