DISRUPTING HEALTHCARE FROM WITHIN

By Laura Ramos Hegwer

Over the past decade, healthcare executives have seen globalization and technology disrupt industries like publishing, transportation and retail while healthcare has been somewhat immune to these forces, says Ian Morrison, PhD, author, consultant and healthcare futurist based in Menlo Park, Calif. Although the local, complex and sensitive nature of healthcare delivery has made the field more difficult to disrupt, that may be changing.

"A lot of outsiders to healthcare view the field as ripe for disruption because it is profoundly dysfunctional," Morrison says. "Most entrepreneurs who get into

healthcare do it because they or a family member have had a bad experience and were so frustrated that they thought they could start a company and do it better."

While other industries have used technology to hone their customer focus, many startups—and more consumers—view healthcare as woefully out of touch. "That's where the disruption is coming from—the chasm between the service experience of healthcare versus other service experiences," he says.

As opportunistic outsiders seek a piece of the $3.5 trillion healthcare industry, forward-thinking organizations recognize that they need to disrupt their own businesses to improve care delivery and to stay competitive and relevant in a changing world. Following are some examples of organizations that are making smart capital investments, scaling digital technology and using outside expertise to shake up their own businesses.

Making Disruptive Investments

Across industries, disruption can be linked to an inflection point that marks the end of business as usual, Morrison says. Take, for example, the emergence of online job boards that crushed the classified advertising revenue that supported the newspaper industry.

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Healthcare's own inflection point may be drawing closer as organizations move from traditional fee-for-service to value-based payment models and, for the first time, have incentives to lower the total cost of care.

Foreseeing a major pivot in healthcare payment, some innovative organizations radically shifted their business model years ago. One was UPMC, Pittsburgh, a payer-provider that has used disruption to achieve strong financial results.

Case Study: UPMC, Pittsburgh

C. Talbot "Tal" Heppenstall Jr., executive vice president and treasurer, says UPMC's goal—which is driven from the C-suite—is to be as disruptive to healthcare as Amazon was to publishing and retail. "The key is that we do the disrupting as opposed to being disrupted," Heppenstall says.

Twenty years ago, leaders at UPMC recognized the need to bend the cost curve, which meant changing their business model and starting a health plan. "Our $9 billion health plan is the best startup we ever did," Heppenstall says. "It's an example of UPMC being able to see the problems in healthcare and stay ahead of them." Over the past two decades, UPMC's Insurance Services Division has grown to become the largest health plan in western Pennsylvania, with 3.4 million members.

In 2017, UPMC reported $16 billion in operating revenue with strong net income. Backed by strong financial performance, leaders have invested in other disruptive strategies in and around Pittsburgh. One example is UPMC's $200 million commitment to research at the newly formed UPMC Immune Transplant and Therapy Center, a partnership with the University of Pittsburgh. Immunotherapy could disrupt not only traditional cancer care but also organ transplantation and treatment of diseases associated with aging, Heppenstall says.

In addition, UPMC is investing $2 billion to create three new, digitally enabled specialty hospitals for cancer, heart and vascular care, and vision and rehabilitation. Microsoft is a key partner in designing the hospitals' IT infrastructure. "The most interesting thing about our specialty hospitals is that we are not adding any beds," Heppenstall

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says. The vision and rehabilitation hospital, for example, will focus on outpatient care.

Heppenstall also is president of UPMC Enterprises, which is leading the organization's efforts to commercialize its expertise in clinical care and IT. Each project selected aims to address a pain point identified by employees in UPMC's Health Services or Insurance Services divisions, he says. One company launched by UPMC provides telemedicine for skilled nursing facilities to help reduce readmissions. UPMC also has invested in a prescription analytics company that focuses on improving medication compliance.

To date, UPMC Enterprises' most successful venture, according to Heppenstall, is a software and consulting firm that went public in 2015 and currently has a market capitalization of more than $1 billion.

Over the past 20 years, UPMC has invested in approximately 80 commercial projects, half of which are still active. "If we were a venture capital fund, we'd say our returns are good," Heppenstall says. "But our returns are better than good because what we are doing is actually solving our own operational problems as well" for the benefit of patients.

Bringing Digital Technology to Scale

Morrison believes that consumer-facing "virtual care" technologies could disrupt the industry if brought to scale. One organization doing this is Providence St. Joseph Health, led by veterans from the tech industry.

Case Study: Providence St. Joseph Health, Renton, Wash.

"Everyone talks about how Amazon disrupted other industries, but they did just as good of a job disrupting their own business models," says Aaron Martin, who was part of Amazon's books team that brought Kindle to life in 2005, when most of the company's revenue came from selling physical books.

Martin, who is now executive vice president and chief digital officer at Providence St. Joseph Health, is applying the lessons he learned at Amazon to healthcare. One focus area is traditional primary care, which has failed to segment patients with low-acuity, immediate needs from those with more serious, chronic conditions. To serve the first group, the health system opened 33 Providence Express Care retail clinics at Walgreens and other locations in Seattle, Portland, Ore., and eastern Washington during the past 18 months, with more clinics to come. Last year, the clinics received 140,000 patient visits. More than half of these were scheduled online, which is approximately 10 times the rate at which patients schedule visits online in traditional primary care.

To complement these retail clinics, Martin and his team created a digital platform that allows patients to engage with a nurse practitioner via video or house call. Last year, patients using the tool had 10,000 video and home visits.

When launching an emerging business like Providence Express Care, leaders carefully monitor its

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performance metrics each week. Then every month, they review the progress with its business partners. "That rigor and cadence really matters for driving innovation," Martin says.

The digital and consumer innovation groups at Providence St. Joseph Health also are working on ways to foster a digital relationship with patients and help promote brand loyalty. One example is their Circle app, which has been downloaded by 10,000 new and expecting mothers. "We started focusing on the female head of the household—the 'chief medical officer' of the home—because she controls 90 percent of the healthcare spend," Martin says. He expects users will grow to 40,000 by the end of this year and hopes to target 1 million users by 2022 as the app evolves into a full-fledged women's health platform.

Leaders at Providence St. Joseph Health also recognize the value of supporting potential disruptive innovations from startups. They have invested in AVIA, a network of leading health systems that are leveraging digital technology as a business asset. Through an AVIA innovation cohort, which gathers a group of health systems to collaborate on a shared challenge, Providence St. Joseph Health identified a digital nurse rounding tool that it has since scaled to five regions.

"We started this company with the idea that we could achieve more if we just collaborate," says Eric Langshur, AVIA's co-founder and CEO. He believes such cooperation helps healthcare executives capitalize on the emerging knowledge economy. "The organizations that are going to win, regardless of industry, are those that are able to leverage knowledge to compete," Langshur says.

The network helped Providence St. Joseph Health identify solutions worthy of investment via Providence Ventures, a $150 million venture fund for which Martin is managing general partner. Providence Ventures has invested in companies, for instance, that offer provider search and scheduling tools and telemedicine solutions that allow primary care providers to screen for diabetic eye disease.

Using Outside Expertise

Organizations do not need millions in venture capital nor a stable of tech executives to disrupt their businesses, Langshur says. "You can get in this game and have great impact without that," he says, pointing to the integrated delivery network Health First, also a member of AVIA.

Case Study: Health First, Rockledge, Fla.

Located on Florida's Space Coast along with the Kennedy Space Center, Cape Canaveral Air Force Station and several aerospace and defense companies, Health First tapped outside expertise with experience in disruption, says Steven P. Johnson, PhD, president/CEO, and an ACHE Member.

Health First's CIO came from the financial services industry, and its chief digital officer and executive vice president, Rick McNeight, is an engineer and serial entrepreneur from the aerospace and defense industry.

Today, McNeight is charged with finding technology-enabled solutions that will help the integrated delivery network lower the cost of care, improve the quality of care and become more consumer focused. One of its current digital projects is implementing a mobile enterprise patient engagement platform, which essentially provides a "mobile wrapper" around all of the IDN's consumer applications to better serve customers, McNeight says. This includes everything from mobile patient appointment reminders, preregistration and online scheduling in its medical group, to preregistration, patient education, digital discharge instructions and post-acute/chronic patient care management in its hospitals.

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Being a midsized organization with just under $2 billion in revenue offers advantages and disadvantages when it comes to disruption, Johnson says. "Our size benefits us in terms of nimbleness and quick response, but it limits us in terms of the size of the resource pool that we have to make the pivot," he says.

During the past six years, Johnson and his team have disrupted their business by creating a true integrated delivery network at Health First. In doing so, they have changed their business model from one that was built on volume to one that puts them at risk for the clinical and financial outcomes of their care. Their goal is to "put the health plan and risk-holding components of the organization as the front door and profit center of the organization and everything behind it as a cost center," he says.

When leaders at Health First initially struggled to integrate their hospital, medical group and health plan businesses, the board chairman—an aerospace executive—told Johnson that he needed to think of the IDN not as a healthcare company, but rather as "a systems integration company whose product is healthcare," Johnson says. Since then, leaders at Health First have been using the tools of integration science to help implement change more rapidly than the competition. In particular, he favors the process improvement training and methods that are part of capability maturity model integration, which have been adopted in the aerospace, defense and financial industries. As organizations aim to capitalize on their merger and acquisition activity and increase size and scale, Johnson believes integration science will disrupt traditional business silos and enhance how complex healthcare organizations leverage their capabilities across multiple business lines, including inpatient and outpatient care as well as the health plan. In this way, he believes it will revolutionize the industry's thinking, just like Lean and Six Sigma did decades ago.

Beyond integration science, other industries may provide healthcare executives with ideas to better engage consumers and transform worn-out processes. For example, the airline industry might offer ideas for provider organizations looking to disrupt their traditional patient access and scheduling processes with customer-enabling technology, Johnson says. This could result in more online scheduling of services by patients that would disrupt existing, provider-led registration procedures.

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Disrupting Your Own Business

Over the years, Morrison has advised the healthcare industry against using what he calls the "scout badge" approach when it comes to disruptive innovation—that is, focusing on projects that "check a box" or look good during a board presentation but deliver little value. "If you're going to do it, you've got to do innovation at scale," he says. "You've got to get it deployed across your system as a standard of providing care that is demonstrably better, faster and less expensive than the way you're doing it right now. The ultimate challenge is identifying those future best practices and disrupting yourself."

As evidenced by these case studies, innovative organizations are not waiting to be disrupted—they are doing it themselves. Healthcare executives should consider the following advice from those who know how to disrupt from within.

Read case studies on disruption. "Look to other industries—we're not the first to go through this," Johnson says. Leaders can learn from the disruption of the aerospace, defense, photography, journalism and transportation industries.

Develop your own "skunk works" team to focus on innovation. Providence St. Joseph Health has hired software development and engineering talent from Amazon, Microsoft and area startups for its digital and consumer innovation groups. It looks for intellectually curious individuals who can work alongside clinicians to help solve problems, Martin says.

Solve real problems. Morrison urges organizations to focus on the high-risk populations driving up healthcare costs. For example, Providence St. Joseph Health is developing a digital solution for Medicaid patients that offers more convenient access to care and reduces inappropriate use of the emergency department.

Don't think too provincially. Although most healthcare delivery has been local, telemedicine and virtual care could change that more quickly than providers anticipate. "Digital tools are opening up the world to borderless competition," Langshur says. "The internet doesn't know county lines."

Make it much better than the status quo. Martin's team at Providence St. Joseph Health designs with the "10X philosophy" in mind, meaning that a solution must be 10 times better than the traditional approach to overcome consumer inertia (think of the ease of using Uber or Lyft versus hailing a cab).

Seek partners in and outside of healthcare. Three-quarters of hospital executives believe digital innovation requires partnering with other like-minded organizations, according to a 2017 survey from the American Hospital Association and AVIA.

Such partnerships are becoming more commonplace. Providence St. Joseph Health teamed up with UPMC and several other health systems to fund a digital prescribing and content platform that was created by Providence's Digital Innovation Group.

In addition, UPMC has invested in the Pittsburgh Health Data Alliance with partners Carnegie Mellon University and the University of Pittsburgh. One of the alliance's projects involves using data to monitor drug interactions that could lead to falls.

Be willing to accept failure. "At UPMC Enterprises at any given time, probably half of the things that we are working on aren't going to work," Heppenstall says. For this reason, he believes healthcare executives should have "a willingness to experiment, take risks and live with the failures and successes."

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