

## Sawbones 339: Death Certificates

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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 you 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:** Well, I'm excited for another fun episode. You know, it's hard, Sydnee, uh, when everything's kinda dire on the planet Earth. I really look forward to recording *Sawbones*, 'cause it's a little bit of levity.

**Sydnee:** Well...

**Justin:** In my day. Kind of a fun time—

**Sydnee:** Um—

**Justin:** —that you and me can just kind of spend together and—

**Sydnee:** Well...

**Justin:** —relax, and goof about stuff, and I can't wait to hear—

**Sydnee:** Before you—

**Justin:** —about what our topic is this week!

**Sydnee:** —be—okay. Well... see, Justin, I try to do things that speak to medical history, but are also relevant to issues of today. Like, find that blending point, you know? Especially with everything that's happening with the, you know, pandemic.

And, uh... so, this—this specific topic is a little, um, you know, not as light, maybe?

**Justin:** Okay, what is the topic? Go ahead, I'm pretty much ready for whatever. I mean, I'm sure it's gonna be pretty silly, but what's the topic?

**Sydnee:** Death certificates?

**Justin:** Ahh. Okay.

**Sydnee:** Mm-hmm. I—well, okay. Here's why. [laughs quietly] I know this seems—I know this seems like a bummer.

**Justin:** Mmm.

**Sydnee:** But there's been a lot of talk in the media about death certificates, what's on them. Uh, there was the recent supposed, like, report that was put out by the CDC, although it was really just them—they've been releasing statistics constantly, so I don't think any—nothing new was really done. It was just somebody looked at the data differently, is the way I would say it.

But, uh, basically they—there was a report that was circulated widely and was trending on Twitter for a while that only 6%—that was what was trending, by the way, only 6% of the deaths that have been attributed to COVID in this country are only from COVID.

And the way that it was worded, it sort of insinuated that all these other people that we've been told had succumbed to this disease actually died of something else, and we've been lied to.

**Justin:** Right.

**Sydnee:** That was not explicitly said, but I feel like that was the message a lot of people received, and that was being amplified.

**Justin:** Mm-hmm.

**Sydnee:** And this data is coming from what was put on death certificates. And so I think it is important for us to understand what's put on a death certificate.

Where did this idea come from? Why do we have them? Who fills them out? What are they for? I think it's useful to talk about the history of that, to understand why these claims that only 6% of these deaths are attributable to COVID are completely false.

**Justin:** Okay.

**Sydnee:** Um, does that—is that okay for us to talk about?

**Justin:** That's fine. I mean, whatever. It's fine. I'll get my levity somewhere else. I'll—I mean, we've still got a lot of *Taskmaster* to watch, so that'll—I'm sure that'll pick up my spirits, so.

**Sydnee:** I'm gonna start with a *West Wing* reference, does that bring you joy?

**Justin:** Okay! Yeah, now we're talkin'!

**Sydnee:** I was thinking about, like, existentially, why do we have a death certificate, first? Like, 'cause these are—the idea is fairly old. I mean, not, I guess, *Sawbones* old, 'cause we talk about ancient stuff. But, like, you know, it's fairly old. It's not a new creation. Um, and certainly there are, like, very practical applications for a document now that certifies someone is no longer living.

**Justin:** I feel like, um... the main—[laughs] the main use of death certificates, as I understand them, is to find them in an old filing cabinet in a very darkened room and, like, pull it out and look at it with a flashlight and, like, "[dramatic voice] It says right here... the cause of death was... "

**Sydnee:** "Murder!"

**Justin:** "Murther! [laughs] They listed murther, the modern bee sting!"

**Sydnee:** [laughs quietly] Uh, well, actually, the practical application now is to get, like... things canceled. Like, accounts canceled.

**Justin:** "[dramatic voice] Netflix!" [holding back laughter] Netflix goes into your house and—

**Sydnee:** Literally, I think you do need it sometimes to cancel a Netflix account.

**Justin:** Facebook goes into your old cabinets and Zuckernerd's like, "Uhh, hey! Look, it—I found it! This—they're really dead, so we can put the little flower on their account, or whatever it is we do."

**Sydnee:** Uh, so I think that, like, today, in a world where everything is documented, I think that they have a lot of practical applications. But why—I kept thinking, like, why, when these first were a thing—'cause we're gonna go back to the 1500's for this story. Why did it matter? Like, what was the reason that we recorded this? What were we doing with this document?

I kept thinking of that *West Wing*—"As if it matters how a man falls down," which is actually a misquote. I've learned this, from *The Lion in Winter*.

**Justin:** Mm-hmm.

**Sydnee:** So... this is still not bringing you joy.

**Justin:** Well, I mean... you didn't really set that up or anything. You just, like, referenced a misquote on *West Wing*.

**Sydnee:** [laughs]

**Justin:** And kind of moved on with it. I feel like half of that—I love you. I feel like half of that anecdote was in your head—

**Sydnee:** Uh-huh.

**Justin:** —and the other half was in your mouth, [holding back laughter] and we only got the mouth part.

**Sydnee:** [laughs quietly]

**Justin:** Why don't you back up just a little bit?

**Sydnee:** Uh-huh.

**Justin:** Okay. The *West Wing*.

**Sydnee:** You know in the episode of *West Wing* when—

**Justin:** Here she goes.

**Sydnee:** —Toby—[laughs] says to the President—he says, "I was watching *The Lion in Winter*, just the part of the scene where he's—they're telling him, like, "Everybody, be a man, face it like a man, take death like a man" kind of thing. And he's like, "Fool, as if it matters how a man falls down."

And then he responds, "When the fall is all that's left, it matters very much."

**Justin:** Mm-hmm. And That's from *The Lion in Winter*, and this is a reference to... when everybody was about to find out he has MS, right?

**Sydnee:** Yes.

**Justin:** Oh, yeah. Okay. See, good! There. We've contextualized.

**Sydnee:** It wasn't always—obviously in ancient history we didn't record the way somebody died. There were lots of rituals surrounding burial, right? We know that. We know that there—throughout different cultures, there are lots of, like, things that you would do, ceremonies surrounding death.

**Justin:** For most of history, we didn't really understand why people died. There was only two causes of death. Rock, and curse. Either you were hit by a rock, or a rock fell on you, or a curse killed you. Those are the two causes of death early on. Rock and curse.

**Sydnee:** Well, you're not... you're not wrong.

**Justin:** I know!

**Sydnee:** This is part of why there weren't recorded—probably recorded documents for why people died, is 'cause the—we didn't know, and for a lot of cultures, the reasons someone died is the god or gods or whatever beings, immortal beings your society worshiped, willed it so.

**Justin:** Medical examiner back then was an easy job. 'Cause you could be like, "Hey, my dad died."

"Aw, bummer. Rock? Nope. Ah, curse! Ugh. Hate to hear it. Anyway, bye-ee! That'll be 200 pebbles."

**Sydnee:** The—[laughs] so—

**Justin:** 200—200 grams of salt.

**Sydnee:** Also, if you look to—if you look to some cultures, if you consider life, depending on what your beliefs are, if you consider your living state to just be, like, a preamble to the big—the big show, which is the afterlife, why does it matter?

**Justin:** I don't know.

**Sydnee:** The important thing is you get there.

**Justin:** Yeah. Woof! This one—yeah. Yeah, let's—yeah, okay! This is dire! Let's keep moving!

**Sydnee:** So, why would we write it down? That's the point. Why would we write it down—

**Justin:** I don't know, Sydnee! Tell me!

**Sydnee:** Who would—what would you write it on? Who would keep it?

**Justin:** Papyrus.

**Sydnee:** Where would it go? [laughs] Like, what would we do with it? Will we etch it in a stone and then put it somewhere? Who would you show it to?

**Justin:** Who would care?

**Sydnee:** Would there just—I mean, there wasn't a good reason for it, for a long time. So it didn't exist. So, the idea of recording how people died in some sense was brought to us by... the plague. A lot of things, mostly bad, were brought to us by the plague.

**Justin:** We don't give the plague enough credit for all the great stuff [laughs quietly] that it brought us. The cool masks?

**Sydnee:** I was gonna say, there is that great plague doctor costume.

**Justin:** Oh, man. I'm reading—I just finished *The 7 1/2 Deaths of Evelyn Hardcastle*, which is a mystery novel about—it's kind of like a mystery mixed with *Groundhog's Day*—it doesn't matter. But one of the antagonists in that book is a plague doctor and wears a plague mask, and every time I think of it it's just like—it's just so creepy.

**Sydnee:** It is.

**Justin:** It's a creepy book. It's not pleasing. I don't know why they thought that would bring succor to people who are like, cursed by the plague.

**Sydnee:** If you remember, it wasn't really about that.

**Justin:** I know, but they could've put some teddy bear ears on it or something! A star sticker, right? Like, something.

**Sydnee:** Well, I don't think—I don't think there was any intention to cheer anybody up, because the reality was, the plague was really bad, and if you got it, there was a good chance you would die. And so I think the doctors were just, you know, kind of being honest. "I don't wanna get it, so... "

**Justin:** Yeah.

**Sydnee:** "I'm wearing this scary costume."

**Justin:** Fair, okay.

**Sydnee:** "I'm carrying a stick to poke you with, 'cause I'm not gonna touch you. Like, I don't—[laughs] I don't think there's any dressing it up.

**Justin:** Yeah.

**Sydnee:** Um, but the original recordings of deaths were not just—were not, like, death certificates like we'd think of them today. Everybody didn't get one. It was just, like, a list. Here is a list of causes of death, and it would be divided in, like, here's how many men died, how many women died, how many children died, and then here's a list of things that they died of.

So, in these very early documents they were really just for plague. How many people died of plague?

**Justin:** That seems like an important thing to know.

**Sydnee:** And that was the reason that the first one, uh, which—initially, by the way, they were called bills of mortality. So, it is a—a list. 1512 in London is where we see the first one. And this one just simply says, uh, "In this specific time period, over the last couple weeks, 34 people died of plague, and 32 people died of other stuff." Literally it just says... "Odor, diseases," or whatever, in Old English. But, like—

**Justin:** [holding back laughter] Rocks?

**Sydnee:** [laughs]

**Justin:** Curses. Plague.

**Sydnee:** Well, no, it doesn't even list that stuff! It just says, "34 plague, 32 other diseases," and that's it.

**Justin:** So it's kind of like—more of a census than an individual thing.

**Sydnee:** And it usually just conform—it usually just informed people about plague. That was the original idea, because it was—they were tied to locations, so I guess you could kind of think, like, "Well, that bill of mortality from that part of the city or from that region of the country or whatever is higher in plague, so I won't go there."

**Justin:** Mm-hmm.

**Sydnee:** "[holding back laughter] I don't understand how you get disease, but plague seems to be there... so I won't go there."

**Justin:** Yeah, I guess, yeah.

**Sydnee:** So that was, like, the very early idea. Why would you write this down? Well, here's a reason. We don't understand that this is infectious but we do understand that, like, we don't like to be around it.



**Justin:** Perfect, okay.

**Sydnee:** Um, then in the early 1600's we start to see that kind of made a weekly thing. "You know what? This is a good idea. We need to keep track of this."

The plague—at that point, it would—you'd have good and bad years. The plague was always there, and then there would be years where it hit people really hard and, like, whole courses of years where it did, and then other times where it wasn't such a big deal. Um, but they started doing them weekly.

And then in 1629, which happened to be not a particularly bad year for the plague, King James I said, "You know, let's just keep doin' it anyway. Why don't we start, you know, weekly coming out with a bill of mortality that lists every way people died in this area, not just the plague."

**Justin:** That's actually how *Us Weekly* got started.

**Sydnee:** [laughs]

**Justin:** The founding—[holding back laughter] it used to be called *Oops Weekly*, and it was just—[wheezes]

**Sydnee:** [laughs quietly] How long have you been thinking about that? That you just now said it?

**Justin:** Not long, it just came to me.

**Sydnee:** Mm-hmm, mm-hmm, okay. Uh, so the names were still not part of these documents, right? We still don't have, like—when I'm talking lists, again, we are just saying, like—initially it was like—the heading was "Plague," and then it was like, "Men: 20, women: 18," whatever. You know, "Children... "

**Justin:** 5000. We gotta get this under control. [laughs]

**Sydnee:** Uh—[laughs] now these documents would have lists of diseases with a number next to each disease. Here's how many people died of each of these diseases this week.

**Justin:** More of a—more of a scorecard. [snorts]

**Sydnee:** Yes. Uh, but still no names of anybody. Like, we're still not breaking it down into, like, who were these actual humans that have died? It's just a list. So—and we only knew of so many ways that people could die at this point. We've moved beyond rock and curse, but we still don't have, like, a huge complete list of all the things that could fell a human. So we kind of made some up. Uh, some of these are real diseases, just with some wild names, and some of them aren't things you die of.

For instance, a common cause of death on these documents would be "teeth."

**Justin:** [bursts into laughter]

**Sydnee:** That was how it was listed. And these are probably deaths related to teething, and if you remember from our episode on teething, you don't die from teething. But teething got blamed for a lot of probably vaccine-preventable diseases that we, you know, don't die of today commonly because of—thank you, vaccines. Um, instead, we didn't know about all that, so we blamed it on teething.

So, "teeth" would be a common cause. Um, "king's evil."

**Justin:** Wow.

**Sydnee:** Which was a kind of tuberculosis.

**Justin:** Okay.

**Sydnee:** Uh, "planetstruck." I like that one.

**Justin:** [laughs] What's that?

**Sydnee:** Um, that was probably just some sort of, like, sudden attack or something. You were stricken all at once in some way. Uh, and it happened all at once, so—I don't know. It could've been a stroke, it could've been a heart attack, could've been, um... who knows? But some sort of all-at-once—"rising of the lights" had something to do with the lungs, was some sort of respiratory connotation. Uh, there was "mold fallen," which had to do with the head. Uh, anything—it had to do with, like—especially, like, trauma to the head or, like, in a child that was born where, like, the skull was malformed.

**Justin:** Mold—

**Sydnee:** "Moldfallen." And then there were some really obviously ones, like "scalded in a brewer's mash at St. Giles."

**Justin:** Rough one.

**Sydnee:** So, there you go. [laughs quietly]

**Justin:** That one's very—yeah, you get a very clear picture of that.

**Sydnee:** Uh, if you have no idea, you could just say "suddenly." There were always a number of deaths attributed to quote, unquote, "suddenly."

**Justin:** [laughs quietly] We don't know.

**Sydnee:** [laughs quietly] And there were other good ones. Uh—

**Justin:** "We didn't see a rock anywhere around there, folks! [through laughter] It's tough to say, this one's... a mystery for history."

**Sydnee:** There was "wind, blasted, itch, liver-grown, excessive drinking," I think we could figure that one out.

**Justin:** Yeah.

**Sydnee:** Uh, "wolf." There was one bill that attributed eight deaths to "wolf." I have—

**Justin:** That's a bad—[holding back laughter] that's a bad wolf!

**Sydnee:** That's a bad—[laughs quietly]

**Justin:** [laughs]

**Sydnee:** Uh, so... they just listed all these things, and they would try to kind of categorize them if they could. Obviously, like in the case of the brewer's mash incident, that's probably not a category. [laughs]

**Justin:** That writes itself. That's an afternoon off, right there. [wheezes] Not a lot of work.

**Sydnee:** It's interesting, 'cause you can look at these bills of mortality and see very specific incidents that occurred listed. Like, "Oh, that was... Steve." Because you know who—you know, was scalded in the brewer's mash. But then there would be just numbers of things, like "blasted," which... I don't know. Could be anybody.

Um, the way that they came up with these lists is really interesting. So, the parish clerks were put in charge of the whole process, of compiling and printing and releasing these documents. Um, the city would, like, contract them to do it, and the—what they would do, then, is outsource the actual, like, dirty work, "Go find out how people died," to people called seekers. And this has nothing to do with a golden snitch.

**Justin:** Thank you.

**Sydnee:** Yes.

**Justin:** Good, thanks.

**Sydnee:** No.

**Justin:** Not a—not in the mood.

**Sydnee:** No. Not those kind of seekers. These are usually, uh, little old ladies. [laughs quietly] And they would usually, like, pair 'em up, and they would pay them to go out when—what would happen is if somebody died within a parish, they would ring the chapel bell, and the sexton would hear the bell ring, and then go tell the seekers, like, "Hey. There's been a death. Go figure it out."

And so then they would go [holding back laughter] investigate, to try to ask questions—[laughs]

**Justin:** This has to—okay, what time period is this?

**Sydnee:** Uh, we're talking about, like, the 1600's.

**Justin:** Okay.

**Sydnee:** They were also called sometimes searchers, or specifically plague searchers.

**Justin:** I'm—please continue. I've gotta google to see if this is a series of mystery novels. It absolutely has to be. Are you telling me there was a period in history where we were tasking old women with investigating murders and it's not just, like, the basis of all of these?!

**Sydnee:** [laughs quietly] So—I mean, it didn't have to be old ladies. But what you wanted—like, these people didn't necessarily have any medical training, or any kind of any... training. Um, but you wanted people who could go and, like, ask questions and poke around and find out some information, and not be—I mean, 'cause you were trying to be sensitive. Like, you didn't want them to—you wanted to get the information for whatever purposes, for government purposes, but at the same time, it was dictated by the local parish, so they were trying to be aware that someone has lost someone, you know?

So, like, you needed people who could get the information, find things out, but also be sensitive. Did you find any mystery novels?

**Justin:** No, apparently this is, like, untapped!

**Sydnee:** Uh, so once they came up with something, they'd go back. They'd report it to the parish clerks, they would make up the documents, they'd print them weekly. Um, they always had to be released, by the way, to the authorities first. Like, the Lord Mayor had to review it before the public could get it, or the press could get it. That was a big thing. It was like—before the press could open there were, like, three locks on the chest, all held by different authorities who all had to unlock it before the press got their copy of the bill of mortality.

Um, control of this, especially during a plague, was very vital. You didn't want this to just get out and alarm people. Uh, so they kept it under lock and key until the authorities said, "Okay, fine, you can release the bill of mortality."

Um, eventually they made, like, a blank sheet with just all the diseases listed on 'em that you could just easily fill in numbers, just for expediency, you know? And what this did, though, is it caused you to need to shuffle all these different causes of death into this list, right? Like, you begin to narrow your idea of how a person

could die, because they—because of the document that was pre-printed that you had to put the numbers on.

**Justin:** Right.

**Sydnee:** So occasionally they would have to, like, add a category for, like, "drown in the moat," or whatever. But for the most part, they had to try to fit 'em in to these different categories.

Um, in 1662 is when we first see a use for this data. Like, you have these bills of mortality. You're printing them and giving them to the public weekly. What do you do with all that? You got all this data. You have all this info.

**Justin:** It's a shame your dad wasn't alive back that. He would've loved that.

**Sydnee:** He would've loved that.

**Justin:** A weekly paper that just is causes of death for people? He would prop up his feet, get some coffee, and really make a meal of it.

**Sydnee:** That would be every Sunday dinner for us, though. Would be him telling us—

**Justin:** Like, "You see this? 62 from "rock" this week!"

**Sydnee:** [laughs]

**Justin:** "The rocks, I'm tellin' you, it's a problem!"

**Sydnee:** [laughs] Uh, so a haberdasher named John Graunt... for whatever reason—I guess maybe he was like my dad. He liked these mortality bills. He was really into them. And so he decided, "I'm gonna collect all these mortality bills I can."

He got ones from 1629 through 1660. And he started taking all these numbers and compiling them into tables of information. I guess he just liked statistics. So this makes sense, right? Like, this is—

**Justin:** It must've been so frustrating when he realized he couldn't upload that data to Reddit.

**Sydnee:** [laughs]

**Justin:** Like—[laughs] "I'm history's first internet weirdo. [through laughter] And I can't—I can't upload this to Reddit, because it hasn't been invented, and won't for many hundreds of years!"

**Sydnee:** But it's wild to think. Like, it makes total sense to us now, because what he was making were, like, common causes of death. What kills people? And once you decide you want to know what is a common cause of death, you know, what is... what's taking us out, you automatically begin to ask the next question, which is, "Well, can we stop it? Can we prevent it? How can we prolong life?"

**Justin:** Mm-hmm.

**Sydnee:** Well, here are the most common reasons that it ends, so let's address them. So it was really a huge step forward that this guy who made hats for a living... took, by compiling this data. Um, it's a really fascinating moment in medical history where we all went, "Oh! Well, if we got these numbers... let's do something about them."

**Justin:** "Let's not die."

**Sydnee:** So—but before we do that...

**Justin:** Not die.

**Sydnee:** Not die. We have to get a little more personal. So, I want to tell you about how did the actual death certificate arise from this. But before I do that, let's go to the billing department.

**Justin:** Commerce before not dying. That is the American way, I love it, let's go!

**Sydnee:** [laughs]

[theme music plays]

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[ad break]

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**Sydnee:** Okay.

**Justin:** So, Sydnee.

**Sydnee:** So, we have these bills of mortality. We still don't have names. If we're gonna get to a death certificate, we have to care about who these individuals are that died of itch, or wind, or wolf, or whatever. Right? You need a little more info. 'Cause so far, all we have—occasionally gender, a vague idea of age with "man, woman, children," whatever that means, but you still don't have any other data about it.

**Justin:** Mm-hmm.

**Sydnee:** What really changes the bills of mortality to death certificates is the revolutionary period of human history where we start to see this focus on individual rights. It's the idea that the individual matters, as opposed to just this kind of collection of humanity that we can put on a piece of paper. All of a sudden, that seemed very cold to people. That seemed very... dehumanizing. And along with us demanding our rights to assemble, or free speech, or a press, or casting off authoritarian leaders, alongside all that, as that happened across the globe, you see bills of mortality moving to lists of actual people who died, moving to individual sheets of paper for each person who died. It's really fascinating how it's connected to this idea that—

**Justin:** Documenting it gives it value.

**Sydnee:** Yes.

**Justin:** Hm.

**Sydnee:** An individual life now matters. You have a certificate when you're born, and you get a certificate when you die, because you matter. Not the collective, you. And so this came about with it.

**Justin:** You're getting excited about death certificates, aren't you?

**Sydnee:** Aw, it's a—it's a moving idea, that you matter.



**Justin:** I'll—I'll grant you.

**Sydnee:** [laughs] Now, what was put on 'em didn't change a lot at first, right? 'Cause we only knew about so many ways people could die, and we really didn't know what they were.

**Justin:** Rock, *nice* rock, big rock, curse... suddenly.

**Sydnee:** [laughs] And it—

**Justin:** [holding back laughter] Mash! Beer mash.

**Sydnee:** —it's—[through laughter] at some point in here, it has to be said, because this is *Sawbones*—"The doctor probably did it by accident while trying to cure me," needed to be added to the list.

**Justin:** Right, right, right, right, right.

**Sydnee:** "Bled to death by doctor. Oops."

**Justin:** "Unfortunate historical timing of existence." [laughs]

**Sydnee:** [laughs] "Oops." Um, now, in the 1830's, William Farr, who was an early kind of epidemiologist before we had—

**Justin:** Have we talked about him before?

**Sydnee:** I think we've talked about him in epidemiologic terms. Um, he created a registry for deaths, and came up with a whole—a whole lot more causes of death, uh, to include on these documents. And as we look at this period of history, where the taxonomy of different, like, medical illnesses was expanding, like, our idea of putting things into categories, and then branching those off into trees of diseases and all that was happening, then we naturally expanded our causes of death from that as well, right?

So we go from a few dozen to over 100. Um, and Jacques Bertillon, who was a French statistician, would eventually restructure the whole thing into categories that, like, would make sense to us today. So, like, "Here are causes of death from

respiratory illness. Here are causes of death from infectious disease. Here are causes of death—" well, communicable—anyway.

**Justin:** Gotcha.

**Sydnee:** Using the terms of the day. It really—Bertillon—what he structured really mirrors our understanding of what can go wrong and why we die today.

Um, what we do now, though—really, out of this time period, grew the system we use to categorize illness and death today. Um, the International Statistical Classification of Diseases and Related Health Problems, or the ICD, which—currently ICD10—is how we list what happened to a human. Whether it be, "You're coming to see me in the office and you're there for a well checkup," there's an ICD code for that. If you're there because you have an ingrown toenail, there's an ICD code for that. There for a... non-specified upper respiratory viral illness, whatever. If you have died, there is an ICD code for that.

**Justin:** Well, what are you doin' in the office at that point?

**Sydnee:** [laughs quietly] Um, the history of that actually dates back to the International Statistical Institute, which was founded in 1853, so this is a really old organization, that was collecting data and having congresses regularly to, like, talk about what is happening to humans worldwide, to compile these numbers and, like, make it an international, global effort.

And in the late 1800's, they added to their efforts a list of causes of death.

**Justin:** I bet the happy hours that those congresses were just, like, mad, right? Just a bunch of death-obsessed people, like—

**Sydnee:** Well, they were—

**Justin:** —in one room? The sexual energy is just, like, palpable in there, right? We need to live!

**Sydnee:** They were compiling—they were compiling a lot of, like, statistics. Not just death, but death was among—

**Justin:** A lot of good stuff then, too, Syd? Was there some good things in there?

**Sydnee:** Probably just, like, numbers of, like, births—

**Justin:** Too happy?

**Sydnee:** —and how individual humans and—you know. All the statistics. All the things that people like to compile. But among them, also, illness and death.

**Justin:** And it was also probably orgy-astic. A—a bacchanal, basically, is what we're saying.

**Sydnee:** And, like I said, this was really old. So, like, Farr contributed to this initially. Bertillon would contribute to this. Um, and by the turn of the century, we have a list of diseases for humans, and we can refer to that for study purposes, or just to understand where we should focus our efforts to, you know, extend, save life, et cetera. Um, now, in this country, the use for this list took a turn after World War II. Because initially, like, if you have a list, this is our way of understanding, one, like I said, research, study.

Where do we need to put our efforts, our dollars, our time, to try to, like, help humanity, right? Into the most common causes of diseases would make sense. That's what people were thinking at first. Um, and also, like, things that are easily preventable. If you're thinking of making a vaccine, a list like this is very helpful, 'cause you start looking at statistics. Like, where can I make the biggest impact? Where should I focus my energy first to save the most lives?

Um, after World War II, it occurred to people that this list would make it really easy for insurance companies...

**Justin:** Hmm.

**Sydnee:** ... to keep track of illnesses that their, uh, clients had, and billing, and who was a higher risk person to insure, and who wasn't, and so on and so forth.

Uh, so this data in this country got really tightly tied to... what we now would call billing and coding. So the—my interactions with the ICD10 have been all electronic, essentially. And clicking buttons in order to code the appropriate thing that goes with a visit, goes with a doctor's visit. Um, and that information, yes, can be used for research purposes—and certainly is, I'm not saying it isn't—but also goes for billing.

**Justin:** Mm-hmm.

**Sydnee:** Um, and the importance of it for you, as a patient, is—well, one, you want your data to be accurate, of course. And two, I need to code the right thing so your insurance company covers it, right?

**Justin:** Right.

**Sydnee:** 'Cause if my codes are incorrect, you might get slapped with a big bill. Anybody outside of the US, I know this sounds...

**Justin:** "... What?"

**Sydnee:** ... strange. But if you live here, you know that it's true, because you've had the calls from the insurance company where they said, "Well, your doctor needed to put this or that," and then you've called your doctor and tried to explain it, and your doctor seems like they don't understand why. And it's true, because the medicine we're practicing and the framework of the billing... are—are connected, but they're not a direct relationship. You know?

Um, I communicate—a lot of us communicate in our documentation what's happening, and what we need to know outside of the codes, 'cause those are just click-boxes, and those don't tell us as much. But the insurance companies... their computers speak that language.

So anyway, how do death certificates fit into this landscape? 'Cause this is the big transition point. Once all of this gets connected to billing and coding, uh, we're expected to put, like, ICD diagnoses on a death certificate, you know? We're supposed to use these same things that we click boxes in our electronic health records, we're supposed to put these on your death certificate. And so we need to know, um, what people die of, so that we can focus our research efforts, still, right? We can monitor things like infectious diseases, like we're doing now with COVID.

Um, so it would seem really important who fills them out. Who do you think fills out your death certificate?

**Justin:** The doctor that pronounces you dead, like in the movies?

**Sydnee:** Uh, the pronouncing physician does sign it, yes.

**Justin:** So who fills out the death certificate?

**Sydnee:** So, it depends. Uh, a lot of times in a busy hospital setting, it may—it's like a lot of paperwork, right? It goes to the lowest person in the chain of command. So the resident, or—like a first year resident, an intern we would call them, may be tasked with filling out a death certificate.

Uh, sometimes they're sent to your primary care doctor's office.

**Justin:** Hmm.

**Sydnee:** So the person in the hospital signs that yes, this person has died. So you have the doctor who actually pronounced and says—because that's part of it, right? Making sure that we're not declaring people dead who are not dead. 'Cause, you know, we've talked about the show, we used to do that. So, that's part of it. But then the other part is, why did this person die? Sometimes that part will actually be sent to the primary care doctor's office, who may—I can attest to this—have not yet been informed that you have passed away.

**Justin:** Wow.

**Sydnee:** So I have—sometimes—now, in a smaller community like ours, a lot of times I'm in contact with family, I knew the person was ill, I know before I get that death certificate that someone has passed away. But not always. Sometimes that's your notification.

And so then you're working backwards to try to figure out what happened, in order to accurately fill out this very important government document, correct? I mean, it should—it should be accurate, but you may not have been there or have any idea what happened, and you're the one who has to fill it out. Um, and when you talk about what's on a death certificate—and you can pull up—there are, I mean, hundreds, thousands of images of these online, so if you wanna pull up what a blank death certificate looks like so you can see what I'm talking about, it's really easy to find. I think that they're state by state, so you can look at the one in your individual state.

Um, but you'll see that there are usually four lines listed as cause of death, because what you're writing is, like, the immediate cause of death on line one,

and then it will say, "Which was caused by," and you list that on line two, "Which was caused by," and you list that on line three, "And complicated by—"

**Justin:** It's kind of a, uh, old lady who swallowed the fly sort of situation.

**Sydnee:** Yes. And you have another line for complicating illnesses. So, like, it wasn't caused by this chronic disease that the person had, but this chronic disease contributed to the process that eventually led to their death.

All of that is always listed on a death certificate. So I can't think of a time where I would've ever just filled out... like, if we're talking about specifically coronavirus, COVID-19—it is very rare that you would just put "COVID-19" on that death certificate. Because people don't die of... it would be weird to say that you just died of this infection, as opposed to what did the infection do to you? And I think that's—that's half of the problem. So, did the infection cause you to have pneumonia, which then caused you to go into respiratory failure? So, did you die of acute respiratory failure, secondary to pneumonia, secondary to COVID-19? That's how it would be listed.

So already, we've taken—that specific example I just gave you comes out of that 6%. It goes into the 94%.

**Justin:** Huh.

**Sydnee:** Right?

**Justin:** Right.

**Sydnee:** Somebody who had cardiac arrest secondary to COVID goes on that list. Somebody who had a stroke secondary to COVID goes on that list. All these people who wouldn't have died had they not gotten COVID are going into this big percentage that they're claiming, "Well, but these people didn't die of COVID. They died of something else."

No, they—they died of COVID.

**Justin:** Right, just *caused* by COVID.

**Sydnee:** Yes. So, that's part of it. The other part of it is, we always list things that might put you at higher risk for something like that. So you're gonna see on that fourth line things listed like, perhaps, "Diabetes Type 2, " uh—

**Justin:** Smoking?

**Sydnee:** —you know, I mean, respiratory—any kind of illness that can be caused by smoking would probably be on there, COPD. Smoking isn't traditionally—you can put smoking on there, though. We probably should more often, right? 'Cause if we're talking about someone who died of a heart attack, and they were a smoker, it would be really helpful for our data to put that on there.

Um, but that's not always on there. And that's part of the problem with death certificates, as we're getting to, is... one, we don't always know exactly what happened. If someone passes away at home, it is—it's a lot of educated guesswork. Um, because quite often there isn't an autopsy, and so... the doctor is doing their best with what they know of the patient, and what they know might've happened. But there's always the phrase that is used a lot, um, "Unknown natural causes."

**Justin:** Hmm.

**Sydnee:** Or "Undetermined natural causes," meaning, "I—I don't know."

**Justin:** [yawns] Cursed—cursed, basically.

**Sydnee:** No—[laughs quietly] um, but that—so, like... we have this. We don't know exactly what happened. It's hard for us to categorize. Maybe we weren't there. Uh, we're trying to be accurate, but we don't want to claim anything that we're not 100% sure of. It's all very uncomfortable.

Um, and then there's also, like—I think when we talk about this conversation in regards to, like, "Well, but these people already had these other illnesses." I think there's a lot of ableism in this conversation, because what's being reflected is this idea that, like, "Well, people are only dying of COVID if they have... " and then list whatever other chronic disease.

**Justin:** Right, as if that's a permissible death.

**Sydnee:** Right. And—and—

**Justin:** "It's only the old people." It's like, okay, well, do you want—

**Sydnee:** Exactly, ageism too. Like, "Well, it's just old people, so... "

**Justin:** That's not great.

**Sydnee:** Right.

**Justin:** I—I like some old people.

**Sydnee:** [laughs quietly] Well, and one, again—

**Justin:** My Nonny, for cryin' out loud.

**Sydnee:** —it's—it's really terrible to say that, like, if a person is above a certain age, their life matters less, and so their death is not as meaningful. Or if a person has a chronic disease, their life matters less, so their death is not as meaningful. These are obviously immoral things to say. But beyond that, um, there's also—like, it's illogical. Someone who has a chronic disease that is well-managed and stable would not, in all likelihood, have passed away today if they had not gotten COVID.

And so that's what the death certificate is reflecting is that, like, well, they had that, but they would've been fine, probably, if they had not gotten the illness. So the virus is still the responsible agent. It gets the blame. So, I think that there's this kind of manipulation of this very... nonspecific document. [sighs] That, uh, none of us are quite sure what to do with, and we all do our best. Um, there are states where there are training courses required in how to fill out a death certificate. Not every state. A lot of residents, young doctors, are handed a death certificate to fill out, and have never once been told how to do it.

**Justin:** Hmm.

**Sydnee:** Um, which—I know! And, like, of course as attending we're there and available to try to help guide people through it, but this is not a standardized idea. I've had patients before say, you know, that they've lost a loved one and they're waiting to find out on the death certificate, and I've had to sit down and say, "Let me—let me help you understand why that's not gonna give you the... closure you



think. And why, like, the doctor explaining to you what happened—you're not gonna find out anything new on this piece of paper."

And I think that there's this misunderstanding of how specific and how final and what we *can* know that can be put on that certificate.

**Justin:** So, this seems to be—like, if someone brings up to you this 6% number, this—simplified, this is very much a, "It's not the fall that kills you, it's the landing."

**Sydnee:** Yes.

**Justin:** Sort of thing.

**Sydnee:** Exactly.

**Justin:** What people are saying is, "Only 6% of people died from landing without falling." And it's like, "Well, yes, but... the falling is the... the thing." Right? Like, the falling is—"So the falling isn't dangerous."

And it's like, "Well, no, no, the fall... is absolutely contributing to the landing. The landing part does kill you, but, like, the fall is what... is to blame."

**Sydnee:** Exactly. Or, I've seen people use this analogy and I think it makes a lot of sense too—if your criminal defense is, "Yes, I shot someone, and then they died, but they didn't die from the bullet, they died from the massive blood loss that resulted from it, so I did not kill them."

**Justin:** I kinda like mine...

**Sydnee:** [laughs quietly]

**Justin:** ... better. Yeah, let's stick with mine. [crosstalk]

**Sydnee:** Well, it's letting—it's letting something off the hook. It's letting the coronavirus off the hook, here. And the coronavirus is on the hook for this.

**Justin:** Yeah.

**Sydnee:** Um, and I think that manipulating the—

**Justin:** We'll see it in court. [snorts]

**Sydnee:** Well, manipulating the data to make it seem like it's not that bad... will make people less cautious, and they'll be less likely to comply with masking, they'll be less likely to social distance. Um, they'll be less likely to do all the things that they need to do to limit the spread, uh, and it's also, I think, a slap in the face to every grieving loved one who, you know, has lost someone to this virus. To turn and go, "Ah, well, but they *just* had this too," or "They were also this age," or whatever. I think that, you know, that's a morality problem.

Um, but I think that's the important thing to remember about death certificates. They're... we know that they're flawed. They actually tend to overestimate common stuff and underestimate uncommon stuff, and especially things that are new. And so my thought is—and I think a lot of people have echoed this—we're probably actually missing some deaths that are attributable to COVID-19. I would say the number is not overestimated.

I think a lot of us fear that it's underestimated. Um, because again, there's that part where if I have a patient who passes away at home, I can't—and they never got a COVID test, I'm not gonna say that they passed away from coronavi—I wouldn't assume that. Why would I assume that? That would be—that'd be bad medicine, to just say, "Well, probably. There's a pandemic. I bet it's this. I'll put that."

I would never do that. Um, I would put "Undetermined natural causes," because I wouldn't have anything else. I mean—and obviously this is not in... if there's some sort of foul play scenario, that's a totally separate thing. Then there are medical examiners and coroners and autopsies, and all other things happen. We're talking about in the absence of that.

**Justin:** Right.

**Sydnee:** Um, so I would say that the number is probably lower than it really is, and not higher. Um, which is not meant to scare anybody, but it does—information should empower us to take action. To protect ourselves and to protect each other, to protect our whole communities, no matter what illnesses we do or don't have, and no matter what ages we are.

**Justin:** Fair enough. Well, I—you know I agree with that. Um, and I'm glad someone finally said it.

Thank you so much for listening to our podcast. We hope that you have enjoyed yourself. We hope that you learned a little something, and came out of this a little, uh, you know, entertained and edified.

**Sydnee:** I'm sorry that it was grim.

**Justin:** Nah, it's okay. It's good. There's some... you know. That's life! Or... I mean, not, I guess. Uh—

**Sydnee:** [laughs quietly]

**Justin:** —thanks to The Taxpayers for the use of their song "Medicines" as the intro and outro of our program, and thanks to the Maximum Fun Network for having us as a part of their extended podcasting family. And thanks to you for listening! We sure appreciate you.

And, uh, be sure to join us again next week. 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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