Sawbones 344: Herd Immunity

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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: Sydnee, can I tell you about the best joke I ever made?

Sydnee: Uh, I think you're going to, whether or not I— I say yes, so go ahead.

Justin: So, when I was driving around town, I saw a bunch of people tailgating for a Marshall game. Marshall, the thundering herd, had their first home game of the year, and I saw a bunch of people tailgating.

Sydnee: This is recent.

Justin: Recent.

Sydnee: That's important, I think.

Justin: Troublingly recent.

Sydnee: If I know where you're going.

Justin: Uh, just gathered around in groups all throughout the city, walking around, mask-free, living their lives, just *going* for it.

Sydnee: Right.

Justin: And when I got home, I put on Facebook, uh, saw a bunch of people tailgating for the Marshall game. Guess they're counting on herd immunity to protect them.

Sydnee: 'Cause Marshall, of course, is the thundering herd.

Justin: I did not make this joke on Twitter. It wouldn't have played there. But here in my hometown of Huntington, West Virginia, where most of my Facebook friends are, they were loving it.

Sydnee: And on our medical history podcast, I bet it's gonna go over...

[pause]

Justin: [pained] Like a lead balloon, kind of.

Sydnee: Mm-hmm.

Justin: But, you walked 'em in twice saying "thundering herd," so they should— they had the setup for that to really land.

Sydnee: Right.

Justin: Herd immunity.

Sydnee: Herd immunity. That's what we're gonna talk about, Justin.

Justin: Yeah, that's why I made that great joke so many months ago.

Sydnee: Yeah, I didn't want to be cute about it. Just jump right in.

Justin: Yeah.

Sydnee: Yeah. Uh, thank you to Kristen and David and Maggie and Kelly and Julie and Haley and Selena and Jamie and Georgia, who all recommended this topic. Herd immunity, or, uh, the... Great Barrington Declaration, which we will get to.

Justin: Oh. Our— your reference was much, much less relevant than mine, for once. I think that the—

Sydnee: The Great Barrington Declaration?

Justin: Yeah, I think we had more people guffawing at "herd immunity" than your reference. Not guffawing. Nodding thoughtfully.

Sydnee: Listen, some of these emails were titled "The Great Barrington Declaration." And let me tell you, I had not yet heard about it, and that is a weird subject line for an email, if you have not heard of it.

Justin: Yeah.

Sydnee: I'm gonna get to there. I promise.

Justin: How many, in those emails that began with that did they say, "Hold on. I have to stop writing the email to adjust my pocket protector, uh, that I have on."

Sydnee: Uh, Justin?

Justin: Yeah.

Sydnee: *I* am one of the nerds that I believe you're trying to make fun of right now.

Justin: Yeah, Poindexters, if you will.

Sydnee: Mm-hmm. Okay. So, the term—

Justin: Wait, I— can I say one more thing before I let you get rolling?

Sydnee: [sighs] Do you want to continue to mock my intelligence, or my friends? All of my friend—

Justin: [simultaneously] I'm not mocking your intelligence.

Sydnee: —listeners? Friendslisteners? Friendslisteners?

Justin: Friendslisters. Friendslisteners. Pocket protector is really out— like, a wildly outdated reference. I feel like—

Sydnee: I've never— I don't know if I've ever seen one—

Justin: I've never even seen one— right.

Sydnee: —like, in the wild. Like, on TV. Like, in movies. Like *Revenge of the Nerds*.

Justin: Like PT's Huggers is the [wheezes] classic, the little knob on there you can pull out. [laughs]

Sydnee: I'm sure there are people who have them. I just never had one. Anyway. So, the term herd immunity, you could probably guess that it was already— it was used in animals first. I bet you could've guessed that.

Justin: [through laughter] Let's hope so.

Sydnee: Yes. My understanding is that it was originally used to refer to, uh, herds of cows where they would have these— back in the 1910's where they would have these epidemic abortions, they would call them, or miscarriages, and the farmers would initially respond when they would see this start to happen among the herd by getting rid of all the cows that it had happened to, like, get them out of there really quickly, and replace them with new cows.

And what they realized is that actually made things worse. Um, that as you got the sick cows out and put new cows in, it was like adding fuel to the fire. It continued to spread. Whereas if you could just kind of keep 'em all together after they got better, you tended to see some sort of immunity develop, wherein nobody got sick.

Justin: Not *some* sort of immunity, Syd. *Herd* immunity.

Sydnee: [laughs] Exactly. Uh, so the idea is that this phenomenon would keep your herd healthy, if you kept 'em together instead of trying to, like— I don't know, do you— this is not a question for me, who doctors only humans, but I don't know if you sell the ones that were sick? That seems like a bad— like, do you lie? Surely you tell people. Where do you— who do you give them to?

Justin: Maybe you eat 'em?

Sydnee: I don't think you're supposed to.

Justin: Depends if it's a cow disease.

Sydnee: I don't know enough about this area to comment any further.

Justin: They probably— everything is messed up. They probably slaughter 'em. They've slaughtered a lot of animals pointlessly during this COVID pandemic. I'm sure that it wouldn't be— I'm sure they just slaughter them.

Sydnee: That's very sad.

Justin: Well, yeah.

Sydnee: That's incredibly sad.

Justin: We mistreat animals in this country horribly.

Sydnee: Yes.

Justin: But that's not on the docket.

Sydnee: These are not usually the comments you make, I will say.

Justin: I'm just sayin'! It's not untrue. I'm just— we're all connected, and... I feel bad for the way we treat cows in this country. That's all. Animals, period, but... except for cats. They're doing fine. Go on.

Sydnee: [laughs] Okay. This idea of herd immunity was intriguing to scientists. If you look at this point in history, we're talking about World War I-ish time. This was very interesting—

Justin: That's what it said on the calendars.

Sydnee: Yeah, it's World War I-ish time. And guess what? Also, Spanish influenza time. Unfairly named Spanish influenza. As we have said before, the influenza pandemic of 1918 was not the fault of Spain. They just were the first to be honest about it, so they got the blame.

Justin: Yeah. It was the fault of Portugal.

Sydnee: No. No!

Justin: Spain's next-door neighbor, Portugal.

Sydnee: No! No.

Justin: No? Who can I blame? Give me somebody to blame.

Sydnee: Listen to that episode.

Justin: Ugh.

Sydnee: Anyway, so— the influenza pandemic is happening, and a lot of scientists, bacteriologists, studying this and looking at this herd immunity phenomenon start to say, like, what does this have to do with— does this have anything to do with humans? Is there some application for this in humans, or is this just a cow thing?

And so they look in— they do some experiments with mice, to kind of try to explore this idea. Um, the first look into this in humans was the following year, 1924, when a professor of pathology named Sheldon Dudley started looking at these groups of school-age boys who were in this sort of, like, boarding school kind of setup.

Specifically because it was, like, your perfect... if we're going to look at humans as a herd, [laughs] these boys would be put into the school at a certain time, they all stayed together, this single cohort. They weren't going anywhere, nobody was coming in or out. So— and at the same time, diphtheria outbreaks were very common. We didn't have a vaccine yet, so... you just got it.

Uh, and so you could kind of— I know this sounds like a terrible study. Nobody was given diphtheria. You could just observe what happened. Um, and so that was sort of the first look into, you know, humans, was to observe the spread of an infectious disease among this sort of isolated population, and then report on it, and that's what he first published on, was the way that he would observe, like, a certain number of the students would get this and then recover, and people would stop getting it, right? And, like, the herd, so to speak, would be protected.

As he wrote about it, this terminology, herd immunity, was not... widely accepted by the public. People didn't love this.

Justin: Literally dehumanizing.

Sydnee: Yes, exactly. The idea of calling humans animals was not... particularly…

Justin: I, as a humanist first and foremost, I typically would agree with that. I think in this specific example, though, I like the term herd immunity, because it is dehumanizing in a way that is, um, helpful, because we shouldn't be thinking of ourselves as individual human entities. We should be thinking of ourselves as a herd. I think it's useful— it's a useful way of thinking of ourselves as part of a collective.

Sydnee: I understand where you're coming from. I would argue that the human animal is capable of altruism, though, without comparing us to another animal that is, perhaps... less cognitively developed?

Justin: Uh, first off, rude. [laughs] Secondly, the countess? Anybody? From *Pee Wee's Playhouse*? Uh, but also, like, I don't know. It's— it's— all evidence to the contrary, Sydster. I don't know— [laughs]

Sydnee: Okay, well, fair.

Justin: [holding back laughter] Currently.

Sydnee: That's— okay. And especially at this moment in the show, we're talking about the 1930's, so I guess this isn't... phew. Anyway... and because of this time period, as Dudley talked about humans in these terms, and talked about different herds of humans, like urban herds or rural herds, and all these different terms that were used, people were not thrilled. And then the idea of—

Justin: Can I say, urban herds actually hit me different. [laughs] When you added urban to the beginning, it started to feel a little bad.

Sydnee: Uh-huh. Well, and the idea of racial herds was also introduced at this time, especially with eugenics being popularized.

Justin: Okay, I'm there, yes. I'm seeing the bad side now.

Sydnee: Yes. And the idea that, like, "Well, these people don't get this, because that herd has an immunity already, for whatever reason." These ideas began to, you know, be perpetuated.

And, um, there's also a problem with this, because if you do a direct comparison, if you have a herd of animals, like we were talking about early on, whether or not you decide that— whether or not you have embraced this herd immunity concept and you accept that, like, these cows that got sick and got better are now, like, good for your herd, they're helping protect your herd in some way. Because at that point, they didn't really understand why. They just knew that that happened.

Um, you do accept that some will get sick and die. Like, that is part of this equation that you're running when you're talking about your herd of animals, your herd of cows or whatever. Right?

Justin: Okay.

Sydnee: And so, when you apply that to humans, that's not... what I would call, um, ethical.

Justin: Great, yeah. It's not. It's not ethical.

Sydnee: Right. And the other thing is, you know, in terms of a good euphemism, if we are talking cows, like, you also intend to...

Justin: We're not talking cows, Sydnee. We're people.

Sydnee: Well, but you also intend to kill these animals in a lot of cases at the end, and so as a— as an analogy to humanity, it is a weak one, in that way. [laughs]

Justin: Fair enough.

Sydnee: People don't like that. Especially when they're sick and scared, or their family members are sick and scared. That's not a great look. So, because of these reasons, you can see where there isn't really much of a functional application for this idea, right?

Justin: Mm-hmm.

Sydnee: Like, how do you use it? How do you use it as a tool? You can observe it, as Dudley did. You can see it happening. But how would you use this, functionally, if what— if the consequences are that some members of your herd will get sick and die? There is no application to this, as a doctor whose number one job it is to do no harm.

Justin: Right.

Sydnee: Until you have vaccines. Now, all of a sudden, along with vaccine technology, we have, like, an actual idea of how herd immunity could come into play, okay? That's what makes it relevant. And this is where math comes in.

So, in order to understand why herd immunity suddenly became important and relevant with the advent of vaccines, you have to kind of understand some math. So, we have an infectious disease—

Justin: Okay, hold on.

Sydnee: [laughs quietly]

Justin: Okay, I'm ready.

Sydnee: We have an infectious disease, and we have a vulnerable population. Okay? And different diseases are different levels of infectiousness, meaning, like, some spread really easily and some don't. Right? Okay.

We measure this by how many people is an infected person also likely to infect. You've probably heard about this on the news. The media has talked about this idea.

Justin: It's the R0.

Sydnee: The R0, very good.

Justin: We've talked about this idea.

Sydnee: Yeah, but a lot of other people.

Justin: I'm just saying.

Sydnee: Okay, yes.

Justin: I'm not that smart.

Sydnee: So, what we found is that if you divide 1 by the R0 and then subtract it from 1— that doesn't really matter. The point is, you can get a threshold of the population that would need to have immunity in order to stop the spread of the disease, okay?

Justin: To lower that R0 below 1.

Sydnee: To... no. Well, to— yes, to achieve herd immunity and stop transmission of the disease.

Justin: That number has to be below 1, right? 'Cause it's—

Sydnee: Yes, but what—yes, but what we're ta—

Justin: To stop transmission.

Sydnee: Yes, but what I'm trying to get you to see is that the R0 is intrinsic to what that level of herd immunity is. The R0 of a particular disease tells you how many people would need to be immune to protect us all.

Justin: Okay.

Sydnee: It is dependent on how easily that disease is spread.

Justin: Okay.

Sydnee: Okay?

Justin: Got it.

Sydnee: Does that make sense?

Justin: Yes.

Sydnee: So, like, as an example, measles. One person with measles is likely to spread it to, like, 12 to 18 other people.

Justin: Dang. Measles, right?

Sydnee: Yeah, it's really infectious. Really contagious.

Justin: Don't miss those.

Sydnee: Right? So, we have to get to 92-95% of the population immune before it won't. That's the threshold of herd immunity. That's really high, right? On the other hand, Ebola— if you have Ebola, you're only likely to give it to 1.5 to 2.5 people.

Justin: Okay.

Sydnee: So, for that we need to achieve 33-60% herd immunity level. Or, immunity level to achieve herd immunity.

Justin: Easy.

Sydnee: Okay? So far, from what we can tell of COVID— and this is an evolving science, right? Because we— we're still trying to— we're in the midst of it. Uh, a person with COVID is likely to infect between 2 and a half and 4 people, okay? Which means we need to get between 60 and 75% of the population immune before we achieve herd immunity, theoretically.

Justin: Got it.

Sydnee: Okay? That's a lot of people.

Justin: Yes.

Sydnee: We are nowhere near that. Like, on a global or nationwide level. There are isolated communities here and there that may be closer to that level, especially in specific parts of New York, but not on any major national scale.

Now, as we talk about that, about herd immunity and the way that it was used for, like, smallpox for instance, this was all used in conjunction with a vaccine. So, we use this concept of herd immunity to vaccinate people against smallpox, to stop the spread of smallpox, and then to use what we called ring vaccination to close

in on the infected people. Like, you get an infected person, and then encircle them with vaccines, until we could eradicate it.

But nobody has ever suggested— no real epidemiologist has ever suggested that you use this idea of herd immunity just to let people get sick, until it stops spreading. Okay?

Justin: Right.

Sydnee: Now, in terms of what we would have to do for COVID, like, how many people would have to be vaccinated or immune or whatever, first of all, as long as we include a vaccine in the equation, we have to know the effectiveness of the vaccine, right? To know how many people would need to be vaccinated. 'Cause most vaccines aren't 100%, every single person who gets it is immediately immune.

Justin: Yeah.

Sydnee: Okay? So we have to know that. Um, and we have to know how many people are gonna get the vaccine. So, we can't do that math yet.

But the other way that herd immunity plays into is not just for, like, eradicating a disease, like I just talked about with smallpox. But what it also does is, uh— let's say that there are people who can't get a vaccine because of an illness or because of their age. Um, or because they get it and they don't generate the immune system response that we would like them to, right? Because I said, they're often not 100% effective in every single person.

So, herd immunity protects those people. By vaccinating a bunch of people, we achieve those levels, and then those vulnerable people are much less likely to get the disease, because they're protected by all of us who are immune. Right?

Justin: Okay, right.

Sydnee: So that's where all that... comes into play. Um, so, I think that— and, by the way, this threshold is not, like, concrete. We have seen that with measles. We have, because measles requires such a high threshold of immunity in order to achieve herd immunity, we have, in certain parts of the world, dropped below that threshold, in large part because of vaccine hesitancy. And so, people don't get

vaccinated, the levels drop down below 92, 95%, and then we start to see measles outbreaks. Right?

Justin: Right.

Sydnee: Um... so, the thing is about COVID— why are we talking about herd immunity in terms of COVID?

Justin: I would think it would be obvious, Syd.

Sydnee: [laughs]

Justin: Because, you know... 'cause? I mean, it's obvious, isn't it, Syd?

Sydnee: Well—

Justin: 'Cause we would like that to be the case, so we could go to the darn baseball games.

Sydnee: But— but what I just said— we don't talk about herd immunity outside of vaccines. Not really.

Justin: *We* don't.

Sydnee: Not in a realistic, actually would happen in reality way.

Justin: Well, that was— when you and I talked about that, that was the main reason I thought this would be— not that it was, like, my decision, but—

Sydnee: [laughs]

Justin: —why I was excited to do this episode, because I want people to start hearing herd immunity. Right now, if people start suggest herd immunity as, like, a way to handle COVID before there's a vaccine, they don't know what they're talking about.

Sydnee: Right, 'cause we don't have a vaccine yet. We will, but we don't now, and so it's a math problem that we can—

Justin: We do have a vaccine, it's just— they're trying to make sure it's real safe, but they got loads of the stuff, I'm sure.

Sydnee: Okay, well, yes— [laughs]

Justin: They could hit— I'm just saying they could hook me up with *one*, is all I'm saying. It's probably fine.

Sydnee: There are vaccines out there, but they're not for widespread distribution yet. We're gettin' there. Um, but for now it's like— we can think about the math of all this, but it doesn't— there's no application of it. Like, as a— as an ethical human who doesn't want to see other humans die, the idea that this has any bearing on reality right now, herd immunity in this context, is just... it's nonsense. It's complete nonsense.

But, um, the other things we need to know are well, one, we really don't know what naturally-induced immunity to COVID looks like. We have these cases of people being reinfected, right?

Justin: Right.

Sydnee: How often does that happen? We think immunity is probably not lifelong, at least not for everybody. We don't know how long it is. We know that antibody levels tend to decline over time. There might be some T-cell mediated immunity. We've talked about this on the show before. We don't know all these things for sure.

And so if you liken it to, like, a chicken pox party— remember when people used to have those?

Justin: Yeah, yeah, yeah.

Sydnee: Your kid would get chicken pox, so everybody in the neighborhood would come over and, like, they'd share blow pops or whatever so that all the kids would get chicken pox at the same time. And now we don't do that, 'cause there's a vaccine you should get instead. [laughs] Well, imagine if you had a chicken pox party, and then next year everybody could get chicken pox all over again. That would seem really wild, right?

Justin: Yeah.

Sydnee: Well, there's that poss— we just don't know enough yet. What would be the point of that? If you can get COVID again? Why would you do that?

Justin: Right.

Sydnee: Um, and the other thing, the other real big difference, that we're gonna get into more, but the other real big difference is that if we're continuing with this chicken pox party analogy... most of the time, at the end of a chicken pox party, somebody doesn't die of chicken pox.

Justin: Right.

Sydnee: Right? Now, if we're gonna talk about chicken pox, occasionally people did die of chicken pox.

Justin: Right, but that's not helpful for the metaphor.

Sydnee: I'm just saying. If you take this, like, idea of, "We're gonna try to achieve herd immunity with COVID so a bunch of people will get it all at once, and then they'll protect the really vulnerable ones," you have to accept that some of those people are going to die. Because we know that some people who we think are young and healthy and low-risk do die of COVID.

So, it would be like a chicken pox party where you took your kid, knowing that maybe you're letting your kid share blow pops and juice boxes with a bunch of other kids, and then maybe that— maybe they would die. That's what we're talking about. So that is the other reason why this isn't really helpful for COVID. Um, and when it comes to numbers—'cause a lot of people have said, like, "Well, how many people would die? What are we talkin'?" As if it—

Justin: As if it— as if—

Sydnee: By the way, as if it matters. But—

Justin: Here's how many people are too many: my Nonnie. There. Okay, now let's work from there, 'cause if my Nonnie gets COVID and tragically passes away, that's too many. So, let's work backwards from my Nonnie.

Sydnee: And it's really hard to tell you the answer to that question.

Justin: No it's not! My Nonnie! That's it. Zero.

Sydnee: Well, no. But the question of how many people would die if we went for this approach. Um, 'cause you'll see numbers thrown out like, 500,000 people will die. I've seen, like, 3 million people will die. There are all these numbers thrown out there.

What's hard about that is you have to be able to calculate— what we're really talking about is the infection mortality rate. Infection fatality rate, excuse me. And the infection fatality rate is how many people die out of all the people who got COVID. Well, right now we don't know how many people are getting COVID because we don't have enough tests, and there's asymptomatic carriers, and we're still not sure. So that number is almost impossible to calculate with any degree of certainty.

So, what we do know is the case fatality rate. That's what you're seeing reported a lot, and that's of people who we know had it, because those are the only people we tested, how many of those people died? And that number's different. And it changes. It changes depending on where you are. It changes depending on how full your hospital is. It changes depending on what time in the pandemic you got sick. It changes— by the way, your likelihood of dying of COVID not only changes with things you can't change, like your age or another illness you might have—

Justin: Skin color.

Sydnee: —or your skin color. It also changes with, like, let's say you are someone who gets COVID and has access to your own private helicopter to one of the world's best hospitals and an entire team of doctors, and also experimental treatments that only 230 other people on Earth have ever been given, only in a clinical trial, and maybe an entire team to continue to follow your every waking moment and vital sign…

Justin: Syd, are you talking about Trump?

Sydnee: Your odds are probably better, of surviving it, than, say, anyone else.

[air horn sound effect]

Sydnee: [laughs]

Justin: Yep. I just busted out... the horn, the reggae horn, for that.

Sydnee: And the thing is, everybody's odds should be that good. I'm not saying his should be worse. I'm saying everybody—

Justin: Are you saying everybody should be President? 'Cause I don't— I think that would get confusing.

Sydnee: I'm saying we all deserve the same level of care as our public servant, the President.

Justin: [muffled laughter] So, what— what is a better way forward for us, Syd?

Sydnee: Well, I'm gonna tell you, Justin. But we haven't gone to the billing department yet.

Justin: Oh my god. Okay, let's go!

[ad break]

Sydnee: So, Justin, this is where I want to tell you about the Great Barrington Declaration, okay?

Justin: And it's not the Great Barrier Reef. There's no connection.

Sydnee: No. Uh, a group of public health specialists and doctors and scientists— there was really three main authors of this, three lead authors who made this declaration. One's from Oxford, one's from Stanford, one's from Harvard. So, this all sounds very impressive, right?

Justin: Yeah.

Sydnee: They got together and they issued this document that in my— in just my personal opinion, representing only me, will be ridiculed by scientific and medical historians for centuries to come.

Justin: [laughs for a long time]

Sydnee: You know how sometimes they highlight things in, like, your history books and social study books? Like, when you're in school it's, like, bolded or something and you know it's like, "Oh, this'll be on the test."

Someday, the Great Barrington Declaration will be in a book about this year, which will be an entire course of history, right? Like, there will be— you can take "The Year 2020" in history class.

Justin: And nobody wants to. [laughs]

Sydnee: Nobody wants to take that class. And this will be— this will be... anyway. The Great Barrington Declaration was issued on October 4th by the American Institute for Economic Research, from Great Barrington, Massachusetts.

Justin: Okay, well, that answers my first question.

Sydnee: Why is it great?

Justin: [laughs] Declaration is already pretty wild! [laughs]

Sydnee: It is, right? It's all wild.

Justin: But to slap "Great" at the beginning— but that one, I guess they get a pass on! [laughs]

Sydnee: It's very short, and easily available online, so you can go read it. It probably won't take you very much time. I mean, it's one little— it's just a few paragraphs. It's one screen, almost. Uh, and they call for what they call "focused protection, which will result in herd immunity."

Justin: Okay.

Sydnee: Um, it is... it recognizes the fact— and this is a truth— that lockdown has been hard on people. It's been hard financially. It's been hard from a mental health perspective. Um, it talks about, you know, all the consequences of the lockdown and the quarantine and the social distancing and the stay-at-home and safer-at-home, and everything we've had to do to cope with this virus. And these are true. I am not disputing that. That can all be true, um, and still not come to the conclusion that we shouldn't have done it all.

But yes, this has been incredibly difficult. So, what they say is, what we need to do is just let young people get back to their lives. Open the schools, open the bars, open the workplaces, open the restaurants, open the theaters, start the sports! Get it all—

Justin: Do the live— do the live podcasts!

Sydnee: All of it. Get it going now. Have the mass gatherings, have the groups, have the hugs and the high fives—

Justin: But only for us young, sexy people.

Sydnee: [laughs] Only— well, everybody who is low risk. So ,if you're probably not someone who would die of COVID, you go for it.

Justin: Hmm.

Sydnee: If you might die of COVID, don't.

Justin: [quietly] Okay.

Sydnee: We should— if you are old, or if you have a chronic illness, please stay in your home and don't leave, under any circumstances. Please—

Justin: 'Cause there's a lot of young sick people out here living it to the fullest!

Sydnee: Please stay away from everyone. What we're gonna do is bring you food there, and things you need. We'll just drop 'em off. If you work, I'm sure we can figure out a way around that, right? 'Cause our government has always been so good at providing for those in need. So, it will be easy. We'll just— we don't have the answers, people. We are just saying this is how we should do it.

And they say that. "We're not— we'll leave the nitty gritty... "

Justin: [holding back laughter] "Of reality."

Sydnee: "... to you. The point is, get out there and party, unless you're old or sick, in which case stay home. Um, and also, we'll staff all of our nursing homes with people who've already had it, so we'll be fine there. And obviously there are things we can't solve for, like if you live in a multi-generational home... I— I don't

know, but there's probably a way. There's pr— surely. Somebody should be able to figure this out. And also, no masks. No testing. No contact tracing. Just wash your hands, and if you get sick, stay home."

Justin: No masks, but do wash your hands?

Sydnee: Mm-hmm.

Justin: Hmm, okay.

Sydnee: Yeah, I know. It's— it's defiant of scientific... thought, or understanding. Um, so this was issued with a lot of co-signatures, and caused a bit of a splash, because it sounds very legitimate, if you listen to all these people who are proposing it. They have the credentials. They— I'm not gonna list all of them. They have— they have the degrees. You would think they would know better.

One thing you should know about this group— The American Institute for Economic Research is a libertarian think tank. And this is not me, like— if you're a libertarian listening and you think I'm taking aim at you, I'm not. But if you do deny the science of climate change, you're wrong, so... that's part of their thing. [laughs]

Justin: Okay.

Sydnee: So maybe you can be a libertarian and not necessarily believe that these people have the answer. Um, they are funded in a large part by the Kochs. Um, and that is the political perspective that this is coming from. Very much a political perspective, not a scientific one.

Also, anybody can sign it. You can go online, and you can just, like— they have little boxes. Are you a scientist? Are you a doctor? Are you a concerned citizen? You just click there and you put your name there and say that "I agree with this declaration. I want my name on this declaration."

They have had issues with that. Uh, it's been noted that a Mr. Banana Rama has signed it, Dr. Johnny Fartpants—

Justin: [laughs loudly]

Sydnee: Dr.—

Justin: [through laughter] Hold, I need to get a clean one so I can make a text tone out of it. If you could just give me that one more time, Sydnee, three, two, one...

Sydnee: Dr. Johnny Fartpants.

Justin: There we go. Go ahead and set that up as your text alert sound.

Sydnee: Dr. Person Fakename. Uh, Professor Notaf Uckingclue. I did not curse there. Um, I like Professor Cominic Dummings.

Justin: [laughs]

Sydnee: Um, and that's fun, I know, but also, this whole thing is dangerous and unethical. It's been completely refuted and condemned by the World Health Organization, by the London Society of Tropical Medicine and Hygiene, by the Infectious Diseases Society of America, by the NIH, by Canada's COVID task force, like, 14 different American public health groups, epidemiologists from all over the world— Dr. Fauci has said this is nonsense, this is complete nonsense. Uh, even the town of Great Barrington—

Justin: "Keep our name out your mouth." [laughs]

Sydnee: —said "Please. This is not who we are. [laughs] We wear masks. Don't stop coming to Great Barrington just because of the declaration that is very unfortunately named after us."

Justin: [laughs]

Sydnee: Now, of course the White House was interested—

Justin: Huh!

Sydnee: —in this. Um, specifically Dr. Scott Atlas, who is a neuroradiologist that the President has recently—

Justin: Sorry, did you say Dr. Atlas?

Sydnee: Yes, Dr. Atlas.

Justin: This is— that's so per— mwah. Thank you. Thank you.

Sydnee: Dr—[laughs] Dr. Atlas, who has kind of like a laissez-faire attitude towards infection control, um, and who recently, by the way, had a tweet removed because he said masks don't work...

Justin: Okay. That's misinformation. So that was removed by some folks at Twitter, I guess.

Sydnee: Yes, uh-huh. So, this is the Dr. Atlas who is now advising the President. He met with the authors, because he liked what he was hearin'. And that's been an area of concern, because while— while Trump has not endorsed the Great Barrington Declaration, one of his medical advisers that he definitely likes more than he likes Dr. Fauci, I would say—

Justin: Sure.

Sydnee: — has met with them, and feels that this is a way forward. And Trump has used the term "herd immunity". Or sometimes "herd mentality," but he meant herd immunity. Let's... let's just move on from that.

But anyway, this has been concerning to a lot of people. Because while it sounds ridiculous, if you actually did this, it would be so incredibly dangerous, um, and the President of the United States seems at least to be flirting with the idea.

Justin: Mm-hmm.

Sydnee: Um, now... for all the reasons that we've just covered, you already know why this declaration is ridiculous.

Justin: Well, yes. 'Cause you can't have herd immunity without a vaccine.

Sydnee: Right. And we don't know if you can get COVID again. We don't know if immunity is long lasting, or how long, or whatever. Um, we also don't really understand the full term— like, full, long-term morbidity of COVID. We've heard lots of studies on this. How long are you sick from COVID? Even if you are a young, healthy person who gets COVID and gets better, there's a lot of indications that some people are gonna suffer some pretty severe long-term sequelae from this, and we don't know what all of that looks like.

Justin: Sorry, you said "sequelae"?

Sydnee: Uh, like, complications. Long-term negative health effects from this.

Justin: Okay.

Sydnee: We don't know why some people who are young and don't seem to have any risk factors get sick enough to die from COVID. We still don't know. We don't fully understand what it does to kids yet. That's still an area that we're trying to understand. And we also can't keep old people out of society!

Justin: As much as we'd all—

Sydnee: You monsters!

Justin: —like to—

Sydnee: I—

Justin: —I can't lock my dad in his house.

Sydnee: [laughs] And— and, I mean—

Justin: My Nonnie just goes about her business.

Sydnee: The more rampant spread in a community, the more you're going to see it among our vulnerable populations. It's just the way it works. You can't isolate members of society from society and have everything else just go on as if it's not happening. That's not how— that's not how anything works.

Um, and like you said, there is no herd immunity without a vaccine. That's not even a legitimate scientific concept. Nobody's entertaining that. Nobody should be entertaining that.

No real person who wants to take care of other people would consider that, because again, the most recent case fatality rate I saw for COVID in the US was 2.7%, which would mean, like, over 8 million people would die? Now, nobody really thinks the number would be that high but, like, what is okay? 7 million? 6 million? 5 million? 2 million? Half a million?

Justin: One Nonnie?

Sydnee: Like, how— what— you know, what... The other part of this is that the people who would still—while yes, if we give it to everybody, we are going to see higher morbidity and mortality among the younger, lower risk people, we are still going to affect, like I said, the people who are at higher risk. Which, if you believe this declaration, you are valuing those human lives as less than the human lives of younger, healthier people.

So in order to buy in to this idea, you have to believe that some people have less intrinsic value than others. Um... which, to me, is— I mean, this is eugenics. And obviously we here at *Sawbones* are against that.

Um, it's been called misguided and dangerous, grotesque, pseudoscience. It's astroturfing, it's eugenics, it's ideological, political, it has nothing to do with science or public health and, um, putting these ideas out there could cause more devastation, more death.

It is true that the lockdown has been incredibly hard on… everyone, to some extent, and to some people, disproportionately much harder than to others. This is true. And there were ways that we could've mitigated how difficult, you know, social distancing was for people, has been for people, and how difficult having to close down certain parts of society was.

But that didn't make it less true that we needed to shut down some things, and we continue to need to, and we continue to need to social distance. Um, those things are true, and we could've made it a lot easier, but our leaders didn't. And, uh, there is no... the idea that herd immunity would be a better way to get us out of it means that you're saying, "Well, if we just let a lot of people die of this, then it will be over faster, and I can get back to my life," and I don't think— if you are a caring person, you don't mean that. You don't want that. Um, but I don't know what the motivation would be behind making a declaration like this. [pause] Other than political.

Justin: Yeah.

Sydnee: It's not science. So, the idea that herd immunity is a path forward is ridiculous. If people tell you that, we've never achieved herd immunity without a vaccine. When the vaccines are safe and available and we can all get them, then

we can start talking about that. As long as this is something that we need one vaccine for and not something that, like the flu, we may need to take multiple vaccines for in our life. In which case, I think we all need to get used to the idea that we're looking out for each other. And herd immunity is the opposite of that. I know it sounds that way.

You know, they've even talked about calling it, like, population immunity, as a way to make it more palatable for people. I've seen that argument. "Well, what if we just start calling it population immunity? Maybe then people won't mind it so much."

Justin: Yeah.

Sydnee: But it's still the same thing.

Justin: You can't get it without a vaccine. Period.

Sydnee: So... I know that's— well, hopefully now that it's clear that herd immunity would involve... *so* many people getting sick, and so many more people dying, um, it's clear that it's not a good way forward. I really want to go out to eat again too, someday. I understand.

Justin: Yeah. Well, there's— and there's... I mean, innumerable people who are also, like— I get it, like, out of a job, out of— you know, I was talking on social media this week about seeing people eating at restaurants and thinking it was just wild, and there are people in the service industry that are like, "This is my livelihood, and I can't do it." And it's like, we have a government that has failed. A functioning government would take care of the people who are in that position, while still not allowing the spread of this disease. Like, that's what a functioning government would do. The answer isn't just to pretend it's not happening. Um, and the answer's also not herd immunity, until we get a vaccine.

Sydnee: No. It's unachievable, and it would result in massive loss of life. It's ridiculous. The idea that anybody who is tasked with taking care of other people, like in the medical profession, would ever endorse an idea like that, is... I mean, it's perverse. Those people should not be practicing medicine.

Justin: Could I get that name one more time, just to kind of clear the palate? I'm having trouble remembering some of the different signer, or signatories. If you could just, one more time—

Sydnee: Are you talking about Dr. Johnny Fartpants?

Justin: Thank you so much for listening to *Sawbones*. We hope you have, uh, gotten something out of it. Remember to share this episode. I think this is information that a lot of people aren't talking about, and we'd be better— a functioning government would be equipping people with this kind of information, but since we don't have that, you got *Sawbones*, so, sorry!

Sydnee: Yes. Please continue to wear your masks when you go out in the world. I mean, yes, washing your hands is great. I'm not anti— I think you know, I'm very pro "Wash your hands," but that's not enough right now. No. Yes, stay home when you're sick. Yes, wash your hands. Also wear a mask. Stay in as much as you can. Um, especially to protect all of our essential workers who do have to go do their jobs right now.

Justin: Yeah. Um, thank you to The Taxpayers for the use of their song "Medicines" as the intro and outro of our program. Um, just a quick reminder that I have a video game podcast on Spotify called *The Besties* where we talk about a new video game every week. You can follow and listen for free on Spotify. It's only there, but you don't need a paid subscription to listen. You can just go there and check it totally out. It's a lot of fun and if you like video games, I would hope you check it out. Um... that is going to do it for us for this week, so until next time, my name is Justin McElroy.

Sydnee: I'm Sydnee McElroy.

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

[theme music plays]