

# Integrated Data and Analytics Transforms Population Health Management



## RESULTS

- » **\$17.3M** in improvements.

## PRODUCTS

- » **Health Catalyst® Data Platform**
- » **Health Catalyst Ambulatory Suite**
- » **Johns Hopkins ACG® System**
- » **Pop Analyzer™**
- » **Value Optimizer™**

## EXECUTIVE SUMMARY

Responding to growing demands to deliver exceptional care at lower costs, North Kansas City Hospital (NKCH) sought to improve its population health management and needed a robust data and analytics solution. By implementing the Health Catalyst® Data Platform, NKCH gained access to trusted data and insights, developing a scalable analytics infrastructure to support and advance population health strategic priorities.

## NAVIGATING THE SHIFT TO VALUE-BASED CARE

As the healthcare industry continues its shift from fee-for-service to value-based care, organizations like NKCH face mounting pressure to deliver higher-quality care at lower costs. However, inadequate data infrastructure, a lack of analytic capabilities, and limited trust in existing data often hinder the transition.<sup>1</sup>

## THE NEED FOR ENHANCED POPULATION HEALTH ANALYTICS

NKCH aimed to enhance its population health management capabilities but struggled with data and analytics limitations. Existing data lacked accuracy, completeness, depth, reliability, timeliness, precision, and usability, leaving stakeholders without a clear path to performance improvement.

To make meaningful progress, the organization needed a robust, trustworthy data and analytics solution that clinicians and administrators could easily use to understand current state performance, provide precision-level understanding of opportunities with recommended solutions, measure outcomes, and guide performance improvement initiatives.

## ENABLING A DATA-INFORMED POPULATION HEALTH STRATEGY

NKCH embarked on a mission to transform population health management. The organization implemented the Health Catalyst® Data Platform, including Healthcare.AI: Enhanced Analytics, gaining access to trusted data and insights and making data accessible. The organization developed new analytics infrastructure and intelligence to advance its population health strategic priorities.

NKCH formed a population health governance council, engaging senior leaders, including the chief medical information officer, chief clinical officer, senior vice president of ambulatory services, and other key stakeholders, to guide strategic execution. The governance council leveraged its data and analytics and Health Catalyst professional services to identify performance variation and improvement opportunities, comparing its performance to benchmarks. It uses a data-informed analytics model that includes patient experience, clinical outcomes, and financial impact to prioritize improvement opportunities.

The organization uses analytics applications to visualize and monitor performance for key improvement priorities, including:

- ▶ **Ambulatory access, productivity, and accurate clinical documentation.** NKCH used the Panel Management analytics accelerator and Patient Access, part of the Health Catalyst Ambulatory Suite, to identify three service lines with the most opportunities for improvement. The organization implemented processes within each service line to standardize and balance panel size, establish productivity targets, improve referral management and patient access, and ensure chronic Hierarchical Condition Category (HCC) recapture.



### ABOUT NORTH KANSAS CITY HOSPITAL

Since its founding in 1958, North Kansas City Hospital (NKCH) has been a trusted healthcare provider for North Kansas City residents. Driven by its mission to bring hope and healing to every life it touches, NKCH continues to evolve in an increasingly complex healthcare environment.



*The Health Catalyst® Data Platform allowed us to build a scalable analytics infrastructure, enabling precise risk stratification and targeted interventions across our systemwide population health programs.*

Jonas Varnum, MHA, Executive,  
Population Health, North Kansas  
City Hospital

- ▶ **Multiple chronic condition management.** The organization implemented the Johns Hopkins ACG® System with Pop Analyzer, using an evidence-based risk stratification model to identify patients with certain risks, allowing care managers to engage with patients to provide care in the most appropriate care setting, avoiding unnecessary emergency department (ED) and inpatient utilization. NKCH also used the data platform, Johns Hopkins ACG System, and internal analytics to enhance its care management programs and post-emergency-department discharge follow-up, ensuring patients recently discharged from the ED are seen by a provider within seven days.
- ▶ **Diabetes medication management.** NKCH uses an analytics application to identify patients with diabetes who are taking diabetes medications and are being seen by primary care providers (PCPs). The organization uses the application to improve coordination between endocrinologists and PCPs, ensure patients receive needed care and prescriptions, remove barriers to obtaining medications, and ensure patients take their medications as prescribed.
- ▶ **Post-acute care transitions.** NKCH leveraged the Health Catalyst Value Optimizer™ application to quantify and understand the various post-acute skilled nursing facility (SNF) locations to which its patients were discharged. This allowed NKCH to transparently share previously unseen utilization and clinical outcome data, supporting efforts to establish and implement criteria for a robust, preferred post-acute care network.



*We've moved from fragmented reporting to a unified analytics environment that supports real-time decision-making. That shift has been critical in aligning our clinical, operational, and financial strategies.*

Jonas Varnum, MHA, Executive,  
Population Health, North Kansas  
City Hospital

## RESULTS

By fostering a culture of data-informed opportunity assessment and decision-making and aligning analytics with strategic priorities, NKCH improved care delivery and organizational performance. Results include:

- » **\$17.3M in improvements, including a \$10.2M revenue increase and \$7.1M in cost savings, the result of:**
  - » **16 percent relative reduction in the time to the third next available appointment, increasing patient access.**
  - » **4.4 percent relative increase in wRVUs across three service lines and a two percent relative increase in HCC recapture rate.**
  - » **35 percent relative reduction in the number of patients with a return visit to the ED.**
  - » **More than doubled the number of patients receiving post-ED visit follow-up.**
  - » **Identified more than 3K patients substantially at risk for inpatient care, enabling care managers to intervene and ensure patients received care in the most appropriate care setting.**
  - » **12 percent relative reduction in ED visits per 1,000 covered lives per year (PKPY) and a 14 percent relative reduction in inpatient visits PKPY.**
  - » **33 percent reduction in SNF ALOS for patients over 65.**
- » **Achieved four-star ratings across NKCH's priority Medicare Advantage plans for the first time.**



## WHAT'S NEXT

NKCH plans to broaden the use of data and analytics to proactively manage rising-risk populations and deepen collaboration across departments to create systemwide accountability for value-based care outcomes.

## REFERENCES

1. Healthcare Financial Management Association. (n.d.). Why providers are struggling to succeed under value-based care. *HFMA*. Retrieved from <https://www.hfma.org/payment-reimbursement-and-managed-care/value-based-payment/why-providers-are-struggling-to-succeed-under-value-based-care/>

## ABOUT HEALTH CATALYST

Health Catalyst is a leading provider of data and analytics technology and services that ignite smarter healthcare, lighting the path to measurable clinical, financial, and operational improvement. More than 1,000 organizations worldwide rely on Health Catalyst's offerings, including our cloud-based technology ecosystem Health Catalyst Ignite™, AI-enabled data and analytics solutions, and expert services to drive meaningful outcomes across hundreds of millions of patient records. Powered by high-value data, standardized measures and registries, and deep healthcare domain expertise, Ignite helps organizations transform complex information into actionable insights. Backed by a multi-decade mission and a proven track record of delivering billions of dollars in measurable results, Health Catalyst continues to serve as the catalyst for massive, measurable, data-informed healthcare improvement and innovation.

Learn more at [www.healthcatalyst.com](http://www.healthcatalyst.com), and follow us on X, LinkedIn, and Facebook.