**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 and we’re trying to get closer to the truth about health and healthcare. A lot is going on in health and healthcare in the new year. We thought it would be a good time to highlight some issues that we believe we’ll be getting more attention in the weeks and months ahead—or should be.

**Harlan Krumholz:** Hey, Howie. This is fun, Howie. I mean, we get to talk to each other, right? It’s like, this is terrific.

**Howard Forman:** We have made this conscious decision.

**Harlan Krumholz:** We’ve made an executive decision that we can actually go back and forth and we can see if we can go without a guest.

**Howard Forman:** That maybe we have good things to talk about and can help our listeners understand some topics some more. And I know you have taught me a lot, so this is a great opportunity for us to chat.

**Harlan Krumholz:** Where do you want to start today? Yeah, go ahead.

**Howard Forman:** Yeah. So last week we talked about the sudden collapse of Damar Hamlin on the field in Cincinnati. And what we knew to that point was that he was in critical condition. And you were appropriately optimistic, while others were more pessimistic. But thankfully, he is making enormous progress. He’s off the ventilator. He was cheering on his teammates as they defeated the New England Patriots yesterday. He was tweeting, actively tweeting from his own account, looking pretty good in the few pictures that had been released. But I want to just turn briefly to a darker side from this. Almost immediately after he collapsed, there was rumor and innuendo circulating on social media, connecting this event to COVID vaccines.

What followed in Monday’s print *New York Times*, our friend and colleague, Dr. Céline Gounder, [wrote about this](https://www.nytimes.com/2023/01/08/opinion/grant-wahl-celine-gounder-vaccine.html). And she [just recently lost her husband to a ruptured aortic aneurysm](https://www.cnn.com/2022/12/14/us/grant-wahl-cause-death/index.html) very suddenly. He was a young man. She pointed out that in her instance as well, bad actors were willing to spread false information to benefit themselves and/or sow discord. And it was and continues to be so disappointing. There is absolutely no connection between the vaccine and either of these events. We’re always looking for follow-up on post-vaccine side effects, but none of these have appeared so far. But I wanted to then pivot back to Damar and, instead of dwelling on the negative actions of a few, I wanted to give you, Harlan, a moment or two to remind folks about the role of early CPR here.

**Harlan Krumholz:** I’ve been beating this drum about early CPR. I just want to say one thing quickly about what you just said and just to say, I mean I don’t know exactly what caused it. I mean, commotio cordis was likely. But the role of the vaccine... people speculate. And who knows? By the way, there are side effects of the vaccine. Just, guess what? There’s side effects of any vaccine. The issue here is that the net positive is so profound compared to the side effects, is that that’s why we recommend them. That’s why it’s saving lives. By the way, recent report in Israel, the booster still averting hospitalizations. I mean, there continues to be a lot of information about the benefit of these vaccines, and it is disheartening that someone would try to co-opt this without knowing any facts about that and to try to—

**Howard Forman:** Yeah, and no question.

**Harlan Krumholz:** ... steer it in that direction.

**Howard Forman:** Yeah. No question. But I want to point out for our listeners because it’s a little ironic I guess, that there was a large series of sudden deaths investigated for the soccer federation, for FIFA, from 2014 to 2018. So this is well before COVID or the COVID vaccine. They had 617 players with sudden death reported. And among those, by the way, 6% were thought to be commotio cordis. Many were due to coronary artery disease or anomalies. In fact, some of the younger players even had coronary artery disease. So I just want to point out for our listeners that making a connection to the vaccine is insane when there is literally, this has happened on and on for decades in sports. This is a very unfortunate instance here, but there’s no reason to connect it I guess is my point.

**Harlan Krumholz:** And we do know myocarditis can rarely be associated with the vaccine. There’s no evidence here that that’s what happened.

**Howard Forman:** Yes. Right.

**Harlan Krumholz:** But I guess I’m just saying, yeah, I mean it’s just disappointing to see that this is where the conversation’s going. I think where the conversation should go about Damar Hamlin is, as you know I’ve posted in various places now promoting this idea that actually in clear view of millions of people on *Monday Night Football* and then echoed by so many media reports, people have seen that CPR saves lives. It’s so rare to actually witness the moment where someone without intervention would’ve died. But because of people’s use of the very basic skills of cardiopulmonary resuscitation, which includes as quickly as possible defibrillation in the appropriate circumstance, which this was and which mostly is in these cases, can actually bring somebody back.

Actually I heard they had to do it twice, but because it was so rapid and because it was so timely, it appears that he’s maintained all neurologic function. And as I expressed last week, even before we knew what would happen, I said to you I’ve seen this many times before where people make amazing recoveries. It’s a magical moment when this can happen. And we should be talking to our communities about saying everyone should be learning CPR. Everyone should be inspired about what’s happened here. And we should make sure that this event that was, occurred in clear view of so many is a stimulus to actually save many more lives so that it’s not just the Damar Hamlin who’s benefited. And thank goodness he seems to be making a meaningful and full recovery. And I hope that it continues in that direction. We all hope it does. But also, may this event ultimately save many, many more lives.

And that’s what I think we as healthcare professionals should be talking about. I think that’s what should be the central focus of what we should be taking away is the learning point here. And what I hope people will get back to and all this stuff about the vaccine and everything’s just distraction from what we should be talking about, which is the amazing thing that happened that night, somebody would’ve died, that people did the right thing, they got out there quickly. And not only they saved a life but actually looks like he’s going to make a meaningful and full recovery that knows what’s going on. It’s terrific.

**Howard Forman:** Amen. Amen. So this brings us to a good point where we’re looking at, in his case, we don’t care about what the intervention is, we care about outcomes. Your career has been dedicated to looking at patient outcomes, being able to measure them and help us improve them. Tell us a little bit about what your thoughts are about outcomes research, because that’s sort of the core of your scholarship.

**Harlan Krumholz:** Yeah, yeah. I really appreciate it, Howie, thanks for your interest in it. And it’s just an opportunity for me for people who are listening to talk just for a moment about what in the heck is outcomes research. All studies have outcomes. Some people say like, “What the heck is outcomes research?” And of course my mother is still puzzled and she wants me to go into private practice, doesn’t understand why I’m in academics and is unclear about this outcomes research thing. Well, look, [outcomes research](https://www.ahajournals.org/doi/10.1161/CIRCULATIONAHA.107.690917) is [a type of research](https://jamanetwork.com/journals/jama/article-abstract/1104220) that focuses on the impact of healthcare interventions in particular and other kinds of changes in society on patient health and wellbeing. It seeks to understand how different interventions such as medications, therapies, surgical procedures, public policies, can affect patient outcomes including what are we talking about, morbidity like disease or injury, mortality, death, and quality of life.

The issue here is that sometimes we’re studying whether some process, something we’ve put in place, is working we might declare victory because “We’ve screened so many people” or “We’ve given people certain pills and it’s affected their blood levels of a certain substance in a certain way” and we neglect to go all the way to the end and say, “Have we got evidence that we’ve tangibly improved people’s lives? Or by doing something, have we, by unintended consequences, perhaps even harmed people?” This means that we’re advocating for when we do studies to be actually looking at things that matter for patients. And so a lot of this work is focused in that direction.

 When I was on the founding group of the [Patient-Centered Outcomes Research Institute](https://www.pcori.org/), we were talking about the importance of a group that would focus the research on things that people cared about, and that means pain or any kind of suffering. They care about whether they live or die. They care about their health status, their function.

In the case of Damar Hamlin, for example, it wouldn’t be just, “Did you compress adequately?” “Did you provide the resuscitation in the right way?” but the question would be, “At the end of the day, did he live?” “Yes, he lived.” Then the additional questions would be, “Did he have recovery?” “Did actually his cognitive function get back to where it was?” So as an outcomes researcher, we’re always interested in that. And so we often are comparing the effectiveness of different interventions to determine which ones are most likely to produce the best results for patients. It can identify factors that may influence the success or failure of those who are responders and identify opportunities to improve the quality of healthcare delivery so that whatever it is we do have, we’re optimizing the possibility that it will be used in ways that that will provide the best effect.

We’re also very interested in equity in society. We’re interested in cost and whether or not there’s a return on the investments that we’re making. And ultimately we’re interested in what are the strategies that are best going to help us to improve health. So that’s in a nutshell kind of the outcomes research side. And what we’re really trying to get people interested in is, are we getting value for the healthcare dollar?

**Howard Forman:** Yeah, but I want to ask a follow-up question to that because I think oftentimes you hear somebody say, “This doctor has a lower mortality rate for bypass surgery than this doctor and therefore I want to go to this doctor.” And oftentimes that may be the wrong decision based on a more methodical view of the data. Can you explain to our listeners why it’s not as simple as just saying the mortality rate under the hands of this surgeon versus this surgeon is the outcome measure?

**Harlan Krumholz:** Well, I really appreciate that comment too, because as you know, we’ve spent, at Yale and our group, a lot of time trying to figure out how can we best build metrics and, in essence, assays or ways to assess the quality of care that people are receiving. It has turned out historically that health systems and other parts of our healthcare system are really good a countin’ a dollar, how much money are we spending on healthcare. They’re not so good at being able to assess the return on that investment. And so this is useful both at a health system level, what are we getting in return for what we’re spending, but also in terms of improvement. So if I know how I’m doing compared with you or others in my field, then it can help me understand, “Well what are they doing differently? What can I do better? How can I improve?”

Ultimately, I want healthcare to be like the airline industry, where you don’t have to vet the pilot because the system is in place so that pilot can perform at a high level where they’re not piloting that plane and you can feel confident that you’ll get the result that you’re looking for, which is to get safely to the next destination. In medicine, we haven’t been very good about that. The key thing that you’re asking about is, can we just look at people’s mortality rate, for example? And there are two issues here. One is, well, different surgeons may have different patients who come to them. Some may specialize in certain kinds of operations. But also among those operations they may attract patients who are sicker or not so sick. Their colleagues may know which surgeons actually can best manage complicated cases, and those surgeons may get a disproportionate number of referrals of more complicated patients. So in taking into account the comparison, it’s important for us to adjust, consider how are the patients different among people. They’re not being randomly allocated. People end up with different doctors for different reasons.

So we’ve got to take that into account and build out metrics and ways of evaluating that are robust, that can take into account who the differences are. And then it may not just be, mortality is obviously of critical importance, but you also care about a whole range of other complications. So if I survive but I’ve had a stroke, I’m neurologically impaired or I had a very long recovery period and I never quite got back to where I was, there’s a whole range of things that can happen that you also probably care about and we’re not very good at systematically collecting. And so these are things that we want to integrate back into those kind of measurement systems to be able to help figure out who might be the best person.

I like the idea of measurement most of all for improvement, where we can look at comparative performance and figure out where are those areas where some people appear to be lagging and what can we do to help ensure that their patients are getting the very best outcomes possible.

**Howard Forman:** Can I ask you one last question on that? Because I’m always fascinated by this topic. Patient-reported outcome measures. So this is a sort of term of art that applies to outcome measures that are self-reported by the patient as opposed to a doctor telling you what the outcome is. And I often think about that because I myself have had foot surgery. I’ve known other people to have other surgeries. And the difference between what the patient thinks is their outcome, good or bad, and what the surgeon thinks is their outcome, good or bad, can be vastly different. How do we begin to incorporate that? Is it useful? Is it just a fad? What can we do with that?

**Harlan Krumholz:** No, I think it’s a fundamental turning point in medicine that we’re beginning to have a large number of standardized, validated instruments, tests in essence that can reflect back how people are doing, what their symptom burden is, how they’re feeling, how they’re functioning, what in essence is their quality of life. These instruments can help us to really track changes in how people are doing as well as be able to make decisions about what might be best for them and be used in performance measures. I think that’s the gold standard.

I mean if I’m a surgeon and I’ve said, “I did my job”—let’s say, replacing a hip—“I did my job, it was a perfect surgery” and the patient six months later reports that they didn’t have a good outcome, that in fact they’re no better off, they still have pain, and the surgeon looks at the chart and says, “Well, that’s not my fault. I think it must have been the rehab people.” Or, “This patient didn’t even go to rehab.” What I would say is that, look, from the patient’s perspective, if something along the line of things that needed to happen didn’t happen to the best possible effect and that patient didn’t have a better outcome when they had that hip replaced for the purpose of relieving pain and improving function and then that they report that that’s no better six months later, no one can claim that was successful. They can go back and look at where was the problem.

But this got to also how I just, quickly, I was very interested in timing of treatment for heart attacks for a long time. What we had in this country was a situation where if you came in and had your blocked artery unblocked, we could save heart muscle and we could improve outcomes for people, save lives. But it turned out that if you came in and there were great delays, then by the time the person got in to open that artery, it could be too late to actually make a difference. And again, what we were saying was, you could be the best cardiologist in the world. If you weren’t working with a team that got the patient to you in time, then it didn’t matter how good you were because it wasn’t having an effect.

And so again, going back on these issues around the patient for outcomes, in situations where the real bottom line is we’re trying to help people live better, feel better, and we’re not getting there, then we’ve not succeeded. What we needed were these validated tools that could help us so that we can compare one person to the next. It wasn’t just the doctor’s opinion—“Hey, my patient seems to be doing better”—but independently we were able to use these tools to ask people and then now we’re able to score them, compare people over time. I think it’s a great advance. It’s here to stay. And I think it’s going to help us become a more patient-centered healthcare system.

**Howard Forman:** That’s great.

**Harlan Krumholz:** It’s my turn to ask you a couple questions, which I was really looking forward to because you have this deep expertise in the financing and the sort of way that the healthcare system, the mechanisms of the way that it works. And there’s one thing that’s happening that I was a little concerned about that I thought maybe you could talk to us about, which is this issue around Medicaid.

At the start of the pandemic, Congress enacted the [Families First Coronavirus Response Act](https://ccf.georgetown.edu/2020/03/22/families-first-coronavirus-response-act-medicaid-and-chip-provisions-explained/), which introduced this requirement that Medicaid programs keep people continuously enrolled through the end of the month in which the COVID-19 public health emergency ends. And of course the COVID public health emergency continued for quite a long time. And in exchange for doing this, they got enhanced federal funding. And as a result of this, Medicare enrollment has grown substantially compared to before the pandemic. And the uninsured rate, which we should all celebrate, really dropped in the country. But this is coming to an end, and I think on January 11th, then, millions of people could lose coverage because it could reverse these gains that were made. What are your thoughts about this? How big a deal is this and what can we do about it?

**Howard Forman:** Yeah. So, it’s a big deal. It has ramifications that the public I think is unaware of. So starting off with what Congress did here, and by the way they did this also during the Great Recession, is they temporarily raise the amount of funds that will go to states to support Medicaid as long as those states had a maintenance of effort, I call it maintenance of effort.

**Harlan Krumholz:** And by “Great Recession,” you mean in 2008?

**Howard Forman:** 2008, ’09, yeah. So I think it actually was in the ARA. So in January of 2009 they passed this, and I think it went till about September of 2010.

**Harlan Krumholz:** The American Recovery Act, right? That was it?

**Howard Forman:** Yep, the ARA. Exactly. That was one of the first bills passed by Obama. It included supplemental funding for Medicaid. And the way the funding works is that whereas Medicaid typically pays rich states about 50 cents on every dollar from Medicaid spending and poorer estate about 70 or 72 cents for every dollar on Medicaid, this they pay an extra 6.2 cents. So that may sound like a small amount of money, but when you take 50 and bring it up to 56, you’re basically giving an extra 12% funding to the states for Medicaid in exchange for them maintaining the coverage pattern and the coverage population that they provide. And part of that this time included a continuous coverage requirement that basically said you can’t go back onto your Medicaid roles and kick people off just because they didn’t reapply or anything. You just had to keep people on for as long as they wanted to be on Medicaid. It is shown through papers that people have written even early on that we’ve actually been able to cover more people this way.

Medicaid, by the way, is not an insurance plan that anyone really wants if they could have commercial employer-sponsored insurance. But it is a very adequate safety net and it provides coverage to over 80 million people at this point. The issue is that once you remove this subsidy, once you cut back from that 6.2% back to normal, the states are losing a lot of funding that they were counting on for over almost three years at this point. And what will states do? I think what people don’t appreciate is states only have two real levers for controlling their budget. They can either cut spending on healthcare, which is mostly Medicaid, or they can cut spending on education. Those are your two big levers if you’re a state. There’s a lot of other things states spend money on, but in total they are so small they line up as such small-line items that it all comes down to health or education.

States also have a very unique requirement compared with the federal government in that they have to have a balanced budget every year. This is all except the state of Vermont. Every state legislatively must have a balanced budget on either an annual or biannual basis, which means they can’t pass the buck down and say, “We’re going to accumulate some debt right now because we ran out of money.”

So one of the reasons why states are doing reasonably well right now budgetarily is they’ve had this extra money. I think at the end of the quarter when the public health emergency is deemed over—and that has to occur by the president making that pronouncement—that 6.2% goes away. Once that goes away, even though they could have anticipated this for years, states are going to have to scramble and make decisions. Some states will immediately try to cull the Medicaid rolls because that is what they would consider fiscally prudent. Some states will immediately curtail some coverage items that either go above and beyond the ACA, or if they’re not in a Medicaid expansion state they’ll just cut it back as much as they can to the legal requirement. And that means we’re going to be cutting back healthcare. That will definitely be one item that happens.

And it also means that some states are going to be facing budgetary pressures and will start cutting education spending, which ultimately will start to play out in the press in the most unusual way, almost like you could have anticipated this for years, but you’re going to see all of a sudden states looking at cutting teacher pay or increasing classroom size again or cutting payments to their state universities and so on.

**Harlan Krumholz:** Howie, I mean the presumption is that the uninsured rate is going to go up because a lot of these people are going to have trouble transitioning to insurance. This will also put pressure on health systems, right? Because I mean they’ve also benefited by a lot more people who were uninsured now being on Medicaid. They can complain about Medicaid reimbursement but it’s better than no reimbursement.

**Howard Forman:** That’s correct. 100% right.

**Harlan Krumholz:** And so... Yeah.

**Howard Forman:** Basically, by the way, it’s the hospitals and it’s the primary care providers who have the greatest reliance on Medicaid. Specialists a lot less so. But primary care providers and hospitals rely a lot. And what are the two largest populations in the Medicaid program? They are parents and children. There’s a lot of spending on elderly people in institutions, but the largest populations are young adults and families with children.

**Harlan Krumholz:** So let me just transition to another thing I wanted to ask you about that was in the news this week that I thought is sort of the other side. So on one hand what we’re seeing is going to be cut back in Medicaid, more pressure on the states, pressure on state budgets and on health systems, more people uninsured. Then meanwhile, there was a report out of Kaiser Family Foundation. I think the headline was “[More Orthopedic Physicians Sell Out to Private Equity Firms, Raising Alarms About Cost and Quality](https://khn.org/news/article/more-orthopedic-physicians-sell-out-to-private-equity-firms-raising-alarms-about-costs-and-quality/).” And of course it’s not just in orthopedic surgery. I mean I’ve seen this in dermatology, emergency medicine. I mean, there are many places where private equity—maybe you could explain folks, what *is* “private equity” and why is this a concern and what’s this doing to medicine on this other side where pressure is being placed by, as private sector investors are coming in trying to figure out how they can make margin off of an investment in medical practices?

**Howard Forman:** Yeah, let me first start out by saying that we’ve seen the enemy, and it is us. We have a system that encourages a lot of bad behaviors, ultimately. So private equity, first of all, are firms that raise money from investors, typically hedge funds, pension funds, endowments. So large investors, not you and me investing in private equity excepting directly maybe through Yale’s endowments or something, but they invest large amounts of money. And then they use that money typically in a leveraged way, meaning that they use a lot of it in debt and a smaller amount for equity and purchase firms for which they believe over a relatively short window of time they can cut expenses, raise profits, and then sell that company back to the public so it becomes a public entity again and reap large rewards. Because of the large amount of debt they have, the leverage allows them to occasionally make $100 million investment and five years later turn that into $5 billion. Literally, that’s sort of a modus operandi if they get the plan right.

Now on the other side of the coin are lucrative practices. You mentioned a few. I’ll just add in anesthesiology is another big one, lucrative practices that have always been run in a reasonably profitable way for the benefit of the physicians primarily who are in it. There are typically partners in that group. Then there are sort of junior partners who may have less equity, and then there are worker bees who may want to be a partner or may not want to be a partner. And so these groups can sometimes be 50, 100, 200, 500 individuals. And you could imagine even though these are private practice groups, the partners themselves may be making a few million dollars a year, partly off of the investment in the firm.

These groups, if you listen to them, these groups will say to you, “We’re facing huge challenges. Unless we affiliate with a hospital or unless we sell to somebody else, we’re still not going to be at the scale or scope for us to thrive in the way we want to.” And so they make a decision that they’re going to sell to a private equity group. And in various cases, they may sell completely and take $15 million or $10 million per partner, sometimes even more. So these are not small dollar amounts for these individuals. Or in most cases, the private equity firm is afraid that once they sell, they buy the asset, the most productive anesthesiologist or orthopedic surgeons will walk away. So what they allow them to do is retain a stake in the private equity–owned firm so that they can then make even more money when the five years passes and they sell this back to the public.

So is it the fault of the orthopedic surgeons or the anesthesiologists who are looking to cash out? Is it the fault of a system that allows some physicians to make millions and millions of dollars while others barely are able to make $200,000 caring for large populations? Is it the fault of the private equity firms who see an opportunity to be able to make a lot of money if they can only rationalize care? I think there’s a lot of blame to go around. The one thing that does concern all of us and I think you are getting at, is when money is the main driver of these transactions, safety, quality outcomes may suffer.

**Harlan Krumholz:** Is there any chance that coming in and really trying to reform these practices would provide benefit? I mean you’re focusing on downside. Is there any chance that it actually would provide benefit?

**Howard Forman:** Yeah. Oh my god, yes. Oh my god, yes. I mean, if I’m an optimistic capitalist in this situation, I would tell you that there’s such a thing, and you know this, of focused factories. We know a hernia clinic up in Canada was once a good example of a focused factory.

**Harlan Krumholz:** Shouldice? The Shouldice Clinic. Yeah.

**Howard Forman:** Yeah, Shouldice. Thank you. There are such things as focused factories. There are such things as having consistent best practices and having physicians follow evidence-based guidelines. Many of which, by reducing variation, can lead to better outcomes. Your field, cardiovascular outcomes, where you’ve had an enormous impact, when I look at the reduction in cardiovascular mortality over time, it’s not just a reduction in cardiovascular mortality, it’s also less variation around the mean. People are practicing more similarly. This is huge. So if I believe that these practices can do that, then there can be a lot of pluses. But we’ve seen a lot of opportunistic behaviors both among the emergency medicine groups, radiology groups. We’ve seen opportunistic behaviors where the main motivation is not about, “How do we improve quality care?” but “How do we get higher productivity out of our practitioners? How do we churn patients through faster, quicker, and get as much money from them as possible?” That’s not necessarily aligned with better outcomes.

**Harlan Krumholz:** Yeah. I have to keep an eye on it, I have to say, even though the nonprofit sectors within healthcare though are often very much focused on revenue streams. And so as you said, it’s almost an intrinsic feature of our healthcare system as it currently functions.

**Howard Forman:** Yeah. No, look, it’s very concerning to me. I do call myself a capitalist, but when I see things like this, I realize we’ve got to do better. There are ways to regulate this. But let’s get back to you and let’s talk a little about, you have been a leader in the educational effort and the scholarly effort around long COVID for the longest time. I know that you’ve been doing more and more with more people. What’s got your attention right now with long COVID? What are you working on?

**Harlan Krumholz:** Yeah, I’m really excited to say that we’re about to launch a trial, a clinical trial. [It’s posted on clinicaltrials.gov](https://clinicaltrials.gov/ct2/show/NCT05668091). We’re not yet through the IRB [institutional review board], so we’re just finalizing the protocol. But I hope that by the end of the month we will launch a trial of Paxlovid for people with long COVID. There’s a hypothesis, a viral persistence plays a role in long COVID at least for some people. And I’m doing this with Professor Kiko Iwasaki, a world-renowned immunologist who has been pioneering approaches toward what we call immunophenotype and creating signatures or characterizations of how your immune system is functioning with thousands of different measurements that are really providing a comprehensive view about what’s happening. And together, we’ve put together a trial that is going to be treating people but also collecting blood at various different junctures to see what’s going on in the immune system before and just after and after even a little bit more time and to try to understand who responds; if they do respond, why; help us maybe understand the mechanism a little bit better.

Anyway, I’m really so pleased. It’s an honor for me to work with Akiko, and there’ve been many others. We’ve also are having in progress another study that’s an observational study, where almost 2000 people have joined and it’s growing, [the LISTEN Study](https://www.yalemedicine.org/clinical-trials/listen-study), where we’re trying to understand people’s experience and characterize what treatments they’ve tried and what’s happened to them. Now we’re pairing it with this trial.

As you know, I’m a cardiologist. So long COVID, I mean, there are some cardiovascular manifestations that are part of this, but I’ve sort of been drawn into this because people are suffering, and there’s not a lot of investigators commensurate with the number of people affected. So, sort of drawn in and the opportunity to work with Akiko Iwasaki has been really tremendous. So more to come on this, but I at least wanted to mention that there are things afoot. And I do believe we need to start testing treatments. Even before we fully understand the disease, people are trying things, so we should be studying and understanding what’s going on.

**Howard Forman:** This almost certainly is one of the silver linings of the pandemic. There are very few, and that is that we’re learning that viral syndromes don’t just come and go and you are cured. It’s probably true that a lot of viral syndromes that we have have long tails or have an equivalent to long COVID. So many people suffer in silence, or not so silently, and have no explanation for why they have certain symptoms. And I think what you’re doing is going to start to help get those answers.

**Harlan Krumholz:** No, no. Our intent purpose here is not only to understand long COVID but to be able to generate knowledge. By the way, we’re also interested in vaccine injury there. There’s some people who are having long COVID syndromes who are talking about that. I can talk about that separately too. And other conditions that we’ve known about for a long time that have puzzled us and that we really need to get ahead of. I think that’s one thing we can maybe make progress there. Another good thing is that it’s brought together collaborations that wouldn’t have happened except that the pandemic occurred. And I’m grateful for all the new people that I’m working with and for those opportunities that they’ve afforded.

**Howard Forman:** Well look, Harlan, this has been a lot of fun. We’ve got to do this again. I think we’re going to continue to try to schedule these things because there is so much we could have covered today and we’ll try to cover in future weeks. And to our listeners, as I’ll give you later in a few minutes, email us if you have topics you want us to cover and we’d be happy to try to cover those in the future as well.

**Harlan Krumholz:** Yeah, it’s always fun to talk to you, Howie. And I really appreciate that we saved this for just you and I to have chance to talk. 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 us on Twitter.

**Harlan Krumholz:** I’m @, H-M-K-Y-A-L-E, that’s [@hmkyale](https://twitter.com/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. Give us your feedback, ask us questions. 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 from 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. They’re amazing. Talk to you soon, Howie.

**Howard Forman:** Thanks very much, Harlan. Talk to you soon.