



Article

If Your AI Only Drives Efficiency, It's Falling Short

The Path to Better Outcomes Through Collaborative Intelligence™

mro™

Introduction

Hospital and health system quality teams are under pressure. Clinical data volumes continue to grow, increasing the complexity and manual burden of abstracting unstructured clinical data.¹ At the same time, labor shortages and growing demands for quality, compliance, and reporting are straining already overextended teams.² Many organizations are turning to AI to solve these challenges, but there's a reason 95% of healthcare AI projects fail.³ Most AI solutions reduce costs by automating tasks, but task automation alone doesn't solve the underlying challenge.

To overcome the typical hurdles that hold AI initiatives back, healthcare leaders need to start with a strong foundation.

AI does not solve broken infrastructure or inconsistent workflows—it amplifies them. Too often, organizations start with the technology and ignore the fundamentals that make it work. When clinical data is fragmented and workflows are disconnected, organizations usually achieve only short-term productivity gains without advancing how clinical data is managed, scaled, and used.

To overcome the typical hurdles that hold AI initiatives back, healthcare leaders need to start with a strong foundation: the infrastructure, workflows, and human expertise AI needs to thrive. With these elements in place, outcomes go beyond efficiency gains or cost reduction and fundamentally transform processes—creating compounding value.

This is the philosophy behind Collaborative Intelligence™: MRO's framework that combines AI, automation, and clinical experts. Each component strengthens the others, empowering health

1 Brian Eastwood. "How to Navigate Structured and Unstructured Data as a Healthcare Organization." HealthTech (May 8, 2023). <https://healthtechmagazine.net/article/2023/05/structured-vs-unstructured-data-in-healthcare-perfcon>.

2 Sai Balasubramanian. "The Healthcare Workforce Shortage is Growing; States are Rushing to Fix it." Forbes (November 30, 2025). <https://www.forbes.com/sites/saibala/2025/11/30/the-healthcare-workforce-shortage-is-growing-states-are-rushing-to-fix-it/>.

3 Sanjeev Kumar. "Why 95% of Healthcare AI Projects Fail—and How to Change This." Becker's Health IT (November 14, 2025). <https://www.beckershospitalreview.com/healthcare-information-technology/why-95-of-healthcare-ai-projects-fail-and-how-to-change-this/>.

systems to achieve superior outcomes at scale. When applied to data abstraction, the goal is not simply to make abstraction cheaper. It's to create a clinical data ecosystem that continuously improves, scales, and enhances the value of clinical data over time.

This article explores why healthcare AI initiatives often fall short, discusses the elements AI needs to succeed in healthcare, shares how a Collaborative Intelligence approach delivers improved performance, and shows how Prodigy™—MRO's enhanced-abstraction AI engine and the technology behind Collaborative Intelligence—applies these principles to transform data abstraction and ultimately make clinical data more valuable.

Why Most AI Initiatives Fall Short

Too often, healthcare organizations bolt AI onto a weak foundation and expect transformative results. But those underlying challenges don't disappear when AI is added to the equation—they scale alongside it. The result? AI struggles to deliver meaningful outcomes that extend beyond incremental efficiency gains.

Common barriers include:

- **Poor data quality.** When nearly 80% of clinical data is unstructured, having strong processes for data curation and quality checks is essential. AI that relies on incomplete or faulty data inevitably produces flawed insights.
- **Workflow inconsistency.** Varied processes lead to varied results, making it harder to standardize and scale AI outputs across the enterprise.
- **Fragmented systems.** AI that operates in siloed systems misses out on the key context it needs to learn and perform effectively, limiting its accuracy and impact.

These challenges underscore why AI readiness matters more than AI adoption alone. Organizations that see meaningful, lasting value from AI are those that build the foundation that allows AI to perform reliably, scale effectively, and continuously improve over time.

The Foundation AI Needs to Succeed

To move beyond isolated efficiency gains and deliver exceptional outcomes with AI, organizations need to start with the underlying infrastructure. AI requires an environment in which it can operate consistently, integrate into workflows effectively, and produce outputs healthcare teams can trust.

AI does not replace human expertise; it performs better when it's paired with human judgment.

The right foundation should involve:

- **Interoperability.** Before AI can create value, data must become accessible. A centralized infrastructure that facilitates clinical data exchange throughout the organization helps hospitals acquire, structure, and route information from disparate systems into the workflows and applications that need it. This gives AI—and healthcare teams—access to the critical information needed to generate reliable insights and support informed decision-making.
- **Standardized workflows.** AI has a far greater impact when it can transform entire workflows as opposed to executing individual tasks.⁴ To do that, organizations need consistent, optimized processes that enable AI to operate reliably throughout the organization.
- **Robust data integrity.** Strong data integrity processes, including multiple quality checks throughout the data lifecycle, ensure outputs are accurate and trustworthy.
- **Human oversight.** AI does not replace human expertise; it performs better when it's paired with human judgment. AI brings unprecedented speed and scale while humans provide their experience, clinical knowledge, and the contextual understanding needed to apply insights appropriately.

⁴ Kristin Burnham. "How AI is Reshaping Workflows and Redefining Jobs." MIT Sloan School of Management (April 22, 2026). <https://mitsloan.mit.edu/ideas-made-to-matter/how-ai-reshaping-workflows-and-redefining-jobs>.

Collaborative Intelligence: Shared Learning for Better Outcomes

Collaborative Intelligence fosters confidence in AI-assisted decisions through continuous feedback loops between human judgment and AI recommendations. Through this shared learning, humans and AI are continually improving with each iteration, leading to superior outcomes neither can achieve alone.

Automation eliminates friction in the workflow	AI accelerates identification, prioritization, and pattern recognition	Clinical experts validate, contextualize, and ensure defensibility
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The principles behind Collaborative Intelligence have long been the basis of MRO's work. For over two decades, MRO has fostered a strong commitment to clinical expertise, data integrity, and continuous training. This is what creates the foundation for Collaborative Intelligence to thrive.

Together, the following core elements form the foundation for Collaborative Intelligence:

- **Strong clinical expertise.** Our over 1,000 clinical experts draw from their extensive healthcare experience to expertly curate data: 85% had at least a decade or more of hospital experience prior to joining MRO, and they hold a combined 1,500+ certifications across dozens of clinical specialties.
- **Automation built on trusted infrastructure.** Automation delivers the greatest value when it can operate consistently across the enterprise, eliminating friction and reducing manual effort across workflows. MRO's interoperability framework provides the infrastructure that makes this possible.

- **Comprehensive Data Integrity System.** Our Data Integrity System uses a dedicated team of clinical data experts, a series of quality checks at every stage, and AI-assisted software to ensure clinical data is as accurate, complete, and consistent as possible. MRO's clinical experts spend over 11,000 hours per month conducting quality-related checks on data.
- **Continuous training.** MRO's clinical data experts never stop learning. The Institute, MRO's elite training program, gives new data experts the skills they need to work effectively with AI tools and curate data to an elevated standard. Further, all clinical data experts complete ongoing continuing education through professional development programs to stay current on industry changes.

Prodigy™: How Collaborative Intelligence is Transforming Clinical Data Abstraction

Clinical data abstraction presents a unique challenge for AI. Approximately 80% of clinical data is unstructured, requiring abstractors to interpret doctors' notes, image scans, and other formats that require nuanced clinical context. At the same time, the volume of data healthcare organizations generate continues to grow, making it increasingly difficult for humans alone to curate data efficiently.

Prodigy provides **60%** data coverage and up to **99%** accuracy, helping hospitals scale abstraction without sacrificing trust.

Prodigy, MRO's enhanced-abstraction AI engine and the technology behind Collaborative Intelligence, is designed to address this challenge.

Rather than replacing clinical experts, Prodigy supports them, helping teams process large volumes of complex clinical data more efficiently while maintaining the oversight, contextual understanding, and quality standards healthcare demands. Prodigy provides 60% data coverage and up to 99% accuracy, helping hospitals scale abstraction without sacrificing trust.

Embedded within Q-Apps®—the proprietary technology stack MRO's clinical data experts already use for abstraction—Prodigy integrates directly into existing workflows, enabling AI-assisted abstraction without disrupting established processes.

Prodigy runs on MRO's Clinical Data Exchange Platform (CDXP), a proprietary, FHIR-native interoperability framework that ingests data from EMRs in any format, structures and organizes it for a multitude of use cases, and makes the data accessible for use. As a result, Prodigy can be seamlessly deployed across registries, service lines, and environments.

The Collaborative Intelligence Loop

Prodigy Suggests

Prodigy reads unstructured clinical documentation—including notes, reports, and results—to identify relevant evidence and suggest values for supported fields. Each suggestion is accompanied by the source excerpt from the chart, a confidence rating, and a plain-language explanation of how the suggestion was generated.

Clinical Expert Reviews

Abstractors review Prodigy's suggestions and accept, modify, or reject them based on clinical context, registry definitions, or the complete patient record.

The System Learns

Each abstractor interaction feeds Prodigy's ongoing refinement, helping the system improve over time based on the types of cases, specialties, and registries it supports.

Quality is Validated

MRO's Data Integrity System applies additional quality checks throughout the data lifecycle to ensure data accuracy, completeness, and consistency.

Data Becomes Actionable

Once validated, the curated clinical data flows into registries, dashboards, research environments, or wherever it's needed—with the audit trail intact.



Conclusion

The healthcare industry's expectations for AI have grown. It's not enough for AI to simply be efficient; it needs to drive outcomes. Achieving those outcomes requires a sustainable model where AI, automation, and human expertise continuously strengthen one another. This is the foundation of Collaborative Intelligence, a continuously learning system where every interaction improves the next. When Collaborative Intelligence is applied to data abstraction through Prodigy, the result goes far beyond cost reduction or reduced manual burden: healthcare organizations unlock greater value from their data. With actionable clinical data made accessible across the enterprise, hospitals and health systems are poised to better support quality improvement initiatives, maximize reimbursements, advance research, and expand the impact of their existing data.

About MRO

MRO is The Single Source for Smarter Data™—driving a new era of clinical data intelligence where data is connected, structured, and transformed into actionable insights.

The result: confident decisions, accelerated research, operational precision, and most importantly, better patient care. This innovative model for clinical data management is built for speed and scale, combining FHIR-native connectivity, deep clinical expertise, and advanced automation to turn a fragmented healthcare ecosystem into a connected pathway where every data point delivers impact.

The outcome is a faster, smarter, more secure model for managing enterprise clinical data that drives better outcomes and creates revenue-generating opportunities for our clients without compromising security, compliance, or clinical integrity.

With 24 years of trusted solutions and partnerships, MRO knows that a stronger healthcare ecosystem begins with smarter data, leading to data-driven decisions and better performance. Learn more at www.mrocorp.com.

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for **Smarter Data™**