



TRILLIUM

SUCCESS STORY:

## Healthcare Organization

*Engagement: Predictive Analytics*

### Trillium Helps not-for-profit Healthcare Organization with Predictive Analytics

Trillium's client is a large not-for-profit Healthcare organization that is the leading provider of healthcare services in Central Texas, serving an 11-county population of 1.8 million.

#### **Challenge:**

*Provide a way to analyze a patient's non-structured data in order to reduce preventable hospital re-admissions.*

Trillium's client maintains health care information on behalf of its patients. More than 80% of the client's data was unstructured. It was in the form of physician notes, registration forms, discharge summaries, echocardiograms, and other medical documents. This content contains valuable information, but there's historically been no easy way to analyze it. Hospitals and health providers can take action to significantly decrease the occurrence of preventable re-admittance. The client knew they had to leverage their wealth of unstructured information to discover new, population-specific clinical and operational insights and significantly reduce the occurrence of high cost CHF readmissions by proactively identifying patients likely for re-admission and introducing early interventions to reduce cost, mortality rates, and improve patient quality of

#### **Our Client**

***A large not-for-profit Healthcare Organization***

#### **The Challenge**

More than 50% of patients seek re-admission within 6 months after treatment.

#### **How Trillium Solved It**

Trillium managed the data mining, modeling and implementation team that developed an offering that combined content analytics and natural language processing improve patient care and reduce costs.

#### **Results**

Predictive models transformed raw information into healthcare insight quickly.

The client can identify trends and patterns in patient care and outcomes

The client reduced costly and preventable readmissions by 7%, (with a savings of \$1.5 million), decreased mortality rates by 11%

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Life.

***Trillium Solution:*** *Trillium provided a Content and Predictive Analytics solution to extract relevant clinical information from vast amounts of patient data.*

Trillium managed the data mining, modeling and implementation team that introduced a healthcare industry software offering that combined content analytics and natural language processing technology that helped both the health care providers and payers improve patient care and reduce costs.

Leading the entire project and predictive analytics solution team while working directly with a world leader in natural language processing, Trillium was able to provide a Content and Predictive Analytics solution that allowed the client to extract relevant clinical information from vast amounts of patient data to better analyze the past, understand the present, and predict future outcomes.

Combining natural language technology with predictive analytics allowed the client to identify the root causes of hospital readmissions, and the ways it could decrease preventable multiple hospital visits.

***Results:*** *Insights to derive insight in minutes versus weeks or months.*

Predictive models eliminated the need for traditional analysis – an arduous and resource intensive task – and transformed raw information into healthcare insight quickly.

By accurately extracting medical facts and understanding relationships buried in large volumes of clinical and operational data, the solution reveals trends, patterns, and deviations, and predicts the probability of outcomes.

Trillium's client is now able to identify trends and patterns in patient care and outcomes, uncovering sometimes obscure correlations and disparities buried in years of medical records.

## About Trillium

Trillium Solutions Group, Inc. is a professional services firm headquartered in Chicago that provides technology consulting and strategic sourcing services for industries such as trade associations, financial services, telecommunications, and healthcare. For more information, please visit [www.trilliumsg.com](http://www.trilliumsg.com).