THE LONGEVITY BET: WHERE EVIDENCE MEETS INVESTMENT

Allison Aubrey 00:01

All right. Good afternoon, everybody. I'm Allison Aubrey, longtime science and health correspondent at NPR and a contributor to *CBS Sunday Morning*. I'm also the author of the new national bestseller, *Your Turn*, which is all about how to create a midlife you love after 50 and how to thrive as you age. As part of writing my book, I visited the Potocsnak Longevity Institute at Northwestern University. I rolled up my sleeve, gave blood, asked the cardiologist, "What are you doing with this blood?" And he said, "I'm going to measure your GrimAge score." Now, for anyone who does not know what that is, it is a DNA methylation test. This is something that scientists use to assess patterns of changes in your DNA that might correspond with wear and tear. It gives you a sense of your epigenetic age, or your rate of aging, supposedly, compared to your chronological age, which is the age stamped on your birth certificate. To my great surprise, I found out that I was an estimated eight years younger in epigenetic age than in chronological age. And before we all get excited, not everybody on this panel believes that these tests actually work.

Abby Levy 01:13

Yes.

Allison Aubrey 01:13

But what I learned and got excited about, it was sort of like, what's the science behind this? The science led me to some very predictable places that we all know about, if you know about lifestyle medicine. This has a lot to do with: Are you exercising? Are you eating well? Are you sleeping well? All the predictable things, and a few surprising places. Most recently, researchers at University College London, after studying thousands of older people, found that people who are more likely to engage with the arts each day—so making something, painting, dancing, gardening, culinary arts, going to a museum—that their rate of epigenetic aging or biological aging was slowed by about four percent compared to their same-aged peers, which seemed to be on par with exercise. So, a fascinating correlation to think about this idea of the importance of connection and creativity when we start talking about the basket of habits that lead to thriving as we age. Now, I do not think that a test that can estimate my epigenetic age is life-shattering or transformative. It's interesting, but think about keeping an 80-year-old in their home safely, to age in place safely. Well, that is transformative, right? So, getting from one—these kinds of tests and new science about how do we evaluate the rate of aging—getting from that to this transformation of creating a society where

an 80-year-old can age in place safely, that is transformation. And it takes a lot more than good science. As all of you know, it takes tech infrastructure, it takes new payment models. It probably takes new ways of caring for people, and that's what we're going to dig into in this panel today. Where are the biggest opportunities in aging and longevity, and what will it take to reach older adults at scale, not just those who can pay out of pocket? I could not ask for a better panel here. Abby Miller Levy is managing partner and cofounder of Primetime Partners, an early-stage venture fund that invests only in companies serving older adults. Peter Kaldes is president and CEO of Next50, a foundation working to build a world that values aging. Dr. David Luu is a cardiac surgeon who founded Longevity Docs, a global network of physicians practicing longevity medicine. And Dr. Nirav Shah is a senior scholar at Stanford, focusing on improving health care, lowering costs, and bringing digital technology into care. I want to start with a lightning round, and each of you can fill in the blanks with a few sentences. When I ask this question, tell me what picture comes to your mind. In a sentence or two, what does the future of aging and longevity look like? And we'll start with you, Peter.

Peter Kaldes 04:29

Well, I hope it doesn't look like what it looks like now. I just want to start with that, because we need to change that. I think a future of aging and longevity is one where we're celebrated for our wrinkles and our gray hair. And we can live in our homes till the day we die. Very simple.

Allison Aubrey 04:47

Alright, Abby.

Abby Levy 04:49

I think it would be amazing if we had a national discourse that was pro-aging and not anti-aging. And so, an embodiment of that would be not asking someone, "Hey, how are you? How are you?" "Hey, Peter, how are you aging?" "Oh, how are you aging?" Because the more we can destigmatize it and talk about it and be action-oriented, that is how we make progress. And right now, it is pushed under the rug and not discussed.

Allison Aubrey 05:16

David.

David Luu 05:18

And so, just imagine you wake up, your mirror listens to your voice, sees your face, analyzes continuous biomarkers, and tells you what to do before disease appears, a long time before. And the other part of the world is where we see every single doctor being a longevity doctor, focused not only on the time you live with good health, but as well focused on the disease when it occurs. So, two sides of the story: who I am as an individual and who I am as a doctor.

Allison Aubrey 05:55

Nirav.

Nirav Shah 05:57

I'm going to paraphrase Chris Rock, who's said that he believes there's two types of people left in America. The people who order delivery and the people who deliver orders. And I'm hoping that what we see with aging and longevity is not that future, is that everyone benefits, and it's up to us to make sure that all of the things that we're excited about reaches everyone.

Allison Aubrey 06:22

Excellent. All right, Abby, first question to you. So, you're building a portfolio across FinTech, health care, media. How are those fields coming together or not coming together to invest in this broader infrastructure to support an aging society?

Abby Levy 06:40

I wish I could have better news on a Friday afternoon. But I think we're still at the point of point solutions, where we've got, on the positive side, an increasing number of founders who are designing for this space. We've looked at about 3,500 companies over the past six years, and the pace of company formation driven by AI, because it's—my 18-year-old son has started two businesses—it's just a lot easier to build businesses these days. And so, we have amazing entrepreneurs across all of those fields, but we're still at the point where it is individual solutions with a hammer on a nail. And so, I think the opportunity is to do, in some ways, what Peter's doing, which is to say, okay, how do we create networks and relationships across these different pieces? And that's going to require policy, philanthropy, and the private sector, not just the private sector. So, upside, lots of innovation. Downside, still very fragmented.

Allison Aubrey 07:38

Got it. Peter, so what are the ways to sort of catalyze capital into these areas that have really historically not prioritized aging?

Peter Kaldes 07:49

Yeah. We, as a private foundation, we sit in this very privileged position where we have an endowment, and typically philanthropy will give out five percent of that endowment to grants and nonprofit organizations. Just last year, we at Next50 decided, nope, that's not enough. We need to unleash the entirety of our endowment and align it with our mission and invest in aging. So, what does that mean? That means we will invest in the four key pillars of aging that we know science has demonstrated we need to invest in order to succeed and to age well. One is health care, economic opportunity, social connectivity, which you referenced, as well as the built environment. So, what we do is we invest across publicly traded entities as well as the private market in things that support each of those four pillars. And what we hope is, by leading by example, that we're able to catalyze more philanthropic capital, because, as we all know, there is plenty of it to go around, and that we can actually get policymakers to come into aging and actually deal with the demographic realities of today.

Allison Aubrey 09:01

Hmm. We'll come back to that. David, you have built one of the largest networks of longevity doctors. What are you seeing right now? Where is longevity medicine working, and how is it different than just any doctor seeing an aging patient?

David Luu 09:17

What I think is really interesting, it wasn't the largest when it started. It was a few doctors on a WhatsApp group, and all of a sudden, now it's more than 1,000 across the globe in 68 countries. But what I can tell you is the mission about those doctors is exactly the same as when I started med school. It's to take care of patients, making sure they're healthy, and they have everything in line in their life to live a great life. But what is changing, basically, is they understood that they cannot wait for the disease anymore. And there's tools that exist today. So, I'm not wearing my wearables today, but do you have wearables here? Like, who has wearables? Okay, a lot of people. Who knows the lipoprotein(a)? No one? Two? Three? Five.

Allison Aubrey 10:03

Say it again, the lipo—

Nirav Shah 10:05

Lipoprotein.

David Luu 10:08

It's a genetic biomarker for cholesterol. And so, you see, what is really interesting is the wearables is winning in terms of adoption. But the lipoprotein(a), this biomarker, is the most important biomarker to change your behavior, to change your outcomes. And so, what I think is really important is that we define exactly what works or not. So, the way I think about—

Allison Aubrey 10:32

But lowering Lp(a) might not actually decrease the risk of heart attacks, according to recent findings.

David Luu 10:39

You're right. On the clinical trial, the drug didn't reduce the adverse effect. But we know it's a risk factor, right? So, that's validated. What is really important is to see, I think, longevity medicine as a house, right? You need a strong foundation, you need walls, and sometimes you need an 8K, 100-inch screen on those walls. So, the foundation are like those top biomarkers, the lifestyle. The walls is detecting the disease before it happens. And the screen, this beautiful screen that you can put on this wall if it's not broken, is the latest things. I know we talk about supplement, peptide, and all of that. I think it's important to have those discussion. You do not want to put the new screen on the broken wall. Right? And so, I have this image, because the patient obviously wants the latest shiny object. So, think about the foundation first. That's what longevity medicine is about. Foundation, robust walls, and maybe later, the nice furniture.

Allison Aubrey 11:46

Nirav, a lot of people in midlife are using these preventive tools, using wearables to track metrics. They're taking expensive tests like the GrimAge score, or others like them. How is it possible to tell the difference between just paying for an expensive number, versus paying for something that's actually helpful?

Nirav Shah 12:11

That's a great question, and we like simple answers. Back in the day, it was something called RealAge, way back then, where you could just get a number and it says you're older or you're younger because of how you are living your life. And sadly, it's not as easy as that. We know what works. We do know that exercise and good food—nonprocessed food, if Kaylee's in the audience here—make a big difference. And so, we have to be very careful because we like to chase after these shiny objects, a simple number, an epigenetic score that says you're eight years younger. Well, in a study that was published a few years back, that same test done twice in the same person was off by eight years. Nine years, actually, in that one—

Allison Aubrey 13:00

No, you mean so I'm actually my actual age?

Nirav Shah 13:03

Fair enough. So, if the number's lower than your actual age, you're happy. But we know, for example, we should measure function. We have these Fitbits. We know that maybe how you slow down in your walking speed, how you sleep, all of those things matter. We haven't done the studies because they're not sexy, they're not funded by pharma, and it's not really exciting to talk about.

Allison Aubrey 13:25

Not a big profit margin in lifestyle medicine.

Nirav Shah 13:28

Exactly. That's why.

Allison Aubrey 13:29

Yeah. Abby, as you think about this and investing in this space for nearly a decade, and think about your own aging process and the questions your friends ask you and you're asking of yourself, the importance of lifestyle medicine, what is it that you would like to see happen in terms of scaling up or adoption? You talked about so many different points of innovation, but what would you like to see happen that's not happening?

Abby Levy 13:55

I think two things. One is something that David is working on, which is the ability to equip our medical community with up-to-date knowledge. And we've seen this now in menopause, where less than one in five OB-GYNs were ever trained in menopause. And we've had, thanks to many companies—and I see one of the cofounders of Midi here—the ability to get information and have trained providers distribute that information to their patients. And so, I think part of this is around how we modernize our provider and our

care community, and I think that there's a piece of that. And through David, I actually found my longevity doctor. And so, I would say, just to answer the question on David's behalf of what's the difference, the difference was I got my blood tested every year by my GP, and it was the longevity doctor referred to by David who said to me, "Your vegetables. You clearly aren't eating enough vegetables." I was like, "What do you mean? I have salad every day." Well, this biomarker, I forget what number it was, was very low. And he's like, "Well, what kind of lettuce do you eat?" I was like, "Well, romaine." He goes, "No, no, no. That's not a green vegetable." So, I've switched to spinach and arugula. But my point is, and to Nirav's point, these are very simple things, but if our medical community isn't educating the patient and we're relying on our wearables, they don't provide care. You still need a care layer. So, I'm very excited about innovations in the care layer. I'm very interested in, as well, on the biomarker front, that there still—while we all are raising our hands—older adults, in general, are not capturing this information. So, we have essentially people ages 30 to 50, whatever, 18 to 50, who are taking advantage of all the wearables and all of these things, but not an audience that could benefit from it. And so, I've also been interested in models where it's about getting—either through senior living or through other means, family members—making sure that there's distribution of innovation to a population that could really benefit from it.

Allison Aubrey 16:09

Peter, you have said that doctors too often mistake age for a diagnosis. Aging is not a disease. What do you mean by that, and what does that look like in practice that you believe needs to change?

Peter Kaldes 16:24

Well, let me start by referring everyone to the *Power of Ideas* essay that I was fortunate to write here at Milken because, candidly, it shares my father's personal—my story with my father's pancreatic cancer diagnosis, which was missed for all sorts of reasons, including, I would argue, ageism in the health-care system. So, as we talk about ways doctors could inform patients, I would argue we need doctors to be informed about aging, period. We don't have enough geriatricians in this country. There are about 100 in the entire state of Colorado, and yet Colorado, surprise, actually has more people over 60 than under 18 right now. So, we need more time and more academic focus and a real investment in education so that these doctors can then pass on that knowledge to older adults. And as for the point about age is not a diagnosis, it really comes down to checking your assumptions about not just your own care, but what is the doctor assuming about you because of a certain chronological age or a fake, made-up RealAge. I would argue we really need more studies of older adults and the way they deal with chronic diseases and whatever disease we're studying. Cancer studies notoriously skew younger, and yet pancreatic cancer, in the case of my father, he got it when he was 72. And the cutoff for pancreatic cancer tests or trials is 65. So, what are we doing? So, I think if I had to summarize, we have to invest in the health-care system and more health-care workers who are trained to deal with a longer life.

Allison Aubrey 18:21

David, I want to talk a little bit about your longevity canvas, which sort of puts things like purpose, legacy, connection next to biology in terms of importance. Why do those things belong in longevity care or a longevity plan?

David Luu 18:40

First of all, why create this canvas, right? I was at a conference, even with Abby in the audience, and I was asking, "Who has a business plan?" And most people raised their hand. If I ask you today, "Do you have a longevity plan?" Who has one? Okay. Good. It's a pretty good room. And so, no one had a longevity plan. And so, we were seeing the same for our patient. And so, basically, we converted the hour-long interview we were having with our patient, asking for their dog or their hobby, obviously the family history, their community, what they like to do as altruism and volunteer action. And we realized that there's a lot of intangible that we don't measure. So, we, as doctors, we're so good at ordering the CT scan and looking at the artery and the function of the heart. But the function of a family? Zero. And by the way, I never had any training about that, right? So, how do I even talk to the patient? And, Peter, you were saying, how do we communicate and educate on aging? It's like, how do we even communicate as doctors? I can tell you, the first time I was on the stage, I was sweating more than in the operating room, right? And so, we're not even trained to educate. So, what I realized is we have to simplify education on health. And so, this canvas, Allison, you were talking about two big pillars, I think, and probably more important, the biology. Biology is only one pillar. There are 10 pillars, and purpose is one, legacy is the other one. Why? If you have a lower purpose in life, you have two times more chance of dying, right? The mortality—increase your mortality by twofold. That's important, right? Number two, smoke—isolation kills more than smoking 15 cigarettes a day. Surgeon general.

Allison Aubrey 20:42

Yeah.

David Luu 20:43

Now, one thing I love the most is legacy. You were asking for legacy. Why? Because when you have a patient, you don't ask them, "What is your goal?" And he answers, "I want to clean my coronary artery." I never had this answer, ever. So, if you talk about longevity, you have to inspire them to look at the future. You have to project them in an image where they feel they're going to be inspired. They're going to have a lot of incentive to reach this objective. So, what I tell them to do, and I encourage everyone to do that, write your eulogy. How do you want to be when you die? So, it's really—talking about longevity, it is hard. When you write your eulogy, you understand your virtue. You understand who you are, where you want to be. And I can tell you, probably no one will ever say, "I want to increase my biometrics," my biomarker or my biological clock. What people want is having legs to walk. Having a brain to be able to take care of their children. Having values that they can share, and principle. And they want to have, as well, a community that they can share a meal with. That's mainly what they want. And so, by doing that, Allison, you have this canvas where now biology is only a box. Then legacy is another one. That's your objective. And the purpose. And many others, of course. Lifestyle, your environment is really important, depending on where you live. We know the ZIP code, which is highly associated with your paycheck, by the way. They say ZIP code, but it's how much you make, actually, that's really important. It is probably the number one social determinant of health, and therefore longevity. I think we have to almost reframe what is longevity medicine to incorporate new type of score, new type of biomarkers, new type of metrics that we can all measure, without having to go to a doctor and to do amazing clocks, which some of them I believe in, for some indication. So, I think it is important. Always consider the intangible, and one day I hope we'll be able to measure our social connection, our purpose, and the good we do in the world.

Allison Aubrey 23:01

And the body of evidence on the importance of a sense of purpose is gathering steam much bigger than it was five years ago. There was a lovely study published last fall, a year ago, 2025, from UC, that found people who said that their sense of purpose was quite high, that correlated with a lower risk of dementia by almost 30 percent.

Abby Levy 23:22

And to put a finer point on that, since we are in DC, if you look at what CMS is reimbursing, it was only a few years ago that SDOH was reimbursed, but recently the community health worker, CHI codes—which again reinforce people in the community helping older adults make connections to other older adults. And so, we're making progress, I think, and the ultimate proof point is if policy can follow with reimbursement. And so, I think that's a bit of a hopefully a silver lining that every administration keeps.

Allison Aubrey 23:53

Mm. Nirav, I want you to bring Silicon Valley into this. I don't know if Silicon Valley can help with purpose, maybe. What are your thoughts as you listen to this?

Nirav Shah 24:01

Yeah. I think that we, like—let me call it a bubble within a bubble. That's what Silicon Valley is. We see things, we see people getting $7 million individualized cancer vaccines from China. Literally. We see—a lot of the bets are made around where the biggest dollars are going to be made. Unfortunately, Silicon Valley is very good at giving people what they want, but not then measuring really what matters and what the outcomes are. And that's where the opportunities lie. And I think that those who bet on measuring what matters over time are the ones who are going to have durable, lasting companies that win. So, I'm hopeful. I'm an optimist. I'm still living there. But—

David Luu 24:46

Good for longevity, optimism.

Nirav Shah 24:48

Yeah. But look, I'll give you an example. Like, *JAMA*, we published a study last year in *JAMA* about all the studies that were done around ChatGPT use in health care. And out of 590 studies, only five of those studies actually studied humans. This is a problem. So, if you're ChatGPT or OpenAI or any of the companies, maybe we should study the impact on humans rather than just get another published paper that says these things are good. Because most Americans are using those for all their health-care questions almost every day at this point. And we have no idea today if it's helping, if it's hurting. People are talking about chatbots. Are those chatbots increasing social isolation, or are they helping certain people? For my father with end-stage dementia who wants to hear the same story 40 times a day, it is perfect for him. And it's not for a lot of other people who then say, "This person's nice to me. It's an AI bot. I don't actually want to talk to my family because I'm spending five hours with this chatbot."

Allison Aubrey 25:51

Who always compliments me. Yeah. Peter, if the US set a national longevity goal or plan, as Singapore, Japan, South Korea have done, what do you think it should look like?

Peter Kaldes 26:07

Well, for starters, it should look like what a lot of states are doing right now, which is something called multisector plans for aging, which, for the most part, are basically policy maps for how various state agencies can engage on aging regardless of your jurisdiction. So, it's not all in the health department. It could be in the Department of Transport or Education. I think it also would require that DC actually poke through those couple of bubbles in Silicon Valley and get Silicon Valley to actually hire older workers. At Next50, we actually don't invest in any publicly traded company that doesn't meet at least the national average of a 50-plus workforce. In other words, if a company does not have national data, or data reflecting the national average, they're laggards in our portfolio. We just kick them out. But in addition, if they are tinkering with, oh, I don't know, actuarial data so that they don't pay full pensions and rely on 1970s data to pay pensions for today, we don't invest in them either. So, I think it's got to be a multipronged approach, which I think the multisector plans for aging offer. But I think a critique of those is that they don't engage the private sector enough, and I think we have an opportunity for that. And I know Singapore—I was just actually in the Asia-Pacific region attending a conference that the Chinese put on, and they have a plan around aging that looks at it through the lens, not just of dependency ratios and that all this doom and gloom is going to happen, but actually as an economic development opportunity. And I think that's what we need to do to really transform how we view aging. But it's not going to happen with just one action. It's got to be multitiered.

Allison Aubrey 27:56

Abby, how would this galvanize your ability as an investor to have impact if there were these multi-sectoral plans, like these state plans, or if we had a national longevity plan?

Abby Levy 28:10

I think retirement is an interesting use case, if you will. Because as everyone knows, we went from pension plans to defined contribution and 401(k)s, and not directly as a result, but data says that about half of Americans are going to run out of money. A large portion of them would've anyway because of where they started from, but that we are woefully undersaved for our retirement. And so, the question then becomes, if you think about what we can do at a national level in terms of policy for employers requiring people to contribute to 401(k)s, or better yet, having it be an opt-out. That's not even required right now. So, imagine the difference if you had a policy that said, "Your employees have to opt out of a box that's already checked that says you must contribute to a 401(k)." We would have dramatically different retirement savings if we didn't allow people to pull out of their retirement savings for a lot of use cases that we do right now. So, that's an example of if we had really a national discourse—and there are some policymakers having this discourse—but we know there's a correlation between wealth and health. And the number one reason why older adults do not take their medication—everybody know this?—is because they feel like they can't afford it, and so they stretch it out. Even with the low copays we have with Medicare. So, if we can't fix the financial longevity question, how can we fix the health longevity question? So, when I look at this for investing in start-ups, about 20 percent of our portfolio are FinTech-related. But really hard to survive without the policy support. Because at the end of the day, FinTech is distributed through employers. That's how most of our, frankly, health and wealth is distributed, is through employers

in this country. And so, you need the policy to, frankly, force the employer to do things that are good for longevity. And we're not at that place right now.

Allison Aubrey 30:06

David, same question to you. Think about policy changes or a longevity plan. How could that influence the practice of longevity medicine? What changes would you like to see to just make it easier to do what your doctors do?

David Luu 30:23

First of all, I think we have to understand what longevity means. So, how do we define it? It would be great to have a novel umbrella definition for longevity. I think everyone, especially—I give you an example, in the scientific space. At a conference, one of the leaders, a scientist from Harvard, asked the question to 50 scientists, "Define longevity." He had 50 different answers from longevity scientists. So, how can we, as a public, as a physician, policymaker, move in the field if we don't even define what the field is? That's number one. I think number two is, how do we, at least as physicians, get trained? And I said, every single physician is already a longevity physician. They want you to live longer and better. So, how do you get training and education on a new science? The new clocks you were talking about—no doctors today have heard of this clock, mainly. If you're working in a health system and treating patients every day with a 10-minute consultation, you have no time, you have no access, and there is no medical school teaching yet in the curriculum. I think number three is the financing. We heard Noubar yesterday from Moderna, from Flagship, talking about AI, capturing all the investment because of the bold statement AI can make and the low regulation. In biotech, that's the opposite. You cannot make claims, and you have a lot of regulation. So, how do we merge that to attract the capital? You were talking about that, Peter. How do we make sure we have this venture philanthropy, where the larger amount is here to democratize access to translational longevity medicine? And obviously, the impact and the outcome will benefit again and again, and that's a virtuous circle. So, I think, again, policy is really important, but it has to be policy by vertical. Academia is one, capital is another one, and obviously, consumer education. We were talking about—I wrote about the TikTok doc. Do you know what it is? TikTok doc is new doctors, but they don't have a medical degree. They have a lot of following on TikTok. And that's the number one source of information.

Allison Aubrey 32:55

And people trust them.

David Luu 32:56

And people trust them because they are here every day in your life, because they post every day. So, you feel that you can trust them better than your doctor. Peter was saying that. There's a lack of trust right now in the health-care system. We're probably part of it as doctors because we were always really paternalistic, with the white coat. "Take this drug. This is the prescription. You have nothing to say." What I like about this revolution is the empowerment of the consumer. They don't wait to become a patient, and patients are now becoming the consumer. So, because they can basically pay for service, they expect an experience. They expect good service. They expect education, and they expect outcome. And I think that's where we will see the change. The people, we ask for change, and I think at the policy level, hopefully they will listen.

Nirav Shah 33:47

I don't agree with all of what you said. People don't know how to judge outcomes if doctors don't even know how to judge outcomes, right? Everyone started taking Ozempic for Alzheimer's based on some observational evidence, and then it's like, oh, the real study with 3,900 patients that was published showed there was no benefit. Did anyone read the real study? No. So, as consumers, we don't hear about that. We just hear about the influencers.

David Luu 34:13

No. Exactly.

Nirav Shah 34:13

We don't know how to judge. And frankly, the doctors haven't been trained, but there are ways we can use an age-friendly approach. If every doctor asks, "What matters to you?" The 4Ms, just remember. What matters to you? What are your medications? Mentation—how cognitive you're doing. And mobility questions. If you just ask those simple four—we've got it now in emergency rooms, age-friendly, all over the hospitals—that will capture a lot of what matters to longevity. We know that measuring function—Can you move? Can you walk? Can you take care of yourself?—matters. We know that cognition matters. And to the ability that the medications give you all the other clinical conditions, those four questions will answer a lot of what we need. And that hasn't been taught in medical school yet. These are the kinds of things, like, let's stick to the simple things. How many here are eligible for and have taken their Shingrix vaccine? Oh, good. Two shots. I felt really bad taking them.

Abby Levy 35:13

I just got mine yesterday, actually, and it—

Nirav Shah 35:15

You're going to be sick tomorrow.

Abby Levy 35:16

—really hurts.

[Laughter]

Nirav Shah 35:18

But 19, 20 percent decrease in dementia. Seven years later. These are the kinds of studies where we have data, we have evidence. How many people exercised for one hour today? Wow. This is a great crowd.

Allison Aubrey 35:32

Yeah.

Nirav Shah 35:32

I shouldn't raise my hand because I didn't.

Abby Levy 35:34

But more importantly is what was your heart rate?

Nirav Shah 35:36

Yeah.

Abby Levy 35:36

It's not "Did you exercise for an hour?"

Nirav Shah 35:38

Exactly. That's right. The right food. We know what works. Let's stick to what works. Because if you start taking Ozempic and you go blind, oh, the FDA just told us that last week. But how many people know that? Those are the kinds of scary things that we don't hear about later, and we just get excited by the early data. Let's stick to what works.

Abby Levy 35:55

Everybody's texting their friends right now. "Did you know?"

[Laughter]

David Luu 36:00

So, why you didn't agree with me, because I agree with you 100 percent.

Nirav Shah 36:05

No. Okay. I'm not sure that, in this society today, that consumers are able to discern between the truth and the falsehoods.

David Luu 36:14

No, you're totally right.

Nirav Shah 36:15

And so, the TikTok docs versus not. It looks great. It sounds good. I trust them, and I shouldn't.

David Luu 36:22

No, you're right. No, I agree with you.

Nirav Shah 36:23

And so, that's where the consumerism in health care may not be the best thing unless we get good at it.

Allison Aubrey 36:28

Well, how much of this is scientific illiteracy, and how much of this is sort of marketing behind things that don't have evidence? Or it's probably a collision of both?

David Luu 36:38

But by the way, there are countries where you're not allowed to talk about health on social media. This is a policy, right? And then when the policy is in place, this is—and so, I think it is interesting what you're saying. It's like, who is allowed to talk about it, and how do you even interpret the study? So, you're talking about GLP-1 and Alzheimer's, and there is many different ways to interpret the study. So, this is a big, long conversation.

Allison Aubrey 37:04

Yes.

David Luu 37:04

I think we can add two hours on the prompter.

Allison Aubrey 37:06

Yeah, that's right. Okay, we're going to move on. Abby, 90 percent of older adults say they want to age in place, they want to age in home. The support, the infrastructure to do so is scarce. What do you think it will take for the tech-enabled home to scale? How much of this really depends on Medicare or Medicaid?

Abby Levy 37:32

So, Peter, you said something earlier about everyone should be able to age in their own home. I think everyone should be able to age in a community with other people. And if that means that you need to move to a community, there is enough evidence to say that that is the best way to extend healthspan and wealthspan. And I'm looking at my older sister who's sitting right there, who works for Milken. And how hard it was to get our parents to move from the home they'd been in 45 years into a community—it was a battle. But it is the right answer for a majority of Americans, if that can work. And so, I just want to caveat—I'll answer your question—but I think everyone talks about aging in place, and I think if we had enough affordable, accessible community housing, we would be having a different conversation saying, "How do we get everyone to live in communities?" Because that is the right answer for healthspan, period. Because 90 percent of Americans want to age in place, and it is their main asset and financial resource, I think we are really at a point where the technology is there. We've got sensors. We've got ambient monitoring. We've got care in the home. We've got all of these things. The issue is that we can't afford it. And so, that's where this concept of long-term care planning, not necessarily long-term care insurance, but this question: When I—I'm 52—I ask my friends, "How many of you have a long-term care plan?" They look at me blank. "How many of your parents have a long-term care plan?" Blank. We're not having a conversation around it. There's a ton of technology. I love all of the things that are going on in this space. It'll continue to go on, but until we can afford it, I think it's going to have a big issue with adoption. The last

thing I'll say is, I think we really need to understand that most of us are going to need care in the home at some point, an average expense of $100,000. And that care in the home right now is falling on the shoulders of about 60 million Americans, the majority of whom are low-income women, who are taking themselves out of the workforce or reducing their workforce ability to provide care to their aging parents. And this is a cycle of doom that I'm happy that there's a conversation around right now. If I had to go from where I was when I started in this space almost a decade ago, three topics of conversation have risen: cognitive health, family caregiving, and menopause. At least we're having a conversation around those three things. But we're not where it needs to be.

Allison Aubrey 40:05

Yeah. Nirav, when you hear about the tech-enabled home—and I'm asking you this because I'm remembering that you were health commissioner in New York State, where there's been a lot of investment—New York has been ahead of the pack, thinking about what technology can help people age in place. Do you agree with what you hear Abby saying?

Nirav Shah 40:21

I love what she's saying. I think that there's care models that are paid for today. The PACE model is a good example, where people can age in their homes, and they have the community because they go to an adult day care center every day, or they have other help and support and health care there. There are actually models, and now for-profit companies invested in PACE, for example. But it's a drop in the bucket compared to what we need. If you look at the eligible population and the actual population, regulations, you can name any number of barriers. We need more investment. And I think those folks who figure out how to do that, if we can push the regulatory environment in the next few years, it can really make a big difference.

Allison Aubrey 41:02

And is this a nut you're trying to crack at Next50?

Peter Kaldes 41:05

Well, we're looking at it from all ends, right? On the one side, when we think about being able to age in place or in community, as a nonprofit funder, we fund all those wraparound services that one expects from their community at home because they can't otherwise afford it. But those are real investment opportunities. For example, home health-care companies are struggling to keep employees there. Why? Because they're not paying them enough. Well, what if the employees actually owned their own business? Well, we're investing in business models that are actually creating employee-owned home health-care agencies. And hopefully we can scale that. But zooming out, I would love it if you had home builders who made it standard to include in your home—new builds—not just a microwave and a fridge, a first-floor bedroom. A standard telehealth package with a cuff and monitoring that weren't necessarily falling within the universe of regulations that prevents this and makes it expensive, but actually are just simply appliances that you need to live longer. I think that would be really interesting. I also want to just double-click on the affordability issue, particularly for the communities that we care about at Next50, which is the low- and moderate-income. We are a health-care conversion foundation born out of a PACE health-care system. And so, our mission is driven by the people that PACE is meant to support. And simply put, poverty has increased amongst older adults. It is too expensive to get old in this country. And until we

start addressing affordability beyond just the affordability of health care, and we look at the other social determinants of health, the important ones like economic opportunity, we can devise all the cool tech we want, but no one's going to be able to afford to pay for it.

Abby Levy 42:59

I also want to add to this, because back to our—I think we're all having a consistent point that there's a lot of low-hanging fruit here. And if you look at the number one—falls are the number one cause of hospitalization of older adults. And there's a lot of reasons for that, and one of them is a really low-tech solution, which is called decluttering. How many have parents whose houses are filled with stuff? And that's an example of—there's a start-up that we looked at investing in that is trying to scale a national workforce of people who are declutterers. And it exists. At the high end, there's personal organizers, and then there's declutterers.

Allison Aubrey 43:38

Did you invest?

Abby Levy 43:40

They haven't figured out yet how to get enough people to pay for it. But there are, in Medicare and Medicaid, some codes around if an occupational therapist comes in to be able to get it funded. So, if we can get some sort of reimbursement for it, for this start-up. But again, it's—people use the term AgeTech as if AgeTech is the panacea. There's a lot of things that are low-tech that actually will move the needle more than the tech part of it.

Allison Aubrey 44:09

Yeah. This is a question from the audience. I'll put it to you first, David, but anyone can answer. Is this longevity revolution only for consumers who can afford to pay for the wearables, the high-quality food, the gym membership, et cetera?

David Luu 44:26

Who asked this question?

[Laughter]

David Luu 44:31

Okay, so for you, I will say yes. So, this is the most important question, right? My background, I started—I was 21 as a humanitarian in West Africa. So, I can tell you, I went into longevity medicine because I truly believe in the democratization of care. I believe everyone should have access to and have their own longevity plan. Today, that's not the case, for a lot of reasons. Right? All the reasons we talked about: reimbursement, initial capital, policies, education, patient education. So, is it for everyone in the future? I hope it will follow the same path as the internet, the phone, transportation, and being able to just communicate with everyone through a text. I hope that's going to be the future in the next 10 years. And so, if you think about how much used to cost the sequencing of genomes by 20 years ago, billions of

dollars. Now it's a few hundred. So, even a few hundred is a lot for a lot of people in America, even across the world. But I believe, like I said, biology is only one thing. How do you educate on the things that are free? Exercise is free. Food, good food is not free. It's hard to get. And so, that's why I advocate a lot for Longevity City, where it's not only about housing, it's about the whole infrastructure. So, we shouldn't, as citizens, beg to have clean water, clean air, good food. We shouldn't do that. And those are the principles and the foundation of the house I was talking about. It should be democratized by every single government who believes that health is going to build the future of productivity, economy, and national security. And so, I think longevity, it should be at the top of every single agenda because that's how you're going to maintain the workforce, that's how you're going to maintain your competitivity, and that's how you're going to maintain, as well, a healthy population. And so, why don't we use the happiness or longevity score instead of the GDP to see how well the country is going? So, to answer your question, yes, I think longevity medicine should be for everyone. No, it is not today.

Nirav Shah 47:01

It's getting worse. Many women go for a mammogram and come out, and someone offers them, "For $40 on your credit card, because it's not covered by insurance, we'll have an AI read of it, and you'll get the answer in 30 seconds. And by the way, that's better than your doctors for these kinds of mammograms for your age." That's real today, and it's only if you have $40. That's not acceptable, and that's because there's no code for that, or the FDA hasn't really defined how to regulate that. So, there are issues that we have to face with, and it's getting worse.

Abby Levy 47:37

But we're also just at the beginning. I think we also need to take a longitudinal view of this. If you look at where cancer research and cancer was 100 years ago to where it is today, or heart disease and statins. While there's been longevity, geroscience, for a while, the pace of innovation in the past decade—we're just in chapter one of many, many chapters. So, I think the question is also, how do we want to shape this? And as the people who are here are typically leaders in your field, how do we all keep focusing on how this becomes part of our daily world and accessible to everyone? But like most things, innovation oftentimes starts with people who can afford to pay for it and then gets democratized over time. And so, I just say we're very early days between longevity and AI and that intersection. We're really early in this field.

Allison Aubrey 48:33

There is another question from the audience. This has to do with the term functional medicine, so yet another term. If there's 50 definitions of what is longevity, I think that there are all kinds of new silos and terms and nomenclature in this space. This question is: "How do we make functional medicine more accessible and affordable for the general public?" Another affordability question. PCPs are not aware of the majority of biomarkers we ask them to run. At the same time, they tell us that even if we go to functional medicine doctors and get lab work done, they can't use them or interpret them. So, a very frustrated consumer. Anyone?

David Luu 49:12

Well, I can tell you another, and I will answer the question. The annual wellness visit is covered. It's free. Only probably—and don't quote me on that—but I think 11 percent of the population is actually using this. So, it doesn't mean that because you have reimbursement or it doesn't cost anything, that people adopt

the solution. So, I would say to make functional longevity, preventative medicine more democratized, first of all, you need to make it more accessible and affordable, but yet it's not enough. We've seen that it's not enough. To make those two bets—talking about longevity bets—you need more evidence. Because no one will reimburse without evidence of actual outcomes on health data, and sometimes even at the population health data, not for you and me. Like, do I get better? Doesn't get reimbursement. Do we get a large portion of the population better? That's how you get reimbursement. So, I don't think we're here yet. Unless we really have someone who says, "Okay, we're going to finance those studies. We're going to use real-world data to analyze what type of intervention works. We're going to be able to publish that and bring that to the institution that can decide what can be reimbursed or not." Now, you have reimbursement, which, again, doesn't mean that you're going to have adoption. So, how do you train the next generation of doctors to educate on what should be done? And how to read that, and to translate that in a really simple way for patient. Because when you get out of a doctor with 100 biomarker, green, orange, and red, what do you do? You're overwhelmed. And then you have this list of things that you have to do, but then you have your family, you have your work, you have your stress, you have all of that, and then you have to take care of your health. Guess what? Who's the chief medical officer of the family usually?

Abby Levy 51:14

Mother.

David Luu 51:15

Mom. Exactly. Who do you think she's going to take care of first?

Nirav Shah 51:19

The kids.

David Luu 51:20

The kids, the partner. She's always last. And so, that's why I'm saying, doesn't matter if we have the knowledge, the access, the affordability. It's how do you change the conversation of empowering every single individual and citizen to take care of their health like it is their own investment, like it is their credit score?

Allison Aubrey 51:40

Yeah. Well, and too much information can take somebody who's perfectly healthy and turn them into the worried well. As a physician, Nirav, you must have seen this.

Nirav Shah 51:52

Absolutely. And that's where, before, for example, someone wants a test, I'm like, "First of all, is this test reliable? Show me that this works." Then I ask them, "Is this a test that will change your decision?" And then third, I said, "Is it going to potentially change an outcome?" And if you can't say yes to those questions, I'm like, "Do you really want that test?" As a doctor, I get asked every month, "Would you like a free whole-body MRI scan?" And we know the American College of Radiology says, "Please don't do that."

Thirty percent of people who get whole-body MRI scans are getting critical results or indeterminate results, and then they're getting ultrasounds and biopsies and all these things that, frankly, do not change outcomes. Ask that question. So, I worry. I see a lot of worried well, especially where I am. And I'm grateful that people are willing to try experiments on themselves. But don't start then tweeting about it and TikToking about how this injection of peptides is the best thing since sliced bread and it's not safe. We don't know. We don't know. And ask that highest standard. I'm not saying that we need randomized, double-blind clinical trials on every single thing. But we should hold ourselves to a level of the science and evidence and follow it, and today it's too easy to not follow it.

Allison Aubrey 53:18

Do you think we'll ever—? Go ahead.

David Luu 53:20

Yeah. I think there's different way to look at it. I agree a lot, and there's a few, part of—

Nirav Shah 53:25

Sure.

David Luu 53:26

—a little percentage where I think as well, now every individual is N-of-1. And so, I think we are trying to decide with guideline that everyone here should never get a full-body MRI. And again, I'm not advocating for it. But I think right now we have new technologies that are enabling the understanding of our own biology and body. And I agree, a lot of study says, and guideline says that right now it is not recommended. But I don't know if you remember, troponin took a long time. Troponin is an enzyme that you measure when you have a heart attack. It took a long time to be accepted. A calcium score, by the way, I don't think there's a lot of discussion on that, but I think right now even lipoprotein(a) is recommended by the American Heart Association. So, it takes time to understand. And so, I don't want to be in a position where in 10 years, my son watched this panel and say, "Dad, you were so wrong. You said—" And so, I want to be as well really optimistic that we're going to have new ways and new policies in place to accelerate the understanding of the tools we have. How do we assess the tools? And you said a lot of great thing. I will add, is it safe? And like you said, is it safe and is it expensive? The value that you get from that. So, how do we make sure we have a mechanism of action, study behind it, and outcome? I don't think we have that right now with a lot of new technology. We will have that in the future.

Allison Aubrey 55:04

So, consumers are kind of caught between this idea of the shiny new thing that looks fascinating and interesting, and the low-hanging fruit that could really make a difference. There's a question here about falls. You've already mentioned them being a big problem. Grab bars are an effective, cost-effective solution. What would it take to get grab bars into 34 million homes? What policy would that take, and would it be worth it?

Nirav Shah 55:29

Dean Sarah Szanton at Johns Hopkins, the School of Nursing, has already proven this with a randomized clinical trial.

Allison Aubrey 55:37

CAPABLE.

Nirav Shah 55:37

It's called the CAPABLE model. We know, and there's payment for it, so let's get it out there.

Allison Aubrey 55:42

Yeah.

Abby Levy 55:42

And there are two start-ups, one of which I invested in, called Rosarium Health, that do this, that take advantage of the reimbursement codes that CAPABLE provided the clinical evidence for. But at that scale, what you are talking about, and this is something that I learned from Peter, is that the US has the most philanthropy in the world. We have the biggest philanthropy, the most philanthropic funding in the world. Guess how much goes toward aging? One to two percent. Okay? If you could take just one more percent of that, you could get grab bars in every house in America. It's not that expensive. And that is what we're missing, honestly, is we are missing the urgency of—we have a population shift that's gone from this to this. It is the human version of climate change, and we are not moving with urgency and at a big enough level. And Next50 is one of, what, six private foundations focused on older adults? Maybe seven? I don't know.

Peter Kaldes 56:51

Yeah. Yeah, national.

Abby Levy 56:52

National.

Peter Kaldes 56:52

It works.

Abby Levy 56:54

And I'm not saying philanthropy is the answer, but we have the same thing. We've got the Home Depot Foundation and the Lowe's Foundation. They could fund this like this.

Allison Aubrey 57:02

Yeah. Maybe it's a marketing problem.

Abby Levy 57:04

But I'm saying—it's a marketing problem.

Allison Aubrey 57:06

Well, maybe they need to be called longevity bars instead of grab bars.

Abby Levy 57:10

Yes. There we go.

Peter Kaldes 57:11

Well, yeah.

Allison Aubrey 57:11

Because literally, I have written 3,000 headlines in my life, and what I have noticed is that people click on the positive thing, and longevity is a catnip word, right? If you write a headline that says, "Study of aging finds X," nobody clicks on it. If you write a headline that says, "Study of longevity," oh, oh, catnip. Click, click. Everybody's interested in—

Abby Levy 57:31

Yeah. Love it.

Allison Aubrey 57:31

—longevity.

David Luu 57:32

And by the way, Allison, on this, I think it is really important. A lot of physicians, even in our community, do not agree to say it's longevity medicine. Sometimes people call it precision longevity, precision preventive, performance. But who decides at the end?

Allison Aubrey 57:50

Yeah. We have one minute—

David Luu 57:52

The patient.

Allison Aubrey 57:54

—and 49 seconds left. In the last round: If you had a magic wand to change one policy in Washington today to make the lives of people 50 and older better with longer lifespan and more opportunity, what would it be?

Peter Kaldes 58:08

Do you want me to go?

Allison Aubrey 58:08

Yes.

Peter Kaldes 58:09

Term limits.

Abby Levy 58:14

Ooh. Getting rid of mandatory retirement and changing this notion of a retirement age, whatever that number is.

Allison Aubrey 58:26

Yeah. Peter.

David Luu 58:29

You're next. I want to think about it.

Nirav Shah 58:31

Okay. One policy is very hard. I wish you gave me at least two, but I'll stick to one.

Allison Aubrey 58:38

Oh, well, I'll give you two.

Nirav Shah 58:39

No. I'll say it. Let's measure things right. Right now it's at age greater than 65 on all those studies. Come on, really? My real age is much younger. So, measure what matters, and then we can act on that data.

Allison Aubrey 58:54

Yeah. Peter.

David Luu 58:55

I would say include longevity in every curriculum. It could be in med school, it could be in school, it could be in enterprise. I think, like you said, longevity right now is hot. A lot of people want it. No one says no when you offer longevity. And so, why don't we all come together to teach it based on science, on evidence, on outcomes, and just to make sure that everyone understands and is empowered with the right knowledge by the right people?

Allison Aubrey 59:32

Mm. And with eight seconds left, you have been an amazing panel. Thank you so much.

Abby Levy 59:36

Thank you, Allison.

Allison Aubrey 59:36

And thank you, audience.

Disclaimer: This transcript was reviewed by individuals for accuracy and serves as a reference. However, it may still contain errors or omissions. Please verify any critical information independently.