Transforming Raw Clinical Data into Actionable Insights: How Healthix is Putting AI to Work

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Healthix, one of the largest U.S. public health information exchanges (HIE), sits on one of the richest longitudinal clinical datasets in the nation. But value-based care and AI demand more than scale. To turn millions of records into trustworthy point-of-care insights, the HIE pairs rigorous data quality discipline with InterSystems HealthShare AI Assistant, enabling clinicians to quickly find, summarize, and interpret patient data in context—in seconds, not minutes.

Healthy Data is Foundational for Healthcare AI

Healthix securely aggregates patient health data, across New York State, from 9,000+ sites including hospitals, ambulatory care facilities, behavioral health organizations, labs, and more. The HIE maintains active data on approximately 21 million patients, with a total longitudinal dataset covering around 50 million individuals.

But Todd Rogow, President and CEO of Healthix, is quick to point out that raw data alone does not create value. For years, Healthix has invested heavily in what Rogow calls the "three Cs" of data: completeness, conformance, and consistency, which together ensure that data is comprehensive, standardized, and structured in a predictable, usable way.

Healthix's long-term commitment to data quality proved instrumental when the HIE began pursuing AI opportunities. Healthy data is essential for obtaining accurate AI insights and making well-informed decisions. Without complete, conformant, and consistent data, AI outputs become less reliable and far less useful in clinical settings.

HealthShare AI Assistant generates concise patient summaries in seconds, replacing multiple screens and lengthy notes with a single, cohesive report.

Making Sense of Clinical Data

Healthix's first AI initiative is intended to help clinicians review patient records and gather insights much more quickly and effectively. Longitudinal health records often span years of encounters, multiple providers, clinical notes, lab results, and reports, making it difficult to pinpoint the data that matters most.

Healthix leverages **InterSystems HealthShare AI Assistant** to make it faster and easier for providers to find the information they need. The AI-based assistant features a conversational interface that lets clinicians query, summarize, and navigate complex longitudinal health records using natural language prompts, all within the context of existing clinical workflows. It helps providers save time and effort and improve focus.

"Every doctor wants something different," explains Rogow. "It depends on the patient and the situation. A diabetic patient drives one set of questions. A relatively healthy patient drives another."

With HealthShare AI Assistant, physicians can speak or type questions in plain English or select from predefined prompts. A primary care physician, for example, can request a succinct patient summary that highlights recent diagnoses, medications, abnormal lab results, and recent hospital or emergency department visits.

Early results show the AI Assistant quantitatively improves clinician workflows, reduces time spent reviewing records, and surfaces useful and actionable intelligence.

From Minutes to Seconds at the Point of Care

HealthShare AI Assistant generates concise patient summaries within seconds. Information that previously required navigating multiple screens and reviewing lengthy notes can now be accessed through a single, cohesive report.

The assistant brings together relevant details from across the longitudinal record, including recent encounters, diagnoses, medications, lab results, and clinical documentation. By consolidating this information into context-specific summaries, the tool helps providers quickly understand a patient's clinical picture without manually searching through prior visits and reports.

Trust, Privacy, and Safety by Design

As a steward of protected health information, Healthix treats trust and privacy as a core AI design principle. All AI processing takes place in a private cloud environment for data security purposes. When a clinician submits a query, the system assembles only the relevant portions of the patient record, applies appropriate consent policy and access controls, generates a response, and then discards the working data. Patient information is never used to train models, retained beyond the scope of the query, or shared outside the Healthix environment.

"That trust factor is everything," Rogow says. "We are a trusted entity. We manage the data within the framework of state and federal regulations in an environment that is HITRUST certified. It is not sold or reused. It is there to support treatment and care management."

Patient safety is also paramount. The assistant does not write to the medical record, modify data, or act on its own. Nor does it offer medical advice. Clinicians retain full responsibility for interpreting information, making clinical judgments, and documenting care.

Each AI response includes references to the underlying source material, making it easy to confirm accuracy. Providers can view the specific labs, notes, and documents used to construct each summary.

The Road Ahead for Healthcare AI

HealthShare AI Assistant quantitatively improves clinician workflows, reduces time spent reviewing records, and surfaces useful and actionable intelligence.

Based on the success of the AI Assistant project, Healthix is exploring an array of relevant AI opportunities. Looking ahead, Rogow sees enormous potential in applying AI to unstructured clinical content. The HIE manages roughly 100 million transcribed documents, including radiology reports and hospital discharge summaries.

"That is the next frontier for us," Rogow says. "How do we unlock clinically relevant information from those documents and bring it into our structured data so it can support care, research, and population health?"

Healthix also views AI as a key enabler for value-based care. As accountability for outcomes increases, organizations need a complete view of patient activity across care settings. AI can help surface quality measures, identify gaps in care, and support more proactive interventions.

Rogow's longer-term vision extends to patients themselves. AI-powered tools could help individuals understand their medical information in plain language and navigate increasingly complex care journeys.

Learn how AI can make comprehensive health data available wherever your teams work.

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