SCALE community

CEO Leadership Series: Vol 41

one medical

One Medical: Innovation from Within the System

Amir Dan Rubin
CEO and Founding Managing Partner

Key Takeaways

One Medical presents a unique case study of "innovation from within the system." The Company was able to successfully improve the holistic care primarily delivery experience by (i) clearly defining a problem set that the Company sought to address and then (ii) creating a holistic business & operational model that addressed the needs of both the supply and demand sides and, ultimately, that improved upon status quo in a sustainable.

The One Medical model was successful because (i) the Company's mission benefited from a narrow focus (i.e., primary care only vs. a hospital mission that is inherently multifaceted and complex), (ii) the re-architected experience was holistic in nature and (iii) the Company developed an economic model – in collaboration with employers – that sustainably funded the re-architected care delivery model.

The Medicare Advantage market provides opportunities for companies to participate in global capitation (i.e., risk-based reimbursement). While this model increases risk exposure, the global cap opportunity does provide access to funding for these expanded care models. What was particularly unique about One Medical is that it innovated to develop a suitable financial model that supported premium care delivery within the commercial market where global capitation risk-based reimbursement is generally not an option as commercial payers remain FFS in the market.

Problem Statement

- Patients – appoint access & wait times, cost of deductibles & copays
- Employers – rising cost of care
- Providers – burnout

Rearchitected Experience

- Patients – digital & virtual care solutions for 24/7 access, same day / next day in-person appointments, longer & more thorough appointments
- Employers – lowered cost of care
- Providers – longer & more thorough appointments, digital and workflow solutions to remove admin task from the providers (took about 55% of their tasks off of them in-office), dedicated virtual care teams

Aligned Financial Model

- One Medical – received PMPM capitated payment through employers to cover premium service offerings
- Patients – no copay or deductible for premium services, consistent in-network model for standard care
- Employers – total cost of care down reduced by 45%
- Providers – fixed salary compensation models (i.e., migrated away from FFS models

Execution Program

- Notably, in addition to the financial being sustainable, the execution program that One Medical developed was highly reliable and durable. E.g., consistent tech systems, consistent clinical systems, etc. As such, the Company was able to endure changes in regulatory & reimbursement environment as underlying performance was strong.

Thoughts on Adoption of AI in Healthcare

Expected to help improve near-term

- Front door experience – e.g., booking, referral management, pre-appointment readiness, etc.
- Workflow efficiency
- Ability to execute on coordinated care
- Clinical decision-making support

Complexities in adopting AI in healthcare

- Many systems to interface with
- Clinical decision-making is nuanced and difficult to model – achieving this requires a heavy focus on the nuances of healthcare
- Heightened need for highly reliable on-going safety, security & compliance
- Regulatory approvals (e.g., FDA) are required for certain types of technology

Large cap technology player are expected to show continued interest in technology with healthcare. However, many will struggle to develop in this market given the above healthcare-specific complexities. As a result, expect many large cap technology players to focus on (i) selling hosting / cloud infrastructure services vs. applications and (ii) be acquirers of later stage companies once they've developed some level of maturity vs. taking on the development role themselves.

Background

I'm excited to introduce Amir Dan Rubin to everyone for our 41st CEO leadership series interview spanning the last four years. Amir is the former CEO of UCLA Medical, Stony Brook Hospital, Stanford Health Systems, Divisional CEO at United Healthcare, former CEO of One Medical that he sold to Amazon, and now the founder of the AI healthcare focused venture capital group, Healthier Capital.

I'll start with for-profit versus nonprofit, a large theme across U.S. healthcare. From your vantage point at One Medical on the for-profit side and your vantage point at Stanford Health and UCLA on the nonprofit - how do you think of those two terms from a managerial decision-making perspective?

I think to kick it off from a managerial perspective, at some level, personally I managed the same across those environments. I think in any environment one needs to understand one's stakeholders and of course understand one's mission and business model. The stakeholders are similar but slightly different across nonprofit and for-profit. We all have common stakeholders, if you will, across nonprofit and for-profit. On the demand side, who are our customers and clients, whether it's patients or members, or if you're in a health plan, employers or intermediate members. And we all have our supply side issues, our clinicians, physicians, if we're in care delivery, our coordination with health plans and others. So I think that part is reasonably similar. Where it starts splitting off is, as we all know here on the for-profit side, we often have some level of equity investment and fund our companies through equity. And on the nonprofit, we really fund our companies solely through debt. We have tax exempt debt that is quite advantageous and that's how one finances growth and capital needs. And on the for-profit side, we could use both debt and equity. And so those are the key foundational differences. Managing equity holders may be the key difference - equity holders' interest in having a piece of earnings ultimately is different. But otherwise from a day-to-day management perspective, I think operationally I have worked in the same way.

Beyond the tax advantaged debt, the other stakeholders - the philanthropic stakeholders, the government programs - is there inherently greater complexity in the different needs, different push and pull that you see in a nonprofit that affects how efficient decision making can be? Or is that just an outsider looking in? I'm focusing on the question of efficiency. Which entity would you expect to move quicker? A for-profit health system or a nonprofit of equivalent size?

Yeah, that's a really great point that you're getting at. I think it's possibly the case that you may have more efficiency in a for-profit organization. And I think if that's the case, it's often due to the focus of the organization. And going back to the missions and the stakeholders, I've worked in four academic medical centers. I was the CEO of Stanford University's health system, as you mentioned, and COO at UCLA's health system. And there, in addition to patient care, we had missions of teaching and research - big missions that, you might argue, were even bigger missions than patient care depending on the organization. And so that creates complexity in your execution and that might make you choose service lines or make decisions that may or may not be profitable, but they help support a different mission. I'd like to believe, however, that you're trying not to do that inefficiently. If you want to train residents and medical students, you want to train them well and efficiently. If you want to do research, you want to leverage the talents of people's time and do it efficiently. But it does create complexity. And sometimes those missions have overlapping concentric circles and sometimes there are parts of them that can be in opposition to intention. So I do

think that's fair. The for-profit organizations sometimes tend to have more focused missions, and that makes it easier to align internally to the organization because the internal stakeholders may be more aligned on what it is we're doing. Whereas when you have these broader missions, for example, teaching, research and patient care, some people may be aligned more with one mission or the other, and so they may not be driving all in the same direction always. And that creates complexity.

The health industry in the U.S. is almost musical chairs that we get to play as a society whenever we run out of other things to complain about. And the chairs are occupied either by malpractice lawyers who no one's mentioned for the past few years, overpaid hospital executives, the oligopolistic payer community, private equity firms that are money hungry, profit-orientated animals or for profits, period - just any business in healthcare that is for profit. How do you view that machination that takes place across our journalistic regulatory spheres? Given that you've seen it all, you've managed it all, is there any truth? Is there systemic dysfunctionality in any of those actors? Is there a better way to own and run healthcare assets in this country or is it entirely misdiagnosed? Are you seeing similar focus on patient care everywhere? Issues such as local geography, complexity in scaling these organizations, just the inherent complexity of providing care as being the fundamental issue?

Yeah. Well, I see your journalistic chops coming through here in the premise and setup of this question. So let me go back to the initial premise. I am more the optimist on how I look at the various parties and stakeholders in the health system. So I might not have set up the premise in the negative per se about the motivations and incentives of these different stakeholders leaning towards the negative. Having worked across different platforms in general, I've seen smart patient care oriented, committed folks that want to succeed, they want the organization to succeed and they might want to personally succeed as well. But I would take the first premise in a little more of the positive. And, at some level, people are working within the system that we have, right? Even the nonprofit people, the nurses and doctors or the for-profit in organizations, the nurses and doctors, I mean in general, I believe they're trying to deliver great patient care. They care about what they're doing, but they're working within a system. They get paid a certain way, they have certain time constraints, they have certain technology systems they have to use, and it's often hard for people to redesign their system when they're in the midst of a system. It's not as if they don't necessarily know some of the problems of the overall system, but often it takes multiple parties across those stakeholder groups. Well, if the reimbursement was slightly different, then I could organize my operations differently and I could probably pay my people differently, then I could spend a different amount of time in my clinic sessions. I could maybe follow up in between sessions because there's economic models around that. But if those don't exist, what am I going to do? How am I going to do this in the best way I can? So, I think at some level we're operating within a system and our system changes the healthcare ecosystem broadly, but it tends to change gradually given general conservatism about blowing up the healthcare system, given the multiple stakeholders and health policy issues and political factions and the rest and the various actors, whether it's life sciences companies, pharma, med device, whether it's insurance or care delivery. To make change, you often need to move things simultaneously. So that's hard to do.

However, we do see across these entities better performing entities. Some organizations have higher satisfaction scores, they have higher employee retention scores, they have higher quality scores, they have higher financial results.

Sometimes I would like to believe often these things are correlated. The better managed organization tend to have good results across all of those things, even working within our current system. And then, moreover, you have organizations - whether it's startups like a lot of the ones that Healthier Capital is investing in - or ones like One Medical that are saying, I'm going to try to disrupt the system probably from within it. I have to understand that there's insurers and Medicare and Medicaid and commercial insurance and all these other actors, but I do think I could try to do some things differently. I could innovate with technology. I could maybe think about different care delivery models or revenue models or compensation models. So you do see differences. You do see a distribution of performance across parties. So going back to your premise, I would spin it positively in the sense that people in general, I believe, are leaning towards wanting to deliver great results. You do see differences between organizations and they're managing within a current ecosystem. And a few of them try to redesign that ecosystem from within while running an organization in that ecosystem. But that's hard to do.

I'm glad you said that. I also pushed back on the broad-brush prejudices. I think they're misplaced. So, digging into the actual names themselves, you've run very large organization, medium size, and now you are focused on the small new entrants. So, the question of the benefits of scale I imagine is very near to you. Before I even ask the question, you've worked for the largest of the payers, some of the largest health systems, one of the largest aggregators in primary care, the largest of the tech companies, new age tech companies that ventured

into healthcare through Amazon and now exposed to all these high energy vision-orientated exciting startups. Which of all these organizations has really stood out for you? That you look back on with nostalgia and think "they did it right?" They had the right culture, they built great infrastructure, they were outperforming. And when you think about - almost Jim Collins, Good to Great - the great, which of them would you point to first as great?

Well, these are different organizations, the ones I've worked in, and I love all my children equally. I think they're different. Let me start with my most recent role, which was One Medical. And, One Medical was a modernized primary care organization that combined a few things that were pretty novel. So in primary care, parts of the problem statement we like to say, is that all the stakeholders are frustrated. On the demand side, people are dissatisfied with the experience largely because of access and wait times and the service experience. Employers or payers are frustrated largely with rising costs. And then on the supply side, we see high levels of burnout, 6- 8% levels of burnout in family physicians, and uncoordinated care. And so, at One Medical we said, we know these are problems. And having very short visits, paying providers on a fee for service basis in an HSA high deductible world where every patient has first dollar payment on asking any question probably is not the right setup for primary care. At One Medical, and frankly we did the same at Stanford when I was there and a little bit, I'd say the same, at Optum. We said, well, that's just not the right setup for primary care. So how do we address some of these problems? On the demand side, starting with the consumer, we said, well, what if you can ask any question – the consumer anytime on an app asynchronously can message, get prescriptions or have a synchronous video chat and we won't charge you, we won't bill you for that. Would you like that? Yes, we'd love that. So we did that. Now we need an economic model for that. We said, what if we charge you a membership fee so we can kind of get some revenue for that? It was hard to contract from payers, so we said, what if we ask the consumer if we'll pay that? And then we said, what if we went to employers and said, "Hey, why don't you pay this for your employees?" And that's what we were able to do. Now the membership fee is nine bucks per month. You can get it on Amazon Prime, add it to your Prime membership. And then we went to large employers, we signed up 9,400 employers who were offering One Medical as a benefit. And so now we're able to say, okay, we have no copay, no deductible, no claim - ask us a question anytime. But, we have our little modernized revenue model around that. So now we're fixing that, "Hey, why don't you come to primary care first?" Let's make that really financially easy. And then we thought about the other aspects of access. You could do it digitally. We'll put locations in retail locations across the country. We'll have same and next day appointments, we'll have a very high, 90 net promoter score, high service experience. So, we solved for some of the problems that we knew with primary care on the demand side. And then on the supply side, we said, "gosh, if we take these providers and they have unlimited video chats and messages and we pay them a fee service, but there's no reimbursement here, that's not going to work." So why don't we pay them a fixed salary? Let's make the appointments longer, 30 minutes in office appointments, and let's build a virtual team. And this is kind of before the whole COVID pandemic. We had this model and then it played well during COVID and that virtual team, let's use software natural language processing to read messages and then route messages off of the in-office provider inbox. And then we'll have 24/7 team members respond to these other messages. We helped improve provider burnout by having salaried model longer appointment. We took about 55% of their tasks off of them in-office, routed those somewhere else. And then by the way, to fit into the ecosystem, we accepted insurance, we accepted commercial insurance. So there we were solving for kind of what folks knew were barriers to access because of copays, deductibles, wait time, service experience for the consumer side and burdens on providers and non-value based care in a fee for service, short visit, primary care model. So let's have salaried model, let's leverage tech and have more time. So I think that was a clever innovation both on the service experience, on the care delivery experience and then building an economic model that can work there.

Going back to your initial question, why I can't compare that across companies, is if you go to a Stanford or a UCLA or Stony Brook, we were running ORs and ICUs and it's a different level of complexity. And, of course, at United and Optum, you're running an insurance business and I was on the Optum side and the care delivery side mostly and behavioral health. So they're just a little bit of apples and oranges.

But what I appreciated about what we were able to do at One Medical is we were able to innovate from within the system.

Back to your earlier question, it's hard to innovate from within the system and operate at the same time. That's what we were trying to do.

The One Medical case study, let me see if I get it right. I think there's so much value in it, but before I unpack it, I want to know that I understood it. It feels to me from an outsider looking in that the premise, whether intentional or accidental, was we're going to focus on the corporate employer market onsite, offsite. That's our primary audience and we're going to do a few things innovatively, much better, but not much more than that. And those few things are going to make a real difference, whether it's virtual care or patient service, we are going to provide high quality, highly reliable, as you said, asynchronistic

communication that is effective. And I speak as a firsthand case study of One Medical working. I've been a One Medical patient for many years and have loved the experience because it is highly reliable care, consistently high quality, and the customer service is extremely high. And am I right in saying the experiment that more or less defined it as opposed to the incredibly complicated efforts from the Oak Street, Cano Health, Village MDs, etc. to try to create this concept called fully coordinated care that was monetarily driven, economically incentivized, coordinated care, very different. Is that accurate or am I missing something?

I would say not exactly accurate. You are accurate in the sense that we had to think about the patient populations and also what were the revenue and economic models. And in commercial insurance, there isn't a lot of global capitation, but we built a model for value-based care that would've done great in commercial global cap. We had salaried model providers, we had 90th percentile HDI scores. And by the way, we did publish a paper in JAMA Network Open that showed, at least for one employer, we took down their cost 45%. And so we were absolutely doing that. And I'll note we then were serving people over 65 and we said, gosh, there is a model where we tend to take capitation. And so we did the same thing. We actually bought a company called Iora Health, which is like an Oak Street Health or Chen Med or what have you. And we took global Medicare Advantage capitation and then we started blending those populations in certain clinics and certain geographies. So we actually did both. So I would say our clinical model was a value-based care model just in commercial insurance. There isn't global cap to be had, but we needed a little cap. We were doing more things. We were following up with patients, we had 24/7 coverage. So what did we do? We made up our own cap, the membership fee in the Medicare space. We did take Medicare Advantage actually last year on ACO Reach. When CMMI reported out the top performers, we were number one and tied, if you will, number one and two, it was One Medical and Oak Street. In terms of savings, I would say we built the right model for coordinated care. One just has to think about the commercial revenue model differently across the different payer categories. And I think we did that well. So I think the difference was, I'll flip it the opposite.

Most people haven't figured out a way to make money delivering highly coordinated primary care in the commercial segment because commercial pays fee for service.

And actually that's a worse reimbursement when you're doing a lot more. We have free on demand 24/7 asynchronous chats and video chats. We do outbound outreach on our complex patients and we have no revenue model for that. In commercial insurance, we made one up and we said, let's charge a membership fee. So I would say we're actually doing something similar just trying to fit it into the commercial insurance world.

Most people haven't figured out how to make sustainable healthy margins in the non-government portion either. I never got the sense from One Medical that it was a cheap capital play the way that Oak Street and Cano Health have been. And, I know there are exceptions, or at least there were exceptions up until the last 12, 24 months of healthy margin, high growth, MA focused, complex global cap outfits out there. I think ChenMed, maybe Apollo, but certainly the more narrowly defined market orientated groups that drove growth based on ethnic focus market focus, they seem to outperform because they were able to get even better results out of their patients and providers. But for the most part, and you hear this time and time again that the presumption is the MA space is incredibly difficult to pull off from a return on capital perspective. So I think you sort of dodged both bullets by doing what you did and that tells me that you built it differently. Is that fair? I mean, you were on the inside. I'm just looking from the outside.

Well, I think we did things differently. That's fair. But let me take a step back on the Medicare Advantage space. I did have responsibility for the capitated medical groups at Optum. As I said, we bought a company, Iora, and I'm colleagues and friends with folks who run some of those other great organizations. Is Optum getting out of the care delivery business? Have you seen Humana get into capitated groups? You just saw elements announced that they're doing something with CD&R to bring in groups. So actually these groups can work really well. And if you look at the performance of cohorts, for example, at One Medical, seniors after a few years, we were down to call it 70% medical expense ratio. And again, the plans were keeping a chunk, their administrative ratio off the top and you saw similar performance at Oak Street and others. So the thing is, each time you bring in a new cohort of lives in year one, you might spend a hundred percent of that claims expense. You're accountable for all their expense, you haven't yet managed their cost, you haven't been able to deliver care, but over years, that goes down. So, you are right that, as you grow, that's capital intensive because it takes, call it three years to get that performance. And when the stock market shifted and capital costs went up, that made it harder. There was also some shifts in how Medicare was paying health plans and thus groups in terms of stars quality rankings, in terms of risk adjustment factors. And you've seen that in the both health plan market and that flows through to the care delivery. But actually as you see the organizations that sit on both sides of that, they've doubled down if you're the health plan on one side and the care delivery because you have that expense anyhow,

Some have moved away, right? You've got examples of super large cap entities that have shut down their exposure to the space. So there's examples of both. And I take the point that these groups look for vintage - will they find them over time? And you would know better than me because this experiment has been going on for quite some time, but it is at least suspect that large groups have run afoul of return on equity. Large, well-capitalized, multi-state national entities with real scale, multi-billion dollar revenue streams. And they're generating hundreds of millions of dollars of losses. And that again, if you can skip that, if your growth at One Medical is incrementally positive, year on year returns sustainable, then it is a lower risk business model. And you're almost being too kind to the DuPage's of this world, the Village MDs, and of course the Cano Health and the Oak Streets. You're being too kind.

I would say there's apples and oranges in those groups and you can't, I think, lump all every care delivery group together. Execution is hard. If you dig into any one of those individual companies, some have pursued very different strategies. And ultimately it goes back to one of your initial questions, and execution's going to be a big part of this. And again, some of these folks said, Hey, we're going to buy a bunch of stuff that aren't going to be integrated. We're going to grow like crazy. And then the capital markets change and you're bring a lot of cash. And others were saying, wow, we built really consistent tech systems, clinical systems, regulatory rules might change that might impact reimbursements, but actually underlying performance is strong.

So I think back to one of your other questions, execution matters. Back to your other question, focus and consistency matters.

And then again, these are very tough right? Businesses, and there's different economic models that are needed across commercial, Medicaid, Medicare, dual eligibles, and you've got variations in kind of those strategies across different organizations.

Another direct primary care business that we came across Premise Health, very successful. The only real obstacle that threw them off there otherwise quite stable growth trajectory was COVID. Other than that, sustainable, repeatable, scalable, it feels to me, again, as an outsider, primary care looking in, if you have a truly rational winning strategy, definable and it works, it's not speculative, it's not awfully difficult to execute on. Another example, I'm partnered with the largest health system in my state. I represent them, their HOPD enhanced rates are available to me. I have an opportunity to scale well in my state. Therefore, those strategies seem to work in primary care. What I wrestle with is we have solved for coordinated care. It seems to me that those who have built around that concept alone, I'm going to risk stratify. I'm going to create my patient pools. I'm going to go out and I'm going to scale that business. I just don't know that that's been as successful?

Yet. Yeah, I think a few things as I sometimes like to say, which is not a genius insight risk is risky, right?

Yeah. That's the statement I was looking for from you. That's the one,

Yeah, risk is very risky. And then one is taking global risk and then oh, a new drug comes out and you have pharmacy risk or Medicare changes the way it's reimbursed or your population shifts. You need actuarial and risk management capabilities as well as clinical capabilities. So these are really hard things to do. I am, however, happy that organizations are trying to take on these hard things. Yes, these are hard. And then even if you've got the strategy and the finance conceptually and you manage that perfectly, the execution is still very hard. These are very complex patients. And going back to one of the things you asked about which organization I thought was most differentiated or successful that I've worked at, one of the things we tried to do in all of them is leverage a consistent operating system. The way I've led and managed in each organization has been the same. It also goes back to your initial question, what's it like working in these, well, I've frankly managed in the same way. And I think about how do we do what I call strategic alignment and deployment? How do we know what our mission and strategy and goals are down to all of our metrics and dashboards, and do we agree that these are the things we're working on? So I'll call that strategic alignment and deployment. We all do some variation of that. The second part is improvement and innovation. These are our goals. We want to improve. We all agree, these are the areas we're working on, who's doing what by when to make this better and how's it going and how do we do that in a multidisciplinary way? And the third bucket where often I see organizations fall is what we call active daily management. It's great to have goals, it's great to improve upon those goals, but what do we do each and every day always to sustain and scale that performance? How do we hire, how do we onboard, how do we train? How do we build in lean parlance the standard work? How do people know each and every day how to do this particular task and activity? How do we go and view and observe and see what's happening in the field? Do we do that regularly? I think having these kind of approaches are key to execution. And then yes, one might succeed or fail based on strategy and financial models and the risk, the riskiness around that. But even within that, you have wide variations in execution and performance because this other part is really hard to do in healthcare. I mean, all of your members are running complex organizations. It's very, very hard to do. And some organizations do it better than others.

I couldn't agree with you more. And my point in trying to delve into this topic is to try to evaluate the terrain accurately, not with a goal of judging it. In fact, quite the opposite. My view is the health of an industry is defined by, one of the ingredients is the frequency of failure and the type of failure, which is the last thing that regulators ever want to hear because they're afraid that they're going to get blamed for it. But you can't have a healthy healthcare industry without assets attempting what seems like the impossible and in many cases failing because it's hard.

I'm with you. But if coordination of care is a critical driver and determinant of success in our industry, how coordinated are we really? If where we've been is a paradigm of staggered meal, you have your part of your lunch is served to you in the morning, and part of that lunch is served to you in the evening and you are left wondering, was this ever a lunch at all? And that's sort of a metaphor for healthcare today. It's not really coordinated, it's siloed.

Where do you think we're heading? And I want to bring us to Healthier Capital and the focus on AI and healthcare and your investments in the space. Why are you so excited that we really are now entering this new age of truly coordinated healthcare?

Great points. If you ask the key stakeholders, do you think your care is coordinated? If you ask the consumer, they are telling us no. If you ask the employer who's paying for it or even the government payers, they'd say no.

Yeah, it feels like you're getting your lunch, tea and dessert three days later.

Correct.

The interesting thing though is if you ask providers, they'd say no as well - I'm just trading water to keep up with what I'm doing, and it's very hard for me to get referrals to get authorization to coordinate that care, to follow up between appointments. So absolutely, I think that's a problem statement. There are instances, however, where we do this well, whether it's some aspects of the primary care models we discussed, or for example, maybe a patient's got a complex condition and I'm within this specialty and they're doing a great job between this surgeon and the doctor and the nurse and the radiologist. Often those are very hard to coordinate as well. But sometimes you see programs, cancer centers and others that put a lot of effort into coordinating that care. You have instances of it, but in general, it's hard to do because to use your other word, we have built our system into silos, into specialty silos that get reimbursed for their encounters or engagements. This is an absolute area that we're looking for innovation in because every stakeholder is frustrated here. If you can find innovative models, they can disrupt from within, they can have an impact.

Maybe just to share a few examples of the types of areas, as examples, that we're looking to invest in. Agentic AI, conversational AI agent, agentic meaning agent. So that can help. Right now they are working with a number of health systems and people can talk to it, they can message it, and it gives you the right answer. Where do I go? How do I schedule? I'd like to re-book an appointment, can I get a prescription renewal?

And this tool can take information - whether it's from PDFs or websites - and it can basically always give you that answer as opposed to the turnover in the contact center and you have sticky notes on your computer screen. This tool can do that.

This is not going to be the end all and be all of all coordination, but sometimes the front door, whether it's the web or the phone, is hard to get through. Your answers are hard to get. So that's an example. And they're in some health systems now where they're handling 85% of the contacts automatically with really, really smooth service experience. And then this organization and others like it, are then saying, well, what other follow-up tasks can we take off the humans? Well, gosh, before the specialty appointment, it doesn't make sense if you book an appointment and you've got the wrong physician or I can't do much. I was just with a neurosurgeon here in, we were catching up in New York City yesterday, and he is like, yeah, I get referrals of patients that come into my office. I'm not actually specialized in their area and I have no images. I really can't do anything. It's kind of a wasted appointment and they might've waited months to see me. Well, that's a waste that we can solve with, for example, innovative software. So let's make sure what condition does this person have? What information would we need in advance of seeing this patient? Those are the kind of questions that technology can help us with. Just a couple of examples.

It's interesting that while our industry here in the U.S. is 17.5 million labor strong, it isn't recognized as a world leader. I wonder how our reputation will change when we are front foot technology as an industry, as a U.S. healthcare industry. And I do think you have to assume that 10 years from now, the entire branding of U.S. healthcare might change when what we lead with is not the size of our labor force, but the strength of technological innovation within healthcare. That hasn't happened yet, but it's happening. And that's really interesting.

Why is the answer not, well, Amazon and Facebook have gotten this taken care of. Don't worry, Amir, focus elsewhere. Why do you feel that the opportunities still exist at the micro-cap level despite the presumption that these behemoths are out there buying anything that sniffs of any value whatsoever? Or are you counting on that?

Yeah, a few ways to answer this. I think first of all, in applying technology to healthcare, but probably true in applying it to aerospace or consumer or banking financial services, one needs to understand that ecosystem and healthcare's ecosystem as we've been discussing here today is complicated. How does it work in Medicaid? How does it work in Medicare? How does it work in commercial insurance? How is that AI being managed? Does it need FDA clearance? One of our companies uses AI in imaging to reduce the time in MRI scanner in half - pretty darn useful for increasing throughput - that went through FDA clearance. Other AI technologies don't go through that FDA clearance - they're more decision support. So the healthcare situation is complicated if you're going to be making medical decisions. Are we making sure we didn't drop a zero off your lab result? That might make a difference. So I think first of all, one needs to navigate the healthcare ecosystem and that requires understanding how healthcare works, understanding the regulatory environment, the clinical environment, the various stakeholders. And so that could involve large tech companies getting involved. And they are, whether that's building foundational models, whether it's hosting cloud services, but it's, to this point, been very hard for them to get into the idiosyncrasies of these healthcare organizations. And, frankly, it may not be the best business model for them. It may be much better to just sell cloud services to all of them. You folks in healthcare, you figure out the next level we'll just sell you storage or compute. And that's a mass generalization. But in general, that's where you've seen kind of the big tech play, frankly, which may be the better business.

Healthcare is a massive aggregated market, but it's arguably the most fragmented of all markets because of its idiosyncrasies. It really is a million tiny markets that add up to one whole. And I'm not sure that is an easy opportunity for a trillion dollar business to explore, but rather a wonderful opportunity for many niche players to explore. It's almost as if you're describing an impossibly difficult coded pathway to growth that you have to go through in order to discover no one really knows how to scale new entry AI in healthcare. You have to do it and learn what works, what can scale as you're doing it.

And just a couple other examples to that point. So I talked about this kind of Agentic AI kind of customer service agent that could potentially have a broad base. It won't solve every problem in healthcare, but part of why that is working so well is it's got interfaces to Epic and Cerner and Salesforce. It has interfaces into your phone system – Avaya, Nice, Amazon Connect. It needs to work across your patient engagement systems. And there's multiple organizations here. It needs to work across the big tech players. And so sometimes being one of the players is hard to work across all of these players.

So it's not just the AI, but it's how it interfaces into the ecosystem.

We have another company that's automating clinical research. It's using the same kind of agent approach to do autonomous research. It takes electronic health record data, and the researcher can ask in kind of natural language, how is this correlated with that? And the system on its own will say, well, to answer that question, let me set up a control group and experimental group. Let me ingest this data. Let me look for outliers and let me run statistical analysis. And here's an initial finding that's learning from researchers. Well, you have to understand how researchers work. You have to understand how to build a neural network that can learn from them. It's not just about raw data. It has to understand, okay, and then I want to write that up into an NIH grant application. So you have to understand NIH grants and then I want to write this up into a paper and submit it to JAMA. Well, you have to understand those rules. So again, it's a very exciting company by the way, that can do that end to end. But you need to understand each of those steps, each of those rules. And by the way, each of those steps, and a lot of those rules keep changing. And so this is where breaking down the 4 trillion health system in the U.S. and then you get into global health system down and into its sub components is important.

Your experience that you referenced while running One Medical, one of the groups experienced a +40% reduction in cost. Was that primary cost or was that total care cost of care? And then if it was total, how were you managing those downstream services and costs? And then secondly, I heard you say you've worked in behavioral health with Optum. What do you see happening on a national stage within behavioral?

So on the first question at One Medical, and I mentioned this study that we had in JAMA Network Open, which showed that we took the cost of care, total cost of care, down 45%. So that was total cost of care. And what were the underlying mechanisms? Well, at some level, by having that easy access to primary care 24/7, including no copay and no deductible, if you had a question that averted a bunch of emergency room visits, I think it was something like 35 to 40% reduction in ER visits. Because people can come to us. And then by the way, once you go do an ER visit,

you might have diagnostics, you might have lab work, you might end up in observation care. That doesn't mean we wouldn't send people to the ER, but we can often answer their question quickly. The other thing we could do is we could get them into same day appointments and next day, well, why don't you just come in? Let's see you. So that was one of the underlying mechanism. Then once you're in primary care, typically, and I've worked in great health systems with largely fee for service, primary care with clinicians working really hard, they don't have a lot of time. And so if you have a lot of issues, we end up referring you out to specialty care. Well, we had half hour appointments, we had longer time, so we could handle a lot of the CHF, COPD, behavioral health issues in primary care. And so we started then seeing also 30, 40, 50% reductions in referrals. And again, our providers were straight salary. There was no incentive for them to reduce referrals or increase referrals. They just had the time. And then our technology, we defaulted into generic drugs. Whatever was written, the generic would come up. The clinician can override that, but they typically didn't. So we had really high generic drug usage.

So we were able to reduce specialty referrals, reduce ER visits and hospitalizations, reduce specialty care, have higher generic drug uses by having easy, accessible, salaried model primary care. And it took down total cost of care. So that was that.

Now to your second question about behavioral health, huge problem in the U.S. A lot of demand, not great access. We were actually invested in a couple of companies in behavioral health, one in tele-behavioral health that takes therapists, puts them in an MSO model, takes insurance and builds an interesting software layer to help manage their practice. And then we have another business that is focused on serious mental illness. These are patients discharged from inpatient psych units with schizophrenia psychosis, and they're the issue. They've built a complex care, multidisciplinary medical home, not just with psychiatry, psychology, peer support, but also primary care and long-acting injectable meds. And they're showing they lower readmissions. 30 day readmissions in this population are over 25%. This organization is close to zero. And so they were able to go to health plans and say, Hey, I'll save you 30, 40 grand next month on avoiding readmissions and have found an innovative model there. So you have, just like in other specialties, mental health is a broad area. So you have certainly a general anxiety, stress, depression, but also kind of rule in effect very high cost on a smaller percent of the population in serious mental illness.

For many of us who haven't used AI yet, adopted it, integrated it, it's a scary proposition anytime you do something for the first time. You are far advanced in AI and healthcare on a relative basis, you're a black belt. But I imagine you're also learning every day, as is everyone involved in the space. But given what you've seen so far, what are some of the most important questions that you would recommend others ask?

Yeah. Well, I think at some level we're in early innings, and I would not put myself as a black belt in a field that we don't even know exactly where it's going. So I think the first thing is thinking about safe, safety, security, almost compliance. We're investors in a company in a space that's just trying to do that. If you're going to use the AI model, how do you know what data it's trained on? How do you know it gives you consistent results? How do you know it doesn't have drift or the model changes over time? How do you know it doesn't have bias in the results? How do you know if it's taking your data, ingesting it and selling it somewhere else? How do you know if it's taking your PHI and I and this organization is working with health systems on helping answer those questions and then track and monitor these systems? So I do think this question of safe AI use is going to be important. For example, the other two AI companies I mentioned already that we're in investors in one or about to be on this one, on the Agentic AI, the customer service agent, they have a lot of effort around safe and secure AI. For example, they're using these large language models to understand the voice, but then the answer is not just coming from general web data, the answer is the data you gave it, it will only answer the information you gave it. And then it could use LLMs to speak that back or to write you a follow-up sentence. But it's not going to make up answers. And if something isn't immediately answerable, it won't guess, it'll send it to a human. So those are the kind of controls one might want to look for. Now, if something is in customer facing or clinician facing, you may need more controls versus like, Hey, I'm just doing a general search. I want some information on something. And that's where folks may go to Chat GPT and others and get really interesting answers, often really great answers. But by the way, if you type the same question two or three times, you'll get two or three different answers depending on your topic. What floor should I park on in the parking lot for this clinic? You want the same answer? So thinking about that, safety and security is important. Thinking about what's happening with your data, it could be, okay, by the way, if the organization takes your data, some of these models are trying to take data and sell it to life sciences. That can be fine if it's anonymized, if it's secure. But just understanding, I think what's happening there is important.

Very interesting. It's almost like we need to create a different type of AI, medical AI. I think about all the conversations I've had with AI and I point something out and the Chat GPT response is, oh, you are right. And I'm thinking, that probably doesn't work in a doctor's office, doctor. I think that I swear I have cancer. Oh, you are right. Probably not the right response. So these different levers, the personality of AI needs to replicate almost a human clinician that is pre-trained over years to say in that situation, that's great that you feel that way, but here's the science.

Also what hasn't been said, this is where humans are really good. Okay, the patient is describing this, that and the other, but I think they are holding something back. That might be the most important thing. We looked at a company recently and saw a demo of an AI support tool for office-based physicians. And basically what it's doing is as the patient and physician are having a conversation, it's basically taking textbook knowledge and saying, Hey, this sounds like it could be this or it could be that, or let me document this. I heard you say this. And then later on the clinician can confirm or reject those things. But at some level it's just doing quicker search or faster documentation. I think these tools might look like they can diagnose because you've loaded up every medical textbook into them and they could give you answers. But again, it's the humans that are going to be needed, what hasn't been said or alright, these are four things that could be the case. Each of the treatment paths have different side effects, there are different complexities around them. What's the right thing for the human? So I think we're going to need to be both technology powered but also human centered.

I think that's so appropriate. I'll finish off by saying I saw a pain doctor yesterday for my neck and she spent an hour and a half talking to me. And while she's prescribing pain medication, I know that she's looking at me thinking, is this the kind of person who's actually going to take the medication the way that I prescribed it? Or is he likely to just take one pill and I can see her mind evaluating what kind of patient am I? So it's just interesting, all the subtle intangibles that add up to smart medicine. Amir, I want to thank you for this morning. I thought it was highly and uniquely insightful. I'd like to say I was surprised, but I think it's as I expected and I look forward to staying in touch and working with you for years to come. Thank you.

Thank you. Thanks to the SCALE Community. I appreciate what all of these leaders, what you're all doing, running really, really complex businesses trying to make healthcare happen out there. Thanks for having me.