

Sawbones 330: Health Media Literacy

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Intro (Clint McElroy): Sawbones is a show about medical history, and nothing the hosts say should be taken as medical advice or opinion. It's for fun. Can't you just have fun for an hour and not try to diagnose your mystery boil? We think you've earned it. Just sit back, relax and enjoy a moment of distraction from that weird growth. You're worth it.

[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: I feel very proud of myself, Syd, because this topic is a Justin original. It's been a little while.

Sydnee: That's true. You were drawing on one of your past careers. Past passions?

Justin: Yeah, past careers is fine. No, passion is still there. The *passion* is still present. But no one's paying me for it anymore. So, yes, not a career any longer. Of journalism, we're speaking of.

Sydnee: That's right. Well, there are a lot of headlines that are concerning medical topics these days. I mean, there are commonly, but recently—

Justin: Yeah, but especially now, with everything going on.

Sydnee: There's this virus.

Justin: Yeah. I dunno if you've heard. No, I used to be a journalist on the mean streets out there, you know. Kind of a hard-nosed, chase all the leads...

Sydnee: Covering the Marshall beat, as in Marshall University.

Justin: Intrepid cub reporter on the Marshall University beat. That's where I cut my teeth.

Sydnee: Right.

Justin: But I did a lot of different, hard-hitting stuff, so...

Sydnee: What is the hardest-hitting piece you would say you did?

Justin: We don't need to get into specifics, Syd. It's all a blur. The newsmen call it the news blur, which is where you don't remember individual stories, you just know that they were all very intense and required a lot of work. But we're not here to talk about me, unfortunately. We're here to talk about media literacy, specifically as it relates to health news. When you see health news, how do you parse it? How do you know a good one from a bad one? You know, you're not a physician. Maybe. I dunno, you might be a physician. But—

Sydnee: I am.

Justin: I know you're a physician.

Sydnee: Yes.

Justin: I mean the listener may or may not be. So, uh, I thought that'd be helpful.

Sydnee: Well, and you know, as you may imagine, the story of media literacy, attempting to understand this is as old as media.

Justin: Sure.

Sydnee: But the term, the concept, really is, like, in practice as a study, is not that old. I mean, it's only in about the last five decades or so that as much time has been devoted to really understanding all the ways that we are shaped by the messages we see, all of the, like, ads and marketing and the way that plays into our psyche and then the influences that has on us, and all of that is not particularly old. And what gets included in that is our news and the way that we, you know, because a headline has to get you to wanna click on it. Or I guess purchase it, if you are seeing it in a news stand?

Justin: I guess, yeah.

Sydnee: In a physical...

Justin: Pick up the, um, on the rags.

Sydnee: I guess that still happens. [laughs]

Justin: Or the papes, as they're called.

Sydnee: I don't— I have never— I don't think I've ever had that happen to me in my life.

Justin: What?

Sydnee: I mean, we got the paper for a while, but I don't think I've ever, like, seen them somewhere where I've been like, "Ooh, look at the headline. Here's a nickel, I gotta buy that." [laughs]

Justin: Well, I can certainly say you've never used a nickel to buy a newspaper, peepaw. I'm pretty sure of that.

Sydnee: Well, I mean, that's what I imagine when you're writing a headline that not only informs people, but also you're trying to persuade them to buy it.

Justin: You gotta grab 'em, yeah. Extra, extra, read all about it.

Sydnee: Right. What I'm envisioning is somebody standing there, like, buying whatever, a pack of gum or... I don't know. I guess at that point in time everybody used to smoke. So, cigarettes. And while they're standing there waiting for their change they're looking at the headlines and they're like, "Ooh, hold on a second, I gotta read about that."

Justin: Yeah.

Sydnee: Like, I imagine that's what the idea was, right?

Justin: Yeah.

Sydnee: Okay. Well now it's like, clickbait. Now it's, "click on this". There's so many things you could click on.

Justin: That's a loaded term, by the way. But it's fine.

Sydnee: Oh, it is?

Justin: Well, it's used amongst people who make stories. Like, there is a— it is a very fine line, and I don't wanna get ahead of us, but especially regarding headlines, it's a fine line between making something that misleads, which I think would be clickbait, sensationalism that is misleading sensationalism, clickbait, or something that is just a well-crafted headline that piques the reader's interest. And you don't wanna go afoul of that, but not writing a headline that draws people in is bad headline writing. So, it's a tricky balance.

Sydnee: See, I think this might be where part of the conflict is. Because, as we've talked about, we've joked about this on the show before, when it comes to, like, scientific writing, especially like in journals, the headlines or titles are supposed to just be very accurately descriptive.

Justin: Right.

Sydnee: And in no way are we considering whether or not your attention will be grabbed by it.

Justin: Right.

Sydnee: That is just not part of—

Justin: It's rare when we see one. What was the one we saw recently? It was that flu destroyer and teacher. Influenza Destroyer and Teacher.

Sydnee: Which was a great, evocative title. But you don't often see ones like that, I would say. Right now, well, I didn't mean to— let me say I did not mean to offend anybody with that term. I was unaware of those connotations. For me, it was just something that makes you wanna click on it.

Justin: Yeah.

Sydnee: But right now, when it comes to medical information and research, everything is changing very quickly. Now, my understanding is that even before we were in the midst of a pandemic that was obviously important to be constantly made aware of changes and things, that a lot of publications will have a health reporter whose job it is to find the stories that might be relevant to the public at large and share those in a way that is digestible. Easy to understand for the lay person. Is that the truth?

Justin: Yes. Well, yes. Um, again, not to get ahead of us, but that kind of specialized reporting, as newsroom staffs are getting winnowed down and people are getting laid off, a lot of times you'll see people who have that specialized expertise being replaced or let go and have their beat covered by, like, a general assignment reporter who may not have the expertise or the connections that a specific health reporter would have.

Sydnee: Would you say that's happening on the online space, too?

Justin: Um... I dunno. I'm not as plugged into that world. I know that, you know, I would guess generally. I know that definitely newspapers are getting hit with that pretty hard. But, you know, the really big ones can still afford people.

Sydnee: And it's hard because in order to do that job, you have to know first of all what is even relevant, you know? Because there's lots of stuff out there that might sound interesting but from a scientific perspective, you know, I may as a physician argue is of really little impact on all of the world. Even though the idea might be attention-grabbing.

And what plays into this, too, is that as humans we have a negativity bias. So, if we see a headline that sounds like bad news, we are more likely to click on it or buy that than if it's good news. The statistic I saw was 63% more likely. So, as that applies to, you know, coronavirus and COVID, if you see something that tells you things are getting worse or that things are very dire or whatever, you're much more likely to engage with that article than you are one that says things are fine. Which does not mean, I do not in any way mean that anybody would lie, but what it might mean is that if two stories could be top of the fold, and you're gonna report on both but one of them is negative and the other one is positive, maybe you wanna put the negative one higher because it catches more attention.

Justin: Perhaps, yeah.

Sydnee: You know, or if you only have space for one health story. If you only get so much room for something.

Justin: Yes.

Sydnee: What story would you pick to tell?

Justin: Yes.

Sydnee: That's the kinda thing.

Justin: There's rationale, I mean, there's sound logic behind that, too. If something is going well, you don't necessarily need to know about it. Right?

Sydnee: Yes. No, that's very true. And that's very true.

Justin: Which I think would inform why we click bad stuff, right? If something's going well, I could just assume. I assume all things are going well or at least fine enough to not need my attention. So, when you see a negative story, you're like, "Well this apparently does need my— hold on, come on anxiety, get in the passenger seat. We've got a new— we've got a hot lead we have to check out and be worried about."

Sydnee: But when it comes to COVID in particular though, I think that there are some— because we're learning. We're watching science happen in real time, right? Which is why I think people have been, well, one reason why people have been so reluctant to listen to some of the recommendations of experts. Is that when you see things changing in real time and us going back and saying, "Actually no, that's not the case, we've done more research, we've seen more patients, and now this is the case. And this that we thought was true is not." When you see that happening in real time, you can begin to think that, like, "Well science is a mess, it doesn't work."

Justin: Right.

Sydnee: And this is—

Justin: "The scientists, they're just as confused as the rest of us."

Sydnee: Exactly. The truth is, like, no, this is always the way it happens. You just usually don't see all this part. Like, all this part happens in a lab and, you know, in studies and in the scientific community and then by the time it's presented to you in the world to access we've come to more answers. Like, we've arrived at conclusions, whereas—

Justin: We're seeing a little science sausage get made, right in front of us.

Sydnee: Yeah. You're in the—

Justin: It's tableside science sausage.

Sydnee: You're in the room where it happens.

Justin: Mm hmm. If you will.

Sydnee: Yeah.

Justin: The science room.

Sydnee: The science room. [laughs] And so, obviously there's been a lot of, like, just straight-up misinformation that's bled out there. I would say not in large publications, but like, because it's the internet anybody can say anything. And so, we've already covered, like, those two urgent care doctors who said a lot of stuff that wasn't true and misled a lot of people. We talked briefly about Plandemic. And there has been a lot of misunderstanding about what's real, what's not, how do we interpret it when some of these fake messages are removed from different platforms. This almost has, like, a worse result, where instead of people saying, like, "Oh, YouTube took that down because it was fake," they think YouTube took it down because they don't want us to know the truth.

Justin: Yeah, right.

Sydnee: And we, you know, when researchers do surveys to look at, like, how susceptible are we to false messages, and in one recent survey, this was just done specifically in regards to the pandemic and people's kind of inability to tell truth from lies when it comes to engaging with different, you know, media sources. In one study, on average between 20% and 25% of respondents found fake claims to be true. Just upon reading headlines and trying to figure out what's true and what's not. About 1 in 5, 1 in 4 people are gonna just assume that it's true. And 1 in 5 incorrectly believed fake claims specifically about treatments for COVID. So, specifically in the treatment arena we seem to be really failing to communicate messages about what is real and what is not effectively.

Justin: Yeah, it's hard too, headlines are generally, like, shorter is better. So a lot of the nuance is often left. It's like, you know. There's usually a couple— some couching. Like, "may offer hope", you know, whatever. But yeah. Headlines, I think, don't leave a lot of room for specificity sometimes.

Sydnee: No, and the flipside was even worse. They found that with—almost 60% of the public found true information about treatments to be false. So, even when we are getting the right information out there, over half of people, in this survey at least, weren't believing it.

Justin: Mm.

Sydnee: So, we're really at a point, especially when it comes to, like, how do we manage this disease, where the public is not getting the truth. So, I wanted to talk about a couple headlines specifically as a way of kind of dissecting, like, how could you as the consumer of this information, judge, you know, what to do with it.

Justin: Okay.

Sydnee: And to talk about two issues that I think are particularly gray right now in the minds of the public.

Justin: Okay.

Sydnee: So, one title I found from Business Insider two days ago was, "Research is coalescing around the idea that coronavirus antibodies may last just a few months".

Justin: Yikes. I mean, that sounds scary to me. I don't like that. I want everybody to be, I mean, it seems to me that if you get it you should be immune forever.

Sydnee: Right. So, what do you think that means then, if coronavirus antibodies may last just a few months?

Justin: Uh, that there's been research in people who have been previously infected, that their antibodies are disappearing after a few months.

Sydnee: And thus...?

Justin: They're capable of getting infected again.

Sydnee: Right. So, you as the reader would see that title and think, "Argh!"

Justin: Argh! That's what I'm thinking as the me, now, currently, hearing about this.

Sydnee: Yes. Now, I read this article. They cite two different studies in this article. Which I already, like, for me as a scientist, when you see the title "research is coalescing around" and then there are two studies cited, that to me is already, like, "Well, I dunno, that's two studies."

Justin: That is not a coalescence.

Sydnee: "Come on." The first is a study from China that looked at 37 people who had definitely had COVID and had no symptoms. And what they found was that among these people, not all of them had antibodies as they continued to test them a week, two weeks, three weeks, four weeks. As they continued to test them further out, many of them no longer had antibodies.

Justin: Okay.

Sydnee: There were some issues with this study, because, well, one, it was looking back at when symptoms and things started. And two, it's only 37 people.

Justin: Yeah, it's not a very...

Sydnee: And they're all asymptomatic, is the other thing. So— and these were not presymptomatic or paucisymptomatic, these are people who had zero symptoms. And again, only 37 of them. So, that was one study that was done like a month ago, that they cite. And then the second is a more recent study which you probably have heard about in other headlines for what it was really looking at. So, there was a big study that was done in Spain that came out this past week, and this was actually looking not so much at how long antibodies last, but what this study was trying to look at was how much of Spain has had this.

Justin: Yeah.

Sydnee: And the reason they were doing this study is because you've probably heard a lot about herd immunity. What they're trying to look at is, like, well, if we were to entertain the idea that we should achieve herd immunity, meaning that enough of us have had it and developed antibodies that we—

Justin: It can't get a foothold, pretty much.

Sydnee: Right. No big outbreak could happen and everybody who hasn't had it is kind of protected by the herd. So, that is what they were really looking at, so they were just looking for the prevalence of COVID antibodies by sampling a ton of people to see how many had them. Not everybody, of course. That'd be very hard to do. So, they did this, they found a randomized sample of a ton of people in Spain and they checked them, and they found around 5% of people. And of course, it varied wildly from region to region in Spain.

Justin: Right.

Sydnee: Some areas having much higher, some areas having much lower. But about 5% of Spain had had it. Which is, again, a helpful thing to know if you hear somebody say, "Well, we just need to reach herd immunity." Any of our estimates of herd immunity are that at least 60-70%, maybe higher, of the population would need to have had it.

Justin: That's nowhere near 5, and now you look at how bad it was in Spain.

Sydnee: Yes.

Justin: Like, we can't do, whatever, 10 times that.

Sydnee: Millions more will die. It will take forever to achieve. And I think it's worth noting that we have not done that in history without a vaccine.

Justin: Ever reached herd immunity without a vaccine.

Sydnee: Right. So, like, as a population at large, that's just not... I mean...

Justin: Just not the way it works.

Sydnee: No. No. That's just not, I mean, that is not, as a physician and as a humanist, I would not...

Justin: Yeah, let's not. Yeah.

Sydnee: Argue for that. And again, some other problems with this study, if you're looking for this question. I don't have a problem with the study

for what they were looking for, they did a good job with that. But what this other issue about antibodies disappearing and what that could mean, this study just asked people to record their symptoms in terms of, like, "When do you think they ended? About what day did you stop having symptoms?" and "What symptoms did you have?" Like, list them all. So, they're asking people to remember all this and remember exactly what day they felt 100% better. Because that really matters when you're checking for antibodies. You need to know how long it's been since they were all better.

Justin: Okay. Because you won't start to build the antibodies til after that?

Sydnee: Well, you will, but you develop different kinds of antibodies.

Justin: Okay.

Sydnee: There's an IgM antibody that you develop right away, but what we're looking for in these studies is IgG, which are the antibodies you develop further down the line that provide you with that long-lasting immunity. So, if it's been two days since you were sick, we don't wanna necessarily include you in this data right now, because we might miss antibodies that you're gonna develop in a few weeks.

Justin: Okay.

Sydnee: Does that makes sense?

Justin: Yes.

Sydnee: Okay. So, anyway, what they found in this study when they did look at, like, who had documented case of COVID and then antibodies is that if you didn't have any symptoms, they did find that you were a little more likely to not, you know, develop antibodies. That is true. But, the prevalence of antibodies, 14 days, so how many people actually did have antibodies 14 days after their positive PCR, was 90%. And what the authors say is that this is consistent with another study that found 90% of people who had tested positive for COVID developed antibodies two weeks after. And then another study where 99% of people in that study developed antibodies.

Justin: Okay.

Sydnee: So, what they say is for the few patients who do not develop antibodies against SARS-CoV-2, COVID, it is unknown whether they are susceptible to reinfection.

Justin: I mean, that would be the question that I have. Is like, how many people have gotten infected twice at this point, that we know of.

Sydnee: We have had those, like, weird anecdotal things that pop up in news stories where you'll—

Justin: I feel like I've seen a couple of those, like, "Woman has gotten COVID 8 times" [laughs] Sick of it.

Sydnee: Yeah, and the problem is, like, one, they're individual people and while a case study can be interesting and informative, it doesn't necessarily help us with like, you know, what usually happens.

Justin: You should know by this point as a Sawbones listener, the body will do some weird stuff. You can't— it's all probability.

Sydnee: The other thing that it doesn't always tell us is did they have a negative test in between? Because we know that this thing can drag on for a long time and people can test positive for way longer than we thought they would. They can continue to shed the virus much longer than we thought they would. So, in some of these cases, they don't have like, a positive, positive, positive, negative, and then positive again down the road.

Justin: Right.

Sydnee: And then also, if they did have a negative, was it truly negative?

Justin: We don't know.

Sydnee: Because we don't know that all the tests— so anyway. So, what does this really tell us about antibodies and immunity?

Justin: [whispers] I don't know.

Sydnee: I'm gonna tell you right after we go to the billing department.

Justin: Oh no, let's go!

[ad break]

Justin: So Sydnee, what does this really tell us about antibodies and immunity?

Sydnee: Okay. Most people who have COVID do make antibodies.

Justin: Okay, good start. Loving that.

Sydnee: [laughs]

Justin: Would love to hear “all”, but “most” is fine.

Sydnee: It seems like there are a few that don’t, or at least we’re not finding on our testing. Maybe our test was wrong, maybe they remembered wrong about when their last symptoms were and maybe we needed to check them again at some point, who knows. But there are going to be some people, it seems like, who maybe don’t have some antibodies.

Now, the other thing that they’re not always looking for is the other kind of immunity you have, which is cell-mediated immunity. Your immune system has lots of different tricks up its sleeve. Antibodies are not the only thing. You have other defense mechanisms and ways that you develop memory to an infection than just antibodies. Yes, antibodies are a great marker to look for, but we’re not checking for that cell-mediated immunity aspect in any of these studies.

Justin: Okay.

Sydnee: So, saying you don’t have antibodies does not mean I can conclusively say you’re not somewhat immune. I don’t know that yet. The only way I could say whether or not you were immune is—

Justin: Is when you get it again.

Sydnee: Is to give it to you and see if you get sick.

Justin: Mm hmm. Which isn’t ethical.

Sydnee: Which we won’t do, but what we will do is observe over time and see if people get sick again.

Justin: “I’m not gonna give this to you, but maybe, you know, take a few chances out there. See what happens.”

Sydnee: Maybe nature will.

Justin: Yeah.

Sydnee: What we do know, what our best science tells us at this point, is that what we think will happen with COVID is similar to the other two coronaviruses that we’ve studied well. One is SARS and the other is MERS. SARS and MERS both gave us about two to three years of protection after you would have it that you would be immune to it. Now, then your immune system would forget, so to speak, about it and you could get it again. Which is kind of what we’ve always thought. That you probably can get it again in your life, but not for a little while.

How long is that little while? We’re not sure. And the idea that research is “coalescing” around a few months, I would say that’s not— that’s a huge stretch. No, we just don’t know the answer yet. If the intention is to encourage people to continue to wear masks and to social distance and to be safe, great. But I do think that there is an element of fear there. If you start to think, “Well I could just get it again and again and again...”

Justin: Sort of, nihilism takes hold. So, from a media literacy perspective, if I’m a layman, how do I unearth stuff like that? What should I look for in a story like this?

Sydnee: There was an article— so, I looked specifically for that, and I found an article that— please do not take offense at this, but it was actually aimed at teenagers. I read a lot about this argument that we should be teaching media literacy in health classes in high school, and indeed it seems that perhaps some are. Not here, locally, but other places where they’ve already got it.

And I think that’s actually a great idea, to walk us through this concept when we’re young, before we start really engaging with a ton of news and making decisions based on that news. I think the idea that we should kind of understand, especially in the world of the internet, what that looks like is really smart. And actually, from a health perspective, definitely applicable. The first thing that they recommend is, is this a study or a story? This was a story that cited two studies. Loosely. Very loosely. One of the first things you would wanna do is if they don’t cite any studies, I

wouldn't even... I'd wanna go figure out, well, where did you get this information?

Justin: Right

Sydnee: A study obviously has a lot more meat in it and is a lot more impactful from a scientific perspective than, "some doctors think".

Justin: "I've heard a lot about a lot of people saying," yeah.

Sydnee: Yes. So, I would, if it is a story, find the studies. Read the studies yourselves. There's usually— well, I should say always, there should be, an abstract to the study.

Justin: That's my bread and butter right there, that's what I like. I don't want to get down in the weeds, I like that abstract. Sum it up for me, Poindexter.

Sydnee: it does. It has a part right away that says, usually in the abstract, that has, like, conclusions.

Justin: You can usually read a lot of those for free, too. You don't need the subscription or whatever to the service.

Sydnee: So, I would wanna look at the study first. And then once you look at the study, some other things you can ask yourself is was this done in people? Because something that was done in animals is always at a preliminary stage and doesn't necessarily mean that humans will react the same way. And while it is furthering our body of scientific knowledge, has not arrived at a conclusion for humans.

Justin: Okay.

Sydnee: Who was in the study? If there were people, were they people that apply to whatever your particular concern is? Was it a diverse enough group, a sample? Um, you know, I mean because in some of these studies it will just be, you know, all men. Or only white people, or whatever. So, you know, was it a diverse sample size that helps you understand something about you, if that's your concern. And then you can get into, like, what kind of studies they are.

If you see "retrospective study", that's always a little less reliable, just in the sense that we're trusting people's memories of events to tell us, or

we're trusting documentation of old events to tell us what happened and what the truth is so that we can draw conclusions from it. And I'm not saying that there is no place for retrospective studies, but if it is, like, earth-changing, you know, ground-breaking, whatever, paradigm-shifting news, it's probably not based on a retrospective study.

Justin: Fair.

Sydnee: It's probably based on something that's prospective, moving forward. Look forward, collecting data in real time. That's more reliable. Or, like if we're talking about a drug or something, a randomized controlled clinical trial, right? Where you compare results. So like, you can easily look, because most of the time it's in the title of the study, what kind of study it was.

And then think about, like, where do reporters get these stories? Are they getting them from major medical journals? I mean, we name a lot of them on the show, like the New England Journal of Medicine, or The Lancet, or JAMA, the Journal of the American Medical Associations. Something like that. Or is this like... and this is a little harder to parse, I think, for the lay public, if you're not used to looking for journals, but here's an easy one. Is it pre-publication? Has it actually been peer reviewed and accepted to a journal? Or is it just, "We did this study, we wrote it up, we haven't actually gotten it to a journal yet, but I wanna send it to the media to get it published right away." Because before things undergo peer review, they haven't really been vetted by the scientific community.

Justin: So, if something's sexy, you'll kinda slide it in there.

Sydnee: I mean, that has happened. And that doesn't mean that the information's wrong, it may be absolutely accurate and every bit as impactful as they think it is, but we don't know that yet.

Justin: Got it.

Sydnee: Because we haven't vetted it. And then of course, like, you can research it yourself. You can check into these things yourself. You can always ask a health professional if you're really not sure. But on the antibody, I wanted to address that first because I think a lot of people got scared from a lot of these headlines about how antibodies go away. I would still take every precaution, but I would not fear that there is no

immunity from having had coronavirus and recovered from it. And this should not impact, in any way, the vaccine that we're making. That's the other thing that people have said, "So does this mean a vaccine isn't possible?" No. No. Maybe you need a booster, maybe we'll need to get a yearly one like the flu shot, who knows, but no. No.

Justin: Yeah.

Sydnee: The only other headline I wanted to briefly, and I'll try to be brief about this, because it's more of a conversation. I saw this headline from Bloomberg, and this was actually, like, a couple weeks old. "School children don't spread coronavirus, French study shows".

Justin: Cool. We're done. That's it, game over. Just gimme some of that French schoolchild blood.

Sydnee: [laughs]

Justin: I'll take two vials, please. I wanna be extra immune. Do you think I could get... probably on the deep web, right? I could get some French child blood.

Sydnee: I don't wanna discuss this any further.

Justin: On the silk road.

Sydnee: Why would you start this kind of—

Justin: I'm just saying.

Sydnee: You know, this is how conspiracy theories develop.

Justin: I'm just saying, you— no, no, you're right. You're right. I need it for a different reason.

Sydnee: Uh huh.

Justin: Winky!

Sydnee: [laughs] So, this actually broke our rule, this is positive news, right?

Justin: Yeah.

Sydnee: Schoolkids don't spread coronavirus.

Justin: I mean, it's positive in the sense that yeah, except it's obviously madness.

Sydnee: I think on one hand, this has to be— I think you have to deal with this information very carefully. Because wow, everyone is confused right now about school. Doctors are divided on this, I mean, scientists, research— well, I think everybody agrees that we can't just open up like we did prior pandemic and hope for the best.

Justin: Yeah, but that's probably gonna be pretty close, that's probably gonna be what we do, pretty much.

Sydnee: Actually, I don't think everybody agrees on that. I think there are some people who would be fine with us just opening up

Justin: As long as they're not the Secretary of Education, I'm fine.

Sydnee: I have some bad news for you.

Justin: [laughs]

Sydnee: But what this leads you to believe is like, well, if school kids don't spread it and there've been other headlines about this, right, like kids are not as good at spreading coronavirus as adults are. Sorry kids. Leave this one to the grownups.

Justin: [laughs] We've got it.

Sydnee: And so, then we can just open up the schools. And it's French. So, it's not Americans. You know we're off the wall.

Justin: I don't know if you've read, but like, French children are, they're like quad-lingual, they're eating just only a broccoli and—

Sydnee: No, they eat every vegetable.

Justin: Oh, they eat every vegetable, yeah, but their favorite, their dessert is broccoli. And they're all gymnasts.

Sydnee: [laughs] They've never had chicken nuggets.

Justin: They've never had chicken pox. They're perfect children.

Sydnee: They don't watch TV.

Justin: No.

Sydnee: [laughs]

Justin: They've never seen Chicken Run.

Sydnee: So, in the article, first of all they do jump right to the study. The scientists at the Pasteur Institute studied 1340 people in this one town in, um, northeast Paris. Crepy-en-Valois.

Justin: Looks like "creepy", but probably it's not.

Sydnee: No. And they had an outbreak in February and March. This is actually where the first cases of coronavirus came from in France. And they included 510 students from six different primary schools. They found three probable cases among the kids and it did not lead to any other infections, looking back. And it was called, by the way, in the title of this, "SARS-CoV-2 infection in primary schools in northern France, a retrospective cohort study in an area of high transmission".

Justin: So, with my new literacy, I know that a retrospective study is not gonna be as useful as a prospective study.

Sydnee: That is right, yes. That doesn't mean it is useless, but before you conclude that schoolkids cannot spread coronavirus, I would want to read further. One, this is a small area of northern France, it is retrospective, and I think one thing that is really important to know is that when they went, what they looked back and did is who had positive COVID tests from this time period and then can we survey all of the kids who were in classes with them to see if they also got infected, by looking for antibodies.

Justin: Okay. So, there's a lot of different—

Sydnee: We'll check everybody for antibodies now, and see who had it. The problem is, since they were schoolkids, you had to get their permission and, like, a parent to do it too, to agree to it. And not everybody did. About half of the students participated. So, if you're trying to see, like, if there's one kid, I'm gonna say in a class of 30, because this is America. I'm betting in this lovely French village...

Justin: Probably less.

Sydnee: Probably like twelve. But anyway, if you have one kid in a class of 30, and you're like, "Did this kid who we definitely know had COVID give it any of these other 29 kids?" and only, you know, twelve of them agree to be tested and none of them got it, what do you say about the rest? I mean, it's a good sample, but you know.

Justin: Yeah. There's gaps there.

Sydnee: I mean, where did they sit? Who did they play with? You know, what activities— I dunno, it gets a little tricky. A lot of the staff did agree though. A lot of the teachers. 90% of the teachers did agree to be tested. So, and again, this was all based on recollection of events. They did the antibody testing to confirm. And then it is worth noting that after the first case in this part of France, two weeks later the school shut down. So, you don't have a long window there where they could have.

Justin: Oh yeah, spread it around, yeah.

Sydnee: Yeah. There were no vacation days, they were quick to— no holidays in there. But there wasn't a huge window where they could have spread it. And even though the researchers did feel very optimistic about these results, they were very quick to say in the study itself, "These findings suggest that reopening of primary schools can be considered carefully with continuous monitoring of possible resurgence in infections and strategies to limit transmission, such as masks for older children, physical distancing, respiratory etiquette and hand hygiene." So, they're not saying kids don't get coronavirus.

Justin: Right. It's just a little safer if you take all these precautions.

Sydnee: And the truth is, like, we have seen some evidence that— do kids get it less, or are there just so many of them asymptomatic? It's hard to say too, because schools are one of the first things we shut down, right?

Justin: Yeah, so there's less chance for spread.

Sydnee: So, like, have fewer kids gotten coronavirus because kids are less likely to get coronavirus, or is because, I mean, I know at least in our family, as soon as the shutdown happened our kids, well, they stopped leaving the house and they haven't left the house since.

Justin: Yeah.

Sydnee: I mean, they've ridden around in the car with us, but they don't get out of the car. They don't go in anywhere. So where would they...

Justin: Where would they get it, yeah.

Sydnee: And I would say that's probably true of a lot of kids, because you can't trust them to not, like, lick things. Or people.

Justin: Yeah. That sounds like an exaggeration if you don't have kids. But it's, no, pretty common, present problem. Just the licking.

Sydnee: [laughs] So, the answer then, like, if you read this— and there have been a lot of headlines I've seen like this, that say, like, "Kids don't seem to get coronavirus", or they don't seem to spread coronavirus. And I do think that there obviously is some difference between adults and kids when it comes to the transmission. The ability to get and give coronavirus. There is a difference. How well defined that is right now? Well, it's not. We don't know. I mean, there's just, there's too much we don't know to draw a broad conclusion that way.

We know that kids do seem to get less sick and they rarely die from COVID, I think those are all fair things to say. But some do get sick and unfortunately some will die of coronavirus. And it disproportionately affects children with underlying health conditions, and non-white children have suffered more from coronavirus than white children.

Justin: Yeah.

Sydnee: So, when we start talking about opening schools, I don't think simply saying schoolchildren don't transmit coronavirus is the end of the story.

Justin: There's a million other factors. I mean, and also, it's like, we don't know how much... these schools have barely been able to educate kids with the funding that they've been receiving. Like, this stuff costs money. Like, the changes that people are talking about, the requirements and stuff like that, can be expensive. And like, you're just foisting that on people who are already overburdened with work. And then just trusting that they'll be able to piece it together. "Hey, in addition to teaching these 30 kids, can you try to keep them, you know, six feet apart at all times?"

Sydnee: And don't let them lick things. I mean, we have two and we can't stop them from licking things.

Justin: [laughs]

Sydnee: And there's two of us! But the other part of this are the teachers and the staff themselves. Like, it's not just about— so okay, fine, even if this were all true, like... the teachers can get sick.

Justin: Yeah.

Sydnee: And we know that kids can— I mean, it's not that it's impossible from them to transmit coronavirus, maybe they're less efficient, but you stick them in the same room long enough for days on end, a teacher could get— some teachers will get sick. I mean, these are inevitabilities.

Justin: There's still gonna be pick-up and drop-off for your kids at the very least.

Sydnee: And, you know, if the adults are getting infected and getting sick, that is just as meaningful as the kids, you know? And you're exactly right. Like, the parents coming into the school, I know there was just recently a case where, like, in a daycare there were a lot of people infected either from the child who was being brought, who was asymptomatic and sick, or the parent who was coming and dropping their child off every day. Who was sick and just hadn't gotten a result back yet so didn't know they were positive. And the authors of this study kinda argued that, like, well, adults are probably more likely to go get it out, like, you know how teachers go hang out in bars every night?

Justin: Yes.

Sydnee: That's where all these teachers are getting it. [laughs]

Justin: To deal with having to care for your miserable children.

Sydnee: But we don't know, the truth is, we don't know what happens when we put a bunch of children crowded into classrooms. We're gonna tell some of them to wear masks, but again, as far as I can tell, the federal response to this is "Our plan is to let individual schools figure it out and have a plan."

Justin: That's good.

Sydnee: "Our plan is that you should have a plan to plan to do things for a plan for coronavirus. And then a plan for shutdown and a plan for reopening."

Justin: [laughs] "Just create a plan for all that."

Sydnee: "If you could just make plans, that's our plan, is that you'll have a plan." And again, what that speaks to is one, no coordinated response, no funding, no any kind of oversight to ensure that people are doing things right, that the CDC guidelines that have been put out, that the recommendations from the AAP that have been put out, nobody's gonna be checking on that stuff.

Justin: No.

Sydnee: No. Cause it's up to individual schools, literally. I mean, on a county level, I think that's what it's gonna come down here, is the county will make recommendations, but each school can implement them as they are able. And again, what we come back to is the inequitable system that will have some schools that will have the resources to protect kids and staff and other schools that will absolutely not have the resources to do that. And those schools, those kids, those teachers, those people will suffer for that. And we will lose people because they didn't have the money to pay for the safety that the president is demanding they provide magically.

Justin: It's hard, you know, I am certainly sympathetic to the people for whom the lack of schooling is catastrophic. Who have no other options for childcare, who have no other options and, like, depend on that to be able to feed their families. Like, I am not insensitive to it. So it's like, oh both of these options are bad. It's like, well, yes.

This is why leadership is important. Why a complete deficit in leadership leads to these situations where the burden is being placed at the end of the, you know, at the end of the stream. Like, there's no leadership coming down, there's no plans in place, these plans are not being made. You know, if the states in the nation really wanted to open up for schools, they should have states shut down all summer so we could, like, actually tamp down coronavirus cases enough to make it somewhat more reasonable to just throw the doors wide open.

Sydnee: Well, that's exactly the point. Why did we open bars and restaurants if we wanted to open schools?

Justin: Yes.

Sydnee: Why did we do that first? Why was any of that a precedent? And I'm gonna— man, I'm gonna say this and somebody's gonna get mad at me, why are we spending so much time and money and effort into making sure sports can happen, when we haven't ensured that school can happen? I see a lot of, on many different levels, a lot of time and energy and tests being used to ensure that we can have sports, and I think sports are great, I played a bunch of them when I was a kid, and I think they're wonderful to participate in, but we need schools.

Justin: Yeah.

Sydnee: We can go a semester, or even a year, without sports, and we'll be okay. We have to have schools.

Justin: In fact, I'm gonna make a pledge right now. That I will go a year... oh boy... without sports.

Sydnee: [laughs]

Justin: There, I have said it. You can hold me accountable to it.

Sydnee: I'm not anti— I love sports. I played softball and basketball and tennis and...

Justin: Oh listen, don't let me get started on all the other sports I know about, also.

Sydnee: I played all the sports, I loved sports!

Justin: Sure yeah, love them. Crazy about the things.

Sydnee: I have every intention, when there's not a pandemic, of putting our children into whatever— if they want to, assuming they want to. Charlie can go back to tae kwon do eventually.

Justin: Pigskin.

Sydnee: But I, right now, why is that— all of our priorities are out of whack. And again, you're right. Like, this puts people like single parents

or dual worker households or essential worker households, we know that disproportionately women are being forced out of the labor market right now. They're being put in a position where it's either someone watches the children or they get to have a job and so you can't have both. I know that that's been reported on extensively, for all genders, not just women, but disproportionately women are affected.

Schooling, what about the school part? We know that there was a study that showed that kids were falling behind in math as a result of this last semester that was largely virtual. And again, it's not all kids, because disproportionately Black children and Latinx children were falling behind in math in this one study, but in other studies it was other subjects, falling behind, and in some white children were not. So again, this shutdown is disproportionately affecting, both the virus itself and the, you know, outcome of no schooling, is disproportionately affecting marginalized populations in this country.

But the answer is not just, so whether or not you can be safe and follow the guidelines, open up. Because I'm seeing the same rhetoric being used about teachers and staff that was used about doctors. "Well, you're essential. You're a hero. We trust you to go on the front lines and put your life at risk. That's what we've asked you to do. Do that for us. Give your life to educate these children if necessary." And that's crap. No! No.

What it should be is, "We have spent all of our time and money and effort in making this as safe as possible, we have new classrooms, we have more teachers, we have more staff to help watch kids, we have plexiglass dividers set up, we've got all this space and equipment. We've got tons of stuff to send home for the kids who can't come, here's ways for you to learn virtually, and here is a camp where we can send some of the kids to learn virtually while they're being watched by, you know, nannies and babysitters that we're hiring as a country so that parents can go to work who have to work."

There are so many creative ways that we could have gone at this. And we're not doing any of it, unless the schools are being able to gather the funds and get the experts and figure it out for themselves. I mean, some will, right? Like, some will be able to do this, But many, many won't. And they're all being held to the same standard, which is essentially open up or you get less. I know that this has been successfully done in other countries, but it's important to remember that we're trying to compare ourselves to countries where, one, this pandemic has been well managed.

Much better managed. Where people aren't, like, we're not seeing infection rates skyrocket in these places like we are here.

Justin: There's no comparison for America. Like, we don't have a good, [laughs] there's not an analogue where we can be like, "Well they did it." Like, "Well, America, you've been very bad at all of your coronavirus, so you don't get to have school. You don't get any of it."

Sydnee: Every study starts with the same thing. Like, you could open schools following all of these different guidelines in an area where the infection is under control. Well, in most of America the infections are not under control. Here they're not. So, it doesn't apply to us from the jump.

Justin: Right.

Sydnee: We can't, I mean, the very first criteria we fail to meet.

Justin: Right.

Sydnee: So, and these are also places where they put money into supporting families, supporting education, supporting healthcare for all. These are countries that value that. And whether or not we value that as a society, it is not being shown through the action of our government.

Justin: I feel like, maybe, do you have some closing media literacy tips, Sydnee?

Sydnee: [laughs]

Justin: I feel like maybe at some point I— listen. I feel like at some point you took my great topic, that I had, and maybe... I hate to use the word perverted, but I feel like you have... perverted my great idea for a show into, um, an opportunity to sort of espouse your liberal groupthink.

Sydnee: [laughs] You should cut all that out, because that's exactly the email we're gonna get later.

Justin: Well no, if I say it now you can't. You can't send the email.

Sydnee: Yeah, no. I know somebody's gonna tell us they're not gonna listen anymore because they don't want to hear my... "Stop giving us politics, just give us history." That's the email.

Justin: What if you are— let's actually say this in closing, though. You don't have these kinds of insights if you're not a physician. If you can't make heads or tails of it, like, what do you do?

Sydnee: I mean, ask someone who can.

Justin: See, I was gonna say ignore it.

Sydnee: [laughs]

Justin: Because here's the thing. [laughs] Listen, here's the thing. If you can't understand it, you probably can't control it. Does that make sense? Just vote for people that are gonna do the right things and trust that they've got it under control.

Sydnee: I would say asking is one thing, but also right now there is lots of information that is easily accessible to the public being put out by the NIH and the CDC and the World Health Organization and I know that they get maligned from time to time, but the information there is accurate. And, I mean, the CDC has extensive guidelines on how to safely open schools. So, I mean, they're all there for everyone to read. If you wanna know about the antibody testing, I mean, listen to Fauci. Listen to what Fauci says. He will tell you. Everything I just said about immunity, I have heard it from him. Which is—

Justin: Another good option is there's lot of doctors on Twitter who are, you know, who are retweeting stuff like this. And I've seen from some of your retweets medical people who are retweeting this and like, contextualizing it when they do that. Follow them.

Sydnee: So, I would make sure that if you— I mean, these days you can't just say if somebody has a scientific background or, you know, that type of education that you can automatically trust what they say. No.

Justin: Fair.

Sydnee: No, that is not true. But I would definitely look for people who have some understanding of science to help you understand scientific topics. Because it's like, I mean, this is an area where I speak the language. There are plenty where I don't. And I wouldn't just read a headline and try to come up with my own ideas based on it if I didn't understand it, you know? I would go... if it was about engineering, I would

go ask somebody who knows about engineering, an engineer, to explain it to me.

Justin: Yeah. Or ignore it. I'm just leaving it out there. Thanks so much for listening to our program. We hope you've enjoyed yourself. We got the Max Fun Drive starting next week, so that'll be fun, something to look forward to. Some way [laughs] to distinguish the days from each other, which is so cool. Thank you to The Taxpayers for the use of their song "Medicines" as the intro and outro of our program. Um, I got a book my brothers and dad, we wrote, it's called The Adventure Zone. It's based on our podcast. You can, uh, the third graphic novel of that comes out on Tuesday. So, if you wanna pick that up, it's called The Adventure Zone: Petals to the Metal. Pick up the other two. Sydnee read it. She liked it.

Sydnee: I loved it. I thought it was excellent. I'm not biased.

Justin: She's not biased. Thank you so much for listening to our show. Be sure to join us again next week for Sawbones, but until then 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]

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