MID-REVENUE CYCLE TRANSFORMATION

# The CFO Conversation Guide for the Mid-Revenue Cycle

*Five must-have questions to bring to your CFO — plus two expert briefings on AI, denials, and the data integrity beneath every EHR.*

5 MUST-HAVES TO ASK YOUR CFO

2 EXPERT BRIEFINGS

CODING · CDI · HIM · HEALTH IT

*Empowering Better Health.*

#1 HIM Advisory & Consulting Firm, Black Book™ · 20+ Years · 400+ Health Systems · Great Place to Work™ Certified

WELCOME

# Where clinical care becomes financial outcome

> *"The mid-revenue cycle is where clinical care becomes financial outcome."*
>
> Coding, CDI, HIM, and the Health IT that connects them — the link between the quality of care and the accuracy of reimbursement. Trusted by CFOs, Revenue Cycle, HIM, and Health IT leaders to optimize and transform the mid-revenue cycle.

### Coding

Accurate, compliant coding that maximizes reimbursement.

### CDI

Clinical documentation integrity that supports quality and capture.

### HIM

Complete, reliable data that drives performance.

### Health IT

Technology and analytics that turn data into action.

## How to use this guide

Start with the five questions on page 4 — the ones every Revenue Cycle and HIM leader should be ready to both answer and ask. Each pairs the "why it matters" with room to capture your own read.

Then turn to the two expert briefings: independent, published perspectives from e4health's subject-matter experts, mapping to the two halves of the mid-revenue cycle — AI and denials, and the data integrity beneath every EHR.

## Inside


**01** Why it matters now 3

**02** The Transformation Checklist 4

**03** Start the CFO conversation 5

**04** Briefing: Battle of the Bots 6

**05** Briefing: Assessing Your Team & Processes 8

WHY IT MATTERS NOW

# Your mid-revenue cycle is either leaking value — or creating it

*When coding, CDI, HIM, and IT operate in silos, revenue quietly leaks. When they work as one, it compounds.*

When coding, CDI, HIM, and IT operate in silos, revenue quietly leaks: avoidable denials climb, discharged-not-final-billed (DNFB) days stretch, and poor data quality undermines the very AI and EHR investments meant to move you forward.

Payers are now using AI to scrutinize every claim. EHR migrations and AI rollouts only succeed when the underlying data is clean. The leaders who get ahead treat data integrity as "Phase Zero" — and turn the mid-revenue cycle into a durable growth engine rather than a cost center.

**95%+**
CODING ACCURACY

**10%+**
CMI IMPROVEMENT

**99.98%**
ABSTRACTION ACCURACY

**30%+**
IT TESTING COST SAVINGS

*Representative outcomes achieved with e4health partners.*

### THE INTEGRATED VIEW

One mid-revenue cycle. Four functions that have to work as one. The accuracy of your reimbursement is only as strong as the documentation that supports it, the data that records it, and the technology that connects it — which is why the most resilient organizations stop managing these as separate departments and start managing them as a single, measurable system.

THE TRANSFORMATION CHECKLIST

# Five questions to bring to your CFO

*Every Revenue Cycle and HIM leader should be ready to answer these — and to ask them.*

## 1 Do we have a baseline?

VISIBILITY

Can we see avoidable denials, DNFB days, coding productivity, and case-mix index in near real time?

**Why it matters:** You can't manage what you can't see. Leading teams automate these metrics into near-real-time dashboards tied to specific decisions — which denials to prevent, which queues are blocking cash — instead of waiting on month-end reports.

## 2 Are payers out-automating us?

AI READINESS

As payer AI scrutinizes every claim, is our documentation and coding accurate enough to hold up?

**Why it matters:** Payers have entered an "arms race," using AI to mine documentation, tighten rules, and generate more complex denials. If your coding and CDI can't withstand that scrutiny, the loss is absorbed quietly — claim by claim.

## 3 Is our data clean enough to build on?

DATA INTEGRITY

Before any EHR migration or AI rollout — have we treated data quality as "Phase Zero"?

**Why it matters:** Every migration and AI model inherits the quality of the data beneath it. A clean eMPI and reliable abstraction protect the very investments meant to move you forward; skipping Phase Zero is how organizations automate their errors at scale.

## 4 Is HIM at the table?

ALIGNMENT

Are the people who own data integrity shaping IT and finance decisions — or finding out after?

**Why it matters:** HIM leaders own the legal health record and the integrity of the data within it. When they help shape IT and finance decisions early — rather than after go-live — migrations are safer, cleaner, and far less expensive to unwind.

## 5 Are we funding the future?

GROWTH

Could mid-revenue cycle gains become the cash engine for our broader digital roadmap?

**Why it matters:** Incremental gains in documentation integrity, coding accuracy, and denials prevention generate real cash. The leaders who pull ahead reinvest it — turning the mid-revenue cycle into the funding engine for their digital and cybersecurity priorities.

**Bring these to your next CFO conversation →**

*We'll help you map all five to your environment.*

**e4.health/contact**

START THE CFO CONVERSATION

# Turn the questions into a plan

*From five questions to one integrated roadmap across people, process, and technology.*

### Reduce revenue leakage

Protect and grow the revenue you've already earned — fewer avoidable denials, tighter DNFB, accuracy that holds up to payer scrutiny.

### Align Coding, CDI, HIM & IT

One integrated partner across people, process, and technology — so the four disciplines operate as a single mid-revenue cycle.

### Build a tailored roadmap

The right model, the right resources, and the right outcomes for your environment — with data integrity as Phase Zero.

E4HEALTH TRUSTED SOLUTIONS

## One partner, endless possibilities

**Clinical Documentation Integrity →**

Capture the full, accurate clinical story.

**Mid-Revenue Cycle Integrity →**

Connect documentation to reimbursement.

**Coding + Quality Auditing →**

Accuracy that withstands payer scrutiny.

**Health Information Management →**

Reliable, governed, ready-to-use data.

**Health IT Consulting →**

Technology and analytics that act on data.

**Five strategic pillars**

Accuracy You Can Trust · People + Technology · Transparency & Integrity · One Partner · Reimbursement Resilience.

ORIGINALLY PUBLISHED BY HEALTHSYSTEMCIO.COM

# As Margins Thin, the Mid-Revenue Cycle Is Targeted for Optimization — and AI May Be the Key

By **Anthony Guerra**, healthsystemCIO · November 25, 2025

Featuring **Nicholas Raup**, SVP, AI & Automation Solutions, e4health

**FAILING TO MODERNIZE** the mid-revenue cycle with AI-enabled workflows could become an existential issue for hospitals as payers deploy their own automation to scrutinize every claim. In the healthsystemCIO webinar "Exploring IT Optimization Opportunities in the Mid-Revenue Cycle," panelists from Providence, Nathan Littauer Hospital & Nursing Home and e4health described a function that sits between patient access and back-end billing yet increasingly determines whether care delivery models remain financially viable.

At Providence, the mid-revenue cycle (MRC) spans clinical documentation, charge capture and reconciliation, coding for both professional and facility services, HCC risk capture, case management and utilization management, order accuracy, denials prevention and the clinical-to-billing translation inside the EHR. Those workflows connect clinical activity to reimbursement and quality measures, and many are still heavily dependent on people executing complex processes reliably under pressure, leaving much opportunity for optimization.

For Nathan Littauer Hospital & Nursing Home, a rural facility in upstate New York, that middle layer has become the focus of survival strategy. "We always kind of say the mid-cycle's where the accuracy meets the value," said James Wellman, VP/CIO, Nathan Littauer Hospital & Nursing Home. "We want to get paid for what we are doing, be paid fairly and make sure we are getting the most out of that."

Nicholas Raup, SVP, AI & Automation Solutions, e4health, said the linkage between documentation and financial performance is direct. He argued that MRC now encompasses "all those processes and workflows from the point of service or care through discharge to pre-bill," making it a natural focal point for AI investment.

> *"All those processes and workflows — from the point of service or care through discharge to pre-bill."*
>
> **NICHOLAS RAUP**
> SVP, AI & Automation Solutions, e4health

## AI Arms Race With Payers Intensifies

Panelists agreed that common drivers such as margin pressure, cash-flow constraints, staffing shortages and rising audit intensity have made MRC optimization urgent. They also stressed a newer factor: payers' rapid adoption of AI to mine documentation, tighten rules and generate more complex denials. At Providence, leaders describe the emerging environment as a "battle of the bots," where payer algorithms continuously probe for reasons to delay or deny payment while health systems race to keep pace.

For a small rural hospital, that dynamic is particularly stark. "Without it, you are just going to hold off the inevitable," Wellman said of AI-enabled optimization. "You are going to be acquired or you are going to shut down and start losing services." He told attendees that his organization views the next three years as decisive for institutions living on razor-thin margins.

Technology leaders warned that injecting AI in MRC should not be framed as an optional enhancement competing with digital front door or cybersecurity initiatives. Instead, they cast it as the funding engine for those projects, since incremental gains in documentation integrity, coding accuracy and denials prevention can generate the cash needed to support broader digital transformation.

## Aligning Clinicians, Finance and IT

Underlying the technical discussion was a cultural challenge: the clinicians who must document care precisely often see revenue concerns as distant from their mission. Panelists described intensive work with CMOs, CMIOs and department chiefs to show, case by case, how missed documentation translates into lost revenue and delayed investments in new MRI scanners, ultrasound units and other tools clinicians are requesting. Wellman said his team shares de-identified examples, including a single case where incomplete documentation cost the organization $13,000, to connect clinical behavior with financial outcomes.

Change management surfaced as a second major theme. At Providence, optimization efforts deliberately avoid top-down mandates designed in isolation by IT. Instead, operational and clinical staff who will be asked to change their workflows are brought in early to define pain points, desired end states and acceptable trade-offs. That co-design model is meant to reduce resistance among already overwhelmed clinicians by turning them into champions rather than recipients of change.

From the services side, Raup emphasized that adoption improves when frontline staff see tangible benefits quickly. He described a pattern in which teams pilot a small change, recognize time savings or reduced rework, and then start asking what else the technology can handle. That "snowball" effect can turn early

skeptics into advocates, provided leaders are ready with a roadmap and governance structure to channel the new demand.

## From Dashboards to Product Mindset

All three panelists stressed that leaders need a clear view of current performance before deciding where to apply automation. Recommended dashboard metrics included denial rates and avoidable denials, first-pass yield, discharge-not-final-billed (DNFB) days, coding productivity and backlogs, CDI coverage, cost per claim and cost per encounter, as well as the impact of case-mix index shifts on revenue. Those measures, they said, must be automated, near real-time and directly tied to operational decisions.

At Providence, the goal is to ensure that every visualization is tied to a question such as which denials can be prevented, which queues are blocking cash flow and where AI-assisted coding or summarization could free staff to focus on higher-value work. "RCM behaves like a product because it has continuous ongoing users, continuous policy changes and multiple integration points," said Adar Palis, SVP of Clinical & Revenue Cycle Applications, Providence. Treating it that way, he argued, leads to higher adoption, better quality and more sustainable outcomes.

Raup urged organizations to move beyond one-off initiatives and adopt a product-oriented approach to MRC optimization: assigning a product owner, defining a roadmap, agreeing on KPIs and ensuring business stakeholders own the "what" while IT defines the "how." In that model, projects do not end at go-live; instead, the product is iterated continuously as payer rules, staffing and technology capabilities evolve.

Even as the conversation returned repeatedly to automation, panelists were careful to position AI as augmentation rather than replacement. "AI is a tool," Palis said. "It's a tool to help them do their job." At both Providence and Nathan Littauer, leaders described using autonomous or assisted coding to handle straightforward cases, redeploying coders into audit and exception roles, and using AI to automate prior authorization checks and payer-website monitoring where staffing gaps and tight labor markets make hiring difficult.

### Take It Away

1. Quantify a clear baseline for mid-revenue cycle performance, including avoidable denials, DNFB days, coding productivity, case-mix index and cost per claim.
2. Prioritize AI investments in mid-revenue cycle workflows as a primary source of funding for other digital and cybersecurity initiatives.
3. Convene clinicians, finance and IT leadership regularly to review real cases that link documentation quality to revenue, capital investments and patient access.
4. Redesign roles so staff are upskilled into audit, exception and analysis work while routine, rules-driven tasks are shifted to AI-enabled tools.
5. Build real-time, automated dashboards that drive specific operational decisions, and manage mid-revenue cycle optimization as a product with an owner, roadmap and KPIs.

**Reprinted with permission** from healthsystemCIO.com. © 2025 healthsystemCIO. Nicholas Raup is SVP, AI & Automation Solutions at e4health. Quotations reflect the views of the individuals cited at the time of the webinar.

JOURNAL OF AHIMA
ORIGINALLY PUBLISHED IN THE JOURNAL OF AHIMA

# How to Assess Your Team and Processes During Changes in Technology

**Todd Goughnour, MBA, RHIA**
SVP, Health Information Management, e4health

**Rich Amelio**
President, e4health

**Journal of AHIMA**
June 1, 2026

**FROM COMMUNITY** access hospitals to large, national health systems, many healthcare organizations plan to replace, consolidate, or upgrade their electronic health records (EHRs) systems this year.

Health information (HI) leaders often take this opportunity to assess every step of their department workflows including areas like release of information (ROI), coding, and denial management. Working with other department leaders, they can review entire processes from start to finish. The goal is to define the current state and the optimal state, compare them to best practices, and close any gaps.

These assessments provide directors with a roadmap for success and a list of clear action items. This ensures major EHR changes help the health system achieve its long-term goals: advancing organizational efficiency and improving patient care.

However, EHR change events aren't the only time to consider an HI assessment. They're also extremely beneficial for newly hired HI directors who need to understand their department's strengths and weaknesses, or for long-term leaders who want to resolve areas of concern. Here is practical advice for HI leaders preparing to conduct a department assessment.

## Three Reasons to Do an HI Assessment

The most common reason to perform an assessment is to prepare departments for a major EHR change. These often occur during the acquisition of a new hospital, a system conversion, or a major upgrade. An assessment gives directors the opportunity to take an objective view of people, processes, and technology that will be impacted by the change.

New directors benefit because they often don't have the time or bandwidth to take a deep dive into every aspect of department operations and workflows. A review provides insights for new directors to quickly know which areas need improvements in people, processes, or technology.

Focused assessments are a best practice when HI leaders want to focus on a single process or problem area — issues such as too much paper in off-site storage, higher-than-expected outsourced coding costs, or the inability to determine the root cause of a specific denial type. Leaders often have a hunch about inefficiencies or cost issues, but an assessment turns that intuition into specific, actionable improvements.

## Listen, Walk Through the Process, and Document

The first step involves listening to stakeholders to understand where the department believes problems lie. Most organizations already have an idea of their issues and the end goal they want to achieve.

Using LEAN methodology, on-site listening sessions are held with leaders from HI, IT, revenue cycle, and any other impacted department to share where challenges are occurring. It's also important to include at least one staff member or subject matter expert (SME) who performs day-to-day functions such as ROI, coding, record completion and delinquency reporting, denial management, and audits.

From there, assessment project leaders walk through each process step-by-step with the SME to document the current state of each workflow, observing and documenting:

- Each person and step involved in the process
- Every system involved and each keystroke taken
- All systems accessed
- All data entered and information required
- Outcomes and reports produced

IT analysts add value here, as they understand the nuances and limitations of each existing system, the integration points involved, and the future capabilities of a new system. Teams also conduct a thorough evaluation of all reports currently produced. The length of the assessment depends on the project: evaluating the revenue cycle from prior authorization to denial management could take four to six weeks, while more targeted assessments — the ROI process or document scanning — may require only two to three weeks.

## Define Gaps and Compare Best Practices

With the current state of each HI process defined, the next step is to lay out the optimal future state and identify gaps in people, processes, or technology. A side-by-side comparison of the current state with industry best practices quickly demonstrates the gaps. In most cases, technology gaps will be automatically remedied by the new system.

There is a difference between an "ideal" state and an "optimal" state. Participants often describe an ideal state as receiving every capability on their wish list; HI leaders should establish realistic expectations and redirect goals toward an optimal state. Redefining performance metrics matters too — by understanding which metrics are monitored and how they are measured, leaders can set new targets.

## Build the Roadmap and Action Lists

The final step is to create a roadmap with specific action items, divided into 30-, 60-, and 90-day lists and color-coded for low, medium, and high priority. Using medical-record completion and physician delinquency as an example, here are sample action lists:

**Sample roadmap · Medical-record completion & physician delinquency**

| 30-DAY ACTION LIST | 60-DAY ACTION LIST | 90-DAY ACTION LIST |
|---|---|---|
| Obtain all delinquency reports | Explore the situation for each delinquent physician (a trend, or were they on vacation?) | Update and finalize the delinquency / suspension policy |
| Analyze reports for patterns and trends | Separate outliers from true offenders | Educate physicians on the new policy |
| Identify problem physicians | Review the delinquency / suspension policy | Begin enforcing the new policy |
| | Meet with offenders and the Medical Director, reports in hand | |

Ongoing monitoring post-implementation is also necessary to ensure gaps are closed and the optimal state is achieved.

## Redefining the Legal Health Record

One of the most significant gaps for any organization preparing for a new IT system is formalizing its definition of the legal health record. Many struggle with this as systems are added or removed over time through mergers, acquisitions, and system attrition. Knowing the location of all medical-record information — and how long it must be retained — is a critical step. Data validation and migration cannot begin until the location of all health information is known.

> *"Data validation and migration cannot begin until the location of all health information is known."*
>
> A FIRST PRINCIPLE OF ANY EHR TRANSITION

Assessment teams should take a deep dive into each piece of the designated record set — examining each system, its interfaces, the location of digital and paper information, how the information is used, and its retention periods. For organizations serving multiple states, comply with the longest applicable retention period. Good starting questions include:

- What does an ROI specialist provide to someone requesting an entire medical record, and where do they access it?
- Is any paper still stored? Where, and how far back? Records still in your possession must be producible — even beyond the retention rule.
- Where do all users — clinicians, billers, and others — log in to view the complete patient chart?
- Which legacy IT systems are still accessible, and what data do they contain?
- What documents are required to meet HIPAA, legal, and compliance rules?

Consult legal and compliance throughout. These findings define the go-forward legal health record and designated record set, and determine which legacy systems and data will be migrated to the new EHR versus archived or maintained for access only.

## Collaborating with IT

HI leaders are trusted, proven, strategic advisors during any major IT system change. Especially when implementing a new EHR, their knowledge is essential to maintaining safe, compliant medical records. Data migrated into new systems carries a long-lasting impact on information quality and data integrity, so knowing what will be migrated versus archived is essential to keeping patient information complete, accurate, consolidated, and protected.

Furthermore, the master person index (MPI) of any new system must be as clean as possible on day one of productive use — less than a 1 percent duplicate record rate is considered a best practice. HI professionals, working with IT teams, ensure this is the case. Now is the time to get involved in go-forward data-management decisions: weigh in, ask the right questions, and protect the integrity of your patients' health information for years to come.

**Reprinted with permission** from the Journal of AHIMA. © AHIMA. Todd Goughnour is SVP, Health Information Management and Rich Amelio is President at e4health.

# Let’s design what’s next — together.

Bring these questions to your CFO. We’ll help you answer them — and turn the mid-revenue cycle into your next growth engine.

**Schedule a Conversation →** **e4.health**

### SOLUTIONS

Clinical Documentation Integrity

Mid-Revenue Cycle Integrity

Coding + Quality Auditing

Health Information Management

Health IT Consulting

*#e4health · #EmpoweringBetterHealth*

### E4HEALTH

Empowering Better Health.

Exceptional services delivered with unrelenting client focus — across Coding, CDI, HIM, and Health IT.

#1 HIM Advisory & Consulting Firm, Black Book™ · 20+ Years · 400+ Health Systems · Great Place to Work™ Certified