

TITLE: Evaluating the Impact of Telemedicine Care Coordination on Access to Care in Oregon's Pediatric Type 1 Diabetes Population

AUTHOR(S): Emily Mitchell, Sarah Andrea, MPH, PhD, Ines Guttman-Bauman, MD, MCR

PRESENTER(S): Emily Mitchell

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ABSTRACT: Background Children with type 1 diabetes (T1D) require close monitoring with visits every 3-4 months. COVID-19-induced telemedicine expansion (TE) may alleviate the challenge of high visit frequency that these patients face. However, telemedicine's impact on access to care may be limited if patients lack adequate support for telemedicine. Purpose The study objective was to evaluate whether TE increased visit frequency in patients with T1D and compare visit frequency in an urban medical center versus a rural outreach program with established care coordination services (CCS). Methods We evaluated EHR data from 767 children receiving care between July 2018 - December 2021. We estimated differences in likelihood of adequately-timed monitoring care (ATMC) over time by patient CCS status using Generalized Estimating Equations. Results Just prior to TE, patients receiving CCS were 25.6% less likely to receive ATMC (95% CI: 51.6%, 114%). Following TE, likelihood of ATMC increased from 25.9% to 58.2% among those receiving CCS and decreased from 34.1% to 22.0% among those not receiving CCS; increases in ATMC were 3.55 times greater in patients receiving CCS relative to those not (95% CI: 2.10, 6.01). Conclusions Telemedicine may only increase the number of T1D patients meeting goal visit frequency when paired with CCS.

OBJECTIVE(S): Describe trends in visit frequency amongst pediatric patients with T1D throughout Oregon before and after widespread implementation of telemedicine. Compare adherence to goal visit frequency for pediatric patients with T1D who receive telemedicine care coordination in a rural outreach program versus those who do not receive telemedicine care coordination in an urban-based clinic.
