Client Requirements

Client is a leading provider of healthcare information and services to assist patients and physicians in making better healthcare decisions.

Client needed to enhance its clinical quality measure (CQM) reporting and decision support capabilities to help healthcare providers accelerate their population health management initiatives.

CitiusTech was selected by the client to create a robust healthcare data model that can aggregate and store massive amounts of data from multiple sources including unstructured data sources. Client also leveraged BI-Clinical to manage and report complex clinical quality measures (MU, HEDIS, PQRS, VBP, etc.) for compliance and to provide powerful analytics.

CitiusTech Solution

BI-Clinical for Healthcare BI and Reporting Integrated with IBM Technology Stack

CitiusTech leveraged IBM technologies - UDMH, PureData System for Analytics, DataStage and Cognos - integrated with BI-Clinical to create a configurable, flexible and scalable data model and provide advanced analytics.

CitiusTech put together a team of clinical informatics specialists, healthcare BI engineers and Netezza professionals to conduct a detailed analysis of the client's existing data environment and to implement the solution.
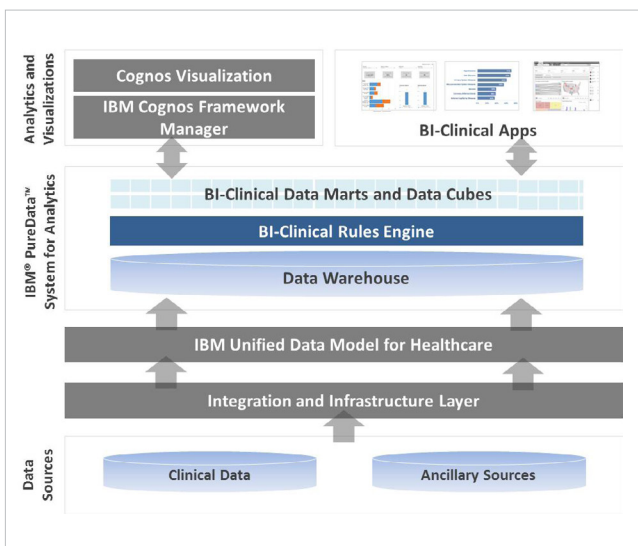
Solution Design and Development

- **Data Ingestion and Staging:** Ingested and stored clinical data received in QRDA and CSV formats; Reconciled, cleansed and standardized data

- **Data Aggregation and Storage:** Leveraged IBM UDMH on Netezza to provide a flexible and scalable data warehouse design to store structured as well unstructured data

- **CQM Definition:** Defined custom CQMs as per the clinical data available within UDMH

- **Compliance Processing:** Leveraged IBM PureData System for Analytics and its standards-based, pre-built advanced analytics capabilities along with configurable BI-Clinical Rules Engine to accelerate processing and calculation of CQMs for compliance

- **Data Presentation:** Provided interactive visualizations and reports using Cognos

- **Data Security:** Implemented data security at domain, organization, provider and facility level

Value Delivered

By partnering with CitiusTech, the client was able to:
- Leverage CitiusTech's expertise with IBM UDMH and PureData System for Analytics to build a robust, configurable data model that could process high volumes of data
- Use BI-Clinical to deliver quantifiable measures and actionable intelligence for key use cases such as point-of-care decision support, population health reporting, etc.
- Develop a scalable analytics solution to support additional use cases, customised measures and future clinical quality initiatives like MU3, PQRS, PCMH, etc.

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About BI-Clinical

BI-Clinical, CitiusTech's healthcare BI and analytics platform, demystifies clinical quality reporting by offering an extensive suite of pre-built apps and 600+ KPIs around clinical, financial, operational and regulatory areas – the largest in the industry. BI-Clinical enables healthcare technology companies, providers, payers and life sciences organizations to generate actionable BI and build integrated clinical and financial analytics. BI-Clinical is certified for all Meaningful Use and HEDIS 2015 measures and covers a wide range of quality measures including PQRS, ACO, HCC, CMS Star, VBP, PCMH, etc.

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