**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. We are sticking to our plan to hold off on a guest every several weeks or so, and today’s a good day because there is an awful lot of health and healthcare news and topics to hone in on. And I’m happy to say that I am done with COVID. Really, really done. At least for the moment.

**Harlan Krumholz:** Wait a minute, “done”? You mean “done with your own case of COVID,” or are you like the president and declaring that COVID is, or like the Republicans are saying today, “It’s over.”

**Howard Forman:** Yeah, that’s my point. I’m done with my own personal COVID case for the moment, and I fully expect that I will have to revisit it at some time in my life, if I live so long. But I’m happy it’s done for the moment, but my God, we do seem to just keep COVID in the news constantly. And right now, I’ll be honest with you, I’m frustrated seeing people with revisionist history about how we could have done things so much better with the benefit of hindsight. But for me at least, I don’t know, Harlan, I had two really bad days that I would say were equivalent to the worst viral illnesses I had when I was an adolescent. Nothing in my adulthood. But other than that, it was a bad cold.

**Harlan Krumholz:** Oh, come on. Howie, you’re an anecdote, so we’ve generalized from your experience to—

**Howard Forman:** No, no, no.

**Harlan Krumholz:** So we know that there are... So, what *is* your point about that?

**Howard Forman:** Yeah, so my point is that first of all, there was a lot of uncertainty there. You and I even talked about it. You never know. Are you at your peak when it’s really bad or are you just getting bad? Pulse oximeter at home is useful in the event you start getting short of breath. I did not, but I think people should have it. I was able to monitor myself in a way I’ve never done with a viral illness. I was able to check temps all day long and just know how I’m doing. I was able to check my viral load to some quantitative but mostly qualitative effort using the antigen testing I had at home.

**Harlan Krumholz:** Well, so you had a lot of extra stuff. Well, let me ask you this. After having been through it, did it change your perspective on the pandemic and where do you stand today after having survived your episode with COVID? You think it’s the first time you were infected, right?

**Howard Forman:** I do. I mean, I used to think that a cough that I had in February 2020 could have been COVID, and I guess it’s still possible, but there’s no question that my body responded with an enormous systemic response to this. It’s hard to imagine that I got lucky in February 2020, so I’m pretty convinced this is the first time I’ve really had it. And look, as Perry Wilson said, we know the population-based effect of our vaccine efforts. We don’t know the individual effects. I’d like to believe—again: anecdote and of one—that the vaccines are what allowed me to return to work and return to 100% very, very quickly, but I won’t know that.

**Harlan Krumholz:** Yeah, but so how did it change... Did it change your perspective?

**Howard Forman:** Getting it?

**Harlan Krumholz:** Yeah.

**Howard Forman:** It certainly took some of the fear away. I mean, listen, you and I have talked a lot about long COVID, we talked a lot about the very bad cases that we’re aware of among people that we know. Seemingly, at least at this point, I’ve skirted all of those possibilities. It makes it a little less scary for me personally, but who knows? Maybe the second time won’t be so lucky.

**Harlan Krumholz:** But what about, I’m just trying to get at the generalizable lesson that you took away from your episode, if any. I mean, I know you went through it and you survived it and you’re less scared of it, but how about you’ve got a big Twitter presence. I mean, are you telling people don’t worry about it’s not a big deal, or—

**Howard Forman:** Oh God, no.

**Harlan Krumholz:** ... what’s your current stance on the pandemic?

**Howard Forman:** My current stance is that the vaccines are still essential. The evidence about the vaccines remains very strong about them. And quite frankly, if you asked me whether I would rather have gotten COVID or gotten a vaccine, I would 100% prefer the vaccine and I would 100% prefer to get my immunity primarily from the vaccine up front rather than from infection up front.

**Harlan Krumholz:** Well, but you know that the vaccine doesn’t really protect you against infection to any great extent anyway. I mean, it’s really protecting you against complications.

**Howard Forman:** Yeah, it protects against the severity of the disease. And I had, even though it felt horrible for two days, it is categorically a mild case of COVID. I will never know whether it could have been moderate or severe, but thankfully it was mild.

**Harlan Krumholz:** So I wanted to tick down, one of the issues here is all the misinformation and stuff that’s going around, and without taking really strong partisan sides, I want us to try to be as objective as possible. I saw this piece that came out from, I know one of your favorite commentators, Tucker Carlson, and he went on to talk about [the five things](https://www.foxnews.com/opinion/covid-mistakes-biden-new-chief-staff-must-admit) that Jeff Zients, the new chief of staff for the president, who was in charge of the COVID response for a long time, and what he should admit. But I wanted to tick down these for a second because whatever you think of Carlson, he’s very influential. I mean, there’s a large segment of the population that really listens carefully to what he says and believes him. And I think this is one of the watershed moments, really, if we can’t even come together about what was accomplished during this period, I mean, obviously there were mistakes made, always mistakes made that we can learn from, but we got a problem. So I’m just going to tick down these and get your response. I’m just kind of curious what you think.

**Howard Forman:** Yep.

**Harlan Krumholz:** So first he says that Jeff Zients should “admit promises about experimental mRNA vaccines fell short.” This is a weird one because first, it’s of course highlighting that there’s an emergency use authorization for the vaccines. They’ve never been approved and “falling short” is always a little vague, but what do you think about that dinging the vaccines?

**Howard Forman:** Look, I think we’ve had enormous success with the vaccines. I think if you go and look at the success of the polio vaccine, at the success of the rotavirus vaccine, the standards that we hold for our vaccines vary based on the disease, how effective and how the vaccines actually work. And I think these vaccines have proven to be enormously effective at two things, reducing mortality and reducing hospitalization, presumably reducing the impact of it on the entire population, but certainly those two categories. It has saved lives. I think we have enormous evidence that it saved lives and the safety profile remains very, very good. But if you talk to the Tucker Carlson audience, you will hear the opposite of what I just said. You’ll hear that it was ineffective and it was harmful.

**Harlan Krumholz:** So I’m going to tick down the rest of them, but I will say one thing about this. I’m trying to take as objective a view as possible, I think the evidence seems overwhelming. I don’t want to say “seems,” so evidence is overwhelming of the net benefit of these vaccines. To me, urging people to doubt them, doubt that evidence, is akin to yelling fire in a crowded theater. As you know, the prototypical case the Supreme Court referred to as being a threat, I mean, that free speech should be cordoned off in some ways when people are actually urging people to have behaviors that could be harmful to them. I’m not suggesting that he should be censored, but I am just saying it worries me when it comes out. So his second one was, I know this is going to be one of your favorites. I don’t know if you’ve read this or not yet.

**Howard Forman:** I did. You sent it to me, so I did read it because I read everything you send.

**Harlan Krumholz:** Oh, good. I’m glad. I know I sent it, but I know you’re busy. “Acknowledge that re-purposed generic drugs should play a role in the ongoing fight against COVID.” Well, now I don’t have any problem with saying, let’s repurpose generic drugs. But then he goes on to say—“what am I talking about?”

**Howard Forman:** I know.

**Harlan Krumholz:** “Affordable medications like ivermectin, hydroxychloroquine, and—”

**Howard Forman:** Fluvoxamine.

**Harlan Krumholz:** “... fluvoxamine!” Fluvoxamine, which also was just studied, just the results out. What’s your response to that?

**Howard Forman:** Look, I mean, he is just playing to his audience and saying things that are patently untrue. We do not have evidence of any of those things being effective in any large studies. There was anecdotal evidence early on about fluvoxamine. There was little evidence early on about ivermectin and even maybe hydroxychloroquine, but we’ve gotten a lot of data since then. And you would have to think there’s an enormous conspiracy out there to think that this is being suppressed at somehow the highest, highest level.

**Harlan Krumholz:** And I’ve almost never seen this level of misinformation. As you know, Kushal Kadakia, and Adam Beckman, and I [just wrote a piece](https://www.nature.com/articles/s41591-022-02172-9) that was published in *Nature* about urging the FDA to get involved in this misinformation. This, just, I find it to be maddening. And then the third one is “scrap plans for annual COVID-19 vaccinations,” stop any campaigns around continuing vaccinations.

**Howard Forman:** Again, first of all, it’s a premature thing to say. We’re thinking about doing these vaccination cycles in September. Why would you scrap a plan when you’re so far away from it right now? And we should actually be developing what we think is the best possible vaccine. There is no evidence that even the bivalent vaccine has failed at a population level. It certainly wasn’t as effective as we would like it to be if we had somehow gotten the exact variant right at this moment. But it’s the best we have, and it’s not that different from flu vaccination, as far as I can tell.

**Harlan Krumholz:** Yeah. I’m just going to hit these last two. One is “remove all pandemic mandates.” Of course, this may be going forward, not back, but anyway, what’s your view on the pandemic mandates?

**Howard Forman:** I mean, I think that there were very relatively few mandates put in place at the federal level. There ultimately were some, particularly for the military. I think at the moment they were put in place, they were absolutely the right thing to do. And like with a lot of other things, inertia probably allowed them to stick around a little longer than they needed to. But nonetheless, I think it is insane to start talking about reversing the way we treat public health and populations with infectious disease. It’s the right way we do it. And by the way, we’ve treated the military differently from the general population with lots of vaccines and treatments.

**Harlan Krumholz:** So the last thing he says is “concede that vaccine injuries are real.” And this is the one that bothers me because I believe they are real. I think people have been injured by vaccines.

**Howard Forman:** Of course. Yeah, of course.

**Harlan Krumholz:** We’ve never had vaccines that don’t in some ways for some people cause side effects and some of those side effects—

**Howard Forman:** Every drug. Every drug, right? I mean, Tylenol.

**Harlan Krumholz:** Yeah. So when you mix this in, I mean, of course we should acknowledge this. I mean, the point about the vaccines is there’s a large net benefit, but they’re not without any risk. And I think we need to learn more, we need to invest funds to try to study these people. But it becomes politicized so that you basically polarize the debate. You can’t even talk about vaccine injury without entering into a large-scale political battle from one side or the other.

**Howard Forman:** But you wisely avoid the sort of weird part of Twitter that I very often engage with, and I do engage with a lot of the audience of Tucker Carlson. They will tell you with tremendous confidence that people are dropping dead every single day from heart attacks from the vaccines. It is happening everywhere, Harlan. You probably can’t walk down the street without seeing these people dropping.

**Harlan Krumholz:** This is what they’re claiming? This is what they’re claiming?

**Howard Forman:** Yeah, but they claim it with a level of confidence that when Damar Hamlin has his event, it’s sort of like, “Ah, this time the camera was on, that’s why we saw it.”

**Harlan Krumholz:** Well, look, Howie, we have a representative in Congress who said that George Soros used satellites to create fires in California, and there are lots of people that believe that. I mean, I do think we have a major problem in this country that we can’t reach a consensus around the truth. And I’ve really begun to believe all of this around public health is so intricately tied with politics. I mean, look at China. I mean, it’s so interesting. I mean, they went from a zero COVID policy, then there was a bit of unrest, especially by employees and concern about supply chain that ultimately broke the back of this policy. But it turned on a dime. They just had this big celebration, Chunwan, which is the sort of big TV show on the Chinese New Year and it would’ve been unthinkable a few months ago that everyone on there would be without masks and basically in close contact. And because that show was used to send latent messages in the past, it would’ve been about how we all need to be careful.

Now that message is “it’s all over,” and a large segment of the Chinese population has gotten infected. We have no idea what that consequence was in terms of loss of life, but it’s just so... I’m almost losing faith that we can coalesce around the truth when our governments are so polarized and jumping back and forth.

**Howard Forman:** I think what bothers me about that article, one of the things at least, is this revisionism, this idea that with the benefit of hindsight, you’re now going to tell people how stupid they were. I would love to know in March 2020 what I know now. I would love to have known that at that time. I think we would’ve made different decisions. I think we would’ve masked up earlier. I think we would’ve probably gone back to work a little earlier, but with masks. I think we would’ve known that vaccines are going to be coming in nine months and would’ve had a little more patience. There’s a lot of things that would’ve been benefit, but we didn’t know that at that time, and we did the best we could and I don’t regret those decisions.

**Harlan Krumholz:** Yeah, and you know my view on this, which is that between the treatments, the vaccines, the hosts, us, who’ve many of us have gotten it, and the change in variant, the disease became less threatening than it was at the very beginning. But though still for high-risk individuals, it’s a very important threat. I think I told you that my mother, I didn’t actually ask her permission to disclose this, but I don’t think she’ll mind. My mother came down with COVID, by the way, COVID and flu. And two things about this experience, one is that it struck me how little we know about whether we should be treating both of them. I have my doubts about Tamiflu anyway, but I looked really into the research. There’s very little research, and there are lots of people who are getting both. But what bothered me even more was, so she’s in Florida, she goes to an urgent care clinic, she gets diagnosed with COVID, and she gets sent home with molnupiravir prescription.

**Howard Forman:** And why not Paxlovid?

**Harlan Krumholz:** No reason. She’s got no contraindication. If you look at the NIH recommendations, it’s only to be used in cases where Paxlovid is not available.

**Howard Forman:** Yeah.

**Harlan Krumholz:** Now, there haven’t been head to heads, but it does seem like Paxlovid is maintaining its edge against these new variants. There was [a study](https://www.nejm.org/doi/full/10.1056/NEJMc2214302) in *New England Journal* that looked at antiviral activity. These are antiviral drugs, Paxlovid, which is a combination of two drugs, one to potentiate the other one and this one is... There were lots of ages, people get confused. Of course, my mother can’t ask the question, “Is this the right one?” And she comes home and tells me about the prescription. I’m going, “That is not the guideline-recommended approach.” So I got to step in and make sure that she gets the right prescription. But I keep thinking even on the ground, the front lines, docs are having trouble keeping up with the most contemporary information and making the right prescriptions for what is a person who would be at risk.

**Howard Forman:** Yeah, I mean, molnupiravir was approved, I think, a little earlier than Paxlovid, but there has never been a time that we’ve been convinced that it’s better than Paxlovid. I, as you know, have a direct contraindication to Paxlovid because of the drug I’m on from my atrial fibrillation and so I could not take Paxlovid. I thought briefly about whether I should take molnupiravir, but I’m really not in a high-risk group and I figured I could ride it out. I don’t know if that was a smart move. People have also said to me, why didn’t I reach out to my own primary care provider? And I made my own decisions about that, but I cannot understand how anyone gets prescribed molnupiravir ahead of Paxlovid in this situation.

**Harlan Krumholz:** Well, it’s just another issue to me that there’s a lot of confusion. Actually, I was quoted in [a *Philadelphia Inquirer* article](https://www.inquirer.com/health/coronavirus/paxlovid-covid-treatment-need-to-know-20230124.html) that was trying to make clear for older people who get COVID that Paxlovid is really the right thing to do. It’s ironic that I was quoted in that article and then my mother ends up not even being prescribed that when she goes into urgent care. But I think we have to get better at communication in this country. We have to get better at being able to... even saying these names, most people listening to us are going “molnu-what?” And it’s like... and it does have trade names, but those trade names are not easy to remember either. And as you know, Evusheld which was the—

**Howard Forman:** Monoclonal antibodies.

**Harlan Krumholz:** ... antibodies that were given to protect us have now just been taken off by the FDA, their emergency use authorization—

**Howard Forman:** Because they don’t work.

**Harlan Krumholz:** ... because they’re felt to be ineffective now with the new variants.

**Howard Forman:** Yeah. Right.

**Harlan Krumholz:** But people have trouble keeping up with all this, even frontline docs who are busy and there’s a lot of information. We got to figure out how do we coalesce around the evidence? What does the best evidence say and how do we best communicate it to healthcare professionals and to laypeople in ways that we can be sure that they’re having the opportunity to be treated the best possible way to get the best possible outcomes?

**Howard Forman:** I will say this for people, the one thing that is more clear to me now than ever before is, have a lot of antigen tests in your home. You’re going to be isolating, you’re going to want to test early to prevent other people from getting it from you, but you’re going to want to test for your own benefit to see if you’re starting to fade in terms of peak antigen production. And there is comfort from it, and I’m happy I had them in the home.

**Harlan Krumholz:** Well, and so what was your approach? So you got sick and how long are you isolating?

**Howard Forman:** So I isolated fully for seven days, as according to Yale’s protocol. On Day 7, which was yesterday morning, they released me from isolation and made recommendations that I should continue to mask 100% of the time when I’m around others. So right now I’m in my office alone with the door closed, but even when I walk out into the hall, I put the mask back on at this point. It’ll stay on until late on Friday, that’s when I complete Day 10, and then I’m off. The good thing is that I’m simultaneously also still antigen testing and it’s faded. It’s basically down to what probably is a non-infectious load of viral particles.

**Harlan Krumholz:** But you’re still positive though, you’re still positive.

**Howard Forman:** I am still positive. And from what I’ve talked to people, you can be positive for a week, two weeks. If I was going to be around my parents in a small—my parents are elderly, obviously—in a small room, I would not be around them right now, but I feel reasonably confident.

**Harlan Krumholz:** Here’s my concern is that, and you know this, you’ve said this to me too, which is that you’re able to manage your life like that. For people who have jobs where they’re dependent on hourly pay, they don’t get paid if they don’t work, or students, we could ask Yale students, “What’s it like to get sick?” I mean, you’ve got classes, you’ve got activities. You may feel better. Almost the way that things are working in society now, you may have adopted this hyper-responsible approach, but for many people, it’s untenable, and it’s also not socially what people are doing right now.

**Howard Forman:** Yeah. Although I will say, among the Yale students, I see a lot of students doing what I’m doing, which is wearing masks, presumably because they’re sort of in the fadeout days from their own COVID infection. For some people who are worried, I’ve seen people continuing to wear N95s at times. I presume that they may have a higher risk profile for themselves. So look, again, among the educated individuals, people that are really being fed good information all the time, it may be a lot easier, but you’re right. I mean, for somebody who works in a service industry who isn’t going to get two weeks off just to deal with one infection, we need to give them very good guidance that protects them economically as well as their family and themselves health-wise.

**Harlan Krumholz:** Yeah. So let’s pivot now. There’s one thing I’ll just say about that. I heard a line, somebody said something like “COVID had been influenzied,” which is we’re now treating it a lot like flu. People got flu, then they went out. They didn’t really wait a certain amount of time. They wait until they felt better. And it’s sort of as I see the behaviors in society, it seems like that that’s what the default is. To be continued. The pandemic is...

**Howard Forman:** Yeah.

**Harlan Krumholz:** I know Biden is going to declare it over May 11th, but I’m not sure it’s done with us yet. We’ll have to see how things go. So I want to pivot to this article that showed up in *JAMA*. It was by Don Berwick, who was the interim administrator of the Center for Medicare and Medicaid Services, was a mentor to me, a teacher and mentor to very many people, and a guy who really led the charge about improving quality, improving healthcare, remarkably articulate, thoughtful person. I first met him when I was in medical school and he really actually had a big influence on how I think about the world and on the career that I eventually took. He wrote [a piece](https://jamanetwork.com/journals/jama/fullarticle/2801097), Howie, that you mentioned to me in *JAMA* about the avarice in healthcare and how it’s having such a harmful effect on our healthcare institutions and on healthcare outcomes. Give us a little, few reflections on that piece.

**Howard Forman:** Yeah, I appreciate that, Harlan. He writes a scathing essay on this and you can feel his own personal anger and I share most of it. He’s got a decade or more on me in terms of his career. I’ve only known about him for about 22 years, not as long as you, but in all those years, he’s been the guy that you look to as a shining example of a pediatrician dedicated to quality, safety, improving healthcare, and so on.

**Harlan Krumholz:** The moral compass of the profession.

**Howard Forman:** Yeah, and he’s disgusted. You can tell he is disgusted. And the biggest difference between his assessment and mine is he’s pointing fingers mostly all around, but not enough at physicians. And I’ve often said that we’ve seen the enemy and it is us, it is all around us. The medical industrial complex is a $4.3 trillion industry that enriches an awful lot of people. Variably, of course, I’m not saying that doctors are as rich as pharmaceutical company executives or investors, but nonetheless, it is a very good source of income for an awful lot of people. But you can’t not look at it and not notice that it fails an awful lot of people as well, both a quality point of view, a safety point of view, an access point of view, a justice point of view. Tens of millions of people remained uninsured more than that are underinsured. You and I have explicitly talked about that. And the burden of cost falls on all of us. And quite frankly, it falls on our country in terms of its competitiveness. So he’s disgusted.

**Harlan Krumholz:** Let me pick out something in this and then I want to get to his recommendations. And I’m not sure I share exactly your—

**Howard Forman:** No, yeah, of course.

**Harlan Krumholz:** ... focus on physicians because I just think it’s really, like you said, the whole ball of wax. It’s everything, the incentives, everything, that’s the way it’s set up in this country.

**Howard Forman:** I’m not focused on physicians. I just think they’re left out of the blame at the beginning of the article.

**Harlan Krumholz:** I got it. But let me pull out this piece. So he talks about Medicare Advantage. So Medicare Advantage, for those of you listening, in this country, what it is, is an insurance program in which companies take on risks. They’re paid a certain amount of money to cover a certain number of people. People have signed up with them, and then they will be responsible for paying for their health bills. They negotiate those health bills, they can create new programs, they can create ways to keep them healthy and keep them from getting things that are going to end up putting them in the hospital. And the notion is creating an incentive for these companies to keep people healthy as opposed to just paying for fee for service, which is the alternative where every time you use a service, the government will pay for that service. So the idea’s not bad.

It’s been around for a long time, other countries have used it. But what Don says, Howie, which I was really curious about, was that he said it’s been an abject failure because there’s been no evidence of improved outcomes and it’s ended up costing much more money because of the way it was configured. It’s driving people into this program. More than half of Americans who are 65 and older will now be in this Medicare Advantage, this sort of all-coverage program. And he said, because of the way it’s configured and the way that the math works out, that we will have spent $600 billion more on healthcare than if we had never started Medicare Advantage. Is that true? And what do you think about that?

**Howard Forman:** Look, you are a better scholar on this topic than anyone I know, and you would probably recognize it’s really hard to compare the enrollment in Medicare Advantage with the enrollment in fee-for-service Medicare, because people get to make that decision on their own. And the majority of new enrollees in Medicare choose Medicare Advantage plans. Among the disabled, they’re probably more likely to choose fee-for-service still. So there’s adverse selection thing and I’m not sure that adjustment for acuity will be able to adjust for that. Having said that, the evidence is reasonably strong that Medicare Advantage costs more. It also provides more benefits to individuals. It tends to have lower cost sharing. It tends to throw in some extra benefits like dental benefits, gym memberships, nutrition counseling, and other things. So it’s not quite as simple as that.

And I just answered this question, I think to a reporter or someone in the last few days, and my answer was that if you ask me what my gut tells me, he’s probably right. They weren’t asking about him, but about what he said is probably right. But it’s not definitively right. It’s not obvious that Medicare Advantage both costs more and provides less value.

**Harlan Krumholz:** It just seems like on a government policy level that we need to... There’s so many things we need to get right about this. We seem to be enriching certain groups and not others. There’s great disparities and health isn’t improving in this country. Howie, I have really come to the conclusion that we have to make a commitment to provide full coverage to everyone. We just simply cannot have people who are suffering because they’ve been the unfortunate victims of disease. They’ve been put in positions where their health is jeopardized or there are just beneficial strategies that are beyond their financial reach. It’s just not fair. It’s just not fair that health would be the thing that destroys lives or that people can go bankrupt or they lose their homes.

**Howard Forman:** So I agree with you, but—

**Harlan Krumholz:** It just can’t happen.

**Howard Forman:** ... I agree with you, but the harder part of that equation is how do you pay for it or what do you pay for? And society up to this point has been either unwilling or scared about what it means to really upend our healthcare system. I could see the ads the moment you mentioned what you were talking about, about how you’re going to lose your health insurance and you’re going to have the equivalent of Medicaid and how do you like them apples. It’s easy to scare people with stuff like that.

**Harlan Krumholz:** Yeah, but I think people should be scared by the current system too, because so many people are in jeopardy and so many people can’t really afford to get the care they deserve in it. On the other hand, lots of people, quality suffers, and lots of people are getting things they don’t need.

**Howard Forman:** And speaking of the quality issue, Harlan, and you pointed out to me [an article](https://www.nejm.org/doi/full/10.1056/NEJMsa2206117) that was in, I think *JAMA*, a few weeks ago and then reported on by [NBC News](https://www.nbcnews.com/health/health-news/nearly-1-4-us-hospital-patients-experience-harmful-event-study-finds-rcna65119) about adverse events happening in the inpatient setting, which is a follow-up to a study from about 30 years ago that Harvard did based on New York inpatients in 1984. You did [a similar study](https://jamanetwork.com/journals/jama/fullarticle/2794055) or some related study a few months ago. What are your thoughts? Are we getting better? Are we getting worse? What are we doing?

**Harlan Krumholz:** Yeah, these are studies of patient safety. We had published a paper in *JAMA* that looked at about 10 years of experience where large numbers of charts, 30,000 a year, were sent to central locations and professional healthcare professionals pored over these charts to try to understand the quality of care based on certain indicators, things that shouldn’t happen, did they happen and what was the cause? And this one went in where, again, in Massachusetts and *The* *New England Journal of Medicine*, they published this paper, David Bates led it, where about 2,000, I think 2,800 charts or something like that were pored through, and they tried to identify whether bad things had happened and whether preventable events were happening in the hospital. In that study, they suggested, indicated, reported that one in four patients in the hospital have something unsafe occur to them, some bad event occur to them because of some preventable bad thing that happened.

So suggesting that this is a really high number of adverse safety events, and I think many of us are thinking that like, gosh, it is time for us to say stop. You look at the aviation industry and over the past few decades, they’ve worked hard to become a highly reliable system in which safety errors generally don’t happen. They generally don’t happen. And yet in medicine it’s stalled. Maybe our paper suggested that there’d been some modest progress. Bates suggested not much. One in four is an alarming number. I don’t know. What do you think, Howie?

**Howard Forman:** I don’t know. First of all, we have seen real improvements. We’ve reduced hospital-acquired infections considerably. I mean, urinary tract infections used to be much more common, now we remove urinary catheters earlier. We remove peripheral and central venous catheters sooner so we prevent infections that way. There’s a lot of things where we’re actually making progress. So I was trying to figure out how many adverse events occurred during my admission, which began almost exactly two years ago. February 4th, 2021, is when I was admitted to the hospital for my last major admission, 27 days in the hospital. And I can’t even begin to tell you how many is the actual number of adverse events, but let me give you one example of what would count as an adverse event. I developed a corneal abrasion in the hospital. That’s somewhat avoidable. It’s somewhat treatable. It happened very early on in the stay.

Postoperatively I was in a lot of pain. I was awake and falling asleep. The ophthalmologist who eventually consulted on me felt that my eyes were not closing completely when I would fall asleep under the influence of morphine. And that was probably why I developed the abrasion, my eyes were basically open for too long and I was not blinking. I don’t know why I spent the next several months, part of it in the hospital and the rest at home, having to treat that until the pain completely went away. It was not inconsequential. It was very disturbing to me, but that’s an adverse event of a hospital admission. It had nothing to do with my original admission. It was acquired in the hospital. It was preventable and yet I had it. So I just want to point out how difficult these things are. Some of them are easier than others for us to tackle.

**Harlan Krumholz:** But there’s still major events that are occurring. And look, I still hear about wrong-site surgery, believe it or not. I don’t know. Some of these, they just break your heart. There was the one that I know occurred a little while ago, but hasn’t completely been eliminated in our systems, a baby’s born with hyperbilirubinemia, that they have a little bit of a substance in their system that can cause neurologic damage, but if you put them in a little bit of sunlight or UV light, you completely eliminate it and people neglect to pick up on it. And the kid for the rest of their life is got sequelae of that thing. And anyway, one in four is a big number, Howie. So even if it’s one in 40, that’s a big number.

**Howard Forman:** But on the plus side, Harlan, I haven’t seen... I mean, this may seem funny to some people or inconsequential to others. We used to routinely see sponges left behind inside patients.

**Harlan Krumholz:** Hallelujah, we don’t leave sponges in people’s body anymore.

**Howard Forman:** I know, but it’s an improvement. It’s a real improvement.

**Harlan Krumholz:** I know, I know. But let me say, I really believe that we can be doing a whole lot better. People come in the hospital, they have a right to believe that they will not be harmed by the people trying to help them. And I think that... and by the way, no one wants to purposely cause harm, so this is devastating for the healthcare professionals too. If you’ve ever been in a situation where harm is accrued because of an error, I mean, it’s hard to recover from that.

**Howard Forman:** I agree.

**Harlan Krumholz:** It’s worse for the patient. I’m not suggesting there’s any equivalence here, but I’m just saying if you think about everyone, nobody wants this to happen, so we have to strengthen our systems.

**Howard Forman:** Yeah.

**Harlan Krumholz:** But anyway, I just thought that was a mind-blowing result. Ours looked at particular indicators, they looked at a wider range of things, but I think ours suggested there’d been some improvement, but said there’s lots of way to go. And theirs indicated that big number of one in four, which blew my mind.

**Howard Forman:** So along those lines, Harlan, you shared with me [an article](https://www.acpjournals.org/doi/10.7326/M22-2653?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%20%200pubmed) about implantable cardiac defibrillators and their use in the setting of MRI, which is a very, very, very common situation. People that are older that have these implantable cardiac defibrillators, these are combination pacemakers as well as defibrillators that can prevent people from having sudden cardiac death. These are put in place in people who tend to be older. Those people tend to eventually need an MRI for some good reason and we used to tell them they couldn’t do it at all. Now we’re rethinking that. We’ve been rethinking that for a while. The newer implantable cardiac defibrillators are MRI-compliant. They’re fine. But the question is what do we do with the others? And along the lines of what we just talked about is, how rare should an adverse event be? Are we willing to tolerate the very rare adverse event in order to get patients the usual care that they otherwise need in a safe but not perfectly safe manner?

**Harlan Krumholz:** Yeah, I mean, look, I’d like to think that people listen to us. We can help people get smarter, and many people have pacemakers or family members have got pacemakers and have heard about this, that some of the older generation or there’s certain kinds of pacemakers that we forever have been suggesting that they don’t go into an MR scanner. And just another example of things that become old wives’ tales in a way. I mean, I don’t mind that we had that, that was an abundance of caution, but by the time now, now it’s years and years later, we study it rigorously and suggest maybe it’s not as big a deal. So I just chalk it up to like, gosh, there’s so many areas we need knowledge in. We’ve got to continue to push hard about things that we just assume; instead we just got to start testing and seeing different kind of study designs.

Of course, like you said, you’re not going to be able to randomize this group, but we can study them carefully to see whether or not there’s some way that we can make an inference about whether future patients need to be concerned or not.

**Howard Forman:** But isn’t it also an example though, where if we don’t change our policy and just tell people never to do it, they can’t have an adverse event from it. But if we do start to allow it and one in a thousand of them goes bad, we do have an adverse event. And I think it’s part of our sort of cost-benefit calculus that we always have to be making that does allow for the possibility that an adverse event is not a never event, so at least not always a never event.

**Harlan Krumholz:** Yeah. Yeah. Getting a good idea of a precise estimate, a good estimate, so that we can make sure people are able to make informed choices is critical. And we have a lot of work to do on that.

**Howard Forman:** Great. Well, this is fun, Harlan. I enjoyed talking to this. You have such a ground in knowledge. It’s very helpful.

**Harlan Krumholz:** No, no. Come on, Howie. But look, it’s fun for us to have this talk. I hope our listeners feel the same. 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:** [@hmkyale](https://twitter.com/hmkyale/), that’s H-M-K Yale.

**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](mailto: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:** Yeah, and I want to give a shout-out to Megan Ranney, who has [just been named](https://yaledailynews.com/blog/2023/01/31/megan-ranney-to-serve-as-next-dean-of-school-of-public-health/) the new Dean of the Yale School of Public Health, which will be newly independent, independent school, an emergency medicine doctor, public health advocate, a wise, kind, compassionate leader who is just the perfect choice. Kudos to President Salovey and the team. I just wanted to give her that kind of shout-out because I’m excited about her coming.

**Howard Forman:** And she’s an upcoming guest, even without her being announced she was already an upcoming guest.

**Harlan Krumholz:** Which will be so much fun.

**Howard Forman:** It will be.

**Harlan Krumholz:** That’ll be so much fun.

**Howard Forman:** Yep.

**Harlan Krumholz:** *Health & Veritas* is produced with the Yale School of Management. Thanks to our researchers, Jenny Tan, to our producer, Miranda Shafer. They are terrific.

**Howard Forman:** For sure.

**Harlan Krumholz:** Talk to you soon, Howie.

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