

Health Catalyst CORUS™ Suite Helps UPMC Improve Clinical and Financial Outcomes

Healthcare costs are continuing to climb, and many Americans are beginning to think they aren't getting their money's worth. However, much of these cost increases come directly from a lack of understanding about how much it costs to provide patient care and a lack of knowledge about how those costs compare to the outcomes achieved. To build sustainability, healthcare organizations must first identify and address waste, then create efficiencies to reduce the total cost of care.

UPMC recognized that the common denominator in creating these efficiencies was data—more specifically, timely and actionable data that can identify unnecessary variations in care routines and supply usage and enable appropriate corrective action.

Taking Action

UPMC set out to get more out of its data by implementing activity-based costing (ABC), facilitated by the Health Catalyst CORUS™ Suite. The CORUS Suite would allow UPMC to review detailed and actionable cost data across its analytics environment and support service line reporting, contract modeling, and clinical process improvements.



Leveraging Data

Thanks to the CORUS Suite, UPMC was able to include data from a variety of sources (EHRs, patient accounting systems, general ledger, HR and payroll data, supply chain, pharmacy, etc.), and assign direct costs to patients based on their actual utilization. This has made it possible for UPMC to do the following:

- Identify opportunities to reduce unnecessary clinical variation.
- Develop and provide patient-specific cost and quality data.
- Develop protocols to provide the most appropriate services, in the right place, at the right time while providing optimal transparency to the patient.
- Monitor results as a means of measuring performance.

Seeing Results

UPMC has been able to use the CORUS Suite to effectively drive cost savings and improve clinical outcomes in many of its service lines, including surgical services, women's health, orthopedics, and cardiovascular.

The analytics platform and ABC models have improved quality and safety, reduced costs, and increased values across service lines, helping UPMC achieve these results:

- Reduce length of stay for surgical patients by two to three days.
- See an 81 percent relative reduction of patient controlled analgesia use following complex abdominal survey.
- Realize a \$3 million cost savings and avoidance over two years for surgical patients.





Company Focus: **Data, decision support, and analytics, including cost management**

Headquarters: **Salt Lake City, UT**

Year Founded: **2008**

healthcatalyst.com

Health Catalyst was founded by a team of healthcare veterans who set out to solve the data and analytics problems they faced throughout their careers with the ultimate goal of transforming healthcare through massive, measurable, data-informed improvement in financial, operational, and clinical outcomes. Using a single computing ecosystem that combines the features of data warehousing, clinical data repositories, and HIEs, Health Catalyst clients can realize measurable value within just months of deployment.

The company offers a range of solutions, from cost accounting, regulatory reporting, risk management, and revenue cycle management to artificial intelligence (AI)/trigger-based patient safety risk and surveillance, all designed to help organizations optimize their financial and operational performance and improve their quality of care. Altogether, Health Catalyst helps clients by analyzing more than 1 trillion facts on over 100 million patients. Clients range in size from large academic medical centers to smaller community hospitals and physician clinics.

Health Catalyst's approach helps improve outcomes through:



Data Operating System (DOS™): A single, cloud-based, API-based architecture with a common, consistent layer of data content to support data analytics and AI, data-first application development, and interoperability.

Analytics and Tools: Both analytics and tools are built on top of DOS, covering areas including cost accounting, regulatory reporting, natural language processing and text analytics, precise patient registries, patient-facing care and risk management, accountable care organization management, an executive healthcare operations information system, and an AI/trigger-based patient safety risk and surveillance system.

Professional Services: Health Catalyst has more than 200 consultants, analytics engineers, and data scientists who can help its clients take advantage of this technology.