**John Marchica:**

Welcome to Health Care Rounds. I'm your host, John Marchica, CEO of Darwin Research Group and faculty associate at the Arizona State University College of Health Solutions. Here, we explore the vast and rapidly evolving health care ecosystem with leaders across the spectrum of health care delivery. Our goal is to promote ideas that advance the quadruple aim, including improving the patient experience, improving the health of populations, lowering the cost of care, and attaining joy in work.

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**Kim Asciutto:**

Today we welcome Jon Warner, five-time company CEO and widely respected entrepreneurship expert. Jon's career started in the corporate world with air products and chemicals working in the US and across Europe before joining Exxon-Mobil. At Exxon, Jon worked in the UK, the US, Australia, and Nigeria, ending his career there as deputy CEO.

Jon is founder of The Worldwide Center for Organizational Development, a management consulting business, and a CEO of Silver Moonshots, a research organization and virtual incubator for startups focused on health technology and innovation aimed at the 50 plus population. He is a noted author and speaker at businesses and colleges across the world.

Jon is a graduate of the top five Warwick University in the UK with a double bachelor's degree in philosophy and politics and a PhD in psychology. Jon sits on the board of St. Barnabas and is co-chair of the annual Aging into the Future conference in Los Angeles, California. He is an adjunct professor at Redlands University where he teaches entrepreneurship.

**John Marchica:**

So, Jon, thank you for joining us on Health Care Rounds. I appreciate your taking the time. You have a really interesting origin story that we talked about, prior to health care, and I'm just wondering if you can walk us along your journey from corporate to entrepreneurship and everything in between.

**Jon Warner:**

I can, and I'll try and keep it brief, John. And good to be here. Yeah, I was in the oil industry 25 years ago with a sort of classical, professional corporate career climbing that ladder. I was a GM in a division and really not looking forward to future promotions in the oil industry. So I decided that wasn't going to be for me. I left to get into the world of management consulting, thinking that would create the variety I needed.

My first client was a biotech company, my second client was a pharmaceutical company, and my third was a large hospital system. And it wasn't because I was clinically trained, it was because at the time it was all about efficiency and effectiveness, and I guess those industries wanted some help. But I quickly not only learned the jargon of those industries, but realized I enjoyed the broad realm of health care a lot and I've been in it ever since.

So as I think I said to you when we spoke before, I should get rid of my imposter syndrome, having been in health for 25 years now. But from there, I didn't stay in the large systems for too long. I quickly discovered that innovation and technology and entrepreneurship in health care are a lot of fun and there's some really worthy issues and challenges to solve for. And that's what I've been doing, in

certainly the latter part of that 25 years. I've been involved in those areas where it's much earlier stage companies trying to ideate and to innovate and improve our system generally. So that's the quick story.

**John Marchica:**

Sure. So I guess it'd be a natural transition to ... First, I should tell people, if you go and look at Jon Warner's LinkedIn page, he has the record, I think, for the number of entries in LinkedIn. Just keep hitting five more experiences. He's done a lot and is currently involved in a lot.

But one of them that caught my eye was the Silver Moonshots. Talk a little bit about that organization, what you're trying to accomplish through these competing programs.

**Jon Warner:**

Yeah, happy to. This is obviously a natural implication when you work with early-stage companies. They're often looking for funding in order to gain traction and scale. And I've been involved in the investment space for the last decade or so in terms of institutional capital going into health care, and digital health in particular. But one area where capital is not as available, and it's partly because the companies haven't really got an investible value proposition, is in the aging tech space. Meaning any technology or innovation that's aimed at older adults.

It's a big marketplace, but it doesn't mean we have, at least as yet, solutions that have been investible at significant levels. Silver Moonshot started about two and a half years ago as an attempt to bring more entrepreneurs and startups into the ecosystem that were willing to solve for problems of the older adult. So we built it as an accelerator. It actually is a nonprofit, so we do charge people to be in the accelerator, but we don't take equity. And that money cycles back to the mentors, to the teams that are in the sprint with us while they're in the accelerator.

And the goal of Silver Moonshots is to help the startups that come into the accelerator to become more investible than they were. So they're with us for a seven week period, we take six teams in every quarter and we try and help them get from A to B. So that's the model for it. And the criteria for entry is that they have to be an established startup, not just an idea. They must have an MVP, must have at least two founders, and they must be trying to solve a problem in the older adult community.

**John Marchica:**

Why at least two founders?

**Jon Warner:**

We've had experience where you've got a single person who's got an idea and can't find anyone else to work with them. And I think until they've solved that problem, it just becomes more problematic. They end up wearing too many hats and they get stretched too thinly. And I think as you and I would know, John, and again, when they're pitching, particularly for institutional capital, it's very hard when you don't have a team around you.

It's good to have someone already in the startup that you can trust and work with. And ideally, you've got different skill sets. The CEO, and maybe it's a COO or it's a CMO, but someone who can take some of the load in terms of the early stage effort that's needed.

**John Marchica:**

Sure, sure. So a few minutes ago, you said, if I heard you right, that it seems like there's a dearth of capital that's in senior markets. That seems counterintuitive to me. It seems like it's a growing market,

that population segment is growing, so you would think that it would attract more entrepreneurship rather than in other areas. I wonder why that's the case?

**Jon Warner:**

Yeah, it's a paradox. And I think what you've got to split is the sheer size of the addressable market. We know there are 50 million seniors today in the US. We know if we take the 50 plus population, which I tend to focus on, it's 120 million. These are giant numbers, and of course, the boomer population of which I'm a part has being sailing into retirement and into the senior category a rate of, now as AARP says, 10,000 a day. So the addressable market's huge, no question about it.

The problem is that we haven't seen venture capital or even private equity come into the space. And when they have, they haven't made money. So I think it's an opportunity cost problem. I actually think they can make more money, more quickly in other sectors. A natural one would be in areas like digital health, digital therapeutics, for example, we've seen enormous amounts of investments in those spaces in the general marketplace.

And one of the reasons is... There's two fold, not to get too deep into this. But one is the private pay market, which is often B2C and B2C is often a heavy lift when it comes to venture. And then in terms of B2B marketplace, very often you're looking for reimbursement. So a CPT code to attach your solution too, and that takes a long time. And that could be a two to three-year cycle. It's longer in life sciences. So this is more patient capital is needed, both to find your customer and to get perhaps the reimbursement code you're looking for. And I think that's why many institutional investors shy away from this in waiting for the market to mature.

**John Marchica:**

What's been an example, Jon, of one of the more promising companies that you've seen that you say, hey, this is really a standout that went through your program and that is maybe in market right now.

**Jon Warner:**

Yeah. Yeah. I think there's ones that came through our accelerator and ones I see more broadly, but I've been associated with at the edge. I think there's really interesting technology that's got a high potential. And just to quote one that was in my accelerator, we had a Canadian company called Zappi in the accelerator, it's called Zappi which is short for Zeplin, which is a communication technology, which takes the whole idea that older adults and particularly in the midst of the pandemic, who've been isolated and somewhat lonely and find communication difficult. And we've seen a lot of people sat into the space of smart devices as a way of getting people using that technology or what they've done is actually attached it to a miniature halted balloon on which has projected an image of both the caller and the receiver. So they can see one another.

And that balloon can float around the house to wherever you are. So you can literally sit at a table next to one another and have coffee together or breakfast together. This might be an older parent and a son or daughter, for example, very innovative, very interesting technology. I can see its potential, but I think you can see the idealism in that as well because the execution path, isn't always clear on a technology like that, but clearly helping overcome the digital divide problem that if you've got internet in your house, you don't need to find your way over device and log in. You can literally just have the technology come to you, in terms of that particular example. We own the accelerator. There's lots of technologies I think, are doing interesting things in the older adult community.

Sometimes they're in specific communities. I think we've seen lots of companies take advantage of the Medicare advantage systems that payers are using now. And they're putting up solutions that can

cater to that population of people, city of LA health in New York, Oak Street in San Francisco, are good examples. I'm associated with Element3 Health in Denver that are dating with getting people together for social cohesiveness and sharing pastimes in an online and offline environment. So I think this is interesting because we're seeing individuals taking advantage of changes in the legislation in particular and in policy and procedure in order to render their solutions. And I think we can see scale potential in all of that.

**John Marchica:**

So I'll pull something up on my screen. I don't know that I'm necessarily going to share it, but I remember reading about this a few years back from AARP and they talk about a caregiver support ratio. So the number of caregivers, basically over the people who need care. And in 2010, that number was basically seven potential caregivers for every person that's in their high-risk years of 80 plus. They were projected in 2030, that number to be four to one and by 2045, for that number to be three to one. I raised that and if you're in this market, I'm sure you're well aware of this to ask what, because when I first read about this, I thought this is the biggest problem we're going to be facing as the proportion of seniors over 80 grows compared to younger people. And I don't know that I've seen any great companion technology or anything that I've been aware of, of course, I haven't been looking in the last couple of years. Have you seen any technologies that are going to be able to address this issue?

**Jon Warner:**

Yes, I have, but let me stop with just re-contexting that research, which was done with both Pew and with AARP. To some degree, it's a little bit of a false dichotomy. Yes, the ratio is falling and we know the people stepping up at the non-professional caregiver, there's 10 million professional caregivers in this country. We're now up to something like 45 million that are in the sort of the adult kids of all these older adults and they're strained. And I think in COVID we've seen they're strained by that. And then you've got the sandwich generation, we've got kids and all the parents, for example. However, I think we've seen a massive uptick in terms of millennials coming into this space. Of that 45 million, 10 million are millennials, I'm very happy to be in it. So I think it's creating some opportunity in that space.

I think it gets us into intergenerational and multi-generational opportunities and there are startups playing in that space to match those opportunities. Silvernest is one example in Colorado, for example, that's doing exactly that and actually allowing millennials to live in expensive cities, for example, with older adults and almost trading their caregiving in order to go and be where they want to be. So I think that's one big thing that's different. And then I think you've got technology that gets rendered that can do some of this lift as well. Robotics being the obvious one. I agree with you it's pretty nascent right now, but I think it's evolving quickly.

And then lastly, that tends to be a US centric view of the world. If you take the world as a whole, I think the ratio is in the other direction and other countries. And I think we see this in other realms. So our capacity ticket out to outsource service in customer service in the Philippines or elsewhere is possible as well using video technology as you and I are using right now. Now that doesn't meet every need, when you're frail and old, you need some personal touch as well. But it does mean that the cliff in terms of the ratio is not quite as steep as that research in 2017 said it was.

**John Marchica:**

Interesting. Explain a little bit more, I'm not familiar with that model of, as you say, intergenerational living, how do these communities get started? Just go a little bit more depth on that. I think that's interesting.

**Jon Warner:**

Yeah, at the most simple level, what it says is a lot of older adults, particularly the ones who've got money on here, and by the way, that's quite a big part of the population. 50% of the population who've got an asset they own that's larger than their needs. So there are spare rooms in that house they own. And so the simple model is if you've got that capacity in your home and it's not particularly invasive, you could literally take a lodger in effect. You can trade that space for an individual who's willing to come and live with you and get the benefits of where that is located. And as I say, expensive cities being a good example, in order for some tasks, and that might be running tasks for the individual, running the doctor, doing shopping, things that older adults need.

It might be more significant than that where individuals are not yet ready for institutional living, but need more help around the home, for example, in terms of ambulation and other things they may need. And that's really growing quite quickly because the trade is that both individuals are getting their needs met with different value propositions, fundamentally. And several companies are in that space, either doing the matching as Silvernest are doing, which is a harmony for seniors and millennials, right? Just making sure the match is a good one. You want to make sure you can get on and all those good things, but there are others that are thinking about it as well, but with the same underpinning model.

**John Marchica:**

And so it's interesting. I hadn't thought of it that way, but that is a very US centric way of looking at things and it's almost like what was the old... I'm blanking on it, was that the Malthusian population growth?

**Jon Warner:**

Yeah, that's right.

**John Marchica:**

That fallacy and what was going to happen and we're going to run out of all of our resources and of course, obviously that never happened.

**Jon Warner:**

Yes. But the same reason, actually what Malthus got wrong was that technology was going to go quite quickly. And if he didn't take a worldview, how did he took a British empire view at best? So I think we have to look at this. And you can tell from my accent, I've been here 17 years now, but I hail from a different place and it's not California where I live. So I think sometimes we forget that we have many, many other places in the Western world and beyond that have different challenges than the ones that we have. But we've got the potential with the internet in particular, and I have to collaborate and solve each other's issues by doing so. And I think we're seeing this already. I'm seeing care coaching, I'm seeing through telehealth and other areas, an enormous amount of international cooperation going on that I didn't see 10 years ago.

**John Marchica:**

Interesting. Last area I wanted to kind of dive into, I had some notes from our call that you had some thoughts on population health. And I'd like to get your perspective on what you even mean by the term population health. It is one of those terms that people throw around and it means different things to different people. So what does it mean to you and what are your issues with the perspective?

**Jon Warner:**

Yeah. Yeah, and I agree with you, it's almost been taken hostage. In some ways, population health is just public health. It's just, what's the collective health of everybody and have we got a metric or a way of measuring that. Population health came into Vogue just before the turn of the millennia. So it's been around a while now. For me, it means not just what's the health of the population in the US as a collective, but can we take clusters of individuals and track their health and look for commonality in terms of how we might intervene to help them to thrive in a sort of healthy aging kind of a way.

My view in terms of where we've been, and it's exacerbated by COVID, is that I think population health data is where you have to start. And I think that's been really poor. It's not just poor in the US, it's poor around the world, but I think we don't necessarily collect all of the data we need very well at all. It's fairly basic in health, and I'm not just talking about, so the electronic medical record, which again, in and of itself is only been around for maybe 15 years or so. That's great because we collect clinical data, but even that isn't a full picture. We might collect the diseases you've had. So in your claims history, they might be the things you've been to see the doctor for, or why you've been in hospital because you had a broken leg or a knee replacement or whatever it might be.

But actually we don't know much about the human being. And I think that's a huge problem. So this is very often called the social determinants of health. So what access do you have? Do you live in an area that is well served by a food supply, for example. We know something like 20% of Americans live in food deserts, once they get beyond the age of 60, for example, because they move into rural areas and they don't necessarily go get healthy food. Have they got transportation, those are social determinants. And then there's a whole layer of psycho-social data that we might want to know about another human being before we ran the treatment. And John, you and I, know each other a little bit, but I don't know where you are in terms of your family.

I don't know whether your parents are still around? I don't know whether you've got siblings that are how close to them you are, or even physically close in terms of locationally. So just at that basic data level, we don't routinely collect that. Let alone how your role as an individual, are you prone to be somewhat neurotic for example, or an anxious person, or you're pretty phlegmatic. Again, if we start to collect that, we create a context to understand how we might run the service in a different way, because of that contextual picture.

Going back to older adults, just to give you one kind of strange example but it's huge, in older adults, we know one of the biggest reasons that people actually decline, stop thriving and ultimately may well not live, is when they have a pet and that pet dies. The ratio of that individual not surviving a pet death when they're over the age of say, 80 is extremely high. Well, we're not recording whether or not they've got a pet or how close to that pet they are, or indeed when it passes, just a huge sadness they live with. And it may in fact, impact their health much more than the fact they're living with multiple chronic conditions.

**John Marchica:**

Well, and then being able to potentially intervene when these events happen. It's interesting what you're talking about, I wholeheartedly agree with. I had an interview with Dr. Josh Lenchus, one of my earlier ones here on Health Care Rounds. And I asked him about social determinants. And I asked whether that it was appropriate or important, I didn't say appropriate, whether it was important to include that information in the medical record. And his answer surprised me. He said, no. And I said, okay, why not? And he said, because as doctors, we want to be able to act, we want to be able to intervene. We want to be able to fix things, right? And that's maybe how we got into medicine. And if I can't address this person's, the fact that they live in a food desert, or if I tell this person, I want you to

walk for a couple of miles every day, but then they live in a neighborhood where that might not be practical, or they might be in danger.

And it kind of rattled off a whole bunch of these things and said, and I'm paraphrasing but this is just for my purposes, I really only want to have the information that can be acted upon. And that the other information while is interesting and maybe might allow us to do some modeling that ultimately we're a hospital system, and we're taking care of these patients and do what we can. And a lot of this other stuff, while we would get that information, I can't act on it. So, your thoughts.

**Jon Warner:**

Yeah, they're between a rock and a hard place, John. And I got some sympathy with physicians because they obviously have a job to do and we know more than 50% work for large hospital systems. Now they're under huge pressure. They're often stuck behind the EMR system. The average doctor visit has fallen from 25 minutes down to seven minutes on average now, and they've got to get a lot done. So this just puts a huge burden and pressure on them. However, at the risk of not upsetting all the physicians that might be listening in, I couldn't disagree more. But this reason, I think if you go back to, kind of say, a pre 1970 era, the era of Marcus Welby MD, for those of us who remember such programs.

Doctors in general practice would have routinely seen the context in which you lived, because you would have lived in the same town, you would have come in. They would have visited your home. They would know your mother, father, brother, sister, whoever it might be, even some of your friends and they would hear things. So that contextual knowledge was part of the mix in general practice for a doctor. So I think they were getting a contextual picture in a way that technology has made harder today. And so I think we have to use technology to put it back as best we can, where it makes a contextual difference. So I agree with them, it's not all data. You don't want to create so many data points that you just obfuscate what's right in front of you. Is someone ailing and they need to be having intervention.

But I think you need to say, if the cat died or the dog or whatever it might be, or if they fallen recently and you didn't routinely ask that, I think we've got understand that. All that diet nutrition is poor, which is on a longitudinal basis, we know anecdotally that people who are alone for example, are not going to thrive very well. So I think we have to go and figure out what data has got efficacy in terms of someone's capacity to thrive and weave it into the mix. It might be the key determinant of whether they survive or they don't.

**John Marchica:**

Let's take this out of the context of the doctor visit, does that mean sending out caregivers to targeted populations to gather this kind of information maybe almost like social workers?

**Jon Warner:**

I'm spitballing a bit here. I personally think this is best done with consumer side health using digital tools. Now we've got a digital divide problem to crawl. I'm not saying everyone is connected, but it's diminishing slowly. So I think as people get more connected and I think the boomer population, the penetration is very high there. I think we can, with the right approaches, get people to start to self declare, understand those contextual factors and then make sure they're presented so that as they come in, that data is on smart devices, for example, it is uploadable. It is then screened in terms of what might be important. So some of the data bubbles to the top. I think you and I were talking about, when we had a call the last time, just to give you a kind of silly one, it's a data point, but I think it would go immediately into electronic record.

We could routinely, through consumer health, measure skin carotenoids, for example. Skin carotenoids are a measure of the micronutrients that are in your skin as an organ, which actually says, has your body got enough nutrients to live by and to thrive with? So it's a proxy for you eating a fairly healthy diet and drinking in a healthy way. That would be a trigger. So there you are measuring is this person's diet any good? We don't have that many dieticians in the medical community, for example, but it would be an alert in a system that says, wait a minute, John's has been out there. He's been shopping McDonald's and other fast food places for weeks now. And this is not going to be good in the long term. Let's at least ask him questions about that to enrich the picture that we have. And then perhaps we get ahead of diabetes or obesity and other things that in the end we'll be having to treat in say six months time. So it becomes predictive.

**John Marchica:**

Interesting. Well, listen, Jon, this has been great. Let's make this a part one.

**Jon Warner:**

Okay.

**John Marchica:**

Really interesting stuff and I really enjoyed our time today, but let's come back and revisit on another topic. I really enjoy doing that.

**Jon Warner:**

That sounds great. We have to do that, John.

**John Marchica:**

Great. Well, thank you again and let's keep in touch.

**Jon Warner:**

All right, John. Well, thank very much.

**John Marchica:**

Thanks again. Take care.

**Kim Asciutto:**

From all of us at Darwin Research Group, thanks for listening. Health Care Rounds is produced by me, Kim Asciutto and is engineered by Andrew Rojek. Theme music by John Marchica. Darwin Research Group provides advanced market intelligence and in-depth customer insights to health care executives. Our strategic focus is on health care delivery systems and the global shift for value-based care. Find us at darwinresearch.com. See you next round.