## **Sawbones 197: Opioid Addiction**

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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:** Hi Syd.

**Sydnee:** Hi Justin.

**Justin:** How are you doing?

**Sydnee:** I'm pretty good.

**Justin:** We had an eventful Thursday last Thursday.

**Sydnee:** Last Thursday.

**Justin:** Yeah, last Thursday. We, uh, the president of America came here to Huntington, West Virginia.

**Sydnee:** As it were. Yes, we, it was—it's my long day at work, Thursdays. I always have extra long days. So, the president came on Thursday, and Justin and I tried to scramble to leave our respective jobs and get there to protest, but—

**Justin:** But by time— to protest— but by the time we left, the motorcade was coming and we couldn't get across Hal Greer and it actually bisects our entire city, the motorcade path.

**Sydnee:** Exactly, yes. The entire city was cut in half and you could not cross from one side to the other. We were stuck on our— at least on the side where our home is. That's nice.

Justin: Yeah.

**Sydnee:** But we couldn't get there.

Justin: Couldn't get there.

**Sydnee:** But obviously we were familiar with what was talked about, what was said. It was broadcast here locally, as you can imagine, and many people attended. And one concern that I know I had and Justin, I think probably you too, and most people— actually, it was written about in the newspaper, so not just me. This isn't like a novel concern. Is that the president had said he was going to make some kind of special announcement.

**Justin:** Right, and a lot of people in this area were kind of hoping it would be opioid addiction related, because it is devastating our area.

**Sydnee:** There had recently been recommendations made to the president by the Council on Substance Abuse that it should actually be declared a state of emergency in Appalachia, West Virginia, this area in general, in regard to the opioid epidemic. And I don't know what that would entail, so it's hard for me to say, like, absolutely it should, because I don't know what resources that brings. Whenever I think of that, like, declaring a state of emergency, I think of, like, tents and water bottles, you know?

**Justin:** Not sure that would be, like, yeah.

**Sydnee:** [laughs] And that's not helpful. So, I don't know. I'm hoping more resources.

**Justin:** FEMA tents? I don't think that that's, like, helpful. Yeah.

**Sydnee:** But anyway, obviously there was no such announcement made. There was actually no mention of the opioid epidemic, of addiction treatment, recovery, of our incredibly limited resources, or anything. The word was not mentioned. And that was very disappointing to a lot of us, especially in the medical profession and in addiction and recovery treatment in this area. Because we're desperate for help.

Justin: Yep.

**Sydnee:** So, I thought in light of that, my mind of that has been on that topic, we would talk a little bit about the history of opioid addiction and treatment and how we got to where we are now.

**Justin:** Now, as Sydnee was explaining to me before we got started, not as much in the way of light stuff with this topic. Just because, the way you put it to me just before we began is, "We're still in the Sawbones episode" with this particular situation.

**Sydnee:** Yeah. That's kinda how I look at it, is that as we kinda get through the history of how the— because it really is an epidemic. As you talk about this stuff, it's hard not to think about it as, like, the building of an infectious disease, as a contagious thing that has spread. As I kinda go through it, you'll see we're not at a point where we've figured out how to turn it around and go in the right direction completely. I mean, people have ideas. People are on the right track. But we're not doing that en masse yet.

**Justin:** Right, and we're not, sort of like... it seems like when big things like this are fixed they are usually a, it's a concerted effort. And it seems like we're still very much divided in regards to this.

**Sydnee:** Exactly. So let's go back. We've done a whole episode on opium before, so I'm not gonna go through that.

**Justin:** We did the fun side of opium.

**Sydnee:** Yes.

**Justin:** The sort of, let's take a look at the lighter side of opium.

**Sydnee:** [laughs] The lighter side of opium. But we know that opium, the sticky euphoria-producing substance from poppies, had been cultivated for, you know, thousands of years by humans and used recreationally for a very long time. And from it we derive all of the opiates that I'm going to talk about. It was used for both medicinal and for funsies throughout ancient civilizations. I mean, essentially all of them. Sumerians, Assyrians, Egyptians, Indians—

**Justin:** Yeah, everybody's just wild for this stuff.

**Sydnee:** Arabs, Greeks, Romans, Chinese, everybody. Everybody was using this at some point in history for various reasons. Hippocrates wrote about it, noting that it was very helpful specifically for two things; internal disease...

**Justin:** Hmm. Little general, Hippo, my man.

**Sydnee:** [laughs] And diseases of women.

Justin: Okay, again, so...

**Sydnee:** Mm hmm.

**Justin:** Alright.

**Sydnee:** And this is— well, and when I say diseases of women, and we've talked about this before, kind of, in our hysteria episode, I don't just mean when a women is sick. When they say diseases of women—

**Justin:** You mean like, their... the... machinery? The woman machinery?

**Sydnee:** Yes. Hippocrates was probably referencing any kind of menstrual problems, any sort of mood disorder, anything pregnancy-related, childbirth-related, anything like that.

**Justin:** Normally we try to be really careful when we're talking about anything gender-related on this show, but, you know, he was just pretty much wrong all across the board. So we'll just put this one into the buck wild category and we do not need to delve deeper and try to qualify.

**Sydnee:** I mean, it's not— if your thought is, "So basically if a woman complains, he's just saying give her opium," I mean, that's kinda what he's saying.

Justin: You got it.

**Sydnee:** Opium disappears from European history in the wake of the inquisition. There's like this moment when it's like, "Where'd all the opium go?"

"I don't know, nobody's writing about it."

But it comes back in the 1500s. Mainly, Paracelsus brought it back in the form of laudanum. And then Sydenham brought laudanum to the UK about a century later in a very early patent medicine form. So, laudanum was a form of opium that was very popular to take for... everything.

**Justin:** For everything.

**Sydnee:** For everything.

**Justin:** And even nothing at some point, as you can see in— I guess

Tombstone features it very prominently, right?

Sydnee: Yes, yes.

**Justin:** Which we probably talked about.

**Sydnee:** Wyatt Earp's wife is addicted to laudanum.

Justin: Yeah.

**Sydnee:** And that would be very common. She says she took it for headaches. That's probably exactly what happened. She went to a doctor, said, "I'm having headaches," the doctor gave her laudanum because she was a woman and she complained, and there you go. This was not uncommon. In made its way to the United States probably on the Mayflower.

Justin: Wow.

**Sydnee:** On the Mayflower. That's where the physicians would have carried it in their bags, their doctor bags.

**Justin:** Hand in hand. American history and opium history. They're just striding side by side.

Sydnee: On the Mayflower.

**Justin:** I like that though, cause the pilgrims were like, "I don't know

how this is gonna go, but I need to be prepared."

**Sydnee:** [laughs]

**Justin:** "It's gonna be boring on the boat, for sure, I'm probably gonna get, I dunno, a headache or something."

**Sydnee:** Dysentery.

**Justin:** "Yeah, I'll get dysentery or something. It's gonna be whack. I'm definitely bring— are you kidding? Did you pack your electric toothbrush? I did not. I saved it for room for opium, which I definitely, definitely needed."

**Sydnee:** For laudanum. [laughs] You know, they nearly froze in their pilgrim clothes, or so the song that I sang in kindergarten about the Mayflower went.

**Justin:** Except for one guy, who was like, "Wow, you all look cooooold! Anyway—"

**Sydnee:** [laughs] "I'm not feeling it."

Justin: "I'm gonna go take a nap."

**Sydnee:** In 1806, Friedrich Wilhelm Adam Sertürner, a German chemist, gave us morphine. Named for Morpheus. Not—

**Justin and Sydnee:** From the Matrix.

**Sydnee:** No, I knew, no. The god of dreams. Nope.

**Justin:** Not— ooh, you beat me there.

**Sydnee:** [laughs] And morphine was supposed to be, you know, we already knew that opium could alleviate pain in the form of laudanum, but this was supposed to be a more refined version of this. So, you know, that's fine, but it was also associated with smoking opium. I mean, you know, there were opium dens. There was this whole idea that, "Well, yeah, it might work," but we also kinda knew that it was...

**Justin:** So, it was trying to dress it up a little it to make it seem more medicinal, is that fair?

**Sydnee:** Exactly. To give it more a— yes, exactly. So, it was used, again, for anything. So, morphine comes out and they're like, great for pain, of course. It relieves pain. But then for anything, again, women

complaints. And I'm using that, again, gendered term, "women complaints", because that's what it would have been labelled on the bottle. Women complaints. At the time. TB, tuberculosis, anxiety, breathing problems. [laughs]

Justin: Hmm.

**Sydnee:** Hmm.

**Justin:** Does morphine cause effects on dreams? Are those two tied together, or is it just the idea that you would be chill on morphine?

**Sydnee:** It would make you chill and sleepy and feel good and, you know, you get high.

**Justin:** Got it. Perfect.

**Sydnee:** Probably it also affects your dreams, but that was not directly the name.

Justin: Okay.

**Sydnee:** So, anything it could be prescribed for, it was used for, and then the civil war happened and morphine became a mainstay of a doctor's medical treatment. Because soldiers on the battlefield, there was is often that they didn't know what else to do for these awful wounds and injuries.

And we didn't understand infection or infection control or any of that, so you give people morphine, which is great for pain control, but the result of that is that so many soldiers who managed to survive came home hooked on morphine that, actually, morphine addiction was known commonly as "soldier's disease". So, that really perpetuated the spread of morphine use and abuse later in this country. And what helped with that was in 1853 the hypodermic needle is invented.

Justin: Ah.

**Sydnee:** So then, all of a sudden oral morphine—

**Justin:** What were they doing before then?

**Sydnee:** A lot of them were oral preparations.

Justin: Oh, really?

**Sydnee:** Yeah. But the hypodermic needle makes it easier to—

Justin: Did we have needles of some sort? Like, we had needles, right,

before then?

**Sydnee:** We had needles, but we couldn't deliver quickly intravenously like that before.

**Justin:** Wow. That's wild— that's so funny, it's that recent. You tend to think of that as so essential.

**Sydnee:** So, then all of a sudden we could deliver it quickly to the bloodstream, and that, of course, anything that you can deliver to the bloodstream, generally speaking you're going to get more high from. So, that euphoria is going to be more intense, and that is more likely to lead to the addiction and cravings and everything else like that. As opposed to something that dissolves slowly in the GI tract. So, the problem at this point in history is that even as we know this is happening, right, we call it "soldier's disease", we know addiction is happening, is that most of our focus in this area is on alcohol.

Justin: Hmm.

**Sydnee:** Alcohol was considered the bigger problem. Yes, we knew that people were going and using opium, but alcohol was this, I mean it was very much a moral thing, it was a religious thing, it was evil, it was destroying families, it was destroying men's lives, they were leaving their children, they were abandoning their wives. It was, you know, this was the temperance movement beginning.

**Justin:** It seems like a lot of those are always connected to society. It wasn't societally, like, encouraged for you to just, like, do a bunch of morphine with you buddies.

**Sydnee:** No, but it was much more demonized to do alcohol.

Justin: Sure.

**Sydnee:** So, morphine was actually presented initially as a treatment for alcoholism.

**Justin:** Ah, good. Effective, I'm sure.

**Sydnee:** So, you go in to some sort of home for the, you know, inebriate kind of thing. A sober living type house. And they would give you morphine to help you stop using booze. And doctors started prescribing it, honestly, initially. And then a lot of people ended up addicted because of that.

And then of course this is also the same period of time when patent medicines are exploding and you see, you know, and these of course are medicines that are made by people who maybe have no medical background whatsoever, and usually you're just putting together some sort of powder or syrup or tonic that will contain something that will make you feel good so you'll think it's working. And usually that was either morphine or opium or alcohol or, you know, marijuana. Whatever.

Cocaine. So, morphine was in everything from headache powders to diarrhea treatments, to, as we've talked about before, soothing syrup for babies. If you're baby's colicky, if your baby's teething, if your baby just cries, because babies do, and it bothers you, give them some morphine syrup.

Justin: Thank you, modern living.

**Sydnee:** Yeah. So, as more and more people became addicted to morphine instead of alcohol, a new— one of the first treatments for morphine addiction, I guess you could say, that was advised was cocaine. [laughs]

**Justin:** Wow, we are just not doing great.

**Sydnee:** No, we're just building on this train of... now, this was not a huge moment where everybody who was first using alcohol became addicted to morphine instead and then shifts to cocaine addiction. It was just kind of an unfortunate sideline.

**Justin:** It's just kind of, "Hey, now we're going to do cocaine, everyone. Good news."

**Sydnee:** [laughs] A lot is made of that, especially with Freud, who was recommending this and then also using cocaine and then treating people for cocaine addiction... yeah.

**Justin:** Gotta know how to handle your cocaine, Sydnee.

**Sydnee:** [laughs]

**Justin:** I always have said that.

**Sydnee:** Now, when it comes to how to treat this, a lot of it was just trying to pattern after what they were doing for people who were addicted to alcohol. So, the mainstay of treatment for alcoholism at the time was largely things like asylums and inebriate homes, where you would just kind of go lock somebody up where you didn't have access to alcohol and try to just counsel them. A lot of them could have been religiously focused. Or just like this moral, character-based thing. "You're gonna stay here and you're gonna stay sober and you're not gonna use again," and that kind thing. But mainly you were locked up and you couldn't, you didn't have access.

So, in the mid-1800s this expanded to include also if you're addicted to other stuff, you can come to these places. But there was not specific, like, way to treat it. It was just, "Come here and live here and don't do drugs," was basically it. At the turn of the century, a big shift in this is the move into private facilities. And a lot of this was heralded by Leslie Keeley. Now, we've spoken about Keeley briefly, I'm pretty sure, in our alcohol episode.

**Justin:** Yeah, that sounds right.

**Sydnee:** Because he invented the Keeley Cure.

Justin: Which was?

**Sydnee:** The Keeley Cure was— the only thing he would tell you is you would come stay at one of his private treatment facilities and he would give you injection of bichloride of gold, is what he would tell you was in it.

Justin: Hmm.

**Sydnee:** Now, what was probably also in it, it's been analyzed later, were strychnine, alcohol, atropine and apomorphine, a morphine derivative. So...

Justin: So...

**Sydnee:** [laughs] So he'd give you these shots—

**Justin:** Sorry, did you say a morphine derivative?

Sydnee: Uh huh.

Justin: Okay. Keeley...

**Sydnee:** So, he'd give you these shots and you would stay there. And it was a private treatment facility. So this wasn't— all these other places I've mentioned were run by the government, you know, almost like a kind of legal treatment center. These were private. For profit. And this concept people latched onto, as you can imagine, because it's still very prominent today.

**Justin:** We were also, though—

**Sydnee:** Expensive, private, boutique addiction treatment centers.

**Justin:** Right. It's a very fashionable addiction to try to treat.

**Sydnee:** This is the beginnings of this. This is where this kind of started. Now, he did believe that alcohol addiction, and drug addiction later, were medical conditions. So that is very important.

**Justin:** It's progressive.

**Sydnee:** Yes, it was very progressive, that concept.

Justin: For the time.

**Sydnee:** Now, the treatments for it, probably not so progressive. So anyway, this concept spread to drug use as well as alcohol use, and a lot of people who were trying to seek treatment couldn't at this point in history, because as these kind of government-run treatment centers started shutting down and these private centers took over, you couldn't afford them. You know, just like today, a lot of people can't afford those treatment centers. And so, they ended up instead in jail or on the street. Instead of actually in a treatment program.

**Justin:** It seems like especially— I know this is true nowadays, but certainly back then, I mean, we were so hard up to cure diseases people didn't want to have, I mean, and that's not to say that... you know, people

don't want drug or alcohol addiction, but, you know, they seem a lot more optional than a lot of other disease.

Sydnee: Sure.

**Justin:** And I would assume if society's gonna put pressure on something to throw its weight behind curing, it's probably more focused on the stuff that it has no idea how to treat, as opposed to, you know, "just stop doing drugs", which is a lot easier said than done, obviously.

**Sydnee:** Absolutely, you're right. I mean, that's a big part of it at this point, is there still is no widespread acceptance of addiction as a disease. It's very much still seen as a moral or character issue. And as such, people were pretty comfortable with leaving it to the legal system, as opposed to the medical establishment, to take care of.

Justin: Mm hmm.

**Sydnee:** Now, at this point so many people are getting addicted to morphine, by 1898, somebody comes up with a better, safer alternative.

**Justin:** Oh, thank goodness. I was starting to get worried there, it seemed so dire.

**Sydnee:** That we can prescribe people for all these different conditions, and it will be safer than morphine and we won't have so many people addicted. And so that is when heroin is introduced.

**Justin:** Okay, come on, guys! Seriously. Really? This is the best we could do? Just inventing worse things?

**Sydnee:** Yeah. It was thought to be non-addictive, initially.

**Justin:** What—based on what?

**Sydnee:** We didn't understand addiction very well. [laughs]

**Justin:** We didn't understand anything very well, apparently.

**Sydnee:** No. Bayer, as in aspirin Bayer, began marketing it to people who had problems with morphine, who were addicted to morphine, as an alternative for pain and also as a cough suppressant, by the way. Which, I mean, most opiates do work as a cough suppressant.

**Justin:** Well, at least heroin's got that going for it. People always wanna rush to the bad side of heroin, and so rarely will talk about all its pluses.

**Sydnee:** Yeah. That's true, I mean, these things will definitely stop your diarrhea and your cough.

Justin: Perfect.

**Sydnee:** This is also a moment, side note, there was a society called the St James Society. It was like an altruistic, like, religiously-based, trying to help do good, charitable organization. And in an effort to help at this point with the introduction of heroin, they began sending free samples of heroin through the mail to morphine— people addicted to morphine, to try and help them quit.

**Justin:** I mean, you can't beat the convenience of mail-order heroin just showing up.

**Sydnee:** [laughs] Mail-order heroin to try to help you quit your morphine addiction. Now, this was, like I said, this was in 1898 that this is introduced. By 1910 we have documentation of someone walking into Bellevue Hospital and asking for help because they believed they were addicted to heroin.

**Justin:** Well, that broke bad fast, huh, y'all?

**Sydnee:** So, it took about a decade, and then the numbers just started growing. By 19—

**Justin:** That's hilarious, kind of, that it took ten years. Cause that means for ten years, everybody was like, "Listen, heroin is great. This is working so good for me that I don't even want morphine anymore. I just want heroin, and the thing is it's really easy to stick to."

Sydnee: "I just want it. And actually, I want more."

**Justin:** "I actually want more of it, cause it's so effective in treating my morphine addiction that I stopped doing seven years ago."

**Sydnee:** I mean, you probably did stop doing morphine.

**Justin:** Yeah. Yeah, yeah, it's perfectly effective.

**Sydnee:** Now, as we began to see this, again, doctors finally began in larger numbers, by 1914, talking about addiction as a disease and not a moral issue. And I think in large part when you see this kind of thing happen, like, we're trying to help you get un-addicted to morphine and we came up with something new and within, you know, a decade, people are already seeking treatment for addiction to that. I think that doctors at least began to be clued in that there's something else happening here. These aren't bad people. These aren't people who are fundamentally flawed. There's something else medically that we're missing, and we need to figure out what it is.

**Justin:** Must have been a frustrating meeting though, when they were all like, "Listen. Bad news, y'all. We gotta come up with something worse than heroin." [laughs] "I know, I know."

**Sydnee:** But people kept trying. And by 1916, with heroin clearly being more of a problem than a solution, it was no longer manufactured widely by Bayer, but another German company came in and said, "We've got something else that we've just synthesized that I think we could get ready for the market to replace it." And that is oxycodone. And the story continues.

Justin: Right after this.

**Sydnee:** [laughs] After the billing department.

**Justin:** Let's go.

[ad break]

[Maxfun ad plays]

**Justin:** So, Syd, we have just synthesized oxycodone, is that right?

**Sydnee:** That's right. So, oxycodone has been made. Now, this is gonna play a larger part as the story continues, but just so you know what happened with heroin, because obviously it's illegal now, so something happened in the interim.

Well, in 1914, the Harrison Narcotics Act is a big, in terms of, like, opiate legislation, this was a big deal. This was passed in order to clamp down on opiate use, especially by, like, patent medicines and people who were just kind of handing it out, by making it— through taxes. Basically, if you

were getting it any way other than with a prescription, it was impossible. So, this was an attempt to make it something that only doctors could prescribe.

Now, at the same time, one side result of this was that it criminalized doctors who were prescribing, like, opiates for addiction. So, it made it impossible to try to treat opiate addiction with opiates. And the problem is that at this point in history there were a lot of morphine maintenance clinics, which were similar to what you might think of as a methadone or suboxone clinic today. Now, of course, morphine is not ideal for this, but it was what they had. So, they were trying to run a morphine maintenance clinic where you would go, you'd get your dose, and then you would try to continue to live in society, have a job, have a family, and function, you know. Well, they basically shut all these down. Because they became illegal.

Doctors weren't allowed to be involved in this anymore at this point in history. And so, a lot of doctors just said, "Forget it then. I'm not treating addiction anymore, I'm done. This is too hard, the government is making it impossible." And at this point, people start arguing, okay, well doctors aren't part of the conversation anymore, the medical establishment has walked away, so what is causing the heroin, and in general opiate, addiction problem? And you start to get into different theories. Is it a moral issue? Perhaps it's just a temperance problem. All we need to do is make it not available. All humans are going to use it if it's there...

**Justin:** And we'll make it not available. It's been effective.

**Sydnee:** Make it not available and then everyone will stop. Maybe it's a character thing. Maybe we should work on character-building and parenting. Or maybe it's behavioral. Maybe we could just, like, negative reinforcement, slap people in the face every time they use it and then they'll stop.

**Justin:** It's definitely an option. Worth a shot.

**Sydnee:** Things like this were actually tried with alcohol and drug addiction.

Justin: Really?

**Sydnee:** Maybe it's just educational. Maybe if we just sent everybody to better schools, they wouldn't use heroin.

**Justin:** [laughs] Oh, I thought you meant, like, they didn't know it was bad for them.

**Sydnee:** Well, that too. [laughs] Obviously, all these theories were not helpful or progressive. And it took until 1924, when the aptly-named Heroin Act made heroin illegal—

**Justin:** Succinct and to the point.

**Sydnee:** Yes. But at this point, I think the cat was kind of out of the bag. The FDA was established in the next decade. There was a lot more oversight. Physicians were allowed to prescribe opiates at this point, although, like I said, not for addiction specifically. But, you know, for other— but it was more regulated. And this is where we see heroin kind of move underground and spread like wildfire. Throughout the 20s through the 60s—

**Justin:** Wait, you mean making it harder to get didn't fix the problem? [laughs] I'm so surprised.

**Sydnee:** [laughs] Yeah, somehow banning it didn't stop everyone form using it.

Justin: Weird. So weird.

**Sydnee:** That just never works. Its popularity grew. And usually it was in different, like, you can look through different populations that spread it. Like, it was cool because of this group or because of this trend or this fad, but it didn't go away. In 1970, the Controlled Substances Act made it Schedule I, meaning you couldn't prescribe it anymore. Hopefully it wasn't being prescribed...?

**Justin:** But it probably was.

**Sydnee:** But it took til 1970 to say that. Schedule 1 stuff has no medical benefit.

Justin: Okay.

**Sydnee:** That means you can't prescribe. At All. Period. Can't do anything with it. Can't even study it.

**Justin:** Shouldn't exist.

**Sydnee:** Well, marijuana's Schedule I.

Justin: Oh...

**Sydnee:** So... that's a whole other topic.

**Justin:** So it's not actually true when they say that it has no medical

benefit, right?

**Sydnee:** Nope!

Justin: It varies. Oh, cool.

**Sydnee:** Maybe not across the board.

Justin: Ah.

**Sydnee:** I'd say heroin we're fine with, but...

Justin: Yeah.

**Sydnee:** But maybe marijuana shouldn't be in there. That's a different

episode. By the end of Vietnam—

**Justin:** What's up with that episode though? We did marijuana, didn't

we?

**Sydnee:** We did marijuana. I said this, it shouldn't be Schedule I.

**Justin:** Let's keep banging that drum, though. We haven't fixed it.

**Sydnee:** I know. It shouldn't be Schedule I. Let's study it and see what it can do. We're already using it for medical benefit, like, let's prove that it actually does that. Let's do some studies.

actually ades that Let's ad some stadies.

**Justin:** And also psychedelics, as long as we're here.

**Sydnee:** Okay. Let's stick with opiates right now.

**Justin:** I'm right about this.

**Sydnee:** By the end of Vietnam, it was estimated that 15% of soldiers had become addicted to opiates during the war. And at this point the Controlled Substances Act was actually amended, it was called the

Narcotic Addict Treatment Act, and we are re-allowing doctors to get involved in addiction treatment using substances. Like, actually using opiates to help wean people off of opiates. So, methadone clinics are established. That's where this comes in.

**Justin:** Okay.

**Sydnee:** So these, like, government-run, legally-mandated— not mandated, but legally regulated methadone clinics are started. We are so far behind at this point on, like, a medical model for addiction. We have begun to understand it somewhat for alcohol. There's been a lot more progress made, we're about in the 70s, at this point in history with alcohol than with drug addiction, where we are still just beginning to become accustomed to the idea that maybe it has nothing to do with how many times your parents took you to church or something like that.

**Justin:** Believe it or not.

**Sydnee:** So— and by the way, on a side note, the 1960s also brought us naloxone, or Narcan, which a lot of people have heard of now.

**Justin:** They give that to you if you OD, right?

**Sydnee:** Exactly. So, it blocks the opiate receptors and it will save you from an overdose. It doesn't help in the long run, but in the moment, it can save your life. By the 80s, heroin is a huge problem, but this is when a new player comes on the stage. And I've already mentioned, we've had oxycodone around since the early 1900s, but that was just the beginning.

Percodan, which was oxycodone plus aspirin, I don't think anybody uses that anymore, was already out there. Vicodin, which is hydrocodone and Tylenol, you might still know it by Lortab or Norco, came along in the late 70s. But in the 80s, doctors were still pretty biased against the idea of using these narcotics for anything other than, like, terminal diagnoses, like cancer pain, or surgical management or something like that. You didn't go and get narcotics for chronic back pain at this point in history. Doctors were very biased against that.

**Justin:** Okay. That seems good.

**Sydnee:** But a couple things turned the tide. First of all, there were some pain management specialists who began writing very persuasive articles arguing that we were undertreating pain as a nation. Doctors are

not taking care of pain. And these same specialists began arguing that the rate of addiction among people who actually have pain is extremely low, basically negligible. So this should not be a reason to stop yourself from prescribing opiates. Basically saying feel free. As long as the patient really has pain, feel free to prescribe.

This was based on, in a lot of cases, a letter to the editor, a five sentence letter to the editor that was published in the New England Journal of Medicine in 1980 by Jane Porter and Dr. Hershel Jick, which referenced a brief survey of their inpatients, patients that they had in the hospital, that they did on their own over a certain period of time, where they went around and said,

"Have you had opiates?"

"Yes."

"Are you addicted? Yes or no?" and they said, like, "Oh, like 1% are addicted." Based on this letter to the editor— this is not a study. This is not double-blinded, this is a five-sentence letter to the editor, 608 times this letter has been cited in papers arguing that we undertreat pain and that you are unlikely to become addicted to opiates if you have pain and are treated with them.

**Justin:** That's staggering. Just this completely unscientific...

**Sydnee:** This letter to the editor. And this was not their intention when they wrote this letter, I mean—

**Justin:** We don't wanna put Jane and Hershel on blast here, y'all.

**Sydnee:** No. But this letter has been blown completely out of proportion in terms of medical evidence. And from here, the race was on. This is when you start hearing this phrase "pain is the fifth vital sign". You may have heard this.

**Justin:** I have not, no.

**Sydnee:** So, this was mandated, that we needed to start asking patients, "Are you in pain?" and treating it just the same as we would a derangement in their heart rate or blood pressure or oxygen level. Just the same as we would do that, we need to start treating pain just as

aggressively. So, we start getting new extended-release versions of morphine, fentanyl, oxycodone, hydromorphone, all these different opiate derivatives. Perdue rolls out Oxycontin, which is billed as a brand new, non-addictive, long-acting opiate that will give your patients back their quality of life, and it is totally safe to use.

Justin: Excellent. End of episode.

**Sydnee:** For everything. They marketed it to patients, they had videos playing in waiting rooms, they went to naïve doctors who didn't really know how to use opiates in the first place, didn't know how to prescribe them because they hadn't really been, and basically said, "Listen, use this. Patients are pain free, no risks." The number of chronic— after this was introduced, the number of patients on chronic opiates jumped by 11 million in this country.

**Justin:** [sighs]

**Sydnee:** And by the time we started to figure out, as physicians, that "hey, maybe this was wrong" and at the same time, pharmaceutical companies started making pills that weren't so easy to crush and snort and inject, it was too late. Obviously.

**Justin:** Right.

**Sydnee:** People were already addicted. It is estimated that for chronic, non-cancer pain, opiate addiction may be as high as 26%. So, if we start you on opiates long-term for something other than cancer, you got about a 1 in 4 chance of developing addiction. And 1 in 550 patients started on chronic opiate therapy die of opiate-related causes within two and a half years of starting it.

Justin: Y'all.

**Sydnee:** These drugs were never benign.

**Justin:** Y'all, be careful. Because people— doctors are still— I've seen so many times, I'm sure Syd has way more experience with this than I do, but there are so many times that people are just casually getting prescribed this stuff. Remember that number in your head. 1 in 4. Like, how bad is the pain? Seriously? Because there's a 1 in 4 chance of addiction. That's wild.

**Sydnee:** America uses 99% of the world's hydrocodone.

**Justin:** I'm sorry, I know we're not supposed to give medical advice to people, but I'm just some chump with a microphone, so I can say whatever I want. Be careful, sheesh.

**Sydnee:** I mean, this is the thing. We are just now preaching this.

**Justin:** Why are doctors whack at this? I'm asking seriously. Why are doctors still, like, so ready to gamble on this stuff?

**Sydnee:** I think part of it depends on what era of medicine you were trained. Prior to the 80s, if you were trained before then, you still were pretty reluctant to give pain medication, but if the 80s hit you hard in terms of the "pain is the fifth vital sign", patients suing doctors in hospital over undertreating pain, I think that that stuck in a lot of physicians' mind.

And that was, you know, the years that I trained, that was still told to me. Like, "Listen, these drugs are addictive and they're dangerous and you wanna be careful, but if you undertreat pain, you can get sued. So you gotta treat that pain, and you've gotta find a way. And if your patient is hurting, it doesn't matter if you think 'all of your studies are negative and I can't see the pain,' you treat them until they're not hurting anymore."

And sometimes, especially if addiction is part of the problem, that's not possible. I mean, it's impossible. And I think the other thing is that we now are training medical students a lot better on the consequences of these substances, and the risks, but I don't think we were for a long time.

Justin: Yeah.

**Sydnee:** Like I said, America uses 99% of the world's hydrocodone. We have 5% of the world's population. It's a crazy number. In West Virginia, overdose deaths are the highest in the nation. We had over 800 last year and we're growing. We're on rate to beat that this year. We lose someone every 10 hours, at least, to opiates.

**Justin:** In West Virginia alone?

**Sydnee:** Yes. Yes. And of course, as the pills have become harder to get or to use because doctors are getting wise and prescribing them less,

they're becoming more expensive to buy on the street and they're harder to— they've made them so that instead of being, like, powdery, like if you crush a tablet and it turns into powder you can cook it up and inject it, they've turned them into stuff, like, there are ones that are kinda like skittles. If you think about that, how hard would that be to crush and inject.

Justin: Yeah.

**Sydnee:** So, they've changed them to try to make them harder to abuse, but the result has just been heroin has taken over. Heroin's cheaper, it's easier to get, it's easier to use, so it's filled the void.

Justin: I wish Jamie Oliver would fix this one.

**Sydnee:** [laughs]

Justin: You know, he fixed the eating thing.

**Sydnee:** I don't think he has a plan.

**Justin:** I just wish Jamie would come fix the opioid addiction in

Huntington.

**Sydnee:** We've had substances, medications, to treat these things since about the 80s. Naltrexone, which is Vivitrol, has been around since the 80s. It's been highly, like, touted, by the Secretary of Health and Human Services. I will tell you that it does not have the long history of efficacy in treating opiate addiction that other substances do. I don't know why—there are certain, like, political figures that get really hung up on Vivitrol as the solution to everything. It's been used a lot more in alcohol addiction than opiate addiction. And with some success, so I'm not saying it's useless.

But probably the route to go is methadone and, maybe a little better now, buprenorphine, which is Subutex, or suboxone. Although both are shown to be efficacious, I think that there is less of a stigma with suboxone and Subutex. And the other thing is it is an agonist-antagonist, so you don't get— you're less likely to have the sedating effect that you do with methadone. Which is good, because the truth is if we can have a patient who's stable on one of those medication-assisted therapies as replacement, opioid replacements, you're more likely to be able to have a job, have relationships, retain custody of your children. Be part of society.

Justin: Right.

**Sydnee:** You know, have a life back. Give you your life back. The problem is really complicated. We've already talked about it, money and stigma are probably two of the biggest barriers. There's lots of them. Treatment programs are expensive. The ones that are cheap are too few. They're very hard to get into and a lot of them aren't long-term. So, we might you detox you and then put you in like a 28-day program and then that's it.

**Justin:** Then what? Right.

**Sydnee:** And then what? And then we tell you to go to NA and hope that that's enough. And NA is great, I'm not saying Narcotics Anonymous is a bad thing, it's just a lot of these patients need more intense treatment than just that. We still treat people with addiction as if it's a moral failing. I mean, I see that in my professional life. People treat it as if, "Well, if you weren't such a degenerate you wouldn't have this."

Justin: Right.

**Sydnee:** As opposed to someone who has a chronic disease. And we need to treat it medically. So, now we've got detox, we've got behavioral therapy, we've got counselling, we've got medication-assisted therapy. Treat the comorbidities. Does somebody have anxiety, does somebody have depression, treat that too. But how do we get it to people?

**Justin:** Well, this is the part—this is always my favorite part of Sawbones, because this is when Sydnee's like, "But the good news is, we've got things a little more figured out these days," and then you say that.

**Sydnee:** [pause] Okay, I will give you good news. [laughs] We don't have it all figured out. This is a complicated problem. But there are smart people who are doing this research. I went to the— I went to a heroin summit. That sounds like a really weird thing to go to. It's actually the National Prescription Drug Abuse and Heroin Summit I went to back in May, April, some time recently.

**Justin:** Two months ago.

**Sydnee:** And there are very smart people researching this and working on this all over the country. All over the world, but this was focused on

our country. And there are answers to these problems. What we need, though, is a coordinated effort that's gotta start from the government. It has to be funded and we have to aggressively treat this chronic disease of opiate addiction the same way that the government decided they were gonna aggressively support people who had renal failure and needed dialysis. You know, the government pays for everybody to get dialysis who needs it. Okay, well this is a chronic disease with devastating consequences. Let's take care of it too.

We need that coordinated effort, because there are smart people with answers. It's just getting those answers turned into action that is the problem right now. But it's not hopeless. It's not hopeless. We just all have to work together a lot harder to make it happen.

**Justin:** Folks, that's gonna do it for us this week on Saw bones. We hope you have, if not enjoyed yourself, at least feel a little smarter about it.

**Sydnee:** If you wanna know about this stuff, a better person than me, the book Dreamland by the author Sam Quinones is a wonderful book that documents the whole history of this. And a lot of the story I'm telling you, I read his book, I got from him as well as a lot of other resources. But I would highly recommend that book if this is something that interests you and that you, you know, might wanna look into how you can help with.

**Justin:** That is gonna do it for us, though. I wanna say thank you to The Taxpayers for letting us use their song "Medicines" as the intro and outro of our program. And thank you to the MaximumFun.org network for having us as part of their extended podcasting family. There's a ton of great shows you can listen to. I'd like to recommend a favorite of mine, it's called Still Buffering. It's a show Sydnee makes with her sisters Teylor and Rileigh.

**Sydnee:** Well thank you, honey.

**Justin:** And this week they have an Ask A Teen episode, which are always— would you say this one's educational or entertaining? Which is it? Or like a delicious blend?

**Sydnee:** I think it's both. I think it's both. We definitely learned some things from Rileigh that were... scary? [laughs] But also funny.

**Justin:** Keep your finger on the pulse of teen life with Still Buffering, and all the great Max Fun shows. But folks, that is gonna do it for us. And we hope you'll join us again next week for Sawbones. 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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