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For CFOs, a prescription for facing the future of health

Digital tools have already changed the practice of medicine, from mobile apps to activity-trackers to telemedicine. But the hastening emergence of "digital health"—a reimagined sector built atop a fully digitized foundation—promises to empower consumers and present businesses with new challenges and opportunities.

What's changing involves more than the emergence of new technologies ranging from artificial intelligence (AI) to augmented reality (AR) (see sidebar: "Primary trends: Health care 2040"). Existing digital health tools are also becoming increasingly integrated, with records stored in the cloud and advanced analytics deployed to improve efficiency and outcomes. And driving the urgency to maximize innovative technologies, as opposed to taking a piecemeal approach, are such factors as an aging population, the increasing prevalence of chronic diseases,[1] and, of course, rising health care costs.

The coming interoperability of a multitude of devices and systems—enabling the exchange and analysis of data among clinicians, specialists, and patients—will give doctors and care-providers access to a single record containing a patient's complete health information. As in banking and retail, consumers of health care will soon be able to identify the highest-value provider—with employer-sponsored plans offering tools that help employees conduct such research.

For their part, CFOs will need to stay abreast of new tools, such as genetic testing for health risks, as well as identify incentives that will steer employees toward prevention and well-being. But the transition from a fee-for-service model to a patient-centered approach—with services delivered when, and where, consumers want—will bring with it complexity beyond just designing incentives. In this issue of *CFO Insights*, we'll take a tour of how the health care industry will likely evolve between now and 2040 and suggest what finance executives can do to help navigate their companies through the merger of health care and technology.

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The future in five truths

Without question, the march toward digitization in health care is picking up its pace. Hospitals, health systems, and physicians' groups have been steadily implementing and operationalizing digital technology in a variety of processes, notably using the cloud to manage electronic prescriptions. At some practices, patients log in to portals to order refills, schedule appointments, and solicit email consultations. But advances in technology can now exert an impact on nearly every aspect of health care: using AI, massive amounts of data can be harnessed to serve in a predictive capacity, identifying an individual's specific health risks. Those insights can, in turn, be used to nudge employees—through as simple a mechanism as pop-ups—toward taking preventive steps to manage those risks.

Those advances are rapidly overpowering some of the reasons the health care industry has had for resisting digitization, including issues surrounding privacy, security, and liability.[2] Moreover, as health care costs have continued to rise (a 6% increase[3] is projected for this year, compared with 3.9% in 2017), digital technologies may offer an antidote for companies looking to contain those costs. After all, with employees of large businesses now footing approximately 30% of the bill for their health costs,[4] passing additional increases on to employees, as they have done in the past, could risk potentially tarnishing their brand in the eyes of current and prospective employees (see sidebar: "A surgical approach to controlling health costs").

To understand the extent of the innovation the health care sector is poised to unleash over the next two decades, however, it helps to identify certain common traits—all of which are targeted at making services less expensive and invasive, but more convenient:[5]

1. Data sharing. Consumer participation in data sharing is a key component of the future of health. In Deloitte's 2018 Health Care Consumer Survey, 60% of the 4,530 surveyed consumers said they are willing to share personal health data (generated from wearable devices) with their doctor to improve their health.[6] In addition to helping individuals maintain or improve their own health, shared data generated by wearable devices can help improve population health, advance clinical research, and enhance the performance of the devices themselves. Over the next 20 years, personal health data will likely be far more robust and accessible, and it will be owned by consumers who will see value in sharing it with appropriate stakeholders or researchers.

2. Radically interoperable data. To share and analyze vast quantities of incoming data, hospitals, physician groups, and other stakeholders need to be able to share data internally. The US Department of Health and Human Services (HHS) is pushing stakeholders to make data more accessible and user-friendly. In early 2019, HHS's Office of the National Coordinator for Health Information Technology released proposed rules aimed at driving the US health care system toward greater interoperability of electronic health records.[7] This step will likely lead to the development of large aggregated data sets that provide a real-time and comprehensive view of consumers and their environment. Incoming data from various sources can be standardized, aggregated, stored, and continuously updated, generating insights in real-time.

3. Improved access to care. Technologies such as virtual health are starting to lower barriers—including geographic and socioeconomic factors—that have kept some from accessing care or maintaining their well-being. In a 2018 survey of physicians, two-thirds of respondents agreed that virtual visits will improve access to care;[8] almost as many consumers, 64%, agreed.[9]

4. Empowered consumers. Consumers have historically been passive participants in their health care—reflexively following doctor's orders. But as they grow aware of the data they are generating, consumers may want to control it. In response, markets, clinicians, vendors, and other stakeholders should adjust their business models to cater to (and enable) empowerment. As a result, more efficient digital tools can be engineered to allow consumers to dig into their personal health data and gain a greater sense of control.

5. Behavior changes. Many patients can prevent chronic diseases by identifying them early and modifying their behavior. By 2040, health professionals may use behavioral economics to push consumers toward healthier behavior. As AI and machine learning become more sophisticated, the scalability of these tactics can grow, customizing prevention and care to the needs of the consumer.

An eco-system of opportunity

If the digital era has transformed every company into a technology company, the revolution in health care will draw technology companies into the health care sector. In a complex and fragmented system—often characterized as having a flawed flow of information—the appetite for new entrants and innovation is fierce. CFOs making investments in health care will need to have a vision of its future, making strategic choices focused on next-generation technologies and, in some cases, collaborating with a wide range of partners.

Companies already in the industry (e.g., health plan providers, biopharma businesses, medtech companies) have an incentive to expand their capabilities. In a 2019 survey of technology executives at such companies, more than one-half (53%) said they were building their own application programming interfaces as part of their effort to foster interoperability by offering access to their data. In addition, 73% said they had a dedicated, centralized interoperability team in place. About one-half of respondents (51%) identified the rise of value-based care as the biggest driver toward broader interoperability.[10]

CFOs of companies operating outside of the health care center may find new growth prospects in the remaking of the sector. To identify such opportunities, they should consider looking at the broader dynamics and decide whether their companies can serve a useful and profitable role in areas such as the following:

- **Helping to accelerate a data-driven transformation.** Improved interoperability will be a key factor in boosting innovation in health care, opening new possibilities for workflow and care coordination. Advanced data analytics will set the stage for AI and more predictive and prescriptive apps. Given the nature of the data, connectivity must be secure to earn consumer trust and ensure privacy.
- **Adapting technology to support continuous care.** Medical device makers may decide to develop sensors for remote monitoring of patients, capable of diagnosing, for example, the early stages of joint degeneration. The creation of a completely seamless and non-invasive biosensor patch may yield better-informed interventions and predictions.
- **Offering expertise in data presentation.** For patients to act on information, they have to understand it. Visualization tools that provide meaningful and actionable information could improve outcomes, rationalizing the industry's investments in infrastructure and emerging technologies.
- **Seeking out appropriate partnerships.** Given the industry's fragmentation, it's no surprise that consumer technology companies, such as Apple and Google, will enter the health care market. Amazon Web Services has launched software that uses AI to mine patient information from numerous sources.[11] Some health companies may seek out partnerships with large technology companies to resolve technical issues and perhaps settle governance and legal questions.
- **Enhancing the customer experience.** Apps can create value for digital health consumers by providing coaching and enforcing medication adherence. Mixing data with gamification, for instance, could prompt consumers to boost their physical activity. Secure apps can enable consumers to organize their health data, sharing it—even potentially selling it—to pharmaceutical companies.

Companies that need to navigate through the reimagined terrain of health care—either as part of the industry or as employers providing health care—will likely benefit from the increased transparency among health care companies, as well as their growing focus on improving patient relationships.

Still, finding the right incentives to nudge employee participation, from reimbursement (for gym memberships) to cash incentives (for weight loss), will likely require perseverance. CFOs will also need to show patience; while digital innovation in health care may abound, it often takes several iterations before it is worthy of implementation. Among executives and employees alike, the transformation to a digitized health care industry will also require an openness to making, and accepting, change. As challenging as that can be, it's also very healthy.

Primary trends: Health care 2040

Health in 2040 is only 20 years away, but it will be a world apart from what we have now. Based on emerging technology, digital transformation will drive much of this change. And unlike today, care will be organized around the consumer, rather than around the institutions that drive our existing health care system. Here are some of the main components:

- The future of health will likely be driven by digital transformation enabled by radically interoperable data and open, secure platforms.
- Health is likely to revolve around sustaining well-being rather than responding to illness.
- Prevention and early diagnoses will be central to the future of health.
- The onset of disease, in some cases, could be delayed or eliminated altogether.
- Sophisticated tests and tools could mean most diagnoses (and care) take place at home.

A surgical approach to controlling health costs

With health premiums projected to rise up to 6% this year[12]—an uptick from the 3% to 5% range of recent years—finance leaders are looking for new ways to take a scalpel to costs.

In some cases, they are not focusing solely on health care, but rather on rebalancing the total package of rewards that they deliver to employees, including 401(k) plans and paid time off. While the increase in health care costs may be passed on to employees—in the form of higher premiums, deductibles, or copays—employers may choose to upgrade other components of their rewards package to maintain a similar level of overall perceived value.

Given that 89% of employers[13] consider rising health care costs to be a significant source of stress for their employees, that may be a sufficient reason for CFOs to conduct more than a routine examination of health care costs and not to cede all strategy to the Human Resources (HR) department. When they do, they will find a variety of new techniques they can use to reduce costs while still upholding the value of their plans. While hardly a magic cure, such efforts can increase employee awareness of cost-efficient choices, such as filling prescriptions with generic drugs and scheduling virtual doctor visits. Other tactics include the following:

- **Involve procurement in negotiations.** No offense intended to HR, which has traditionally overseen health care strategy, but why not leverage the skills of the function whose negotiation skills are deployed in every other major category of spend? This is especially the case given that HR often relies on outside third-party consultants who may be receiving revenues (e.g., commissions, bonuses, product fees) from the vendors with whom they are negotiating. Sharing the responsibility for keeping health benefits competitive with procurement may increase transparency and improve cost control. While procurement professionals may not grasp every nuance of health care pricing, they do bring a new calculous to the equation: they will focus relentlessly on comparing plans to get the best deal, even if that means bringing in new vendors. And they are practiced at using other resources as needed, whether that means IT, legal, or outside health care expertise. There is still a role for HR and its advisors, but the days of keeping procurement at an arm's length are coming to an end.

- **Offer a high-performance network.** Many health plans have offered health maintenance organizations (widely known as HMOs) or preferred provider organizations (PPOs), effectively steering employees toward using contracted, lower-cost doctors and hospitals. High-performance networks (HPNs) use performance-based contracts to guide employees toward a carefully curated list of the highest quality and most cost-efficient providers. Besides gaining access to physicians with above-average performance metrics, members of HPNs often receive coordinated medical care, including treatment options for chronic conditions and preventive action. Through the use of HPNs, employers can drive to a higher quality of care at a lower cost, at the expense of choice. And this may be exactly what a cohort of your population would prefer.

Sharing the responsibility with procurement for keeping health benefits competitive may increase transparency and improve cost control.

- **Use predictive analytics.** Much about health risks can be learned from consumer behavior. Using advanced analytics tools, employers can gain the capability to use data from employees—ranging from credit-card information to data resident in HR information systems—to gain insight into the health risks that employees face – without the need for health claims. By segmenting employees accordingly, companies can effectively target them for better self-care, prodding them to undergo certain medical tests or join smoking-cessation programs.

- **Look for AI-powered health tools.** Artificial intelligence (AI) technology is streaming into the health care sector, fueling everything from wearable sensors to virtual-doctor apps to pharmacy chatbots. CFOs need to stay current on the technology's fast-increasing potential for improving efficiency—and outcomes—in health care. Some of the most-anticipated applications, whether reading X-rays or interpreting MRIs, remain in the development phase. But the promise of digital health is real, or, as a former FDA commissioner assessed it,[14] "nothing short of revolutionary."

Endnotes

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