

4sight Health Roundup Podcast
Sequencing the Fallout from the 23andMe Collapse
4/3/25

David Burda:

Welcome to the 4sight Health Roundup podcast, 4sight Health's podcast series for healthcare revolutionaries, outcomes matter customers, count and value rules. Hello again, everyone. This is Dave Berta, news editor at 4sight Health. It is Thursday, April 3rd. We're back from spring break, and we try to stay away from the news for a few days and not spend our time off doom scrolling social media, but with a convicted felon in the White House, creating a threat to our democracy every day, that's hard to do. We're gonna talk about another type of threat on today's show, and that's the threat to personalized medicine from the collapse of 23&Me, the direct to consumer genetic testing company. To sort things out for us today are Dave Johnson, founder and CEO 4sight Health, and Julie Murchinson partner at Transformation Capital. Hi, Dave. Hi, Julie. How you two doing this morning, Dave?

David W. Johnson:

I'm doing just great. Trying not to get fooled again this week. <Laugh>,

Burda:

<Laughs>

Johnson:

You had to think about it.

Burda:

I did. I'm like, okay. All right. Did you fall for anything?

Johnson:

Almost for a political story about what the Republicans were doing in Congress, but anyway, it turns out not to be true, it was an April Fool's joke. So <laugh>,

Burda:

But you never knew that, I guess. I guess that's, that's the point. Julie, how are you?

Julie Murchinson:

I'm trying to avoid the news. I'll just put it that way.

Burda:

Yeah, yeah. <Laugh>. Yeah. Yeah. Don't be checking any quarterly statements, right?

Murchinson:

No, no. Yeah.

Burda:

All right. Okay. Before we talk about the fallout from the collapse of 23&Me, let's talk about where your genetic material is, Dave. How many different places have your DNA, if any?

Johnson:

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Two, I submitted biometric specimens for the All of Us program, which is the NIHS effort to collect genetic material from, or biometric material, not just genetic from a million people. <Laugh>, I assume that's still going forward. And I learned that genetically, I'm from northern Europe. I'm a Northern European mutt, no surprise there. The second place is Optispan. You know, one of our writers Keith Hollihan and I are helping that team in Seattle to write a book, and we're part of their rigorous trailblazer Scientific wellness program, and that includes genetic screening. So two places.

Burda:

Got it. Got it. Julie, how about you? Who has your DNA, you know, other than your children, of course.

Murchinson:

Well, our friends at 23&Me <laugh>, whether good or bad.

Burda:

Goodness. Yeah. Okay.

Murchinson:

My mom and I were early, early adopters. I gave it to my husband for Christmas pretty early on. I wanted my kids to do it. I mean, I'm a believer, not sure I get out of it what I wanted, but I'm a believer.

Burda:

Got it. Got it. For me, the only place that I know of that has my DNA voluntarily is ancestry.com, and that's how I found out I was 25% Irish. I mean, can you get, get any better than that? No, <laugh>. All right. Let's talk about the lessons learned from the recent bankruptcy filing by 23 & Me. Let me give you a short history of the company, then ask you some questions. The company was founded in 2006 to give consumers direct access to their genetic information without going through the healthcare system. After seven years of growth, the FDA in 2013 said, you can't do that, and ordered the company to stop marketing its genetic health screening service. Two years later, the company got FDA approval and was back in business. The company went public in 2021 and hit a market valuation of more than \$6 billion, but there was a big data breach. In 2023. Hackers stole data from 7 million people. The board resigned in 2024, and the company [reorganized]. Then on March 23rd, the company filed for bankruptcy, leaving 15 million users wondering what's gonna happen with their personal genetic information. You're up, you're down, you're up, you're down. Dave, you're into personalized medicine, scientific wellness, and the democratization of health data. This must be a nightmare for you. I think you coined the phrase diagnostic determinism. Right? how does this affect healthcare consumerism? How does this affect scientific wellness, and how does it affect the shift from healthcare to health?

Johnson:

Well, actually, I'm sleeping pretty well Dave, probably due to my Aura ring that I got from the trail blazing program at Optispan <laugh>. My answers to your questions may surprise you, Dave. Genetic data, while important, is a relatively small component of any scientific wellness

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program. So why is that? I'll give you three reasons. First few diseases are entirely genetic in origin. The most prevalent are cystic fibrosis, sickle cell, Duchenne's, muscular dystrophy, Huntington's Disease and Hemophilia. They don't affect that many people, those who have it, of course, it's horrific, but it's not a big percentage of the population. So very few purely genetic diseases. Second, then falling out from the first is almost all disease then combines genetic predisposition with environmental factors. The interactions are complex, and there really haven't been that many discoveries. The two BRCA genes linked to breast cancer were discovered in the mid nineties. I mean, can either of you name a similar discovery of a genetic trigger for a disease?

Burda:
No. No.

Johnson:
I can't. And you would think by now, you know, 30 years later, we'd have a whole slew of these genetic disease markers, but we don't. And I think that goes back to the to the first one is not that many diseases are purely genetic in origin, or even mostly genetic in origin. And then the third point is what genetic markers we do know about are interesting, but not really that important. Whether or not we like to taste the cilantro <laugh>, that's one <laugh>. And based on my Optispan read, I evidently have a genetic predisposition for being competitive. No surprise there. There haven't been discoveries, and it's what we do know just hasn't been that important. The real underpinnings of personalized medicine and scientific wellness involve understanding the biology of aging. Age, as we get older, is highly correlated with the onset of chronic diseases, which take years or even decades to manifest. And are nature's biggest killers, you know. Peter Atea, in his book Outlive, named the Four Horsemen of Death, the four Biggest Killers heart disease, cancer, diabetes, and Dementia slash Alzheimer's. These are the, these are the big ones. And, you know, realistically, we're all born with term limits. Death is the final stage of the human journey. It's inescapable. So the real trick is to forestall disease onset and increase our own health spans. So whatever our lifespan is, we live as much as possible in a healthy state. And this is where scientific wellness makes its real mark. Relevant metrics aren't genetic. They're biometric glucose levels, lipids, lung capacity, musculo-skeleton condition, you know, things like balanced strength, flexibility, cognition, and so on. Here in these fears, as we all know, as our mothers told us better lifestyle choices in combination with medications, and maybe supplements can prolong health. That's what we should be doing. Now, you mentioned diagnostic determinism. Dave, you're you're a little late in my vernacular because I've shifted it now. I now call it preemptive diagnostics.

Burda:
Ah, okay.

Johnson:
And what the point there is to identify disease markers before symptoms manifest. And there are all kinds of companies that are starting to do this with blood or images or signals from devices. We are on the cusp of being able to identify these diseases much earlier when they're easier to treat, and the interventions are much more successful. So final word don't give up on genetics but preemptive diagnostics is going to be where the real action is.

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Burda:
Got it. Thanks Dave. Julie, any questions for Dave?

Murchinson:
Well, Dave, you didn't mention 23 & Me once, but I'll connect the dots to this <laugh>.

Johnson:
Mm-Hmm<Affirmative>. You can probably guess where I'm going with this. But anyway,
<laugh>

Murchinson:
You know, all the discoveries and all the potential that you just laid out means that personal data sits in a million different places today, could be exposed, could be breached. And with this 23 & Me issue, the California A.G. warned people to consider pulling their data, forcing, you know, ordering 23 me to delete their data, destroy any related test materials. And, you know, some have observed that that would significantly drive down the value of the company immediately, almost like a bank run. So when you think about all this data that you just talked about, like, do you believe consumers should do this? Should try to wipe their data? Is it <laugh>? Does it even matter?

Johnson:
Oh you know, and I'm focused on the genetic data, but obviously it's a bigger universal data.

Murchinson:
Yes. So that's what I mean though.

Johnson:
Yeah, on genetic data, I'm probably the wrong person to ask since you heard my personal genetic information really isn't that revealing or even interesting. So I'm not too worried about my genetic data being discovered. I'd be more worried about some of the other biometric data I suppose, you know, insurance companies, employers, that type of thing. But on balance, I probably wouldn't ask for it to be destroyed. I'd like to keep it intact. Are you gonna have your data destroyed?

Murchinson:
You know what? My husband wants to destroy his, and I don't really think I need to. So we're a divided household.

Johnson:
Oh, you and I are in the same camp. There we go.

Murchinson:
Yeah.

Burda:

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Wow. That, that is interesting. I was gonna ask you that too. All right, Julie, it's your turn. Let's get your market lessons from this situation. What's the business model lesson? What's the regulatory lesson regarding FDA approval, and what's the lesson from going public?

Murchinson:

Well couple, you know, headlines here. One, timing is everything. 23&Me was a first mover in almost every way. Had to make its market well before the digital health we talk about was here. It was early. It was an almost 20-year-old company. Just think about what we were talking about in 2006. My second is that as we know, innovation is not linear. And, you know, the story may not have ended well, but 23 and me, you know, changed consumer expectations around things like data ownership. You know, back in that day, we weren't necessarily all thinking that people and not healthcare providers or insurers should control their own personal health information. I mean, that was sort of a radical idea in the early two thousands. And that kind of inspiration fueled the demand we see today for access to our EMR information and digital health apps and wearables. And it, you know, it evolved over time. I think one of the, one of the kind of groundbreaking ways 23 and Me did this was when they had the FDA approved BRACA test, and millions of women, regardless of whether they, you know, qualified for clinical genetic testing, took the test and this increased screenings and care. And, you know, frankly, I think probably a lot of lifesaving interventions. So the data democratization that they've really pushed here has been big. And on the research side, you know, they pioneered, I think, one of the, you know, largest databases and changed the approach to genetic studies. So with, I think something like 80% of their 15 million customers gave consent to build a database that helped identify genetic factors for things like depression, insomnia, diabetes. I mean, Dave, a lot of this stuff, you know, the old, old school stuff, right? So like, I wanna give 23 million a lot of credit because they really made a difference. They've had impact, and there is a definite bright side to the story, but the dark side, you know, might be while they hosted, okay, one of the largest data sets anywhere of genetic data, and had over 80 publications and 20 signed partnerships with pharma companies. You know, their tests only yielded a limited number of genetic locations. It wasn't full DNA sequences. So their data actually wasn't as valuable as it needed to be for research and perhaps for consumers. And instead, they placed a lot of importance on making the tests and the results look cool, because that's how you engage consumers, right? But that also hurt the science, and it also allowed them to skirt the FDA for a long time. And Silicon Valley used to not think much about tc, unlike the oliar today. So, you know, that regulatory line was always kind of a, you know, a sketchy one. But then I read Linda Avi's LinkedIn post, and Linda was a co-founder, but actually really more than a co-founder. 23&Me was pretty much the culmination of her life's work. And the line that got me in her post was, and I quote, it's a familiar trope in Silicon Valley that wealth translates into unquestionable business savvy. But no matter how great an idea, the importance of the dynamics of the founding team and their ability to listen to feedback is key now....

Burda:

<Laugh>. Wow. Yeah. Yeah. <laugh>.

Murchinson:

I mean, it was a really, really harsh, harsh take.

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Johnson:

No bitterness there. Wow. Yeah.

Murchinson:

So I mean, it's possible that it wasn't just, you know, the science that was the downfall, that it was leadership and culture. And lastly, I'm gonna get back to what we talked about years ago. You know, and let's say 2021, 2020-2021, when everyone, you know, companies are SPACing like two to three times a week, 23& Me went out as a SPAC. And, you know, Ann is undoubtedly a, a hugely big thinker, but the SPAC gave the company this temporarily bloated balance sheet to do big, big things beyond building the core company. They developed not only drugs, but they tried to develop cancer immunotherapies, which are among the most expensive medicines to develop. They bought a telehealth company. I mean, they made some big moves in a time when you know, <laugh> stock prices for digital health plummeted pretty quickly. And the last thing that got me, Wall Street Journal reporter ROL Winkler talked about how he pushed Ann in an interview on the projection she made during the spac. And she said that she never made projections. So then he pulled out the SPAC document and showed her, and she looked at it for a while, and then she finally said, well, I guess we were wrong. <Laugh>.

Burda:

Oh, goodness.

Johnson:

Yeah.

Burda:

Goodness. Well, I guess their journey will be taught in business school, right? Or deserve a chapter in a future book. Thanks, Julie. Dave, any questions for Julie?

Johnson:

Julie, do you buy that big pharma investment in 2018 from Genentech and GSK is a big part of what got the company's valuation into the stratosphere? If the underlying genetic data was truly valuable, wouldn't Big Pharma be salivating to own and use it? Could it be that the vision, while noble was simply too big or maybe not important enough? What do you think?

Murchinson:

Yeah, I go back to business model wise. You know, it seems like the, the data collected wasn't valuable enough. It was in a time when digital health information, which, you know, when you think about what real world evidence is today your healthcare information, your environmental, and other information, it takes a lot more information to actually do what the pharma companies wanna do with real world evidence to think about drug development differently. So I think the timing and the business model created issues. I mean, they were never really able to collect not only the depth of data, but ongoing data as science was evolving, you know, they would have to send new tests out and sometimes charge people, upsell people into tests. And that's not a, it's not a business model where you can actually, maybe you can drive revenue, but it's very, very hard to make margin. They couldn't profit from wellness.

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Burda:

Yeah. Thanks Julie. For me, finding out that I was Irish was good enough, and I don't need to know anything else about myself that I don't already know. There you have it, right? <Laugh>. Go ahead, Dave, what were you gonna say?

Johnson:

Well, I'm just wondering if there's a genetic predisposition for becoming a Packers fan. 'cause if there is you game fan <laugh>

Burda:

<Laugh> there probably is. There probably is. All right, thanks Dave, and thanks Julie. Great discussion. Let's talk about other things that happened in healthcare this week. Was an all bad, was it, or maybe it was Julie, what else happened in healthcare this week that we should know about?

Murchinson:

Well, on a different side of data difficulty there was an article that several states are now considering regulating how insurers can use AI and prior authorization. And it seems like a lot of states have followed in California's footsteps, Illinois, Georgia, Texas, Rhode Island, Minnesota, Florida. So we're gonna see the pendulum swing, perhaps a little far on this.

Burda:

Yeah. Yeah. Could be an overreach you know, killing efficiency for the wrong reasons. Dave, what else happened in healthcare that we should know about?

Johnson:

Well, it's, it's hard not to focus on all the cuts. At HHS that got announced Tuesday they're taking the workforce down from 82,000 to 62,000. So fully a quarter of the people. It happened to be the first day on the job for Marty Macy at FDA and Jay Baccalaria at NIH. You know, the FDA's losing 3,500 people. CDC is losing 2,400 people. I've started to think about the government in terms of biological terms metabolism, homeostasis, that type of thing. And the metabolism is way outta whack right now. We're really upsetting the functioning of these vital agencies. I hope there's a vision there. I suspect there's not, other than kind of a meat cleaver and getting centralized control over these functions, but lots of senior people fired lots of expertise out the door. Let's watch and see how the story unfolds.

Burda:

Yeah, yeah. It was quite shocking. Thanks, Dave. Thanks, Julie. That is all the time we have for today. If you'd like to learn more about the topics we discussed on today's show, please visit our website@ 4sighthealth.com. You also can subscribe to the roundup on Spotify, Apple Podcast, YouTube, or wherever you listen to your favorite podcasts. Don't miss another segment of the best 20 minutes in healthcare. Thanks for listening. I'm Dave Burda for 4sight Health.