McKinsey&Company

Venkat Atluri, Jenny Cordina, Paul Mango, and Sri Velamoor

How tech-enabled consumers are reordering the healthcare landscape

Healthcare Systems & Services November 2016

Healthcare companies are developing new digital technologies to give consumers more control over the care they receive. That could upend the industry's move toward greater consolidation and scale.

In the not-distant future, financially accountable, tech-enabled consumers may avail themselves of a range of discrete digital health services from a variety of providers. As a result, they would be able to create their own health-management ecosystems, acting as stewards of their care and controlling not just where they access it but also how and from whom, as well as the price they pay. The impact of these changes—the friction created between large, fully integrated healthcare systems that prioritize efficiency and scale, and newer, more distributed digital upstarts emphasizing speed and the consumer experience—could put up for grabs \$270 billion of the incumbents' current revenues and an additional \$13 billion to \$24 billion in new ones (exhibit).

Admittedly, several significant barriers must be overcome before that shift in the sector's dynamics can fully take root. At present, the effectiveness of many digital and mobile technologies remains to be proved. In fact, the IT platforms needed to aggregate data and to integrate the consumer experience across care venues and new modalities (e-visits, for example) remain to be built. Other hurdles include concerns about information security and about who should underwrite the cost of adopting these solutions at scale, as well as the potential need for US Food and Drug Administration (FDA) approval of some devices. But even the modest adoption of the new technologies could have enormous implications for providers and health insurers alike.

According to our research and analysis, technologies that make it possible to deliver primary care less expensively could save \$175 billion to \$220 billion a year if they came into widespread use. Although consumers are likely to be the primary beneficiaries of the savings, incumbents will probably capture some of the money. Increased automation and self-service could lower their overall administrative costs by an additional \$24 billion to \$48 billion annually through productivity gains.

Exhibit

Almost \$300 billion of healthcare spending could be up for grabs.

	\$ billion		
2014 national healthcare expenditures	/		\$3,000
 Impact of lower medical-services spending (outpatient, inpatient, and home health care) Reduced price dispersion Lower rates of readmission and treatment avoidance Movement of primary-care visits to virtual approaches 			\$175-\$220
 Impact of increased efficiency¹ 5%–10% efficiency gains in administrative spending across system 	\$24-\$48		
 New revenue streams Increase in primary-care visits from reduced transactional friction² Revenues for new services³ (eg, telemedicine, remote monitoring) 		\$13-\$24	
Total • Includes ~\$27 billion to \$400 billion of consumer surplus	/	\$2,756-\$	\$2,814

¹Assumes that 5%–10% of total administrative costs (\$480 billion) can be eliminated through greater use of digital technologies.

²Assumes that ~60% of currently underserved patients will increase primary-care use (in-person or virtual consultations); cost estimates include both increased primary-care use and incremental utilization (a small proportion of the new patients will need complex treatments or inpatient care).

³Includes revenue to companies developing telemedicine services, new monitoring and wellness devices, transparency solutions, and self-service solutions.

McKinsey&Company

Although some of the new technologies will replace more expensive services, others (personal diagnostic devices, for example) will create new classes of offerings. Furthermore, healthcareutilization levels may rise once primary care becomes cheaper and more accessible. Combined, these factors could generate \$13 billion to \$24 billion in new revenues for incumbents and technology companies.

Key findings

To better understand the path to this reordered landscape and its implications for participants in the sector, we interviewed technology innovators, investors, healthcare providers, and insurers. We also surveyed thousands of US consumers. Our research revealed five key findings, three of which we outline here:

Consumers are starting to replace traditional healthcare services with digital ones.

Although utilization trails awareness, inroads are being made, particularly among younger Americans. Millennials, for example, are twice as likely as Baby Boomers (and three times as likely as people born before 1945) to use email or text messages to communicate with physicians.

Investment in digital and mobile health and in related technologies is robust and growing.

The strongest growth has occurred among direct-to-consumer technologies that require little or no involvement by physicians (for example, wearable fitness trackers and scheduling applications) and among intermediated technologies (more complex ones, such as remote diagnostic equipment, that require a doctor's prescription). Investors appear equally interested in both, but for different reasons: direct-to-consumer technologies for their ability to achieve scale quickly and intermediated ones for their greater cost-reduction potential.

New technologies address consumer dissatisfaction with the current healthcare system.

These technologies fall into six categories, all of which could alter the economics of the healthcare system:

- self-service tools that make it easier to schedule appointments, renew prescriptions, and pay bills
- "quantified self" and wellness tools that assess a patient's health status, monitor adherence to treatment, or enable coaching, as well as devices that can be worn, ingested, or embedded in the human body
- clinical-transparency tools that help patients use healthcare services more appropriately by enabling them to make more informed decisions
- financial-transparency tools that help consumers to compare prices and benefits from different health plans and providers
- virtual-access tools that enable consumers to consult with doctors online, to be monitored remotely, or to receive certain types of care at home
- IT platforms that aggregate data from different tools and enable them to work together, as well as technologies that help consumers receive information through multiple channels

While it remains unclear who will pay for the new technologies, most of the stakeholders we interviewed believe that employers, providers, and insurers will assume this responsibility.

Implications for providers and insurers

The more engaged consumers enabled by new digital health technologies could shift the sector's dynamics in three ways:

- The basis for competitive advantage changes. The geographic scope of competition, historically concentrated in metropolitan areas, could broaden, especially once digital access points, such as self-service tools, become more prevalent and price- and quality-transparency tools alert consumers to highervalue alternatives.
- Consumers become clinical-data integrators. Increasingly, consumers could own and manage their clinical data, which would allow them to decide for themselves who should gain access to that information (and when) in clinical, transactional, and administrative settings.
- The roles of providers and insurers evolve. Providers, especially physicians, could find themselves spending less time gathering information about their patients and more time helping them make sense of the information already gathered. Insurers may become trusted advisers, helping consumers to understand how best to manage their financial accountability and risk preferences. They'll have competition for this role, though. Retirement and wealth advisers, for example, could include health-risk assessments and estimates of health costs in the advice they give clients.

Notwithstanding the barriers, incumbents should be prepared to make bold changes to their business and operational models to compete in a digital healthcare landscape. Their approach to the coming transformation should be comprehensive and integrated, not a series of random, disconnected initiatives. The transformation process will require frequent trade-offs between physical and digital assets, and all bets on new technologies will probably have to be reviewed every three to six months.

Incumbents shouldn't rely on price as the sole point of competitive difference. Those that prevail will be defined by how well they know their customers—and by how customers behave in a given scenario. Physically active consumers, for example, may be price seekers when they shop for primary-care services but completely indifferent to price when they look for orthopedic surgeons.

The full impact of engaged, tech-enabled healthcare consumers may not be felt for five to ten years, but now is the time for providers and insurers to start preparing for the new reality. If they don't, they might find it too late to remain in the game. In other sectors, many companies that didn't prepare for the impact of digital and mobile technologies eventually lost out to more nimble new entrants.

Download the full report on which this article is based, *How tech-enabled consumers are reordering the healthcare landscape*, on McKinsey.com.

Venkat Atluri is a senior partner in McKinsey's Chicago office, **Jenny Cordina** is an expert partner in the Detroit office, **Paul Mango** is a senior partner in the Pittsburgh office, and **Sri Velamoor** is a partner in the Southern California office.

The authors wish to thank Satya Rao for his contributions to this article.