

Background

Type 1 Diabetes management is challenging, especially for adolescents. Studies by Holman et al., and Clements et al., show that as young patients enter their teenage years, glycemic control worsens, leading to increased HbA1c levels ¹. This is despite greater technology use, and has been linked to communication issues, support changes, and hormonal growth factors ².

These insights echo our clinic observations and led us to explore how adolescent patients perceive T1D management and how we can better support them to improve outcomes during these critical years.

Objective

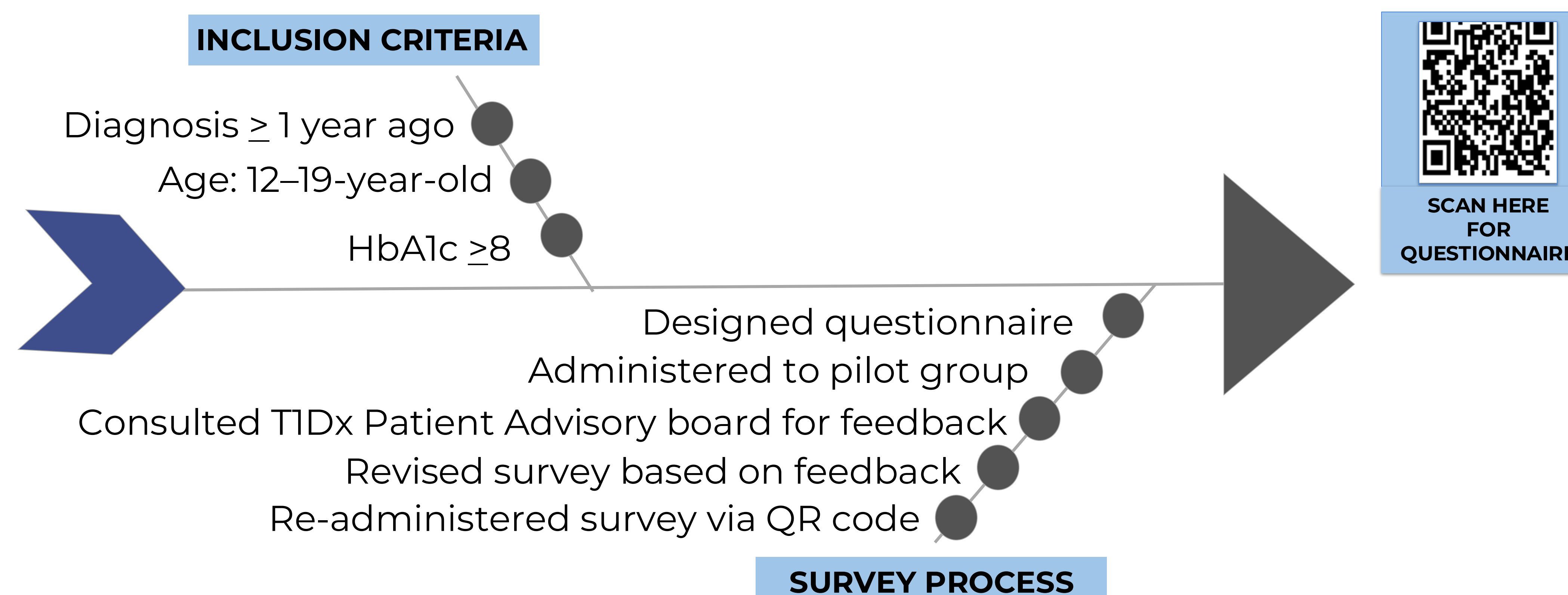
Primary Goal:

Gather insight from adolescents with T1D and HbA1c ≥ 8 about their T1D management to improve our interactions with them in clinic.

Gather insight on:

- Perceived difficulty managing T1D
- Level of concern for disease
- Perceived understanding of goals
- Feelings about interventions in clinic

Method



Results

Total of 27 patients.

Self Reported Gender

Female 46% Male 54%

Age

Range 12-18 y/o

Self Reported Ethnicity:

Black /African American 33% White/Hispanic 56%
White/ Non-Hispanic 7% Did not report 4%

A1c

Range 8.1 - 13.6 Median 9.1

Time since Dx

Range 1 - 14 yrs. Median 8 yrs.

Q2 I am concerned about my T1D

Q3 I am meeting my T1D goals

Q4 Hearing about potential T1D health effects encourages me to engage more in self-management behaviors

Q5 Hearing about potential T1D health effects encourages me to check my blood glucose more often

Q6 Hearing about potential T1D health effects discourages me from coming to the doctor

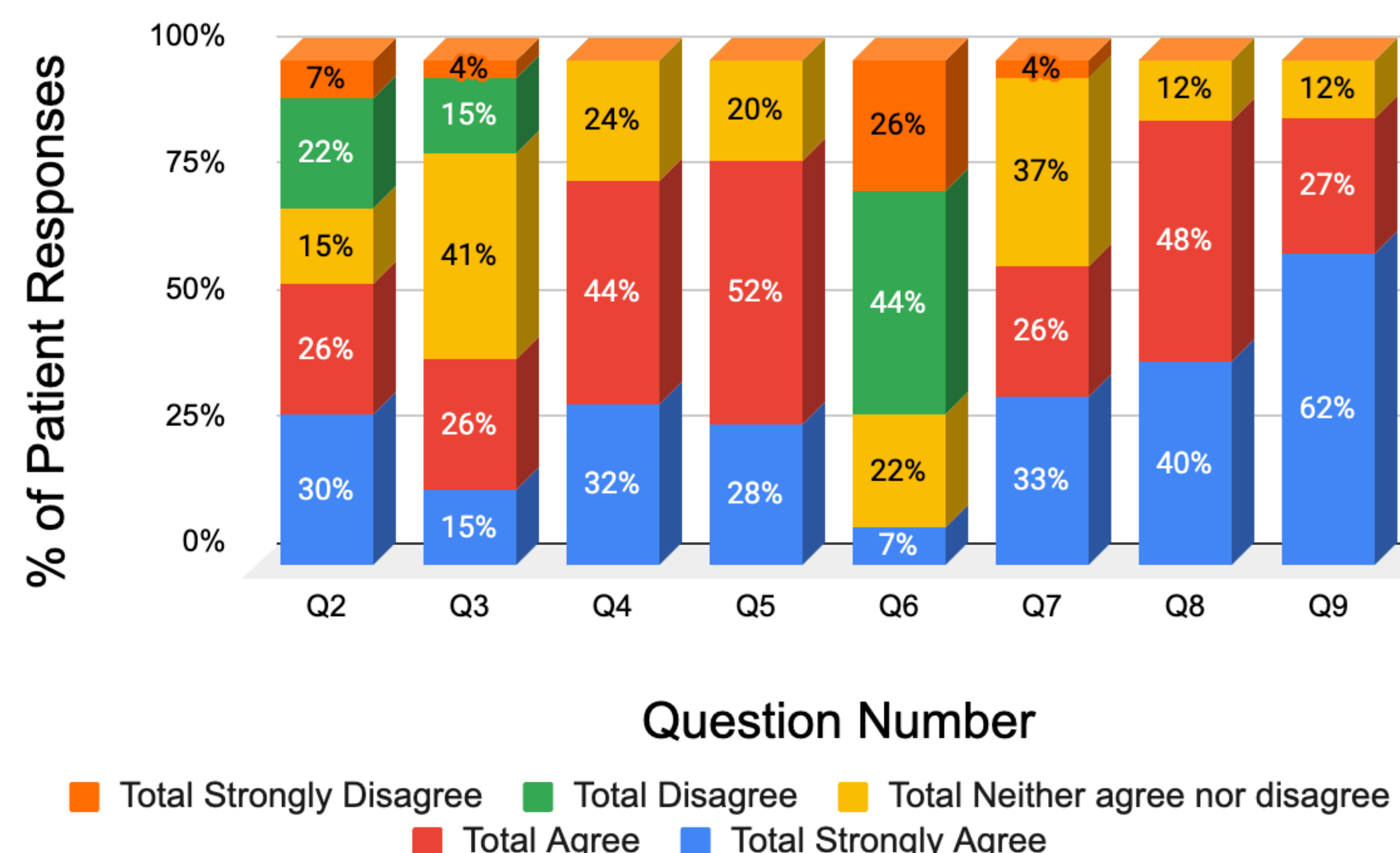
Q7 When my doctor says my A1c is outside of my blood glucose goal, I feel like I am not doing a good job

Q8 I understand the short and long-term effects of irregular glucose levels

Q9 I find visits with my doctor helpful

Q1 It is _ to manage T1D

Very Easy 2%, Easy 19%, Neither easy nor difficult 62%, Difficult 12%



Results Analysis

- **Management Perception:** Most patients find managing their T1D neither easy nor difficult.
- **Concern Levels:** About half feel they are meeting their goals, with the other half unsure.
- **Motivation Factors:** The majority find that learning about T1D health effects motivates them to improve self-management behaviors.
- **Impact of Medical Feedback:** Patients often feel discouraged when informed by doctors that their HbA1c is outside their target range.
- **Awareness :** Most patients are aware of the long-term effects of irregular blood glucose levels and find office visits to be beneficial.

Future Goals

Goal

Improve HbA1c levels for adolescent patients through individualized interventions

Strategy

1. Assess barriers to effective T1D management
2. Engage stakeholders to develop personalized interventions that empower them to take charge of their own care.
3. Enhance patient's confidence in managing their T1D

References

1 Clements, Mark A.; Foster, Nicole C.; Maahs, David M.; Schatz, Desmond A.; Olson, Beth A.; Tsalikian, Eva; Lee, Joyce M.; Burt-solorzano, Christine M. ; Tamborlane, William V.; Chen, Vincent; Miller, Kellee M.; Beck, Roy W. (2016). "Hemoglobin A1c (HbA1c) changes over time among adolescent and young adult participants in the T1D exchange clinic registry." *Pediatric Diabetes* 17(5): 327-336.

2 Holman N, Woch E, Dayan C, Warner J, Robinson H, Young B, Elliott J. National Trends in Hyperglycemia and Diabetic Ketoacidosis in Children, Adolescents, and Young Adults With Type 1 Diabetes: A Challenge Due to Age or Stage of Development, or Is New Thinking About Service Provision Needed? *Diabetes Care*. 2023 Jul 1;46(7):1404-1408. doi: 10.2337/dc23-0180. PMID: 37216620; PMCID: PMC10300515.