

Transforming Healthcare Payer Efficiency with AI



Table of contents

Introduction

-
- 3 Industry background:
payers and processes
 - 4 How Teradata supports
strategic transformation
 - 5 Key takeaways and next steps

The healthcare industry faces financial headwinds, shifting patient expectations, and mounting regulatory pressures. To stay agile, payers must adopt AI-driven automation and real-time analytics for cost control, regulatory compliance, and improved member experiences. Teradata enables “business refactoring” through advanced data analytics and agentic AI, helping healthcare modernize operations and adapt to change.

Industry background: payers and processes

Healthcare is facing unprecedented cost challenges

due to inflation, tariffs, and increased utilization across key demographics. The expiration of ACA subsidies and changes to Medicaid programs and policies will intensify these pressures, reduce the insured population, and shift cost burdens to employers and employees through higher premiums, deductibles, and co-pays.

States will face increased administrative demands even as federal funding declines, leading to more unreimbursed care. This could push financially strained health systems toward insolvency, further limiting patient access to care. In this climate, healthcare organizations must adopt AI technologies that deliver real operational impact.



Today's payer landscape

Health insurers are grappling with rising costs, demands for transparency, and evolving federal and state regulatory frameworks. Key functional areas that are under pressure include:

- **Health insurance sales and business development:** To increase market share in a competitive landscape, insurers can utilize AI/ML to predict successful member acquisition strategies. They can also deploy empathetic AI agents to contact members and guide them through the renewal process.
- **Pharmacy benefit management:** From balancing costs, availability, demand, and pricing transparency, pharmacy benefit managers face increasing complexity in managing formularies. Agentic AI can streamline this process by autonomously identifying and fulfilling state-specific regulations for changing formularies, ensuring compliance with step therapy mandates, and communicating changes to members.
- **Provider network management:** Providers are facing high employee attrition, rising costs, and facility closures. With fewer patients enrolled in insurance plans, ER and urgent care utilization is expected to rise. Intelligent AI agents can help reduce costs and improve retention by eliminating redundant tasks. Predictive models can identify impacted ER services and forecast periods of overcrowding.
- **Legal and regulatory affairs:** Maintaining compliance with complex and evolving regulations requires constant attention to risk management and reporting. AI agents can be used to detect critical regulatory changes, monitor key metrics, and suggest ways to manage potential impacts—before they escalate into issues that could result in fines or penalties.

Across all these areas, AI automation is a strategic imperative. Manual processes drain resources and slow workflows, impacting member satisfaction and financial performance. AI can relieve administrative burdens, accelerating operations and improving member experiences.

How Teradata supports strategic transformation

Over the last few decades, healthcare organizations have leveraged Teradata's in-database analytics with ClearScape Analytics® to develop production-ready, scalable machine learning models. Recently, Teradata has established itself as a leader in the creation of contextually aware generative AI models, seamlessly integrating large language models with locally stored data. Teradata Vantage® now also supports the development of highly context-aware AI agents that continuously monitor for unusual billing patterns, unnecessary imaging, and other anomalies, proactively flagging questionable claims before payout.

As payer organizations compete for a shrinking pool of members, operational efficiency is essential. To remain financially sustainable and thrive in a constrained environment, successful health insurers will need to use advanced data and AI systems to uncover meaningful patterns and insights in both membership groups and provider networks. Key imperatives include:

1. Flexible AI agents with contextual awareness:

Move from rules-based bots and rigid robotic process automation (RPA) tools to AI agents that can support, extend, and enhance human teams. These agents can leverage real-time insights from Vantage to provide timely, relevant intelligence.

2. Cost containment and AI-driven automation: Prioritize high-impact processes, such as claims processing, member engagement, regulatory reporting, and provider network management. By using AI tools that integrate with Vantage, business leaders can access deeper insights from data already stored on the platform to make critical decisions. The goal is to reduce per member/per month costs and improve medical loss ratio (MLR)—without raising benefit plan costs or skimping on member service.

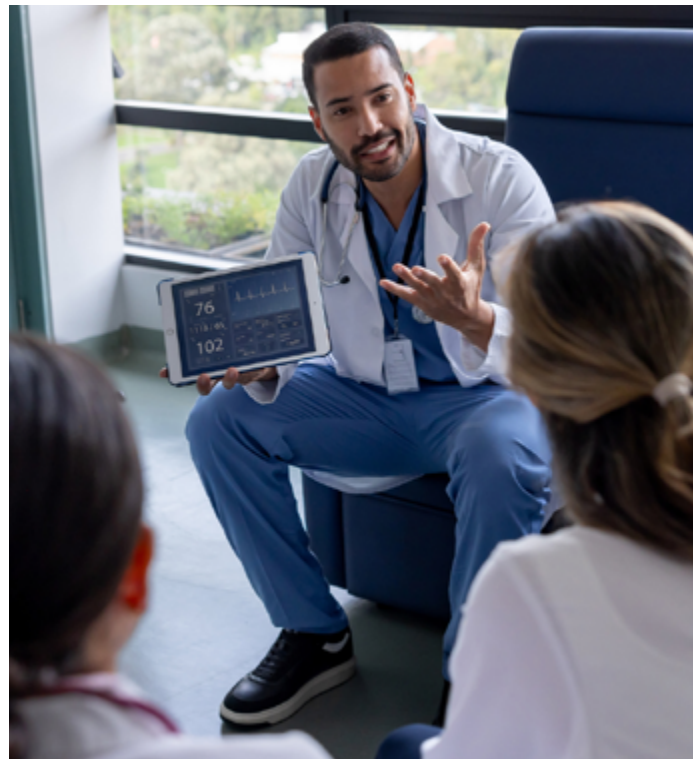
3. Accessible data and insights: Provide tools that make it easier to find and access data from Vantage and other systems—without the constraints of legacy, API-driven architectures. Enable users, based on their access rights, to request and analyze data using natural language. Use intelligent AI agents and Teradata's Model Context Protocol (MCP) Server to help users create tailored features, applications, and data products.

The power of MCP and agentic AI

MCP is reshaping how applications are developed and delivered. Instead of relying on traditional software, which requires developers to predefine every function, MCP enables AI-driven interfaces that respond directly to user intent. Users can simply ask for a new function, and the system generates it—eliminating the long development cycles typical of conventional applications.

This shift allows for both fixed, predictable features and dynamic, adaptive responses. Developers can still build standard functions, but agentic AI can interpret and fulfill unique user requests in real time. This empowers end users with unprecedented flexibility—boosting productivity for routine tasks and enabling innovation in research and discovery.

Teradata is investing in MCP and agentic AI because this model delivers high productivity and rapid creation, unlocking new possibilities across industries.



Key takeaways and next steps

Healthcare is entering an uncertain era with new market pressures. For payers that aim to thrive amid disruption, AI-powered, full-context enterprise intelligence is the new strategic edge. AI agents empowered by Teradata Vantage® can quickly deliver value—from data curation to automated audits and claims. These tools can reduce costs and free up skilled workers for higher-value tasks. Organizations using Vantage can encourage cross-team collaboration by ensuring data products, insights, and AI agents are readily shareable and consumable across the organization.

Contact your Teradata account team to learn how to leverage your existing data-rich Vantage platform and agentic AI to lower costs and drive efficiency across the business.

About Teradata

At Teradata, we believe that people thrive when empowered with trusted information. We offer the most complete cloud analytics and data platform for AI. By delivering harmonized data and Trusted AI, we enable more confident decision-making, unlock faster innovation, and drive the impactful business results organizations need most. See how at [Teradata.com](https://www.teradata.com)