DNA: Discoveries in Action Season 4 Episode 4 Transcript

LB Brown: I started to think about, "What if UPS started to have nurse practitioners in their trucks, and while they were delivering or making visits in terms of the delivery of their services, started using nurse practitioners? Or what if Uber started doing those kinds of services?" And I thought, somebody's going to disrupt the front door of healthcare.

Ken Holroyd: So it's a very exciting time to be here, it's the most exciting time, I think ever, in Nashville's biotech history.

CJ Stimson: Disruptors, pick your favorite now. They're coming to Tennessee, with the promise of value, with significant capital backing. And some might say, causing a stir.

Clark Buckner: Welcome back to the second episode in our series about how an academic medical center is adapting medicine to the future while addressing the economic and societal pressures every single organization faces. I'm your host, Clark Buckner.
In the first episode, we saw how kernels of ideas can grow into an engine revving vision. In this episode, we're exploring how disruption is changing the delivery of healthcare, from startups, to bringing the hospital to your house, really.

Over the past decade, Nashville's largest industry, healthcare, has attracted a bevy of entrepreneurs and investors with an eye toward shaking up a stalwart industry. No matter where in the country you look, healthcare has evaded the tech motto of, "Move fast and break things." Lessons and partnerships though, that's another story. And a lot of people, especially within the Vanderbilt University Medical Center ecosystem, are chasing change. They're fostering it within their own walls, and looking for people to bring fresh ideas to them.

At the beginning of this episode, we heard from LB Brown, nurse by training, who is senior vice president for Vanderbilt Health Services. She's on a mission to bulldoze over the front door of healthcare to bring services directly to patients.

LB Brown: We are really focused, at least from a mission and vision standpoint, in Vanderbilt Health Services to meet the patients where they are. And I think that that is something that's really important in delivering healthcare services. We have lots of services that we've initiated in Vanderbilt Health Services. And to your point, a lot of those are in the home. Vanderbilt Health OnCall is one of those services. When you think about disruption in healthcare, at least in my space, and when I was thinking about Vanderbilt Health OnCall and going into patient's homes, we've always had traditional home health services in the home. We've always had, even for several decades, traditional home infusion services in the home. And even, historically, had services where physicians made visits in the home. But we have moved care into the space of convenient care, like walk-in clinics and urgent care centers.

And as we started to do that, I started to think about the things that were important to patients

around even more convenience. On some levels, it's not as challenging as you might think, because there are a lot of services now that are being delivered to patients' homes. So food services, groceries, Amazon, there are lots of services that are being delivered to patients' homes, especially during the pandemic. So we got really creative as consumers about what we could have brought to us versus what we went to receive. And so I think that was a change in the tide of perception.

It still is a little bit hard to help people understand the nurse practitioner coming to the home. It's even been hard over the years to help people understand home health, to help them understand the benefit that they have through their commercial insurance or their Medicare insurance, that they actually have a benefit that allows for that delivery of that service to be in their home, and what can be done in the home. I tend to pay attention to is what are other parts of the industry, not just healthcare is doing, that I think is going to shape healthcare. And so that is, like the example I gave a few minutes ago, around UPS, and were they going to be the next ones that use nurse practitioners to make visits? And that may sound like a farfetched example, but logistically, they're a leader in how to logistically deploy resources.

And I use that as an example often with staff around, if you absolutely positively can get a package to South Africa overnight, you surely can get a nurse down the street by this afternoon. And so I think it's not just what healthcare is doing, but it's what other industries are doing that we need to do as good, or if not better. And that's what I tend to pay the most attention to is, how do other industries drive us in being as good if not better? Amazon's another example. When we look at, if you go online on some healthcare websites, hospital-based websites, for example, and try to find a pair of crutches, you might be there for 15, 20, 30 minutes, and you would never find a pair of crutches. You go on Amazon and you can find a pair of crutches in 0.05 seconds. We need to be in healthcare as efficient as some of the other industries are in what the healthcare consumer needs.

So that's what drives me and what motivates me. So when you think about health outcomes, and I gave you the example of UPS or Amazon, and integrating with those examples and using them in healthcare, maybe as UPS being the next one to use nurse practitioners in the delivery of healthcare as an example. The one differentiator I would make is I think health systems are better at delivering healthcare, with the example of Vanderbilt Health OnCall, because they have an integrated delivery system and an electronic medical record. And what that does is it creates a way for us to track outcomes, to track health history, to create a care plan for the patient. And to monitor the patient from the first encounter to the last encounter with that patient. And so every patient we see becomes a patient for life, assuming that patient has that desire with us as an encounter.

Other non-healthcare delivery systems don't have that resource, such as an electronic medical record, which I think hampers the ability to provide the full continuum of health. Which I think is a challenge and why I think some of those startups, if you will, and some of those companies, don't really carry out the vision that they had intended, because it doesn't really cover the entire

continuum. They may have the components, for example, the logistics I mentioned, but they don't have the full continuum of the health component, which is really important. So the information is a moment in time, it's stranded on an island.

Clark Buckner: She mentioned looking toward UPS, toward Amazon. What do those companies have in common? Convenience. But how did that happen? Shopping from home is not new. Sears built an empire on catalogs, and we all know about QVC. It's the convenience factor that disrupted – ordering in seconds, transparent shipping, free or low cost shipping and returns. Shoppers want ease, and companies saw an opportunity. It feels overnight because the rate of technology hastens change, and we will keep adapting.

LB Brown: I think innovation happens over time. I think we convince ourselves, because of social media and access to information with news, instant news 24/7, I think we convince ourselves that innovation happens really quickly. I think innovation happens quicker than it used to happen because of technology and access to information. I think artificial intelligence is going to make innovation happen even faster, but I believe that time really drives innovation. And so let me give you an example. Hospital at home is something that we have innovated around in delivering hospital care, in a patient's home. And when you look back during the pandemic, hospital beds were absolutely maxed out in terms of capacity. All over the country, hospital beds were completely full. And we had to create ways to take care of patients differently. And we had to take care of patients that were very sick in a different setting.

And we learned how to create a way to take care of patients with a combination of home health, a combination of nurse practitioners, a combination of telehealth and technology. And take care of patients at home that were capable of being taken care of in the home even though they were hospital patients, that we could move to home with those resources. And we had all of those resources at Vanderbilt, for example, that we could deploy and deploy them in a amalgamated way and create a capacity at the hospital for very, very sick patients. And that became what we called our COVID-to-Home Program. As the pandemic started to ease, we saw that we still had an opportunity to create even a stronger program called Hospital at Home. And this was a program that CMS recognized during the pandemic. That we can do better, we can offer patients more care at home. And we can do this for all kinds of patients, not just COVID patients.

So we created the next phase of COVID-to-Home, and that's Hospital at Home. And this is where we take all hospital services – food services, imaging services, infusion services, skilled nursing services, therapy services, all hospital-based services, meals, and we deliver those in the home for a patient with multiple diagnoses. And take those patients in the home, again, to create capacity at hospitals that are at maximum capacity still today. And so you might think, and a lot of people think, that that innovation happened overnight, because the Hospital at Home concept is just now being talked about, but that innovation actually happened over the last four years. But the perception could easily be, this is something new, this is something that we just started doing. But quite frankly, we've been doing home health since Florence

Nightingale in 1892.

Clark Buckner: Care is spiraling out of centralized, huge campuses, and into neighborhoods and homes. Kind of what's old is new again, right? We've all seen the doctor pick up the leather bag and head straight into a home in the movies.

And then there's the seemingly unyielding healthcare cost. It's expensive, right? We all see the charts and headlines. It's costly for patients, employers, the government, you name it. Yet, despite a multitude of efforts to crack open the vault to let transparency of pricing rule the day, most people still don't have a reliable, clear way to get a clear picture of what procedures will cost.

So what's a disruptor, if it's not a regulation or an app? Well, Dr. CJ Stimson, senior vice president for value transformation and chief medical officer of Vanderbilt's Employee Health Plan, is leading pilots that flip the payment models on their head by changing who takes the financial risk.

For more than a decade, he's worked for federal health officials at CMS to blueprint models that place the value on the outcome of the person's interaction, rather than on the individual acts of providing that care. It's technically called value-based care, and you can look it up after the episode. But why is this important?

CJ Stimson: We have to first understand the problem that's happening at the level at which we're trying to solve it. And so I have to understand, what are the challenges that are facing our patients? Where are their struggles? What are the challenges facing their employers taking care of them, as they're the largest payer of their healthcare? What are the challenges for our providers? What's the challenge for this health system? So I start there, understanding the problem and really digging into it. And not in a, "What does CJ think those problems are," in all my wisdom, but ask them.

They tell you exactly what they are. They tell you the cost of care is insane. The inability to predict what I'm going to spend on my healthcare makes it hard for me to spend money anywhere else. That a $1,500 healthcare bill can be crippling. That they don't know how to navigate the system. They don't even know where to park. If you don't know where to park, how do you know how to get through the rest of an extremely complicated system?

And you go to the employers. Well, I'm an employer. I'm a school system. What do I know about how to ensure that my money's going to the right place? Help me. Help me understand how to do a better job taking care of my people. Help me recruit and retain talent, in one of the tightest labor pools we've seen in the last 50 years. The health system, it is an absolute dog fight.
So those are the answers that we get when we ask all the various stakeholders. And so you can imagine, trying to stitch together a solution to those myriad problems in a way that is rational and feasible. It's like the greatest Rubik's cube you've ever solved.

The program is, it is trying to deliver a better patient care experience by changing the rules of how we get paid for what we do. The idea being that, the current state of payment policy, fee for service rules, they get in the way of us doing our best work. And so if we want to deliver a better patient experience, then we need to change those rules. And so that's what we're doing, is we are leveraging value-based care, bundled payments, where you have a single price that covers all the services for a particular experience, whether that's a maternity experience or a hip replacement or a knee replacement, surgical weight loss, medical weight loss, behavioral health, whatever it is. Whatever that experience is, we provide a single price for all the services that are related to that experience. That's the bundled payment. And the idea is that that new payment approach will result in a better care experience for the patient.

Clark Buckner: These bundled care options include the pre and post-care often required for a major health event. For instance, a knee replacement healthcare bundle would have one set price that packages up the surgery, along with all the doctor visits and follow-up care, rather than charging the patient for each individual visit. As Dr. Stimson will explain, this means the care provider is taking on some of the risk by charging one price to get to the end result. And what's intriguing about these pilots is the potential savings for the patient, health system, and employers, who in the US pick up a large portion of the cost of medical care.

CJ Stimson: So this product is a single price for all of the healthcare services that are related to a particular healthcare experience, whether that experience is a maternity experience, so all of the services from your first prenatal visit, through delivery, everything in between, anything that you need will be included at that price. And so when purchasing this product as an employer, you are transferring your risk to the provider, because the provider now is responsible for ensuring that the experience of that patient fits within the price that you agreed to pay. And that completely flips the script on how you've been purchasing healthcare for the last 60 years. Where you held the risk for what I was doing as your provider, now I'm going to hold the risk for what I'm doing for your employees as a provider.

I think what we have to do is continue to prove, first and foremost, that these models are meeting our mission. So proof, and we're in that proof of concept phase. 6,000 patients in, we still have a lot of proving to do. We've got seven bundle programs across really kind of 40 different populations we're exploring. And, candidly, I don't have all the answers to that.
If you want to scale anything in healthcare quickly, it requires access to large populations, and who holds the largest populations in this country? For healthcare, it's the insurance companies. And so the path to scale is through the commercial carriers. What we're doing is we're trying to prove that it's worth it to have this change, to have this transformation, but at the end of the day, scale at that level is going to require those players to be involved. And so we need to prove to them that it's worth it for them.

I think we have to get all the stakeholders aligned. And how do we do that? And I haven't mentioned this yet in this interview, but I think the most fundamental thing that has to be

achieved is trust. Because if you are going to rearrange the way that healthcare dollars are spread out, because that's what we're talking about, rearranging how healthcare dollars are spent to achieve a better outcome for patients, then there has to be trust amongst the various stakeholders that my success isn't contingent on your failure. It cannot be a completely zero-sum game. The carriers have to believe, and it has to be true, that we are not out to destroy them. That's not what we're trying to do, and they're not out to destroy us. That level of trust is what's required.

And if value is not working in a certain market, I think it's because the trust isn't there. And maybe that is our most important task, is for us to cultivate that trust amongst the stakeholders. We've done it with the folks who we're participating with. The employers who signed up, their employees, our patients, our providers. There was a leap of faith at the beginning. They didn't know that we would be able to deliver on our promises, but we have. I'm a very optimistic person. I've been accused of having toxic optimism, which is something I wear with pride, but I really believe that we can align the incentives in such a way that it makes sense for the carriers to scale this with us, that there's a win here for them.

LB Brown: Is there such a thing as transformative optimism? Because that, coupled with the people-centric visions, sound a lot like what we heard in the previous episode, episode one of this series. Who knows? We could look back in a decade and realize we're all getting care in a world that LB Brown and CJ Stimson designed.

The only crystal ball anyone's come up with yet is constantly trying something new, testing and iterating and failing and winning over and over in all corners of life and business. And then those ideas mingle with time, and we get where we're supposed to be. But what does that take? People with glimmers of complex concepts that often front run technology, and for businesses and institutions willing to support the chase of those glimmers.

One way VUMC is actively out to curate and incubate entrepreneurs is through the Brock Family Center for Applied Innovation. Dr. Ken Holroyd, vice president for tech transfer and a leader of the center, explained how they help match ideas with the right resources to make an impact.

Ken Holroyd: The Brock Family Center helps our great faculty translate their inventions to something with commercial potential to have impact on people's lives. We are working for that gap where often there's an invention, but developing it further with the technology, exploring the right business model, the way it could be applied in exactly what situation, so that it really does have a need that it's meeting that is something that people feel is important, and therefore it'll be adopted, and/or it will be also paid for, as the first rule of business is to serve the needs of the customer. That's something that we hope to have a more direct impact within the Nashville community through our startup activity, which promotes job formation, economic development, and some great enterprises to work closely with and compliment what our private business sector is doing here in Nashville.

We're commonly looking for partners through people, for one thing. So people that have business expertise to help us launch these companies. And at this stage of early development, that's most common in academia, we'll often be looking for seed funding, angel funding initially, family offices, those types of sources of funding, and then follow that on with additional funding afterwards.

Occasionally, there are types of businesses where there's services or some software businesses that do need some initial funding, but can often generate enough return from selling their product early on that they can gradually build their own house, so to speak, without the need for having these additional venture capital investments. But for things like pharmaceuticals and vaccines and complicated medical devices to help people, which are all things we're very active in inventing and bringing forward, then that is something that that more traditional pathway with venture capital is the norm.

First, to have a flourishing biotechnology and pharmaceutical hub, as people like to call it, or just community, which is probably the more common word, they need a great talent of trained, specialized people. So those can come from their initial training from Vanderbilt University and Medical Center, that can cross the whole biomedical spectrum of training. So it needs physicians, it needs scientists, it needs engineers around the manufacturing side, everything involved in producing a pharmaceutical or a novel medical device.

And in addition, there's often government incentives. There needs to be a talent pool so that people can feel comfortable that if they are in Nashville working in the pharmaceutical industry, that if something happens to their particular company, it can be a high-risk industry for changes, that there's other companies they could go to work with that'll be continuing to develop.

The monetary aspect, people like to be close to their investments. So having that base grow is an important thing. Been tremendous strides just the last five years where Vanderbilt's always been here. Vanderbilt continues to expand, but we do have a number of additional pharmaceutical manufacturing companies, successful pharmaceutical companies that are publicly traded. And also, the money, as I mentioned earlier, is starting to come to town to make these investments. Brock Center and the Technology Commercialization Center do work in a way that's similar to some other enterprises that, compared to some of the ones you mentioned, Brock does have a particular focus on startup formation and involving business executives and running a lean organization while doing that.

And that it is something that in the same way, we all compete for research. We, I suppose, compete for patients in a way, within our local community and nationally for certain types of medical or health issues. We also are competing in a sense for providing excellent service to our faculty, trying to help in the best way with the startups, and we're happy to talk to people across the country that are interested in helping us out with being people involved with our startup companies, that are interested in providing money for our startup companies. We've traditionally done that, but this just gives us some additional resource to make those

relationships and connections.

Clark Buckner: My biggest takeaway from this episode is that the marquee change, that cliche disruption that gets touted, it's not overnight. It's the culmination of expertise, work and driving towards something that sometimes only you can see, and knowing your path is fueled by something meaningful.

It's that brand of disruption that I think is the hugely beneficial force. And because I've been inspired by the prospect of better and easier that we've heard from LB Brown, CJ Stimson, and Ken Holroyd, I asked each of them to leave us with a final thought. What motivates you to pursue this kind of change?

Ken Holroyd: Victory, we say, is getting inventions out into the marketplace and seeing really what people decide, how useful are they? So it's ultimately, though, having that impact on people's lives.

CJ Stimson: But even just having the impact on one person, that's enough. That's all you really need. That's all I really need.

LB Brown: So I would want that question to be, how would I best utilize healthcare? Because I think that most people are challenged by that question. I could probably have a full-time job in addition to the one I do in helping people navigate the healthcare system. It's very complex. And so I think that that is probably the most important question somebody could ask, and probably the most important thing I could do to help somebody.

Clark Buckner: Hey, thanks so much for tagging along with us on this journey today. The next episode in this four-part series will spotlight how some innovative pilot programs and collaborations are paving the way for VUMC's future workforce. We'll be exploring new training pathways, re-skilling opportunities, and pipelines that go into middle and high schools to foster the next generation of healthcare workers.

Hey, and we're also going to do some live chats this fall. Be sure you find Vanderbilt Health DNA on LinkedIn to be part of the conversation.

Until next time, Vanderbilt Health: making healthcare personal. As a reminder, Vanderbilt Health DNA: Discoveries in Action isn't meant to replace any form of medical advice or treatment. If you have questions about your medical care, consult a care provider.