

# Dedication to Quality Improvement Delivers on the Triple Aim: Saves Tens of Millions Annually



## EXECUTIVE SUMMARY



Unwarranted variation in clinical care is costly: representing as much as \$30 million of actionable savings opportunity for a typical organization. Addressing clinical care at Allina Health, however, was challenging—as a large system with limited resources, the organization struggled to standardize work to impact outcomes and reduce costs.

Allina Health's executive team understood that, due to market and system demands, it needed sharper focus on increasing clinical value to improve financial margins. In response, the organization launched its Clinical Value Program, a systemwide effort to measure and improve clinical value. The program quantifies the value of clinical change work to improve outcomes, while reducing costs and increasing revenue for reinvestment in care.

With a data-driven, multidisciplinary team effort, Allina Health's Clinical Value Program has improved care and delivered on the Triple Aim, achieving the following results:

- More than \$33 million positive margin impact by expense reduction and additional hospital in/outpatient revenue.
- Identified \$13 million in additional opportunities for cost reductions, which have been integrated into the health system budget plan.

### HEALTHCARE ORGANIZATION

Integrated Delivery System

### PRODUCTS

- Health Catalyst® Analytics Platform and broad suite of analytics applications

### SERVICES

- Professional Services

## REDUCING UNWANTED CLINICAL VARIATION: AN IMPERATIVE IN VALUE-BASED CARE

Payment for healthcare services has shifted from volume based to value based, with an increasing number of payers basing reimbursement on quality of care.<sup>1</sup> Clinical variation remains a widely acknowledged barrier to equitable and efficient provision of healthcare. Some variation is warranted, reflecting diversity in clinical symptoms and preferences of individual patients, but there is also unwarranted variation, which results in inefficient use of scarce healthcare resources.<sup>2</sup>



“At Allina Health, clinical value is a systemwide effort to understand the value of our work by reducing cost, increasing revenue and/or obtaining payer payments to performance, while monitoring quality and fiscal outcomes.

Timothy Sielaff, MD, PhD, FACS  
Chief Medical Officer

Unwarranted variation in clinical care represents an estimated \$20 million to \$30 million per \$1 billion in revenue of actionable savings opportunity for a typical organization.<sup>3</sup> Improving quality requires executive and board leadership to foster an organizational culture that's dedicated to improvement and directs resources toward the structures, processes, and monitoring systems that ensure patients receive needed care without risk of harm.<sup>4</sup>

A not-for-profit health system, Allina Health is dedicated to the prevention and treatment of illness, and enhancing the greater health of individuals, families, and communities throughout Minnesota and western Wisconsin. Allina Health's strategic framework focuses on improving clinical value to achieve the Triple Aim: improving the health of populations, while also improving patient care/experience, and lowering the per capita cost of care for populations.

### LIMITED INSIGHTS INTO COST AND OUTCOMES

With healthcare increasingly moving toward reimbursement for value, Allina Health recognized the need to focus more sharply on ways to fund its mission. As a large health system with limited resources, the health system was challenged to standardize work to improve outcomes and reduce costs.

Allina Health identified that a lack of insight into value (cost and outcomes) was contributing to unwarranted clinical variation. Previous efforts to improve clinical value had minimal visibility, making the spread of best practices inconsistent. The organization had not prioritized improvement work across the system and needed a comprehensive plan to optimize outcomes, cost, and appropriateness of clinical processes.

### A SYSTEMWIDE, TEAM-BASED EFFORT TO MEASURE AND IMPROVE CLINICAL VALUE

Allina Health's executive team understood that, due to market and system demands, it needed a sharper focus on increasing clinical value to improve financial margins. In response, the organization launched its Clinical Value Program, a systemwide, team-based effort to measure and improve clinical value. The program quantifies the value of clinical change work to improve outcomes, while reducing costs and increasing revenue for reinvestment in care.



As we work to determine the value of our work, it is critical that we engage those closest to the work to validate any opportunities identified through our analytics teams.

Nicole Kveton, RN, BSN, MHA  
Vice President, Quality,  
Value, and Nursing

The Clinical Value Program focuses on several objectives:

- Enable and manage the paradigm shift of driving value in care delivery while reducing cost by bringing together organizational stakeholders to identify, prioritize, and implement projects.
- Enable consistent, accurate, and reproducible identification and reduction of unwarranted clinical variation across Allina Health, while maintaining or improving patient care outcomes.
- Develop and apply a prioritization approach by determining projects' value, which enables appropriate resource assignments and implementation timing.
- Identify and build evidence-based opportunities to address unwarranted care variation.

The Clinical Value Program enlists the entire organization through collaboration and resource coordination, supporting clinically driven work to reduce unwarranted clinical variation and optimize outcomes, cost, and appropriateness of clinical processes. It identifies and validates improvement opportunities and implements practice and workflow changes.

### Five factors for identifying and validating opportunities

Allina Health identifies and shapes opportunities using five critical factors:

- 1 Focus on high-cost, high-variation clinical conditions.
- 2 Identify the drivers of variable cost.
- 3 Examine variation by facility and/or provider.
- 4 Drill down to homogeneous patient populations by segmenting on severity, diagnoses, and procedures.
- 5 Analyze the impact of other factors, such as LOS, potentially preventable readmissions, and potentially preventable conditions.

Allina Health's initial step, conducted on a quarterly basis, is to identify [opportunity through analytics](#) and collaboration across finance, payer relations, and clinical leader functions. The health system used the Health Catalyst® Analytics Platform and broad suite of analytics applications as its primary source for managing and mining data. To identify opportunities for improving clinical value, data analysts used the rich data in the analytics platform to find undesirable variation in high-cost, high-volume clinical care processes. In addition to leveraging the data available in the



Our format for monitoring progress and providing feedback, in alignment with the expectations outlined in project charters, has had a profound impact on our success.

Sue Fairchild  
Program Manager  
Strategic Project  
Management Office

analytics platform, the organization solicits opportunities for improvement from various stakeholders—physicians, pharmacists, telehealth, providers, nursing, and laboratory staff.

## A team-based approach to improving clinical value

The organization created three teams to carry out its clinical value initiative:

- **The assessment team weighs achievable clinical improvements.** Armed with meaningful data, the clinical value committee created an assessment team, which includes a clinical data analyst, financial analyst, primary investigator, and program manager. This team completes an initial assessment of achievable clinical improvements and the associated financial value to the organization.
- **The development team creates the business case and charter.** The team defines the scope of the project, develops aim statements, identifies measurements and stakeholders, and develops a timeline with key milestones. The charter is submitted to the executive team for review and approval prior to moving to implementation.
- **The implementation team put clinical value into practice.** Once the charter is finalized, the clinical value committee develops and documents a change management plan, and resources from hospital and information systems are assigned to the implementation team. Implementation begins with the development of a timeline including the specific tasks required to meet the timeline. The team develops a communication and training plan for stakeholders. Following training, the team implements changes, which often involve workflow, roles and responsibilities, and the EHR.

## Sustaining progress

Allina Health conducts weekly status checks, asking the implementation team for progress updates regarding the implementation timeline. Issues, risks, and barriers to success are tracked, as well as the financial impact to the organization, and associated quality measures and balance measures. This continues for 12 months, at which time the improvements become part of routine practices. Team resources are then reassigned to new improvement projects.

The Clinical Value Program's multidisciplinary, team-based approach, which included physicians, clinicians, pharmacy, imaging, lab, supply chain, finance, and clinical analytics, effectively engaged stakeholders from hospitals, clinics, clinical service lines, home care services, and other departments.

## RESULTS

With a data-driven, multidisciplinary team effort, Allina Health's Clinical Value Program has improved care and delivered on the Triple Aim—achieving more than \$33 million positive margin impacted by expense reduction and additional hospital in/outpatient revenue:

- \$32.7 million savings validated by implementing 71 projects within the first two years of the program.
- \$1.1 million savings in less than one year by adopting a minimalist approach to transcatheter aortic valve replacement. This change also reduced LOS by 31 percent and achieved a 17.4 percent relative reduction in median procedure time.
- \$210,000 in increased revenue due to improved access in the women's health clinic. The redesigned workflow also reduced the no-show [rate](#) by 20.8 percent, and increased available ultrasound appointments by 20 percent.
- \$378,000 in identified savings by reducing room cost from care variation between specialist and hospitalist, which was impacting LOS for patients with epilepsy.

## WHAT'S NEXT

Allina Health is improving the Clinical Value Program's transparency and engagement through the development of a performance tracking tool. This simple resource includes quality and finance metrics from the charter to help monitor and control project outcomes.

Allina Health plans to continue to use a data-driven, multidisciplinary team effort to strengthen the clinical value process, establishing it as routine practice across the system. In 2017, teams are on track to achieve a \$12 million positive margin impact, due to expense reduction and added hospital inpatient and outpatient revenue—all accomplished by addressing clinical variation to improve and standardize care processes. Allina Health has budgeted \$13 million in improvement opportunities for 2018. 🏆

## REFERENCES

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## ABOUT HEALTH CATALYST

Health Catalyst is a next-generation data, analytics, and decision support company committed to being a catalyst for massive, sustained improvements in healthcare outcomes. We are the leaders in a new era of advanced predictive analytics for [population health](#) and [value-based care](#). with a suite of machine learning-driven solutions, decades of outcomes-improvement expertise, and an unparalleled ability to integrate data from across the healthcare ecosystem. Our proven data warehousing and analytics platform helps improve quality, add efficiency and lower costs in support of more than 85 million patients and growing, ranging from the largest US health system to forward-thinking physician practices. Our technology and professional services can help you keep patients engaged and healthy in their homes and workplaces, and we can help you optimize care delivery to those patients when it becomes necessary. We are grateful to be recognized by Fortune, Gallup, Glassdoor, Modern Healthcare and a host of others as a Best Place to Work in technology and healthcare.

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