RISING T1DE ALLIANCE

Making Value-Based Care Work For Children Living with Diabetes

A Summary of Two Studies of Remote Monitoring, Population Health, and Value-Based Care

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About the Rising T1DE Alliance

The Rising T1DE Alliance (RTA) is a multi-institution collaboration working to advance data-driven, patient-centered diabetes care. Founded in 2016, RTA brings together clinicians, researchers, data scientists, health systems, people with diabetes and their families, and other partners to develop, test, and share practical approaches for turning diabetes data into better care. Its work spans data integration and interoperability, population health, remote monitoring, implementation science, evidence generation, and sustainable care models. Across these efforts, RTA's goal is to help make high-quality, proactive, technology-enabled diabetes care more accessible and scalable, so that people with diabetes can benefit from timely, actionable information regardless of where they receive care. Learn more at www.risingt1dealliance.org.

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Proactive Diabetes Care Between Visits

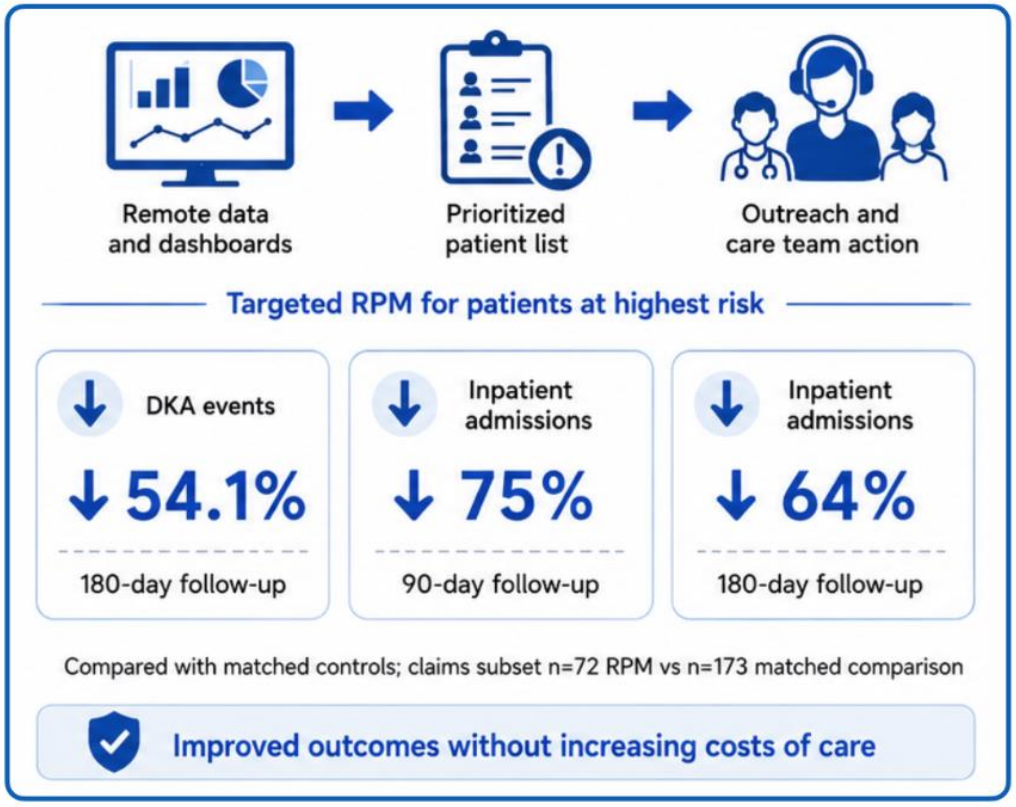
How Remote Monitoring Can Help Identify and Support Children at Higher Risk

Children with type 1 diabetes often need support between routine clinic visits, especially when their glucose patterns suggest they may be at higher risk for worsening diabetes control or serious complications. This study evaluated a remote patient monitoring program at Children's Mercy Kansas City that used clinical and device data to identify higher-risk patients and provide targeted outreach. Families received brief virtual or telephone visits with diabetes educators and physicians to review glucose data, address concerns, adjust treatment, and reinforce diabetes self-management. Researchers compared children who participated in the program with a carefully matched group who did not.

Among patients with complete claims data, and compared with matched patients, remote patient monitoring was associated with:

- 54% fewer DKA events over 180 days
- 75% fewer diabetes-related hospital admissions over 90 days
- 64% fewer hospital admissions over 180 days

The study did not find a statistically significant difference in healthcare costs. Together, the findings suggest that targeted, data-driven outreach may help prevent serious complications among children at higher risk and provide a practical way to extend diabetes care beyond the traditional clinic visit.



Building a Sustainable Model for Better Diabetes Care

How Value-Based Care Can Support Proactive, Data-Driven Specialty Care

Traditional payment models often provide limited support for the work that happens between visits, such as reviewing device data, coordinating care, proactively contacting families, and maintaining the data and staffing infrastructure needed for population health. This study describes a specialty value-based care program at Children's Mercy Kansas City that paired guaranteed infrastructure funding with performance-based payments tied to six measures of diabetes quality and healthcare utilization. The program used population-level data to identify patients who might benefit from additional support and connected them with remote monitoring and care-management services. Across the population, diabetes outcomes and acute-care use improved from 2021 through 2025:

- Median HbA1c decreased from 8.6% to 7.9%
- The percentage of patients with HbA1c above 9% decreased from 41.1% to 27.6%
- The percentage with at least one DKA admission decreased from 9.1% to 5.6%
- Inpatient admissions declined from 11.2 to 7.4 per 1,000 patients per month
- Emergency department visits declined from 10.0 to 7.6 per 1,000 patients per month

The program met 3 of 6 performance targets in 2024 and all 6 in 2025. Because this was a descriptive study without a control group and some improvements were already underway, it cannot determine how much of the improvement was caused by the value-based care program itself; rather, it demonstrates that this type of funding and performance structure can be implemented to support a measurable, data-driven population health model in pediatric specialty care.

