OVERVIEW

As the market leader in the State, Blue Cross of Idaho (BCI) wants to drive efficiencies both internally and externally for its members, providers, and stakeholders. A key driver and demand to execute these initiatives is the value of BCI’s data. The leadership team knew it needed to set a strategy to find a solution to transform its existing data warehouse and analytics structure, which included vast, disparate sources of healthcare data into a more innovative and successful data management program.

Driven to quickly deliver insightful data to its various constituencies (providers, groups, members, brokers, government programs) within the payer community, BCI turned to TESCHGlobal (TG) to improve process agility and increase the speed to market of real-time analytics, which would enable strategic decision making and data sharing.

Following the first mission to implement a fully integrated data management solution, BCI needed to revamp an outdated, difficult-to-use “Dynamic Reporting Tool” (DRT) platform which included a set of Pyramid dashboards and static SSRS reports. These reports were used by BCI account managers and some employer group customers. BCI quickly realized the level of visibility, functionality, and self-service provided by the DRT was not up to par for their team or their employer groups.

TG recommended Tableau, a leading visual analytics platform, be used to modernize BCI’s reporting and business intelligence capabilities.
DEVELOPMENT APPROACH

“SWAT” team: TESCHGlobal’s Tableau practice director and senior data architect were joined by a BCI senior data engineer and two BCI BI developers. This focused team of five highly-skilled professionals moved very quickly outside of normal processes to stand up a working prototype solution within six weeks.

Requirements: While this initiative had its roots in the before-mentioned DRT, it was seen as primarily a greenfield project with loosely-defined upfront requirements. This was in part due to Tableau being a new analytics platform at BCI.

Data Preparation in SQL: The EDW tables which fed the DRT via OLAP cubes were instead joined, tailored, and optimized as a series of SQL views for Tableau. This yielded both claim type-specific views as well as a consolidated summary view across types.

Data Preparation in Tableau: A variety of steps were taken to enhance the functionality, clarity, and ease-of-use of the data in Tableau. For example, numerous hierarchies, including health category groupings, drug classifications, diagnosis types, and procedure codes, were established for drilldown/rollup functions.

Calculations, Filters, and Parameters: Much effort was required to develop a wide array of key metrics and user selection options which could be carried across the dashboards. This included:
- Three types of date filter parameters: calendar year, plan year, and flexible range
- High-Cost Claims and Claimants parameterized thresholds
- Top N parameters for Drug Utilization and other dashboards
- Extensive Level-of-Detail expressions for PMPM and other key metrics
- Paid Run Out parameter to enable consistent financial claims analysis

Visualizations & Dashboard Design: At the end of the six-week SWAT team effort, dozens of visualizations and 22 Tableau dashboards had been developed utilizing the optimized data and best practices in visual analytics design. (see below diagram)

Dashboard Actions: Extensive use of filtering and navigation actions provided a robust user experience. As BCI has yet to upgrade to version 2018.3, set actions have not yet been implemented but provide an opportunity for future enhancements.

TESTING APPROACH

After initially exposing the 22 dashboards to a broad audience of client services account managers, healthcare analysts, and BI developers, a small team of five was designated for User Acceptance Testing (UAT) and to provide feedback for iterations and enhancements. Multiple phases of review and testing occurred between July and January with these same team members. Certain requests that were not feasible in the short-term were documented and backlogged for future development.

DEPLOYMENT

Based on their perception of customer priorities and their team’s ability to communicate the value and use of a limited number of dashboards, BCI selected seven dashboards to deploy to the portal as of October 2018. Only a small number of accounts have been provided access to date, as the need to distinguish PHI & SHI users was a new requirement that has yet to be fully solved and deployed.

TESCHGlobal has been a strategic partner, health care thought leader, and innovator that I have engaged over and over again with exceptional results. The TG team’s expertise, focus on engagement & delivery, and speed to innovation have been key assets for us! Our strategic partnership with TG is instrumental in establishing and leveraging an invasive set of health data and health engagement capabilities with our members, customers, and provider partners.

Chuck Clabots, Chief Information Officer, Senior Vice President