

Autonomous Revenue Management Playbook

Your guide to rethinking revenue management with automation and AI



It's become increasingly difficult for hospitals and health systems to maintain profitability.

Healthcare providers face shrinking margins as labor and medical supply costs continue to climb unchecked. And the payer mix continues to complicate the financial outlook for health systems, with many patients shifting from commercial insurance to Medicare or Medicaid. Over 30 million people remain uninsured altogether due to changes in employment and household income.

In 2020, hospitals lost **\$42.7 billion** to uncompensated care—a number likely to increase if things don't change.¹

Amid all these challenges arises a glimmer of hope autonomous revenue cycle technology that combines human knowledge with artificial intelligence (AI) and robotic process automation (RPA). Leaders in this space are plotting a course toward forward-thinking innovation. Innovation that makes revenue management easier, faster and more accurate for all. That's healthcare finance done right.

To shed light on the state of revenue cycle's digital transformation, we surveyed industry executives to learn where they are investing technology budgets today, and how they expect those investments to pay off in the future. The results show a very different strategy coming into focus.

Understanding the Scope of the Automation Opportunity

As with all industries, AI and automation are part of nearly every facet of revenue management technology. From automated prior authorizations to AI-enabled medical coding, to predictive denials management—emerging technologies are making a big impact on the repetitive and error-prone processes that drive production across today's revenue cycle.

Health system leaders are eyeing automation opportunities spanning the full revenue cycle. Front office patient access use cases are capturing the lion's share of interest, but demand for mid-cycle and back-office automation aren't far behind.



Fig 1. Automation opportunities rated "Must Have" or "High Value" by survey respondents. Q: Rank the following Al/ML/RPA use cases in order of value in an End-to-End RCM platform. Options: Must Have, High Value, Moderate Value, Minimal Value, No Value / Or Not Viewed as an RCM Technology. N = 38

AT A GLANCE Autonomous Workflows

Front office automation focuses on cultivating self-service patients

Health systems are reducing front office administrative workloads by empowering patients with robust selfservice tools. Relatively low complexity automation strategies are shifting basic tasks like appointment rescheduling, insurance verification and payment estimation away from the front desk and into the hands of patients.

Revenue integrity use cases are the closest to realizing fully autonomous workflows

Mid-cycle automation is home to the most comprehensive AI plays in revenue cycle. Ambient clinical intelligence technology is bringing natural language understanding (NLU) algorithms to the task of clinical documentation, reducing the need for clinicians to manually enter visit notes. AI-enabled medical coding technology applies pattern-matching algorithms to those notes to code visits with limited human intervention.

Back-office automation is tackling denials head on

Automation is evolving beyond claims status checking. Predictive models are being deployed in the claims space to forecast denial probability and kick off secondary reviews. Al is being used to identify the root cause of denials, and bots are being deployed to automate the appeals submission and status checking process.

USE CASES Top 10 Automation Priorities

The use cases for automation in revenue management are nearly limitless, but several key trends have emerged.

Top 10 ranked AI and RPA use cases across RCM

Average scored values for top 10 CFO ranked RCM technologies, based on a scale of 0 to 4, where 4=Must Have, 3=High Value, 2=Moderate Value, 1=Minimal Value and 0=Not RCM



Consensus Category: MUST HAVE HIGH VALUE

Fig 2. The top 10 automation use cases identified by CFO survey respondents. Q: Rank the following AI/ML/RPA use cases in order of value in an End-to-End RCM platform. Options: Must Have, High Value, Moderate Value, Minimal Value, No Value / Or Not Viewed as an RCM Technology. N = 14

Prior Authorization is the Most Sought-After Automation Capability

The automation of prior authorization processes is a priority for health system leaders. In fact, a consensus majority of CFOs consider it a "must have."

Front office staff manually check ever-changing prior authorization requirements on behalf of patients to determine when approvals are needed. Then, they must gather and submit the necessary documents for consideration, only to repeatedly monitor the status of their request. Supporting this manual process costs providers millions per year.

Using automation technologies, this load can be lightened for staff. Today, RPA and predictive analytics are being used to flag when prior authorization is needed. Automation technologies can gather necessary documentation and autocomplete prior authorization request forms. Bots then submit requests across appropriate channels and return to check for updates.

The benefits of automating prior authorization tasks are clear. From a time-savings standpoint, health systems are realizing an average **65% reduction in time spent on manual prior authorization**. They also report a 38% average reduction in time to receive a final decision on the request, allowing patients to access care faster. The financial implications of automating prior authorizations can be seen through reductions in denials, reductions in write-offs, and increased collections.



Prior authorizations were cited as one of the most expensive administrative tasks for providers in 2020 per a CAHQ report.²

Claims Processing Holds the Most Cost-Savings Potential

According to a recent CAQH report, electronic claims status checking has the highest potential to generate direct cost savings. CFOs agree, citing claims status checking and remittance matching as the highest-rated use cases for automation outside of prior authorization.

Health systems are beginning to deploy RPA and computer vision technology that allows bots to navigate payer portals, check claim status, and update provider billing software. Some go further, automatically advancing claims that have been paid so they drop off worklists; and flagging denied claims, or claims that require additional information, so that appeals work can begin faster.

Health systems are increasing remit matching by moving from paper to electronic remits, and by implementing optical character recognition (OCR) and batch scanning to move paper-based remits into electronic automation workflows.

In this space, algorithms are being used to match electronic remit advices (ERAs) to actual payments and originating claims. RPA is being used to post the payments to patient accounts. While this may handle most claims, there are still exceptions that require human attention. Machine learning (ML) techniques are solving this problem, allowing automated systems to learn how to handle complexity, so limited human intervention is necessary.



Automating claims remittance matching is the next most valued automation opportunity.

Bots Can Help to Auto-Appeal Denials

According to a study by the Medical Group Management Association, **more than 50% of denied claims are never reworked**. Each reworked claim costs approximately \$25 in added labor. CFOs are looking to automation technology to bring auto-appeal capabilities to life.

Today, most denials go unworked due to the manual labor involved. To rework a denied claim, providers first need to identify the reason for denial. Health systems are automating the root-cause analysis of denials by extracting remark and remit codes from the 835 responses. Denials are then being auto-categorized into "reasons for denial" buckets, such as authorization, eligibility, or patient responsibility. Denial worklists are then prioritized based on probability that the decision will be overturned on appeal. Complex cases are routed to employees, while simple cases can be automatically forwarded through an automated appeals process.

Organizations are using RPA to prepopulate payerspecific appeals forms with the information typically provided on similar successful appeals cases. Vendors that leverage ML will incorporate a feedback loop to continue monitoring inputs that lead to a positive appeal outcome for each denial type.

ROI of automating denials-related tasks is being measured through increased collections, number of billing FTEs redeployed to other areas of the business, and the overall reduction in denial processing time.



Health systems are beginning to leverage automation technology to appeal all noncomplex denials.

The Value of Autonomous Revenue Management

An autonomous revenue cycle can unlock real value for the healthcare industry.

Reduced costs

A shortened revenue cycle means reduced costs for all stakeholders. It means quicker payments to healthcare providers and reduced administrative burden for providers and payers.

Enhanced care

Successful implementation of an autonomous revenue cycle will result in faster access to care for patients and more time for healthcare colleagues to focus on their primary mission—to improve patient health and enhance the patient experience.

A simpler, more user-friendly healthcare system for patients

An autonomous revenue cycle will create a simpler, faster healthcare system for patients to navigate, with self-service scheduling, good faith price estimates, and digital payment options.

Increased satisfaction for providers and their staff

An autonomous revenue cycle allows human talent to work on more impactful endeavors. This enables physicians to spend more time with patients and healthcare workers to be more engaged in their jobs.

The current state of healthcare—

a costly problem for providers, payers and patients³

\$500B

Spent on administrative costs per year

\$395B

Spent on waste

\$90B

Spent on inflated pricing

120+

Payment cycle time, driving up cost to collect



Annual average family out-of-pocket cost



Navigation of healthcare system

The Road to Autonomous Revenue Management

Advancing your autonomous revenue cycle strategies takes work.

It requires a deep commitment to breaking down data silos, retraining colleagues, and improving workflow integration across interconnected systems such as financial clearance, charge capture, coding, claims, payer adjudication, denials management and collections. The entire revenue management process must be anchored in a unified data environment to flow smoothly and continuously. While this may seem like a hefty lift, it will create long-term efficiencies that will benefit everyone.

When healthcare finance becomes effortless, the boundaries of what are possible in healthcare expand.

Healthcare CFOs agree, and 28% report planned investments in end-to-end revenue management platforms in the next 12 months. To support the industry's shift to autonomous revenue management, healthcare leaders need to say "Yes" to these **5 simple steps**:

Start small. Deal with low-hanging fruit first. Begin with data-rich tasks that are manual, repetitive and easily automated.

Invest in technology. Analytics, RPA and AI/ML are the building blocks of an autonomous revenue cycle. These tools will allow you to build powerful algorithms and data interfaces that will intelligently automate all pieces of the revenue cycle. Investing in these emerging technologies and deploying them throughout the continuum of your revenue cycle will optimize your processes, increase efficiencies and improve your bottom line.

- 3 Invest in people. Building the framework for an autonomous revenue cycle requires specialized data science expertise in Al and ML. The best and brightest will need to be employed to build necessary algorithms. In addition, all employees who touch any portion of the revenue cycle will need ongoing training, education and upskilling, as well as structured career paths in order to keep them engaged in the process.
 - **Break down data silos.** Harnessing the vast amount of available revenue cycle data is key. Typically, systems focus on the data needed to be acted upon (the claim, encounter, etc.), but fail to gather data on how users interact with the data and systems. Once an optimal process of completing the work is identified, the task can then be automated.

5 Unite in a common goal. Each player in the revenue cycle has its own strengths. When they join forces and look at ways to build trusted systems that automatically adjudicate payments, they can collectively help achieve the holistic view needed to achieve an autonomous revenue cycle.

AUTOMATION Future Outlook and Market Perception

Most health systems' revenue cycle management processes are operating at Level 1 in terms of automation maturity.

As organizations move up in level of automation, administrative costs decrease and benefits to the stakeholders increase. At level zero, staff are too tied up with administrative tasks to focus on improving patient care. At level 5, cutting-edge AI and ML technologies are learning and performing all RCM functions, allowing healthcare organizations to focus on what matters most—serving their patient populations and establishing a healthy bottom line.

As revenue and margins continue to decline and regulations continue to change, providers are responding by investing in end-to-end technology that breaks down data silos and accelerates automation initiatives.

62% of healthcare executives say they will abandon their current revenue management solutions and migrate towards an enterprisewide, end-to-end platform when all "must have" and "high value" automation functionality is available on a single end-to-end platform.

Level 5 Fully Autonomous	The system(s) are capable of learning and performing all RCM functions under all conditions. People may have the option to control the system(s).
Level 4 High Automation	The system(s) can perform all RCM functions under certain conditions. People may have the option to control the system(s).
Level 3 Conditional Automation	People are a necessity, but aren't required to monitor the system(s). They must be ready to take control of the system(s) at all times.
Level 2 Partial Automation	RCM system(s) combine certain functions, people must remain engaged and always monitor performance.
Level 1 Human Operator Assistance	RCM system(s) are used but not controlled by people. Partially automated features are included in the design.
Level 0 No Automation	Zero autonomy; people manually perform tasks

FinThrive Can Help You Confidently Move Toward Autonomous Revenue Management





Our Platform

Revenue management requires a single, centralized, end-to-end platform that irons out the kinks across the cycle, allowing cash to flow freely between payers, patients and providers. FinThrive delivers a frictionless revenue experience – where healthcare meets software meets finance – to transform revenue management.

Why FinThrive

FinThrive – formerly nThrive and acquired companies, TransUnion Healthcare and PELITAS – is advancing the healthcare economy. Our 1,600-plus colleagues rethink revenue management to pave the way for a healthcare system that ensures every transaction and patient experience is addressed holistically. We're making breakthroughs in technology—developing award-winning revenue management solutions that adapt with healthcare professionals, freeing providers and payers from complexity and inefficiency, so they can focus on doing their best work. Our end-to-end revenue management platform delivers a smarter, smoother revenue experience that increases revenue, reduces costs, expands cash collections, and ensures regulatory compliance. We've delivered over \$7.6 billion in net revenue and cash to more than 3,245 customers worldwide. When healthcare finance becomes effortless, the boundaries of what's possible in healthcare expand.

"This feels like the full suite that we need."

-Chief Financial Officer

Revenue Management Automation Guide



For more information on our new vision for healthcare revenue management, visit finthrive.com.

Imagine revenue management without the friction.

See how it's possible with FinThrive.

Email solutions@finthrive.com to learn how.

SOURCES

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