Propelex

How a California Based Health Plan Leveraged Business Intelligence Solutions to Improve Healthcare Utilization

ABOUT THE CLIENT

Client is a California based not-for-profit Healthcare Insurance plan. The plan provides direct access to high-quality coverage to high-quality care. Serving for all age groups — individuals, families, local businesses and Medicare beneficiaries. The Plan sconnects their members to award-winning network of hospitals, medical groups and physicians and continually improve the quality of our services and benefits, and seek innovative solutions to today's complex health care issues.

INTEGRATED DATA AND ANALYTICS

The healthcare business environment is rapidly changing, and providers can no longer rely on conventional methods or processes to achieve success. While many businesses have rightly started moving towards the use of business intelligence (BI) solutions to improve efficiency and deliver results across different areas, there's a considerable amount yet to make this switch.
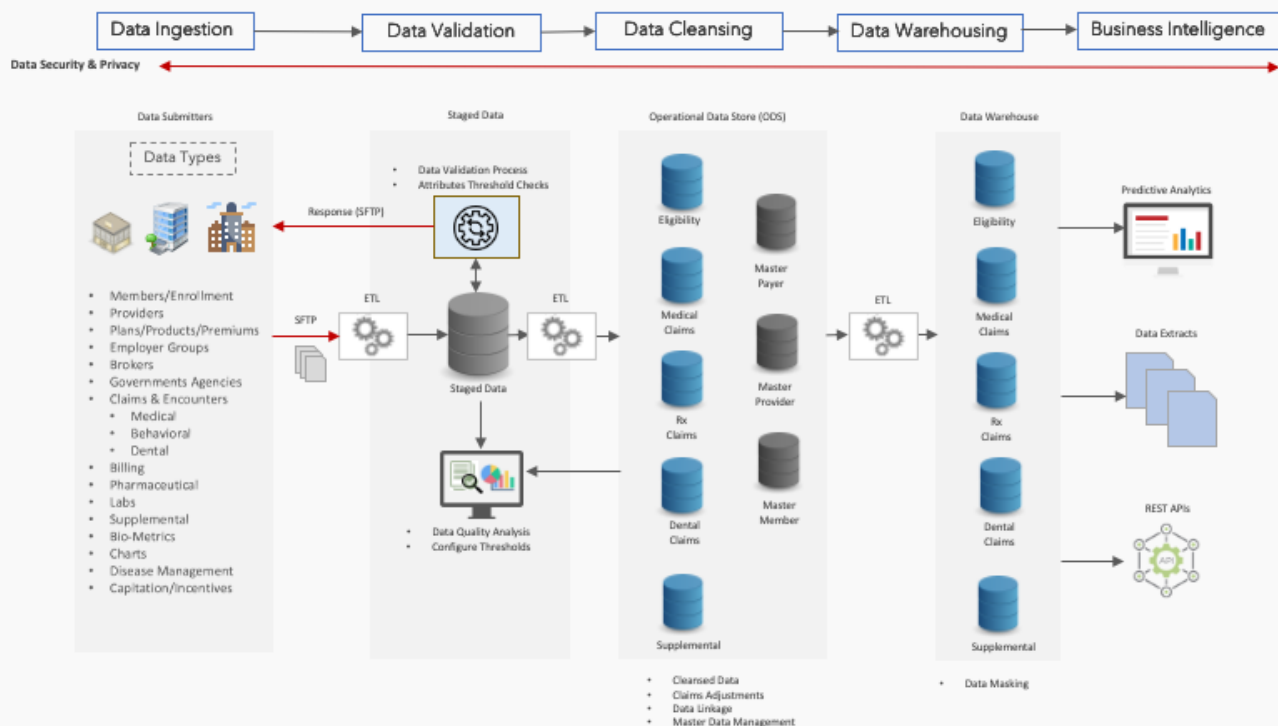
Healthcare

NAME UNDER NDA

BI solutions are typically aimed at helping businesses gain valuable insights into how to get more from their existing resources. When integrated successfully, business intelligence solutions can help your healthcare organizations make better decisions, improve quality of care and reduce wastage.

The following explores how the Health Plan, has overcome key business challenges by leveraging BI solutions to improve healthcare utilization. This should be an interesting read if you're contemplating the role of business intelligence in healthcare provision.

Process & Architecture

Propelex

How a California Based Health Plan Leveraged Business
Intelligence Solutions to Improve Healthcare Utilization

DATA STAGING (FETCH/GATHERING)

Propelex used innovative and systematic approach towards collecting, measuring and analyzing information from a wide range of data sources to enable health plan data management team to have an accurate overview of a specific business area and answers to relevant questions or challenges.

Data gathering essentially allowed the health plan to obtain a clearer picture of specific functional areas, evaluate outcomes and also make informed predictions about future trends.

THE CHALLANGE

The plan experienced tremendous growth, but it had struggled to create tangible value from the vast amount of data at its disposal. The recent changes to the Healthcare industry have also meant that there is a rising focus on the quality of services delivered.

It was essential to improve the way its data was collected and analyzed to help the organization understand how to improve its healthcare utilization challenges among its clients. This was necessary as the organization had struggled to keep up with the changing business landscape and did not fully understand how its service was being used.
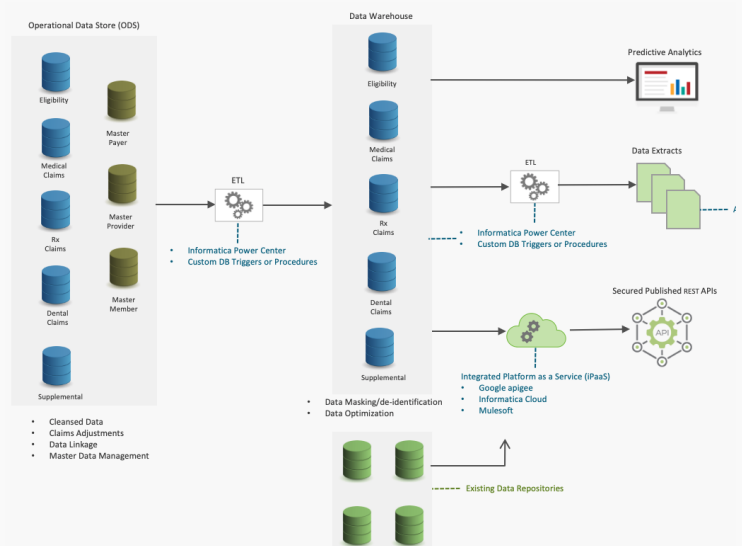
THE SOLUTION

In order to improve utilization of its healthcare services, the Plan understood the need to revitalize its data management activities and processes. The following are the key data collection activities that were improved to achieve this.

DATA CLEANSING

Data cleansing refers to the process of adjusting or data that is incorrect, incomplete, improperly formatted, or duplicated in an organization's database. Organizations that operate within industries that consume big data like healthcare, typically use data cleansing tools to systematically detect incorrect and duplicate data before they result in fatal errors.

The plan used a data cleansing tool to improve the quality and overall reliability of its database and reduced the likelihood of relevant errors a great deal. Most of the errors discovered were introduced in the transmission and storage of the data.

In addition, its data engineers were able to use rules, algorithms, and look-up tables to examine flaws and fix up data to reduce their likelihood of misleading analysts. Apart from improving existing records, data cleansing has helped the Plan understand how to standardize its data collection process to reduce flaws overall.

How a California Based Health Plan Leveraged Business Intelligence Solutions to Improve Healthcare Utilization
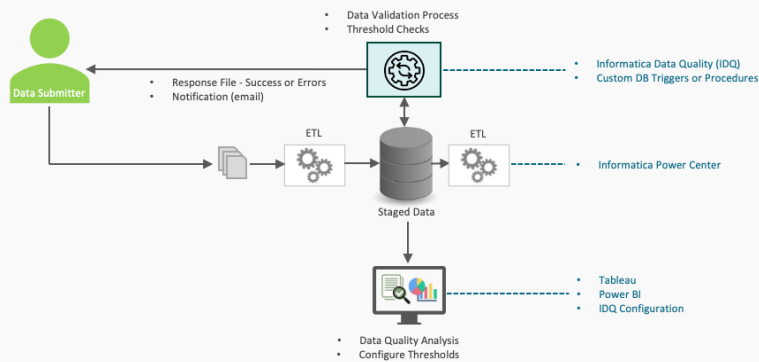
DATA QUALITY

Poor data results in poor decision making and the same applies to good data. For businesses to succeed, the data that influences its decisions must be of good quality.

For data to have quality, it must have the following characteristics:

|		
QUANTITY	CATEGORICAL	CLEAN
HISTORICAL	LOW-LEVEL	SIMPLE
UNIFORM	GRANULARITY	LINEAGE

ETL PROCESS IMPROVEMENT

ETL is a core component of data warehousing and business intelligence. It's the technology that allows your organization view data from very distinct databases. By integrating an ETL tool, the Plan was able to load business data from different databases to analyze and gain insights from them. The main benefit the Plan derived from using ETL is that it enabled the organization to better program its data warehouse for business analysis.

DATA WAREHOUSING

In this era of big data, this is perhaps one of the most important technologies available. Data warehousing refers to the aggregation of data from multiple sources for easy access and analysis in line with the overall goals of an organization. Data warehousing essentially allows you compare data from numerous endpoints as well as analyze them for business intelligence.

The Plan had no central data repository and as a result had to manually retrieve data from different sources before comparing or carrying out any analysis. This process was not only time consuming but costly to the business and unreliable as key data could easily be missed. It was able to design its data warehouse to correlate data from different business sources. The data warehouse also enabled the Plan to have a long-range overview of its data to aid decision making even at corporate level.
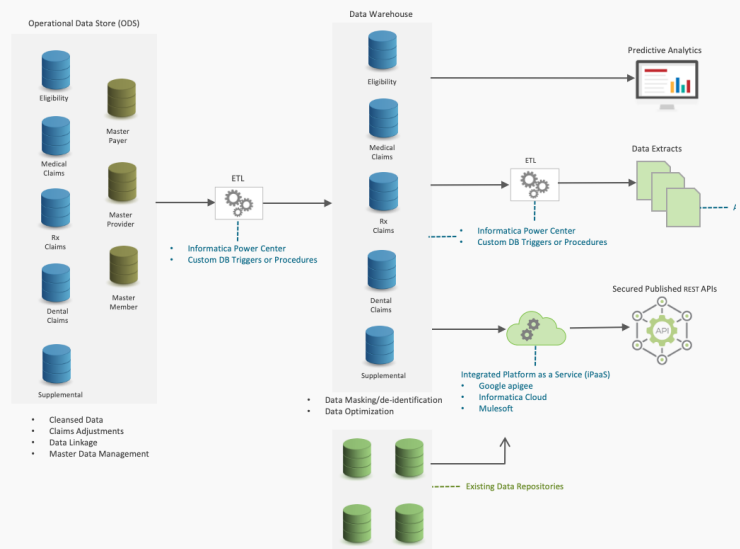
BUSINESS INTELLIGENCE

The data is only meaningful when it's able to impact the business decision making. The following explores why and how the Plan leveraged BI tools and solutions to improve its healthcare utilization.

The Plan had so much data at its disposal yet struggled with conversion, customer retention and engagement. The business also wasn't positioned to understand how its service was being used and consequently scored poorly in terms of customer satisfaction. The Plan struggles to translate its data into business insights, it was consequently unable to make evidence-based decisions and was making life difficult for its analysts.
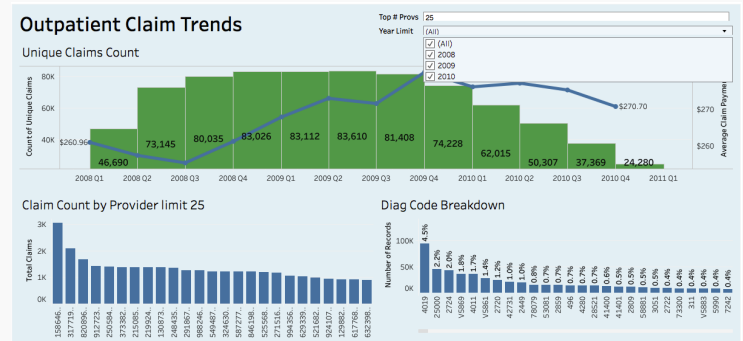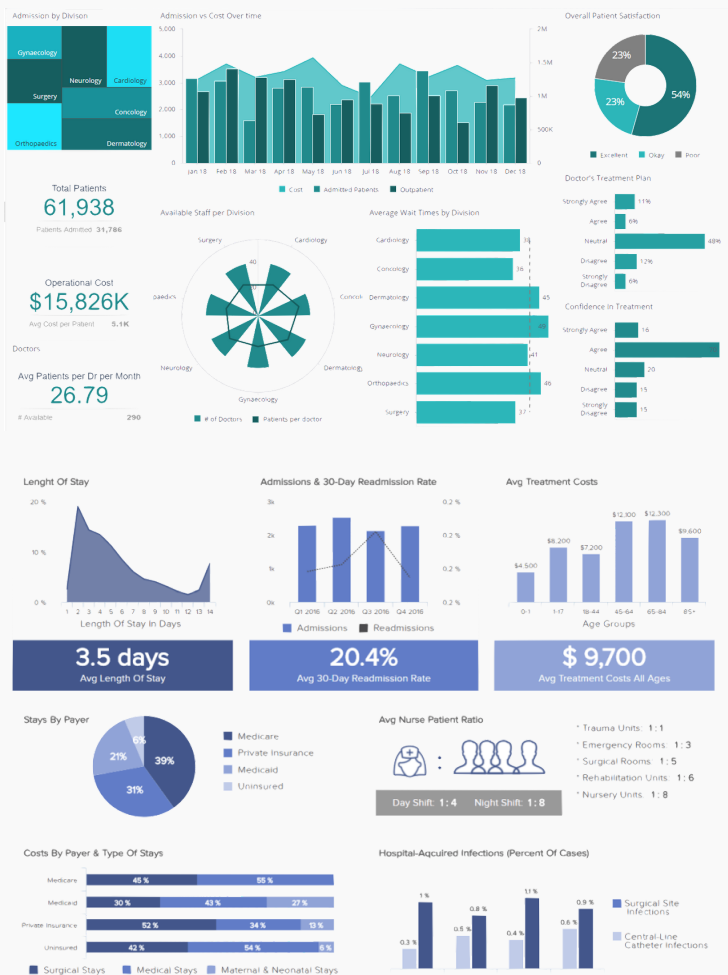
Another major challenge the Plan experienced was its inability to segment its marketing efforts since it did not have real insights from data collected. This meant that marketing communications for instance could not be personalized and customers could never experience any customized messages.

The plan was also experiencing difficulties with identifying its major sales drivers and usually employed a scattered approach towards marketing.

It was imperative for the Plan to use its available data especially in terms of understanding customer behaviors, retaining existing customers and converting new ones through customized marketing efforts.

Data analytics is a core component of Business intelligence and focuses on the use of algorithms in determining the relationship between different data offering insights. Although analytics is typically centered around providing answers to why certain business events or activities that occurred in the past, it is essential in helping BI predict future trends.

Propelex

How a California Based Health Plan Leveraged Business Intelligence Solutions to Improve Healthcare Utilization

The plan has now fully integrated Analytics and is able to explore data and gain meaningful insights into why it is failing to retain existing customers or keep them satisfied. It is also able to improve business performance and increase revenue by addressing loopholes in its data management and interpretation.

The insights and interpretations gained from data analytics have consequently helped the Plan to reliably predict future trends in the use of its service and improve healthcare utilization overall.

If you're using a business intelligence software solution, you'll need to be able to create reports which are essentially collections of data presented in such a way that it makes meaning to end users.

Reports have completely transformed the way the Plan analyzes data for better decision making. The health insurance provider now uses powerful reports that are easy to navigate and interactive.

By utilizing its reports, The Plan now effortlessly makes evidence-based decisions that include data collected and analyzed from a wide range of sources

The use of dashboards has enabled the Plan to establish and segment targets based on historical data. Analysts at the Plan can now swiftly visualize any data they select and make decisions faster than ever before. By using BI dashboards, the organization now has access to long term trends and deeper insights into how the business is performing.

From visualizing interactive graphs and charts to speedily presenting other data neatly, The Plan can now benefit from instant insights even as newer data sources emerge..

CLOSING THOUGHTS

Times are changing fast and as the digital era continues to evolve, healthcare providers can no longer ignore that whoever can get the most out of their data will certainly win the race. Business intelligence solutions are no longer optional but have become a necessity for any organization seeking success.

More importantly, the simplicity of BI solutions and the level of impact they can have means that they're here to stay. If you're contemplating what this means for your organization, contact us today for an initial consultation to explore how business intelligence solutions can take your business to the next level.