

Next-Generation AI Assistants Deliver Holistic Healthcare Insights



Longitudinal health records powered by AI assistants, deliver the comprehensive insights needed to strengthen care for individuals and populations over time.

GenAI, Large Language Models, and Natural Language Processing are Fundamentally Transforming Healthcare

Visit any clinic today and you'll likely be asked to allow an AI-powered EHR assistant to record the interaction for notetaking. These first-generation AI companions automatically document encounters so caregivers can focus more on patients. Many of them also let clinicians access patient data and summarize charts using plain language requests to save time and improve preparedness.

AI-powered EHR assistants streamline clinical workflows and enhance patient care, but health and care activities are rarely limited to a single healthcare organization or a single EHR system. Over their lifetime, most people receive care from many different providers, paid for by numerous health plans, and documented in a multitude of electronic record systems. The next-generation of digital health solutions are taking on the bigger challenge of delivering data insights across that entire health and care journey, pairing AI assistants with longitudinal health records (LHRs) to provide the comprehensive insights needed to strengthen care for individuals and populations over time.

LHR-driven AI assistants improve care efficiency and quality while streamlining intensive, error-prone processes.

The Value of LHR-Driven AI Assistants

LHRs combine disparate data from different sources into a unified record, spanning encounters and settings. But the more extensive the record, and the more diverse the data, the more difficult it is for a busy person to draw rapid and relevant inferences from it.

LHR-powered AI assistants make it fast and easy to access and analyze data from across the entire care continuum. These next-generation AI companions help healthcare professionals:

- Unearth key insights buried deep within fragmented patient histories to make timely, well-informed decisions
- Interpret clinical information in context for accurate diagnostics and treatment planning
- Improve continuity of care and coordination across providers and settings
- Simplify workflows and save valuable time through natural and conversational interfaces

By providing holistic insights, the latest AI assistants foster meaningful improvements in care efficiency and quality, and clinician and patient satisfaction. Many next-generation assistants support no-code prompt configuration to simplify deployment and set up.

Benefits Beyond the Exam Room

LHR-driven AI assistants offer value far beyond the exam room. Healthcare providers, health plans, public health agencies, life sciences companies, and other healthcare organizations can use them to streamline a wide range of manually intensive and error-prone processes. They can help case managers, quality specialists, clinical coders, prior authorization review specialists, scientists, and others surface insights in formats designed for faster, data-driven decisions.

Improving Insights and Outcomes: Next Generation Healthcare AI Assistant Benefits	
Functional Team	Potential Benefits
Care Delivery	Faster clinical decisions, reduced burnout, improved care quality
Healthcare IT	Strategic AI deployment with governance and interoperability
Care Management	Accelerated triage, referral support, and care transitions
Risk Adjustment	Efficient HCC validation, reduced missed coding opportunities
Quality Management	Real-time care gap identification, streamlined quality reporting
Public Health	Faster outbreak response, smarter surveillance, improved population health insight
Life Sciences/Research	Accelerated trial screening, improved protocol adherence

Future AI assistants will flag risks early, guide evidence-based interventions, and empower patients to better understand and manage their health.

Conclusion

Healthcare organizations are under constant pressure to boost outcomes, optimize operations, and improve patient experiences. The data to achieve these objectives usually exists, but it is often scattered across different systems in different formats. The latest AI assistants make it fast and simple to process, summarize, and contextualize fragmented health and care data from across the patient journey, helping healthcare organizations improve clinical results and business performance.

The role of AI in healthcare is still evolving, but the trajectory is clear. As AI becomes more deeply integrated into clinical and operational workflows, its ability to interpret data, predict outcomes, and make recommendations will continue to grow. Future AI assistants will help clinicians proactively flag emerging risks before they escalate, guide care teams toward evidence-based interventions, and help patients better understand and manage their own health data to take a more active role in their care.

Get Your Data AI-Ready and Accelerate Success with InterSystems

When choosing a partner for your AI solution development, you need more than just technology. You need a company with deep healthcare expertise, a principled approach to AI, and the technical capabilities to get the job done.

InterSystems has been a leader in health data management and standards-based interoperability from the earliest days of digital health. Much of the industry has relied on and grown with InterSystems. In fact, globally, more than one billion health records are managed by digital health solutions built on InterSystems technology.

Visit our website to learn more about our [AI-powered healthcare solutions](#).

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