Executive Summary

Discussing the operations of innovation, the benefits and challenges of technological disruption and the ways successful organizations are following trends toward a modernized future, The Scottsdale Institute virtually convened 28 Innovation professionals and guests from 19 Member and supporting organizations for its annual Innovation Summit, sponsored and moderated by Deloitte on July 22, 2021. Representing myriad health systems across the U.S., these professionals came together to share how technology and ingenuity are transforming our systems of health, and why we must define innovation concisely before we can bake it into our culture.

In recent decades, healthcare advancements have created waves of change: Our technologies, consumers and payment systems continually are in flux. Summit participants are learning how to tame those breakers toward more strategic planning—going with the flow instead of wiping out. Toward that end, they’re determining:

• How IT becomes an enabler of innovation, and the type of tech innovations that deliver care;
• Why we need to innovate around our consumers, essentially disrupting our business for our longevity; and
• Which major disruptors surround the healthcare market, and what wisdom we can apply to adapt and change to ensure our survival.

SUMMIT OBJECTIVES

Scottsdale Institute’s Innovation professionals sought to learn about:
• Enhancing the digital consumer experience
• Realizing the value and impact of virtual health
• Leveraging technology to augment manual activity
• Changing the definition of the workplace
• Increasing the use of remote devices

Toward that end, they also acknowledged the following barriers to innovation, including:
• Access to internal investment/funding
• Reluctance to change within the provider community
• Technological infrastructure requirements to facilitate innovation
• Concerns about ROI
• Executive commitment and governance for innovation efforts

Ultimately, Summit participants shared wisdom around:
• Embedding Innovation successfully into every team mindset and existing approach
• Balancing speed and stability in operations
• Managing change strategically
• Studying innovative trends and ways to prepare for the future
• Exchanging best practices
SUMMIT PARTICIPANTS

Craig Anderson, Director of Innovation, BayCare Health System
Nicholas Archer, CEO, Project Fulcrum/SVP Consumer Innovation, AdventHealth
Kali Arduini, Director, Innovation, Northwestern Medicine
Scott Arnold, EVP & CIO, Tampa General Hospital
Shariq Ata, Director, Enterprise Architecture & Shared Services, University of Chicago Medicine
Marcee Chmait, Head of Business Development & Strategic Partnerships, Providence
Meghan Cole, IT Director, Bronson Healthcare
Chip Dickinson, VP, Digital Innovation, Adventist Health
Lisa Dykstra, SVP & CIO, Lurie Children's Hospital
Kelly Faley, VP, Digital Strategies, Sharp HealthCare
Kelly George, VP, Performance Improvement, OSF HealthCare System
Ash Goel, MD, SVP/CIO, Bronson Healthcare
Christina Gonsalves, Project Implementation Coordinator, Patient Access, Sharp HealthCare
Elizabeth Hagerman, PhD, Chief Innovation Officer, UW Health
Glynn Hollis, CIO, HonorHealth
Jason Joseph, SVP & CDIO, Spectrum Health
Dave Lundal, CIO, IT, Children's Minnesota
Sonya Makhni, MD, Clinical Informatics Fellow, University of Chicago Medicine
Sharon Markman, Director, Center for Healthcare Delivery Science & Innovation, University of Chicago Medicine
Aaron Martin, EVP & Chief Digital & Innovation Officer, Providence
Wendy McGregor, Innovation Program Manager, Adventist Health West
Jason Naidich, MD, SVP/Regional Executive Director, Northwell Health
Brenyale Norman-Holt, MBA, Project Manager, Adventist Health West
Lisa Prasad, VP & Chief Innovation Officer, Henry Ford Health System
Jason Ronald, Senior Architect, Northwestern Medicine
Ryan Smith, VP & CIO, Intermountain Healthcare
Michelle Stansbury, VP of IT Innovation, Houston Methodist
Tom Vollberg, Assistant VP, IS Applications, Scripps Health
Stavroula Xinos, Director of IT, Northwestern Medicine
Julie Yoo, General Partner, Andreessen Horowitz

CONVENER

Scottsdale Institute: Janet Guptill, FACHE/Executive Director, Cynthia Schroers, Chuck Appleby, Janice Wurz, Karen Sjoblom, M. Michael Shabot, MD, John Hendricks, Ricki Levitan, Margaret Shea, Courtney Olson, Genevieve Hedland-Hill, Nancy Navarrette

SPONSOR

Sponsor: Deloitte
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Introduction: Innovation as a Cultural Mindset

Back in the day, Henry Ford, the father of modern transportation, famously opined that if he’d asked the public what they wanted, they’d have said a faster horse. This sentiment holds true some 125 years later: We still don’t often know what we want, let alone what we need. Today’s healthcare innovators face similar quandaries over industry and consumer wants and needs as well, all while dealing with concerns over costs and ROI, reticence to let go of the familiar, fears about moving forward, confusion over rapid, constant change and—always—an inability to discern the future as clearly as we would like.

In preparing for this Virtual Summit, Scottsdale Institute queried Innovation professionals, as depicted below.

Overall, opportunities and possibilities seem to be matched by challenges and barriers, as so many strive to keep their heads above water in a post-COVID atmosphere.

“It’d say the pandemic brought on survival mode: Our business model was under stress. Besides getting outside assistance, we wondered how to create an economic environment with lower volumes. But innovation is going on in those areas; 2021 has been COVID recovery, and the new things we’re doing align with our bottom-line improvement. With things like business process automation, we went at it more aggressively; we wanted to do a little bit and show there’s something viable there.”

– Dave Lundal, CIO, IT, Children’s Minnesota

Still, an opening Summit poll revealed that, of actions Members are taking currently to promote organizational innovation, nearly two-thirds are conducting research, development and pilots; that is: imagining and balancing wants and needs. This is by far their foremost activity toward furthering innovation as a cultural mindset…and the results are as varied and remarkable as our Members.
The DNA of Innovation

To kick off the Summit, Craig Anderson, BayCare’s Director of Innovation, and Dr. Jason Naidich, Northwell Health’s Senior VP/Regional Executive Director, shared their thoughts on two disparate yet complementary strands at the center of healthcare innovation—change and culture.

“When we talk about innovation, it’s always the same: Change is hard. It’s something everyone thinks and is part of every challenge—to adapt our mindset to be more innovative,” Anderson observed. “We’re now in our sixth year of innovation, but the first thing we had to do was define it because ‘innovation’ means something different to everyone. What is innovation, anyway? What is it not? Is it a technology or a process, clinical or operational, do we build or buy? Ultimately, today’s health systems need to know where to focus: On technology, processes or people?”

Anderson is a technologist by nature, with over a decade at a global consulting firm and then a cofounder of a software company, so that’s where his expertise lies and where he focuses on innovating at BayCare. With 15 hospitals, 19 urgent care centers, 28,000 team members and nearly 780,000 home care visits, BayCare’s True North is clinical excellence…so employees are focused, via innovation, to provide a great experience to customers and care teams.

RIPPLES OF CONNECTION

Science author and media theorist Steven Johnson suggested that innovation doesn’t come from giving people incentives; it arises from creating environments where their ideas can connect. While Anderson believes innovation is always a selling game and leaders must continually promote it to stakeholders, he acknowledged that even some staff members didn’t know BayCare had an Innovation office. But as soon as they learned that, the ideas and meeting invitations started flowing.

“It’s good to build the brand for Innovation. We put our logo on everything because it drives value, and we search for ways to capture and generate ideas—like webpages, surveys and focus groups—because the initial idea is always the hardest to find,” he stated. “If you build things that local or national media will pick up on, it helps the market and community know you’re there, that you have new and exciting ideas that could be good for consumers and help boost their experience.”

FLOATING THE UPSIDE

Anderson believes to change your culture, first consider your message.

“If we think change is hard, something that’s even harder is failure. Clinicians train for 100 percent positive outcomes but, in Innovation, we’ve got to fail fast and fail successfully. We must have the freedom to try, and we also must de-risk opportunities for our contributors.”
he said. “Our formulation for our contributors is that we’ll fund [the pilot project], set up metrics and help find solutions for a pilot. If it works, all the credit goes to you—Only Upside. If it doesn’t work, we’ll consider it innovation, take that lesson and go forward. Ultimately the difference between the Innovation Group and the rest of the organization is that we have the OK to fail and learn.”

If there’s any hesitancy or anxiety around trying something new, the Innovation Group essentially acts as a bulletproof vest: They’re built to have all the approvals from IT, Legal and other critical departments, and have built the processes designed to streamline and handle challenges internally. Additionally, Anderson confirms they have air cover from the top—a direct line into the entire C-Suite to get honest feedback and respond quickly.

**TURNING THE TIDES**

“We got a call from our CMO on a Sunday night saying we needed to find a way to help our patients know what to do quickly during the pandemic...so we had a chatbot built and fine-tuned in nine days,” Anderson declared. “It was an example of working at speeds the organization didn’t think were possible, and actually building something quickly without having to have four meetings first about what we’re going to do.”

Concurrently, BayCare recognized more than ever they didn’t have the luxury of endless review cycles and thus simplified their partnerships and processes whenever possible. The legal department established a simple, brief contract for new vendors when time was of the essence in defining pilot programs. Eventually, if a partnership was to continue, they’d work through long-term contract specifics in more detail.

“A question that we’re consistently asking is whether this is innovation or digital transformation...what comes first, the innovation or the problem? How can we make sure today’s innovations are solving tomorrow’s problems?”

– Brenyale Norman-Holt, Project Manager, Adventist Health West

**A MOTHER OF AN INVENTION**

With disrupted supply chains and CDC testing parameters in flux, Northwell pushed past its perceived limits during the worst of the pandemic by MacGyvering some magnificent solutions. Lacking enough nasal swabs for testing, they worked with their 3D printing group to design and print 20,000 swabs per week. Further, fearful of the possibility of running out of ventilators, Northwell teams created an adaptor to convert 450 bi-pap (i.e., sleep apnea) machines into ventilators in a matter of weeks.
PLUMBING THE DEPTHS

For Northwell Health, its large geographical region creates a unique challenge in unlocking innovation: Physical distance is exacerbated with 23 hospitals, over 830 ambulatory facilities and 76,000 employees spanning New York City, Long Island and surrounding areas. But President and CEO Michael Dowling’s goal is to be better tomorrow than they are today, and so he chooses to shape culture from the get-go, meeting with every single employee via weekly onboarding sessions and plumbing the depth and breadth of these most needed innovators.

“Culture is key and tone is established on Day One,” Dr. Naidich described. “We host a two-day orientation about our culture and our pillars as we strive to be best in care delivery. We’re focused on unlocking innovation for—and from—every employee.”

One such opportunity is Northwell’s Innovation Challenge: Everyone is invited to submit ideas—without limits—and finalists get an opportunity to participate in a live presentation similar to the television show “Shark Tank.” Northwell invests up to $500,000 in the winners’ ideas, with a commitment to help develop and potentially commercialize their ideas, as appropriate. Additionally, its Center for Learning and Innovation provides a classroom environment and simulation labs where teams can collaborate to improve processes, adopt new technologies (i.e., using robotics on cadavers), conduct research and disseminate information.

To bring innovation to medical education, Northwell created its own medical school with a curriculum designed to promote creativity and innovative thinking. “Our medical school deemphasizes rote memorization and lectures in favor of case-based learning and problem-solving. Additionally, our medical students are exposed to clinical medicine from Day One. They start off learning emergency management by riding in ambulances, and they start seeing patients right away,” Dr. Naidich reported. “We want to maximize the opportunity for innovation from the beginning.”

Another area of innovation is Northwell Ventures—a for-profit subsidiary focused on diversified revenue streams, which include medical device creation and intellectual property commercialization. Partnering with many early-stage companies, Northwell leaders have found it’s an equally important innovation opportunity to learn who’s making a better mousetrap, so to speak, and joining forces therein. During COVID, for example, the necessity of rapid innovation alongside some welcomed governmental regulatory relief allowed Northwell to innovate at a faster pace. Now the question is, how to keep that going? Dr. Naidich posits that, as a country, we need to decrease the roadblocks that get in the way of innovation.

PEER PERSPECTIVES

“We talk about innovation and ingenuity, with the former being about introducing something brand new that isn’t an evolution of something, has IP or commercialization potential, or is outside of a current workflow or business. We consider ingenuity as the day-to-day innovation that everyone needs to bring to work and drive into our business.”

-Jason Joseph, SVP/Chief Digital & Information Officer, Spectrum Health

“We have an innovation team that’s largely focused on commercializable opportunities. We also have a digital tech group that brings in tech that’s not new to the world, but new to us—like using Alexa to order supplies. Then, we have day-to-day innovation, or ingenuity, where people put ideas forward. We’re trying to create a culture to empower people, via working in agile teams, to be improving and thinking creatively about our work.”

-Dave Lundal, CIO IT, Children’s Minneapolis
**STAYING AFLOAT**

In early 2020, Northwell found itself at the center of the pandemic, being hit hard and fast and, like every other health system in the US, lacking any sort of meaningful playbook.

“We learned the why of innovating very clearly during COVID: Not just how we embed innovation, but why. It was not just ‘nice to have’ but critical to our survival.” Dr. Naidich recalled. “We saw our first patient in early March 2020; by April 7, at our peak, we had nearly 5,000 inpatients with only 3,700 baseline operational beds. We had to act rapidly, but we could do that only because every single member of our institution was used to innovating.”

Northwell’s teams found themselves getting very creative, very fast, in the following areas.

- **Repurposing** facilities to create additional ED, medical/surgical and ICU capacity
- **Revamping** patient care to provide it safely outside of hospitals and healthcare facilities via telehealth and home monitoring
- **Developing** their own testing capabilities and establishing drive-through testing centers
- **Analyzing** real-time data that revealed COVID hot spots
- **Transferring** thousands of patients between system hospitals to balance supply and demand of beds, labor and equipment
- **Designing** Conversa—a real-time chatbot developed to communicate test results, lacking the manpower to call and follow up with patients. Conversa automated that function

“Innovation has been absolutely necessary to protect our patients and staff throughout the pandemic. We relied on our home-grown early warning systems to provide knowledge of hot spots and used this information to proactively decant the busiest hospitals before they got overwhelmed. Our ability to do so was enabled by real-time innovation developed by our IT team to match appropriate patients to available beds, since every hospital before COVID was managing its own space,” Dr. Naidich explained. “This is why innovation at the front line is so important. One of the silver linings here is that our organization is now even more committed to innovation in this space.”
Weathering the Waves of Disruption

In considering AI/Analytics, automation and virtual care, how can we use technological disruption to augment care delivery models...without going under? Coming up for air post-pandemic also means applying some critical lessons learned to pre-COVID projects that had languished during the scramble to survive. VP & CIO Ryan Smith of Intermountain Healthcare shared that his team is focused on what’s coming next, including stronger automation and home-based virtual care, with several key projects to keep the momentum going.

DIVING INTO AUTOMATION

“We started a pilot in September 2020 around Digital Front Door because we felt we needed to improve the patient experience with our system,” Smith said. “Our challenges included having a mobile app but with low utilization; also, some patients didn’t complete their paperwork, and nurses then spent lots of time moving data around. We were slow to believe or trust that patients or guarantors were willing to take on a self-service-type of intake versus having a human asking all the questions.”

Like so many health systems post-COVID, Intermountain is wading into some choppy waters. In juggling some 900,000 SelectHealth members, 24 hospitals and nearly 42,000 caregivers, they’re searching for ways to streamline, simplify and truly recover from the pandemic. In testing whether patients would be willing to complete their own forms, Intermountain’s automation initiative aimed to systematize outreach for upcoming appointments, sending a link for an app-less registration experience. MAs pre-completed clinical form documentation in the EHR using patient-submitted responses, while other known patient information automatically surfaced in electronic forms, saving time and effort. The results were astounding: In the brief four-week timeframe from kickoff to initial go-live, they experienced:

- 300 percent increase in co-pay collections
- 45 minutes saved daily per MA
- 96 percent patient satisfaction rating
- 91 percent pre-visit registration completion rate

“The bot scans the upcoming appointment schedule, personalizes intake requests, sends a link to a secure form and then puts appropriate data field details directly into Cerner PowerForm,” Smith detailed. “By the time a patient arrives, the form already is filled out, there’s less duplication and the check-in process decreases by 25 percent. Our nurses love it because they don’t have to transcribe information.”

WINDS OF CHANGE

Intermountain also has been working to strengthen access and automation that benefits both medical teams and patients, with the following projects and results.

SCOUT

This symptom-checking chatbot, designed by an Intermountain/Giant partnership in a mere two weeks, helps ameliorate lengthy wait times spent on the COVID hotline. From March through November 2020, Scout had nearly 473,000 total encounters in Utah, which saved almost 100,000 inquiries into the call center. After approximately 360,000 screenings and 113,000 total FAQs, 84 percent of consumers were triaged into telehealth services, which helped keep in-office visits low while
directing the most ill consumers toward appropriate services (e.g., five percent into the ER and two percent toward 911).

**MY HEALTH+**
Developed with BCG, these chatbot e-visits are a new offering for Intermountain, wherein a patient is presented with medical “interview” questions and the responses are sent to a provider. Taking five- to 15 minutes and available at any time, My Health+ offers another low-cost, virtual care option; in fact, there’s no charge if a patient’s medical concern cannot be solved. Additionally, providers can access the system and complete necessary actions between virtual visits.

**INTERMOUNTAIN CONNECT**
“We’ve been doing telehealth for a long time, but COVID was the impetus to really scale it. In January 2020, we had about four virtual visits daily, but that spiked to 2,000 per day during the worst of it,” Smith revealed. As such, Intermountain created its Connect Care, Connect Care Pro and Connect Care/Peds offerings. With the goal of expanding their reach virtually, Intermountain developed these options to provide care where, when and how people need it.

- **Connect Care** (direct-to-consumer services) offers access to providers in four core areas (urgent care, scheduled video visits, behavioral health and remote patient monitoring)
- **Connect Care Pro** (B2B services) provides to customers—including health systems and rural hospitals—Intermountain’s clinical expertise in critical care, oncology, infections disease, stroke, crisis care and hospitalist arenas
- **Connect Care Pro/Pediatrics** is currently under development to include emergency/trauma, critical care, newborn resuscitation and more

**NOTES ON NOTABLE**
Using technology to solve industry challenges of improving efficiency, outcomes and patient experiences, Notable is an early-stage start-up in the process of developing a crowd-sourced, intelligent automation center of enablement. In their partnership, Intermountain brings the tools, training and review processes toward more standardized enterprise tools. “We’ve focused on shifting the work of patients completing paper forms and medical teams having to replicate details. We’re not always used to vendors performing like their marketing slides would suggest, but Notable has worked very well: Patients feel like they’re winning, and those in clinics and hospitals feel the same.”

- **Ryan Smith, Intermountain Healthcare**

**INTERMOUNTAIN @HOME**
These remote patient monitoring services emphasize chronic disease management, coronavirus care and Hospital at Home offerings.

- **Chronic disease management**: Focusing on patients with hypertension, diabetes, COPD and congestive heart- and renal failure, Intermountain worked with SelectHealth to target ~5,000 of the most at-risk/high-spend patients out of 50,000 qualifying SelectHealth patients. To date, “Project Trident” (Intermountain Nevada) has shown significant decreases in both ED visits and hospital admissions alongside high patient satisfaction ratings.
- **COVID mini kits**: Placed in every ED and 50 percent of its urgent care facilities, this program offers 24/7 clinical monitoring staff and sends pulse oximeters home with patients toward early detection of silent hypoxia. Having served over 4,000 patients since the program started in August 2020, Intermountain has reduced unnecessary ED visits, seeing a 50 percent reduction in ED recidivism, while home oxygen helps eliminate over four hospital days. In fact, the program helped divert nearly eight patients daily during the
height of the pandemic; when taken in full, this program kept an enormous number of beds available for the most compromised of patients.

- **Hospital at Home:** “We’re still scaling this program, but it identifies patients who’d be good candidates while also meeting our strict enrollment criteria. For those who’d otherwise be in the hospital, our goal is to keep them out completely or reduce their length of stay,” Smith explained.

“We want to make sure that our new digital modalities are not the only way patients can access our services. The types who want to use those will, over time, gravitate toward those tools, but others will still call in,” Smith said. “The reality is that we have an opportunity for a win-win to benefit clinicians and customers. Looking at other service industries, like travel and banking, we already know consumers are willing to take on a lot more regarding self-service. Now, healthcare just has to get over that hump and follow suit.”

### PEER PERSPECTIVES

“From a Digital Front Door perspective, we’ve scaled and automated our online scheduling, pre-check in processes, patient questionnaires, Teen and proxy access, automated notifications and a number of other initiatives to engage our patients and streamline data ingestion and documentation for our care teams. We will continue our work in this space to drive improved and easier access to care for our patients and families.”

- Lisa Dykstra, Senior VP & CIO, Lurie Children’s Hospital

“We have user-tested bots three or four times over the last few years and we have seen consistent pushback, with patients saying they don’t want to use them. We’re trying to understand if other networks’ patients are using bots even though they do not like them and, if so, are we just being overly concerned about patient feedback?”

- Kelly Faley, VP Digital Strategies, Sharp

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### The Digital Customer: Building Familiarity Through Advocacy

“Part of the problem with healthcare is that we try to design for everyone all the time,” said **Nick Archer**, CEO, Project Fulcrum/SVP Consumer Innovation, AdventHealth. “Project Fulcrum focuses on solutioning and listening to the voice of the customer so we can alleviate their mental burden and provide them with a trusted friend in AdventHealth. We’re innovating around what we do as a system—not only changing the system of care but also the experience of it—by enhancing and building customer relationships.”

Determining there was no “last mile” tool on the market to connect the healthcare consumer with all the services they need, AdventHealth built an analytics engine to track interaction data between customers and providers. Utilizing Salesforce CRM, they’ve integrated into AthenaHealth (their physician group EMR) and are in the process of integrating into Epic as well. Further, they’ve developed a team of Care Advocates who serve as intermediaries between consumers and providers to answer questions, navigate system complexities and develop lasting relationships to improve their overall AdventHealth experience. It’s essentially an integrated delivery network that sits on top of the ERM and offers a much-needed human element.

“We define care advocacy as the foundation upon which we build consumer relationships for our network, connected by digital tools, useful insight and individualized journey plans that enhance the consumer’s experience, value, loyalty and relationship.”
Archer detailed. “It’s a service, delivered through digital messaging, that aims to give consumers the feeling of having a trusted friend in healthcare.”

**WADING INTO DEEPER RELATIONSHIPS**

Archer shared when an older adult had some challenges at a Publix pharmacy, he showed the pharmacist his AdventHealth app, saying, “I have a care team now. It’s like having an angel right here in your pocket!” And when the Care Advocate heard this story from her neighbor, she felt honored that she could be part of providing such a support team. Not surprisingly, Care Advocates are hired for their empathy and relentless customer focus… and many such team members came after Walt Disney World®—renowned for its focus on personalized service—laid off workers during COVID. But most interesting is that the care advocacy workforce is not necessarily trained clinically even as they function in a heavily clinical environment. And this is where that empathetic, customer focus shines. Advocates sit between consumers and staff/physicians, resolving as much as possible outside of the practice environment so providers can serve the patients in front of them.

“Healthcare typically is reactive, but Care Advocates try to collect relevant information in advance,” Archer stated. “We know 99 percent of life happens outside of healthcare, so we wanted to invest in getting to know the consumers in our market ahead of time so we could be most helpful when healthcare was needed, thereby making the resulting visits more productive.”

Since the greatest source of friction was consumers navigating the onramp of connecting to providers, the goal was to simplify the process. Compared against a typical portal response time of 0.8 days, a consumer’s
response time from a Care Advocate averages only eight
minutes, with a subsequent two-hour targeted response
time from the provider back to the Care Advocate once a
patient’s need was clarified. Further, Care Advocate nurses
are available to help translate and clarify consumer needs
and provider responses.

“Getting people answers in two minutes realigns
perception,” Archer stated. “When we looked at the
time it was taking to address standard core issues like
prescription refills, there was so much effort being put
in on the consumer side and yet we weren’t fulfilling
expectations consistently. But with Care Advocacy, when
you tally these kinds of time and cost savings across
an entire health system, that was the determinant to
continue to scale this. We believe we can get up to a 1-to-
7,000 care ratio from a single staff person.”

For the future, AdventHealth wants to tackle automation:
The Care Advocacy program is very manual, but first they
want to learn exactly which facets to automate toward
greater efficiency. Also, their core consumer group ranges
from 35-54 years of age, so another goal is to build those
relationships now so that as these consumers age and
experience more chronic conditions, they already have a
strong relationship in place, akin to Medicare Advantage-
type offerings. Finally, broadening the program to include
value-based payment populations may follow; both
Intermountain and Spectrum have integrated health
plans and are investing in this type of 360-degree view of
consumer interactions. But at every turn, the focus will be
on deepening trust, building relationships and ensuring
survival rates of both health consumers and the health
systems offering the care.

Platforms and Ecosystems

“Our mantra is ‘Software is Eating Care Delivery. (Finally.)’
Our founder believes that anything that can be done by
software will eventually be done by software, so basically
every company becomes a software company at its core—
and whoever does that best will rise to the top,” explained
Julie Yoo, General Partner, Andreessen Horowitz. “Airbnb
and Tesla are great examples of this—of excelling in the
software arena.”

Interviewing Yoo and facilitating the subsequent
discussion, Providence EVP & Chief Digital and Innovation
Officer, Aaron Martin, discussed how platforms and
ecosystems are coming into healthcare, and believes the
industry has had blinders on to the task at hand, which
is incredibly dangerous given the rapid pace at which
technology is changing. With Andreessen Horowitz’s
keen point of view on not only healthcare but the entire
digital landscape, a new thesis is emerging: Many of the
new digital players eventually are destined to become the
best-in-class solutions.
TESTING THE CURRENTS

There’s an emerging ecosystem of healthcare startups that are providing world-class, tech-enabled services to the digital health market across front- and back offices and clinical operations. In Yoo’s opinion, the digital-first technologies could take hold—and areas of highest growth potential include on-demand healthcare, mental health and care delivery infrastructure. With digital health as a large, growing market, she says there’s been hundreds of full-stack digital health companies started in the past three years in addition to “chALLENGER Clinics”—that is, those going up against the old guard, like Carbon Health, City Block, Oscar and Devoted Health.

“For the new tech stack for virtual-first care, digital companies are now the most attractive buyers of tech in our space,” Yoo said. “They care about speed and feedback from market, ease of integration and an ability to have an impact beyond software itself.”

Upending the more traditional approach (focused more on compliance, security, internal system integration capabilities, workflow compatibility and cost/ROI), these companies are upping the game on healthcare product quality—moving past the basics and increasing the user experience. While the reputation of digital health is that they’re focused on the virtual world, more and more they’re integrating into the real-world models; they’re willing to take the risk toward real-life scenarios as long as there’s a viable option for scaling. Toward this end, Yoo believes vendors need to demonstrate and deliver on high-scale performance and reliability, quality of technology, user experience, availability of API and interoperability.

“We’re going to compete in some areas and partner in others, so we need to have elasticity in this new world. Also, speed is going to trump consistency; some teams are focused on consistency, but we at Providence are focused on speed.”
—Aaron Martin, EVP & Chief Digital and Innovation Officer, Providence

The New Tech Stack for Virtual-First Care

There is now an emerging ecosystem of healthtech startups providing world-class tech-enabled services to the digital health market across front office, back office, and clinical operations.

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**Back Office**
- Financial Systems
  - Cerebras
  - Eligible
  - ERP (Workforce, Supply Chain)
  - Medibank
  - Verifiable
  - Workday
- Privacy, Security, Compliance
  - Apalible
  - Enzyme

**Clinical Operations**
- Interoperability, Care Coordination
  - Zcare
  - NxHealth
- Pharmacy, Labs, Home Care
  - Truepill
  - Inlyer
- Virtual Referral Networks
  - wheel
  - ribbon
  - sitka

**Front Office**
- Communications, CRM
  - Healthcloud
  - Webkin
- Scheduling, Payments
  - OnCall
  - Sesame
“The rules have changed: Operating models are flipping from being on providers’ terms to being on patients’ terms. Services that historically were centralized and in-person are becoming increasingly centralized and hybrid,” she declared. “The center of gravity of data is shifting beyond traditional EHR and claims systems.”

Added Martin, “The challenge in healthcare is no longer convincing incumbents of great digital-first experiences, but rather that there’s an entirely different universe that is working to get to such a scale, and people could make a living just selling to them. There could be a scenario in the future where there’s an entirely virtual healthcare system that’s not even connected with the incumbents because the rate of change is so huge.”

**GOING WITH THE FLOW**

According to Yoo, startups want to work with enterprises that are at scale, thereby going where the water flows. The best entrepreneurs are going to work with the best buyers, watching where they’re headed in the future...but they also need to draw top talent or be attractive enough to be chosen to partner with best-in-class companies.

“There’s a big implication for health systems: The platforms that have worked well at Providence have been disconnected from our traditional care models. If you want to be successful, you’re going to cannibalize your existing business,” Martin outlined. “Why should I use a traditional EMR? Should I have a completely different tech stack? At Providence, the things that have worked well for us have been very separate, just like Kindle is a different kind of book business than Amazon. This is really a seismic moment that we as incumbents need to recognize.”

Echoing Martin’s statement, Yoo suggested we need to disrupt ourselves—that is, talking to boards about their hows and whys and pushing for lasting answers. Why do they do primary care versus the high acuity end of the spectrum? What are they uniquely qualified to do that others aren’t? “We must revisit what ‘core’ is and what it means to the business,” she said.

“How do you continue to get juice out of your EHR investments if you’ve spent 10 years implementing and need 10 years to get value out of them?”

–Julie Yoo, General Partner, Andreessen Horowitz
Conclusion:
Riding the Storm

When Julie Yoo shared Vladimir Lenin’s sentiment, it was a telling moment—that of quoting an old revolutionary during this new revolution in healthcare. And by Summit’s end, Intermountain Healthcare’s Ryan Smith issued a query that was part challenge and part reminder: “What can we be doing to reinvent ourselves? We need to act like digital natives without the birthright.”

Healthcare innovation must continue, rising and falling with trends, improvements, challengers and constraints. These Summit professionals are the ones leading the charge to weather the many oscillations of balancing revenue opportunities against threats, withstanding (or perhaps even partnering with) certain newcomers, and keeping their eyes on a horizon that may never entail smooth sailing. But it was also clear that they wouldn’t choose to be anywhere else during this remarkable time.