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Are You Ready to Innovate?

At the Healthcare Marketing & Physician Strategies Summit in May, innovation was a key focus. Healthcare organizations and entrepreneurs shared innovative strategies for disrupting delivery models and better meeting customer needs, and innovation expert Jeremy Gutsche called on the audience to “start rethinking what people want and why they want it.”

“Your next innovation is closer than you think,” Gutsche added. “To find it, you need to pay attention to your overlooked opportunities.”

This issue highlights organizations that are doing just that. Several healthcare organizations that have created a culture of innovation are explored, as are a number of technology companies and nontraditional competitors that are filling the gaps between consumer demand and traditional healthcare offerings.

The issue concludes with a powerful piece by leading healthcare futurist Jeff Goldsmith, PhD, on the concept of the patient as a “consumer”—and why it does not accurately reflect a patient’s reality.

Read on for tips, tools, and strategies to challenge your thinking and drive the creative process!

The Ultimate Disruptive Innovator

When a product or service takes root at the bottom of the market and relentlessly moves upmarket, displacing established competitors, that’s called disruptive innovation. In healthcare, the term refers to tech companies and other nontraditional competitors, propelled by the emerging healthcare consumerism trend, that have stepped in to fill the widening gap between consumer demand and traditional healthcare offerings.

Consumers have emerged as the most significant power players underlying this innovation. No longer just patients to be treated, savvy consumers armed with wearable tech and an appetite for data, convenience, affordability, and quality are a massive driving force that feeds and guides the disruptors.

Their combined power is pressuring strategic planners and marketers to embrace the three Cs of change:

◆ Care transformation across the continuum to shift our business models toward value-based payment
◆ Consumerism as a driver to shift our orientation to a retail-based healthcare marketplace
◆ Co-development with innovators—the people and companies with new ideas, capabilities, and proven models for improving outcomes who spur on innovation that matters in healthcare delivery

Innovators have found fertile breeding ground in the gap between “health” care and “sick” care, and their technologies are creating a bifurcation of traditional patient channels. As a result, the new imperative for health systems is to broaden their care continuums and race to address the forces fueling consumerism: “Do-It-Yourself Care,” “Always-On Care,” and “Population-Based Social Tribes of Care.”

Do-It-Yourself Care

In the past few years, Do-It-Yourself (DIY) Care has emerged as one of the most significant healthcare trends of our time. The proliferation of wearable tech, smartphone-linked devices, and mobile apps clearly signals the growth of the DIY Care movement.

A recent study by the Society for Participatory Medicine found that 71 percent of U.S. adults would use a health-tracking device if it were clinically accurate, and that 87 percent of respondents consider it important to monitor their own biometrics, such as blood pressure, heart rate, respiration, and glucose levels. The fitness tracker...
Disruptive Innovator

sector is expected to triple over the next four years, according to Forbes magazine, from 38 million units shipped this year to 148 million in 2019.

The DIY Care trend has also resulted in a profusion of approved portable medical devices in patient homes, including blood glucose monitors for diabetics, hand-held devices that measure hemoglobin and cholesterol levels, home defibrillators, ultrasounds, and fetal heart rate monitors.

Two companies that have emerged to meet this demand are QardioMD, a health solution with three smart devices linked to an app that provides at-home, on-the-go preventive cardiac disease management, and Vivify Health, which offers care-at-home kits for patients with a remote care platform for providers to reduce the risk of readmissions and unnecessary utilization of healthcare services. Both services are designed to engage patients in their own health and shape desired behavior.

Always-On Care
As the new options evolve, so do consumer expectations about

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reliable data, access, cost, quality, and convenience. Technology is making virtual care available anytime, anywhere.

New digital provider companies, such as MDLive, along with its forward-thinking health system partners, like Sentara Health in Virginia, create access points for the growing segment of healthcare customers who embrace technology. Zipnosis, one of the industry’s earliest online services for consumers, provides a digital pipeline between patients and providers, offering 24/7 diagnosis and treatment for common conditions.

Meanwhile, companies such as Teladoc and Doctor on Demand—and their partners, Henry Ford Health System in Michigan, MultiCare Health in Washington, and others—offer instant access to virtual care using a network of providers to address the full range of health issues.

Price transparency tools that enable shopping for healthcare are making a dent in how consumers buy services. Increasingly, consumers are being held accountable for their healthcare costs, and they’re turning to the internet to shop around. Online services offer customers easy access to information to compare health plans and the cost of treatments, surgery, and pharmaceuticals. Online healthcare brokers, such as Guroo and Healthcare Bluebook, allow patients to compare prices for specific services.

Some health consumers are not yet ready to make the leap into the virtual care world but are motivated to try retail care options that offer convenience, customer service, and care at the right price, in less time and without the hassle. This trend is buoyed by high-deductible health plans that require patients to pay out-of-pocket expenses for primary care services. When cost becomes a driving factor, chains, such as CVS, Walgreens, Rite Aid, and Walmart, gain an advantage over hospitals and clinics. More and more, traditional providers are migrating into urgent care and walk-in clinic settings and differentiating through improved customer service, convenience, and menu-based pricing.

The growing popularity of home care is another source of pressure on traditional healthcare settings. Home care blends the “Marcus Welby, MD” style of care—personalized, relationship-based care with a provider who knows the patient intimately and makes house calls—with technology and transparent retail pricing, offering customers comfort, convenience, and affordability. Companies such as Pager, MedZed, and Heal bring...
health providers to consumers’ homes and offices for a variety of minor treatment and diagnostic services—a kind of Uber for healthcare. A house call may stress the consumer dollar at $100 to $200 per visit, but even at that rate it’s cheaper than a trip to the emergency department, and having a physician come to your door is a level of personalized service that’s hard to beat.

Population-Based Social Tribes of Care

New care models and tools that enable innovative care approaches have just begun to address the needs of consumers with chronic illnesses or ongoing health problems. If we are going to succeed in a world of value-based healthcare payments, innovation is still needed for the 5 percent of consumers in America who account for 50 percent of the nation’s healthcare expenditures.

Health providers and tech companies have taken notice and are offering innovative online platforms for consumers to share healthcare experiences and participate in virtual coach-led peer groups. This is leading to more engaged and informed consumers and patients, with users defining themselves by location, disease category, or other differentiators to form “social tribes”—supportive subcultures that foster connection, communication, and population-based health improvements.

Smart Patients enables an online community to leverage the power of “microexperts” to revolutionize care for cancer and other diseases. Omada Health takes proven lifestyle and behavioral interventions from face-to-face to mobile. Its objective is to prevent diabetes, hypertension, and other diseases.

Meanwhile, online caregiving is opening new doors for on-the-go, tech-savvy consumers to care for aging patients. A service called Honor deploys an easy, online platform to connect seniors and their families with in-home care professionals. HomeHero, the “Match.com” of home healthcare, helps families find, hire, and manage affordable in-home care through an online marketplace of caregivers.

Forward-thinking healthcare providers are harnessing this momentum and encouraging the creation of “tribes” by connecting members to virtual networks for general and specialty providers. One such network is HealthTap, which aims to provide 24/7 query-to-cure individualized care; its vision is to become the world’s most trusted online companion, with people using mobile or wearable devices as remote controls for all their health needs.

Consumer-provider partnerships leverage the deep bench of traditional and nontraditional care providers and settings to improve access and expand capacity. Iora Health and Zoom+ work to reconfigure primary care via care models that lower costs, improve patient satisfaction, and enhance access. These expanded networks of care partners offer greater convenience and provide a new entry point for providers working to manage chronic health problems such as diabetes, heart disease, and cancer. And the resulting collaboration between providers coalesce expert knowledge to the benefit of consumers.

The Health Consumer Is the Ultimate Disruptive Innovator

These and many other consumer-driven innovations are happening now, and happening fast. Most health systems are already behind in developing—much less activating—a consumer strategy. It is way past time for healthcare leaders to recognize the arrival and persistence of the consumerism that is penetrating (and disrupting) organizations’ care channels across the entire “health” care to “sick” care continuum, before, after, and far beyond the hospital.

It’s time to embrace the three Cs of change. Be the transformers. Be an organization that believes in the consumer in healthcare. Take note of what is occurring around you, outside the lines of the traditional, and get to know the health tech and other innovators who are appealing to and drawing in consumers. Accelerate your consumer offerings through partnerships and codevelopment with these new and savvy nontraditional health companies. Organizations that act quickly to harness the power of disruptive innovation will be in the best position to succeed in this new and ever-evolving landscape.
Innovating From the Inside

Driving Improvement and Transformation

By Jessica Levco

Across the country, dozens of hospitals, health systems, and academic medical centers have established innovation centers, demonstrating that they can innovate, from the inside out. The experience of two such centers suggests a recipe for successful innovation. Following are five key ingredients.

1 Powering Innovation From the Inside

“You’ve got to have the right people with the right energy to work on innovative ideas,” says Jason Burke, System Vice President and Chief Analytics Officer, UNC Health Care and School of Medicine Center for Innovation, Chapel Hill, NC. The goals of this resource center, founded in 2012, are to help reduce healthcare costs, bring in new healthcare delivery ideas, and work together with other healthcare industry partners.

“If you’ve been able to carve out ways for your clinicians to innovate—and your hospital has the culture that puts an emphasis on innovation—you can innovate from anywhere,” Burke says.

Burke and his team put equal amounts of time, energy, and effort into two types of innovation: “Big I”, or disruptive, innovation and “Little i” innovation, which is novel improvement.

Big I innovation can be risky, time-consuming, and expensive, but the changes that happen are major. “These kinds of innovations fundamentally rewrite and restructure programs,” Burke explains. “You’ll see changes delivered at a larger scale because the delivery of service is being redesigned or remodeled.”

Little i innovation, on the other hand, focuses on novel improvements that can be accomplished in a shorter period of time. “Most healthcare organizations are doing this today, especially in terms of quality management offices,” Burke says. “They are making operational improvements that drive changes in healthcare costs and outcomes, and it is innovation that is having an immediate impact.”

Another organization that prioritizes internal innovation is Brigham and Women’s Hospital, Boston, MA. Brigham Innovation Hub, formed in 2013, hosts hackathons, collaboration nights, and clinician innovation days to encourage...
Innovation in Action

Here are just a few of the innovations implemented or in process at UNC Health Care and Brigham and Women’s:

**iPhone App to Learn More About Postpartum Depression**
The UNC Center for Innovation created a free iPhone app to engage women in a genetics research study about postpartum depression. The study will help researchers understand why some women suffer from postpartum depression. Researchers in UNC Departments of Psychiatry and Genetics and the international Postpartum Depression: Action Towards Causes and Treatment Consortium worked together on this app.

**Creating an Outpatient Clinic for People with Behavioral and Chronic Illnesses**
The UNC Center for Innovation developed a new outpatient clinic and purposefully enrolled people who have a long list of behavioral and chronic illnesses. The practice included an integrated care team, IT solutions, and other resources to improve patient satisfaction and health outcomes, while also lowering the total cost of care. This was a four-year pilot project, funded equally with Blue Cross Blue Shield of North Carolina.

**Making the Virtual Biopsy a Reality**
Magnetic resonance spectroscopy is a way to virtually biopsy the brain by revealing its chemical composition—but it takes a long time to see the results. Alexander Lin, PhD, and his team at Brigham and Women’s Hospital are working on a technology that will allow them to deliver MRSpec results to radiologists in three minutes instead of three days.

**A Breathalyzer for Fungal Infection**
There’s no quick, easy way to detect if a patient has pneumonia. That’s why Dr. Sophia Koo and her team at Brigham and Women’s Hospital designed a breathalyzer to detect it. Once a patient breathes into the device, the clinician will be able to see if invasive aspergillosis, a fungal pneumonia that can be fatal if not detected early, is present.

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want to take time away from the lab. Plus, from a cultural perspective, it’s great to know that at the very top of the organization we have support and we have real capacity to move this forward.”

Similarly, under the leadership of Carol Lewis, the UNC Center for Innovation and its five full-time team members also receive a lot of support from the organization. Although their budget is “small,” it is enough to support a full-time staff. Each year, the team is able to provide funding for three to four innovation pilots and offer resources to support a sizable portfolio of projects.

“Funding can be challenging, but we fund what we can every year,” UNC’s Burke says. “When people come to us for pilot funds, it’s almost like they are writing a tiny grant, but it is a much more agile process. We cover the direct costs of the pilot, but we don’t usually fund a lot of clinicians’ time.”

3 Location, Location, Location

Innovation teams at both UNC and Brigham make it easy for anybody to pop into their offices to share ideas and collaborate. Brigham’s Innovation Hub is inside the hospital; the UNC Center for Innovation is within the medical school (which is nearby the hospital).

“Our office is very visible,” Solomon says. “We have office hours every day from 11 a.m. to 1 p.m. There’s lots of energy. Sometimes, people just want to stop by and see what we’re working on. Sometimes, people will just want to come in and borrow a computer. That’s fine, of course, but we suggest that while they’re using it, they also try to come up with innovative ideas for fixing a problem they might be having.”

The opportunity to help innovate from inside of the hospital is something Solomon really values.

“I think it’s so important that we’re in the hospital because we know so many people,” Solomon says. “I can walk down the hall and say to people I know, “What are you innovating? What are you working on? External consultants don’t really have the ability to stop and ask people what they’re doing.”

At UNC, the Center for Innovation has office space within the medical school, but that’s not where staff spend most of their time.

“We don’t sit around in our offices all day, dreaming things up,” Burke says, with a laugh. “We’re out in the hospital, engaging with clinicians, or we’re around Chapel Hill, meeting with business leaders. We meet at the office on a weekly basis to discuss projects, but we’re very customer-facing. We want to help opportunities develop.”

4 Clinician + Outside Help = Perfect Match

Another requirement for successful innovation? Support from local tech and business communities.

UNC, for example, recently produced a new analytical model for predicting 30-day hospital readmissions through a partnership with Forecast Health, a start-up company in Chapel Hill. The new model is not only more accurate, but also offers insights into what factors are creating patient risk and how to address them.

Pharma companies, national software companies, and medical device companies also contact the UNC Center for Innovation with ideas.

“There’s no particular model of how people come to us,” says Burke. “In fact, a lot of our teams include people from outside our hospitals. They already have relationships with people in different industries.”

Brigham’s Innovation Hub also engages with the start-up community in Boston. Getting to know the movers and shakers in Boston’s tech scene is important to Solomon, she says, because it gives her a better idea of who’s working on what project. For instance, her team was planning to do something on behavioral health, but when she found out a local tech company was already working on a similar idea, they decided to work together on the project.

“We have office hours for external companies because we want to hear what they’re working on,” Solomon says. “We also work with Rock Health, which is a large seed fund focused on digital health. It’s a great vetting process for us because we know that if a company in Boston is funded by Rock Health, it’s a respected firm.”

5 Learning How to Fail

“The process of being innovative includes being willing to fail,” Burke says. That’s something that’s widely acknowledged among innovators, but it can be difficult to accept in the risk-adverse healthcare industry.

“In healthcare, we put our patient’s health and well-being at the forefront,” Burke says. “Our culture is very conservative for incurring risk. For example, changes in standardized care models can take decades. That’s the right culture to have, but it can be constraining when you’re thinking of ways to quickly identify improvements.”

An innovation team must operate in parallel with the hospital, Burke adds, holding tight to the same fundamental values (patient privacy, for example), but not getting bogged down in 10-year research studies. Although he and his team still do a lot of bureaucratic work, review boards, and research, they do things on a speedier time table.

“An innovation team that’s risk-averse isn’t going to get anywhere,” Burke notes. “If you’re innovating, you want to see improvements in a matter of months. But no matter what, you must always put the patient in the center of everything you do.”

Sources:

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Lesley Solomon can be reached at lsoledon5@partners.com.
Now more than ever, there’s pressure on the healthcare industry to become more innovative. Joe Sowell, Senior Vice President and Chief Development Officer, Hospital Corporation of America (HCA), Nashville, TN, attributes the growing demand for innovation in healthcare to evolution of the delivery system itself and the resulting need to make healthcare delivery more efficient and cost-effective.

“Most systems are scared and excited by the evolution of the delivery system and most embrace innovation,” Sowell says. “Innovation begins with someone trying to solve a problem in a unique way. However, in most systems, innovation is not deliberate.”

To make innovation more deliberate, HCA created a platform that speeds up innovation across its 165 U.S. hospitals.

Sowell shares his thoughts on HCA’s innovation platform, what HCA is looking for in an investment partner, and why innovation is so important to the industry.

Q Tell us more about HCA’s innovation platform.

We built a searchable platform to inventory innovation and provide a technology tool that allows people working on a similar problem in multiple locations to collaborate through chat rooms. That innovation is supplemented by scanning the horizon with non-HCA groups, such as managed care plans and technology companies, to identify innovation that may be more obvious to those outside the healthcare delivery system.

When HCA identifies an innovative idea it wants to pursue, it provides resources to fund innovation projects and makes capital investments in early-stage companies. Once the value of an innovation has been proven through a pilot program, the innovation is scaled across the HCA platform.

Q What are you looking for with an investment partner?

We are constantly looking for opportunities to invest in companies that can advance HCA’s strategy, as well as to develop and scale organic innovation and partner with other innovative companies—such as Amazon or Google. Over the coming year, we will evaluate several hundred companies for investment.

HCA’s investment strategy is focused on supporting strategy and operations. Investments focus on care quality, operational efficiency, growth, and patient satisfaction. And, in addition to pursuing investment opportunities, HCA is piloting hundreds of innovative ideas across the HCA platform.

Q What role does data play in healthcare innovation?

The industry is making great strides in bringing together data from across the delivery system and making that data actionable at the point of care. The impact of data on the ability to provide care and manage care will be significant. Data will ultimately lead to the ability to predict conditions before symptoms become more serious, which will result in earlier interventions and improved patient outcomes.

HCA has one of the largest, if not the largest, private clinical digital data warehouses in the U.S. We’ve found that 70 percent of our data is unstructured—primarily, physician notes. Through a partnership with Digital Reasoning, we created a platform to identify a secondary diagnosis in radiologists’ notes from CT scans and X-rays performed in emergency rooms. The pilot was in a handful of hospitals for a few months, and as a result, several cancer diagnoses were made at an earlier stage when the tumor was treatable.

Q Why is innovation so important for the healthcare industry?

We think that innovation is critical to our mission to deliver high-quality, cost-effective healthcare in the communities we serve. The availability of data, predictive analytics, and the intersection of technology and clinical care all contribute to that—they can all help us improve quality and bend the cost curve.

Sources:

Joe Sowell can be reached at joe.sowell@hcahealthcare.com.
That we are experiencing a “consumer revolution” in healthcare is a durable meme in the media and in policy circles just now. When you hear the word “consumer,” it conjures images of someone with a cart and a credit card happily weaving their way through Best Buy. It is, however, a less-than-useful way of thinking about the patient’s experience in the health system.

A persistent critique of our country’s high-cost health system is that because patients are insulated from the cost of care by health insurance, they freely “consume” it without regard to its value and are absolved of the need to manage their own health. In effect, this view ascribes our very high health costs to moral failure on the part of patients.

Market-oriented policy advocates believe that if we “empower” patients as consumers by asking them to pay more of the bill, market forces will help us tame the ever rising cost of care. If patients have “skin in the game,” when they use the health system and also “transparency” of health providers’ prices and performance, patients can deploy their own dollars more sensibly.

This concept played a major role in the otherwise “progressive” Affordable Care Act. The 13 million people who signed up for coverage this year through the Affordable Care Act’s Health Exchanges opted overwhelmingly for subsidized policies with very high deductibles and out-of-pocket cost limits. The “skin in the game” argument has also heavily influenced corporate health benefits decisions. More than 30 million workers and their families receive high-deductible plans through employers.

Being a “consumer” implies the discretionary exercise of purchasing power. This might conceivably make sense for having a baby, or total joint replacement, or cataract surgery, where there are multiple options and a long lead time to choose who to work with. It makes no sense at all for conditions like a stroke, or a cardiac episode, or trauma, where common sense dictates rapid entry into the closest competent care system. There is nothing remotely elective in how a patient or their family responds to these latter problems, and thus, no space for “consumer behavior.”

Being a “consumer” was not remotely descriptive of my recent experience with cancer. Around Christmas time in 2014, I was diagnosed with squamous cell carcinoma of the head and neck. As diagnostic uncertainty narrowed, it was clear that surgery was the remedy of choice for my condition. I ended up choosing my alma mater, the University of Chicago, which had a superb head and neck cancer team, part of a National Cancer Institute-designated Comprehensive Cancer Center. The decision I made was based on trust both in my surgeon and his supporting cast, and on the quality of the rest of Chicago’s head and neck team if surgery was not the definitive end point of care. They did a great job of ridding me of cancer without radiation or chemotherapy.

In deciding what to do about my cancer, there was no rational way for
me to evaluate the price/quality
dimensions of my alternatives.
I knew where to look, and looked—at
Leapfrog, Medicare.gov,
Dartmouth Atlas, Yelp, Angie’s
List, hospital websites, etc. These
sources contained neither price nor
outcomes information specific to
my condition. I ended up making
my decision based on trust, and on
the quality of the multidisciplinary
team, not on price or value.

Would I have chosen a cancer
program I didn’t know as well
because the care was 25 percent
cheaper, or cost me $2,000 less
out of pocket or even if they had
a 5 percent better cure rate? The
short answer is: no. Trust was the
issue, not dollars or even “value.”
I was not insulated from financial
risks either. Because my Medicare
Advantage plan carried an almost
$6,000 annual out-of-pocket limit, I
had lots of “skin in the game.”

As an anxious patient, I wasn’t
trying as a “rational economic actor”
to maximize the value of my health
benefit. I was trying to survive a
potentially fatal illness. My goal
was to regain control of my life and
resume working. I struggled as best I
could to define my clinical risks, and
to find clinicians and institutions I
trusted to intervene on my behalf
to restore me to health.

I experienced the same problem
in the fall of 2015 when I needed
my left hip replaced, one of those
elective surgical procedures
that health policy experts
commonly cite as having become
“commodified.” The same sources
I mentioned above were of no use
whatever in my making the final
decision about where to seek care.

After actively seeking “consumer”
information, including the newly
available ProPublica surgical ratings,
again I made the decision based
on trust and had an exceptional
outcome. Moreover, none of the
surgeons I interviewed could tell
me what the procedure would cost
all in, or even their own revision
or complication rates, two things
an orthopedic surgeon told me he
would try to find out if he were
going under the knife.

These difficulties—no time or
ability to exercise meaningful choice
or lack of usable data upon which
to make one—are not the only
problems. The biggest problem with
the concept is that it is demeaning
to patients. It is an economists’
caricature of patients as feckless
devourers of a scarce social good
which they have no motivation to
conserve. In fact, most patients are
frightened and in pain and seeking
someone they trust to alleviate
both the pain and the fear that
accompanies it.

I would love to have had better
condition-specific information
on the cost and quality of the
care choices I face. Bring it on. But
ultimately, we must rely on the
professionalism of those who take
care of us to protect us in these
scary circumstances, something
I experienced firsthand and on
multiple occasions during the past
difficult year. It is time to replace
this insulting cartoon vision of
the patient as a “consumer” with
something that more accurately
reflects our actual situation.