



Is health care disruption inevitable?

Neal Batra, Principal, Deloitte Consulting LLP

David Betts, Principal, Deloitte Consulting LLP

00:06–00:44 **Heidi:** The pace of disruption today is unprecedented. You don't have to look too far to see its impact of disruption on other industries, from banking and retail to automotive and travel. Health care is no exception. What trends are disrupting life sciences and health care and driving the industry toward a radically different future? This is Tales of Transformation. Today I have Neal Batra and David Betts, both Principals with the Life Sciences and Health Care Practice of Deloitte Consulting LLP, with me to continue our exploration on the future of health. Welcome gentlemen.

00:44–00:44 **Neal:** Great to be here.

00:44–00:45 **David:** Thank you.

00:45–00:53 **Heidi:** Neal, great to have you back on the show. Let's start by talking about why the industry is so ripe for disruption.

00:53–01:23 **Neal:** It's a great question and one that we have clients ask all the time, it all doesn't work very well right now. There's a lot of frustration in this system and so there's real oxygen, I think, in this ecosystem for someone to do it differently, to do it better, and that's the heart of disruption. Can you find that cohort of consumers or customers who are willing to engage across a different set of areas of competition or bases of competition and can kind of do it a different way? So I think all the elements are here right now for other organizations to step in and actually do it differently.

01:23–01:46 **David:** And Neal, I might even suggest that this disruption is being driven by a recognition that there is opportunity to take waste out of the system and earn an economic rent by doing so. There's a reason why a lot of these new organizations and new entrants are coming after the health care space, because it's just frankly ripe with opportunity.

01:46–01:52 **Neal:** It's big, it doesn't work great. There's opportunities for efficiency and frankly, it's really a target-rich environment for disruptors.

01:52–02:02 **Heidi:** Yeah, so David, on a previous podcast we explored how the consumer's behind the wheel, so what ways are consumers changing health care today? And how do you imagine this will continue into the future?

02:02–03:03 **David:** We now live in a day and age where you don't go to the physician without already having created a hypothesis about what your issues or concerns are, you know, you've searched on the Internet, you've looked up your symptom. You go in with a pretty clear idea of what's ailing you, and even what some of those treatment options may be and bringing those to the front of the line with your physicians and saying I'm concerned about the following things and here's what I know already. I have a physician brother-in-law who feels threatened by this. Don't confuse your Internet search with my medical degree! But in reality that Internet search is oftentimes highly accurate and highly specific, and I think that's a signal of consumers taking control and when we give them better information, more effective tools, more efficient access to a greater body of knowledge, I think they're going to be driving the bus. And I often tell my clients that our patients today are running out of patience with the system forcing them to navigate them on their own.

03:03–03:07 **Neal:** Patients out of patience, David I see what you did there. I like that.

03:07–03:17 **Heidi:** So Neal, what about technology? We've got digital, virtual technologies, artificial intelligence, blockchain. Which technology trends do you see contributing the most to the disruption of health care?

03:17–04:02 **Neal:** It's really about data interoperability, and all these other elements are ways in which you can accelerate processing or accelerate inside generation. It's about data connection. It's getting these disparate systems to talk to one another and to stack these data sets and then generate insights off of the newly combined, complementary data sets. At the end of the day, if a search engine knows a little bit about me and my doctor knows a little bit about me and this provider system knows a little bit about me, and all these counter-parties know a bit about me, and I myself have insight about my health, if I can't put that all together, I'm going to be operating with only part of the story, which means the conclusions and the approaches to my health are never going to really be quite right.

04:02–04:49 **David:** Here's an interesting additional trend, as we see the rise of artificial intelligence and machine learning and the accelerating capabilities of what we might call unsupervised learning in the artificial intelligence world. We no longer have to have a hypothesis going in as to what we're going to find. We've got now the technology and the access to large data sets to, in an unsupervised way, identify insights that we might otherwise not even imagine if we had to start with a hypothesis, and I think we're going to see in the next, I would say 18 to 24 months, the application of unsupervised learning to medical data and into a broader set of data brought together with medical data that's going to surface insights that we never dreamed about before.

04:49–04:56 **Heidi:** So when we talk about "N of 1" or personalized medicine, what does it really mean? And what are the barriers to achieving it?

04:56–06:08 **David:** When I think about personalized medicine, "N of 1" treatments, what comes to mind is, we have the ability now to quantify ourselves in many different ways, to get a much better understanding of our microbiome, to get a much better understanding of our genetic makeup, and to actually understand the uniqueness of each of us, and to be able now to test potentially even in silico. What's going to work for David in this situation given his biology—his genotypes, phenotypes, microbiome, proteome, exome, etcetera—that's going to hit a targeted set of interventions that we're unable to get to today. If we reflect back on the history of medicine, we've seen this trend over time of going from barbaric and invasive treatments to treatments that are more focused, personalized, and less invasive. I think that trend continues to get down to tailoring an intervention to a very specific biological makeup in ways that are much more targeted and less catastrophic frankly to the broader body.

06:08–06:16 **Heidi:** So let's talk about nonindustry participants. What do you see as the role nonindustry participants will play in disrupting health care?

06:16–07:00 **Neal:** I think this links to the question around disruption and whether it's ripe. I think it's going to be the nonindustry players that step into the health care space with a very different lens than the current participants. Nonindustry participants are going to come into this space with a fierce focus on the consumer/patient, and they're going to try to wow that consumer wildly and disregard some of 

the other stakeholders. You've seen it work in a number of other industries: transportation, travel, we're focusing on the consumer—let's satisfy you wildly—and then we'll deal with the regulatory bodies and the existing stakeholders after the fact. So because there is a level of dissatisfaction, there's a real opportunity for nonparticipants to step in here and have a real impact

07:00–08:31 **David:** We have developed an industry where the incumbents have a very high degree of understanding of the regulatory constraints, the risks that need to be considered, and a reimbursement model which by, in, and of itself is a challenging concept that has constrained the risk taking and the ability to be fearless on the part of the incumbents that I think has prevented them from disrupting themselves. Now think about the disruptors coming in, what they lack is a real clear understanding of the complexity of this industry and how challenging it is to navigate through the regulatory constraints and the reimbursement constraints, so they're going to be hindered, and we've seen some examples of that over the last year or so with some of the new entrants. And that's where I think there's an opportunity for the incumbents to actually partner with or engage with those new entrants in ways that they may not have considered in the past because they can bring the industry knowledge, capitalize on the fearlessness of that new entrant, help them navigate that environment, but it's going to take somebody who's willing to even take that risk to go first because one thing we know about the health care industry is, there wants to be a solid base of evidence and proven treatments, interventions, approaches that doesn't necessarily exist in other industries, and we're going to have to break away from that a little bit, and somebody's going to have to go first. You can't; not everybody can be the fifth follower.

08:31–09:32 **Neal:** I was at a trade show recently where the former CEO of a fairly sizable Pharma was on stage having a similar conversation about whether the industry's ready for disruption and whether nonindustry participants could actually have an impact, and his comment was, do you know what gives us a huge advantage for those of us that are inside the industry today, and makes it really hard for outsiders to step in? And everyone kind of waited with bated breath, and he said it's our relationship with the regulators. But what he's missing is a fact that we know regulators are looking at health care and realizing that managing the structured industry the way it's been managed hasn't really addressed cost, hasn't really addressed outcomes, and what we know our regulators were thinking about: How do we actually motivate new participants to go about this in a different way and how do we accelerate our path towards a more digitally driven future? So I actually think the regulators are going to welcome nonparticipants and new entrants, and those that think that's a barrier to entry where they've mastered it and it's a hurdle that others can't overcome. I think that's a real mistake.

09:327–09:40 **Heidi:** To continue the conversation about the future of health, we really should be touching on that a little bit more on financing. How do you see this playing out?

09:41–10:58 **David:** Yeah, financing is an interesting question, because I think as we envision the future of radically interoperable data, where we're able to really be much more predictive and algorithmic about an individual's health and we empower and engage those individuals much more fully and can intervene much more early in the disease process, even getting ahead of disease entirely in certain cases. What have we done? We've effectively taken a lot of the risk, in a true insurance context, out of the equation, and we've created an environment in which what we now need to think about is not insuring against the risk of disease, insuring against the risk of illness, but in financing the cash flows associated with funding, that process of getting ahead of disease and illness, and then insurance becomes about ensuring that exogenous risk if you will, the likelihood or possibility that I might fall off my bicycle over the weekend and have an injury that needs to be treated in a medical facility. So I think we need to start to think about not insurance per se, but in terms of financing the cost. And I believe that this model of moving further upstream is an actual funding mechanism to do so and will take tremendous costs out of the system if we can pull this off.

10:58–12:06 **Neal:** Is there a different financing mechanism here? Does this become more of a running sort of standard fee-type structure or has it become more of a dynamic where it's almost like, how you fund home improvement projects, right? There's a level of maintenance that you need to sort of sustain on a rolling basis to maintain your home. And as you have special projects, some of which are needed, right? I blow a pipe in the basement and that's an emergency piece of work versus, you know, I want to put an addition on the house and that's an additional cost. There's different mechanisms to finance that, but they're not necessarily insurance mechanisms. So financing will always matter here. I do think though as we get better information about the individual, more timely information about the individual and can intervene sooner, and so more time is spent on wellbeing versus actually receiving care. I think the dynamics around receiving care then require a different financing structure and that what's going to be so interesting here is: How does the world evolve, and how do the insurance companies in particular evolve from what may be a market that's dominated by premium-based products to say, you know, are there other flavors here, other approaches?

12:06–12:28 **Heidi:** Well gentlemen, this will be an interesting journey, incumbents partnering with new entrants, patients running out of patience. There is no shortage of change driving the industry toward large-scale disruption, and a dramatically different future. I want to thank my guests Neal Batra and David Betts for joining me today on Tales of Transformation. Thank you.

12:28–12:29 **Neal:** Thanks so much.

12:30–12:30 **David:** Thanks, Heidi.

12:30–12:35 **Heidi:** Stay tuned as we continue our series exploring the journey to the future of health.

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