

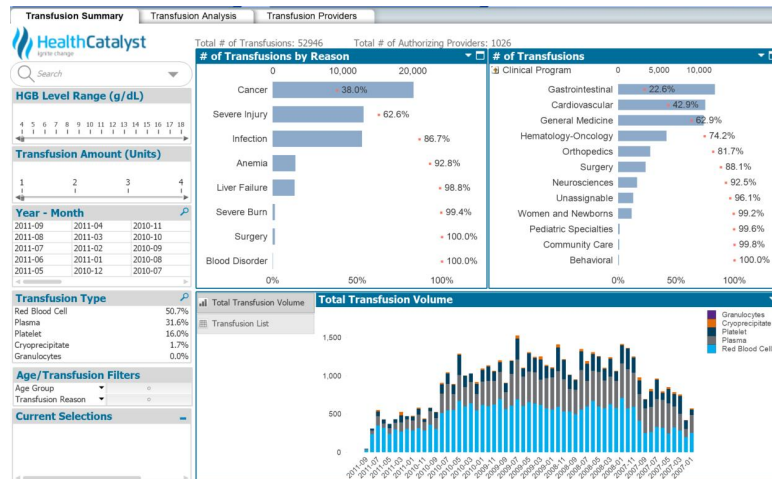
Type  
**Analytics Accelerator**

Status  
**Custom Services**

Revised  
**2019-November-05**

## Technical Description

The **Blood Utilization** Analytics Accelerator provides data and visualizations to help healthcare systems see, understand, and improve patient blood management. It supports efforts to ensure clinically indicated and volume-appropriate transfusions that decrease patient risk and improve clinical and financial outcomes.



The Blood Utilization application supports optimized use and best-practice care.

## Background

Organizations typically focus on blood utilization for these reasons:

- Blood products are costly and often in short supply. Hospital CFOs routinely list blood products as one of their top five cost concerns and seek to manage this resource carefully.
- Transfusion increases patient risk. Blood is sometimes referred to as “the most dangerous drug in the hospital”; its transfusion carries the risk of adverse events such as errors, transfusion reactions, and infection transmission.
- Practice often varies greatly—even within a single system or practice. Transfusion has been named one of the top five overused procedures in the hospital. Adherence to evidence-based guidelines for transfusion can decrease inappropriate use of blood products and improve clinical and financial outcomes.

## Application Overview

Insight to optimize blood utilization for increased safety and lower costs

The **Blood Utilization** accelerator is an interactive application that provides both overview and details of blood utilization in your healthcare system. Users can gain insight into the factors driving blood use by applying filters related to provider specialty type, transfusion type, and hemoglobin level. Additionally, the application surfaces the indication and clinical logic for ordering blood, allowing users to examine appropriateness of utilization on a per-patient and population basis. Users can also identify variation in practice among providers within a specialty and thereby identify opportunities to standardize utilization for best clinical and financial results.

## Benefits and Features

- **Access an actionable, near real-time view of blood utilization.** The application dashboard visualizes utilization metrics in an easy-to-consume summary. You can see trends and associations as they develop—and take timely action to address issues.
- **Understand—and manage—variation in practice.** The application can show which providers have ordered blood for which patients, for how much, and for what reason. This insight creates a valuable feedback mechanism for continuous improvement.
- **Compare and contrast.** A Compare tab lets you review patient and care variables—demographics, variation in care, performance in different units, etc.—to determine what's working and not working to ensure appropriate utilization. This feature also allows you to gauge the ROI of improvement work in particular areas: what could you achieve if every unit and provider standardized to match your best performance?
- **Gain visibility across the continuum of care.** The app can be integrated with other applications—e.g., surgical intervention applications—across multiple service types to track care over time and maintain a view of the whole patient.
- **Start improvement work faster with prebuilt metrics based on best practice and accepted definitions.** The application measures units per 100 discharges, for example, so that you can gauge your performance relative to peer organizations; it also tracks adherence to standard transfusion care procedures by leveraging nursing documentation of activities such as vitals checks.

## Intended Users

- Chief Medical Officer
- Chief Nursing Officer
- Blood bank leadership
- Laboratory leadership
- Service-line leadership
- Frontline clinicians

## Use Cases

The CMO is concerned about rising blood usage in the system—and a recent uptick in transfusion-related adverse events. She uses the Blood Utilization accelerator to identify the specialty with the highest use (cardiovascular surgery) and the providers whose practices optimize blood management, combining lower utilization with excellent clinical outcomes. She sponsors a prehabilitation initiative to prepare the patient prior to surgery, which includes standardizing orders, delivering education, and engaging surgeons around best-practice care—and uses the application to gauge the impact on cost, waste, and safety. As targets are reached in the cardiac surgery specialty, the application helps identify and prioritize additional blood management opportunities in other surgical areas.

## Data Sources

This product may leverage one or more of the following sources:

- EMR - Clinical
- Other:

Clinical specialty: laboratory, blood bank

## Key Measures

- Number of transfusions ordered and given
- Transfusion reason and clinical criteria
- Percentage blood transfused related to hemoglobin level
- Total volume of transfusions by component
- Number of units transfused per 100 discharges, by specialty, procedure, ordering provider, ordering department, and diagnosis
- Quantification of savings opportunity over time
- Transfusion reactions
- Adherence to key transfusion-care best practices

## Contact us today

For more information on how Health Catalyst products and services can help your organization, please contact us: - Reach out to your sales representative - Call us at (855) 309-6800 - Email us at [info@healthcatalyst.com](mailto:info@healthcatalyst.com)

---

This document provides an overview of technology and services that have been developed by Health Catalyst we are continuously improving our offerings and we reserve the right to make changes in specifications and features shown herein, or to discontinue the product described at any time without notice or obligation. Some technology may not be available for deployment based on current product status.