Multi-Center Quality Improvement Project: Increasing Documented Transition Plan Across Three Sites in the T1D Exchange Learning Collaborative

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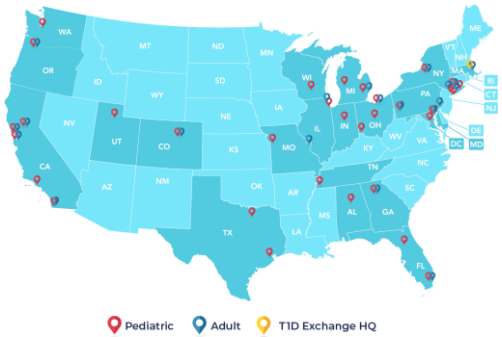
T1D Exchange

- The T1D Exchange is a Boston-based nonprofit with a mission to improve the outcomes of people with T1D (1).
- T1D Exchange Quality Improvement Collaborative (T1DX-QI) is a learning network that has expanded to 55 clinical centers caring for 100,000+ people with T1D (PwT1D) across 22 US States.



Background

- Young adults with T1D can be at risk for poor glycemic control and adverse health outcomes (2).
- Transition planning improves the quality of care for adolescents and young adults living with T1D as they move from pediatric to adult diabetes healthcare providers (3).
- Our aim was to increase documented transition planning at the participating sites in the T1DX-QI.
- Documented transition planning plays a key role in the quality of care for PwT1D who are transitioning from pediatric to adult healthcare providers (3).
- Studies have shown improved outcomes with transition planning for PwT1D (3).

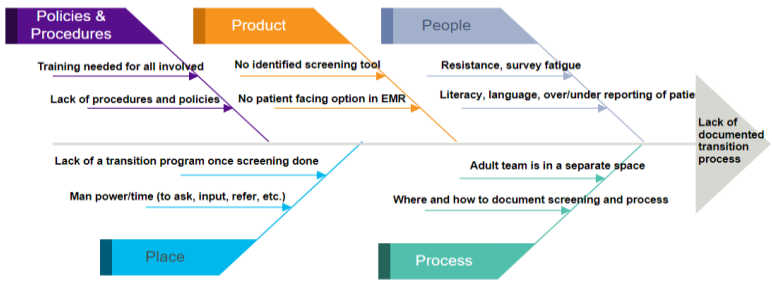
Methodology

- Three T1DX-QI sites: Spectrum Health, Helen Devos, Hassenfeld Children's Hospital at NYU Langone, and Children's Mercy Kansas City utilized QI methodologies to document transition readiness using the READDY assessment tool. Monthly data was shared with the T1D Exchange coordinating office using a secure collaborative spreadsheet (www.smartsheet.com). Multiple plan-do-study-act (PDSA) cycles were used to develop and expand interventions to increase the proportion of PwT1D with documented transition plans.

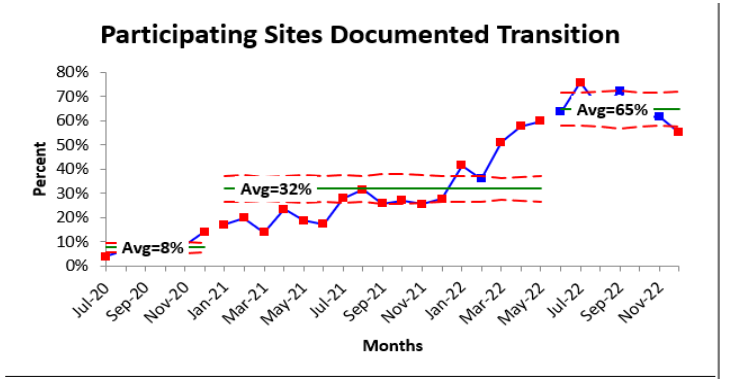
Interventions tested included:

- Provider assignment with a Medical Assistant (MA) and a Certified Diabetes Care and Education Specialist CDCES. In this process, the MA identifies and flags patients eligible for transition planning with the CDCES.
- Integration of the READDY tool into the Electronic Medical Record.
- Utilization of RedCap to generate a QR code that was sent to PwT1D ahead of visit.
- Collaboration with adult clinics to facilitate the referral process.
- The use of a multidisciplinary team approach including dieticians, social workers, and CDCES and review of reports quarterly.

Fishbone Diagram – Transition Documentation in the Young Adult



Results



Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
262	273	222	202	199	233	218	202	258	210	182	225	179	229	159	167	188	221	231	222	323	262	226	283	283	269	218	271	285	265
10	18	13	15	17	33	37	40	36	49	34	39	50	72	41	45	48	61	96	80	165	151	135	180	214	174	157	165	176	146

Overall improvement ranged from 27% to 86%. Overall screening using the READDY tool increased from 8% to 65% in 29 months (Figure 1).

Conclusions

- QI methodologies are feasible and useful in testing, scaling and implementing, documentation of transition planning in diabetes clinics.
- The use of the READDY Assessment in pediatric diabetes clinics enables providers to identify barriers that PwT1D face that could have gone undiscovered.
- READDY Assessment is a feasible patient-reported tool in transition planning.

Acknowledgement

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1) Alonso, T, Corathers, S, Shah, A, Clements, M, Kamboj, M, Sonabend, R, DeSalvo, D, Mehta, S, Cabrera, A, Rioles, N, Ohmer, A, Mehta, R, Lee, J. Establishment of the T1D Exchange Quality Improvement Collaborative (T1DX-QI) https://doi.org/10.2337/cd19-0032. 2) Garvey, K.C., Markowitz, J.T. and Laffel, L.M., 2012. Transition to adult care for youth with type 1 diabetes. Current diabetes reports, 12, pp.533-541. 3)Markowitz, J.T. and Laffel, L.M.B., 2012. Transitions in care: support group for young adults with type 1 diabetes. *Diabetic medicine*, *29*(4), pp.522-525.3) Hilliard, M.E., Perlus, J.G., Clark, L.M., Haynie, D.L., Plotnick, L.P., Guttmann-Bauman, I. and Iannotti, R.J., 2014. 4) Perspectives from before and after the pediatric to adult care transition: a mixed-methods study in type 1 diabetes. Diabetes care, 37(2), pp.346-354.