T1D Exchange Impact Statement

T1D Exchange is a Boston-based nonprofit organization dedicated to accelerating therapies and improving care for individuals with type 1 diabetes.

Aligned with this mission, T1D Exchange has committed to improve outcomes and quality of life for our community by using real-world and clinic-derived data to drive research and quality improvement initiatives.

T1D Exchange established the QI Collaborative (QIC) in 2015 as a national learning health system to promote clinical improvements using QI and population health methodologies. There are currently twelve participating sites nationally, including Cincinnati Children’s Hospital, University of Michigan, Nationwide Children’s Hospital, University of Colorado, SUNY Upstate (Joslin Diabetes Center), Children’s Mercy Hospital, University of Pennsylvania, Stanford Children’s Hospital, Texas Children's Hospital, and Wayne State University.

T1D Exchange is requesting clinical data to support ongoing QI and population health efforts across participating QIC sites. The QIC Data Governance Committee strictly governs data-use for all participating sites and ensures compliance with all applicable regulations.

The T1D Exchange QIC has a national reputation and has been successful with significant impacts highlighted below:

Patient Impact

- QIC has provided systems that contributed to significant growth in QIC sites’ capacity to implement changes and culture to improve service.
- Many clinics have implemented a pre-visit planning process, incorporated shared decision-making principles, and started screening for depression.
- QIC has promoted the increased use of technology solutions, such as continuous glucose monitoring.
- Improvement in outcomes for high-risk patients is a core goal, with an aim to realize health equity.
- Increased active participation of patients/parents in project designs and implementation.
Provider Impact

- Decreased EHR workload/burnout: QIC clinics have developed and shared new T1D form templates. Stanford Children’s Hospital was able to reduce charting time by 50% using their model, which has been adopted and revised for adult care practices as well.
- Population health management: The QI portal Version 1.5 developed by the T1D Exchange is available for QI analytics and peer benchmarking.
- T1D Exchange sponsored Improvement Coaches training for site coordinators.
- The QIC PIs have published five posters at the ADA Scientific Sessions and have additional manuscripts in review.

System-Level Impact

- QIC supports care improvement at the system level and identifies gaps in care, documentation, and population health. QIC’s agnostic system supports all HL7 architecture and can work with a range of EMR systems.
- T1D Exchange data infrastructure and partnerships bring several efficiencies and cost-saving, including creating a means to combine EMR and diabetes device data and develop data algorithms for predictive analytics.
- The Collaborative has developed two change packages, which are how-to guides on implementing specific changes.

Financial Impact

- Access to the data will reduce staff time in creating and generating monthly reports for ongoing QI projects.
- T1D Exchange established a partnership with Glooko to promote access to additional data at no cost to the clinics.
- Clinics have demonstrated reductions in hospital admissions, lost to follow up, and diabetic ketoacidosis events, supporting quality payor goals.
- T1D Exchange has partnered with DreaMed to secure licenses for an AI diabetes management algorithm, at no cost to the hospitals.
- T1D Exchange organizes numerous conferences across the US to support in-person learning and sharing of best practices, providing CME/CEU credits, at no cost.