Sustaining Equity: Increasing Insulin Pump Use Among Publicly Insured Youth with Type 1 Diabetes

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Background/Objective

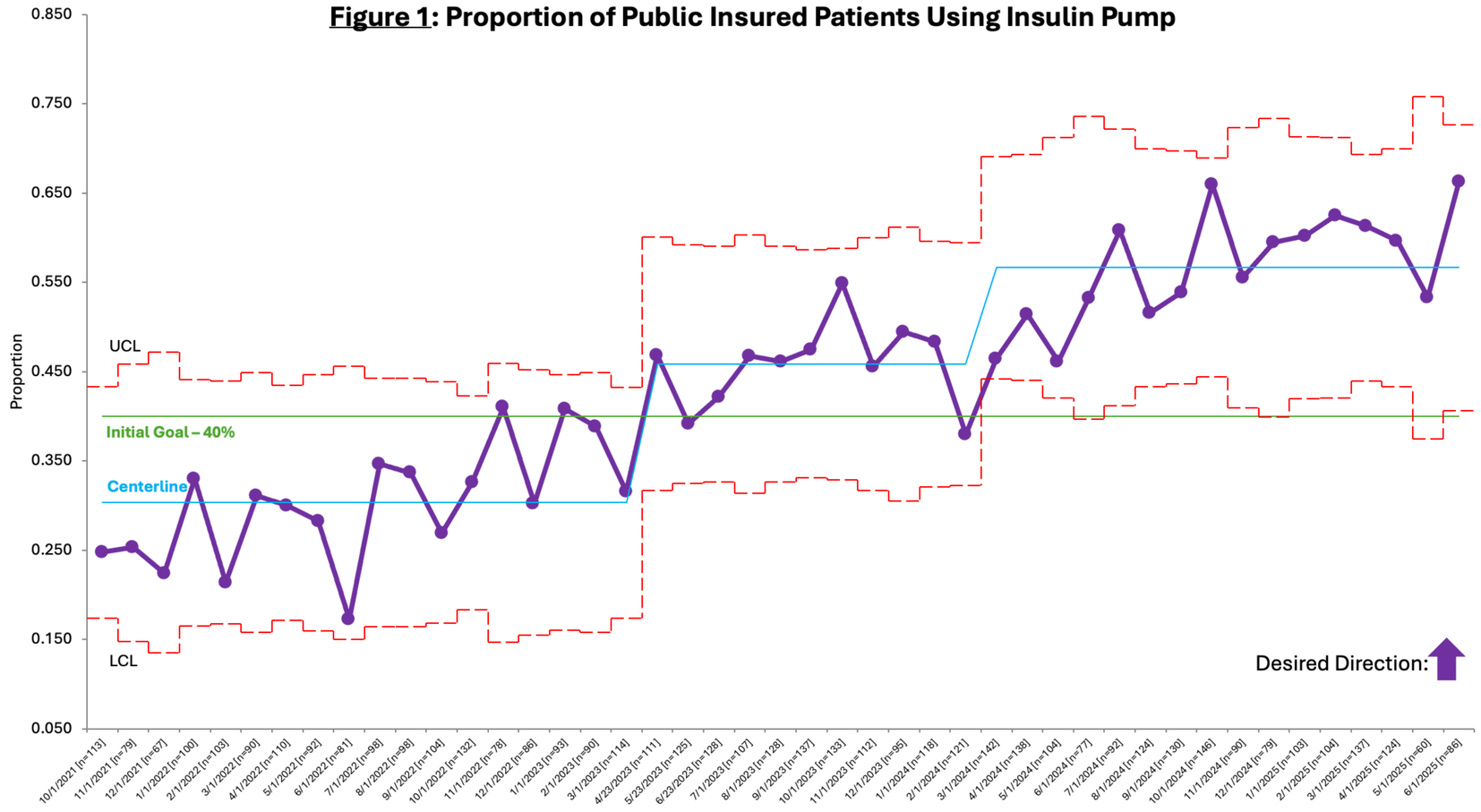
Use of diabetes technology, including insulin pumps, is associated with improved outcomes in youth with type 1 diabetes (T1D). However, youth with public insurance, a proxy for lower socioeconomic status, consistently demonstrate lower utilization. We implemented a Quality Improvement (QI) initiative beginning in 2022 to address disparities in insulin pump use. Our initial goal was to increase pump use from 30% to 40% within 15 months. We now report on the sustained and expanded impact of this intervention, which led to a further increase to 66% by mid-2025.

Methods

Using a T1D-specific dashboard integrated into our electronic health record (EHR), we tracked insulin pump utilization monthly among publicly insured patients seen in our diabetes clinic. A multidisciplinary team designed and tested a series of interventions through PDSA cycles. These included virtual and multilingual pump education classes, Spanish-translated resources, increased availability of classes (in-person and virtual), implicit bias training for providers, incorporation of pump interest screening questions into clinic visit intake forms, and collection of patient feedback via post-class evaluations.

Results

Figure 1: Proportion of Public Insured Patients Using Insulin Pump

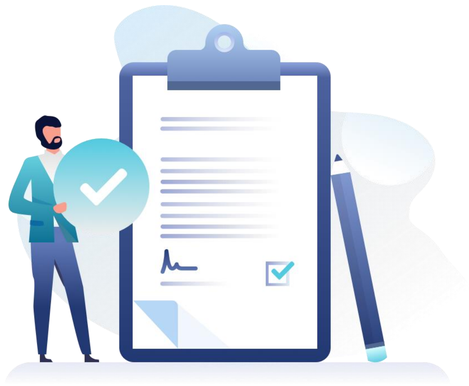


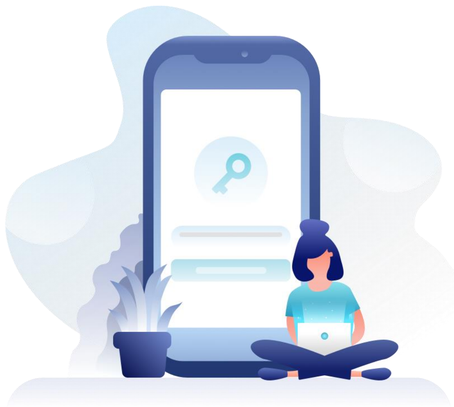
Results

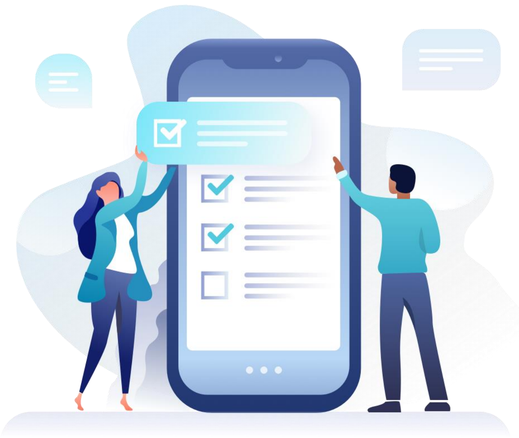
Insulin pump utilization among publicly insured children with T1D increased from 30% in April 2022 to 42% by June 2023, and further to 66% by June 2025. This reflects sustained improvement and successful scale-up of the original QI interventions over a 38-month period (Figure 1).

Conclusions

QI methodology and an intentional focus on health equity enabled our team to meaningfully and sustainably increase insulin pump use among publicly insured youth with T1D. This work demonstrates how tailored, data-driven interventions can reduce disparities in access to diabetes technology to improve chronic disease management in populations historically facing barriers to care.





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