

# How Allina and Minnesota Perinatal Physicians Lowered Stress and Raised Satisfaction for High-Risk Maternal Patients



## HEALTHCARE ORGANIZATION

Integrated Delivery System

## PRODUCTS

- Health Catalyst Analytics Platform, including the Late-Binding™ Data Warehouse and broad suite of analytics applications
- Professional Services

## EXECUTIVE SUMMARY

Assuring patient satisfaction can be challenging, particularly when providing care to pregnant women with high-risk pregnancy conditions. As one of the foremost perinatal practices in the country, Minnesota Perinatal Physicians (MPP) acted swiftly to address a delay in scheduling ultrasound appointments, and reduced wait times for other visits.

With an aim to improve patient care and experience, the maternal fetal medicine (MFM) specialists at MPP, employees of Allina Health, leveraged Allina's "Improving Clinical Value" Program—an initiative that has elevated the patient care experience for numerous other patient populations while simultaneously lowering the per capita cost of care for each one.

## RESULTS

- \$210,000 in increased revenue because of improved access, projected to be \$280,000 within 12 months.
- 20.8 percent relative improvement in no-show rate.
- 20 percent increase in available ultrasound appointments and an 18.2 percent increase in utilization.

## HOSPITALS STRIVE TO DELIVER COMPASSIONATE, COST-EFFECTIVE CARE FOR HIGH-RISK PREGNANCIES

Today's healthcare organizations are tasked to provide care that satisfies patients and follows evidence-based guidelines, all while remaining cost-effective.<sup>1</sup> These seemingly counter mandates can be particularly difficult to meet in the realm of high-risk maternal care. While many assume pregnancy to be a joyous time, high-risk conditions, where there is concern for the mother or the fetus, bring considerable physical and emotional challenges.<sup>2,3</sup>



When data showed we fell short of our commitment to schedule patients for ultrasounds within 48 hours, we knew this was an opportunity to improve care and access on a broader level.

Doug Thorson  
Interim Vice President of Operations  
Mother Baby Service Line

Minnesota Perinatal Physicians (MPP) is very familiar with this dynamic. One of the largest perinatal practices in the nation, MPP offers comprehensive diagnostic services and medical/surgical care for a full range of fetal abnormalities, maternal health concerns, and complications of pregnancy. Outpatient services are available at six clinic locations in the Minneapolis/St. Paul area.

MPP's team of 13 MFM specialists are employed by Allina Health, a not-for-profit integrated health care delivery system. These specialists work together with four advanced practice nurses to manage high-risk pregnancy conditions and reduce possible complications for women who are of advanced maternal age; have been diagnosed with a chronic condition such as lupus, diabetes, or hypertension; are carrying a baby with abnormalities or syndromes; have had a previous pregnancy loss; or are at risk of delivering prematurely.

This success story describes how MPP increased maternal patient satisfaction and practice revenue by following Allina's "Improving Clinical Value" Program—an initiative that has elevated the patient care experience for numerous other patient populations while simultaneously lowering the per capita cost of care for each one. The program engages employees and physicians in decreasing clinical variation for improved outcomes and reducing unnecessary costs to patients, communities, and Allina Health. Improving Clinical Value aligns the entire organization behind clinically driven work to achieve the best outcomes and care for patients, requires a multi-disciplinary team across the entire system, including physicians, bedside nurses, pharmacy, supply chain, finance and clinical analytics. To achieve the desired outcomes and create value that can be differentiated, Improving Clinical Value requires support from hospitals, clinics, clinical service lines, home care services, network integration and system office. The Improving Clinical Value Program reliably supports leaders in identifying opportunities for improvement that positively impact the patient and the organization, and includes a process to assess the value of these improvements prior to initiating them.

## ROOM FOR IMPROVEMENT IN HIGH-RISK MATERNAL CARE

Each year, Allina and MPP identify opportunities to improve access to care, patient satisfaction, and financial performance. As part of this ongoing commitment to improving clinical value, operational leaders at MPP analyzed the clinical workflows at each of their six outpatient clinics. Key findings revealed:

- ▶ Three to four-week delay time in scheduling of ultrasound appointments.

- Patient dissatisfaction with lengthy wait times during the visit.
- Patient anxiety leading up to and during the visit; in part, due to excessive wait times.

As a practice that is committed to providing comprehensive, patient-centered, seamless care, MPP was determined to change this unsatisfactory state. Accordingly, MPP set out to redesign work flows and use available resources in the most effective way, with the goal of giving high-risk maternal patients exceptional experiences—and outcomes.

## DATA-DRIVEN CHANGES IMPROVE CLINICAL VALUE

To reduce wait times and make other improvements for patients, MPP followed Allina's Improving Clinical Value Program. The program is supported by the Health Catalyst Analytics Platform, which includes a Late-Binding™ Data Warehouse and broad suite of analytics applications that aggregate data from a variety of sources—from clinical to operational to financial. Access to such robust data sets informs Allina's decisions associated with the Improving Clinical Value Program, and facilitates ongoing measurement of improvement efforts. Likewise, this meaningful data, paired with direct observation of clinic workflows, informed MPP's own subsequent plan to make ultrasound appointments more timely and reduce wait times for visits.

**Improving patient access and throughput.** The appropriate length for an ultrasound appointment can vary; for some patients, a 30-minute appointment is adequate, while others require up to two hours. While this variation is clinically appropriate, it complicates scheduling. To that end, MPP expanded appointment availability, with physician support, by adding a 7:30 a.m. appointment slot. MPP also leveraged idle ultrasound equipment to add two more ultrasound rooms. Through these two changes, MPP added 18 ultrasound appointments per week, without an increase in operational expenses.

**Smarter allocation of resources.** MPP also optimized the resource scheduling framework to reduce patient wait times, which would greatly improve the overall patient experience. Specifically, MPP adjusted appointment block times for the genetics counselor, and implemented automated appointment reminder calls to reduce patient no-shows.

- **Patient wait times.** Previously, the mother and her significant other would first be seen by the genetic counselor and then wait to conclude their visit or proceed to their next appointment while the genetic counselor completed activities such as communication with other facilities and providers and review of



Frontline staff education and support has been key to our success. Our staff are being asked to do their work differently, but are willing to do so because they are able to see the benefit to the patient.

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Practice Manager

patient information. MPP identified that the patient experience could be improved by allowing the patient to conclude her appointment as soon as the face-to-face time with the genetics counselor was complete. This allows the patient to either move on to the next appointment scheduled during the same day, or conclude the clinic visit.

- **No-shows.** To reduce no-shows, which lead to longer delays for patients waiting for an available appointment to be seen and waste important clinic resources, MPP implemented automated “appointment reminder” phone calls to patients.

Lastly, MPP partnered with [clinical documentation improvement specialists](#) to provide physician education and support in improving both the accuracy and specificity of provider documentation. This helps make certain that data in the medical record adequately represents the patient’s clinical picture.

## RESULTS

In just nine months, MPP measurably improved clinical value for high-risk maternal patients—expanding their access to care, increasing their satisfaction, while elevating the practice’s financial performance. These impressive improvements include:

- \$210,000 in increased income because of improved access, projected to be \$280,000 within 12 months.
- 20.8 percent relative improvement in the no-show rate, with an estimated \$89,540 in annual savings.
  - The automated reminder phone calls have reduced the percentage of patients who fail to show for their scheduled appointment.
- 20 percent increase in available ultrasound appointments, and 18.2 percent increase in utilization, resulting in 2,253 additional ultrasounds performed when compared to the previous year.
- 20 percent reduction in wait time, while increasing the number of unique patients by 6.4 percent.

## WHAT’S NEXT

Such notable results have reaffirmed MPP’s commitment to improve clinical value and provide comprehensive, patient-centered, seamless care for high-risk pregnancies. MPP is assessing future opportunities to provide even better care and experiences for individuals, better health for the population, while reducing per capital costs of care. ♪

## 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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