METRICS THAT MATTER

The real ROI of AI: Must-track metrics for preventing denials + collecting more revenue

WAYSTAR

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Waystar's mission-critical software is purpose-built to simplify healthcare payments so providers can prioritize patient care and optimize their financial performance.

2025

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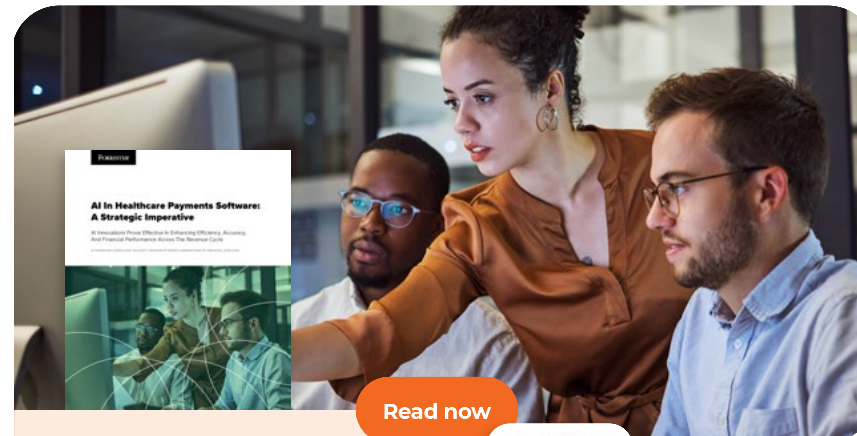
I. Introduction

Artificial intelligence (AI) in healthcare revenue cycle management (RCM) is no longer a theoretical trend — it's a proven force multiplier. From payment accuracy and denial prevention to staff productivity, AI is generating meaningful impact across the revenue cycle.

Yet many healthcare organizations still grapple with which metrics to track and how to gauge AI success. This report identifies the metrics that healthcare finance and IT leaders said matter most in a commissioned study conducted by Forrester Consulting on behalf of Waystar.

55% of decision-makers say

the top ongoing challenge of using AI in RCM is **finding the right investment areas**



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RESEARCH STUDY

AI In Healthcare Payments Software: A Strategic Imperative[1]

Published in June 2025, this study surveyed 316 finance and IT leaders from health systems, hospitals, and ambulatory care providers about the current state and impact of AI in healthcare payments software.

The research had a clear goal, which this report operationalizes: to help healthcare organizations move from AI experimentation to optimization using trackable ROI.

II. The impact of AI on denial prevention + mitigation

Claim denials are a massive challenge for today's revenue cycle teams. With denial rates reaching 12% in recent years,[2] leaders have been eager to deploy AI to mitigate denials — and those who have are already seeing results.

"More than half of denied claims ultimately get overturned, but the appeal process is time-consuming, complex, and error-prone for providers. Generative AI unlocks a new era of productivity and precision, transforming how the industry simplifies claims, appeals, and payment workflows."

Matt Hawkins, Chief Executive Officer, Waystar

27% improvement in denial prevention for organizations leveraging AI

DENIAL PREVENTION A "TOP BENEFIT" OF AI INVESTMENT

Denial prevention emerged as one of the most impactful AI use cases.

Leaders report AI-powered denial management **meets or exceeds expectations** **73%**

Organizations cite improved denial prevention as a **top benefit of AI investment** **56%**

Most organizations saw improvements in **both denial rates + recovery** **11-30%**

Successfully applying AI to appeals

Denials represent a significant administrative burden, often requiring staff to spend hours identifying root causes, gathering documentation, and building appeal packages. AI-driven solutions not only prevent more denials from happening, but also help resolve the ones that do happen faster by:

1. Prioritizing the denials most likely to be overturned
2. Generating highly effective appeals packages
3. Submitting those packages quickly with minimal human intervention

The result is not only fewer denials, but also faster resolution when they do occur.

"This latest data validates our view that organizations must approach denial management with a holistic strategy that incorporates robust frontend denial prevention," says Hawkins. "This end-to-end perspective, coupled with purpose-built technology to ease overburdened staff, will result in marked improvements for providers seeking to mitigate the payment delays and other business impacts that denials cause."

As AI continues to evolve, experts predict advanced algorithms will be able to detect the root causes of denials, offering real-time guidance for coders and front-office staff. This closed-loop learning creates a compounding effect: fewer errors, stronger compliance, and faster reimbursement.

CASE STUDY

Cincinnati Children's uses AI to increase revenue + reduce denials

Hear directly from the leaders of Cincinnati Children's Hospital Medical Center about how they use AI to improve processes, craft appeals, and eliminate 80% of manual work.

Watch webinar[4]

Read success story[3]

III. Beyond denials: A broader performance uplift

While AI made swift, significant impacts in denial management, its effect on the entire revenue cycle was wide and deep.

Leaders report the following when using AI:

Improved workforce efficiency

+ 88% experienced significant workforce efficiency gains (20%+ improvement)
+ 72% say their workforce now depends on AI to reduce manual tasks

Better accuracy + fewer errors

+ 85% say AI meets or exceeds expectations for transaction accuracy + error reduction
+ 60% believe AI-driven actions are more accurate than tasks completed by humans
+ Leaders report an average improvement of 18% in payment accuracy

Faster payments + increased cash flow

+ 36% report faster payer payments
+ Leaders report an average improvement of:
  + 21% in speed of payer payments
  + 22% in higher cash flow

Improved patient financial experience

+ Leaders report an average improvement of 37% in patient financial experience and collections
+ 76% say AI meets or exceeds expectations for faster eligibility verification

Better visibility in reporting + analytics

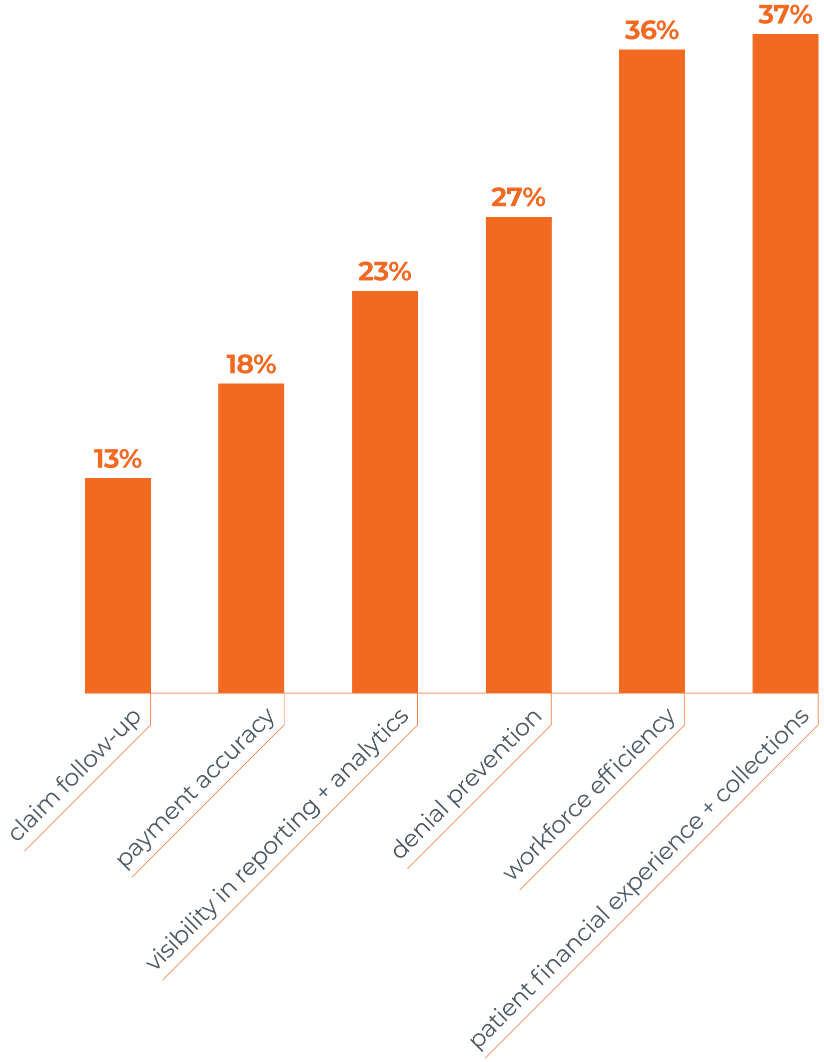
+ Leaders report an average improvement of 23% in reporting and analytics
+ 89% say AI — predictive analytics, machine learning — meets or exceeds expectations for analytics and reporting

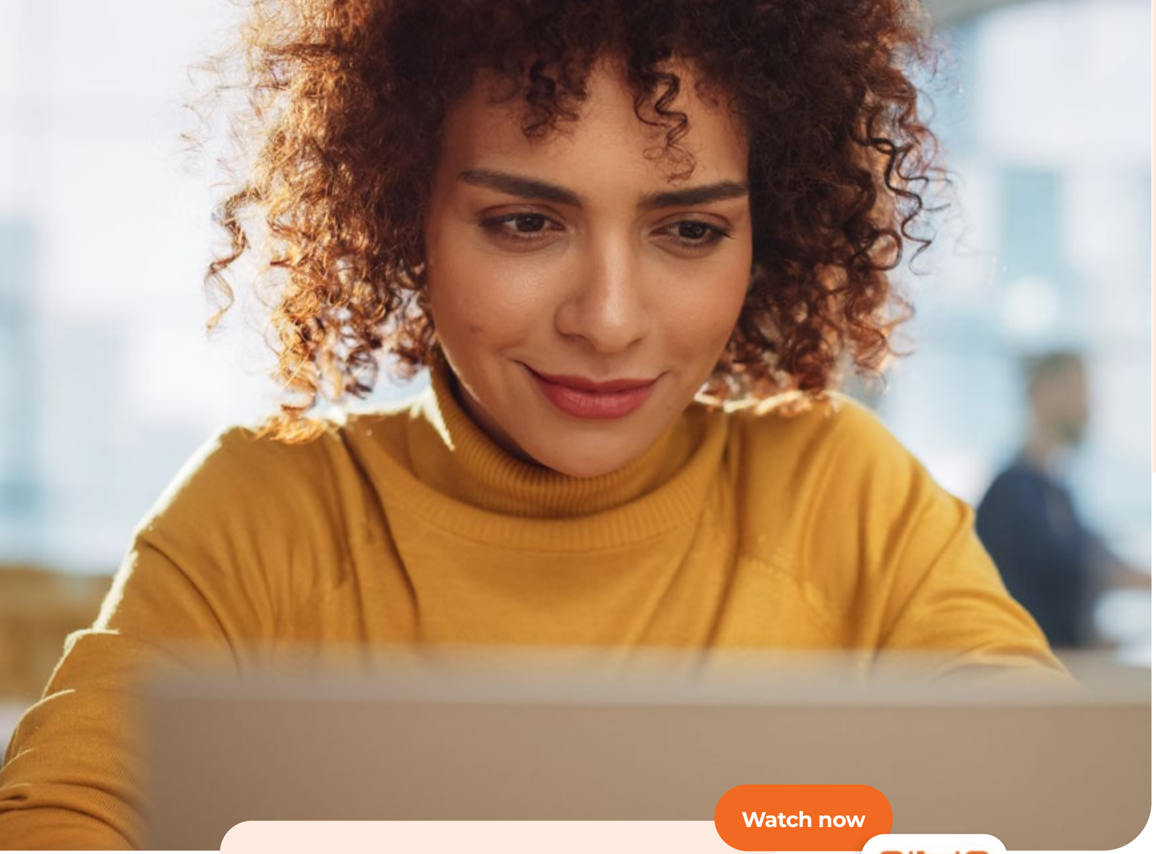
These gains reflect AI's ability to handle complexity at scale. From automating eligibility insights to suggesting correct codes and accelerating claim submissions, AI reduces friction throughout the billing process. This, in turn, shortens revenue cycles and improves cash predictability.

In addition, AI-enhanced analytics tools help revenue cycle teams proactively identify inefficiencies and workflow bottlenecks. Real-time dashboards and predictive modeling empower leaders to make data-informed decisions, improving both financial and operational outcomes.

AI-POWERED GAINS IN HEALTHCARE PAYMENTS

Leaders report improved performance in critical revenue cycle areas including:





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CASE STUDY

AI + advanced automation fuel the shift to outcome-based KPIs

Watch this 2-minute video[5] to hear from **Centerstone**, **Healthcare Performance Outcomes Co.**, and **Physical Therapy Billing Management** about using AI to:

+ Increase workflow efficiency
+ Gain visibility into commercial *and* Medicare claims
+ Resolve issues quickly for faster payment
+ Realize new revenue from underpaid claims

IV. Redefining success: The modern KPI playbook

Traditionally, revenue cycle success hinged on process-driven metrics. Today's AI-driven environment is shifting that focus to something more concrete: outcome-based KPIs.

Key outcome-based benchmarks include:

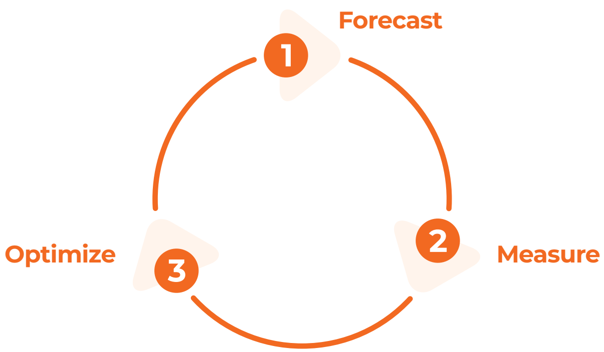
+ Cost-to-collect
+ Cash collections
+ Denial rate + amount
+ Patient revenue
+ Cash flow

AI is not just helping healthcare leaders hit these benchmarks — it's changing what operational excellence looks like. With increased visibility and advanced automation, teams can proactively manage performance, predicting areas of friction and mitigating them before they have an adverse impact.

From reactive tasks to proactive, trackable processes

This shift also encourages a more strategic mindset in RCM. Instead of reactive, task-oriented work, revenue cycle teams can now align performance goals with broader organizational priorities like patient satisfaction, margin improvement, and compliance. AI is catalyzing this transformation by providing the tools needed to forecast, measure, and continuously optimize.

AI is giving revenue cycle teams the capabilities to:



Ultimately, success in the AI era isn't just about doing the same work faster; It's about reengineering workflows, redefining roles, and reimagining how value is measured across the revenue cycle.

V. The AI investment outlook

AI is not just proving its value in RCM — it's inspiring an increased commitment to investments, both current and future.

ROI + VALUE OF AI IN RCM

59%

plan to increase their investment in AI over the next 1–2 years

15%

anticipate a **10%+ boost** in AI spending

31%

plan to stay the course with current AI investments

78%+

are willing to pay a premium for proven, high-performing AI capabilities

Percentages are calculated based on the number of survey respondents

AI INVESTMENT OUTLOOK

This growing investment is rooted in both performance and confidence. While 39% of leaders expressed concerns about trusting AI before implementing it, most no longer have any concerns about output integrity. Firsthand experience has validated AI's accuracy, reliability, and impact.

TRUST IN AI OUTPUT

39%

said **trust was a challenge** when deciding to invest

59%

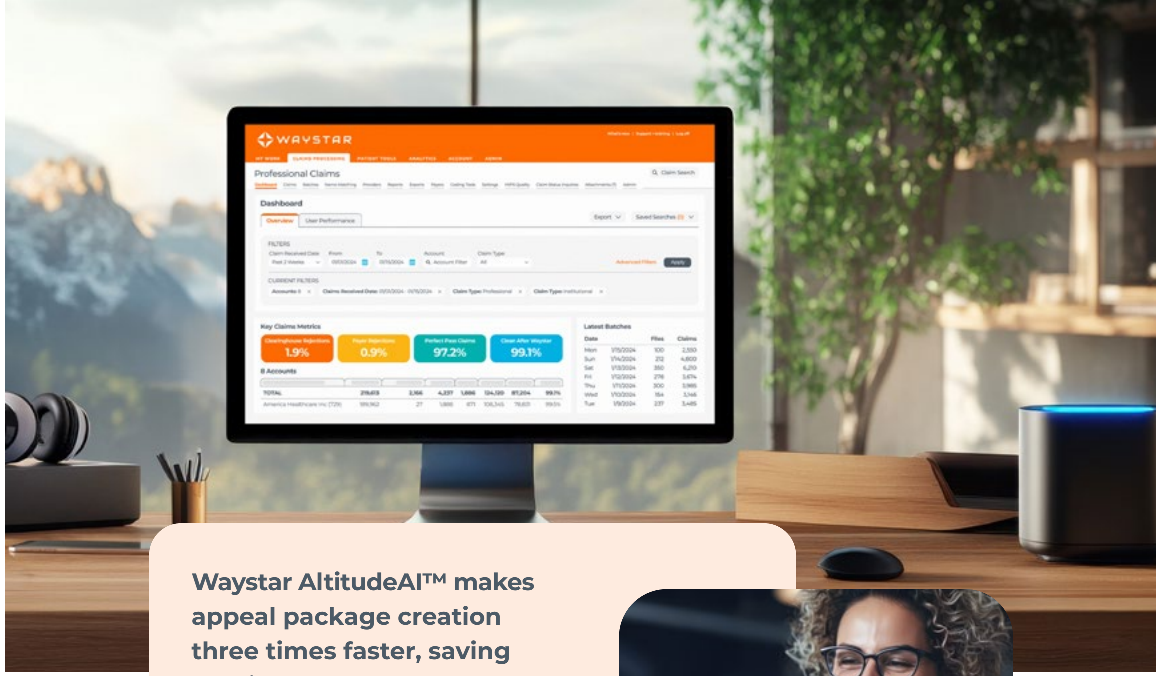
now report that mistrust has **substantially decreased** after using AI

18%

no longer have concerns about the integrity of AI output

Furthermore, as organizations shift to prioritizing payer-facing capabilities, such as agentic and generative AI, the ability to streamline appeals and automate documentation will continue to grow. Trusted RCM partners who integrate these innovations directly into existing systems are becoming the preferred route to implementation, accelerating time-to-value and minimizing disruption.

Percentages are calculated based on the number of survey respondents



Waystar AltitudeAI™ makes appeal package creation three times faster, saving 16 minutes per package. See how organizations like **Piedmont**, **in2itive Business Solutions**, and **Cincinnati Children's** are accelerating appeals and maximizing reimbursement across every care setting.[6]

Watch now

3X faster appeal-package creation

16mins saved per appeal package

2X higher denial overturn rate[7]

Waystar data, 2025

VI. Conclusion: Turning AI innovation into impact

By grounding AI investments in meaningful outcomes and redefining value, healthcare leaders can confidently transition from pilot projects to full-scale, ROI-driven AI strategies.

“This research reinforces what we’re seeing across the industry. AI is no longer theoretical and is fundamentally reshaping how providers operate,” says Matt Hawkins, CEO of Waystar.

With a thoughtful approach and proven partner, AI is no longer just a buzzword — it’s a business imperative.

“AI and generative AI unlock a new era of productivity and precision, transforming how the industry simplifies claims, appeals, and payment workflows. With Waystar’s AI-powered software platform, providers of all sizes are better equipped to optimize their end-to-end revenue cycle with unprecedented efficiency, accuracy, and ease.”

Matt Hawkins, Chief Executive Officer, Waystar

EXPLORE THE WAYSTAR SOFTWARE PLATFORM

- Financial Clearance
- Patient Financial Care
- Clinical Integrity + Revenue Capture
- Claim + Payer Payment Management
- Denial Prevention + Recovery
- Analytics + Reporting

Discover the way forward

waystar.com

Data-driven, trackable AI makes all the difference

See how Waystar can help your team define and achieve the metrics that matter most to your organization. Whether you need to leverage AI and advanced automation to reduce denials, accelerate payments, or empower staff, we can customize a plan for you.

Book a product tour

Citations

1. Forrester, commissioned by Waystar. **AI in healthcare payments software: A strategic imperative.** June 2025.

2. **2024 CAQH Index Report**.

3. Waystar + Cincinatti Children's. **Success Story: How Waystar's clearinghouse solution reduced costs while maintaining cash flow + strong AR metrics.** 2021.

4. Waystar. **On-demand webinar: AI in action. How 1 organization used AI to increase revenue + reduce denials.** 2025.

5. Waystar. **Waystar Analytics + Reporting: Provider groups yield powerful predictive results.** June 11, 2025.

6. Waystar. **Waystar Denial Prevention + Recovery: Health systems + providers accelerate appeals.** July 7, 2025.

7. **Waystar Early Adopter Program.** 2025.

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