**Harlan Krumholz:** Welcome to Health & Veritas. I’m Harlan Krumholz.

**Howard Forman:**And I’m Howie Forman. We are physicians and professors at Yale University. We’re trying to get closer to the truth about health and healthcare. This week we’ll be speaking with Professor Teresa Chahine, but first we like to check in on current health news. What’s going on with you, Harlan? What are you hearing?

**Harlan Krumholz:** Well, there’s a lot going on, of course. And I’m going to steer away from COVID this week. I’m going to give our listeners a break on this. And I want to just focus for a minute on [a paper](https://www.nejm.org/doi/full/10.1056/NEJMoa2206038) maybe I’ve talked about before, but I just think this is the most amazing thing. It’s finally coming out in print in The New England Journal of Medicine this week, but it was presented in June at the American Diabetes Association Scientific Session. And our own Ania Jastreboff, an associate professor of medicine and pediatrics at the Yale School of Medicine and director of the Weight Management and Obesity Prevention at the Yale Stress Center, and by the way, co-director of the Yale Center for Weight Management, was the lead author. And I think this is actually going to turn out to be an article, a study that is going to change a lot.

We’ve been seeing recently that medications in a class called GLP-1 agonist, GLP agonist [glucagon-like peptide-1 receptor agonist]. This is a hormone that affects metabolism, has had a remarkable effect on helping people to lose weight. And people have seen this as promising. And by the way, it also reduces cardiovascular risk. And by the way, the safety profile looks pretty good. And the only issue is, as you titrate it up, people sometimes have some symptoms and digestion problems. I’m not saying that there aren’t any side effects and things that people would need to pay attention to, but I’m saying largely it showed a pretty good safety profile. And now Eli Lilly came out with a drug that combined that GLP agonist with another hormone to produce a drug that’s a combo. And the thing about this is, this GLP, GLP-1 agonist combines with a GIP, GIP agonist, a glucose-dependent insulinotropic polypeptide.

Look, people listening. You don’t have to know the names of these things, but to know they’ve combined two hormones. And I’m just going to get to this quickly, because I just found this to be amazing, Howie. They took this combination and they tested it in a bunch of people who needed to lose weight, and these people experienced substantial weight loss. In addition and importantly, there was 25% body weight reduction in about a third of the participants who were on the drug, rivaling what they would get in bariatric surgery. And this trial was called SURMOUNT-1; it included about 2,500 adults. People had to have a BMI, body mass index, of at least 30 or 27, with at least one weight-related complication, which could have been diabetes or heart disease. And then they were randomized.

It’s a very well-done study. Our colleague led it, and I think we’re going to talk to her at some point on the podcast. And it’s just, to me, it’s finally, there are obesity drugs that seem to have a good safety profile. Even this GLP-1 agonist can reduce risk, reduce cardiovascular risk. And the only issue that’s going to be is, we go up on the horizon is who’s going to get access to this. These are still expensive meds. Obesity is endemic in our population, but I find it remarkable that we finally have come up... all these years we’ve had these drugs that caused all sorts of problems, but now we got one that actually seems like it can work well and reduce risk.

**Howard Forman:**Fingers crossed. I’m hopeful and optimistic, and I know Ania, and it will be great to have her on the podcast.

**Harlan Krumholz:** Yeah. And by the way, I just don’t want to avoid the issues around, of course, behavioral interventions and non-pharmacologic approaches. But we just know, over the years, these have not led to large-scale success. So we’re not going to abandon that, we’re not going to abandon the encouragement to good diets and consultation with dietary advisors, registered dieticians, helping us do good job, but I’m just saying it’s another arrow in the quiver. It’s another way to attack this problem. And it was just a remarkable finding. So we’re, anyway, looking for more information, but it’d be great to talk to Ania at some point.

**Howard Forman:**I’m delighted to introduce Professor Chahine. Professor Teresa Chahine is the inaugural Sheila and Ron Marcelo Senior Lecturer in Social Entrepreneurship at the Yale School of Management. She studies how to characterize social and environmental determinants of health. Before joining the Yale faculty, she taught at Harvard’s T.H. Chan School of Public Health and launched the school’s first public health social entrepreneurship program. She also ran a Lebanese nonprofit organization supporting social enterprises and bringing education to marginalized populations.

Professor Chahine is the author of [Introduction to Social Entrepreneurship](https://www.amazon.com/Introduction-Social-Entrepreneurship-Teresa-Chahine/dp/1498717047), which summarizes how to build impactful ventures. She is the recipient of Harvard’s inaugural Elizabeth Weintz Humanitarian Research Award and the Harvard T.H. Chan School of Public Health’s emerging leader in public health award. She received her bachelor’s degree at the American University of Beirut. She then studied at University College London and the Harvard School of Public Health to receive her master of science and science doctorate, respectively.

First of all, thanks very much for joining us on the Health & Veritas podcast. I wanted to start off, I think for our audience the term “social entrepreneurship” may foreign be to many people. And in fact, for a long time, Yale School of Management had a program in social enterprise and not-for-profit management. And I was wondering if you could explain to people where social enterprise and not-for-profit management, where do they coexist and where are they differentiated, and help us understand this.

**Teresa Chahine:**Sure. Thanks for asking and thanks for having me on the podcast. Social entrepreneurship includes nonprofit management, and it includes for-profit management. Social entrepreneurship basically means applying entrepreneurial mindsets and skillsets and approaches to tackling social challenges. And that can be done either through nonprofits or for-profits, or through even campaigns. It’s not about what type of organization you’re housed in, it’s about your approach.

The types of characteristics that distinguish social entrepreneurship efforts are that there’s some factor of innovation, you’re trying something new. It has some kind of financial sustainability. That doesn’t mean it’s for-profit, but there’s some kind of business model that keeps this viable. And it has the opportunity to replicate or scale, so that you’re not just helping a handful of people, but you’re trying to really transform a system. And so that could happen through a nonprofit or a for-profit, so it includes both.

**Howard Forman:**And let me just ask one follow-up question to that. When you describe something as being “sustainable,” there are any number of large organizations out there that sustain themselves on the backs of philanthropy, on grant giving from organizations. When you say “sustainable,” what do you mean by that?

**Teresa Chahine:**What I mean by that is that you need to have a value proposition for a payer. And sometimes that payer is your end user, the person you’re designing the program or product or service for. And sometimes it’s another person or another organization, like the example you gave of a philanthropist.

However, when I talk about financial sustainability and social entrepreneurship, I do mean that it needs to be a source of revenue and a payer that’s always going to be there. And I don’t think that focusing on grants and philanthropy is a sustainable business model for the long run. In social entrepreneurship it can help you get started. It can help you develop your proof of concept, show that this work, it can help with research and development. But at the end of the day, you want to be providing a product or service or program for a payer. And so you want to have a source of revenue beyond philanthropy and grants in the long run.

**Harlan Krumholz:** One of the things... first of all, let me say, I’m so happy to have you. Howie comes up with the most remarkable people, and you’re one of them. The idea of getting in and trying to help spark creativity and thoughts about how projects can be configured in ways that bring in innovation and in revenue streams that will continue to support them over time, I mean, this is all great.

One other thing I wanted to ask you though is, can you put in a little brighter focus what you see as the result of what you’re doing, versus what might be a more traditional way? Because in my view, a lot of what I’ve thought about in this area, when I talk to people, it has been bringing this mindset, even when we’re applying for federal grants or whatever source we’re applying for, we’ve got to figure out what do they see of value. But how do you see this approach being different from what somebody might have done who might not be exposed to you and your ideas about this?

**Teresa Chahine:**What differentiates social entrepreneurship in public health from more traditional public health approaches is five things that I talk about in my paper “[Toward an Understanding of Public Health Entrepreneurship and Intrapreneurship](https://pubmed.ncbi.nlm.nih.gov/33898370/).” If you think it’s interesting for listeners, I can just take five minutes to go through those five things.

**Harlan Krumholz:** Yes, please.

**Teresa Chahine:**Okay. I already mentioned a couple of them. The first one is innovation and design thinking. And I include design thinking in the innovation because design thinking means that you’re innovating in a cyclical, iterative fashion, where you’re working with the end user—for example, recipients of a public health program—to design the innovation, whether it be a product or service. And so this is a more community-centric approach than we normally apply in traditional public health, where you’re really getting the voices from the customer and it’s really customer-centric innovation. So, that’s the first thing.

Before I move on to the second thing, I’ll also mention that when you use design thinking to innovate, this also implies that you have to experiment many times. And that you have to be willing to fail before you come up with the innovation that works. And so the implication for this, going back to your question, is that in traditional public health programs we don’t really know how to manage risk and failure, so that’s something that differs.

The second thing is resource mobilization. Going back to what I said before, it’s not about, “I’ll apply for a grant and if I get it, I will implement this. And if I don’t, I won’t.” It’s about how can I mobilize resources differently, whether financial or human resources, or social capital or community capital. Thinking about what assets exist that I can piece together differently. Entrepreneurial people, going back to the very first definitions of entrepreneurship from hundreds of years ago, they were working with existing resources and infrastructure, but they just pieced together parts of the puzzle very differently. And they’re not constrained by the way things are already done today, so they try to do things differently.

That’s the second way that entrepreneurial things do things differently from traditional public health. The third one is the business model that I refer to, that piece of financial viability. Now this could mean revenue-generating activity, where you get the end users or others to pay for something. Or, and this is very important in public health, it could mean cost savings. If you’re an intrapreneur, if you’re someone who is innovating within an existing organization such as a public health agency, then you might already have a budget to work on a certain health outcome. And your innovation might find ways to get better outcomes for less cost. So that’s the key to your financial viability, is that you’re using an existing budget and you’re implementing this program in a more cost-effective way.

And that could also apply in a corporate setting. If you’re working in the private sector but you want to design a social program or a product or service that has positive social and environmental outcomes, you can try to use existing budgets and show that these will help you fulfill your organization’s strategies better through your innovation. The financial viability can come from either a revenue model, if you’re starting a new organization, or from cost savings, if you’re intrapreneuring in an existing organization.

And then the fourth thing that’s very different is that it’s very cross-disciplinary, so you’re breaking silos. In public health we very rarely talk to each other. We very rarely talk to the private sector. And so breaking silos is an important aspect of public health entrepreneurship and intrapreneurship. You have interdisciplinary teams where you might bring together social scientists, physicians, or healthcare workers, engineers, et cetera, and even beyond your team, you’re collaborating across sectors.

And finally, I guess it took me a little bit more than five minutes, but the fifth key component and distinguishing factor is systems thinking. It’s really important not to create parallel systems but to think about what is the existing system in health, for example, in the U.S. or in another country. Who are the stakeholders, and how can I get the existing stakeholders to work together better? And we can talk more about that if you want to.

**Howard Forman:**I just have a follow-up question to that. In the for-profit, let’s say, technology-based startup space, we see a lot of acquisitions and a lot of consolidation happen. Companies almost routinely are thinking about exit strategies, almost from the beginning. What do you see as the pattern with social enterprise when they’re successful? Are you seeing them make efforts to scale up to very large models? Do they ever want to be acquired? What is the typical, or even some examples of outcomes that you’ve seen?

**Teresa Chahine:**That’s a great question, because what I just did was describe how public health entrepreneurship is different from traditional public health. But how is it different from traditional entrepreneurship? In traditional entrepreneurship your endgame is just what you said, exit and acquisition. I’m going to sell my software and I’m going to make hundreds of millions of dollars. That rarely happens in public health. You’re providing a public good. And so what is the endgame? What does it look like to exit? It can look like many different things, depending on the setting.

I’ll give a couple of different examples from very different scenarios. One of the classic examples in social entrepreneurship is [BRAC](https://www.brac.net/). This is the largest NGO in the world, and it’s based in Bangladesh, it’s BRAC, B-R-A-C. So they were innovating in the public education system, and they came up with a new model for providing universal primary education. And this goes back to what I was saying about “don’t create parallel systems.” It’s the government’s job to provide education, just like health is a human right, and the government should be held accountable for providing it. It’s the same with education.

And their role as social entrepreneurs was to innovate and demonstrate proof of concept. And they worked very closely with the Ministry of Education in Bangladesh, so that once they were able to show results, the Ministry of Education implemented their model and rolled it out on a national level. Their program was acquired, albeit in a non-monetary way, by the government and was scaled nationally. So this has always been looked to as one of the golden standards in social entrepreneurship, where you come up with a better way of doing things. You take the risks that the government can’t take. You experiment and fail in a way that the government can’t, and then the government can take what you came up with and implement it.

And so that’s a nonprofit example from a low-income country. And BRAC was largely grant-funded. So this goes back to Howie’s initial point about how grants can be used in the initial proof of concept research and development, but then they can’t sustain over time. In this case, it was sustained through government implementation.

A completely different example in a for-profit setting in the U.S. healthcare system is [Iora Health](https://www.iorahealth.com/). Iora Health is a startup that was founded out of Boston, and their goal was to innovate in the realm of value-based care. So what they feel is broken about the U.S. healthcare system is the fee-for-service model, where people make money by providing services, not necessarily by providing health. And they came up with a model where payers, in this case employers, would pay them per person to keep people healthy. They wouldn’t wait for someone to get sick to provide services and make money, they would spend money to keep someone healthy.

So they would do a lot of preventative work. They hired people who were not physicians, because physicians only need to see someone when they’re sick. The people they hired used to work as cashiers at Target, they were just really good at customer service and at working with people. And they would help their customers find a gym and stick to it. Figure out how to eat healthy food. They would help them stop smoking. They would help people... They would be more like health coaches who get you to stay healthy. And they would work as a team, sharing information about each customer. And the only time the customer would need to see the physician was if they became sick.

And so their model was based on the fact that if you invest in keeping people healthy, you save money in the long run. And so their payer, in this case, was employers, and they were acquired. So they’re now part of [One Medical](https://www.onemedical.com/), which is a primary healthcare group that works across the U.S. They were a for-profit company, they were funded by venture capital, and then they were acquired in the more traditional entrepreneurial sense.

These are two different examples of what an exit looks like in social entrepreneurship, where in both cases the goal was to innovate, experiment, to demonstrate proof of concept. And then someone would take over from your program and implement it nationally, whether a for-profit company like in the U.S., or the government, like in Bangladesh.

**Harlan Krumholz:** I was just wondering what role you see of B Corps, because unless you’re a benefits corporation, you’re still beholden with regard to your fiduciary responsibility to the people who have, actually have got a financial stake in the company. And so a B Corp, which just for listeners, is a type of corporation that has alignment to its mission actually over anything else. And so corporations largely have got responsibilities to their shareholders or to their investors. But if it’s a B Corp you can’t be sued because you pursued a course that was in deference to your mission over the financial interest of your investors. But a lot of these companies that may call themselves social entrepreneurship efforts aren’t configured that way. How does that get managed, do you see?

**Teresa Chahine:**I’m a huge fan of B Corps and of the [B Lab movement](https://www.bcorporation.net/en-us/movement/about-b-lab/) in general. The people who started B Labs, the nonprofit that administers the B Corps that you’re describing, are social entrepreneurs too, because they basically had a different vision of capitalism, where you’re providing economic and social and environmental outputs and not one at the expense of the other. And they helped advocate for this new legal registration form called the public benefit corporation to protect business leaders from the more harmful version of capitalism where the only goal is to profit financially. But this made them legally obliged to take into consideration social and environmental consequences also.

And so, one of the famous examples of public benefit corporations is Patagonia, the clothing apparel company that prides themselves on environmental sustainability. Another is Kickstarter, one of the more well-known crowdfunding platforms. So public benefit corporations and B Corp, which is kind of like a certification where you can be registered as an LLC or any type of business but you can still focus on this triple bottom line, as they call it, of economic, social and environmental output, this is all part of the B Lab movement and the B Lab community. And their theory of change is that if they reach a critical mass of businesses who are providing economic output along with social and environmental output, then that will force others to compete and to stop disregarding environmental sustainability and to stop profiting at the expense of people and planet.

I will say though that I don’t think we need to be confined to B Lab and B Corp and public benefit corporations. Iora, for example, was not a B Corp. They’re just a regular for-profit business, but they are mission-driven. The person who started this started it with no goal less than to transform healthcare, and to show that value-based care work, and to show that it pays to keep people healthy and that we need to change the system. And it was difficult to find venture capitalists that would give him the space and the patience to make the decisions that met this mission, and not to have those trade-offs that would fuel faster profit at the expense of the mission.

But he did find them. There are increasing numbers of funders and entrepreneurs who really do want to change the world and are understanding this concept of patient capital, where, “We’ll wait longer to make that profit because we’re willing to invest in the long-term changes that we’re trying to create.”

**Howard Forman:**I’m curious to know. One of the things that you do in an outstanding way is mentor students and teach students at Yale, and you teach them from the School of Public Health, from the School of Management, even undergrads. It’s a lot of entrepreneurship among young people right now. Can you give us an idea of how much of the success people are showing when they’re in a class or while they’re in university continues once they leave here? And part of that question is how much are those students relying on crowdsourcing, crowdfunding, for their efforts?

**Teresa Chahine:**I’ve been really, really inspired by the students that I’ve had the opportunity to mentor at Yale, including the School of Management, the School of Public Health, the School of Environment, and many, many other parts of Yale. I think a lot of the people who choose to come here do so because they want to make a difference and because they want to change the world. Though some of them do that through startups, and others do it through more traditional paths by being an intrapreneur or by being a business leader that focuses on the triple bottom line, like we were just describing.

And so for those who choose to start new ventures, for example, in the program on entrepreneurship where I work at the Yale School of Management, they do often turn to crowdfunding, like you hypothesize, to help get started. Crowdfunding is something that’s useful at the beginning. When you say, “I have an idea. I’ve tested it out at a small scale. Evidence indicates it will work. In order to roll it out and demonstrate proof of concept I need X dollars.” For example, $100,000. “So I’m going to put this out there. I’m going to let friends, family, and total strangers pitch in because they want to see this thing created.”

And I’ve seen a lot of success. I have a student who wanted to start an oat milk company, it’s called [Upright](https://www.uprightoats.com/). And she did a new form of crowdfunding where it was actually equity crowdfunding through Vested, a website called Vested. So Kickstarter and some of the other crowdfunding websites that we see are mostly philanthropic. You’re pitching in 25 bucks or 250 bucks or whatever to help this person start this idea. They might send you a gift in return; they might not. But it’s been largely that you’re not seeing your money back. In Vested you actually have equity, you become an owner in a small way of the company. And so that’s what my student, Betty Tang, decided to do with Upright, her oat milk company.

And many others who maybe have more nonprofit startups, they go the philanthropic route like through Kickstarter or GoFundMe or something. But this is just to help them get started. And then they have to have a business model where they’re providing a value proposition for someone who’s paying for this product or service in order to sustain it in the future.

**Harlan Krumholz:** Well, I think we want to express our appreciation. I’m so glad you’re really shining a bright light on these kind of companies. Of course, Iora—Rushika [Fernandopulle]’s leadership there was incredible, and yet his determination to do good. There’s lots of companies out there that really were formed to make an impact. And I’m really hopeful that that will continue to spread. I see a lot of Yale students with interest in that, of course, I’m interested in that. So are a lot of other people.

And I think it is possible to do this kind of bridging. And I really love the way you’re linking with the School of Public Health to try to bring those students into thinking not just about traditional public health programs, but how do you scale? How do you create the kind of innovation? How do you spark the kind of creativity that we need, and then how do you build the models that are going to be enduring? Because a good idea that never really gets implemented or can’t survive isn’t helping anyone, no matter how brilliant it is.

And I really love just the way that you’re trying to tie this all together, shine a light on it. And also codify the methodology so that other people can replicate it. Everyone doesn’t have to recreate the wheel. So I wanted to just congratulate you on all that. And to thank you so much for sharing your perspectives with the audience and for joining us on Health & Veritas. It’s great to have you.

**Howard Forman:**Thanks very much, Teresa.

**Teresa Chahine:**Thank you. I want to thank you both for having me. And I want to thank you for your closing comments, which really circled back to the beginning of our conversation, which was, this is not about nonprofit or for-profit. It can be either; it can be neither. It’s about, just what you said, having the creative confidence to question the way things are today, to imagine how they can be done differently, and to take the risk to innovate and experiment to show that there’s a different way of doing things.

So thanks very much for helping me share this message. And it was really a pleasure talking to you both today.

**Harlan Krumholz:** Thank you.

**Teresa Chahine:**Thank you.

**Harlan Krumholz:** Thank you. So Howie, that was a great interview. Let’s pivot to the next part. What’s been on your mind lately?

**Howard Forman:**Yeah. Look, yesterday to my surprise, even though I was hoping for this, the House actually passed a same-sex marriage bill with 47 Republicans. That’s 21% of the Republicans voting in favor of it. Something that would’ve been actually absolutely unthinkable, maybe 5, 10 years ago. If you get 21% of the Republicans in the Senate to vote for this, it would actually pass. It’s anybody’s guess whether the Republicans will be able to whip that together or will actually actively try to oppose it.

But I think it’s obviously a step forward. Clarence Thomas and the Supreme Court threw down the gauntlet and said that this is in play. And I think it’s to the legislators and the executive branch to make this in law and not leave it to the courts any longer.

**Harlan Krumholz:** Well, thanks for sharing that, Howie. I mean, it’s good to keep abreast of what’s going on there. Geez, there’s so much going on in D.C. right now, it’s almost hard to track everything together. But thanks for keeping us up to date.

You’ve been listening to Health & Veritas with Harlan Krumholz and Howie Forman.

**Howard Forman:**So how did we do? To give us your feedback or to keep the conversation going, you can find this on Twitter.

**Harlan Krumholz:** I’m [@hmkyale](https://twitter.com/hmkyale/). That’s hmkyale.

**Howard Forman:**And I’m [@thehowie](https://twitter.com/thehowie/). That’s @T-H-E-H-O-W-I-E. You can also email us at health.veritas@yale.edu. Aside from Twitter and our podcast, I’m fortunate to be the faculty director of the Healthcare Track and founder of the MBA for Executives Program at the Yale School of Management.

Feel free to reach out via email for more information on our innovative programs, or you can check out our website at [som.yale.edu/emba](http://som.yale.edu/emba).

**Harlan Krumholz:** Health & Veritas is produced with the Yale School of Management. Thanks to our researcher, Jenny Tan, and to our producer, Miranda Shafer. Talk to you soon, Howie.

**Howard Forman:**Thanks, Harlan, talk to you soon.