

Transforming renal care outcomes through modern value-based data platform

The client is a leader in integrated, value-based kidney care, and is guided by a physician-led team dedicated to enhancing patient outcomes and decelerating chronic kidney disease progression. It stands as the preeminent nephrology Provider platform, actively participating in Medicare CKCC Kidney Care Choices Model. It leverages advanced predictive data analytics, clinical workflows, and extensive chronic kidney disease member data to drive superior patient outcomes.

In its quest for data platform and technological advancement, it sought collaboration to refine its data infrastructure and bolster Datawarehouse functionalities.

CitiusTech emerged as the partner of choice, spearheading the implementation of the Medallion framework. This initiative revitalized master table updates, advancing the precision in identifying Provider, patient, and hospital data. Moreover, it unlocked data access for users, enabling sophisticated analytics to meet the chronic kidney care needs of its members.



CASE STUDY

**BUSINESS
CHALLENGE**

Navigating business complexities: Understanding the challenge

With the client's growth came the challenge of aligning its expanding analytics demands with its evolving business strategies. The organization pinpointed the need for modernizing its technology, platforms, and enhancing data warehouse capabilities. The challenges were multifaceted:

Complex data management

The absence of a unified data ingestion template from diverse sources like EMRs and HIEs led to inaccurate and unreliable reporting, thereby hampering decision-making. This lack of standardization also stymied scalability, making new data source integration cumbersome.

Operational inefficiencies

The expansion of client's member and Provider database introduced difficulties in maintaining data accuracy, particularly in uniquely identifying members from varied sources. This issue, compounded by a complex Provider database structure, resulted in slowed billing processes and reimbursement delays.

Data integrity concerns

The inconsistency in data led to unreliable reporting, undermining the trust in information provided. Furthermore, the absence of a standardized data ingestion approach escalated development and maintenance costs, while also delaying decision-making processes.



THE SOLUTION

Crafting a modern data ecosystem: The solution unveiled

- **Technology modernization:** Transitioning from Tableau on-premises to Tableau Cloud facilitated a scalable analytics environment adaptable to changing business needs, enabling remote data analysis and decision-making. The shift from flat files to Athena Data View Model simplified data exploration and querying for end users. Azure services (ADF) were utilized for seamless data ingestion from Snowflake to the Datawarehouse.
- **Datawarehouse enrichment:** The Provider master was optimized by consolidating cross-reference tables, streamlining data retrieval. A unique algorithm was developed to amalgamate member/patient data from various sources, creating a unified patient master that ensured data integrity and eliminated duplicates.
- **Platform modernization:** Implementing Microsoft Purview enhanced data governance, allowing client's users to efficiently manage and organize data. The adoption of Databricks SQL and Data Lake Gen2 for HIE data ingestion and transformation, alongside the re-engineering of HIE and EMR pipelines using Databricks Notebook, simplified maintenance and enhanced processing capabilities.

BENEFITS DELIVERED

Harvesting strategic advantages: Realizing the benefits



Streamlined data ingestion processes, reducing manual effort, and enhancing scalability



Eliminated the need for on-premises infrastructure management through the transition of **350+ users** to Tableau Cloud, ensuring immediate access to the latest features and security updates



Reduced the time to insights significantly with data warehouse enrichment and platform modernization initiatives, fostering quicker decision-making and providing a competitive edge



Shaping Healthcare Possibilities

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