FHIR-Enabled Clinical Data Pipelines with ADAM

Unify Healthcare Data for Member 360, AI-Readiness, and Interoperability at Scale

Business Challenge

Healthcare and life sciences organizations struggle with fragmented patient data spread across legacy systems, outdated formats, and standards like HL7. This fragmentation blocks real-time visibility, hinders coordinated care, and delays regulatory reporting due to manual data reconciliation.

Efforts to adopt AI are also slowed, as data must be repeatedly transformed to be usable. To move forward, organizations need a scalable solution that consolidates and standardizes healthcare data into FHIR-compliant models, ready for analytics, compliance, and care delivery.

Brillio's FHIR Enabled Pipelines for Healthcare Data Modernization

Brillio's FHIR Enabled Clinical Data Pipelines use a scalable Medallion architecture to ingest and transform fragmented healthcare data, including HL7, into robust, FHIR-compliant datasets. By applying strong data validation and quality checks across three processing layers, the solution supports real-time Member 360 views and analytics-readiness.

- **Bronze Layer:** Parses raw data and converts it into a tabular format

- **Silver Layer:** Transforms tabular data into FHIR-compliant structure with validations

- **Gold Layer:** Converts FHIR data into graph-ready formats for Member 360 profiles

- **HL7 Compatibility:** Supports ingestion of legacy and modern healthcare data standards

- **Scalable Medallion Framework:** Applies rigorous data quality at each transformation stage

Use Case Examples

- Aggregate clinical, insurance, and patient data into a unified Member 360 view

- Prepare standardized FHIR datasets for advanced AI use cases like LLMs or risk-scoring

- Streamline compliance reporting with validated and de-duplicated data

- Enable interoperability between provider systems, payers, and public health agencies

- Support value-based care initiatives through real-time insights

Benefits

- **Comprehensive** and longitudinal Member 360 profile

- **Real-time access** to standardized FHIR data

- **Streamlined data** processing and reduced preparation cycles

ABOUT BRILLIO

Brillio is a digital technology services company that drives AI-first engineering and design-led experiences for global enterprises. Born digital in 2014, its consulting-led services span Customer Experience, Data & AI, Product Engineering, and Digital Infrastructure. With an industry-leading NPS of 71, Brillio accelerates time to market through its proprietary BrillioOne.ai platform, powered by AI-ready talent with deep domain expertise.

Brillio is the official Digital Transformation Partner and the official Data and AI Services Provider of Atlassian Williams Racing. Brillio partners with leading technology providers including Microsoft, AWS, Google Cloud, Salesforce, Adobe, Databricks, and Snowflake and operates with 6,000+ "Brillians" across 15 global delivery centers. Consistently recognized as a Great Place to Work® since 2021, Brillio blends innovation, talent, and purpose to deliver measurable outcomes for clients and fulfilling careers for employees.

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