



**DOCUMENT-CENTRIC INTEROPERABILITY:**  
A Key Element of Collaborative Care



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## **DOCUMENT-CENTRIC INTEROPERABILITY: A Key Element of Collaborative Care**

Across the nation, healthcare systems are striving to achieve new levels of collaborative care. But no one technology platform is the be-all, end-all of collaboration. A healthcare information system is more than a collection of electronic health records, health information exchanges, workflows, and back-office systems. It is people communicating with other people. In some cases, it's persevering in spite of long-standing information and workflow silos.

The common denominator that conceptually links all these silos is the document. Prior to digitization, all healthcare information was document-based. But even in today's digital world, pockets of paper documentation continue to fuel workflows across healthcare. The challenge is to integrate these documents in a way that is cost-effective, yet valuable and flexible.

In a July 2017 HealthLeaders Buzz Survey, 43% of respondents listed interoperability as a top 10 priority at their organizations, and another 30% listed it as a major priority. During patient treatment, information must flow from patient to provider, as well as between providers. Those providers include specialists, acute care facilities, urgent care, and emergency departments that may be selected by a patient, who is usually unaware of how well (or poorly) these providers exchange information with each other.



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Patients and their caregivers are ill-prepared and ill-equipped to convey personal medical information from one provider to another. When they are tasked to do so, it is typically in document form.

Aggregating and disseminating these documents calls for a careful approach, incorporating document management in a way that providers and payers can seamlessly leverage to further collaboration.

Digital interfaces for connecting different vendors' electronic health record systems are often prohibitively expensive for medical practices to acquire and implement. Historical documents, such as physicians' notes,



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lab results, or images, may never have been scanned into those systems in the first place. A records request to a physician often results in these records being faxed to the requesting provider, with no guarantee the receiving end won't simply print the faxes on loose pieces of paper.

"What we try to do is offer platforms that allow different entities to speak to each other in more efficient ways," says Jeffrey Plum, senior manager of advanced service strategy for healthcare at Ricoh USA Inc.

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Such a platform can take many forms. When a patient checks in for an outpatient procedure, the platform can ensure all the required medical history, insurance information, prior authorizations, statements of medical necessity, accompanying physician orders, and lab results have been gathered, saving staff time and improving throughput as well as the patient experience.

"There's a lot we can do to help that patient be able to communicate information to a provider," Plum says. For instance, the platform can provide patients with a Web-based portal for entering their medical history—turning a waiting room ritual into something done at the patient's convenience, and also making that history available at subsequent visits to a referred physician's office.

"Anything we can do to accumulate and convey information between physicians helps the patient," stated Plum. Document-focused automation that can help a provider calculate the coverage for a particular procedure, determine the patient's deductible, and understand patient co-pays or out-of-pocket costs can play a powerful role in making healthcare more efficient and patients more satisfied.

The same Buzz Survey found that 58% of respondents report that 1%–25% of their healthcare organization's records are paper-based. Only 8% of respondents report that all of their records are in digital form.



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“This number, 58%, is maybe a little low, because in many organizations, incoming documents are many times, if not 100%, still paper-based,” Plum says. “If my orthopedic doctor tells me I need to go to a hospital to have a bunion taken off my toe, all that information going from that doctor to the surgery facility will be faxed or carried in documents.”

In essence, the gap that a document management system can fill is the difference between merely managing the clinical record—information about patients once they are at a provider facility—and all other healthcare documentation involved in ingesting and onboarding those patients.

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“At the point where you call a doctor and say, ‘I’d like to make an appointment to see that doctor,’ you’re an appointment, not a patient,” Plum says. “That doctor really doesn’t have a medical record on you yet, because you haven’t been in to see them. But the doctor does need to collect some information. If you never show up, they don’t want a record on you. That presents risk. This is where we can help.”

In addition, other information living outside the clinical record is nonetheless vital to the healthcare organization’s mission—information ranging from HR, payroll, and patient consent to staff credentialing. “If you look at how much money has been spent in healthcare to eliminate paper, it’s almost staggering how much paper is still left,” Plum stated.

The Buzz Survey found that healthcare organizations vary in how they internally share this information. 89% share clinical information, 64% share administrative information, 56% share claims data, and 46% share patient-reported data.

In addition, according to the survey, physicians communicate with each other most via phone and text (89%), versus 78% via email and 73% through EHRs. “In addition, there’s still a lot of facsimile,” Plum says. “We think it’s gone, but it’s not. It’s everywhere.”



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As healthcare pivots from fee-for-service to accountable care and value-based contracts, pulling together all this information is essential. Merely having a document repository is insufficient. Providers must know how sick a population of patients is, whether their health is improving, and whether they are taking their medications as directed.

Ricoh's healthcare solutions not only gather these disparate documents and present them in an actionable workflow, they also serve up timely suggestions throughout the process, such as letting patients know they have an outstanding balance from a previous visit.

Moreover, a flexible document management system must be able to extract discrete data such as lab results and incorporate it in a structured way into EHRs. "Part of what we do is to help create integration between disparate systems, or manipulate information to be more acclimated to the system we're handing it off to," Plum says.

Not surprisingly, 82% of Buzz Survey participants say system integration is a top expectation when it comes to interoperability. They also want interoperability to lead to better communication (81%) and remote access to data (56%).

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For example, one provider client receives numerous Explanation of Benefits forms from multiple payers, some on paper and some electronically. Ricoh chooses from a variety of solutions to eliminate manual data entry, scanning and manipulating these forms regardless of their medium. The result can be an improved revenue cycle for the physicians involved.

Ricoh begins by assessing the existing information environment and processes. The goal is to find a solution that meets real-world goals and needs. As the survey results show, one of the most common challenges is reducing the reliability on paper, which is difficult to manage, move and secure.



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Documents come in many forms. The ultimate goal is to convert them into electronic files that are more easily managed, secured and shared. For example, a document can be converted to an image by scanning it on a Ricoh multifunction printer, then capturing it using Ricoh Streamline RX and passing it on to the Ricoh Electronic Data Exchange.

The process of moving electronic documents between providers is automated as much as possible, and powerful technology, such as optical character recognition and barcode recognition, ensure the information is useful.

Many healthcare departments still function through paper requisitions, so part of a collaborative care workflow may even be determining if and when a document must be printed to satisfy a paper workflow. A shared goal of coordinated care has to be to never lose another document, as well as to take appropriate action on every document received.

The survey data shows that while **95%** of healthcare organizations share data electronically within their health network, they also still rely on scanning/faxing paper documents (**70%**) and manual paper handoffs (**29%**).

At a large hospital in Mississippi, Ricoh started by tackling a room that had been receiving 6,500 faxes per month from regional physicians for referrals, as well as other documents such as lab orders. In the old system, paper orders for lab tests had to be filed until the patient presented at the lab, at which point the hospital would fax the order to the lab. Two years ago, the improved care coordination solution led by the hospital, working with Ricoh, digitized the hospital's fax queue and created actionable workflows with the assistance of one of Ricoh's third-party partners. The result was an enterprise content management system managing all incoming faxes, letting users tag them and associate them with the right patients, and scheduling future tasks, such as re-faxing on a specific date, or holding faxes in a virtual queue until requested.

A document management platform can also span one of the thorniest interoperability chasms in healthcare today—the fact that doctors still enter orders on paper as well as electronically. In fact, some paper orders exist precisely because their complexity exceeds the capabilities of electronic orders. The survey data shows that while 95% of healthcare



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One example is total parenteral nutrition, or TPN for short, which is a large IV bag that feeds a patient for 24 hours. TPN requires a very complicated set of orders. Typically, the orders are written out on paper and faxed to the pharmacy. However, until the pharmacist enters the orders into the pharmacy system, no one knows what happened to the paper. It could be stuck at the back of a chart or sitting in a stack of paperwork, which delays the filling of a critical prescription.

A document management solution enables a receiving pharmacy to electronically capture incoming faxes so they may be located and acted upon instantly. In fact, hospitals implementing this solution eliminate faxing entirely by having staff use a multifunction printer/scanner, thereby scanning the paper TPN order into the pharmacy's electronic order queue.

The savings of document management systems are also providing real return on investment to healthcare organizations. Apria Healthcare is saving \$300,000 a month in operating costs by using a document management platform provided by Ricoh. By converting all documents from paper to digital form, this provider of durable medical equipment was able to consolidate 17 billing offices into just three, initially by scanning a staggering 19,500 boxes of documents.

In taming the paper monster, healthcare organizations can move to a new level of collaborative care that truly fulfills the promise of the investment they made in digital transformation.

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