

Healthcare Systems and Services Practice

Digital healthcare: How disruptive will it be?

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Digital healthcare: How disruptive will it be?

Digital technologies have the potential to improve both productivity and quality of care by extending care delivery to new modalities, making transactions more efficient, and supporting clinical operations.

Digital technologies have reshaped almost every industry, and their impact on healthcare has the potential to be similarly transformational—not just to improve patient outcomes, but also to significantly reduce costs and capture new value. We estimate that at least \$175 billion—and possibly much more—could be at stake through the digitization of healthcare in the United States (Exhibit 1).

The digitization of healthcare will not occur in some imaginary future. Given the broad adoption of electronic health record systems, rise in computing power, and emergence of powerful analytics capabilities, the healthcare industry is poised for significant change. Perhaps most notably, it is positioned to realize productivity gains by integrating existing technologies and reducing information asymmetries across the healthcare ecosystem. Three areas hold particular promise.

The “Internet of People”

Healthcare providers are increasingly able to use technology to enhance and extend care delivery beyond healthcare facilities. For example, remote monitoring technologies exist today that allow providers to regularly check in on patients’ vital signs between office visits. Using machine learning, providers can detect changes in a patient’s health, then engage with the patient through digital platforms

(phone, text, email, or an app) to determine if in-person care is required. Remote monitoring and virtual visits are important elements of the broader trend toward distributed sites of care.¹ Such capabilities have the potential to improve productivity as well as the responsiveness and convenience of healthcare services.

Consumer-facing technologies also have the potential to reshape the healthcare landscape in even more profound ways. Our recent article, “How tech-enabled consumers are reordering the healthcare landscape,” argues that these technologies could disrupt the evolution toward larger, more integrated healthcare systems.² Consumers—demanding greater convenience and value, empowered with tools that enhance price and quality transparency, and able to access care through new platforms such as telehealth—may choose to seek care from different service providers at each step along the care continuum. This dynamic could create opportunities for players that can cultivate consumer engagement through digital platforms. Conversely, it represents a real risk for incumbents that are caught flat-footed in consumer-facing digital transformation.

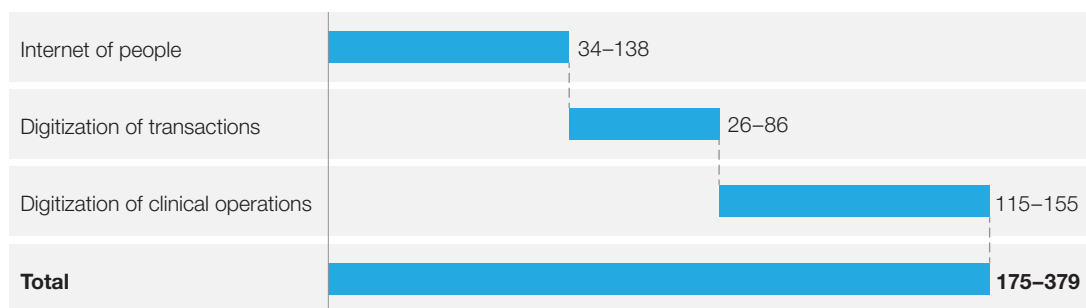
Digitization of transactions

Transaction costs in healthcare are significantly higher than in other industries. Estimates put the processing cost per

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EXHIBIT 1 Potential impact of digital health

\$, billion



Source: McKinsey analysis

transaction in the US healthcare sector at up to 15%, compared with 2% in the retail sector.³ The digitization of transactions—such as digital sales and service, pre-qualification and insurance validation, billing and payments, and claims processing—holds promise of lowering those costs. For example, claims and payment transactions could be migrated to a model with large-scale clearinghouse utilities that digitally manage transactions, similar to the “clearance and settlement” models used by credit card companies. We may begin to see the emergence of disruptive players that can handle the transactions for multiple companies as an outsourced service, bringing down costs across the industry. In part through lower transaction costs, we estimate that digital initiatives could allow payors to trim 10% to 15% in their SG&A expenses.⁴

Digitization of clinical operations

The digitization of certain clinical operations to support clinicians is likely the

largest category of value at stake, with the potential to create \$115 billion to \$155 billion in value. Applying technology to clinical operations—for example, through application of tools for patient throughput management, dynamic capacity and labor optimization, and clinical decision support—could not only create a more productive healthcare model but also reduce medical error. Clearly, there is work to be done: a recent study by researchers at Johns Hopkins estimated that medical error is responsible for at least 250,000 deaths each year, which suggests that medical error is the third leading cause of death in the United States, after heart disease and cancer.⁵

The technology already exists to realize these improvements. Payors, providers, and policy makers must now determine how digital tools can be applied on a large-scale basis to create value. Players that figure out how to integrate existing technology with meaningful operational and frontline change in healthcare settings stand to boost productivity and reduce

costs. No less significant is the potential improvement in the quality of patient care. Whether the path is one of evolution, transformation, or revolution, the digitization of healthcare is well under way. [O](#)

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FOOTNOTES

- ¹Singhal S. Distributed sites of care: At a tipping point? McKinsey white paper. April 2017.
- ²Atluri V, Cordina J, Mango P, et al. How tech-enabled consumers are reordering the healthcare landscape. McKinsey white paper. April 2017.
- ³Singhal S, LeCuyer N. Overhauling the US healthcare payment system. McKinsey Quarterly. June 2007.
- ⁴Kayyali B, Kelly S, Pawar M. Why digital transformation should be a priority for health insurers. McKinsey white paper. April 2016.
- ⁵Makary MA, Daniel M. Medical error—the third leading cause of death in the US. *BMJ*. May 3, 2016.

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