

Technology

What the Pandemic Means for Health Care's Digital Transformation

by John Glaser, J. Marc Overhage, Janet Guptill, Chuck Appleby, and Donald Trigg

December 04, 2020



Summary. At a roundtable, chief information officers from leading health systems agreed that digital technology must play an important role in meeting the challenges of the post-pandemic world. Because virtual care is now part of the new normal, health systems must construct a stronger support infrastructure that includes organizational, ... [more](#)

As health care organizations grapple with responding to the ongoing Covid-19 pandemic and adapting their operations to continue to fulfill other aspects of their care mission, they must also begin to define and prepare for the future of care amid economic, regulatory, and social uncertainties. What might the post-Covid-19 landscape look like? How can health systems address a range of possible challenges? What are the opportunities to revolutionize care?

Care providers must understand the ramifications for their digital health function and agenda — and how information technology can address the challenges and opportunities of their “new normal.” To develop this understanding, we conducted a roundtable discussion with chief information officers from leading health systems at the Scottsdale Institute, a not-for-profit organization that supports its member health systems in achieving clinical integration and transformation through information technology.

The participants agreed that the new normal digital health agenda will need to focus on three overarching areas: developing virtual care, coping with the financial impact of the pandemic, and embracing the lessons learned from managing the crisis.

Virtual Care

The volume of telehealth visits increased dramatically as patients sought to safely obtain outpatient care. Many physicians saw their telehealth visit volume increase by a factor of 50 to 175. This increase occurred over a very short period — often in days or at the most, weeks. Providers hastily constructed a temporary “bridge,” built with digital tools and operational workarounds that are not robust enough to sustain this level of use permanently. At the same time, patients have come to expect telehealth and many providers have become comfortable delivering care via the technology.

INSIGHT CENTER

Health Care, Digital Transformation, and Operational Efficiency

Improving the way we deliver care.

Because virtual care is now part of the new normal, health systems must construct a sturdy, permanent bridge that includes organizational, financial, and clinical structures and processes.

The health system will need to integrate telehealth technology with the electronic health record, define clinical protocols for appropriate telehealth visits, obtain reimbursement for telehealth visits, and revamp hospital and physician practice processes to support telehealth (e.g., how should virtual waiting rooms work for telehealth visits?).

As health systems implement a permanent approach to telehealth, they should recognize that telehealth is a component of two broader digital health strategies: ensuring that care is delivered in the right setting and creating a great patient experience through a “digital front door.”

Delivering care in the right setting. Driven by the movement to value-based care (paying on the basis of outcomes as opposed to the volume of services), health systems must ensure that patients are cared for in the most appropriate setting. For example, how do we redirect care from emergency room that rightfully belongs in a doctor's office? Can we provide chronic care management through home health services, reducing visits to the physician's office?

Virtual care can help advance efforts to manage patient care across a continuum of settings. Remote monitoring can move much of chronic disease management to the home. Telehealth can enable access to specialist consultation for a patient at a nursing home without having to transport the patient to the academic health center.

Creating a great patient experience. The pandemic has increased consumer reliance on digital technologies for many of their daily activities. People work from home glued to Zoom. Groceries arrive from Instacart and Amazon delivers household supplies. Consumers will expect that their digital health experiences will be equally effective and easy to use.

To meet these expectations, health systems will need to double down on their "digital front door" efforts, enabling patients to handle routine interactions such as scheduling an appointment, paying a bill, finding a doctor, renewing a medication, finding answers to health questions, and navigating the health system itself.

Many health systems nominally offer these capabilities now, through patient portals with often opaque user interfaces and erratic performance. They must improve.

Financial Health

Between March 1 and June 30, hospitals and health systems lost an estimated \$202.6 billion as a result of forgone revenue and increased Covid-19-related costs. Patients are slowly returning to hospitals, but admissions are projected to be down 10.5% in 2020 compared with 2019.

In addition, states are grappling with Medicaid spending as tax revenues decline and Medicaid enrollment increases. The growth in the number of public payer enrollees will cause a hit to hospital revenues, which, before the pandemic, were already contending with care reimbursement that was less than their costs of care. More downward pressure is expected on Medicare rates as the federal government deals with decreased revenues and the interest payments from the trillions of dollars of Covid-19 related debt incurred from economic stimulus payments, unemployment insurance, and business loans.

To address their revenue challenges, many health systems will accelerate their movement to value-based care, and those that offer health plans will emphasize them. Health systems have been stung by the volatility of volume-based reimbursement and will attempt to move to capitation reimbursement models that enable more predictable revenue.

To support capitation, health systems will need to step up their investments in several digital health capabilities:

- Analytics that enable them to examine — by disease, insurance coverage and clinician — the cost and quality of care and how costs compare with reimbursement
- Support for care managers who guide the care of patients across multiple providers and services
- Registries of patients with chronic disease, such as diabetes, to help the health system ensure that the disease is being managed well across a population
- Remote patient monitoring and other technologies that help patients manage their health

In addition to managing revenue in the new normal, health systems will increase their focus on reducing costs and constraining budgets.

To reduce expenses, health systems must thoroughly review opportunities to apply digital health tools to streamline clinical and administrative operations. They must also continue to improve the usability of the electronic health record to reduce clinicians' frustrations and ensure that they enter information correctly. And they must enhance analytics capabilities to understand care costs and staff productivity.

During the pandemic, many health systems discovered shortcomings in their analytics capabilities. Data quality was uneven, analyses took too long, and predictive models were not sufficiently comprehensive. Managers and clinicians were often poorly trained in using the data. As they adjust to the new normal, health systems will seek to remedy these deficiencies.

At the same time, as part of reducing expenses, the digital health function itself will be under pressure to operate with fewer resources. This pressure will result in efforts to:

- Consolidate multiple instances of a technology application to one (e.g., five different IT systems for operating rooms in a health system's five hospitals or five separate licenses for the same system from the same vendor)
- Explore the use of the cloud to host applications
- Initiate efforts to optimize the performance of existing applications (rather than replace them) through keeping current on upgrades, reengineering clinical workflows, and conducting refresher user training
- Leverage vendor capabilities to support implementations virtually rather than hiring armies of staff

Making Aspects of Crisis Management Permanent

During the peaks of the pandemic, health systems dramatically increased the speed of their decision-making in order to contend with challenges such as shortages of personal protective equipment, the high utilization of intensive care unit beds, and protocols for safely treating patients and protecting staff.

The urgency of the crisis also led to rapid experimentation with new ways of managing clinical and operational processes. In the heat of the moment, health systems developed new ways to do telework, implemented the use of chatbots to respond to patient questions and concerns, and collaborated across organizations to coordinate care across a region.

These advances in decision-making speed and experimentation abilities should not be placed in a box once the pandemic subsides. Health systems should seek to cement these gains in organizational capabilities. Even without a crisis to drive them, health systems should review how best to quickly and efficiently identify and conduct experiments with new digital health technologies and how to make those decisions quickly while ensuring that they are thoughtful and politically supported.

Acceleration has been the pandemic's most notable impact on health systems' digital strategy. Prior to the pandemic, most health systems had initiatives to pursue telehealth, implement applications that support value-based care, increase integration across care settings, improve the patient experience through the implementation of a "digital front door," and reduce the cost of delivering care. The timeframe for accomplishing these initiatives will now be significantly compressed; what might have taken 10 years to accomplish will now take three years. This pandemic-induced acceleration of the digital strategy has been observed across several industries.

Having earned its battlefield stripes on the front line during the Covid-19 surge, the digital health organization will become a more strategic partner to the health system C-suite. Health IT professionals had to scale telehealth and telework rapidly and provide the analytics necessary for health systems to manage the impact of the surge on clinical operations. Leadership will continue to need their support.

While this public health crisis has tragically cost us lives, livelihoods, and our sense of normalcy, we still have the power to shape what comes next. Covid-19 has forced health care leaders and clinicians to move faster, work smarter, and take a more focused approach to decision-making than ever before.

Digital health solutions and technology will play a crucial role in the difficult work of optimizing processes and systems for greater efficiency, financial viability, and enhanced outcomes. Through this unexpected disruption of the status quo, there is a tremendous opportunity to create a new normal that is a significant improvement over the old normal.

John Glaser is an executive in residence at Harvard Medical School and a lecturer at the University of Pennsylvania's Wharton School. He previously served as the CIO of Partners Healthcare (now Mass General Brigham), a senior vice president at Cerner, and the CEO of Siemens Health Services.

J. Marc Overhage, MD, is chief medical information officer at Anthem, Inc.

Janet Guptill is the chief executive officer of the Scottsdale Institute, a not-for-profit organization dedicated to supporting its member health care systems transform the way they work through information technology.

Chuck Appleby is director of publications & communications at the Scottsdale Institute, a not-for-profit organization dedicated to supporting its member health care systems transform the way they work through information technology.

Donald Trigg is president of Cerner.