Sustained QI Implementation of a Transition Preparation Program for Adolescents and Emerging Adults with Type 1 Diabetes

Sarah D. Corathers, MD; Rajvi Desai, LSW; Allison Deisinger, RD, CDCES; Rachael Jones, MSW, LISW; Kyle Kaplan MPH; Mary Jolly RN, MBA, CPHQ; Amy Grant, DNP, RN, CPN; Jessica C. Kichler CDCES, PhD, CPsych

Cincinnati Children's – changing the outcome together

University of Cincinnati

Background

Transition of care between pediatric and adult health systems for adolescents and emerging adults (AEA) with type 1 diabetes (T1D) is complex.

Despite consensus on the need for transition preparation and adult receivership, implementation strategies to sustain programs remain limited.

Got Transition (www.gottransition.org) offers a framework for structured elements of health care transition.

The purpose of this quality improvement (QI) initiative is the development and maintenance of a pediatric T1D transition program aligned with the Got Transition framework.

The SMART aim was to increase percent of AEA with documented transition plan by 20%/year over baseline in ages 16-18 and by 40%/year for ages > 19.

Methods

A multidisciplinary QI team identified key drivers consistent with Got Transition guidelines including:

- Establishing expectations for families and staff,
- Integrating transition readiness into clinic workflow,
- Documenting transition planning and longitudinal tracking,
- Establishing successful transfer to adult care.

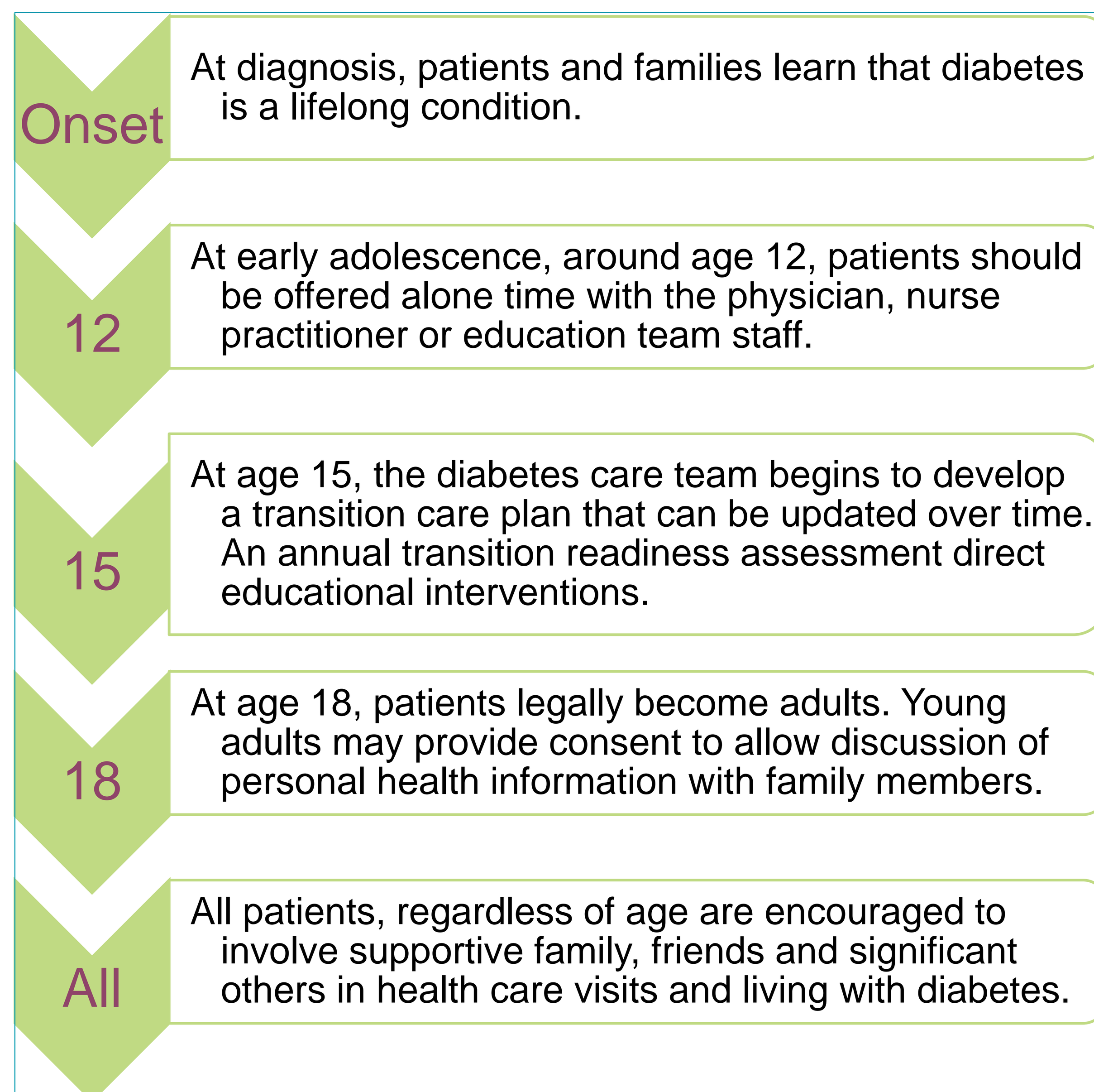
Interventions with iterative PDSA cycles addressed each of these drivers.

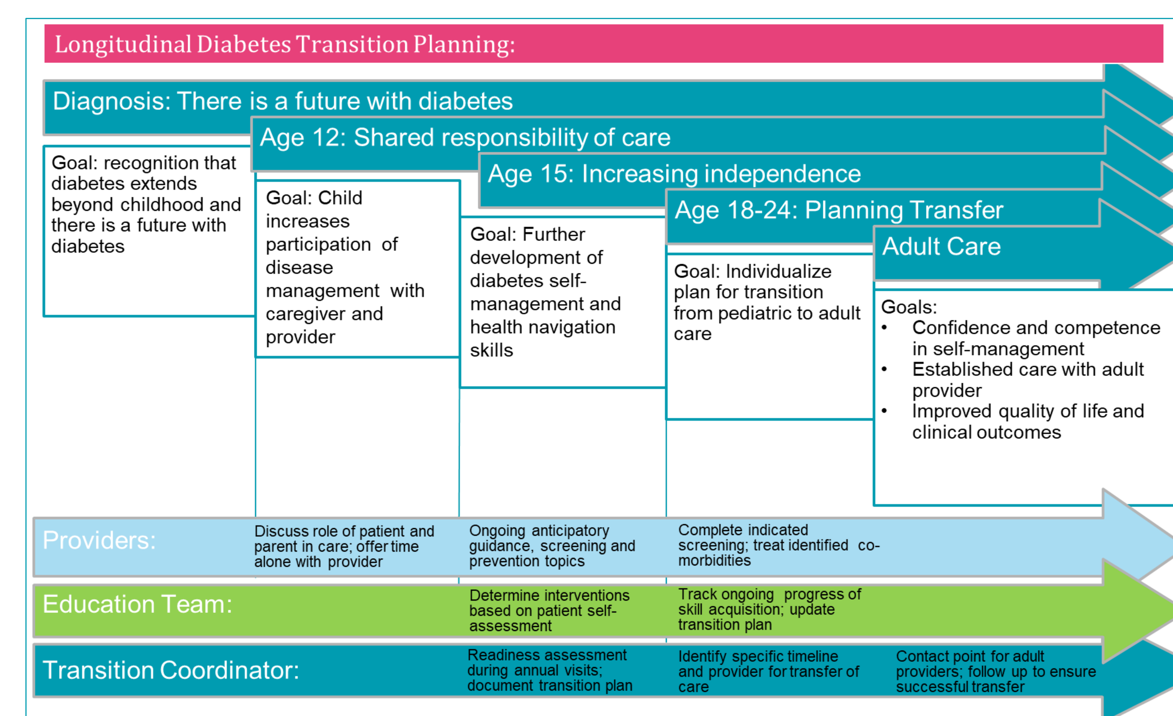
- Primary outcome, % of AEA with documented transition plan tracked over time using a run chart.
- A convenience sample of patients was followed to track post-transfer outcomes.

Targeted strategies included: adopting a transition policy, developing standard tracking, using READDY assessment tool, documenting transition planning, partnering with adult receivership practices, and using a care coordinator to confirm successful transfer.

Cincinnati Children's Diabetes Transition Guidelines and READDY assessment tool

Most patients transfer to adult care between ages 18-24, transition plans will be individualized.





READDY Transition to Adult Type 1 Diabetes Care
How ready are you?
Transition **R**eadiness assessment for **E**merging **A**dults with **D**iabetes **D**iagnosed in **Y**outh

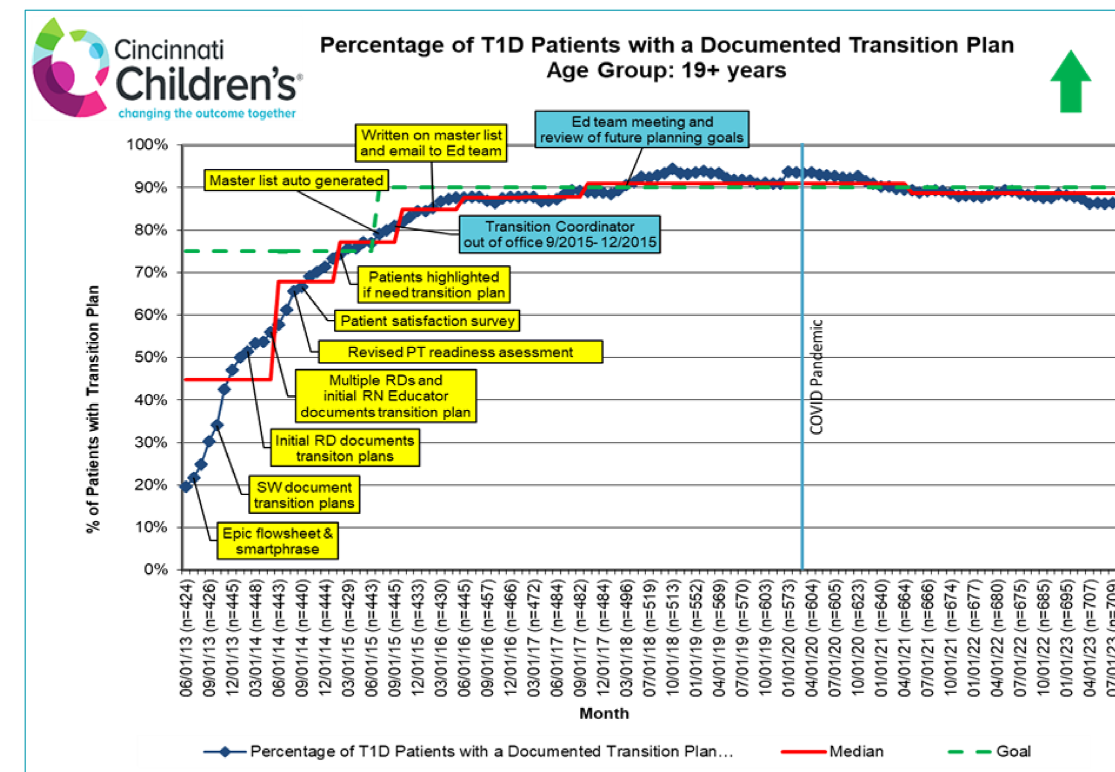
Listed below are some knowledge and skills that are useful in keeping you healthy with diabetes over your lifetime. This is not a test. There are not right or wrong answers. Please try to answer honestly. Be sure to ask your provider if you need more help in any of these areas.

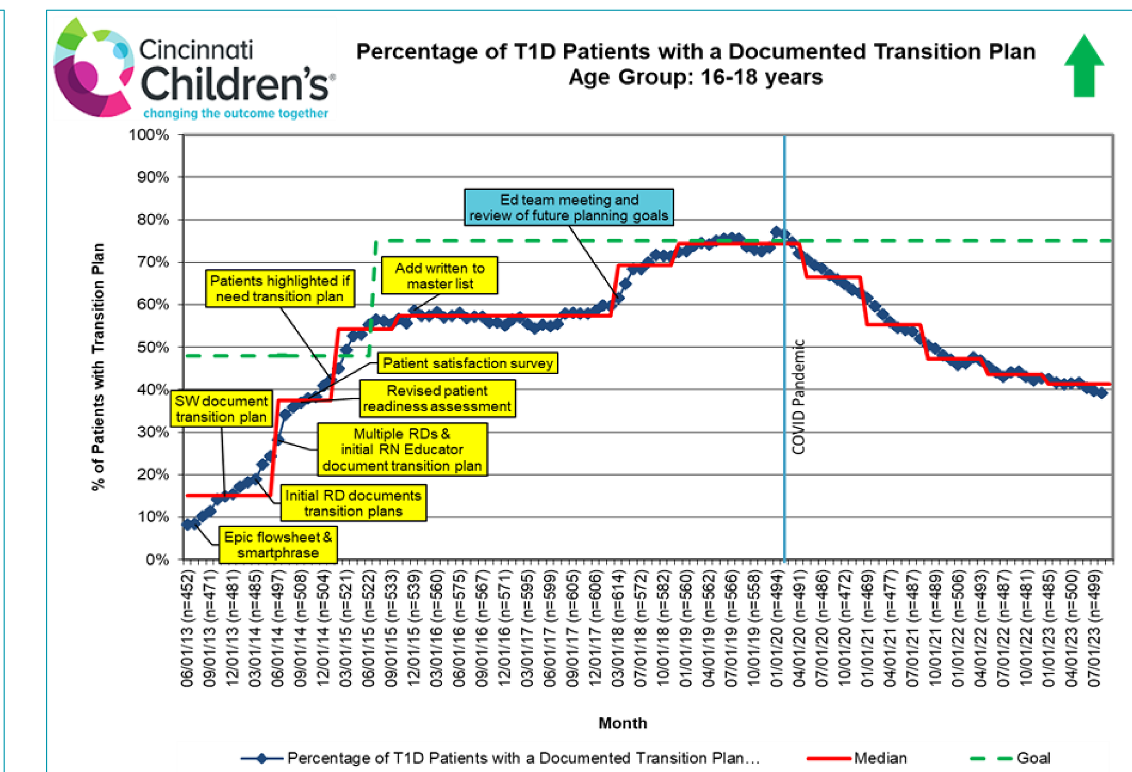
Knowing the facts about diabetes (Knowledge) I am able to:	Yes, I can do this	Somewhat, but I need a little practice	No, I still need lots of practice	I plan to start	Haven't thought about it
Describe diabetes in my own words					
Explain what Hemoglobin A1c (HbA1c) measures					
Recall my most recent HbA1c					
State my target HbA1c					
Understand my current health status					
Describe three long-term problems that might come from high HbA1c					
Teach a friend or roommate about signs of hypoglycemia					
Teach a friend or roommate about treatment of hypoglycemia, including use of Glucagon					
Tell someone how alcohol effects blood glucose					
Explain long-term impact of tobacco on heart health in people with diabetes					
Explain the impact of diabetes on sexual health/function					
Explain the impact of glucose control before and during pregnancy (female patients)					
List examples of tests done in routine visits to identify or prevent complications of diabetes					

Results

Over six years (2013-2019), the percentage of patients with T1D ages 16-18 years with a documented plan increased from 15% to 75%, and over age 19 years with documented plan from 20% to over 90%.

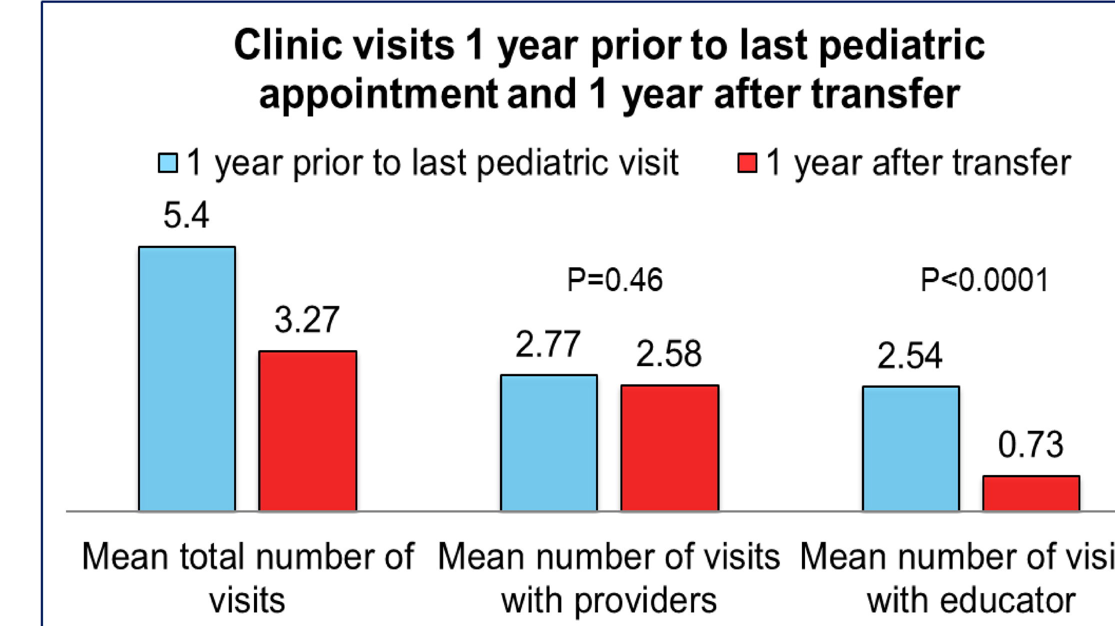
Improvement sustained post-Covid in older age group, but performance declined in younger population





Mean age of transfer of convenience sample (n= 54) is 22 years, with mean duration of diabetes 10 years.

One-year post-transfer HbA1c values are stable as were screening rates for cholesterol, thyroid function, and eye exams. Rates of education visits were high in pediatric care for the year prior to transfer, whereas rates of foot exams were higher in adult care.



	Pediatric Care N (%)	Adult Care N (%)	P-value
HbA1c	8.7%	8.59%	0.8076
Documented foot exam (within 1 year)	8 (17%)	40 (83%)	< 0.0001
LDL (within 2 years)	38 (79%	27 (56%)	0.0278
TSH (within 1 year)	23 (48%)	21 (44%)	0.1025
Documented eye exam (within 1 year	21 (44%)	19 (40%)	0.6547

Conclusions and Next Steps

Diabetes specific readiness assessment is a useful addition to transition preparation and planning.

Documented transition planning is a feasible metric to evaluate program maturity and consistency over time.

Sustained transition planning for ages > 19 persists but renewed attention in the 15-18-year-old group is needed post pandemic at our center.