

White Paper

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# The Evolution of Interoperability: Connected Healthcare Arriving at Last

## Policy goals and technical capabilities align to usher in new care ecosystem

After decades of effort, the long-sought goal of nationwide interoperability is within reach, raising the prospect of a new era in healthcare marked by seamless connectivity between patients, providers, payers, and other stakeholders.

Driving today's paradigm shift is the convergence of policy objectives and technical capabilities, coupled with a hard-won consensus about appropriate data-sharing standards. Major barriers remain, however, including patient matching and identity, data mapping, and appropriate security. Perhaps most importantly, embracing a more collaborative mindset will be essential for stakeholders who are long accustomed to exerting proprietary control over patient data for competitive advantage.

Yet as the new ecosystem evolves, a more efficient and responsive healthcare system should follow. Reduced administrative burden, faster communication, and more extensive collaboration across the care continuum will help contain costs and improve outcomes. Longer-term, innovative applications will assist with everything from personalized therapies to decision-making for patients, providers, and payers.

Identifying and embracing the opportunities created by expanding interoperability will require organizations to think carefully about aligning with third parties conversant in both the technical challenges and business imperatives this new era will likely produce. That said, delaying the selection of a partner until all uncertainties can be resolved may prove shortsighted, given the growing market and consumer momentum pushing interoperability forward.

## Interoperability's Long March

The concept of bidirectional data sharing dates back to at least the development of the first electronic health records (EHRs) in the mid-1960s. But the idea gained new urgency following the Institute of Medicine's landmark 1999 report, *To Err is Human: Building a Safer System*, which linked upward of 98,000 annual, accidental patient deaths in part to the fragmented nature of care and providers' inability to consistently access complete information.<sup>1</sup>

The Health Information Technology for Economic and Clinical Health Act (HITECH) in the American Recovery and Reinvestment Act (ARRA) incentivized health information technology (health IT) adoption, and the Affordable Care Act (ACA) put interoperability at the center of new models of care. Unfortunately, existing technologies proved inadequate in fulfilling the ACA's most ambitious objectives. These limitations underscored the immense difficulty of linking an exponentially expanding sea of structured and unstructured information across a disaggregated, siloed health system.

But now critical mass is coming into view: After five years in development and much give-and-take between policymakers and industry, the Office of the National Coordinator for Health Information Technology's (ONC) Cures Act Final Rule (Cures Rule) was released last year.

The Cures Rule set new technical standards for certified health IT developers to follow and finalized information-blocking requirements. Fast Healthcare Interoperability Resources (FHIR) APIs will now be required for certified health IT developers, and the US Core Data for Interoperability (USCDI) provides the minimum data set that must be exchanged. FHIR, coupled with the USCDI, ensures a standardized technical stack to support interoperability. Further, a set of established information-blocking exceptions create guidelines for when actors can decline data sharing, as well as the rules they must follow when they do share (i.e., licensing requirements and fee structures). These

exceptions ensure policy and business alignment to support interoperability and move the data-sharing paradigm from permitted sharing to required sharing.

Equally important has been a renewed focus on making sure the nation's large Health Information Networks (HINs) are connected to each other. HINs enable "one-to-many" links for payers, providers, and others, but historically, they've had difficulty connecting to each other, forcing providers and payers to connect to multiple HINs. The Trusted Exchange Framework and Common Agreement (TEFCA), now in the late stages of development, should alleviate this barrier and enable a single on-ramp to interoperability for providers and payers.

Finally, the Cures Rule stipulates that patients must be able to access all of their electronic health information at no cost. This shift will give patients an easy way to access their health information, a process that historically has been both burdensome and costly.

## The Devil is in the Details

The nature of progress typically means that as soon as the large-scale problems are resolved, next-level, tactical considerations take center stage. Effective patient matching is one of these issues. Creating solutions that can quickly locate patient records while simultaneously performing ironclad identify proofing remains a heavy lift, given the country's mobile population and records that exist in a multitude of formats across disparate systems coast-to-coast.

These tasks are closely tied to consent and security concerns. In an interoperable world, ensuring that patients explicitly agree to share clinical information with third parties will be paramount, as will security protocols that provide the highest level of protection at each stage of dataflow.

A similarly daunting challenge involves determining which data needs to be accessible in real time versus information that can be moved in batches

at regular intervals. While all data, all the time sounds ideal in theory, servers—and humans—would quickly be overwhelmed without effective prioritization.

Rules of the road that are consistent with infrastructure- and human-bandwidth limitations while allowing the right information to reach the right place at the right time must be hammered out before sharing can become ubiquitous.

## **Trust Becomes Compulsory**

However complex, technical problems are ultimately solvable. But changing the industry's collective mindset about the nature of clinical data will require something other than coding and algorithms. Business models built on the control of data and resultant control of patient populations will need to give way to new approaches that focus instead on new, value-add products and solutions layered over the data.

Navigating this inflection point may prove difficult, given the levels of mistrust and animosity that have long swirled among some stakeholder groups. But as the new blocking rule demonstrates, acceptance isn't optional. Those that embrace a new mentality about clinical data sooner rather than later will inevitably gain a competitive edge.

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## **A Healthcare Renaissance**

The good news? Maturing interoperability—likely to begin accelerating rapidly in the next several years—will unleash a wave of new capabilities,

tools, applications, and services that could collectively deliver on the promises of a patient-centric, learning healthcare system. Not only will the mechanisms for true, value-based care finally be in place, but new levels of personalized and preventive medicine will be possible.

Applications that assess a patient's full medical history, lifestyle, social determinants, and even genomic makeup could lead to improved prevention, earlier diagnosis, and better disease management. Data-driven, evidence-based recommendations will also support tailored interventions and medications. More broadly, ubiquitous interoperability should accelerate the collection of real-world evidence to help the development of new medications and novel interventions.<sup>2</sup>

Solutions may also help consumers make better decisions at the outset of the care journey: An app could, for example, review an individual's medical history to help them select the best payer/provider network combination for their current or projected needs. Once we have nationwide interoperability, there is virtually no limit to the services and applications that can be provided to deliver better-quality care at lower costs.

## **Finding a Partner for the Journey Ahead**

Many of the benefits of interoperability are self-evident. Yet like the Internet—where previously undreamt-of applications continue to proliferate—so too will interoperability's arrival accelerate the velocity and nature of change across healthcare. That's why it's important for organizations to begin aligning today toward the coming connected environment, even if the precise end-state remains uncertain.

Change Healthcare is ideally suited to serve as a guide on this journey. We are among those actively working to resolve remaining connectivity challenges and make interoperability easy. Through our relationship with the CommonWell® Health Alliance and via our multiple interoperability solutions, including our API & Services Connection™

and Clinical Document Collector API, we're already helping providers and payers improve the fluidity of information exchange.

But don't take our word for it. In 2019, Frost & Sullivan analyzed more than 50 companies in its report on the U.S. Healthcare Data Interoperability Market. The report commends Change Healthcare for "leading interoperability that democratizes access to patient data through open and collaborative services, tools, and platforms."

Healthcare is on the brink of transformational change. How, when, and to what extent organizations prepare for and engage with this change is up to them. But here's the dilemma: You won't know it's too late until it is.

<sup>1</sup> To Err is Human: Building a Safer Health System, summary, Institute of Medicine, November 1999

<sup>2</sup> David Biel, et al., Radical interoperability picking up speed to become a reality for the future of health, Deloitte, Oct. 24, 2019



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#### About Change Healthcare

Change Healthcare (Nasdaq: CHNG) is a leading healthcare technology company, focused on insights, innovation and accelerating the transformation of the U.S. healthcare system through the power of the Change Healthcare Platform. We provide data and analytics-driven solutions to improve clinical, financial, administrative, and patient engagement outcomes in the U.S. healthcare system.

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