

# Frictionless Healthcare:

Today's Consumers, Tomorrow's Disruptions

*INSIGHTS FROM THE 2020 SYSTEM FORUM*

August 31–September 1, 2020

A Virtual Event



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## The Governance Institute

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The Governance Institute is a membership organization serving not-for-profit hospital and health system boards of directors, executives, and physician leadership. Membership services are provided through research and publications, conferences, and advisory services. In addition to its membership services, The Governance Institute conducts research studies, tracks healthcare industry trends, and showcases governance practices of leading healthcare boards across the country.

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# Preface

**H**eld as a virtual event from August 31 to September 1, 2020, The Governance Institute's System Forum, entitled *Frictionless Healthcare: Today's Consumers, Tomorrow's Disruptions*, featured distinguished faculty who interacted with 160 representatives from 40 health systems in the United States to discuss critical issues facing their organizations in today's rapidly changing environment. The meeting represented a continuation in our series of member-only invitationals focused on governance and leadership within integrated care delivery systems.

Creating a hassle-free, "frictionless" customer experience has been a trend for many industries—including healthcare—for years. The COVID-19 pandemic has accelerated that trend, especially in healthcare, where in-person care has become a point of friction and even a potential danger to one's health. Consumers are now comfortable with "contactless" transactions in almost every aspect of their lives. The same is becoming true in healthcare, and hence the seemingly overnight shift to virtual care delivery is likely here to stay. Nationally, virtual visits and consultations and remote monitoring have increased by 20 to 30 times, with some organizations experiencing significantly larger spikes.

How will health systems deal with this rapid change? How can they adapt, respond, and rebuild their operations to succeed in this new normal, and how should they deal with whatever may be the next normal? These are some of the major questions that were discussed with a world-class faculty during the *System Forum*.

This proceedings report summarizes the presentations and discussions from the meeting.

## Faculty

The Governance Institute thanks the following faculty members of the 2020 *System Forum* (listed in alphabetical order) for being so generous with their time and expertise:

**Larry Keeley**

Innovation Scientist

**Stephen W. Kett**

Senior Program Director, The Governance Institute

**Stephen K. Klasko, M.D., M.B.A.**

President and CEO, Thomas Jefferson University and Jefferson Health

**Aaron Martin**

Executive Vice President, Chief Digital Officer, and Managing General Partner,  
Providence St. Joseph Health and Providence Health Ventures

**Nicholas Webb**

Author, Futurist, Innovation Expert, Adjunct Professor, and CEO of LeaderLogic, LLC

# Executive Summary

**H**eld as a virtual event from August 31 to September 1, 2020, The Governance Institute's System Forum, entitled *Frictionless Healthcare: Today's Consumers, Tomorrow's Disruptions*, featured a distinguished group of faculty who discussed how health systems can adapt, respond, and rebuild their operations to create a hassle-free, "frictionless" customer experience, something that has become even more important since the COVID-19 pandemic began. This sections briefly summarizes the presentations and discussions from the meeting.

## Building Innovation Platforms to Drive Frictionless Experiences

Larry Keeley, Innovation Scientist

Most innovation scientists would agree that the current era is the time of greatest change in the history of mankind. Only four other eras might rival it; none in living memory. While this period of rapid innovation began well before COVID-19, the pandemic has served to rapidly accelerate the pace of change both inside and outside healthcare.

### Innovating in the Right Ways

Innovation needs to become a highly developed competence within healthcare organizations, with a focus on two categories of innovation: "improving the known" and "inventing the new." The first category generally describes the quality improvement (QI) programs at most healthcare organizations. These critically important QI activities should comprise about 92 to 95 percent of all innovation efforts. The second has to do with inventing new ways to get things done. These efforts should comprise between 5 and 8 percent of innovation-related activities. Leaders must recognize that the same processes and practices cannot be used to achieve both ambitions.

In his work, Keeley has analyzed more than 1,200 innovations over the past 250 years. These innovations fall into 10 types that cluster into three categories (configuration, offering, and experience) and stem from three types of training. Configuration tends to be taught in business schools, offering in engineering schools, and experience in design schools. Consequently, innovating effectively requires a true team approach, with members versed in these different disciplines. True breakthroughs combine five or more types of innovation and involve all three clusters. Research also suggests that the biggest and fastest-growing innovations tend to be culturally cool, technically elegant, and offer a fair business model.

## **Innovating on the Right Things**

Innovation needs to be bold and effective. Modern innovation is more about elegant integration than invention. The biggest innovations tend to be asset-light, fast, smart, connected, distributed, decentralized, shared, and open. Platforms matter a great deal, as all the “important stuff” cuts across companies and markets, using platforms to amplify return on investment by creating value in interesting and surprising ways.

Healthcare leaders need to get past the “techno-babble” that often accompanies electronic health records (EHRs) and data analysis. The goal should be to integrate data and insights for frontline clinicians, giving them not only information on the specific patient in front of them, but also easy access to data and analytics on similar patients (allowing for predictive analytics based on patterns) and communities or systems (allowing for identification of outlier and population health patterns). The sooner health systems can integrate data in this way, the better they will perform.

## **Key Themes and Lessons**

To be successful, health system leaders must be clear and focused about their ambitions with respect to innovation, picking two to four things on which to deliver. Those who have such clarity and focus will be roughly 20 times more likely to succeed than those who do not. When choosing targets, consider the six clear themes that innovation science suggests are critical drivers of improved healthcare experiences:

- ✓ Eliminate friction by getting things done right the first time and every time.
- ✓ Integrate insights about patients into implementation of solutions.
- ✓ Use data, artificial intelligence (AI), and predictive analytics to proactively identify care strategies for patients.
- ✓ Seamlessly integrate insurance, clinical care, and population health.
- ✓ Deliver effective care journeys that lead to longer and better lives.
- ✓ Transform care in layers for patients, communities, employers, and caregivers.

## **Journey toward the Next Normal through Digital Innovation**

**Aaron Martin**, Executive Vice President and Chief Digital & Innovation Officer,  
*Providence St. Joseph Health and Providence Ventures*

## **Digital Innovation at Providence**

Providence’s digital innovation infrastructure consists of five parts: strategy and commercialization, product development, digital experience (with patients and consumers), marketing (brand and service line), and Providence Ventures, a \$300 million venture capital fund. Providence’s innovation business model is straightforward, intentional, and focused, not just on creativity but also on solving big problems in a meaningful way by thinking differently about them.

The first step is to have clinical and operational teams define areas of opportunity and prioritize them based on size and scope. For those worth pursuing, teams first determine if Providence already owns the solution through current technology

and resources. If so, the teams begin to tackle the problem with existing resources. If not, the teams work with Providence Ventures to look for “best-of-breed” companies with which to partner or invest to go after the opportunity area.

### **Major Focus: Digital Personalization and Convenience**

Providence started its first journey by focusing on improving digital personalization and the digital experience. The goal is to allow customers to engage with the system through digital navigation and transactions (e.g., telehealth, online scheduling). Customers can now digitally navigate to the right service, at the right time, at the right location, just as they can with most other aspects of their lives. The system also helps to ensure that customers have a great experience when they receive care (whether virtually or in person), in part by using load management tools that confirm that care is available without delay. Providence developed a three-part digital platform:

- ✓ **Brand, content, search engine optimization, and marketing:** Providence consolidated from multiple Web sites and brand names to a single site and one clear brand.
- ✓ **Transactions:** Providence has various systems and applications to promote digital transactions, including a physician directory, demand aggregator, and load balancer, along with assistance for patients preparing for scheduled encounters and procedures.
- ✓ **Engagement:** Engaging patients between care episodes remains a significant challenge for most health systems. Most people see a provider only a few times a year, leading to significant “churn” or loss of patients. Providence focuses on promoting more frequent digital transactions and Web site visits through personalized applications.

### **Digital Platforms in the COVID-19 Era**

While health systems were busy preparing for the threats from Apple, Amazon, Google, and other potential disrupters, along came the biggest disrupter of all—COVID-19. At the start of the pandemic, the Providence digital innovation team took a pause to analyze the situation, conducting 100 interviews with individuals at all levels and functions, both within Providence and with outside partners and community stakeholders. This effort became the basis for a refocusing of digital initiatives at Providence. For example, during the crisis response phase, Providence pivoted all existing technologies to respond to the pandemic, with various platforms used for different aspects of patient care: education, assessment, in-home monitoring, and prescribing of information and advice. Providence leaders are now thinking through both first- and second-order impacts that will come out of the pandemic.



## The Implications of the Increasing Speed and Scale of Disruption in Healthcare

Nicholas Webb, Author, Futurist, Innovation Expert,  
Adjunct Professor, and CEO of *LeaderLogic, LLC*

### Understanding Disruption

COVID-19 has accelerated three major shifts that were already under way, shifts that affect everything about a health system's internal enterprise and its patients and customers:

- ✓ **Hyper-consumerization:** Patients are demanding completely different experiences and entrepreneurs are rising to the challenge.
- ✓ **Enabling technologies and connection architecture:** The importance of AI, connection architecture that allows for continuous patient monitoring, and other enabling technologies cannot be overstated.
- ✓ **Rapid changes in economic models:** Going well beyond "value-based" care, these changes fundamentally alter the economic ecosystem.

In short, healthcare is experiencing "disruption," a widely used term that is seldom understood clearly. Disruption is the speed with which organizations move away from the legacy systems, as well as the magnitude of the change being made. Disruption should be a wake-up call for healthcare leaders. Leaders who maintain their focus on legacy systems will not be able to eliminate friction or deliver great patient experiences, and hence will lose out to disruptive innovators.

### The Innovation Mandate: Delivering "Moments" of Medicine

In industry after industry, the most successful organizations become "experience architects," delivering beautiful "moments" with consumers. Creating these moments has become the "secret sauce" for many companies, including Amazon, Spotify, Netflix, and Apple.

Healthcare remains saddled by friction that must be identified, understood, and eliminated. Doing so not only improves customer service, but also reduces waste and increases efficiency and throughput, enabling employees to be more productive. The best healthcare organizations understand this need for change. For those that do not, the failure to change will have profound consequences as disruptive innovators exploit this lack of action. For example, while many ophthalmologist and optometrist offices continue to insist on in-person appointments, make it difficult to schedule them, and force patients to endure long in-office wait times, disrupters now offer online visits that provide instant refraction and a prescription. These companies eliminate the need for patients to drive to and from an office and endure long waits. They have achieved 99 percent customer approval ratings, something unheard of in the healthcare arena. The same types of innovations are happening with hearing care, orthodontia, and many other healthcare services.

## Is There an Avatar in the House? Changing the DNA of Healthcare from COVID to Consumerism

Stephen K. Klasko, M.D., M.B.A., President and CEO,  
*Thomas Jefferson University and Jefferson Health*

### Little Change over the Past 40 Years

The banking industry introduced the automated teller machine in the late 1970s, over 40 years ago. Yet healthcare seems incapable of introducing meaningful changes, even today. Just as in the late 1970s, healthcare still needs to convince physicians to embrace change, reduce health inequities, and create a consumer-friendly system that allows patients to schedule and access care quickly and easily.

Not surprisingly, the healthcare system has proven to be ill-equipped to handle the COVID-19 global pandemic, a pandemic that has created a financial tsunami for the provider industry, a financial windfall for insurers, and a real awakening among the public about racial inequities and disparities within healthcare. The healthcare system can and must be transformed to better handle the next pandemic. If not, outsiders will come in and do it, a process that is already well underway.

### Imagining A Different (Better) Future

By 2030, the goal should be to look back at the COVID-19 pandemic as the “dark days” when everything changed for the better. It should be thought of as the time when healthcare finally evolved from a broken, fragmented, expensive, inequitable “sick-care” system to a “health assurance” model where most care happens at home. It should be remembered as healthcare’s “Amazon moment,” a time when the industry finally realized that it had to compete not with the hospital across the street, but with disruptive innovators.

### Jefferson’s Role in Creating This Future

Apple Co-Founder Steve Jobs once set the ambitious goal of changing the world, first by changing his company, then the industry, and then the world. The blueprint for doing so was also straightforward; it involved moving from the “old math” of selling computers and operating systems to the “new math” of selling a digital lifestyle. For healthcare, the old math remains firmly in place for most of the industry. Health systems continue to rely on fee-for-service (FFS) payments based on the provision of clinical and academic services, while insurers prosper by collecting premiums for the entire spectrum of services and paying them out on a piecemeal basis to providers.

### Changing Jefferson Health

Jefferson Health has embarked on a plan to create a “new math” for healthcare, one that moves away from the business-to-business (B2B) wholesale “sick-care” model of selling services on an FFS basis toward a business-to-consumer (B2C) retail model that sells directly to consumers who make their own healthcare decisions. Implementing the B2C model centers around two of Jefferson’s four organizational pillars—innovation and strategic partnerships. Jefferson’s goal is to offer “healthcare with no address,” allowing patients to access care in the same flexible way they

consume every other consumer good. Innovation is the key to executing this transformation, particularly through strategic partnerships focused on digital innovation. Examples include virtual visits, virtual inpatient rounds that include family members, use of robots and telehealth visits to monitor neurological patients after they return home, physician matching services, and service and appointment reminders that make it easy to schedule and attend visits.

### ***Changing the Industry***

Jefferson's efforts to change the industry have focused on several areas, as detailed below:

- ✓ **Medical education and training:** Jefferson created a different type of medical school, one that admits students based on empathy, communication skills, and creativity in addition to science grades and test scores. Jefferson teaches them with an emphasis not on memorization, but rather on the ability to see things and think through second-order impacts. The goal is to create physicians who are self-aware, culturally competent, and humane, and then arm them with the amazing memorization and pattern-recognition skills of drones and robots. Jefferson is also pioneering a new way to teach specialists how to do complicated procedures. Rather than the traditional "see-one, do-one, teach-one" approach, Jefferson built procedure rehearsal studios that allow for ample practice in a simulated setting before ever touching a real patient.
- ✓ **Organizational culture:** Jefferson created leadership development programs that play a critical role in spearheading culture change throughout the organization. For example, through Jefferson's Onboarding and Leadership Transformation (JOLT) Institute, 40 emerging leaders complete a nine-month program each year that integrates classroom instruction, a project/sketch assignment, and executive coaching. JOLT graduates have improved their ability to handle difficult issues and situations by 325 percent.
- ✓ **Manifesto for health assurance:** Jefferson created a design laboratory dedicated to using imagination to solve today's challenges in healthcare. The goal is to move the industry to a new model known as "un-healthcare" that focuses on health assurance, home-based care directed by patients, continuous data through monitoring rather than point-in-time visits, and humans acting as humans rather than robots.

### ***Changing the World***

Like Apple, Jefferson is trying to change the world by going beyond healthcare services. The COVID-19 pandemic has highlighted a long-known fact—that health status is determined largely by factors that have nothing to do with healthcare. For example, the chances of getting and/or dying from COVID-19 are determined more by where someone lives than by genetics or personal behaviors. Similarly, life expectancy has more to do with where one lives than other factors. Within Jefferson's service area in Philadelphia, neighborhoods separated by five miles have a 21-year difference in average life expectancy. To address this issue, in 2019 the Jefferson board tied 25 percent of the CEO's personal incentive to reducing health disparities in Philadelphia. Part of the solution will be to invest in non-healthcare services related to food, education, and housing, using technology to reduce inequities.

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## The Role of CEOs and Boards in Promoting Innovation

Roundtable discussion among faculty members highlighted the following important roles for the CEO and board in promoting innovation:

### CEO Roles

- “Own” innovation from beginning to end.
- Make innovation a top priority within the organization and regularly communicate about its importance with key stakeholders.
- Prioritize innovation within resource allocation recommendations and decisions.
- Elevate the importance of innovation within the hierarchical structure by having the head of innovation report directly to the CEO, rather than being several layers down in the organization.
- As necessary, bring in outside talent to oversee and promote innovation. This step is especially critical for smaller organizations that may not have in-house talent.
- Educate the board on the disruption taking place with respect to the traditional academic and clinical model of medicine and the related importance of portfolio diversification, including the potential value of strategic partnerships with retail, venture capital, and technology companies.
- For smaller entities, consider strategic partnerships with larger health systems that are at the forefront of innovation.

### Board Roles

- Highlight the importance of innovation by making it an explicit part of the organization’s mission, vision, and/or values statements.
  - Support the innovation agenda of the CEO by approving his or her plans, including major resource allocations such as new hires and investments.
  - Create incentives for innovation and emphasize its importance through compensation plans, including incentives.
  - Consider bringing in new board members with expertise in innovation, digital technologies, and other areas critical to future survival and success.
-

# Building Innovation Platforms to Drive Frictionless Experiences

Larry Keeley, Innovation Scientist

## Spotting the Big Shifts

Categories of goods and services tend to transform in ways that have patterns, and leaders need to actively identify and embrace these patterns as they emerge. Disruptors have become more prevalent, and every so often these disruptors fundamentally change industries. For example, many Americans grew up with three main television networks (NBC, ABC, and CBS); these networks have been replaced with a myriad of additional ones plus a wide variety of streaming services that have encouraged younger generations to cut the cord from traditional television. These same Americans grew up dialing a telephone to call a taxi and paying cash for the ride, not ordering a ride-share via an application on a mobile phone and paying for it and rating the driver in the same way. They also grew up making and paying for long-distance calls rather than communicating via any of a variety of free applications; driving cars with internal combustion engines rather than all-electric models; and shopping in person at large malls rather than online via Amazon or Alibaba.

**"I**'ve never seen anything like the past six months since the pandemic began. Organizations are trying new things, not just considering them. Business as usual simply doesn't exist any longer, as organizations in all sectors—government, philanthropic, and commercial—are trying things they probably should have done long ago."

—Larry Keeley

Most innovation scientists would agree that the current era is the time of greatest change in the history of mankind. Only four other eras might rival it; none in living memory. While the period of rapid innovation began well before COVID-19 struck, the pandemic has served to rapidly accelerate the pace of change both inside and outside healthcare. It can often be difficult, however, to see the change from within an industry. The leaders of most healthcare institutions, for example, tend to be protective of the status quo, often out of concern that change could jeopardize quality and safety. As a result, disruptive innovation often comes from outside the industry. For example, Jamie Dimon, Warren Buffett, and Jeff Bezos have teamed up to form Haven, with the goal of radically disrupting healthcare. These incredibly wealthy men are personally bankrolling something that has the future potential to be game-changing by offering cheaper, better care. Rather than working through existing health information technology platforms, they hired programmers who start from scratch using external platforms like Amazon Web services.

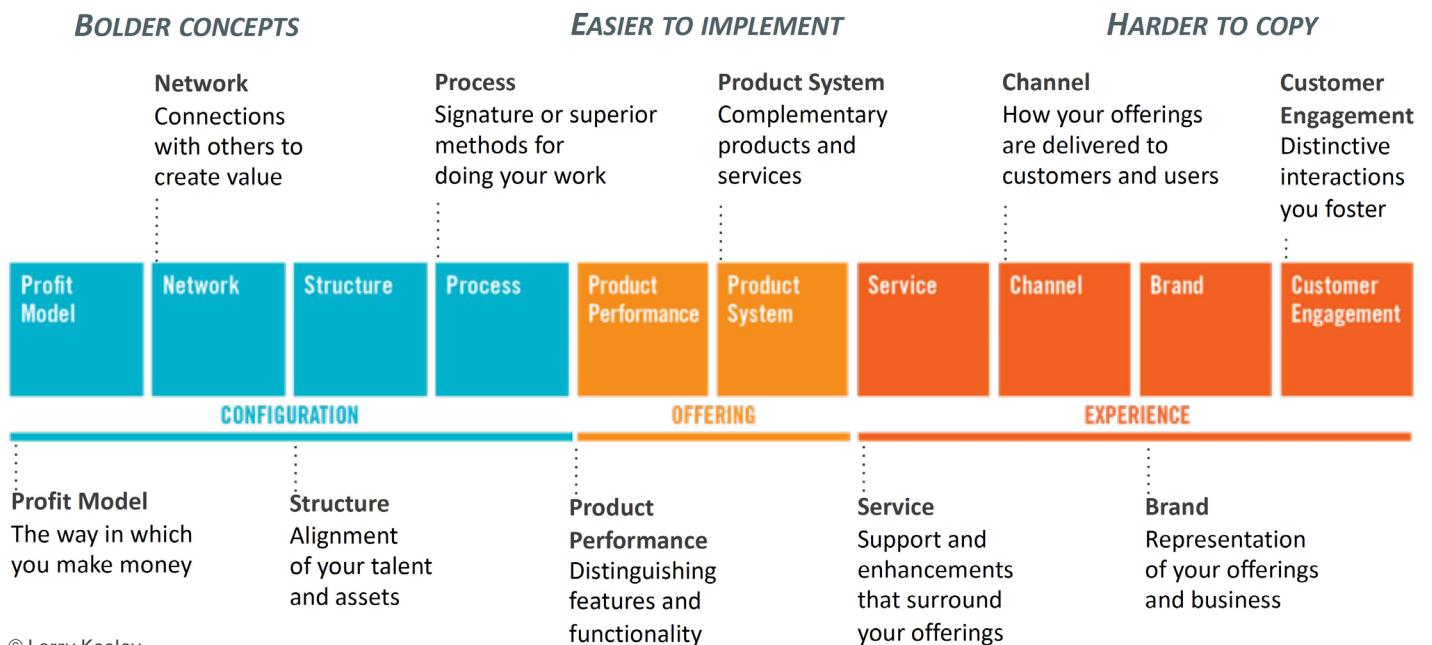
## Innovating in the Right Ways

Innovation needs to become a highly developed competence within healthcare organizations. Achieving that goal can be difficult, but it becomes much easier when myths are replaced with proven methods. The first step comes from recognizing two distinct categories of innovation: “improving the known” and “inventing the new.” The first category generally describes the quality improvement (QI) programs at most healthcare organizations. These critically important QI activities should comprise about 92 to 95 percent of all innovation efforts. At the same time, organizational leaders should be routinely asking how to radically change services by inventing new ways to get things done. These efforts should comprise between 5 and 8 percent of innovation-related activities. Most importantly, leaders must recognize that the same processes and practices cannot be used to achieve both ambitions.

Keeley and his research team analyzed more than 1,200 innovations over the past 250 years in search of ways to create successful innovations and instill a deep innovation competence within an organization. These innovations fall into 10 types that cluster into three categories (configuration, offering, and experience) and stem from three types of training. Configuration tends to be taught in business schools, offering in engineering schools, and experience in design schools. Consequently, innovating effectively requires a true team approach, with team members versed in these different disciplines. (See **Exhibit 1**.)

### Exhibit 1: Ten Types of Innovation

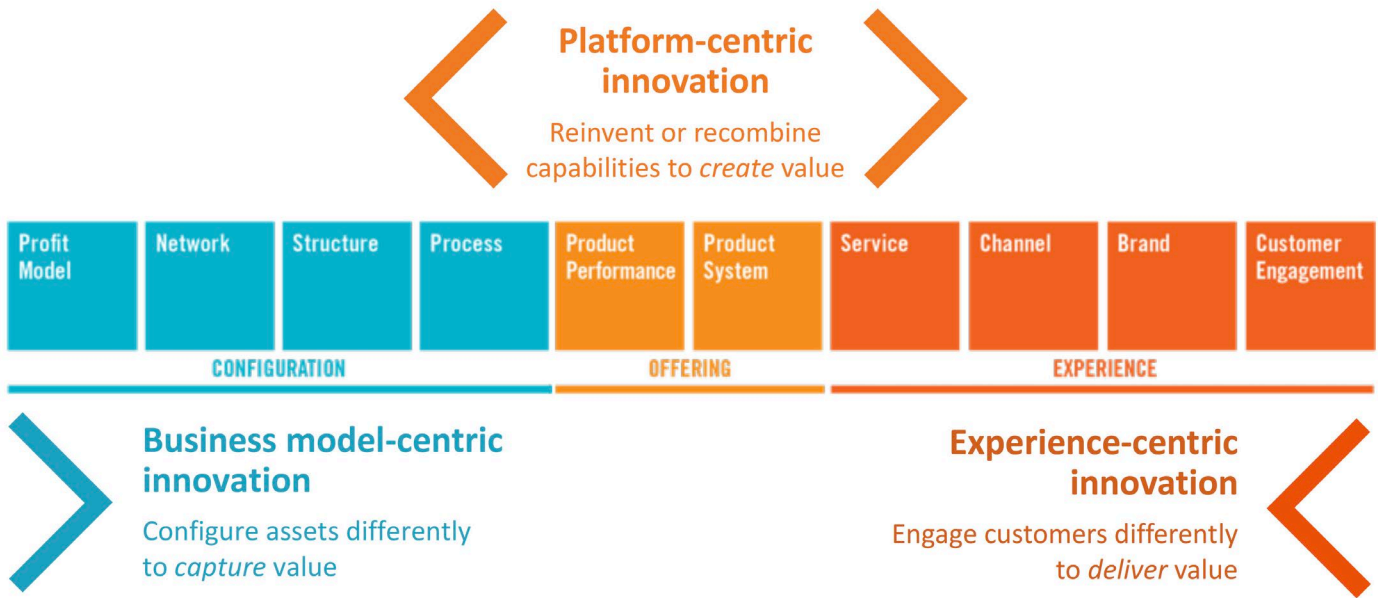
***Successful innovators innovate beyond products and integrate 5+ types...***



© Larry Keeley

True breakthroughs combine five or more types of innovation and involve all three clusters. They combine talent from business, engineering, and design schools to configure assets differently to capture value (business-model-centric innovations), reinvent or recombine capabilities to create value (platform-centric innovations), and engage customers differently to deliver value (experience-centric innovations). (See **Exhibit 2.**)

**Exhibit 2: Innovation Effectiveness; Balanced Breakthroughs Combine Five or More Types of Innovation—And All Three Colors**



© Larry Keeley

Research suggests that the biggest and fastest-growing innovations share the following characteristics:

- ✓ **Culturally cool:** People talk about the innovations, finding them able to solve important problems while being fun to use.
- ✓ **Technically elegant:** The most successful innovations are surprisingly simple and elegant from a technological perspective. For example, a Tesla car has dramatic, interesting, and exciting functionality, yet is fairly simple from a design perspective.
- ✓ **Fair business model:** Innovations will not succeed unless customers perceive the underlying business model to be fair. Google’s search engine, for example, dominates in part because it is free to users.

**"H**ealth system leaders need to focus on a small number of big ideas to make the world better in a systematic way. If they get it right, caregivers and patients will be thrilled."

—Larry Keeley

## Innovating on the Right Things

Innovation needs to be bold and effective. Modern innovation is more about elegant integration than invention. The biggest innovations tend to be asset-light, fast, smart, connected, distributed, decentralized, shared, and open. Platforms matter a great deal, as all the "important stuff" cuts across companies and markets, using platforms to amplify return on investment by creating value in interesting and surprising ways. The least valuable of these business-to-consumer (B2C) platforms today are worth \$40 billion, while business-to-business (B2B) platforms range in value from \$60 billion to \$450 billion. Examples include the following:

- ✓ **Google:** Google originally used nine types of innovation, and now employs 10 in its various business applications.
- ✓ **Kaiser Permanente (KP):** KP executed the largest implementation of an electronic health record (EHR) in history to improve patient care and quality through the identification and dissemination of best practices and other innovations. KP leaders, however, missed the importance of the business model shift, which allowed its vendor (Epic) to make most of the money.
- ✓ **MD Anderson:** The well-known cancer center used seven types of innovation to create an ecosystem to solve cancer as a complex problem.
- ✓ **Joslin Diabetes Center:** Developed in collaboration with Harvard Medical School, Joslin's program uses six types of innovation to drive deep behavioral change through cultural adaptation of the best care to specific patient populations, leading to lower costs and better outcomes.
- ✓ **KP Medical School:** Debuted recently, this is one of the first truly different medical schools to open in a long time. The curriculum emphasizes team-based care and digital care delivery through data science.

Healthcare leaders need to get past the "techno-babble" that often accompanies EHRs and data analysis. At their most basic, EHRs generate integrated insights about patients and, through processes and protocols, streamline and automate compliance. Adding another layer to EHRs facilitates enhanced customer relationship management at the point of care, allowing clinicians to get to know patients as humans and deal with them graciously and effectively. By working with partners, health systems can go even farther, creating ecosystems that serve customers in unexpected, valuable ways.

The goal should be to integrate data and insights for frontline clinicians, giving them not only information on the specific patient in front of them, but also easy access to data and analytics on similar patients (allowing for predictive analytics based on patterns) and communities or systems (allowing for identification of outlier and population health patterns). The sooner health systems can integrate data in this way, the better they will perform.



## Key Themes and Lessons

To be successful, health system leaders must be clear and focused about their ambitions with respect to innovation, picking two to four things on which to deliver. Those who have such clarity and focus will be roughly 20 times more likely to succeed than those who do not. When choosing targets, consider the six themes that innovation science suggests are critical drivers of improved healthcare experiences; being human-centered is central to all of them:

- ✓ Eliminate friction by getting things done right the first time and every time; patients will migrate to organizations that make things easy and seamless.
- ✓ Integrate insights about patients into implementation of solutions.
- ✓ Use data, artificial intelligence (AI), and predictive analytics to proactively identify care strategies for patients.
- ✓ Seamlessly integrate insurance, clinical care, and population health.
- ✓ Deliver effective care journeys that lead to longer and better lives.
- ✓ Transform care in layers for patients, communities, employers, and caregivers.

**"B**old innovation doesn't have to be finished overnight. If you want to develop something that is 'bad ass,' take the time to do it right."

—Larry Keeley

One or more of these themes lies at the core of every major breakthrough. As outlined below, these breakthroughs will increasingly focus on the following:

- ✓ Accelerating the development of ecosystems that make elegant use of cloud computing, partnerships, and rewards.
- ✓ Radically reducing the cost of managing costly chronic conditions through analytics and comprehensive visualizations that go well beyond today's capabilities.
- ✓ Harnessing strategies to reveal patient behavior through predictive tools that identify where and when shifts should be focused and whether these efforts are succeeding or failing.

Identifying the need for business model shifts and developing better, smarter growth strategies and profit pools (e.g., charging for services differently, changing behavioral incentives).

Most importantly, perhaps, health system leaders need to be willing to move forward to avoid being left behind. They will increasingly need to say "yes" to ideas that in the past might have elicited a "maybe someday" response. The advent of COVID-19 only accelerates the need for such risk-taking, as both current disrupters and new ones are being mobilized to a massive degree.

# Journey toward the Next Normal through Digital Innovation

**Aaron Martin**, Executive Vice President and Chief Digital & Innovation Officer,  
*Providence St. Joseph Health and Providence Ventures*

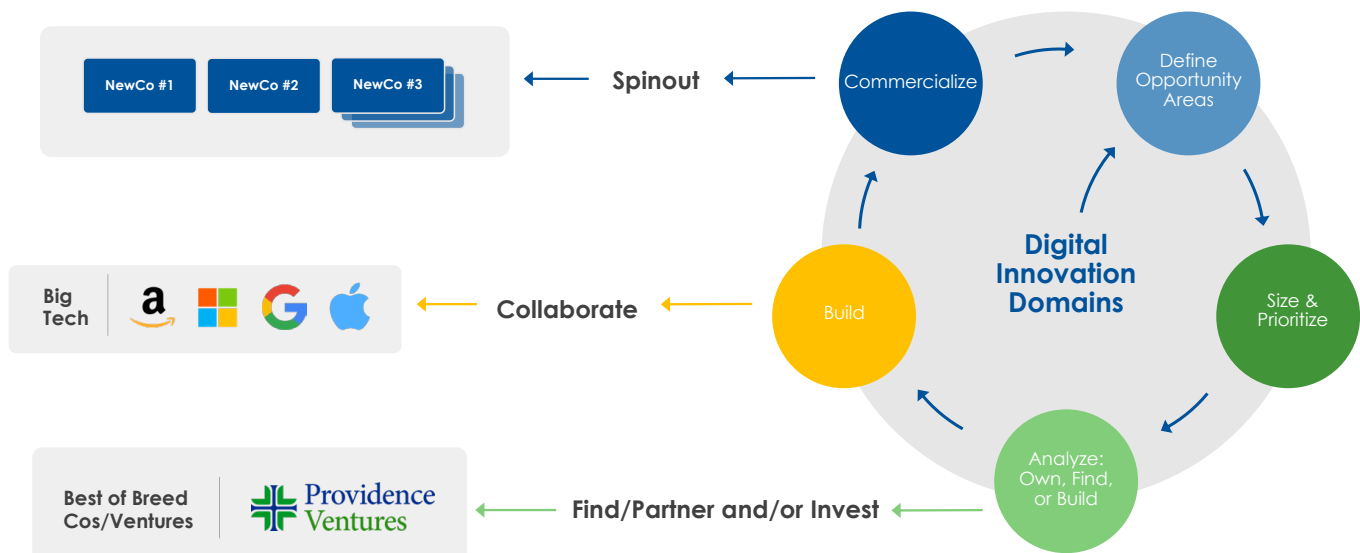
## Background

Providence St. Joseph Health System is a \$25-billion health system that operates in eight states, with major operations in and around Seattle, Portland, and Los Angeles/Orange County. The system covers 2.1 million lives through its own health plan and operates 51 hospitals and over 1,000 clinics. Its approximately 119,000 caregivers provide a full spectrum of health services to over 5 million unique patients. Providence’s vision is to keep people healthy—in mind, body, and spirit—by providing personalized care that is convenient, accessible, and affordable.

## Digital Innovation at Providence

Providence’s digital innovation infrastructure consists of five parts: strategy and commercialization, product development, digital experience (with patients and consumers), marketing (brand and service line), and Providence Ventures, a \$300 million venture capital fund. Providence’s innovation business model is straightforward, intentional, and focused, not just on creativity but also on solving big problems in a meaningful way by thinking differently about them. Providence is looking for “needle-moving” opportunities in digitalization that accelerate the personalization of healthcare services and delivery. (See **Exhibit 3.**)

**Exhibit 3: Business Model**

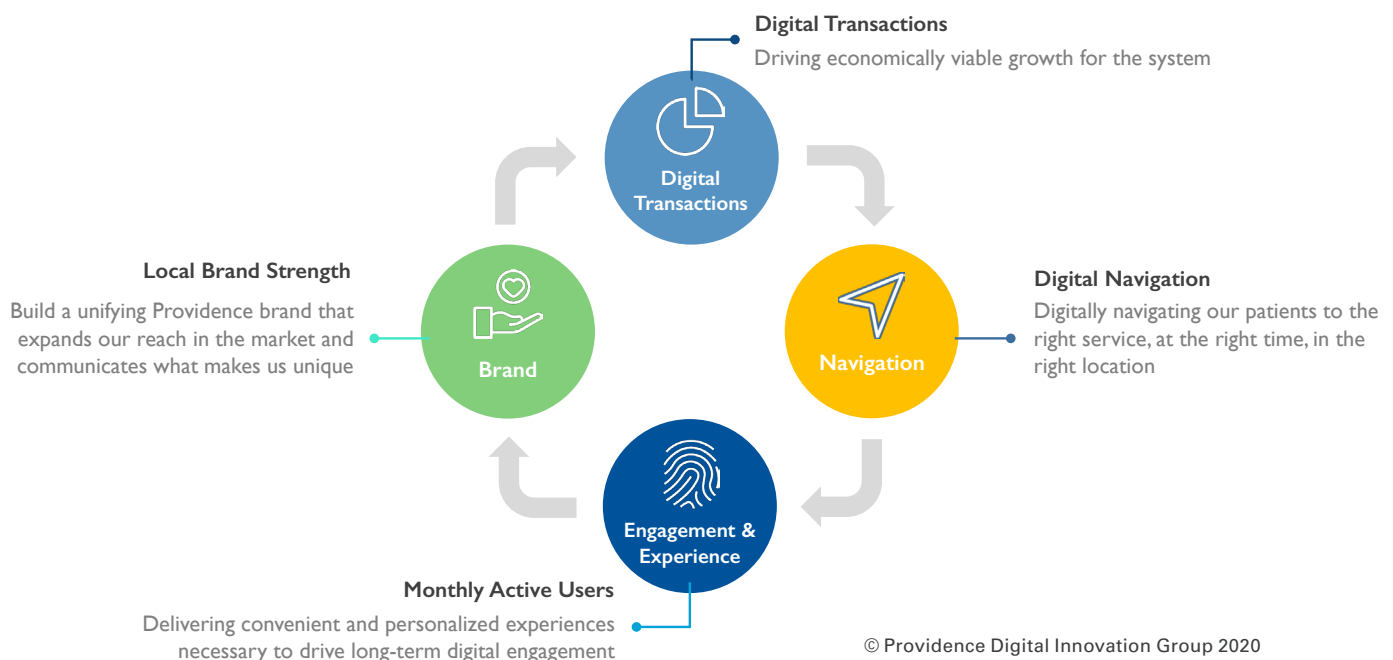


The first step is to have clinical and operational teams define areas of opportunity and prioritize them based on size and scope. For those worth pursuing, teams determine if Providence already owns the solution through current technology and resources (e.g., Epic, an existing partnership with Microsoft). If so, the teams begin to tackle the problem with existing resources. If not, the teams work with Providence Ventures to look for “best-of-breed” companies with which to partner or invest. Providence will typically narrow the list to a few companies and conduct pilot tests with each before determining whether to move forward. At present, Providence Ventures is working with 18 portfolio companies in this manner. If no outside partner can be found, Providence typically attempts to build its own solution, often by collaborating with an existing big technology company (e.g., Google, Amazon, Apple, Microsoft) but sometimes on its own through the creation of a new company that ultimately gets spun off. Providence has spun off two companies already and is currently working on a third such endeavor.

### Major Focus: Digital Personalization and Convenience

Providence started its first journey by focusing on improving digital personalization and the digital experience for customers. (Other areas of focus include the digital journey for Medicaid beneficiaries and in behavioral health.) Understanding that the organization still relied on a model where commercial insurance payments subsidized Medicare and Medicaid losses, Providence leaders recognized the potential for disrupters like Amazon and others to disrupt its commercial business by offering a better digital experience at a lower price. Such a disruption would prevent Providence from fulfilling its mission of serving everyone, especially the poor and vulnerable. Like most health systems, Providence relied on outdated technologies (e.g., telephone, paper, fax), required long lead times to schedule appointments, offered complicated pricing schemes, and delivered fragmented care and siloed information. To address this concern, Providence developed a digital growth model, depicted in **Exhibit 4**:

**Exhibit 4: Providence Digital Growth Model**

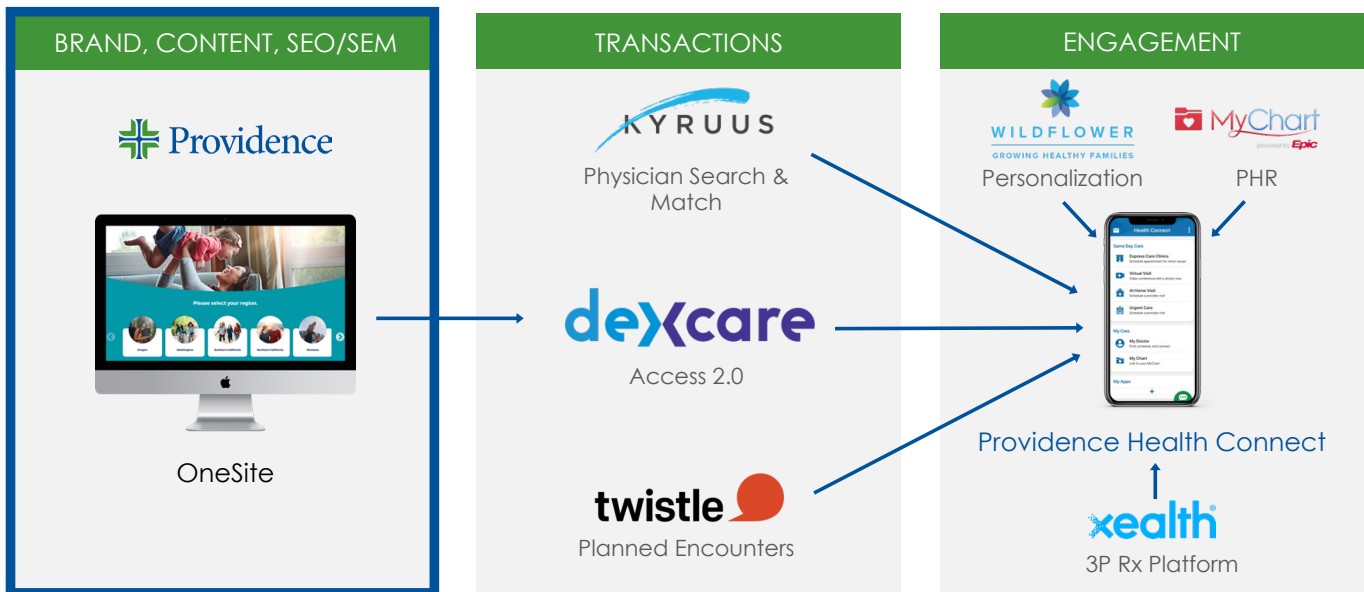


The goal is to allow customers to engage with the system through digital navigation and transactions (e.g., telehealth, online scheduling). Customers can digitally navigate to the right service, at the right time, at the right location, just as they can with most other aspects of their lives. The system helps ensure that customers have a great experience when they receive care (whether virtually or in person), in part by using load management tools that confirm that care is available without the need for the patient to spend time in an online or real waiting room. As part of this effort, Providence began tracking monthly active users (MAUs) as a measure of patient engagement, under the theory that the delivery of convenient and personalized experiences would drive long-term loyalty. Underlying it all is a strategy to build a unifying brand that expands market reach and communicates what makes Providence unique.

### A Three-Part Digital Platform

Providence developed a three-part digital platform, as shown in **Exhibit 5** and described in the bullets below:

**Exhibit 5: Providence Digital Platform**



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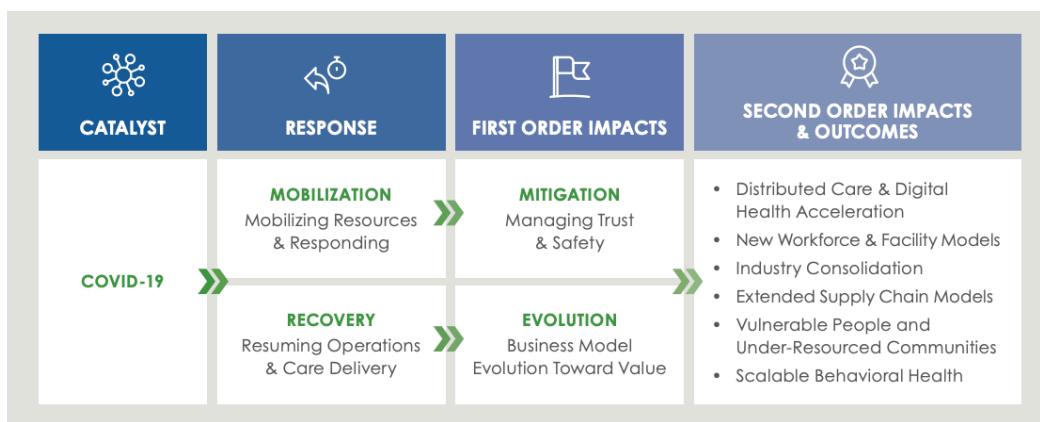
- ✓ **Brand, content, search engine optimization, and marketing:** Providence consolidated from multiple Web sites and brand names to a single site and one clear brand. This consolidation is critical to maintaining search authority with Google and hence not losing traffic and patients. Providence has also invested in content to increase brand leverage.
- ✓ **Transactions:** Providence has put in place various systems and applications to promote digital transactions, including:
  - **Kyruus**, a physician directory with search, match, and booking capabilities
  - **Dexcare**, which aggregates patient demand, navigates patients to care venues where they can be immediately served, and optimizes access
  - **Twistle**, which helps patients plan for scheduled encounters and procedures—including necessary preparatory work to avoid cancellations—and tracks their post-visit progress

- ✓ **Engagement:** Engaging patients between care episodes remains a significant challenge for most health systems. Most people see a provider only a few times a year, leading to significant “churn” or loss of patients. Nationally, reducing churn by just 1 percent is a \$4 billion opportunity. At Providence, a 1 percent churn reduction translates into \$100 million in operating profit improvement. Better engagement can also lead to improved population health, lower costs (e.g., through self-scheduling), and better navigation. Conversely, low levels of engagement and loyalty make many health systems ripe for disruption from outsiders. While brand advertising can help a little, the bulk of the effort at Providence focuses on promoting more frequent digital transactions and Web site visits. Amazon has had tremendous success with this through its Prime service. Providence is seeking to do the same by integrating personalization platforms, such as:
  - **Xealth:** This application “prescribes” anything that is not a prescription medication directly from the EHR, such as suggested articles to read, videos to watch, foods to eat, and over-the-counter medicines to try. Xealth captures opportunities for engagement that happen every day.
  - **Wildflower Health:** This women’s health platform focuses on personalization and the customer experience. For example, it has increased engagement with women during and after pregnancy by providing information that helps them navigate the childbearing journey.

## Digital Platforms in the COVID-19 Era

While health systems were busy preparing for threats from Apple, Amazon, Google, and other potential disrupters, along came the biggest disrupter of all—COVID-19. At the start of the pandemic, the Providence digital innovation team took a pause to analyze the situation, conducting over 100 interviews with individuals at all levels and functions, both within Providence and at outside partners and community stakeholders. This effort became the basis for a refocusing of digital initiatives at Providence. In the spirit of collaboration and shared learning and discussion, it has also led to a publicly published series, entitled the *COVID-19 Digital Insight Series* (available to the public at [www.providence-digitalinsights.org](http://www.providence-digitalinsights.org)). These documents focus on the impact of COVID-19 and the resulting need to accelerate the development and adoption of digital technology. They set the context for and identify potential needle-moving opportunities. The series is broken down by various phases: the catalyst (COVID-19), the response, first-order impacts, and second-order impacts and outcomes. (See **Exhibit 6**.)

**Exhibit 6: The Framework**



**“We** spend too much time designing for rare problems. It’s easy to make things complicated, but hard to make them simple. You have to know what not to put in.”

—Aaron Martin

### **Crisis Response**

During the crisis response phase, Providence pivoted existing technologies to respond to the pandemic. It quickly became clear that all digital platform investments Providence had made in the past played a vital role during this phase. These platforms were used to educate, assess (using Chatbot technology), triage (through Dexcare and virtual visits), monitor at home (via Twistle), and prescribe (via Xealth). For any patient with confirmed or suspected COVID-19, Providence sent out thermometers and pulse oximeters for home monitoring and offered video visits and in-person care at the hospital. Providence operated testing centers and used Dexcare to convert capacity for in-person visits to virtual care. Roughly 80 nurse practitioners who worked in Providence-operated Walgreens clinics (which were shut down) started handling virtual visits.

### **First-Order Impacts**

COVID-19 has highlighted the need for an evolution of the business model, particularly with respect to moving into risk relationships and contracts and ending reliance on fee-for-service (FFS) medicine. In fact, COVID has exposed the financial fragility of organizations that still rely on FFS revenues. Going forward, several possible scenarios will likely be pursued by provider systems looking for alternative payment models:

- ✓ Big national players will engage in vertical consolidation, buying up providers, as occurred with United Health Group and Optum.
- ✓ Integrated delivery networks with provider-sponsored health plans will accelerate their movement toward risk and increase the scale of their health plans.
- ✓ Partnerships will form between payers and health systems that have sufficient provider networks; these systems will develop closer relationships with regional and super-regional plans.
- ✓ Subscale providers without sufficient provider networks will put themselves up for sale as targets for acquisition or partnership, with the goal of becoming part of an organization with adequate scale.

### **Second-Order Impacts and Outcomes**

COVID-19 will create a number of second-order impacts, including the acceleration of digital health and home-based care, new workforce and facility models that avoid staff and physician burnout, industry consolidation driven by both traditional players and disrupters such as Amazon, extended supply chain models, new ways of taking care of vulnerable people and serving under-resourced communities, and the creation of scalable behavioral health services.

# The Implications of the Increasing Speed and Scale of Disruption in Healthcare

**Nicholas Webb**, Author, Futurist, Innovation Expert, Adjunct Professor, and CEO of *LeaderLogic, LLC*

## Understanding Disruption

COVID-19 has accelerated three major shifts that were already under way, shifts that affect everything about a health system's internal enterprise and its patients and customers:

- ✓ **Hyper-consumerization:** Consumerism has been growing for many years, but the movement has accelerated rapidly. Patients are demanding completely different experiences and entrepreneurs are rising to the challenge.
- ✓ **Enabling technologies and connection architecture:** The importance of AI, connection architecture that allows for continuous patient monitoring, and other enabling technologies cannot be overstated. Health systems must look well beyond EHRs when thinking about the use of technologies.
- ✓ **Rapid changes in economic and value models:** Going well beyond "value-based" care, these changes fundamentally alter the economic ecosystem, with patients defining value in a whole new way.

In short, healthcare is experiencing "disruption," a widely used term that is seldom understood clearly. Disruption is the speed with which organizations move away from legacy systems, as well as the magnitude of the change being made. Disruption is not a "burning" platform, but rather a movement to an entirely new platform that looks quite different from the old one. Disruption should be a wake-up call for healthcare leaders. While many aspects of legacy systems may still work quite well, leaders who maintain their focus on them will be unable to eliminate friction or deliver great patient experiences, and hence will lose out to disruptive innovators.

## The Innovation Mandate: Delivering "Moments" of Medicine

Health system leaders must understand innovation and figure out how to do it well. At its core, innovation is the creation of new value that serves an organization's mission and customers. Innovation is, by definition, something new to an organization, and leaders must have a plan in place to create such newness. Innovation has become especially critical during the COVID-19 era, a time when virtually everything is completely different.

**"E**verything is different in the COVID-19 economy. Organizations that fail will be those committed to sameness in a time of differentness."

—Nicholas Webb

Organizations that are winning in the COVID-19 economy harness innovation to deliver the following:

- ✓ **Exceptional customer experiences:** Patients with such experiences routinely rate their health systems and providers highly and often improve their medication compliance and other health-related behaviors.
- ✓ **Scalable profitability and growth:** Successful organizations have a clear path to sustainable financial success.
- ✓ **Actionable insights:** Organizations gain these insights through real-world experiences with a range of consumers who provide rapid feedback on what they love and hate across five well-defined virtual and in-person touchpoints (discussed in more detail below).

In industry after industry, the most successful organizations become “experience architects,” delivering beautiful “moments” with consumers. To understand the importance of the customer experience, it is important to look back at the evolution of what has now become the experience economy. As depicted in **Exhibit 7**, economies started out based on commodities, with everyone selling identical goods (i.e., the “same stuff”). This era transitioned to one in which companies competed by trying to provide differentiated goods or “better stuff.” Eventually this time gave way to the advent of selling similar services, then to an era of disruption and differentiation of those services, and finally to today’s experience economy.

### Exhibit 7: The Evolution of the Experience Economy



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**"It's an exciting time to serve patients and families. But success requires moving away from legacy systems and embracing hyper consumerization."**  
—*Nicholas Webb*

The disruptive era in the economy was fueled by technology that enables consumers to buy virtually anything, at any time, at any level of quality, at any price, with just a few clicks or finger taps on a device. Competing in this “free, perfect, and now” economy can be quite difficult, and the need to do so has only been accelerated by COVID-19. Thus, creating beautiful moments has become the “secret sauce” for many companies. In fact, 85 percent of the top brands win through the design of their customers’ experiences, including Amazon, Spotify, Netflix, and Apple:

- ✓ **Amazon:** Virtually everything available on Amazon can be bought somewhere else, yet the company seems to “own” the retail universe. Amazon has become expert at delivering beautiful merchandise moments across touch points with all types of consumers. They have dramatically enhanced the online shopping experience by eliminating virtually all friction. For example, the “buy now” button eliminated the need to place items in the cart. This minor change had a massive financial impact, as have the services and benefits associated with Amazon Prime.
- ✓ **Spotify:** Spotify “owns” the music industry because the company understands its customers at the level of the individual persona. For example, Spotify uses technology (bots) to pay attention to the kind of music individuals listen to and like, and then sends a daily customized play list, creating a “moment of music” for the customer.
- ✓ **Netflix:** Like Spotify, Netflix creates moments by recommending movies and television shows based on individual viewing habits. Like Amazon, Netflix has eliminated friction; for example, the company eliminated the need to press the “play trailer” button by automatically playing them after a few moments of inactivity.
- ✓ **Apple:** Apple has created moments for decades. The journey began with computers, when it replaced the ridiculousness of having to write code to complete what should be a simple task (such as printing a document) with easy-to-understand picture icons. This change eliminated tremendous friction and confusion among customers. Today, Apple store employees politely query customers as they walk in the door so that they can quickly understand each individual persona type and then service needs accordingly. In an era where most retailers are downsizing, Apple continues to have one in-store associate for every one to two customers. The goal is to eliminate wait times, precisely meet needs, and make it easy to spend money.

Healthcare remains saddled by friction that must be identified, understood, and eliminated. Doing so not only improves customer service, but also reduces waste and increases efficiency and throughput by allowing employees to be more productive. The best healthcare organizations understand the need for change. For example, when COVID-19 hit, Scripps quickly scaled up its ability to provide telemedicine visits and consultations, going from offering just a handful to 3,500 per day. Through AI and other technologies (including one that can analyze head and eye movements to gauge

patient lucidity), these visits have become true moments of medicine. Going forward, providers will do incredible things via telemedicine, particularly as more equipment and technologies are distributed into the homes of patients. While telemedicine cannot replace all in-person care, much more can be done remotely, and health systems need to invest significantly in this area.

For those that do not, the failure to change will have profound consequences as disruptive innovators exploit this lack of action. For example, while many ophthalmologist and optometrist offices continue to insist on in-person appointments, make it difficult to schedule them, and force patients to endure long in-office wait times, disrupters now offer online visits that provide instant visits, complete with refraction and a resulting prescription. These companies eliminate the need for patients to drive to and from an office and endure long waits. They have achieved customer approval ratings of 99 percent, something unheard of in the healthcare arena. The same types of innovations are happening with hearing care, much to the dismay of audiologists still insisting on in-person care. Similarly, Smile Direct has taken significant share from orthodontist offices that charge significantly more money and force patients to ensure multiple in-person visits.

Some of the so-called disrupters in healthcare are being disrupted themselves. CVS has been a leading innovator in enhancing customer experiences, but now PillPack (part of Amazon) provides pre-packaged, pre-sorted drugs to patients that provide the exact pills they need, making obtaining medications and complying with prescribed regimens much easier.

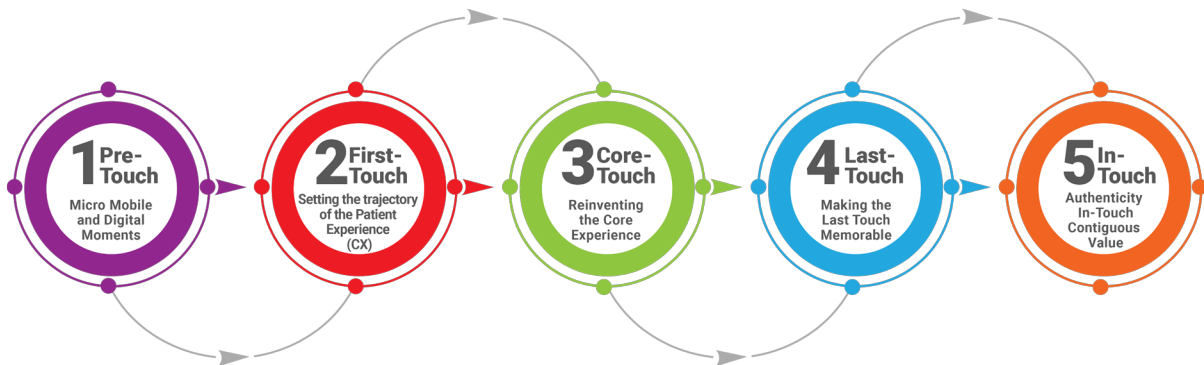
**"S**ucceeding in the COVID-19 economy is shockingly easy. The hard part is believing that the disruption is real and making the financial and spiritual commitment to the path forward."

—*Nicholas Webb*

## Meeting Needs at Each of Five Touchpoints

Customers understand their healthcare providers in and around five distinct digital and in-person touchpoints, as shown in **Exhibit 8**.

**Exhibit 8: Innovation Across The Patient Journey**



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Health systems must innovate across this entire journey, beginning with digital interactions that occur prior to care and continuing with follow-up services. Success requires understanding each individual's persona based on what they like and dislike (not their demographic profile), combined with formal strategies to make each of these touchpoints an incredible experience. The journey begins with great pre-touch Web sites and other technologies that dispense valuable information, continues with excellent first- and core-touch services that value patients as humans, and ends with comprehensive last-touch and follow-up services that are memorable and promote continued engagement.

# Is There an Avatar in the House? Changing the DNA of Healthcare from COVID to Consumerism

**Stephen K. Klasko, M.D., M.B.A.,** President and CEO,  
*Thomas Jefferson University and Jefferson Health*

## Little Change over the Past 40 Years

The banking industry introduced the automated teller machine in the late 1970s, over 40 years ago. Yet healthcare seems incapable of introducing meaningful changes, even today. Just as in the late 1970s, healthcare still needs to convince physicians to embrace change, reduce health inequities, and create a consumer-friendly system that allows patients to schedule and access care quickly and easily. Consumers are not satisfied with this situation, as evidenced by the following Harris poll numbers,<sup>1</sup> taken before the onset of COVID-19:

- ✓ 81 percent of respondents believe that shopping for healthcare services should be as easy as shopping for other types of services.
- ✓ 67 percent feel that every step of the healthcare process is a chore.
- ✓ 62 percent believe that the healthcare experience is intentionally set up to be confusing.
- ✓ 56 percent know people who will do anything to avoid seeking care because their healthcare experience has been so poor.

Not surprisingly, the healthcare system has proven ill-equipped to handle the COVID-19 global pandemic, which has created a financial tsunami for the provider industry, a financial windfall for insurers, and a real awakening among the public about racial inequities and disparities within healthcare. The American Hospital Association predicts that hospitals will lose over \$320 billion due to the pandemic. Storied institutions such as Mayo Clinic have announced furloughs and reduced hours for employees to help offset \$3 billion in projected pandemic losses. At the same time, insurer profits have skyrocketed by 50 to 100 percent as companies continue to collect premiums while hospitals canceled elective procedures and consumers put off care due to fears about being infected with coronavirus in healthcare settings.

Clearly, something must be done to improve this situation. The healthcare system can and must be transformed to better handle the next pandemic. If the industry does not do it itself, outsiders will come in and do it instead, a process that is already well underway.

1 Change Healthcare, "Harris Poll Research: Half of Consumers Avoid Seeking Care because It's Too Hard," July 13, 2020. Available at <https://bit.ly/2SDj8Wm>.

## Imagining A Different (Better) Future

By 2030, the goal should be to look back at the COVID-19 pandemic as the “dark days” when everything changed for the better. It should be thought of as the time when healthcare finally evolved from a broken, fragmented, expensive, inequitable “sick-care” system to a “health assurance” model where most care happens at home. It should be remembered as healthcare’s “Amazon moment,” a time when the industry finally realized that it had to compete not with the hospital across the street, but with disruptive innovators. In this new era of healthcare, the industry will have smashed the cost, access, quality, and patient experience curves through a series of disruptive events and creative partnerships. In this era, moreover, a new strain of a mutant virus would not cause a pandemic. Rather, it would be immediately identified through the continuous streaming of healthcare data to the cloud. The whole scare would be over in a month or so, thanks to seamless education and the ability to develop new vaccines quickly. While this future may seem like science fiction, all the technology exists to get there today.

## Jefferson’s Role in Creating This Future

Steve Jobs once set the ambitious goal of changing the world through Apple, something he considered a fairly simple proposition. It began with Apple changing itself in year one. By year two, Apple would change its industry, and by year 3 Apple would change the world. The blueprint for doing so was also straightforward; it involved moving from the “old math” of selling computers and operating systems to the “new math” of selling a digital lifestyle, a lifestyle that has largely come to pass since this time, and clearly has changed the world.

For healthcare, the old math remains firmly in place for most of the industry. Health systems for the most part continue to receive FFS payments based on the provision of clinical and academic services, while insurers prosper by collecting premiums for the entire spectrum of services and paying them out on a piecemeal basis to providers.

### Changing Jefferson Health

Jefferson Health has embarked on a plan to create a “new math” for healthcare, one that moves away from the B2B wholesale “sick-care” model of selling services on an FFS basis to insurers toward a B2C retail model that sells directly to consumers who make their own healthcare decisions.

## Exhibit 9: UnHealthcare Delivery: From Sick Care



© Thomas Jefferson University & Jefferson Health

Unlike the traditional approach, which views quality, access, and costs as trade-offs (i.e., where improving one necessarily has a negative impact somewhere else), the B2C model seeks to improve all three metrics at the same time. The goal is to replace the “iron triangle” of cost, access, and quality with a health assurance model in which consumers understand what needs to be done and can navigate on their own terms without healthcare services getting in the way. Under this model, the patient is the boss and there are no longer provider companies, but rather hospitals and doctors as part of consumer health entities.<sup>2</sup>

Implementing the B2C model at Jefferson centers around two of its four organizational pillars—innovation and strategic partnerships. Added to the traditional academic and clinical pillars, these two pillars represent the key to making Jefferson, a 195-year-old academic medical center, operate more like a start-up company. Key assumptions underlying this transformation include the following:

- ✓ Jefferson will be paid based on quality, costs, patient experience, and outcomes (not volumes); hospital stays will be commoditized.
- ✓ Physicians and nurses will cooperate and engage in deep learning, and consequently Jefferson will need to select and educate individuals to foster creativity and allow them to be better humans.
- ✓ Population health, predictive analytics, and social determinants of health will move to the mainstream of clinical care, payment models, and medical education.

2 Hemant Taneja and Stephen Klasko, with Kevin Maney, *UnHealthcare*, Thomas Jefferson University Press, 2020.

Jefferson's goal is to offer "healthcare with no address." To that end, Jefferson changed its vision statement to set the following goals:

- ✓ To meet the needs of patients to access healthcare in the same flexible manner in which they consume every other good.
- ✓ To redefine Jefferson Health based on care and caring rather than location.

Innovation is the key to executing Jefferson's transformation, particularly through strategic partnerships focused on digital platforms. Examples include the following:

- ✓ **Virtual visits:** JeffConnect offers access to a virtual physician visit using a smartphone, tablet, laptop, or desktop computer. It also provides triage services for patients with immediate health needs, directing them to urgent care, immediate telehealth, or next-day office visits as an alternative to emergency department (ED) care. Jefferson encourages its employees to use the service by waiving the regular \$500 deductible for any ED visit that occurs after going through JeffConnect. Roughly 60 percent of such calls end up not requiring ED care. JeffConnect has seen skyrocketing demand since the pandemic began. The service handled 100,000 virtual visits during the first three months of the pandemic (February to April 2020), roughly the same number that had taken place over the **previous five years**. To prevent innovation "regression," Jefferson sets a minimum number of virtual patient visits to be completed in each department.
- ✓ **Virtual inpatient rounds:** Jefferson allows family members to participate in inpatient rounds virtually, letting them interact directly with physicians, nurses, and discharge planners. This service is available to all inpatients.
- ✓ **Teleneuroscience:** Jefferson uses robots and telehealth visits to monitor neurology patients when they come home after surgery.
- ✓ **Physician matching:** Jefferson offers a physician matching service that helps connect patients to physicians that meet their preferences in a doctor. The service first launched with obstetrics care.
- ✓ **Service and appointment reminders:** Jefferson offers regular text reminders for upcoming appointments and about the need to schedule a service, such as a screening test. Reminders go directly to a person's smart phone or watch. People in need of a service (such as a colonoscopy) can book an appointment through one click. This approach reduces missed appointments and significantly improves compliance with needed screenings.

**"T**he biggest risk you can take after this pandemic is to not try anything new. If you think your organization will look the same 10 years from now, you are taking a huge gamble."

—Stephen K. Klasko, M.D., M.B.A.

## **Changing the Industry**

AI has the potential to be the biggest disrupter in healthcare. It can do wonderful things, as evidenced by an AI-enabled stuffed teddy bear that can assess the mood of young cancer patients through verbal cues and then customize its response to these children. It can also cause harm when used incorrectly, such as the recent finding that millions of black people have been affected by racial bias in healthcare algorithms.

Recognizing that AI can cause both good and harm, Jefferson created the Center for Responsible Innovation. Center leaders and staff consider the ethics of AI from the beginning, with the goal of preventing significant negative impacts. In hindsight, this type of work should have occurred with the advent of other major inventions such as the internal combustible engine (to reduce its impact on climate change) and social media (to minimize disinformation and the spewing of hate).

Jefferson's efforts to change the industry have focused on several areas:

### ***Area #1: Medical Education and Training***

Perhaps the biggest potential impact of AI is to take on tasks previously completed by a physician, such as reading radiology images. Computers tend to be better than humans at memorizing things and recognizing patterns. Unlike humans, computers do not forget, get tired, or become distracted. Consequently, tasks that can be performed better by a computer should be done by one. That said, AI will never replace the human aspects of being a physician. As a result, the industry needs a makeover in the way it chooses and trains people to be doctors. To that end, Jefferson created a different type of medical school, one that admits students based on empathy, communication skills, and creativity in addition to science grades and test scores. Jefferson teaches them with an emphasis not on memorization, but rather on the ability to see things and think through second-order impacts. The goal is to create physicians who are self-aware, culturally competent, and humane, and then arm them with the amazing memorization and pattern-recognition skills of drones and robots. This approach leads to a more diverse physician and healthcare workforce; in fact, Jefferson's student body is much more diverse than that of a more traditional medical school.

The hope is that teaching physicians this way will prepare them to be good physicians both today and a decade from now. Unfortunately, medical education often does not meet this goal. In fact, a survey found that 70 percent of physicians in practice for three years or less feel that medical school did not teach them what they need most to practice medicine, including skills like managing change, negotiating and communicating effectively, working in a large organization, being a good leader, and running effective meetings.

In addition to redefining medical education, Jefferson is pioneering a new way to teach specialists how to do complicated procedures. Rather than the traditional "see-one, do-one, teach-one" approach, Jefferson has built procedure rehearsal studios that allow for ample practice in a simulated setting before touching a real patient. Just as pilots spend hundreds of hours in a simulator before they take responsibility for safely flying passengers, these studios allow surgeons and other specialists to perfect their craft before trying it out on a patient.



**"I** should have to prove that I can intubate a one-pound baby safely before trying to do it on a live newborn. Don't just assume that I'm qualified. Make me prove it, just like a pilot does in a flight simulator."

—Stephen K. Klasko, M.D., M.B.A.

### **Area #2: Organizational Culture**

Leaders often spend too much time trying to influence the attitudes of people who will never change. As with most organizations, about 20 percent of Jefferson physicians understand the need for dramatic change and hence follow the directives of senior leaders. Roughly 15 percent will never “get it,” while 65 percent will get it eventually with enough prodding and explanation. Most leaders, however, spend about 40 percent of their time with those who already get it and 45 percent of their time with those who never will, leaving only 15 percent for the “silent majority” that needs convincing. Jefferson’s leaders have reallocated where they spend their time, with the focus now being on the silent majority and virtually no time being allocated to the “lost causes.” This change allowed Jefferson to bring many of the silent majority into the “get-it” camp.

In addition to this shift in focus, Jefferson created leadership development programs that play a critical role in spearheading culture change throughout the organization. For example, through Jefferson’s Onboarding and Leadership Transformation (JOLT) Institute, 40 emerging leaders complete a nine-month program each year that integrates classroom instruction, a project/sketch assignment, and executive coaching. Selected candidates go through an application process and must be sponsored and receive executive approval to participate. The program clearly works. JOLT graduates have improved their ability to handle difficult issues and situations by 325 percent. Other improvements attributed to JOLT include a 133 percent increase in commitment to and engagement in ensuring Jefferson’s success; a 200 percent improvement in the ability to work effectively in teams; a 167 percent jump in the ability to communicate effectively and influence others; a 250 percent increase in loyalty to the organization; and an 80 percent increase in willingness to serve in a leadership capacity.

**"W**e spend trillions of dollars each year on healthcare services that determine only 10 percent of overall health."

—Stephen K. Klasko, M.D., M.B.A.

### **Area #3: A Manifesto for Health Assurance**

Jefferson created a design laboratory dedicated to using imagination to solve today’s challenges in healthcare. The goal is to move the industry to a new model known as “un-healthcare” that focuses on health assurance rather than the provision of sick care. Developed at Jefferson in partnership with outside experts, this model recognizes that the 20th century principles of mass production and economies of scale are giving

way to mass personalization and rentable scale. Un-healthcare recognizes that costly sick care is giving way to affordable, personalized, and preemptive care based on genomics, sensors, and AI-based digital therapies. Un-healthcare focuses on health assurance, home-based care directed by patients, continuous data through monitoring rather than point-in-time visits, and humans acting as humans rather than robots.

### **Changing the World**

Like Apple, Jefferson is seeking to do more than just change itself and the industry in which it operates. Rather, it is truly trying to change the world by going beyond healthcare services. The COVID-19 pandemic has highlighted a long-known fact—that health status is determined largely by factors that have nothing to do with healthcare. For example, the chances of getting and/or dying from COVID-19 are determined more by where someone lives (i.e., zip code) than by genetics or personal behaviors such as mask wearing and social distancing. Similarly, life expectancy in general has more to do with where one lives than other factors. Within Jefferson’s service area in Philadelphia, neighborhoods separated by five miles have a 21-year difference in average life expectancy. To address this issue, in 2019 the Jefferson board tied 25 percent of the CEO’s personal incentive to reducing health disparities in Philadelphia. Part of the solution is to invest in non-healthcare services related to food, education, and housing, using technology to reduce inequities (e.g., Amazon’s drone delivery of grocery services).

**“**If you think you’re going back to a business model solely based on hospital revenue and not relevant to people who want care at home, you will be out of business. If hospital leaders believe that innovation can just be this cute little thing that they do in the background, but the real business is getting ‘heads in beds’, they will never recover from the pandemic of 2020 losses.”

—Stephen K. Klasko, M.D., M.B.A.

Jefferson’s Center for Responsible Innovation is calling for large-scale transformations in healthcare that will allow existing organizations to survive as ongoing entities and promote positive societal outcomes. Success will require disruptive thinking and creative partnerships to create new ecosystems. The transition will be painful for those who refuse to think differently as these new ecosystems are built. This “fourth industrial revolution” will be based on tools and data, but also requires proactive attention to their human and ethical consequences. Finally, addressing the social determinants of health and health inequities will have to become more than just “academic ponderings,” but rather a mainstream part of clinical care and health policy.

As noted, technology will be a major part of this future. By 2030, humans will routinely be working in partnership with robots to produce better health for everyone. Through “smart” clothing and other technologies, clinicians will have access to

continuous data along with analytical techniques that provide constant monitoring of key medical information and proactive alerts when something goes awry, such as an elderly patient going into atrial fibrillation or a woman experiencing a problem with her pregnancy. Patients will for the most part no longer need to come in for routine care, but rather will be monitored on a continuous basis, allowing real-time identification and addressing of problems. The result will be much better health and much less inconvenience and hassle for everyone involved. Similarly, physicians will have access to real-time, genomic-based decision support to guide prescribing decisions and virtual assistants that can work with patients on chronic disease management. Health systems will be paid in an entirely new way, with payments based on the provision of health assurance rather than sick care, including rewards for promoting healthy behaviors and home environments. Most healthcare interactions will be virtual or remote, with a majority of those involving AI or machine-cognition applications.

# The Role of CEOs and Boards in Promoting Innovation

Roundtable discussion among faculty members highlighted the following important roles for the CEO and board in promoting innovation:

## CEO Roles

- ✓ “Own” innovation from beginning to end.
- ✓ Make innovation a top priority within the organization and regularly communicate about its importance with key stakeholders.
- ✓ Prioritize innovation within resource allocation recommendations and decisions.
- ✓ Elevate the importance of innovation within the hierarchical structure by having the head of innovation report directly to the CEO, rather than being several layers down in the organization. At Jefferson, for example, the head of innovation and strategic partnerships is one of four individuals who report to the CEO. Similarly, at Providence and Intermountain, the chiefs of innovation and transformation report directly to the CEO.
- ✓ As necessary, bring in outside talent to oversee and promote innovation within the organization. This step is especially critical for smaller organizations that may not have in-house talent.
- ✓ Educate the board on the disruption taking place with respect to the traditional academic and clinical model of medicine and the related importance of portfolio diversification, including the potential value of strategic partnerships with retail, venture capital and technology companies.
- ✓ For smaller entities, consider strategic partnerships with larger health systems that are at the forefront of innovation. For example, Providence has several partnerships with rural hospitals that do not have the resources to execute this transformation on their own.

“**T**he CEO has to ‘own’ innovation front to back and make it a top objective. Otherwise, the organization cannot transform. For its part, the board has to be supportive of the CEO and the innovation agenda.”

—Aaron Martin

### **Board Roles**

- ✓ Highlight the importance of innovation by making it an explicit part of the organization's mission, vision, and/or values statements. At Jefferson, for example, innovation is one of four foundational pillars of the organization.
- ✓ Support the innovation agenda of the CEO by approving his or her plans, including major resource allocations such as new hires and investments.
- ✓ Create incentives for innovation and emphasize its importance through compensation plans, including incentives; at Jefferson Health, for example, the board pushed the idea of making compensation and risk-taking a bigger part of the incentive plan.
- ✓ Consider bringing in board members with expertise in innovation, digital technologies, and other areas that will be critical to future survival and success.