Sherlock Analytics

Sherlock Analytics is founded on providing knowledge based on factual data. This foundation yields better decisions, as users of Sherlock Analytics can base their course of action on knowledge gained from the factual data derived from an intricate analysis as opposed to relying solely on experience or instinct. Indeed, the Sherlock Analytics Team supports these users through its extensive experience building algorithms, case management software, and reports that encompass users’ needs and requirements.

Analytics in Use

Sherlock Analytics provides a platform for analyzing large, disparate data sets using best-of-breed tools and analytic approaches in its support of the Centers for Medicare and Medicaid Services (CMS). In particular, Sherlock Analytics aids CMS’s efforts to address fraud in our nation’s healthcare system by providing the analysis infrastructure, expertise, Business Intelligence (BI) tools, and processes needed to apply algorithms and statistical methods that yield tangible results on both static datasets and real-time streaming data. The BI tools developed by the Sherlock Analytics Team provide CMS with the ability to investigate and link Medicaid data across states, which is necessary due to the unique and distinct nature of each state’s Medicaid data. Sherlock Analytics harmonizes this data and minimizes the challenges associated with CMS’s investigation and analysis.

Further, the Sherlock Analytics Team recognizes that good BI tools are necessary to accommodate all users of varying degrees of technical savviness; therefore, it creates capabilities, platforms, and tools that allow any user to benefit from their utility. To that effect, the platform created for CMS offers business intelligence capabilities that can be used by less technical users to analyze data or expose customizable dashboards to management for enhanced decision support.

Sherlock Data Lab

Sherlock Data Lab helps transform digital data into meaningful information using a hybrid approach to data warehousing that includes both a top-down and bottom-up design. The framework provides data integration capabilities, allowing data to be captured, rationalized, homogenized, and managed using best practices and standards. This includes dynamic mappings, transformations, and master data management techniques utilizing established governance methodologies, with specific focus on data quality and metadata management.

The framework leverages mature and industry leading ETL and integration products. It is aligned with the customer level of data maturity to provide consistent and trusted data for operational data analysis, while enriching with reference data for industry related codes, prices and geographic tagging.

Data Lab in Use

To develop and improve the data analytical tools that are available to CMS analysts, our Data Management Team has developed a homogenized data structure that automatically maps common fields from different states into a common data structure called Sherlock Elements. This structure is populated with MMIS data that is sourced from the base tables that were made available for each state. Sherlock Elements provides a unified data structure/model that supports more straightforward analysis by users, enables efficient cross-state analyses, and delivers a foundation for building Business Intelligence (BI) tools to query the data and generate results effectively. Sherlock Elements is designed to support the CMS decision-making process and give users the ability to investigate and link various types of data such as claims, providers, and beneficiaries.

For More Information

Please visit http://sherlock.sdsc.edu