


# Increasing Counseling about the Risk of Hypoglycemia associated with Alcohol Consumption for Adolescent Patients with Diabetes

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# Prevalence of Alcohol Use in Adolescents

Alcohol use by adolescents remains a significant public health concern

- 2019 Youth Risk Behavior Survey – 29% of high school students reported alcohol consumption within the past 30 days

Dangers of alcohol consumption are increased in patients with insulin dependent diabetes

- Alcohol increases the risk of severe hypoglycemia by inhibiting gluconeogenesis
- Hypoglycemia can be mistaken for intoxication, delaying life-saving care

○ Centers for Disease Control and Prevention. Underage Drinking. Centers for Disease Control and Prevention. Published Oct 6, 2021. <https://www.cdc.gov/alcohol/fact-sheets/underage-drinking.htm>

○ Tetzchner R, Norgaard K, Ranjan A. Effects of alcohol on plasma glucose and prevention of alcohol-induced hypoglycemia in type 1 diabetes – A systematic review. Diabetes Metab Res Rev. 2018;34:e2965. <https://doi.org/10.1002/dmrr.2965>. Accessed October 10, 2023.

# Counseling of Adolescents with Insulin Dependent Diabetes

Counseling of adolescents before they reach legal drinking age was a priority for our clinic

- At the start of our quality improvement project our clinic had no standardized process for counseling adolescents with insulin dependent diabetes regarding the risk of alcohol consumption

# Collaborative Team Members

The people who made it happen!

- Kaitlin Hamilton, PA-C
- Jennifer Sutter, MD
- Maria Henwood-Finley, MD
- Mindy Saenz, RD, CDE
- Courtney Nichols, RN
- Staff at ECU Pediatric Specialty Clinic

## Team Leader Key Contact Info:

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## Aim Statement

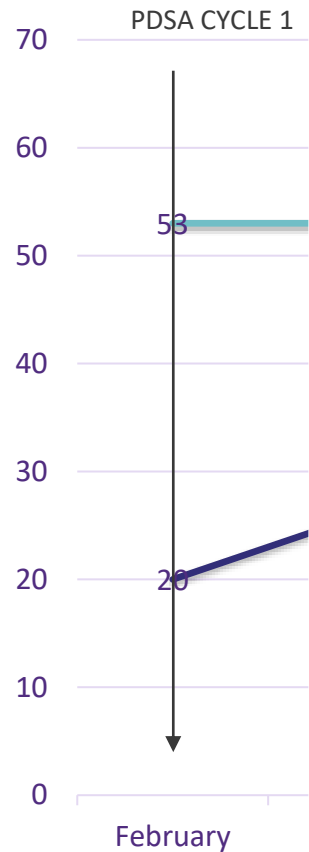
Through the implementation of a standardized process to assess and document counseling, we aimed to increase the percentage of patients 16 years of age or older with insulin dependent diabetes seen at the ECU Health Pediatric Diabetes Clinic who correctly identified the risk of hypoglycemia and alcohol from 4% to 20% by December 2023.

# Measures:

<b>Initial Outcome Measure:</b>	Intake form question: “Has your provider talked to you about the risks of alcohol and diabetes?”
<b>Revised Outcome Measure:</b>	Intake form question: “Can you tell us what happens to your blood sugar when you drink alcohol?”

Initial outcome measure - revised after discovering that many patients could not correctly identify the risk of alcohol consumption with insulin dependent diabetes despite reporting having “been counseled.”

# Alcohol Counseling of Adolescents with Diabetes



## PDSA Cycle 1: February 2023

- Clinic intake form altered to assess previous counseling for patients 16 and 18 years
- Educational sheet and Epic Smartphrase developed to assist with counseling and documentation

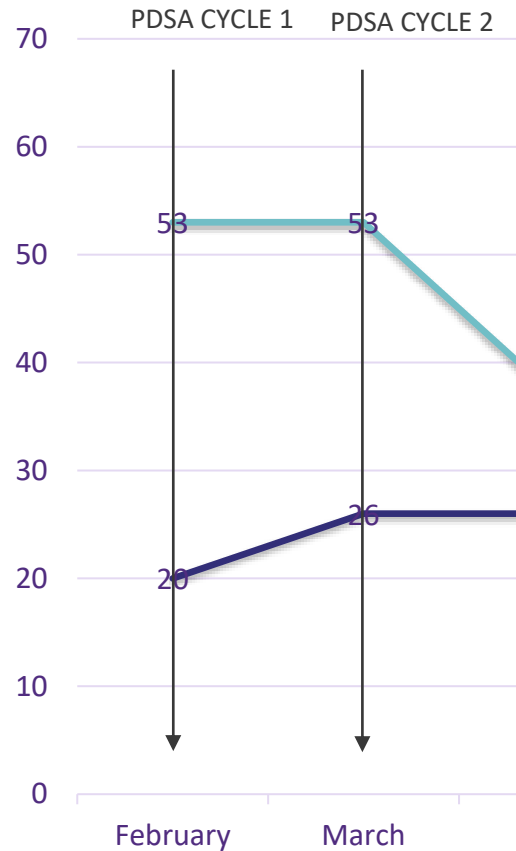
“Has your provider talked to you about the risks of alcohol and diabetes?”

Measure:	Baseline Data: (N=15)	%
Outcome Measure	% Reported having been counseled	53%
Process Measure	% Patients with documented counseling	20%

— % Reporting Having Been Counseled

— % Patients with Documented Counseling

# Alcohol Counseling of Adolescents with Diabetes



## PDSA Cycle 2: March 2023

- Assessment expanded to patients 16 years and older

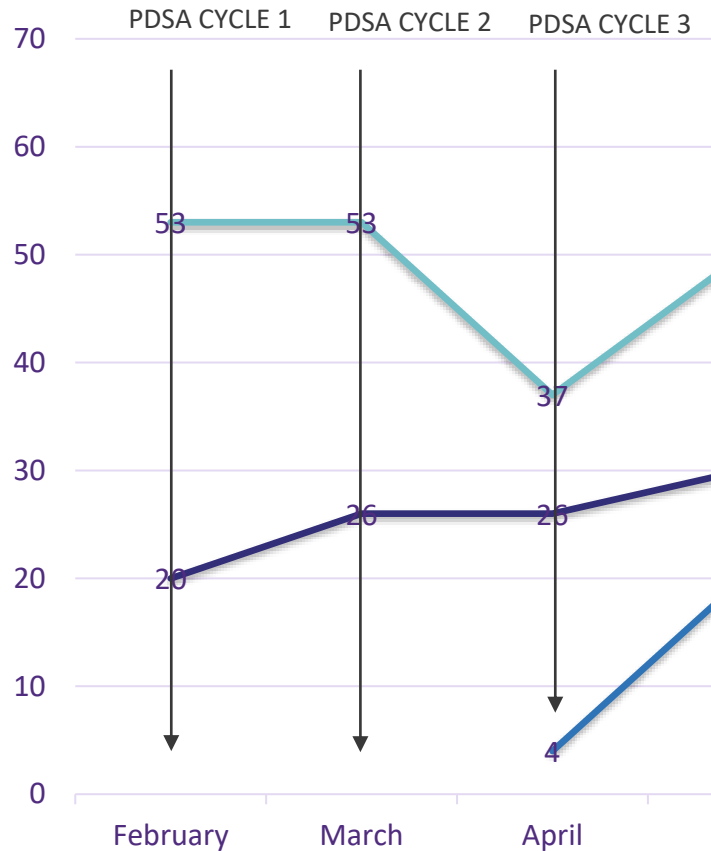
Measure	Data: (N=30)	%
Outcome Measure	% Reported having been counseled	53%
Process Measure	% Patients with documented counseling	26%

— % Reporting Having Been Counseled

— % Patients with Documented Counseling



# Alcohol Counseling of Adolescents with Diabetes



## PDSA Cycle 3: April 2023

- Clinic intake form altered to assess understanding of the risk with targeted counseling

“Can you tell us what happens to your blood sugar when you drink alcohol?”



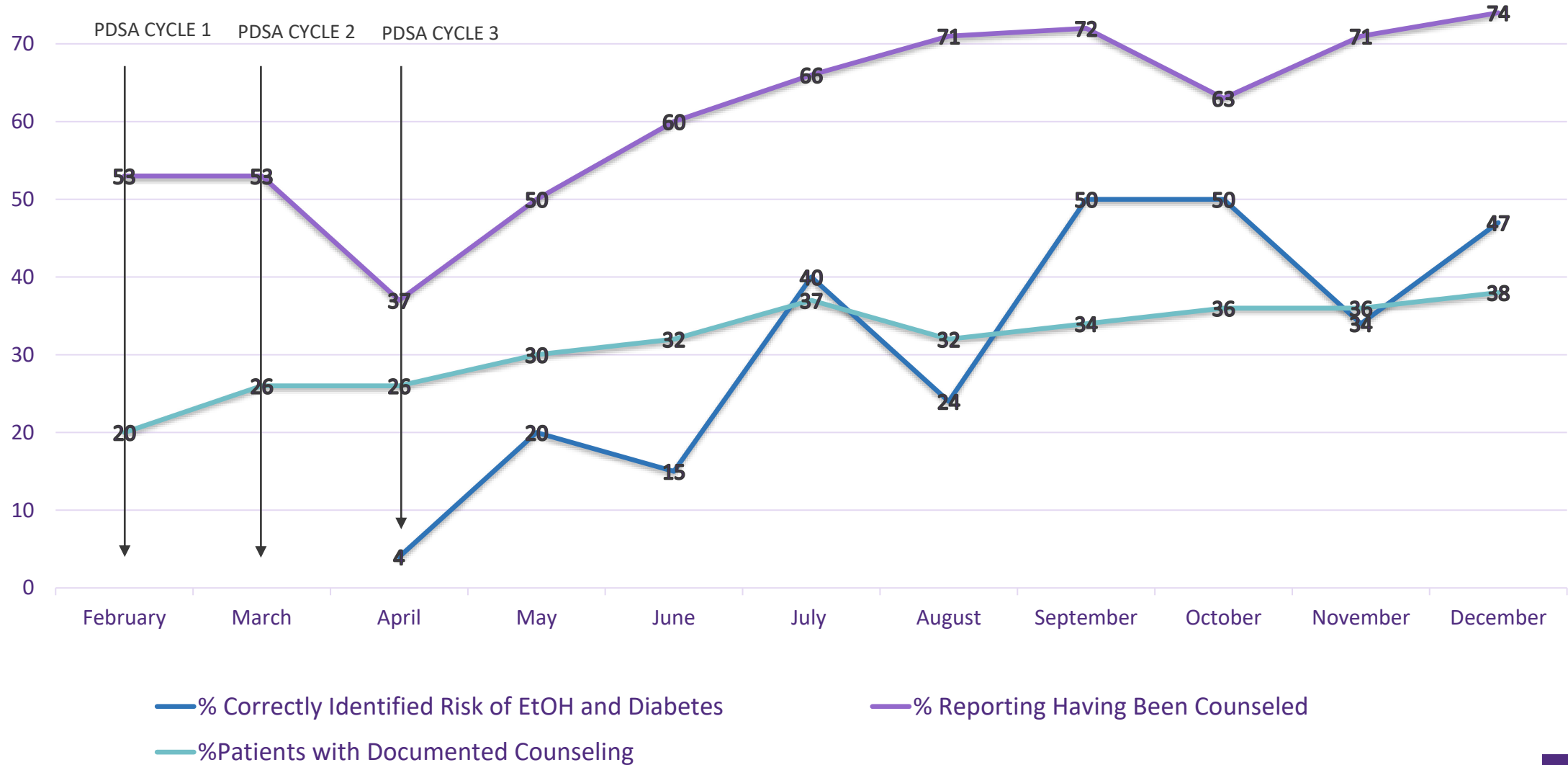
Measure	Data: (N=46)	%
Process Measure	% Reported having been counseled	37%
Process Measure	% Patients with documented counseling	26%
Outcome Measure	% Patients with correct response	4%

— % Correctly Identified Risk of EtOH and Diabetes

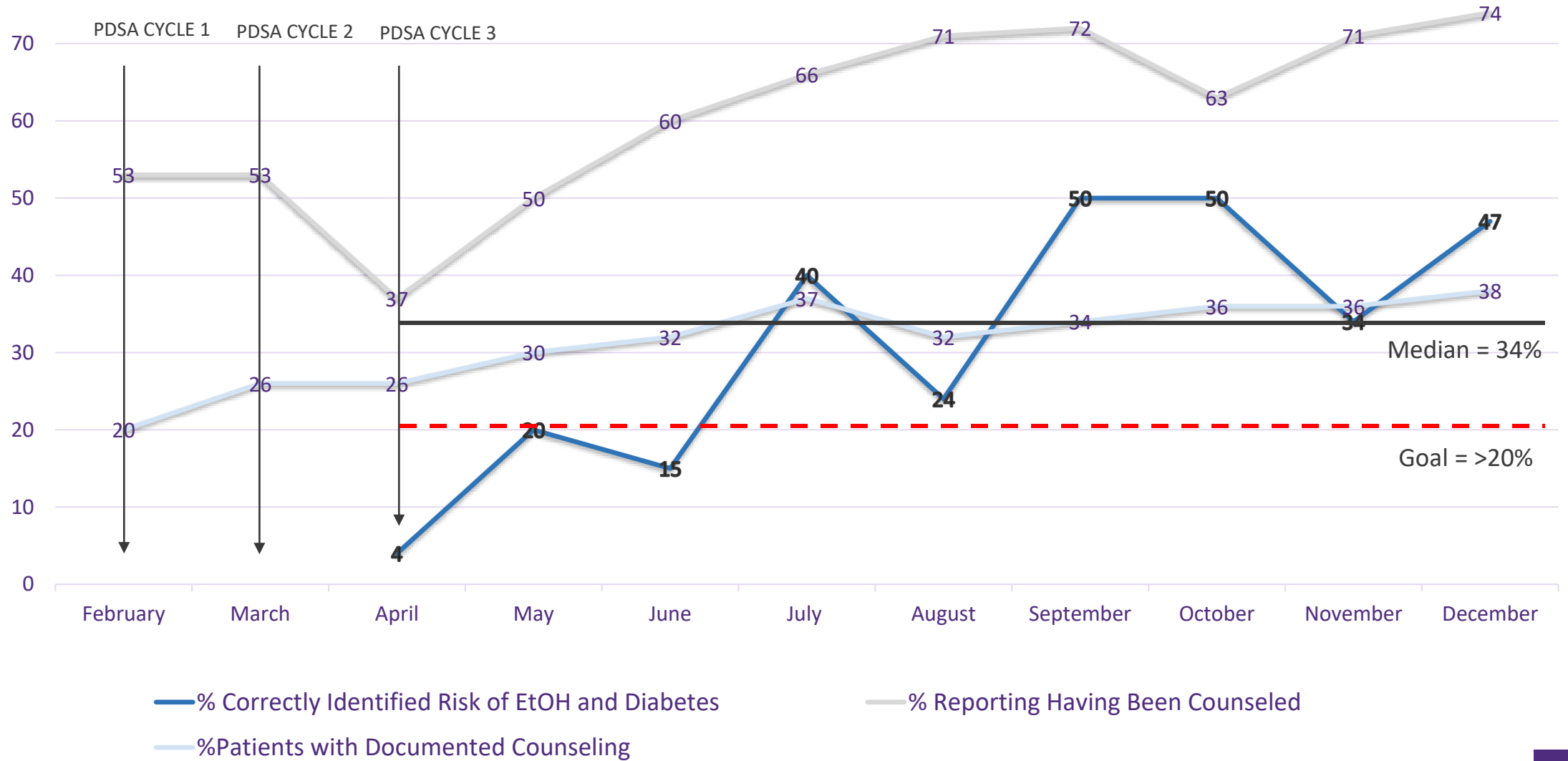
— % Reporting Having Been Counseled

— % Patients with Documented Counseling

# Alcohol Counseling of Adolescents with Diabetes

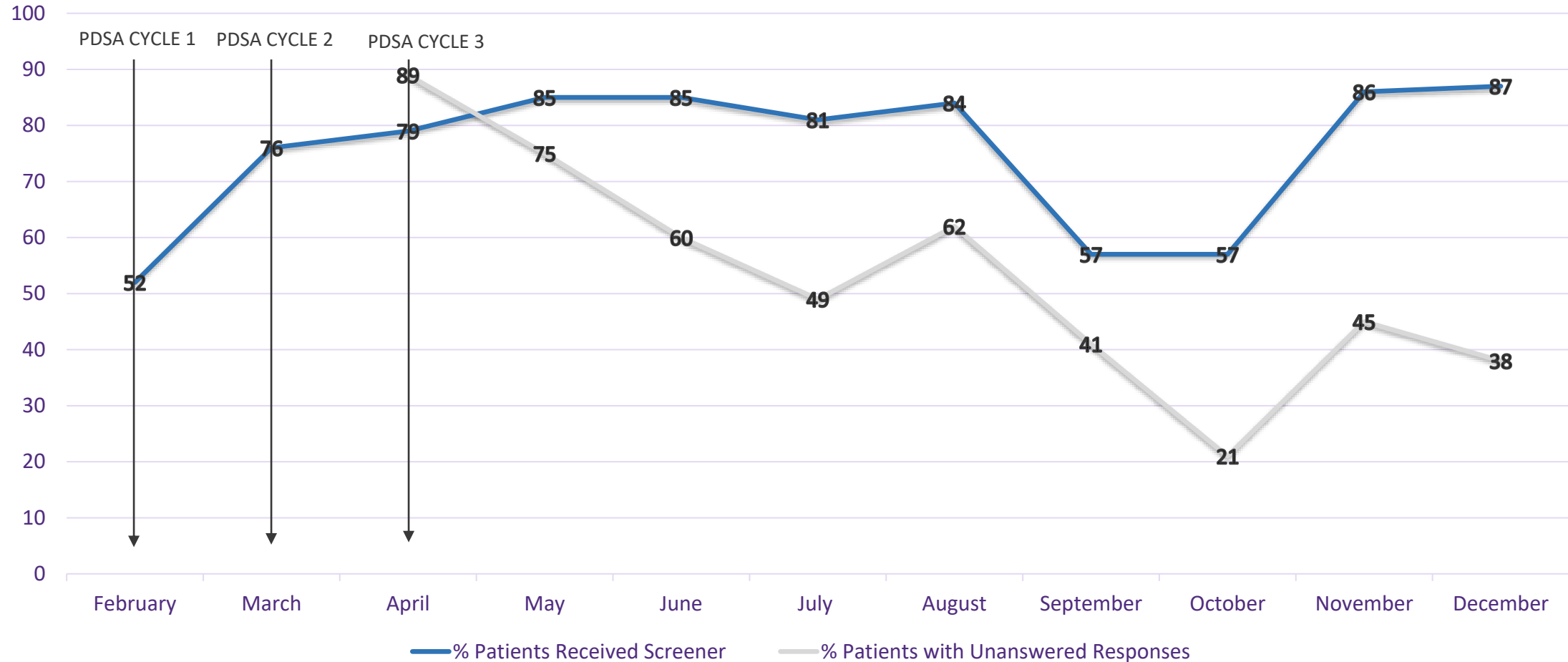


# Alcohol Counseling of Adolescents with Diabetes



# Challenges Encountered:

1. Missed screening opportunities
2. Large number of unanswered responses



## NEXT STEPS AND BIG PICTURE:

### **PDSA Cycle 4:** Targeting UNANSWERED responses

- Revised patient intake form
- Educational material in exam rooms

**Global Aim:** To set our adolescent patients up for success as adults living with insulin dependent diabetes

- Vision for the future... expansion to other transition topics

# Questions?

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