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**David Burda:**

Welcome to the 4sight Health Roundup podcast, 4sight Health podcast series for healthcare revolutionaries, outcomes matter. Customers count and value rules. Hello again, everyone. This is Dave Burda, news editor at 4sight Health. It is Thursday, August 15th. School started yesterday in District 200 where I live. There is joy throughout the land. There will be many empty wine bottles in recycling bins on Monday's garbage pickup. I am not sure what the opposite of joy is, but we're gonna talk about it on today's show when we break down two new reports on the leading causes of death in the US and around the world. Outcomes matter. To tell us what the statistics say about our healthcare system are Dave Johnson, founder and CEO of 4sight Health, and Julie Murchinson, partner at Transformation Capital. Hi Dave. Hi, Julie. How are you two doing this morning, Dave?

**David W. Johnson:**

I don't know about the two of you, but I am dying to get started. Literally, <laugh>.

**Burda:**

Oh, I should have saw that one coming. Thanks, Dave. Julie, how are you?

**Julie Murchinson:**

<imitates drum roll>. <Laugh> good. I'm now enjoying the Olympic social coverage since I don't have Olympics anymore, and I'm ready actually thinking the Paralympics could be amazing.

**Burda:**

What Leading Causes of Death Say About the Healthcare System

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Well we're not getting any younger, oh, maybe you are Julie, David and I aren't. So let's skip the icebreaker today and get right to our topic, the leading causes of death in the US and globally. That's a nice follow up to our show last week on whether we're getting the right bang for our buck on cancer screenings. The new stats come to us, courtesy of two new reports, one from the CDC published August 8th, and the leading causes of death in the US, the other from the World Health Organization, published August 7th, and the leading causes of deaths worldwide. I'm gonna give you some of the top line findings of each, and you're gonna tell me what they say about the healthcare systems here and in other countries. The data in the CDC report is from 2023. It said about 3.1 million people died in the US in 2023. That's down from about 3.3 million in 2022. The 10 leading causes of death in 2023 were heart disease, cancer, unintentional injury, stroke, chronic lower respiratory diseases, Alzheimer's disease, diabetes, kidney disease, chronic liver disease, and cirrhosis, and COVID-19. The big news, of course, was covid dropping from number four in 2022 to number 10 last year. The data in the WHO report is from 2021 or two years earlier than the data in the CDC report. The WHO report said about 68.3 million people died worldwide in 2021. That's a nearly 33% jump from about 51.5 million in 2020. Obviously, that's because of covid. The 10 leading causes of death globally in 2021 were heart disease, covid stroke, chronic obstructive pulmonary disease, lower respiratory infections, trachea, bronchus, and lung cancers, Alzheimer's disease, diabetes, kidney disease, and tuberculosis. Dave, what struck you about the differences and similarities between these two rankings? What are the rankings say about the performance of our healthcare systems in terms of preventing these causes? And from a policy perspective, where would you attack these lists first?

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**Johnson:**

Well, before I get to those questions. The, 'we aren't getting any younger' comment is still dangling out there, Dave, from, from your opening remarks. And as certainly you and Julie know but I don't think we've shared this with the audience yet. One of our writers, Keith Hollihan and I are writing a book about Optispan, the science and practice of optimizing health and extending life. And there is this concept of biological age as well as chronological age. And I'm doing everything I can to lower my biological age, so <laugh> and now I'm gonna have, have a chance to, to write a book about it. So anyway, let's, let's all take up that challenge. But back to the question at hand. What do the list tell us? I'd say the biggest lesson or, or conclusion that comes out of comparing these studies is that chronic conditions are far and away the number one killer of human beings across the planet, and most particularly in these United States. Your second question what do these numbers say about prevention or these lists of, of causes and rankings, about causes of death, say, about prevention, not a goddamn thing <laugh>, they really don't <laugh>. And what you really have to do is start looking at some of the, the public health statistics on longevity and health status. And that's where you see that despite all of the funding into medical research that occurs in the United States, and certainly the money we spend on healthcare, we actually underperform at least other advanced economies, other high income countries when it, when it comes to prevention, health status, general public health. Now I'm gonna use the rest of my time here to talk about this vigorous debate that's occurring regarding the NIH funding and its effectiveness. There's a doctor from Harvard Medical School... MD PhD from Harvard Medical School; that in the hierarchy is as high as you can go in medicine, the MD PhDs. And he testified in Congress last year that we should double the NIH budget. So it's roughly 50 billion now, you know, take it up to a

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hundred billion. And in doing that, we should make it more effective. And he had a number of ideas about how to do that. And it included coupling with the government becoming a better buyer of of drugs, basically drugs and devices. In a response, another MD PhD, Bob Sampat, who's at ASU, but formerly was at Columbia, made this really kind of remarkable statement. As I've written elsewhere, the NIH budget has increased a thousand fold in real terms since the end of World War II. But knowledge of how to most effectively spend the funds to generate meaningful medical treatments, or for that matter, even the best science has increased very little. So increase the budget, sure. But couple that increase with more investments in learning how to best spend the funds to promote scientific progress, development of meaningful drugs and other innovations, and improved health. <Laugh>,I wanna emphasize those last two words, improved health you know, thousand fold increase since the end of World War II. We doubled it between the the Clinton and Bush administration in 1998 to 2003. And Biden has doubled down on cancer moonshot and other things. But we really haven't made meaningful progress in how to improve health as Dr. Sampat makes very evident. So just to wrap it all up here Dave, 'cause you asked about where we should put our priorities when it comes to medical research and medical spending funding. It really comes down to investing more in understanding what promotes health and the broader public health so that we can spend less on healthcare.

**Burda:**

Thanks. Julie, any questions for Dave?

**Murchinson:**

Dave, great analysis. You know, I did some quick Googling and it tells me that NIH funds Alzheimer's, the tune of almost \$4 billion a year,

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while heart disease is sitting at under three in 2023 at least. And Alzheimer's is undoubtedly a big issue, but as you talked about, heart disease is the big issue. So why, why are we doing this? I know, I know N-A-N-I-H funding isn't everything, but are we funding the right things at the right level?

**Johnson:**

It doesn't bother me that much. We basically know what causes heart disease. We even know how to prevent it. You know, usually lifestyle modification eat less, exercise more, eat better are keys to preventing heart disease in the first place, and to recovering after the fact. Not to mention the pharmacological solutions to addressing heart disease are pretty well developed at this point. So I, I guess I'd argue that relative to heart disease, our understanding of Alzheimer's and what causes it is significantly less and therefore deserving of more research. But I will tell you, I mean, how many drugs have we tried to promote, or the life sciences industry is, has experimented with to reduce Alzheimer's, the incidence of Alzheimer's. And it's still increasing. And I believe that probably the most effective way to treat these neurological diseases which are chronic in nature, is through lifestyle modification, earlier diagnosis. And that finding a magic drug probably doesn't exist. It's a complex disease with multiple origins, therefore, you need a, a systematic biological response to treat it. So we may be spending double on Alzheimer's, and probably should but are, as I sort of pointed out in my main response, are we spending it on the right things? And my guess there is, it's a categorical no.

**Burda:**

Maybe it's because people are more afraid to die of Alzheimer's than they are of heart disease.

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**Johnson:**

<Laugh>. Yeah. Right. But I gotta tell you, the public is much more sympathetic to people with heart disease than they are to people with Alzheimer's. Yeah.

**Burda:**

Yeah. I think that's true. Thanks, Dave. Julie, it's your turn. Same three questions. What struck you about the differences in similarities between the rankings? What do the rankings say about our ability to prevent these causes? And from a market innovation perspective, what would you attack first?

**Murchinson:**

Well, it's pretty clear that if you have heart disease, stroke, some sort of respiratory infection or disease, Alzheimer's, diabetes or kidney disease, anywhere in the world, you're in trouble. <Laugh>, these are bad. And to Dave's point, you know, heart disease and stroke, we can do so much more there. Er, trouble talks about how these diseases take more than two decades to get rooted, and about 80% of them are preventable. So <laugh>, the fact that they're still top of the list is, is concerning. And number nine is chronic liver disease and cirrhosis. We all know what that means, right? And this increased 15.3% from 2019 to 2023. So we clearly have, you know, gone off the deep end a little bit during the covid years, which is not surprising. Two pieces of good news here. Suicide moves off the top 10 list in 2020 and remains that way. So that's fantastic. And second piece of good news, I'll just give a shout out to my friend and fabulous healthcare aficionado. Lisa Sunan is the new MD of the American Heart Ventures, which is, you know, pulling together a lot of the innovative funding that a HA spends to transform all of what it

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does into impact for patients in healthcare. So if anyone can help us in a heart disease, it is Lisa. And here's the bad news. Asaf Bitton who's from Harvard, MGH, incredible guy. I really enjoy getting to know him. On the NCQA board, he ties our overall failing life expectancy to our failure to treat patients in a timely manner. And starting with primary care. Primary care is definitely his, his thing. And he says that we hadn't been managing our chronic conditions very well over the last five years, which I think we all know, but we know how to do better cardiology, outpatient care. But health systems need to focus to really invest in the promises of improving healthcare in places like primary care and others. And this quote from, as I love, in the absence of a better system for delivering care, we're going to see the rebound of the nasty chronic conditions take their horrible toll in an inequitable way. And we're gonna basically leave a lot of preventable mortality on the table. Now, that's a powerful quote. So I wanted to drill down a little bit into this category. That is the top number three on the US list, unintentional injury. Now, this category, according to CVS Health Watch has surged, you know, in recent years, mainly due to drug overdoses. And it's the third highest category death, I mean, the third ahead of diabetes. Now, of course, this is a catch-all that's gonna be unbundled if we're ever gonna be able to take action on it. I mean, what are we doing with this category? Anyway, unintended <laugh> for unintentional injury, but from 1999 to 2022, drug overdose death rose with 107, almost 108,000 drug overdose deaths in 2022. Now, deaths involving synthetic opioids, which is effectively fentanyl, rose over seven and a half fold from 2015 to 2022. Now, those deaths involving stimulants like cocaine or psycho stimulants, mostly meth, also rose. Fewer deaths, 27 or almost 2028. And 34,000 respective deaths in 2022. So, you know, these numbers are small compared to what we're seeing in other categories, but these overdose deaths are, as we've talked about before, certainly on the rise.

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So I'd personally love to see us dig in more to what is an unintentional death and what are the drivers here, and what is this category? It's, it's like a fake category.

**Burda:**

Yeah, it just screams prevention, right? Yeah, staring you right in the face. Thanks, Julie. Dave, any questions for Julie?

**Johnson:**

Like you, I kind of went into the NIH funding patterns and funding medical research is clearly a national priority. It's at the highest levels ever, roughly 50 billion per year. And there's a debate about should we even, you know, double it from there which I talked about in, in my main response. Julie, as I looked at these numbers of the 50 billion, approximately 3% goes to fund public health research the rest of the funds or the rest fund disease specific research. Is that the right ratio, or should more funding be directed into public health and preventive care research? You probably know how I come out on this question.

**Murchinson:**

Yeah. There's so many ways I could look at that question. I mean, yes, we should be spending a lot more on public health, and I think most people agree on that. So I'm actually surprised that we're not seeing some shift in these numbers. You know, NIH knows how to fund science, and part of the statement they could be making is that science equals prevention. Like what's happening with curative or almost curative drugs now and prevention through health management, or, you know, change in health delivery or god forbid process. I mean, that's just, that's just too hard. Why fund research there? Right? Another way



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to look at it is that curing sexy diseases like Alzheimer's, you know, often extends life. But is it really good quality Life is NIH funding effectively longevity and possibly, right? It's not funding good quality life necessarily today for all people in an equitable way. It's funding extending our lives in very, like, sexy savior oriented ways. So yeah, I think it's problematic.

**Burda:**

The image of soylent green just appeared in my mind. <Laugh>

**Johnson:**

<laugh>. Soylent is people!

**Burda:**

...people, right? I'm gonna have to make my kids watch that with me, right? And then make 'em listen to this podcast. That's gonna be great. Yeah.

**Murchinson:**

Yeah. They love that.

**Burda:**

Come on over. We'll get some pizza.

**Murchinson:**

My kids love the podcast.

**Burda:**

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Yeah. Yeah. We, after this, we can't get pizza or wings. We'll have to get something. Get some...

**Murchinson:**

Celery.

**Burda:**

Yes. <laugh>. Lot of celery. Yeah, lot of celery. What struck me is how similar the causes were here and around the world. You know, we like to say we have the best healthcare system in the world, but we're dying of exactly the same thing. So no gold medal for us. Now, let's talk about other big healthcare news that happened this past week. It wasn't all bad, was it, Julie? What else happened that we should know about?

**Murchinson:**

It's honestly hard to talk about something else after talking about death, but <laugh> you know, the m and a markets saw a little action this week. We had a couple unlikely suspects, Hearst and Stryker acquire some companies. And shout out to our podcast friend, Bruce Brandis who is at Care AI that Stryker acquired. Seems like a somewhat odd couple, but also kind of completely logical at the same time. Stryker sells, you know, communications and other infrastructure to health systems. So why not embed and be listening. Makes sense.

**Burda:**

Yeah. smart hospital beds. Here they come. <Laugh>, right? Dave, what other news is worth mentioning?

**Johnson:**

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You know, this doesn't happen very often, but Julie and I picked the same item. I was looking at the Stryker acquisition of Care AI as well, in part because Bruce Brandis, the president of Care AI, is one of our healthcare revolutionaries and an absolutely fantastic guy. The only thing I really have to add to Julie's comments is I went on the Stryker website and on their homepage, this is what they have at the very top: the strategy, the solution, the financing. Stryker's ASC ambulatory Surgery center business delivers it all. Understanding your challenges, delivering tailored solutions. That's what we do. So when you think about Care AI being a smart hospital company and you got Stryker doubling down on ASCs I think this is indicative of where the marketplace is going. Smart ASCs and probably does not auger well for the traditional even higher cost hospital based facilities or real hospital based facilities. So, interesting decision by Stryker to get into the smart hospital business. And I think they're trying to capitalize on this dramatic move into ambulatory surgery center investment.

**Burda:**

Well, I hope we live long enough to see it, right? Thanks Dave. And 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 at [4sighthealth.com](http://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.