

Case Study: Healthcare Data Model for Integrated Renal Care Reporting

Client Requirements

The client is a leading provider of renal care solutions, with more than 35,000 employees and serving nearly 150,000 patients annually worldwide.

Client wanted to enhance its nephrology dialysis solutions and services to offer integrated treatment plans, personalized care teams and convenient health management services to drive CKD (Chronic Kidney Disease) and ESRD (End-Stage Renal Disease) care initiatives. In order to do that, client needed to build a HIPAA-compliant, powerful renal care reporting and analytics solution that would leverage the rich CKD and ESRD data to provide meaningful insights.

To meet these objectives, client partnered with CitiusTech to implement a scalable BI and reporting solution with integrated analytics capabilities and to build a configurable data model to support large volumes of data.

Organizations) reporting needs

- Provide patient-centered care
- Reduce readmissions and improve care coordination

BI-Clinical for Healthcare BI/ Reporting Integrated with IBM UDMH

CitiusTech leveraged IBM Unified Data Model for Healthcare (UDMH) and other IBM technologies (PureData System for Analytics, DataStage, Cognos, etc.) to develop an end-to-end reporting solution. CitiusTech put together a team of BI and interoperability experts to design and develop the solution:

Data Analysis and Mapping to IBM UDMH:

- Aggregating CKD, ESRD and other data from client sources (ADT, ORU, ORM, Claims, etc.)
- Deduplicating, cleansing and standardizing data
- Mapping IBM UDMH data elements to source data
- Identifying IBM UDMH extensions to ensure complete coverage of source data to IBM UDMH

Data Extraction and Processing using BI-Clinical:

- Extracting data from IBM UDMH into BI-Clinical data marts
- Processing ACO/ ESCO and custom measures using a configurable BI-Clinical Rules Engine
- Enabling audit and logging data

Compliance and Access Implementation:

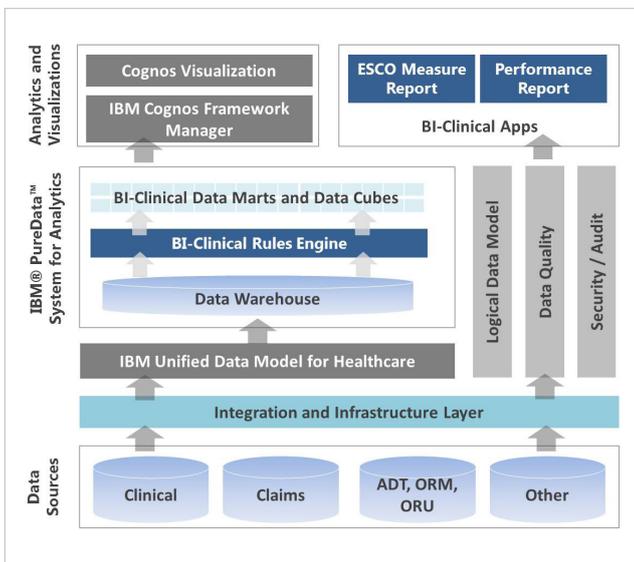
- Implementing multi-tenant role-based access and control (RBAC)
- Implementing strong, granular and auditable security controls
- Ensuring HIPAA compliance

Data Presentation: Visualizing and presenting data using Cognos BI/ analytics tool

Value Delivered

By partnering with CitiusTech, the client was able to:

- Leverage CitiusTech's strong BI/ analytics expertise for ESCO reporting and improve clinical and business outcomes
- Leverage CitiusTech's expertise in IBM technologies to build a scalable and configurable data model
- Accelerate deployment by reusing existing technology platforms and components, leading to faster go-to-market for client's solution



CitiusTech Solution

Requirement Analysis

CitiusTech team conducted a detailed assessment of client's requirements. The solution was required to:

- Integrate and coordinate healthcare services across its strategic business initiatives (SBIs)
- Address ACO/ ESCO (ESRD Seamless Care

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About CitiusTech

CitiusTech is a specialist provider of healthcare technology services and solutions to medical technology companies, providers, payers and life sciences organizations, with over 2,700 professionals worldwide. CitiusTech's services and solutions include healthcare software development, healthcare interoperability, regulatory compliance, BI/analytics, consumer engagement, care coordination and population health management. CitiusTech helps customers accelerate innovation in healthcare through a number of solutions and accelerators for clinical quality reporting, healthcare big data, cloud computing, mobile health and predictive analytics. With cutting-edge technology expertise, world-class service quality and a global resource base, CitiusTech consistently delivers best-in-class solutions and an unmatched cost advantage to healthcare clients worldwide.

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