

Modernizing the healthcare revenue cycle with integrity

Ensemble Health Partners uses Databricks to uncover insights that optimize revenue management



Databricks serves as the foundation for our future platform growth — helping us leverage AI to access accurate data in an expedited way.

GRANT VEAZEY
EVP and Chief Technology Officer, Ensemble Health Partners

Ensemble Health Partners helps ensure the financial health of healthcare providers through data-driven revenue cycle management (RCM). To accelerate healthcare payments efficiently, Ensemble relies on complex medical data to streamline interactions along the claims transaction journey. The company's legacy processing infrastructure was complicated, disjointed, and slow, distracting teams from driving innovation and client value. Using the Databricks Data Intelligence Platform, Ensemble is uncovering new insights with reliability, speed, and scale.

Now, it's applying payer behavior patterns + insights to prevent denials, optimize claims processing, improve insurance collections, and enhance recovery services so that providers can focus on patients, not payments.



INDUSTRY
Healthcare and Life Sciences

SOLUTION
Forward-looking Intelligence

PLATFORM USE CASE
Databricks Data Intelligence Platform, Delta Lake, Unity Catalog, Notebooks

CLOUD
Azure

10x
Reduction in failure rates related to data and infrastructure

2x
Improvement in performance with accelerated runtimes

800TB+
Financial + operational health data managed by Databricks

Struggling to manage data within complex platforms and pipelines

Ensemble Health Partners set off to unify its multi-module, revenue cycle management (RCM) insights engine, Ensemble IQ (EIQ), for accurate and consistent data efficiently. Unfortunately, with legacy SSIS and SQL server-based processing, Ensemble struggled to reliably surface and sync data across various platforms and reporting repositories promptly. Pipelines were slow and unreliable across the ETL process. The result was unreliable data and complicated client workflows that kept Ensemble from accelerating value to their customers.

Grant Veazey, EVP and CTO at Ensemble explains, “Our previous approach required each client to have their own database, which inherently added layers of complexity and overhead, pushing up opportunity costs that could be better served driving innovation and value to clients. Sure, we were already harmonizing data at the client level — with half of our providers having multiple databases — and potentially having multiple EHR instances, but data was still siloed in each client database.”

To simplify and foster confidence in its data, Ensemble wanted to modernize its underlying data infrastructure with a lakehouse architecture. This would allow Ensemble to unify its data across different environments with a single source of truth to support standard enrichment activities to drive more uniform reporting. Ensemble needed a scalable platform that could power upstream data-based decision-making and downstream client services — improving operations across the board — including cash collections, capturing revenue, optimizing reimbursements, and personalizing call center interactions.

Data integrity and reliability on the Databricks Platform

Ensemble decided to standardize its data and AI on the Databricks Data Intelligence Platform, allowing them to easily integrate data across the revenue cycle, drive use cases, and unlock efficiency with a holistic view of the entire claims transaction journey.

With Delta Lake as its core storage layer, Ensemble has improved the reliability and consistency of its ETL pipelines — helping to keep data synced and accurate across environments using the same enrichment layer. Uniformity in data processing and unobstructed insights allow Ensemble to reconcile costs with a client’s host system accurately. This new capability ensures data integrity across Ensemble’s application, analytics, and Power BI visualization layers, building trust and growing loyalty with clients.

From an efficiency and cost perspective, Ensemble is gaining speed without needing to increase labor. Mike Wilson, VP Data Engineering at Ensemble says, “The reusability of the pipelines is great for integrity. We know this pipeline works well so we’re going to reuse it. It also helps with our implementations so that we can onboard new clients much faster, allowing us to scale without having to add more people to support those new clients.”

For data governance and security, Ensemble relies on Unity Catalog to manage fine-grained access to different types of data with uniform standards. The Databricks Notebooks help with cross-team collaboration as data users can explore and share data more efficiently and securely. Armed with these capabilities, Ensemble can break down data silos, expand payer insights, and distribute analytics with understanding to fulfill their use cases.

Standardizing medical data for actionable payer insights

Since migrating EIQ to the Databricks Data Intelligence Platform, Ensemble has gained new insights and functionality to improve services at scale. Now, the company is moving faster with fewer resources, a simple lakehouse architecture, and access controls to become more data-driven with efficient results.

“We’ve seen a 2x improvement in performance and a 10x reduction in failure rates,” explained Mike. “Now our data teams are moving faster than ever before.” Rapid ETL processes accelerate the analysis of current and relevant data to provide accurate insights for clients. To further reduce tech debt, Ensemble is treating batch and real-time processing in a singular way to push consistent data streams to dependent downstream applications.

With scalability limits a thing of the past, Ensemble can efficiently consume more than 25 billion transactions and 100,000 payer updates and rule changes each year. It’s leveraging over 25,000 variables to continually inform and tune over 5,500 ML models supporting end-to-end RCM intelligence. These insights have helped them improve overall operations including minimizing the rescheduling of customer meetings, improving charge coding accuracy to prevent claims denials, speeding the appeals process, prioritizing collections opportunities, and identifying underpaid claims. Call center improvements have also been made using an API that surfaces specific information for agents to provide a personalized customer experience, while also informing other customer service channels like live chat.

Veazey concludes, “As a data-driven business, Databricks has given us an advantage in the marketplace because we’re able to see insights across 20 customers and growing. The value of that asset, not only for us and our clientele, but for the industry is going to be vast.”

Moving forward, Ensemble will continue growing customer data for payer insights on the Databricks Platform, expanding its use of generative AI across the revenue cycle and data sharing to continue expanding data availability.