AI for Healthcare Needs Interoperability (More than Anything Else)

Why the most important AI investment in healthcare isn't AI at all.

By Marilee Benson, President & Cofounder of Zen Healthcare IT.

Almost every healthcare conference in 2026 has the same opening keynote: AI is going to transform everything. And they're not wrong. But there's a problem that isn't always given as much attention as it deserves.

AI is only as good as the data you feed it.

And right now, some are trying to build the penthouse before they've poured the foundation.

The Dirty Secret Behind Healthcare AI

Here's what the AI pitch decks don't mention: Many healthcare organizations still struggle with data exchange. Patient records are scattered across different providers and EHR systems, each one a silo with its own EHR, varied data exchange capabilities and data standards support, and in some cases, its own reluctance to share.

When an AI clinical decision-support tool gets incomplete data, it doesn't throw up its hands and say "I need more information." It gives you an answer anyway. A confident, well-formatted, completely unreliable answer.

That's not a technology problem. That's a patient safety problem.

Interoperability Isn't the Boring Part. It's the Hard Part.

There's a reason interoperability has been healthcare's stubborn challenge for decades. It's technically complex, operationally disruptive, and - let's be honest - it doesn't make for exciting investor slides.

But consider what's actually happening in the “data exchange” ecosystem right now:

- Building on the success of Carequality, TEFCA has exploded. The federal government's Trusted Exchange Framework went from roughly 10 million records exchanged as of January 2025 to **nearly 607 million as of March 2026**. There are 14,214 organizations live on TEFCA (QHINs, Participants, and Subparticipants) representing over 80,000 unique facilities (clinicians, hospitals, clinics, post-acute care/long-term care facilities, public health authorities, etc).
- Information blocking enforcement has teeth. ASTP/ONC has begun issuing its first "notices of potential non-conformity" to certified health IT developers. The era of lip service to data sharing is ending.
- Non-traditional players are connecting. The **Social Security Administration just announced it's joining TEFCA** to speed up disability benefits decisions. When federal agencies outside of healthcare start plugging into the network, you know the infrastructure is becoming essential.

The message is clear: the national plumbing for health data exchange is evolving - fast. Organizations that aren't connected are going to find themselves left out of the ecosystem entirely. And their AI initiatives will suffer if they sit on the sidelines.

What "AI-Ready" Actually Means

When healthcare leaders say they want to be "AI-ready," most of them mean they want to buy AI tools. But true AI readiness looks more like this:

Clean, standardized data. AI models need inputs in consistent formats. FHIR-based data normalization isn't a nice-to-have anymore - it's the prerequisite. As a **recent analysis in HIT Consultant** put it, only 43% of hospitals are routinely interoperable today - leaving the majority working with fragmented data that AI simply can't trust. AI-ready organizations are using tools to bridge legacy CDA standards to modern FHIR standards, rather than wait on their EHR or CDRs to provide updates.

Comprehensive data access. A clinical decision-support algorithm assessing a patient's risk profile is only useful if it can see the full picture. That means data from every provider that patient has touched - not just the ones inside your four walls. This is where connections to healthcare data exchange frameworks like Carequality and

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TEFCA become critical. An AI tool working with partial data isn't just less useful. It potentially could cause harm.

Real-time data flow. Event-driven, real-time integration architecture is what makes AI actionable at the point of care.

Data governance and monitoring. You need to know that the data flowing into your AI systems is accurate, timely, and complete. That means monitoring your interfaces, fixing issues and errors, and having clear accountability for data flows and data quality.

The Integration Layer Is the AI Layer

Here's the reframe that matters: interoperability infrastructure isn't separate from your AI strategy. It is your AI strategy.

The integration platform that connects your internal systems and ensures real-time exchange across care settings - that's the same platform that makes AI possible.

Organizations that invested in robust integration infrastructure over the past several years? They're the ones deploying AI successfully today. Not because they bought the best AI tools, but because they built the data foundation those tools require.

Where to Start

If your organization is serious about AI in healthcare, here's the honest roadmap:

1. **Audit your current connectivity.** How many of your systems are actually connected? How many are sending structured data vs. unstructured documents? How is national exchange fitting into your treatment focused AI workflows? Where are the gaps?

2. **Get connected to the national networks.** If you're not yet participating in Carequality and/or TEFCA, you're missing the full picture of the patient that treatment focused AI needs.

3. **Be Prepared to Bridge CCDA & FHIR standards.** The industry has chosen its direction. USCDI v7 (still in draft mode) will expand the set of standardized

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data elements, and FHIR-based exchange is becoming the baseline expectation of new exchange use cases. But, 99% of all treatment based data exchange is still CCDA based. Find tools that bridge this gap to future proof your approach. (If you need help - **ask Zen**.)

4. **Invest in integration monitoring**. You can't trust AI outputs if you can't trust the data feeding them. Monitoring tools that track interface health and reliability are essential - not optional.

5. **Think platform, not point solutions.** A managed interoperability platform that handles both direct point to point integrations and national network access gives you a single foundation that serves both your current operational needs and your future AI ambitions.

The Bottom Line

AI will absolutely transform healthcare. But the organizations that benefit most won't be the ones that moved fastest on AI adoption. They'll be the ones who built the strongest data interoperability infrastructure underneath it.

Interoperability isn't just the step before AI. It's the step that makes AI work.

Ready to Build Your Foundation?

If your organization is planning - or already investing in - AI-powered clinical tools, a key question is whether your data interoperability infrastructure can support it.

Zen Healthcare IT provides Healthcare organizations the interoperability backbone needed to make AI effective, bridging legacy and modern data standards and providing certified access to national exchange (with access to both the Carequality and TEFCA trust frameworks.)

Click here to schedule a free interoperability consultation: **Talk to our team →**

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