How Hospitals and Health Systems Can Optimize Automation Initiatives to Enhance Patient Care, Increase Efficiency, and Reduce Costs

Streamlining processes and workflows through automation benefits patients, physicians, and providers

Automation is often touted as a powerful solution that hospitals and health systems can leverage to standardize processes, reduce costs, and improve the quality of care. Although the technology gets plenty of media attention, many healthcare organizations (HCOs) put off adoption because it's considered too expensive to implement or too disruptive to current processes.

The COVID-19 pandemic changed that worldview, accelerating the need for automation across HCOs. In addition to increasing telehealth capabilities, hospitals and doctors' offices had to figure out how to quickly pivot to remote work operations.

As the U.S. workforce transitioned from on-site to remote, it became clear that healthcare professionals' workflow processes, which rely on paper – like mailing referrals or faxing healthcare records – only delayed care when time was of the essence.

Automation allows HCOs to eliminate many manual tasks, greatly improving operational efficiency and cost optimization. Automation can also free physicians and other healthcare professionals from having to do repetitive tasks that contribute to burnout.

"Healthcare facilities are now embracing the fact that the revenue cycle and patient workflow journey needs to be brought into this century, if you will," said Rory Fitzpatrick, Partner Executive, Healthcare, Ricoh. "There's no question automation solutions bring tremendous value to care delivery."

Healthcare leaders understand the importance of accessing the right data at the right time along the patient journey. Solving the data efficiency and interoperability problems plaguing the healthcare ecosystem through automation will enhance care, improve efficiency, and reduce costs for hospitals and health systems, regardless of their size.

A blueprint for intelligent automation

According to a HIMSS Market Intelligence survey on enterprise automation, sponsored by Ricoh, just over 50% of healthcare leaders surveyed say that automation functions* are integrated within their organization. And 25% report they don't have these automation functions integrated.

Of the 100 hospital and health system leaders surveyed, 59% of multi-facility (i.e., integrated delivery networks and multi-hospital systems) versus 40% of single-facility (i.e., academic medical centers, stand-alone hospitals, and specialty hospitals) hospital systems, in fact, have implemented automation (Figure 1).[1]

"For multi-facility hospital systems, being able to use a similar process for specific workflow automation at scale is critical," explained Braj Thakur, Senior Manager, Portfolio Strategy (Healthcare, High Tech, and Telecom) at Ricoh. "For a single-facility hospital, automation is more about getting as much efficiency as they can out of their existing investment to compete with larger hospital systems within their market."

Fitzpatrick added, "The questions all healthcare organizations are asking themselves are, 'How do we automate manual processes so we can work in concert with Electronic Health Records [EHRs]? And how do we ensure workflow automation supports our business continuity plan?'"

Although EHRs have improved tremendously in the last five years, physicians still rely heavily on faxes, printouts, and papers. At the same time, many HCOs may be reluctant to change to processes that rely more on automation because of cultural norms. As the healthcare industry shifts toward value-based care, automation will play a key role in making that vision a reality.

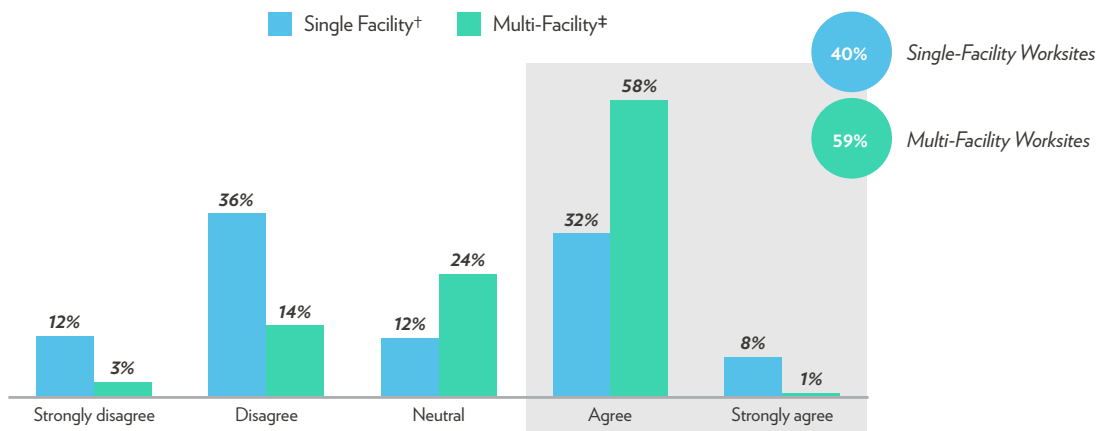## Where should HCOs begin introducing automation?

"Look for places where there are a lot of highly manual tasks that impact the patient experience, your staff's workflow, or your organization's financial survivability," said Thakur. "Revenue cycle management is one area that tends to have many inefficient manual tasks that are also the root cause of errors, which are hard to detect and expensive to fix later."

Interoperability is another important consideration when implementing workflow automation. Will the solution integrate with your organization's EHR, billing, and other digital backend systems?

Workplace culture can also play a major role in successful adoption. How physicians, nurses, and office workers interact with a solution is critical.

Figure 1. Healthcare leaders at multi-facility worksites are more likely to say automation functions* have been implemented compared to single-facility worksites

Please tell us your level of agreement with this statement: "My organization has implemented all below __automation functions,__ and they are curently a part of our daily workflow."

*See the Automation Solution Value Proposition statement at the conclusion of this white paper, which was shown to respondents
†Single Facility includes Academic medical centers, stand-alone hospitals, and specialty hospitals
‡Multi-Facility includes integrated delivery networks and multi-hospital systems
Base: Total Respondents: n=100

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To realize the true benefits of adopting automation, hospitals and health systems need to plan to support a cultural shift."

RORY FITZPATRICK | Partner Executive, Healthcare | Ricoh

"So often, we see organizations adopt an automated or partially automated solution, but they keep following the old process because 'that's the way we've always done it,'" Fitzpatrick said. "That leads to inefficient dual workflows. To realize the true benefits of adopting automation, hospitals and health systems need to plan to support a cultural shift."

Functionalities that support enterprise automation

Healthcare leaders report the following features are most often missing from their automation solutions: affordability, integration with other systems, and benefits related to audits, payments, and revenue, according to the survey (Figure 2).
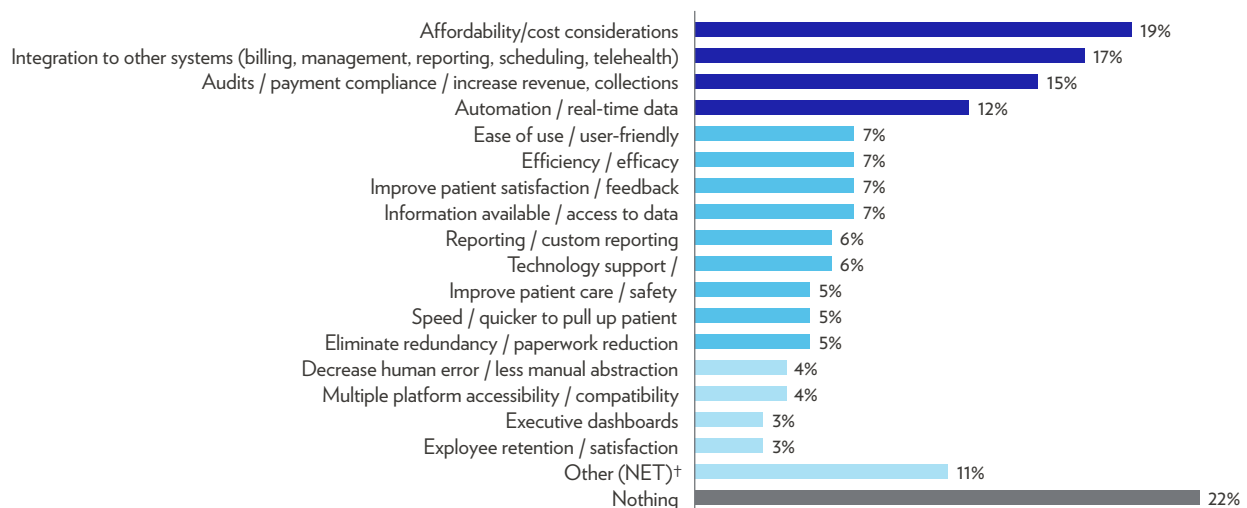
Thakur recommends adopting a multi-faceted automation solution that impacts your bottom line while improving patient outcomes – the two metrics are becoming increasingly connected.

"Oftentimes, hospital administrators have a narrow scope of return on investment into specific areas of automation," he said. "But the question they need to ask is what is the real cost of not doing the automation?"

Take patient referrals, for example. Buying a fax machine and telecom line may seem cheaper than investing in automation, but the financial implications to your health system for missing referrals due to incomplete or lost faxes could be highly significant. Similarly, the potential exposure to HIPAA violations

Figure 2. Top components missing from current automation solutions*, according to survey respondents

If an automation solution provider offered the below*, is there anything missing that would be important for your organization? (Open-ended) Please describe any additional benefits you think should be included in an automation solution which supported patient touchpoints.

Affordability/cost considerations	19%
Integration to other systems (billing, management, reporting, scheduling, telehealth)	17%
Audits / payment compliance / increase revenue, collections	15%
Automation / real-time data	12%
Ease of use / user-friendly	7%
Efficiency / efficacy	7%
Improve patient satisfaction / feedback	7%
Information available / access to data	7%
Reporting / custom reporting	6%
Technology support /	6%
Improve patient care / safety	5%
Speed / quicker to pull up patient	5%
Eliminate redundancy / paperwork reduction	5%
Decrease human error / less manual abstraction	4%
Multiple platform accessibility / compatibility	4%
Executive dashboards	3%
Exployee retention / satisfaction	3%
Other (NET)†	11%
Nothing	22%

*See the Automation Solution Value Proposition statement at the conclusion of this white paper, which was shown to respondents
Other (NET)† includes any response category with incidence <3%
Base: Total Respondents: n=100; question shown as an open-end response

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would be far greater if the fax machine is shared among different doctors or departments. At the same time, automation can help you process your backlog on time or have access to patient records exactly when you need them, greatly impacting patient care and workflow efficiency, according to Thakur.

"Over the last 10 years, hospitals have used a decentralized approach to automation, updating one department, one hospital, or a single part of the patient journey at a time," explained Fitzpatrick. "We've reached the 2.0 period of technology adoption, which means it's time to look at these investments from an enterprise standpoint."

Whether they have multiple facilities or are a single facility like a regional nonprofit, hospitals and health systems can achieve operational efficiencies when they consider patient volumes and downstream revenue opportunities. The key will be using automation to make documents with valuable patient data actionable, regardless of whether they're in an EHR, a text, email, or invoice.

What to look for in an automation partner

In the next two to three years, health systems expect to be automating claims processing, digital medicine, and telehealth, with billing being especially important to for-profit health systems (Figure 3).
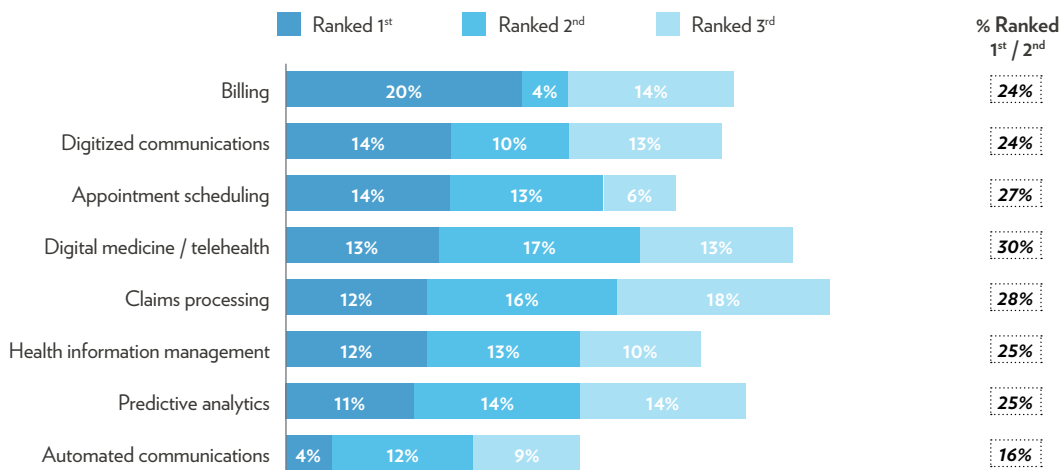
"Automation can help healthcare organizations streamline processes in so many ways, from improving the patient experience to optimizing the provider workflow," Fitzpatrick said. "Preventing the fragmentation of care, where different providers don't work well together, is another key benefit automation can bring to the table.

"When choosing an automation partner, look for organizations that understand real-world healthcare use cases and how to apply artificial intelligence and machine learning to those use cases," he said.

HCOs should also look for innovative partners that can help them improve the healthcare workflow so they can realize the full benefits of reducing errors, increasing capacity, and speeding up processes like referrals and exchanging patient information among providers.

Figure 3. Telehealth, claims processing, and scheduling expected to be most important to respondents in the next 2-3 years

Which of the following patient touchpoints are top of mind for your organization in the next 24-36 months?

	Ranked 1st	Ranked 2nd	Ranked 3rd	% Ranked 1st / 2nd
Billing	20%	4%	14%	24%
Digitized communications	14%	10%	13%	24%
Appointment scheduling	14%	13%	6%	27%
Digital medicine / telehealth	13%	17%	13%	30%
Claims processing	12%	16%	18%	28%
Health information management	12%	13%	10%	25%
Predictive analytics	11%	14%	14%	25%
Automated communications	4%	12%	9%	16%

Base: Total Organization Respondents: n=100

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"The partner they choose has to be able to demonstrate that they can decrease manual efforts, working toward reducing errors and mitigating security threats," he added.

The future of automation and healthcare

The COVID-19 pandemic brought to light the importance of business continuity, another key benefit of adopting automation solutions.

The health crisis and the consumerization of healthcare mean hospitals and health systems are ripe for a transformation from analog to digital. What's more, automation technologies can help them capture the tribal knowledge of older healthcare workers before they retire.

"Today's healthcare environment is data-rich but not data-driven," Thakur said. "You have a lot of information scattered around different places with very limited actionable insights. Five years from now, you'll see optimized workflows providing timely actionable insights and frictionless experiences for both patients and caregivers."

Automation is poised to pave the way for hospitals and health systems to rethink processes, become more efficient, and fully embrace the benefits of digital care.

To learn more about how Ricoh can enhance healthcare efficiency with automation solutions, visit ricoh-usa.com/healthcare.

*Automation Solution Value Proposition

HIMSS Market Intelligence. August 2021. Enterprise automation [survey, sponsored by Ricoh]. Chicago: HIMSS. Throughout the survey hospital and health system leaders were asked to consider an automation solution that offered the following benefits (i.e., an automation solution value proposition):

- Improve workload-to-resource ratio via automation
- Automatically match patient records through seamless EHR integration
- Improve business continuity by enabling remote workflow capabilities
- Improve response times for CMS and insurance audits
- Integrate with backend and revenue cycle systems
- Support multiple patient document sources, types, and formats
- Auditing and reporting to support compliance needs

Reference

1. HIMSS Market Intelligence. August 2021. Enterprise automation [survey, sponsored by Ricoh]. Chicago: HIMSS.

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