

Disordered Eating Behaviors (DEB) Screening in Pediatric Diabetes

Angel Nip, MD; Jenise Wong, MD PhD; Mackenzie Allen, RD, CSP; Katie Hynes, MS, RD
Department of Pediatrics, Division of Endocrinology and Diabetes, University of California San Francisco

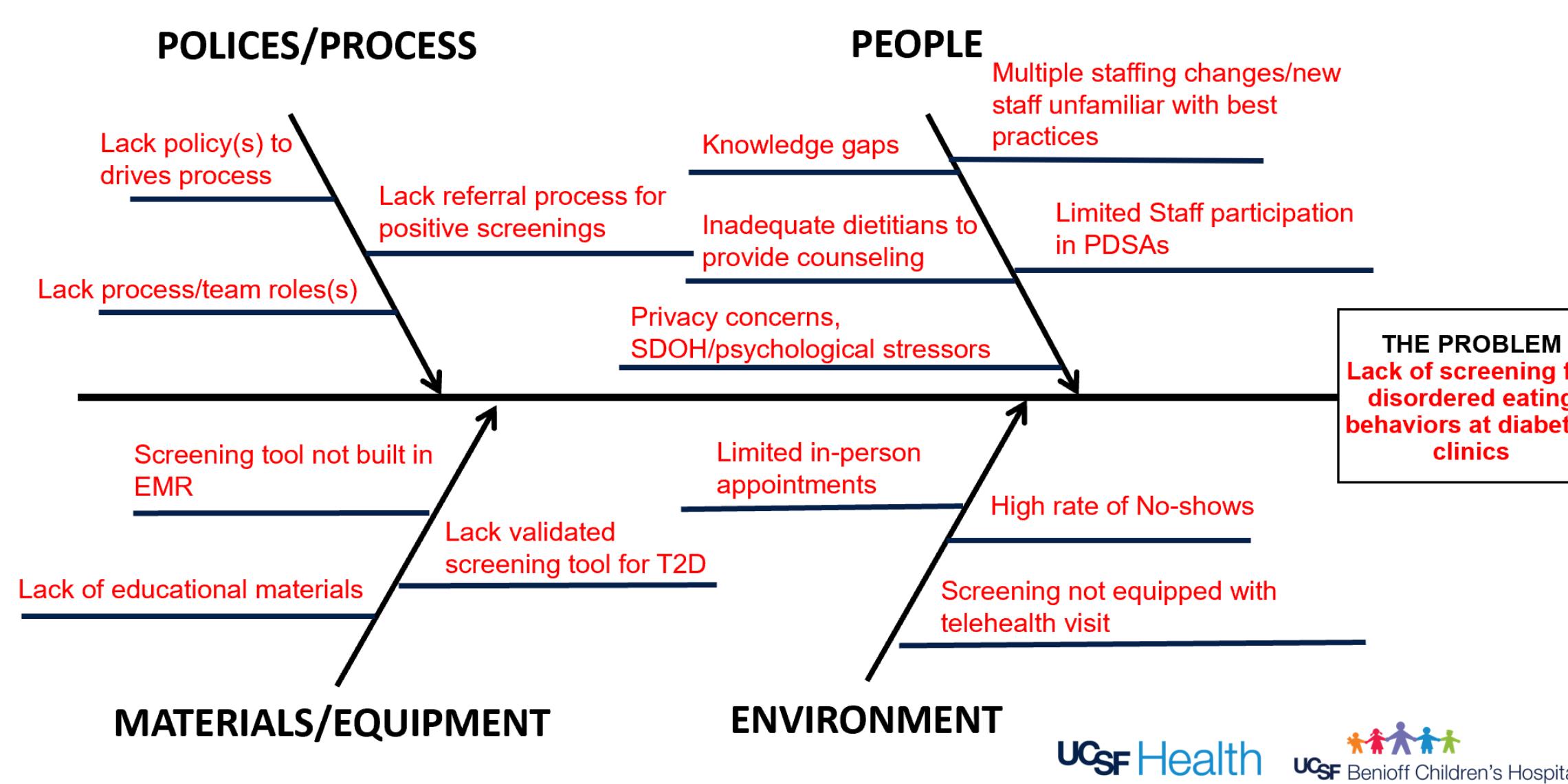
Background

- Diabetes is associated with **increased** risk of **disordered eating behaviors** (DEB).
- Disordered eating is associated with **suboptimal** diabetes management and **outcomes**, overweight and obesity, and worse psychological **wellbeing**.
- SEARCH for Diabetes in Youth Study showed **21% of Type 1 (T1D) and 50% of Type 2 diabetes (T2D) patients endorsed some disordered eating behaviors**.
- ADA recommends assessing for and supporting patients with diabetes and eating problems.

Goals

- Objective:** Identify adolescents with T1D and T2D at risk for disordered eating and provide early interventions to address symptoms.
- Secondary impact:** Address disordered eating behaviors and refer appropriately to improve diabetes self-care and medical outcomes.
- Goal:** Screen > 80% of patients with diabetes seen at diabetes clinics from January to December 2025.

Fishbone Diagram



Patient Characteristics

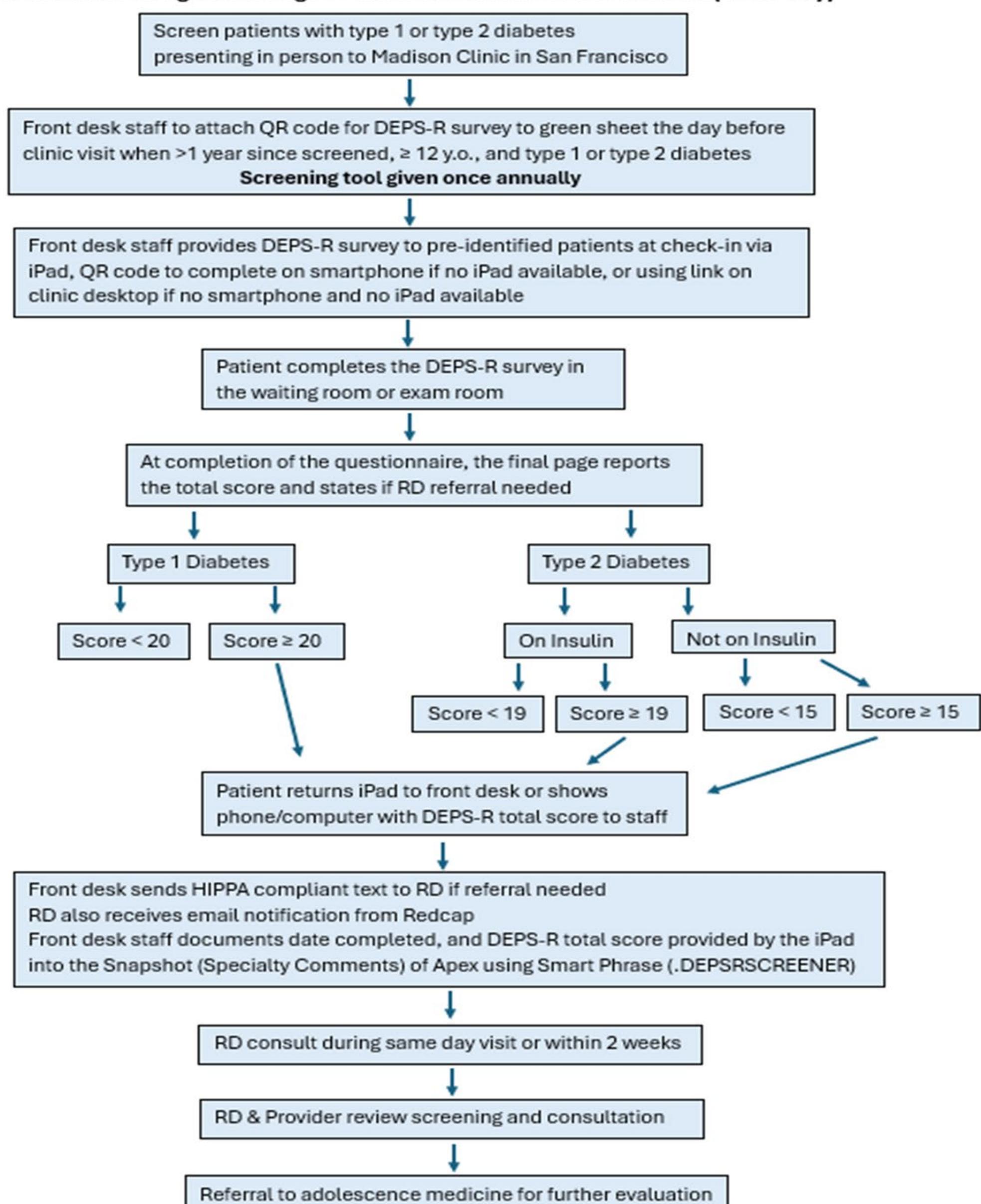
	T1D (n=506)	T2D on insulin (n=67)	T2D w/o insulin (n=73)
F:M gender	263:243	35:32	38:35
Mean age (years)	17.7 ± 3.8	16.5 ± 3.6	17.0 ± 2.2
Mean BMI (kg/m ²)	27.8 ± 6.9	33.0 ± 7.3	33.48 ± 6.5

Project Plan

Screening Tool:

- Disordered Eating Problem Survey – Revised (DEPS-R) Questionnaire (validated for T1D ≥12 years)
- 16 diabetes-specific self-report questions of disordered eating
- Criteria for screening: ≥12 years old, annually via electronic questionnaire with data stored in RedCap

Disordered Eating Screening in Pediatric Patients with Diabetes (West Bay)



Implementation

PDSA #1

- #1a (Sep 2024): Pilot screening at West Bay diabetes clinic
- #1b (Oct 2024): Pilot screening at East Bay diabetes clinic

PDSA #2 (Oct 2024)

- Patient resources handout created

PDSA #3 (Jan 2025)

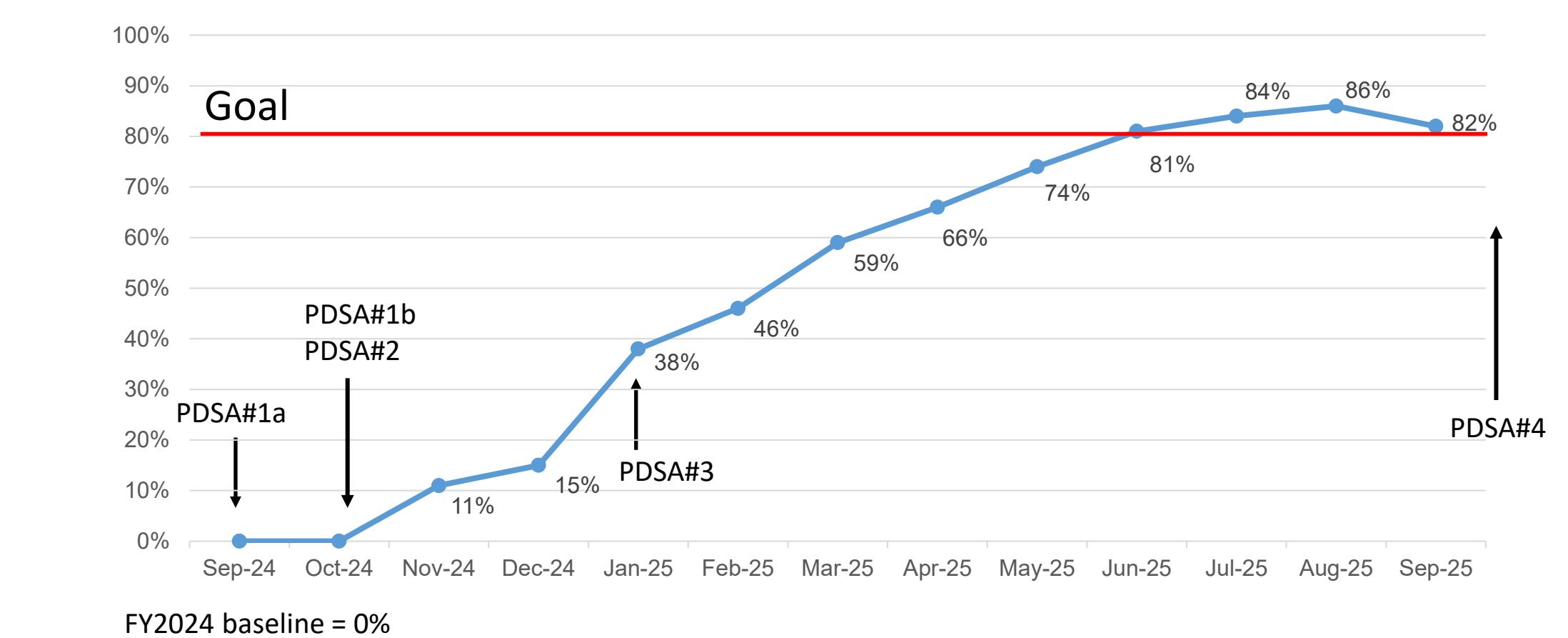
- Screening expanded to all providers at two main clinics

PDSA #4 (TBD)

- Group class on healthy eating and weight management

Results

DEB screening at Pediatric diabetes



Number (%) with positive screens

	T1D (n=506)	T2D on insulin (n=67)	T2D w/o insulin (n=73)
Total no. (%)	106 (20.9%)	35 (52.2%)	44 (60.2%)
Gender			
Female:Male	73:33	17:18	26:18
Age (years)			
12-15	33 (31.1%)	14 (40%)	10 (22.7%)
16-19	42 (39.6%)	17 (48.6%)	28 (63.6%)
20-23	23 (21.7%)	2 (5.7%)	6 (13.6%)
>24	8 (7.5%)	2 (5.7%)	0 (0.0%)
BMI (kg/m ²)			
Normal 18.5-24.9	37 (35%)	6 (17.1%)	2 (4.5%)
Overweight 25-29.9	35 (33.0%)	9 (25.7%)	4 (9%)
Obese 30-34.9	18 (16.9%)	10 (28.6%)	16 (45.4%)
35-39.9	6 (5.7%)	3 (8.6%)	10 (22.7%)
≥40	6 (5.7%)	7 (20%)	6 (13.6%)

- Among positive screens, **89% of patients met with dietitians** within 1 week
- 1% of patients with positive screens referred to Adolescent Medicine** for further evaluation

Next steps

Successes: Initiated DEB screening, provided individual assessment and counseling to patients who screened positive, developed written patient resources, and collaborated with Adolescent Medicine team for referrals

Next steps:

- Continue to screen patients annually and expand screening via telehealth and in satellite clinics
- Develop interventions such as group classes to establish healthy relationship with food and body image in patients with diabetes
- Validate the screening tool for T2D patients