

New Rules and Regs Push Telehealth into the Mainstream

Reimbursement and regulatory floodgates are opening for telehealth, creating opportunities for providers and suppliers. Traditional medical device companies are grappling with where they fit in and how to monetize their investment in technologies that they increasingly believe are mandatory for future success.

by
WENDY DILLER



KEY POINTS

- Adoption of telehealth and its sister application, remote patient monitoring services, is growing rapidly as FDA and CMS reduce cumbersome regulations and reimbursement hurdles.
- Until very recently, providers saw telehealth strategies mainly as marketing tools for engaging patients and retaining their loyalty in competitive markets, but many drivers are pushing enabling technologies into mainstream medicine.
- That said, challenges remain related to sustainability, scalability and execution in different care settings and among different provider specialties.
- Product-oriented medical device companies generally are exploring “solution” strategies that incorporate digital health and wrap hardware, software, and big data. A wild card is the role these companies will play in the escalating competition to be chief data aggregators.

In 2019 telehealth has gone mainstream, affecting almost every visible corner of the healthcare system.

That’s the opinion of leading experts in the field, and, despite a lack of hard numbers, it’s not hard to see why. Enabling technologies are being used in new ways as tools to address some of the healthcare system’s most vexing problems: access, variable quality and costs, and inefficiencies. There’s a marketing element as well, as providers see telehealth as a way to draw patients into their networks and retain their loyalty. Those with resources and forethought see it as much more.

Multiple drivers are converging, making this possible. Above all, federal regulatory moves going into effect this year and next year reduce or eliminate several longstanding barriers. Cultural shifts also make it easier for contemporary consumers and providers to incorporate the onslaught of digital information into their medical decision making.

Telehealth providers have demonstrated the potential for their services to improve access to treatment for substance abuse disorders and behavioral health, both of which suffer from provider shortages amid urgent need. “Telehealth is an essential part of our strategy, and key to helping to solve the nation’s cost and access problems,” says Tom Richards, global lead, strategy and business development at **Cigna**, which has a strategic partnership with the telehealth company **MDLIVE**

Inc. on designing programs, initially for urgent care only but soon will include primary care as well. “Medical costs cannot continue to increase at 2 to 3 times the rate of normal inflation.” (See our interview with MDLIVE’s CEO Rich Berner and CMO Lyle Berkowitz, MD, in sidebar “The Telehealth Opportunity.”)

As telehealth services proliferate, the boundaries are merging between traditional medical device manufacturers, which are largely product oriented, and non-traditional computational-oriented companies. All are scrambling to figure out where they fit into the digital landscape. Large companies such as **Zimmer Biomet**, **Stryker Corp.** and **Smith & Nephew PLC** are testing the waters by incorporating strategies that move away from their core expertise and commercial models and toward what is commonly known as “total solution” offerings that rely heavily on digital tools to address care more holistically. (See “How Zimmer’s Approach to OA is Changing,” MedTech Strategist, July 25, 2019.)

The rapid pace of change is providing opportunities for new kinds of healthcare entrants and a field day for consultants, payors, and investors. This article highlights at a high level some of key drivers of the current boom. In upcoming articles, we’ll dig more deeply into the opportunities and challenges for traditional device companies.

Toward a Broader Definition of Telehealth

Telehealth in the popular mind may be a broad concept, but in government circles it is clearly—if some would say anachronistically—defined. At its core, the Department of Health and Human Services defines the term as “the use of electronic information and telecommunication technologies to support and promote long-distance clinical healthcare, patient and professional health-related education, public health, and health administration.” (See box “Telehealth Terms.”)

Within HHS, different government agencies, however, have more nuanced definitions, with implications

for policy making. FDA and CMS, for example, define the field differently, as they move to regulate it.

In “Building a Regulatory and Payment Framework Flexible Enough to Withstand Technological Progress,” published in December 2018 in *Health Affairs*, authors David Flannery, MD, [director of telegenetics and digital genetics at the Genomic Medicine Institute at the Cleveland Clinic] and Robert Jarrin [senior director of wireless health public policy at Qualcomm] thoughtfully lay out how important government initiatives have been in spurring interest in the field and the fraught history of government’s, and in particular CMS’, actions to date. They argue that while government overall has struggled to keep up with technological changes, the FDA has aggressively provided clarity on regulations to create an environment in which innovators could develop technologies enabling digital medicine.

Telehealth Terms

Synchronous or live video teleconference:

2-way real-time audio-video interaction between a patient. Historically, this category has involved provider-to-provider encounters; many telehealth companies now use video technology linking patients at ‘originating sites’ directly to clinicians at distant sites.

Store-and-forward:

The secure electronic transmission to providers of pre-recorded videos, medical records, and digital images such as x-rays and photos. As compared to a ‘real time’ visit, this service provides access to data after it has been collected. SFT is often referred to as ‘asynchronous’ because of the lag between the time image is sent and time it is interpreted.

Originating vs. distant site:

The originating site is where a patient receives telehealth services. The

distant site is where the provider is delivering the telehealth services.

Remote patient monitoring (RPM):

The collection and transmission of personal health data from an individual in one location to a provider who is elsewhere. It is used primarily for the management of chronic diseases to transmit critical information such as vital statistics (blood pressure, blood oxygen levels, etc.).

Mobile Health (mhealth):

Smartphone apps designed to foster health and well-being. These apps range from programs which send targeted text messages that encourage healthy behavior to alerts about disease outbreaks and apps that help compliance with therapeutic regimens.

Virtual consult:

A real-time, video-enabled consultation between providers to support direct care of patient.

Sources: US Department of Health & Human Services: Report to Congress, August 12, 2016; Manatt, Phelps & Phillips LLP, “The Rapidly Shifting Landscape of Telehealth Reimbursement.”

Medicare's coverage of telehealth, on the other hand, has been limited, directly impacting interest in committing resources and financing to the field. Until recently, its reimbursement covered only real time, live (thus synchronous) two-way interactive communication between patients and distant-site physicians. Participants had to meet certain requirements and conduct their exchanges at specified sites. The originating site of the beneficiary (the patient) for example, had to be in specific kinds of facilities, like hospitals, doctors' offices, or rural health clinics and federally qualified health centers. The provider had to be a stipulated medical professional. Medicare did not cover remote non-face-to-face patient monitoring services (RPM).

Unsurprisingly, therefore, the amount that Medicare paid in 2016 for telehealth services was a miniscule \$28.7 million out of a total annual budget of \$588 billion, the

Health Affairs article pointed out. As if to further complicate the situation, Medicaid has had a different set of more expansive standards, in large part because CMS considers telehealth to be a money-saver. That said, a lot of policies around Medicaid, including telehealth regulations, are left to the states.

More recently, CMS has been relaxing its rigid requirements related to Medicare's reimbursement of telehealth and doing so with particular zeal since 2017. In 2018, for the first time, the agency took several major steps to incentivize Medicare's support for RPM. It used the rule-making process (as opposed to Congressional legislation) to make changes that Congress had not been able to, namely, it has proposed rules asserting that RPM, although a service that relies on telecommunications, is not a telehealth service and therefore not subject to the strict legal definition of telehealth as outlines in the Social Security Act. "This

Figure 1

New Services Added to the CY2019 Physician Fee Schedule (PFS) Proposed Rule

CMS has decided certain services are not considered "telehealth services" defined under Section 1834(m) of the Social Security Act (the Act), and therefore not subject to the Act's strict limitations. As such, CMS proposes to reimburse providers for three new types of virtual services.¹



Virtual Check-In

- Virtual check-in when the physician or other qualified health care professional has a brief (5-10 min. of medical discussion), non-face-to-face check-in with an *established patient* to assess whether the patient's condition necessitates an office visit (HCPCS Code GVC11)*



Remote Evaluation of Pre-Recorded Patient Information

- Separate payment when a *physician or other qualified health care professional* uses recorded video and/or images and other types of patient-generated information in order to evaluate a patient's condition, and that evaluation does not result in a subsequent evaluation and management (E/M) visit (HCPCS Code GRAS1)



Interprofessional Internet Consultation

- Separate payments for practitioner-to-practitioner consults performed for the benefit of a beneficiary
- Consults cannot be for continuing education or otherwise for the benefit of the practitioner
- Considering advance patient consent for these services



Additional Telehealth Codes

- Prolonged preventive services, in the office or other outpatient setting, requiring direct patient contact; this code could be billed in 30-minute increments
- Chronic-care remote physiologic monitoring

* Service is paid only when it is not originating from a related E/M service provided within the previous 7 days nor leading to an E/M service or procedure within the next 24 hours or soonest available appointment

[1] *Revisions to Payment Policies under the Medicare Physician Fee Schedule, Quality Payment Program and Other Revisions to Part B for CY 2019*, CMS (July 27, 2018), <https://www.gpo.gov/fdsys/pkg/FR-2018-07-27/pdf/2018-14985.pdf>.

is fundamental to reimbursement for associated physician services, showing once again how an agency's statutory authority through rule making can achieve much without requiring congressional intervention," write Flannery and Jarrin. They recommended that CMS continue to support these services by issuing additional CPT codes for digital medicine services.

The agency then revised its CPT code policies to cover some of the services associated with it. Instead of using miscellaneous codes that were far from ideal, such as the particularly broad CPT 99019, which does not have an assigned payment, clinicians can now use three new codes aimed at RPM, each with a value assigned to it. These changes went into effective January 1, 2019 and analysts say they are already making a mark.

The second step was to reward clinicians who use RPM while participating in certain alternative payment model programs (specifically merit-based incentive payment system or MIPS). There were still restrictions on clinicians' use of RPM tools, however.

Changes of this kind enable CMS to pay for new types of virtual services: virtual check-ins (brief 5-10 minute non-face-to-face discussions between physician and patient); remote evaluation of pre-recorded patient information (video, images, or other types of patient-generated data); and inter-professional internet consultations for benefit of a patient, a presentation by Manatt Health points out (*see Figure 1 & 2*.)

The Balanced Budget Act of 2018 (BBA), which Congress passed that February, does tackle telehealth, albeit from a high-level perspective by encouraging expansion of its use within certain Medicare programs, notably Medicare Advantage (MA). Taking its direction from the BBA, CMS followed up in April of this year by issuing final rules that smooth the pathway to telehealth utilization. Some of these provisions start in 2020, when MA plans will be allowed to provide additional telehealth benefits to enrollees, and these will be treated like basic benefits under Medicare. "The Medicare physician fee schedule proposed rules, as well as Medicare Advantage rules, are steps in the right direction and allow use of a range of technologies

Figure 2

Other Telehealth Reimbursement Trends



Commercial Plans & Employers

- In general, commercial payors are increasingly covering telehealth services
- 35 states have parity laws that mandate telehealth coverage at the same rate as face-to-face visits; about 10 of those also establish guidelines for reimbursement
- Virtually all employers (96%) will make telehealth services available in states where it is allowed in 2018¹



Department of Veterans Affairs (VA)

- VA telehealth modalities include real-time interactive video, home telehealth, and store and forward technologies
- 30+ signature VA telehealth programs, ranging from TeleCardiology, TeleMental Health, and Women's Telehealth²
- In May 2018, VA announced a new rule allowing VA health care providers to provide telehealth services across state lines³



Federal Communications Commission (FCC)

- FCC raised the annual Rural Health Care Program budget cap to \$571M to address funding shortages driven by growing demand for rural telemedicine services⁴
- FCC approved the \$100M Connected Care Pilot Program to support telehealth and telemedicine programs for underserved populations⁵

[1] *Large Employers' 2018 Health Care Strategy and Plan Design Survey*, National Business Group on Health (Aug. 8, 2017), <https://www.businessgrouphealth.org/benchmarking/survey-reports/surveys-of-large-employers/#>.

[2] *VA Telehealth Services Fact Sheet*, Department of Veterans Affairs, https://www.va.gov/COMMUNITYCARE/docs/news/VA_Telehealth_Services.pdf, (last accessed Aug. 30, 2018).

[3] *VA Expands Telehealth by Allowing Health Care Providers to Treat Patients Across State Lines*, Department of Veterans Affairs (May 11, 2018), <https://www.va.gov/opa/pressrel/pressrelease.cfm?id=4054>.

[4] *FCC Increases Funding for Rural Telehealth*, Federal Communications Commission (June 25, 2018), <https://www.fcc.gov/document/fcc-increases-funding-rural-telehealth>.

[5] *FCC Seeks Comments on Launching Telehealth Pilot Program*, Federal Communications Commission (Aug. 2, 2018), <https://docs.fcc.gov/public/attachments/DOC-353231A1.pdf>.

to support telehealth adoption,” says Reginald Williams, a managing partner at Avalere Health, a consulting firm that specializes in health policy.

Taking direction from Congress, CMS in April of this year issued final rules that smooth the pathway to expanded telehealth utilization by Medicare Advantage, beginning in 2020.

Multiple barriers remain. The new CMS rules for example still do not include payment for buying the required infrastructure and technologies required for bidding on contracts, which could be a stumbling block for some would-be service providers, Williams points out. Further changes in the coding system are needed to accelerate adoption over the long term. The valuation of telehealth services is still mediocre, according to Manatt Health, a division of law firm Manatt, Phelps & Phillips, which points out that Congress has asked a Medicare advisory board to review options to incorporate telehealth services currently covered by commercial payors into traditional Medicare, a move that could provide more

relief from restrictive regulations. Licensure laws that clamp down on providers’ ability to provide telehealth services across state lines are also under scrutiny, as is the lack of adequate and affordable broadband infrastructure, and the lack of sophisticated leadership.

At the state level, many states are working to accelerate adoption of telemedicine, some faster than others. Proponents view telehealth as an opportunity to alleviate strains on physician shortages and overburdened health systems. Manatt estimates that 35 states have passed laws expanding telehealth coverage, parity, and reimbursement in both the individual and group markets and in their Medicaid programs. These mandate telehealth coverage at the same rate as face-to-face visits, and virtually all employers (96%) make telehealth available in states where it is allowed. Most recently, in the 2019 legislative sessions, state legislators introduced more than 80 bills that would increase cross-state licensing for telehealth providers.

Large Healthcare Systems Step Up

It’s hard to put numbers on the size of the telehealth opportunities, but clearly many large healthcare systems are engaging in strategies to roll out telemedicine for virtual care, patient engagement, and provider-to-provider consults. New

Figure 3

CMS Incentivizing Remote Patient Monitoring Adoption

Beginning January 1, 2018, CMS has been actively incentivizing the use of remote patient monitoring (RPM) in two major ways.



UN-Bundled CPT Code

- CMS finalized separate payment for CPT code 99091, which describes certain RPM, for CY 20181
- Therefore, FFS clinicians can be reimbursed \$58 a month per Medicare patient if they spend a cumulative 30 minutes reviewing data collected via RPM



New MIPS Improvement Activity

- CMS approved a new Improvement Activity to reward clinicians participating in the Merit-Based Incentive Payment System (MIPS) for using RPM technology to engage patients, called “Engage patients and families to guide improvement in the system of care”²
- To be eligible for MIPS credit under this new Improvement Activity, a clinician must use digital health tool(s) that follow certain restrictions

[1] CY 2018 Revisions to Payment Policies under the Physician Fee Schedule and Other Revisions to Part B, CMS (Nov. 15, 2017), <https://www.gpo.gov/fdsys/pkg/FR-2017-11-15/pdf/2017-23953.pdf>.

[2] Medicare Program; CY 2018 Updates to the Quality Payment Program; and Quality Payment Program: Extreme and Uncontrollable Circumstance Policy for the Transition Year. CMS (Nov. 16, 2017), <https://www.gpo.gov/fdsys/pkg/FR-2017-11-16/pdf/2017-24067.pdf>.


Source: Manatt, Phelps & Phillips

York Presbyterian, Intermountain Healthcare, Mercy Health System, Mount Sinai, to name examples, are some leaders, as the first hosted an all-day program on October 4 entitled “Virtual Care in the Mainstream,” and the second and third operate virtual hospitals that provide remote access to advanced care that at times supplements inpatient care. A 2016 report to Congress estimated that 61% of healthcare institutions in the US use some form of telehealth, and between 40% and 50% of US hospitals engage in telehealth services—but in this rapidly evolving field, that three-year-old data is already out of date. Also outdated, a 2013 estimate of market size of \$9.6 billion, but that was before Congress kicked in with new measures that are causing an exponential growth in activity.

Consulting firm L.E.K. noted in its 2019 survey of health system and hospital executives that ~50% of hospital executives indicated that telehealth is a high priority for their organization, and the vast majority of respondents expected meaningful increases in the use of telehealth over the next three years across a range of applications, including clinician-to-patient interactions, patient-to-technology interactions, and clinician-to-clinician interactions. (See “L.E.K.’s 10th Annual Hospital Survey: A Retrospective and a Glimpse Into the Future,” this issue.) Clearly, large healthcare organizations are starting to dip their toes into

telehealth, particularly in virtual care, wearables, and how those fit into their strategies, but they face challenges related to sustainability and systemwide adoption of these new technologies (see Figure 3).

And if their main customers are increasingly seeing virtual health as mainstream and an important solution to the challenge of accessible, affordable care for Americans, device companies need to be thinking about this as well. (See also “As Digital Health Hits a Tipping Point, New Medtech Models Emerge,” this issue.) While they tend to view telehealth as a care delivery issue that is peripheral to their main mission, medtechs have to think more broadly about how their devices are used in the care continuum and how digital technologies can help them improve clinical outcomes, particularly as value-based care impacts the healthcare system.

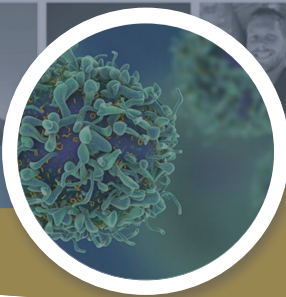
Most medtech companies are product focused and use digital technologies to support services and manage care, but have yet to determine how best to integrate them expeditiously into their commercial models. An additional question is their role in aggregating and managing the data flow emanating from their devices as a host of different kinds of players scrambles for position in this evolving neck of the healthcare woods. We’ll continue the discussion of medtech’s role in telehealth in our next issue. 

Medtech Strategist COMMUNITYBLOG



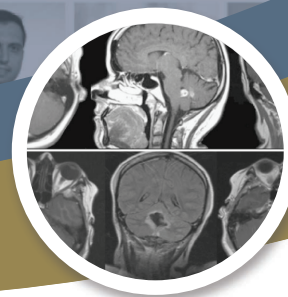
Video Interviews

Candid interviews with medtech’s top innovators & influencers



MedTech History

Discover the origin of cutting-edge medical device innovations



Community Perspective

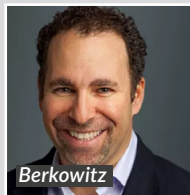
Perspective pieces by our editorial team & other medtech KOLs



MyStrategist.com/blog

MDLIVE on the Telehealth Opportunity

MedTech Strategist recently spoke with Rich Berner, CEO, and Lyle Berkowitz, MD, CMO, of MDLIVE Inc. a 10-year-old telehealth company that has a strong consumer presence. MDLIVE is backed by a syndicate, some with deep healthcare expertise, including Cigna Ventures, Health Care Service Corp., Novo Holdings, Sentara Health, Sutter Health, Health Velocity Capital and others. The company raised \$50 million in August 2018 but hasn't disclosed its total funding or current revenues. It has a strategic partnership with Cigna to expand virtual health services, including mental health, offered to customers, clients, and patients.



MedTech Strategist: How has the role of telehealth changed over the past few years?

► **Rich Berner:** 2017 was an inflection point for telehealth; 2018 was a growth year and in 2019, it started to go mainstream. In 2020, you will see an increase in virtual primary care offerings.

Healthcare systems have recognized that they need to become more consumer focused. And as they move toward value-based care and

managing populations at risk, it is important that they understand the population that they manage and have a relationship with it. Many healthcare systems recognize that consumers are used to doing things online, so they are coming up with a digital front door strategy to engage consumers. Historically, that has fallen under the umbrella of the marketing and communications departments, but clinicians have shifted to recognizing that they have to rethink the way they are providing care and come at it from a virtual-first mentality. While they may have had pockets of different telehealth/telemedicine initiatives going on, clinicians at the more advanced systems are moving those into formal groups that are focused on a broad virtual health management and care strategy (see Figure 1).

In addition, there have been reimbursement and regulatory advances. Reimbursement is no longer a major obstacle to adoption of telehealth, although there are still some challenges. A law enacted at the beginning of this year kicks in on January 1, 2020 and allows Medicare Advantage [MA] health plans to include telehealth as part of their basic plan packages. MA members can opt for the service. MA already offers some telehealth access, but this new law will greatly enhance incentives for telehealth adoption.

Describe what MDLIVE is and how it is differentiated from other provider-network telehealth companies, like American Well?

► **RB:** We offer telehealth services to patients with a focus on virtual urgent care, behavioral health, and dermatology. More than 32 million people have access to our services through their health plans or employers. There are more than 1300 clinicians across the US, available 24/7 in our provider network. We recruit and credential them and make sure they are board certified. Approximately 30 hospitals and healthcare systems use our platform to offer virtual care to their patients, often in conjunction with our providers.

Our clinical products are all under the direction of our chief medical officer, Lyle Berkowitz, who had been Director of Innovation at Northwestern Medicine and is now responsible for creating a network of virtualists and ensuring they practice in the most efficient and high quality manner possible, using automation and AI to enhance their use of telehealth. The majority of our clinicians are contracted workers, who set their own hours. Some of them do virtual care 100% of their time and love it. Some are older clinicians who like caring for patients but want to reduce the number of shifts they work. Some of our physicians are licensed in as many as 15 to 20 states.

In May 2018 we did our one millionth telehealth consult after nine years of work. This year alone, we will get close to that number as our utilization grows. We also use AI for sentiment analysis and intelligent triage of cases.

Today, our key customers are health plans and employers, and health systems. Realizing the benefits of telehealth, our customers are doing a much better job of marketing it, including reducing or eliminating co-pays for connecting with patients, and they are driving awareness of it and that is contributing to increasing utilization.

How are major healthcare systems like Northwestern embracing large-scale telehealth?

► **RB:** We recruited Lyle Berkowitz to be our chief medical officer and president of the MDLIVE Medical Group in 2018 specifically because he understood the clinical operation side and has the innovation background that is necessary. We reorganized the company so that he would be responsible for clinical operations and product strategy—previously, those were separate groups.

► **Lyle Berkowitz:** For years, healthcare systems have struggled with virtual care. I worked at Northwestern Medicine for 20 years as a primary care physician and a physician-executive with escalating roles, most recently as the Director of Innovation. My job was to find, fund, and facilitate innovative ideas, technologies, and workflow solutions, many of which involved telehealth.

It was increasingly clear that more care could be done outside the walls of the hospital system and its clinics.

We did a lot of pilots, but it was difficult to scale because of poorly aligned incentives and lack of provider engagement. Like many healthcare systems, Northwestern Medicine is still primarily a fee-for-service-based model, where office-based care is reimbursed better than virtual care. That may be different on the West Coast, where there is a lot of capitation, but elsewhere, for most systems, that is not the case.

How is MDLIVE structuring its clinical care operations?

► **LB:** I inherited a large medical group of doctors who primarily were independent contractors, with many working with us for 20 to 40 hours a week. Many were virtualists, who were dedicating their professional lives to this effort and understood how to act online with patients. We listened to them, surveyed them, and improved our product. We brought in physician ambassadors, who could promote our organization to peers and over the course of time we have improved our ability to take care of patients efficiently, at high quality. We follow a very KPI-driven dashboard.

The successful healthcare systems we work with use our technology to either empower their own physicians to do more telehealth and/or use MDLIVE providers to do virtual care so their physicians can handle the more complex cases in their offices. When MDLIVE works

with a healthcare system, it helps to develop the technology infrastructure and cultural shifts that go along with those for multiple use cases ranging from urgent care to specialized clinics.

Is there high-quality data or studies that convincingly demonstrate the contribution of telehealth strategies to improved patient outcomes?

► **LB:** Much research has been done in very small use-case studies. But large-scale studies have yet to be done. The proven benefits are increasing access to care for many people. The National Quality Foundation (NQF) put out a great white paper in 2017 noting that the way to measure telehealth quality is to compare it with what would usually happen if it was unavailable.

How are you expanding your service offerings and addressing the increasing challenge of access to care in the primary care setting?

► **RB:** Beginning January 1, 2020, we will offer online primary care services, including for urgent care, annual wellness visits and chronic condition management.

Consumers can choose how to access their primary care providers online. Some of the conditions will require a video visit, and now we have a chat bot named *Sophie*, who is the 'front door' and can triage visitors to the site. The online interface won't replace all in-office visits, but it allows consumers to seek online care first, including for annual check ups (See figure 1.)

As we move to a virtual primary care model, we will also offer remote patient monitoring for patients with chronic conditions, so we can proactively monitor them and rules or alerts will help engage patients and enable providers to prescribe treatment.

How do you incorporate artificial intelligence and predictive analytics, two data-driven scientific tools that are increasingly utilized by healthcare practitioners into the products and services?

► **RB:** We do two things today that require predictive analytics. We use it to make sure we have appropriate schedule coverage. We run a national network and need to know

what coverage we need by zip code. We also use predictive analytics for a sentiment score of a visit to gauge whether it went well and do service recovery if it did not. In the future, we will use machine learning and predictive analytics to improve interactions with patients more proactively and predictably, looking at metrics like the length of the visit, the wait time, etc. so that in advance of a consumer survey, we can be proactive.

Today, the predictive analytics helps us with efficiency and consumer experience, and in the future, it will help drive quality and as we get into chronic condition management, it will help us engage more predictably. The technology has come a

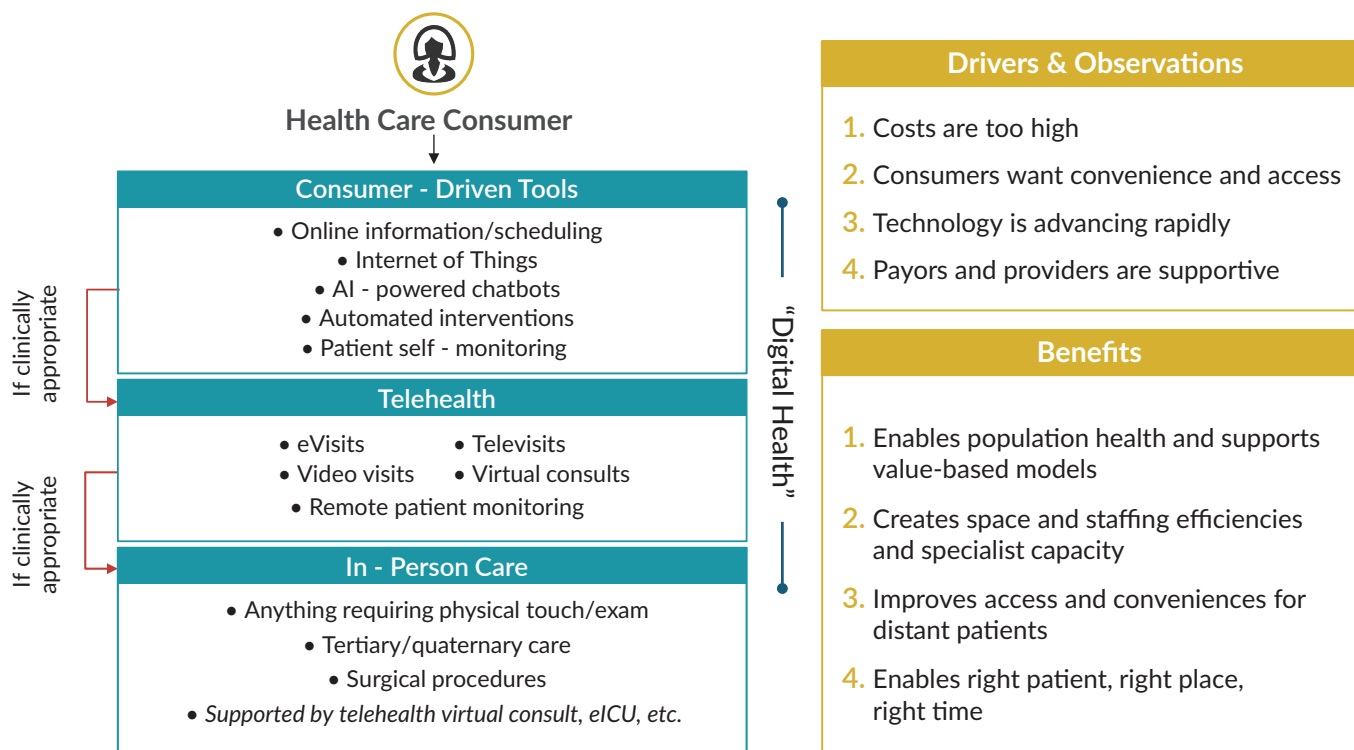
long way, but what has been missing is when you have alerts, it is hard to get to the patient and tough to get them to see a clinician. If we can connect the patient that same day we have a better chance of improving service.

What new technologies are supporting this growth?

► **RB:** There is a lot of hype around artificial intelligence, but because telemedicine is at scale nationally, it is helping us. Machine learning is also helping us and goes hand in hand with AI. There are also more at-home devices and wearables. The problem is that these are disconnected and send the information they collect only to the

Figure 1

How Consumers Will Access Care In the (Not-too-Distant) Future



Source: Manatt, Phelps & Phillips

patient. If they do share data with a care team, they often have to go to a designated physical location to make it happen. As more clinical work is done in places convenient to consumers, there will be a spike in devices targeted to consumers in the home. Convenience is a key driver that will drive a spike in the adoption of devices that help with diagnosis.

If we are going to do over one million visits this year, and that number is growing dramatically, we are collecting data on the patient, and can run analytics and machine learning on it. We can then use the information from that data to determine the best plan of care for patients.

How does MDLIVE work with medical device companies and how are they responding to the rise of telehealth?

► **RB:** We work with device manufacturers to make sure the interfaces are appropriate so that devices can talk to our systems. Our platform is device agnostic. The field is in the early days of device connectivity, with remote vitals monitoring and image capture already available. The most recent activities involve the ECG, Apple, wireless scales, blood pressure monitors, tools that allow you to read stethoscopes remotely—and look into the ear and throat online. There is movement to a single monitor. The rules that decide where and when to send information will be built into devices or we can write those rules.

Device manufacturers have an opportunity to differentiate their products by more seamlessly connecting them with telehealth services. Healthcare in the future is going online, and consumers demand convenience and an easy way to connect with the care team. Device companies should make sure a device is sending relevant information to the care team.



How would you define an ideal financing outcome for your company?

Do you have the time, investor access and strategy to make it happen?

New Harbor Venture Partners (NHVP) is a placement agent focused exclusively on raising early to growth-stage capital for venture-backed healthcare companies. Our partners' 18-year track record includes 49 closed transactions and more than \$600 million of new capital raised.

We work with clients to define a global, process-oriented financing strategy. Our execution creates a competitive environment that puts shareholders in the best position to find the optimal partner and to achieve the best market-based valuation for their company.

Working with NHVP provides:

- **Relationships:** 18 years within the healthcare-dedicated institutional investment community
- **Global Access:** Investors in North America, Europe, and parts of Asia
- **Efficient Process:** Our process is mindful of management's limited time and money
- **Competitive Financing:** Put your shareholders in the best possible position for a competitive financing

If you are planning to raise institutional capital, please contact one of our partners.

www.newharborvp.com

Mark Bosland
Beat Merz, CH
Jake Hindelong

mbosland@newharborvp.com
bmerz@newharborvp.com
jhindelong@newharborvp.com

NYC Area Office
215 Morris Ave., Suite 7
Spring Lake, NJ 07762
USA
(732) 359 7109

Switzerland Office
Waltikon 15
8126 Zumikon
Switzerland
+41 79 206124

New Harbor Venture Partners, LLC is a member of the Financial Industry Regulatory Authority (FINRA) and the Securities Investor Protection Corporation (SIPC).