

Implementation of the ASQ suicide risk screening in routine pediatric diabetes care

Risa Wolf, MD

11/10/2024



JOHNS HOPKINS
CHILDREN'S CENTER

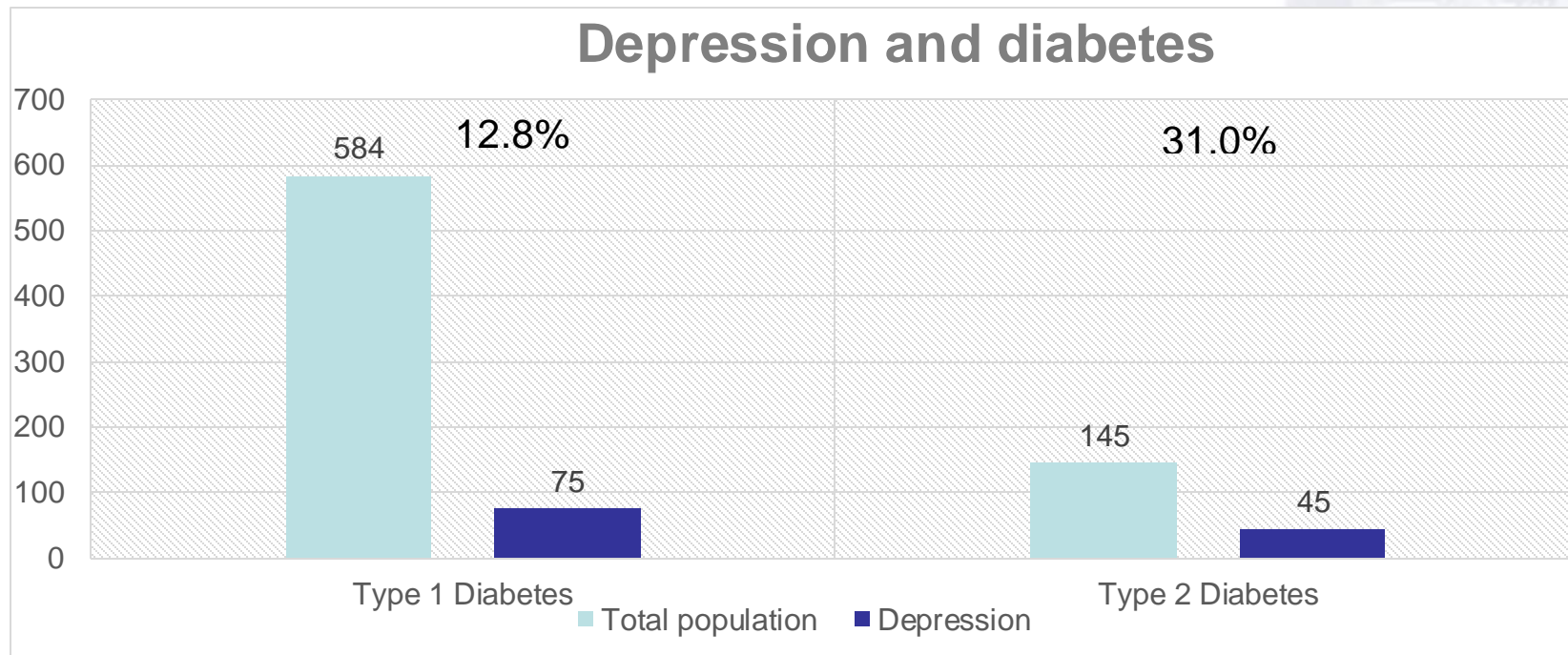
Background

- Suicide is the 2nd leading cause of death among youth and young adults, ages 10–34, in the USA
- Depression and suicidal ideation (SI) are more prevalent in adolescents with chronic illness
- ADA and ISPAD recommend screening for mental health disorders, but no specific guidelines exist for suicide risk screening.

Background

- T1D: Suicide risk 2.2-11.3%
- T2D: Suicide risk 9-18%
- Adolescents with T2D self-report a 50% higher degree of depressive symptoms compared to adolescents with T1D

Prevalence of depression in our population (2022 data)



**Depression: PHQ
score > 4**

Survey options


- PHQ-9(A)
- Ask Suicide-Screening Questions (ASQ)
- Columbia-Suicide Severity Rating Scale (C-SSRS).
- Children's Depression Inventory (CDI)
- Suicide Behavior Questionnaire-Revised (SBQ-R)

PHQ-9(A)

Has there been a time in the <u>past month</u> when you have had serious thoughts about ending your life?	
<input type="checkbox"/> Yes	<input type="checkbox"/> No
Have you <u>EVER</u> , in your WHOLE LIFE, tried to kill yourself or made a suicide attempt?	
<input type="checkbox"/> Yes	<input type="checkbox"/> No

ASQ

- Brief – 4 questions
- Validated in youth ages 10-24
- Evaluates both past suicide attempts and current suicidal ideations.
- Yes to any question is a positive response
- Had already been deployed in our emergency room, and built into EPIC.




Ask Suicide-Screening Questions
Suicide Risk Screening Questions for Medical Settings

1. In the past few weeks, have you wished you were dead?	Yes	No
2. In the past few weeks, have you felt that you or your family would be better off if you were dead?	Yes	No
3. In the past week, have you been having thoughts about killing yourself?	Yes	No
4. Have you ever tried to kill yourself?	Yes	No
If yes, how? _____ When? _____		

If the patient answers yes to any of the above, ask the following question:

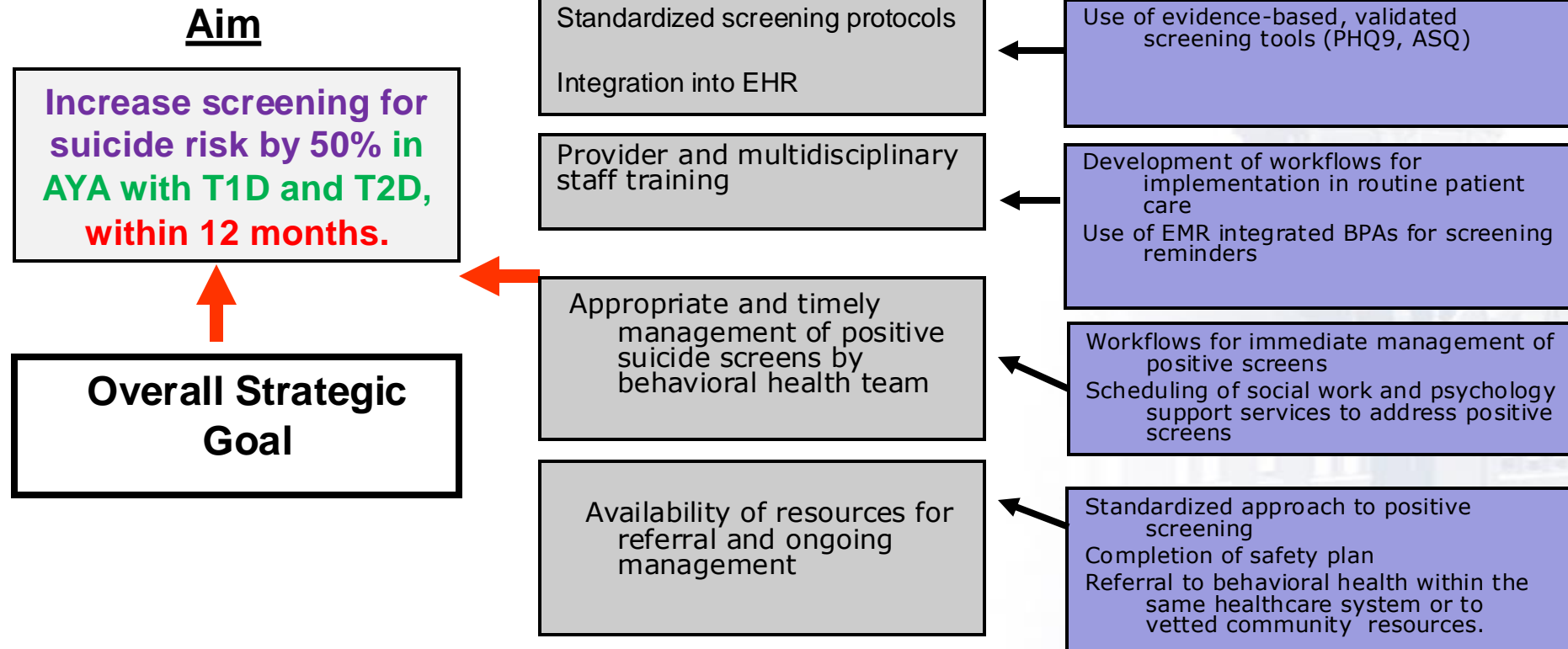
5. Are you having thoughts of killing yourself right now?	Yes	No
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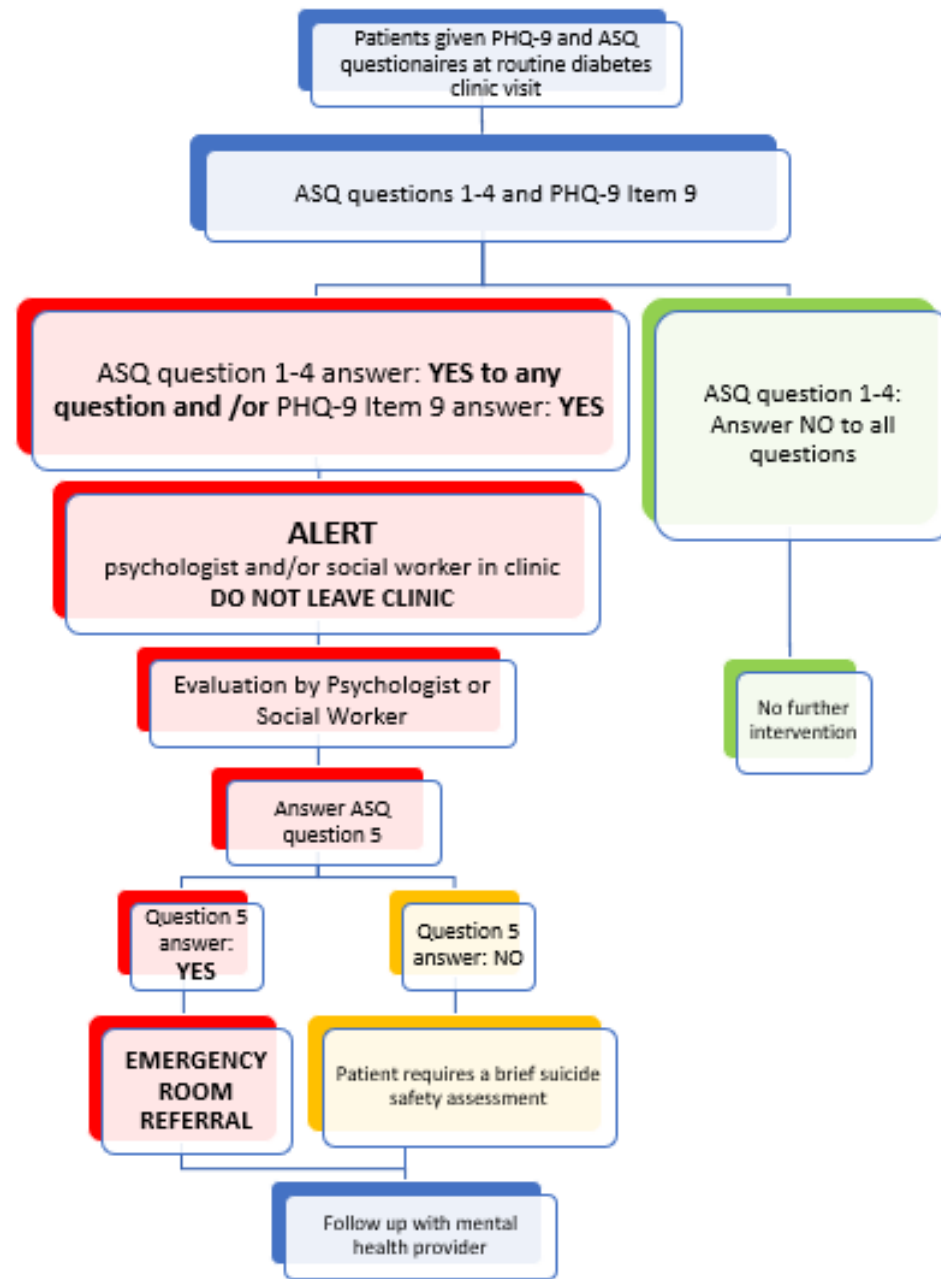
Project Title

Key Drivers

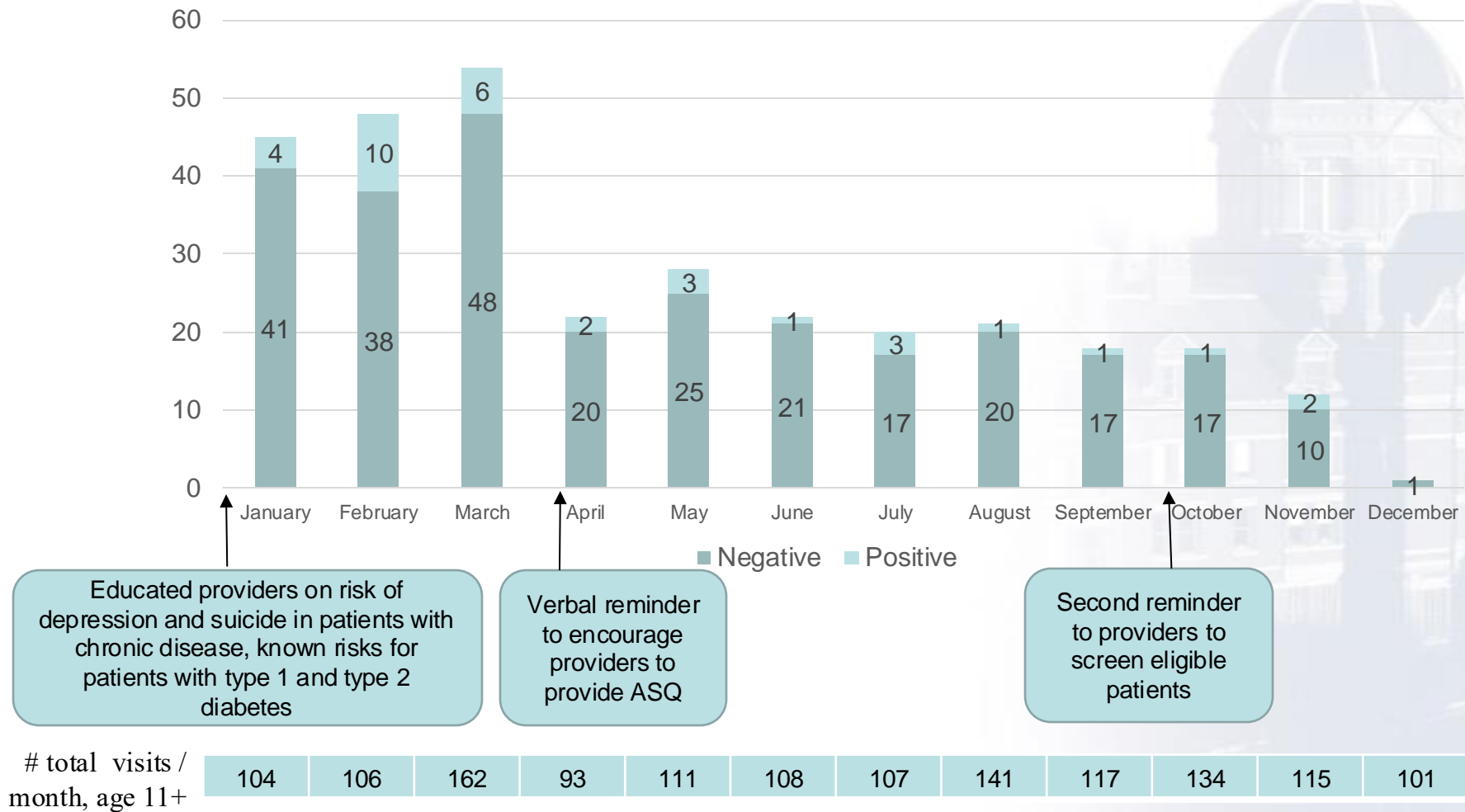
Interventions



Aim: Increase screening for suicide risk by 50% in adolescents with T1D and T2D, within 12 months.



ASQ Completion over 12 months



Results

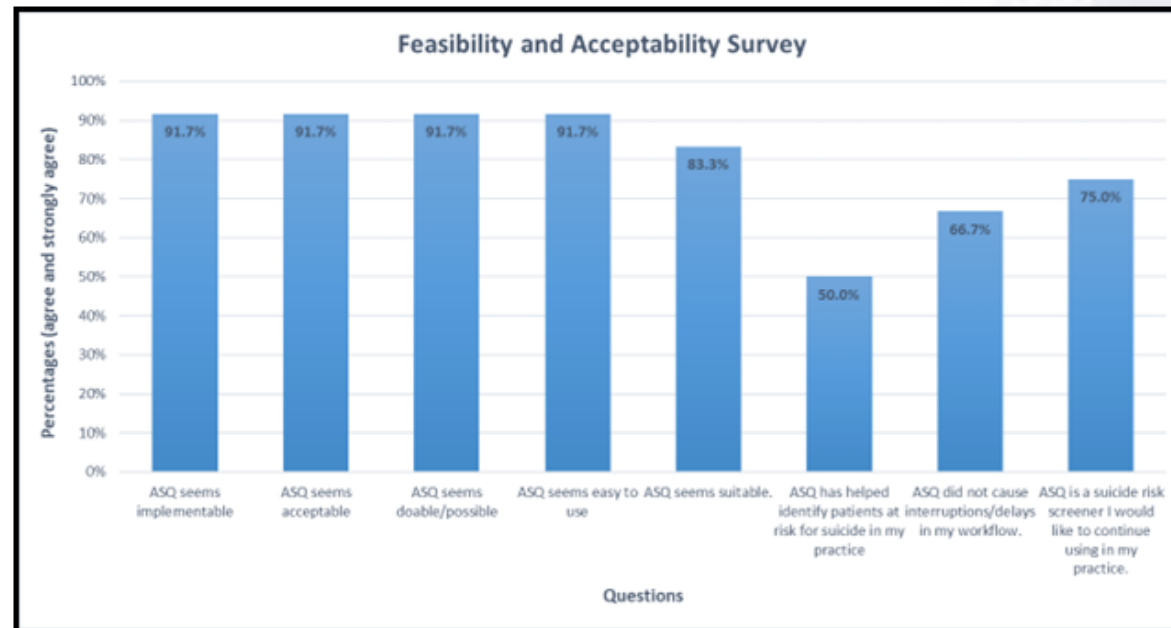
- 309 screened of 582 eligible (54%) – T1D 237; T2D 72
- T1D:
 - 27.8% (66/237) were positive for some degree of depression
 - 8.4% (20/237) were positive on ASQ
- T2D
 - 50% (36/72) were positive for some degree of depression
 - 19.4% (14/72) were positive on ASQ

Results and Mental Health Follow-up

- 33/34 ASQ positive saw psychology or SW at the visit (one was prior suicide risk, not active)
- 34 identified as ASQ positive
 - 18/34 (52.9%) followed up with outpatient mental health provider within 1-month
 - 21/34 (61.7%) followed up within 3-months

Feasibility/Acceptability

- 12 providers completed a feasibility/acceptability questionnaire.
- Most providers said ASQ was easy to implement and use, and did not cause delays in their workflow.
- 75% of the providers would continue to use ASQ in their practice



Summary

- ASQ is a brief, simple screener for suicide risk
- Feasible to implement in routine diabetes care
- Prevalence demonstrates importance of screening for depression and suicide risk
- More efforts needed to improve follow-up with mental health resources at the point of care and after

Thank you to the team!

Pediatric Endocrine Fellow

- Saleel Fatima, MD

Statisticians

- Laura Prichett, PhD
- Elizabeth Brown, MPH

Social Worker

- Nancy Campbell, MSW, LCSW-C

Psychologists

- Meg C.N. Snyder, PsyD
- Morgan Bifano, PsyD



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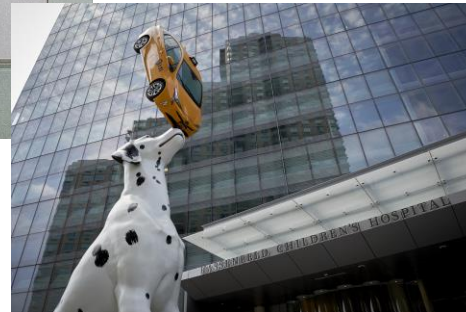
Family Centered Team Meetings for People with HbA1c >9% for >12 months

Jeniece Ilkowitz, RN, MA, CDCES, Mary Ann Harris, SW, Vanessa
Wissing, RD, CDCES, Mary Pat Gallagher, MD

Presenter: Jeniece Ilkowitz, RN, MA, CDCES

November 11, 2024

Hassenfeld Children's Hospital at NYU Langone Health, Pediatric Diabetes Center (PDC)

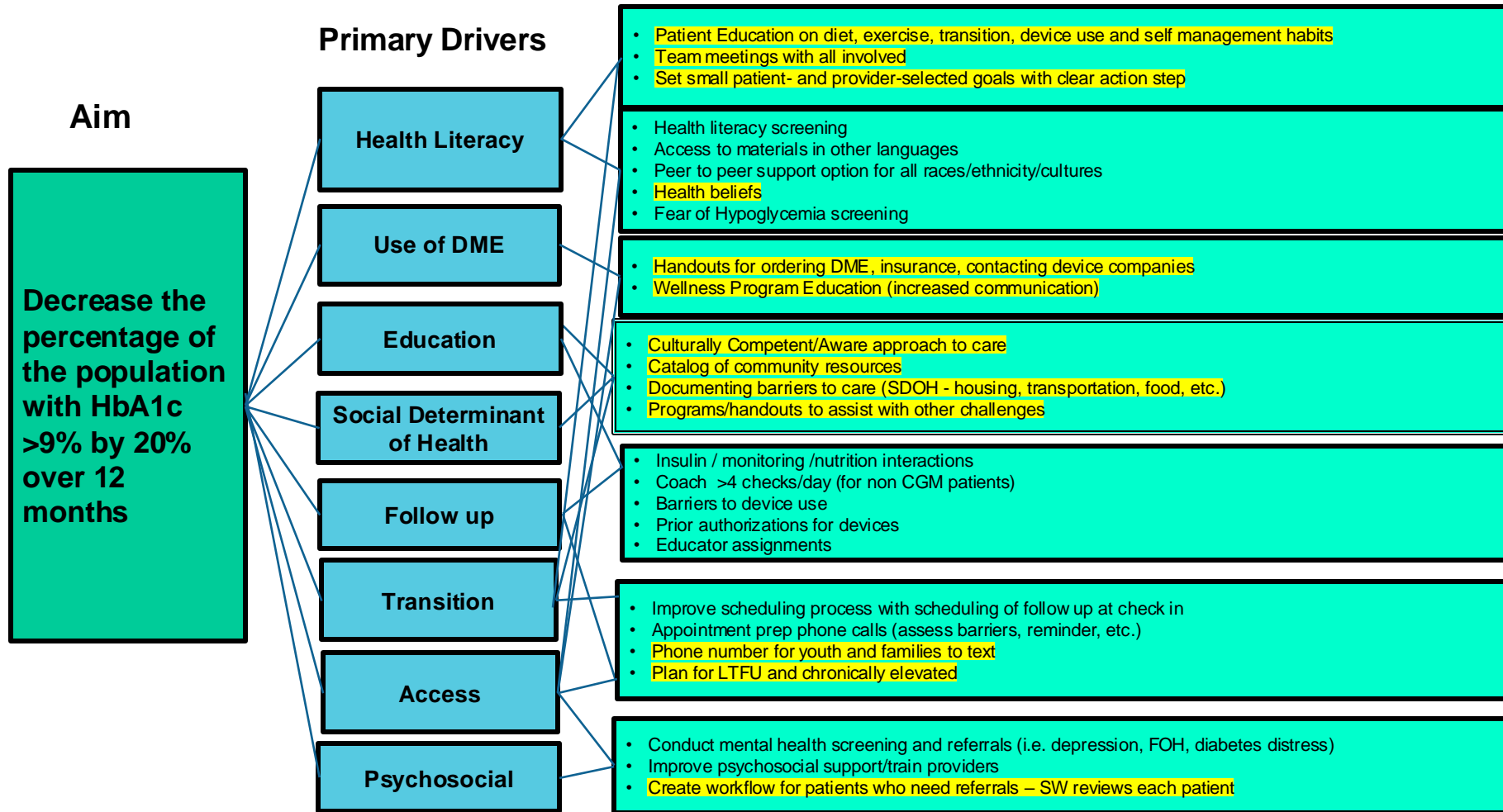


Patient population:
~700 PWD
~70 new diagnoses/year

- 5 pediatric endocrinologists
- 1 nurse practitioner CDCES
- 3 fellows
- 1 RN
- 5 CDCES (3 RD, 2 RN)
- 1 SW
- Shared: psychologist, child life specialist, child and adolescent psychiatrist, neuropsychologist
- Family and youth advisors
- Research team

Pediatric T1D A1c Improvement KDD for High Risk Population

Change Ideas



Previous Quality Improvement Efforts

A Wellness Program for Children and Young Adults with HbA1c >9%

- The HCH Pediatric Diabetes Center (PDC) created a Wellness Program (WP)
 - Enrolled people with HbA1c >9%
 - Screened for barriers
 - Provided cellphone number for texting CDCES
 - Increased contact and visits
 - Behavioral health team consults
- 39% of WP achieved HbA1c <9% in 6 months
- A group of PWD were moved to a chronically elevated (CE) list if their HbA1c remained >9% for 12 months

**What could help our
population with a
chronically elevated
HbA1c?**

Pediatric T1D A1c Improvement KDD for High Risk Population

Change Ideas

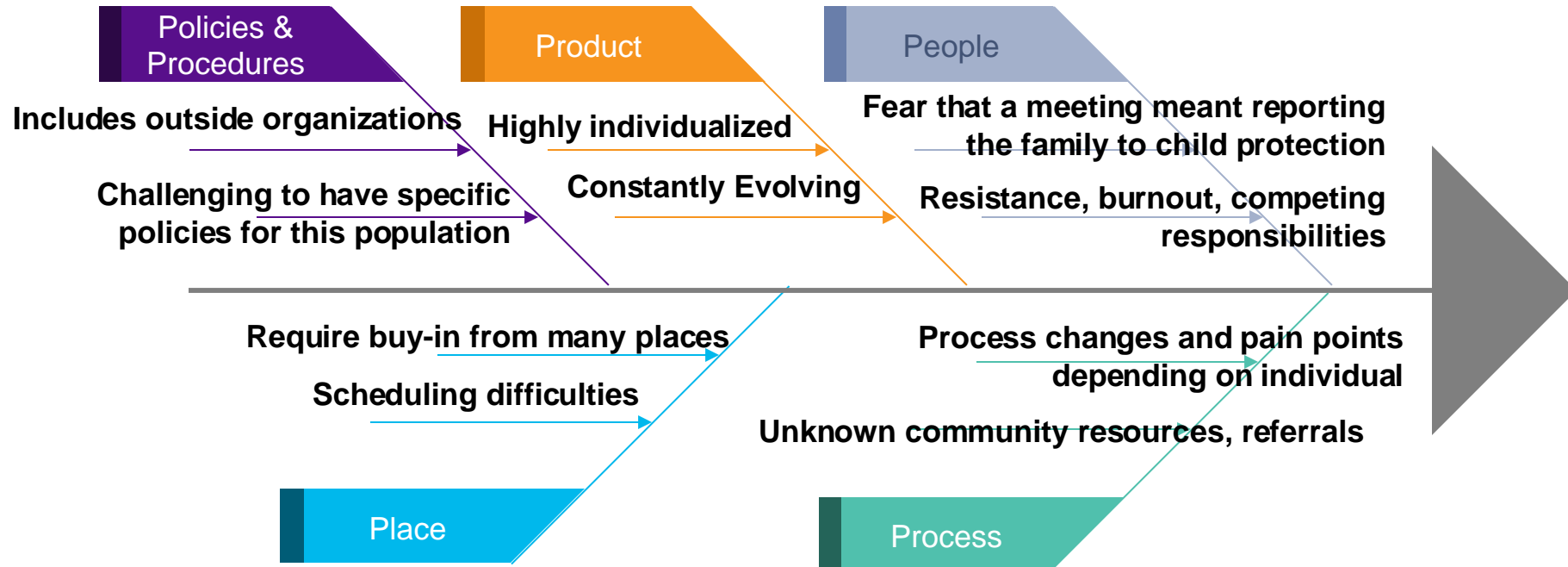
Aim
 Decrease the percentage of population with HbA1c >9% by 20% over 12 months

Primary Drivers

- Health Literacy
- Use of DME
- Education
- Social Determinant of Health
- Follow up
- Transition
- Access
- Psychosocial

- Patient Education on diet, exercise, transition, device use and self management habits
 - Team meetings with all involved
 - Set small patient- and provider-selected goals with clear action step
- Health literacy screening
 - Access to materials in other languages
 - Peer to peer support option for all races/ethnicity/cultures
 - Health beliefs
 - Fear of Hypoglycemia screening
- Handouts for ordering DME, insurance, contacting device companies
 - Wellness Program Education (increased communication)
- Culturally competent approach to care
 - Catalog of community resources
 - Documenting barriers to care (SDOH - housing, transportation, food, etc.)
 - Programs/handouts to assist with other challenges
- Insulin / monitoring /nutrition interactions
 - Coach >4 checks/day (for non CGM patients)
 - Barriers to device use
 - Prior authorizations for devices
 - Educator assignments
- Improve scheduling process with scheduling of follow up at check in
 - Appointment prep phone calls (assess barriers, reminder, etc.)
 - Phone number for youth and families to text
 - Plan for LTFU and chronically elevated
- Conduct mental health screening and referrals (i.e. depression, FOH, diabetes distress)
 - Improve psychosocial support/train providers
 - Create workflow for patients who need referrals – SW reviews each patient


Challenges

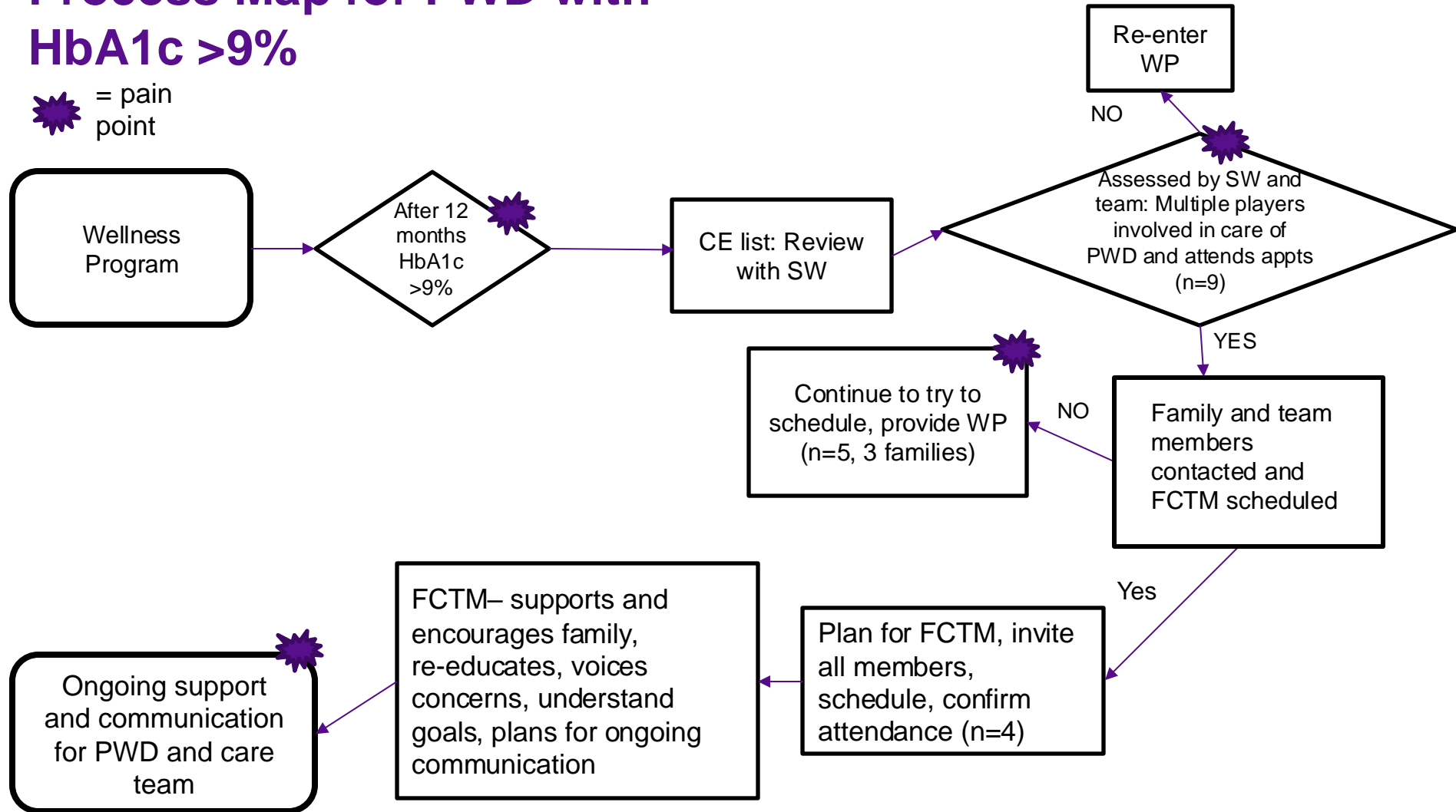


Aim: Decrease HbA1c of Youth with Chronically Elevated (CE) HbA1c >9% by 20% over 6 months through the use of Family Centered Team Meetings (FCTM)

- Began CE FCTM QI: January 2024
- CE defined as an HbA1c >9% for >12 months
- FCTM workgroup reviewed each case (n=33)
 - N=9 identified to participate in a FCTM (eligibility based on many factors including involvement of multiple caretakers and/or need or use of community resources and attends clinic appointments, etc.)
- FCTM goal:
 - elicit perspectives of and education for all involved: child, family, PDC, community partners (e.g. school, ACS, case workers, NAC, psychology, nursing services, community groups, etc.)
 - develop a comprehensive, mutually agreed upon and understood plan

Process Map for PWD with HbA1c >9%

 = pain point



Family Centered Team Meetings: Planning, Objectives, and Goals

- ❖ PDC Social Worker (SW) planned, scheduled and led - allowing for all to voice concerns, strategies and encouragement
- ❖ Meetings were hybrid
- ❖ Scheduled as part of Provider Visit

Objectives and Goals

- Provide updates about patient's diabetes management
- Discuss barriers and concerns of team members
- Ensure that recommendations are consistent with PWD and caregivers understanding and concerns
- Collaborate with community agencies - discuss ways to have wrap around services in place
- Provide education or support where needed including follow up visits
- Improve psychological supports through use of PDC consults or engaging community services
- Reduce hospitalization through education and planning
- Address changes in the patient's medical or family status (ex. Medical needs, SDOH, etc.)
- Encourage and create a process for ongoing exchange of information between the child, family, medical team/clinicians and community providers
- Clarify goals

Family Centered Team Meetings: Successes

- Many attendees (ex. therapists, principles, ACS, NAC, visiting health services, etc.)
- Initiated evaluations and services:
 - IEPs
 - ACS case
 - neuropsychological evaluations
 - Therapy
 - Home health care
 - NAC
- Increased communication plan

Family Centered Team Meetings: Challenges

- Families living in shelters created additional considerations
- Technology supply issues
- Determining who is involved and get in touch
- Scheduling for the more resistant families
 - Making them feel comfortable
- More resources are always needed
 - Educational, community, mental health

Results

- Of the 9 families identified for FCTM:
 - Four (44%) participated in a FCTM
 - Five did not participate; were unable or unwilling to schedule a FCTM (three families with two sets of siblings)
- Of the 4 who participated in a FCTM
 - HbA1c decreased on average by 11.3% (SD -33,4) over 6 months [versus 4% (SD -13.6,7.7) of those who did NOT attend a FCTM]

Conclusions

- This QI effort decreased average percent HbA1c by 11.3% in a cohort of children with CE HbA1c who attended a FCTM
 - Although we did not reach our aim to decrease HbA1c of Youth with CE HbA1c by 20% over 6 months through the use of FCTM we did see a decrease in the Hba1c and it was a clinically meaningful difference vs those who did not attend a FCTM
- Ongoing initiatives include further investigation into how to engage additional families and accomplish goals
- Barriers identified for this group of families living with T1D included:
 - additional medical diagnoses
 - housing insecurity
 - barriers obtaining diabetes technology supplies
- Ongoing efforts
 - Reduce fear and engage more families
 - SW student working on additional resources list: food banks, GED sites, vocational training, etc.



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Thank you!

Insulin Cost and Insecurity in the Pediatric Type 1 Diabetes Population

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November 11, 2024



Barbara Davis Center for Diabetes
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Disclosures

- **LAW, CS, KB, and TT** have no conflicts of interest related to this project to disclose
- **EC** does research with Dexcom, Abbott, Tandem, Insulet, Medtronic, Beta Bionics, Luna Health, and Eli Lilly.
- **SP** was a contributing writer for diaTribe, was on the Medical Advisory Board for Medtronic MiniMed, Inc, has received research funding from Dexcom, Inc., Eli Lilly, JDRF, Leona & Harry Helmsley Charitable Trust, NIDDK, and Sanofi US Services, and has received research support from Diasome Pharmaceuticals, Medtronic MiniMed, Inc., and Sanofi US Services.
- **GTA** has received honorarium for an advisory board with Mannkind.



Introduction

- Insulin prices have increased sharply over the last several decades, with costs tripling between 2012 to 2022.
- Reasons for dramatic rise in costs are multi-faceted.
- Federal and state governments have taken steps to reduce out-of-pocket costs, though protection is incomplete.
- Manufacturers are also now offering saving programs and cards.
- High insulin costs are associated with rationing in older adults with type 1 diabetes but limited data available in pediatrics.



Objective

- We sought to identify gaps and opportunities for improvement in clinician awareness of patient affordability and access of insulin.



Methods

- Emerging adults (18-26 years) and parents/guardians of children (1-18 years) with type 1 diabetes
- June 2023 to February 2024
- One-time survey administered in clinic:
 - Most recent insulin co-payment and size of prescription (1 vs 3 month supply)
 - Frequency of insulin insecurity behaviors in the last 12 month
 - Agreement on statements regarding concerns about insulin cost
- Demographics obtained from EHR: Race/ethnicity, diabetes duration, insurance status, most recent Hemoglobin A1c (HbA1c), and time in range 70-180 mg/dL (TIR)
- Insulin Insecurity: Endorsement of at least 1 insecurity behavior in last 12 months
- Linear models fit to compare out-of-pocket costs, HbA1c, and TIR adjusting for sex, diabetes duration, race/ethnicity, insurance, and age



Methods

Insulin Insecurity Behaviors:

In the last year, have you...

- Run out of any type of insulin before you are allowed to have another refill
- Had to use a family member's or friend's insulin until you could refill your own
- Not filled a prescription for insulin because you could not pay for it
- Used less insulin than you needed to avoid running out
- Paid cash for insulin because your insurance would not cover it or it cost less than your copay/coinsurance
- Bought, or attempted to buy, insulin through other places other than a pharmacy (Facebook, other internet sources, family/friends, etc)
- Given less insulin or NOT given yourself insulin due to cost



Methods

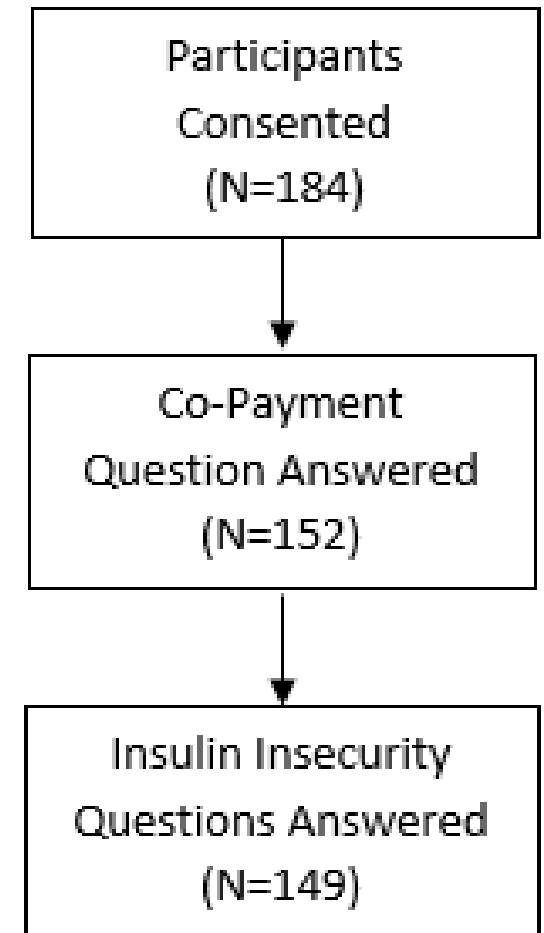
Cost Concerns:

- Insulin was too expensive for me to afford in the last year
- I am worried that I will not be able to afford insulin in the next 3 months
- I have paid less for insulin since the first Colorado Insulin Cap law went into effect
- I have gone without insulin for one or more days because the pharmacy needed insurance authorization
- I have skipped paying other bills to afford my insulin
- I know what to do if the insulin price is more than I expected
- I know who to contact at the BDC if I cannot afford my insulin
- I feel comfortable discussing with my provider or team if I am worried I will not be able to pay for insulin
- I have avoided/put off making an appointment at the BDC because I am worried about paying for the appointment



Results: Overall Population

	N=152
Mean age, years (SD)	14.9 (4.8)
Mean diabetes duration, years (SD)	6.7 (4.6)
Female, %	52.0
Race/Ethnicity: Non-Hispanic White, %	86.8
Mean HbA1c, % (SD)	7.57 (1.4)
Mean TIR, % (SD)	58.0 (18.2)
Monthly co-payment (SD):	
Mean (SD)	\$39.30 (103.00)
Range	\$0-988
Median	\$11.70



Results: Insulin Insecurity

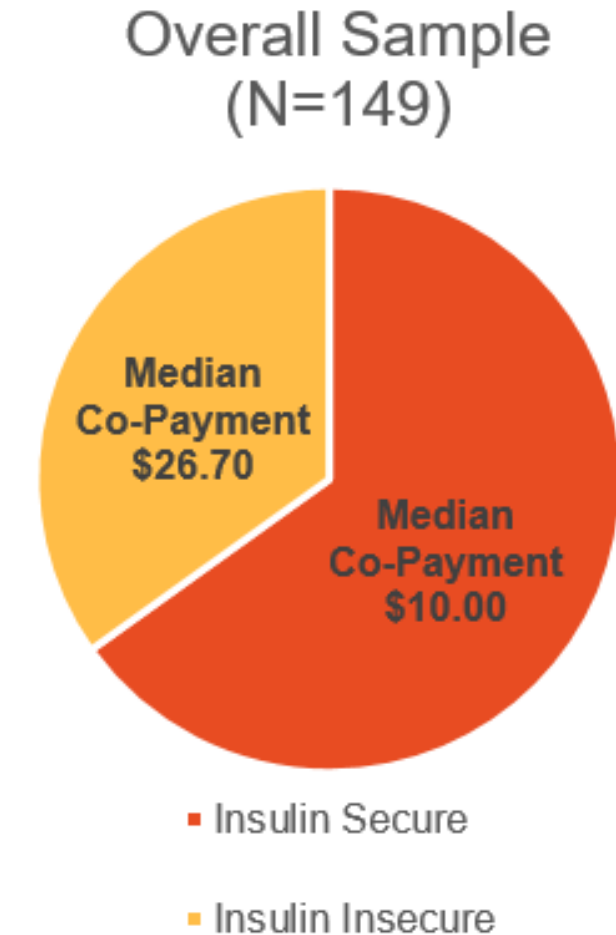
In the last year, have you...	Entire Sample
Run out of any type of insulin before you are allowed to have another refill	22.1% (33/149)
Had to use a family member's or friend's insulin until you could refill your own	8.1% (12/149)
Not filled a prescription for insulin because you could not pay for it	11.4% (17/149)
Used less insulin than you needed to avoid running out	15.6% (23/147)
Paid cash for insulin because your insurance would not cover it or it cost less than your copay/coinsurance	15.4% (23/149)
Bought, or attempted to buy, insulin through other places other than a pharmacy (Facebook, other internet sources, family/friends, etc)	4.0% (6/149)
Given less insulin or NOT given yourself insulin due to cost	13.5% (20/148)



Results: Insulin Insecurity

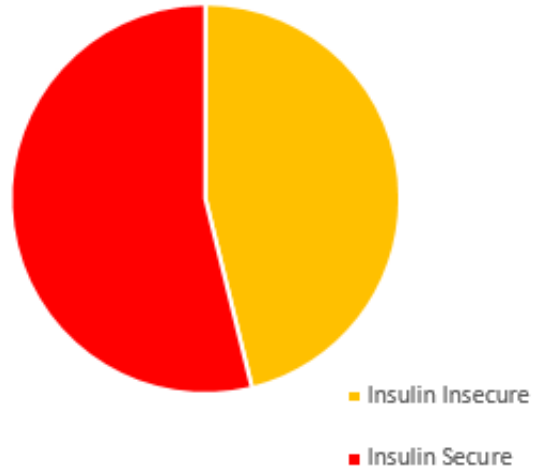
	Insulin Insecure (N=52)	Insulin Secure (N=97)
Mean age, years [SD]	16.1 [5.2]	14.3 [4.5]
Mean diabetes duration, years [SD]	7.8 [5.2]	6.1 [4.3]
Female, %	60.0	46.9
Race/Ethnicity: Non-Hispanic White, %	82.0	90.6
Mean HbA1c, % [SD]	8.08* [1.7]	7.26* [1.0]
Mean TIR, % [SD]	50.6† [20.0]	61.9† [16.3]
Mean monthly insulin co-payment [SD]	\$77.80‡ [162.00]	\$19.10‡ [36.70]

When controlling for co-variates: *p-value= 0.003; †p-value = 0.02; ‡p-value = 0.004



Results: Insulin Insecurity in Subgroup Analysis

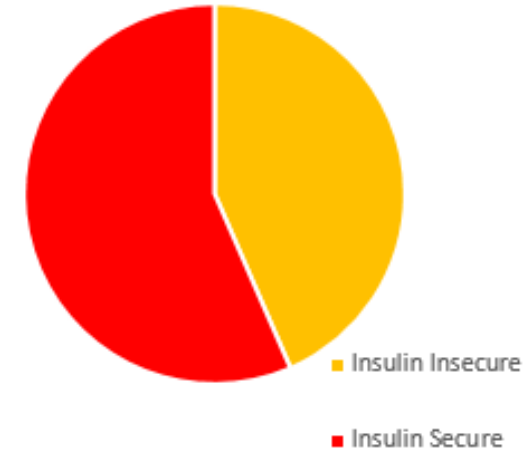
Emerging Adults
(N=39)



38.5% endorsed:

“Used less insulin than you needed to avoid running out”

Public Insurance
(N=23)



34.8% endorsed:

“Run out of any type of insulin before you are allowed to have another refill”



Conclusions

- **Insulin insecurity is common** in children and emerging adults with type 1 diabetes.
- People with insulin insecurity **pay more for insulin per month** than those without insecurity.
- Those endorsing insecurity have **higher HbA1c and lower TIR.**
- **Rationing or running out of insulin early** were the most endorsed insulin insecurity behaviors, likely due to inadequate prescription size.
- **Routine screening for insulin insecurity** and inadequate prescription sizes should be introduced into clinic.



Conclusions

- Limitations:

- Self-report
- Possible participant discomfort with reporting insecurity
- Limited generalizability

- Next Steps:

- Improve sample size, diversity, and national representation with multi-site study
- Gather additional information on early refills and eligibility for insulin access programs



ConnecT1D: Proactive Outreach Intervention to Improve Equitable Care for Youth with Type 1 Diabetes

Jennifer J. Kelly, APRN; Yoori Noh, APRN; Siobhan Tellez, DNP, APRN;
Amy Grant, DNP, RN, CPN; Amanda Howell, MPH, CPH; Gajanthan Muthuvel,
MD; Patrick W. Brady, MD, MSc; Sarah Corathers MD



Cincinnati Children's Diabetes Center

■ Academic Diabetes Center

- T1D registry 2300 patients
- Average ~200 new onset/year

■ Our Team

- 19 Physicians, 9 APRNs
- 19 CDCES - 7 RNs, 12 RDs
- 6 Social Workers
- 1 PhD, CDE Psychologist
 - Additional Psychologists from Behavioral Medicine & Psychology Dept
- 1 Administrative Care Coordinator
- 1 Clinical Quality Specialist
- 2 Data Analysts
- Community Health Workers/Community Psychiatric Support Team
- Community partnerships
- Patients & Families



■ Patient Population

- 85% White
- 10% Black
- 4% Hispanic
- 1% Asian
- 67% Private Insurance
- 33% Public Insurance

Purpose

To perform **proactive outreach** to patients/families enrolled in Medicaid managed care to provide **support between visits** and **assess care gaps**.



Phase 1 - Basic Process

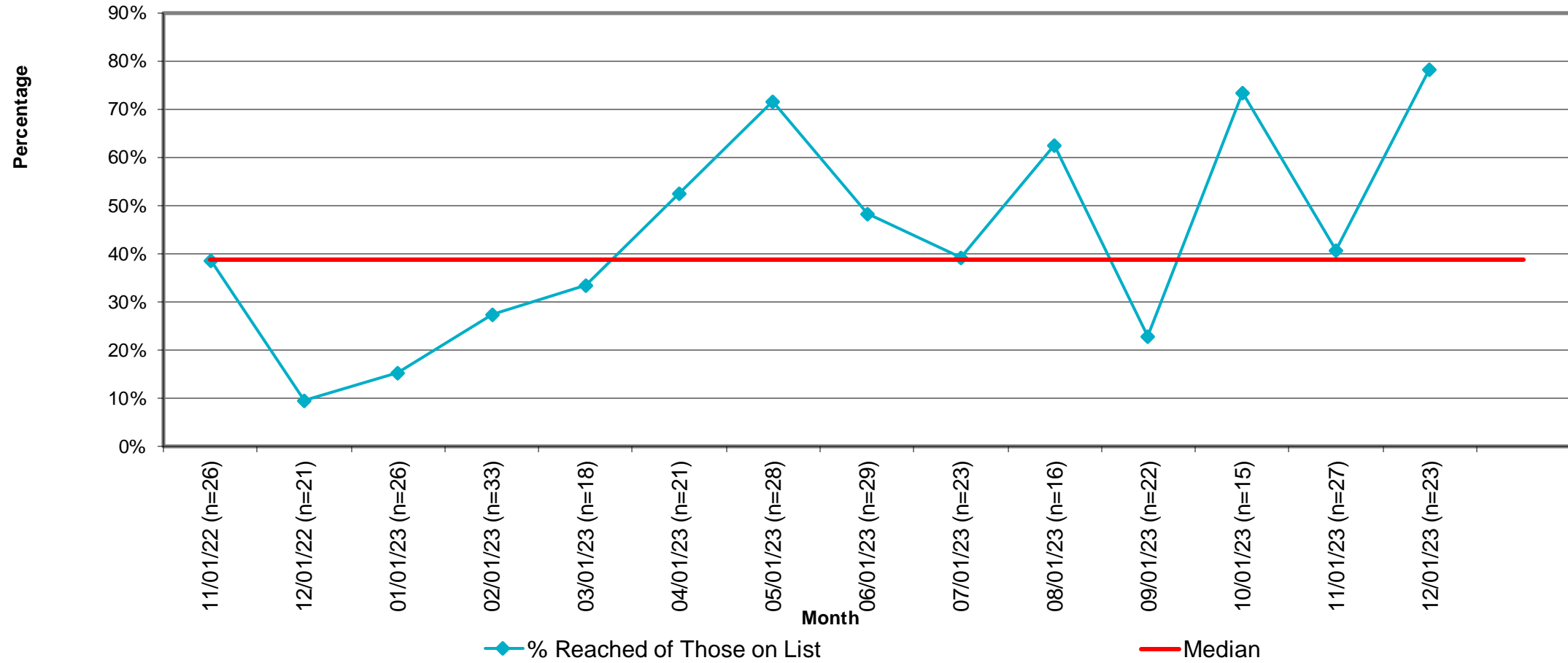
10/2022-12/2023

- Outreach performed based on the individual's birth month
- Chart reviewed for potential needs prior to contacting
- Initial contact was attempted through MyChart
 - If MyChart was not active OR the MyChart message was not showing as read one week after sending → Called patient/caregiver
- If unable to connect via phone call, text was sent using a secure clinic phone

Results for Phase 1



Monthly Outreach Outcomes



Phase 1 Summary of Results

Total contacts – 133

Insulin adjustments

50% had A1c improvement

Technology uptake

Helped 8 people start new tech

Prescription needs

Sent prescriptions for 2 people

Other

8 families helped with other needs:

Ketone management education

Home Health referral

Occlusion alarms for pump

Utilities

Therapy change

Connecting to Glooko

Phone incompatible - app options

Phase 2 - Methods

- Monthly outreach list identified Medicaid-managed youth with HbA1Cs >10%
- Focused on approaching youth whose birthday fell within that month to offer enrollment in proactive outreach
 - Initial contact was performed in person, if possible, followed by secure messaging, phone, and text
- Participants initially contacted at 2-week intervals or more frequently
 - Contact interval lengthened if there was sustained improvement.
- A shared, color-coded calendar tracked all outreach

Enrollment questionnaire

What's best for you for contact between visits?

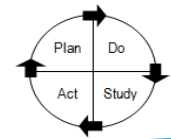
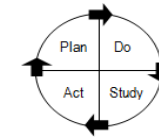
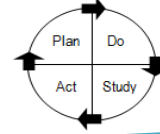
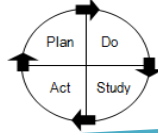
What works best for you? We would like to touch base with you between visits. eVisits work great and we can help to set up MyChart today!

- eVisit
- Phone call
- Text
- Email

What are the best days & times to communicate with you? Are there other people, such as friends or family, that you would want us to work with as well? (People who are not parents or guardians will need to have a release form to give permission for us to speak to them.)

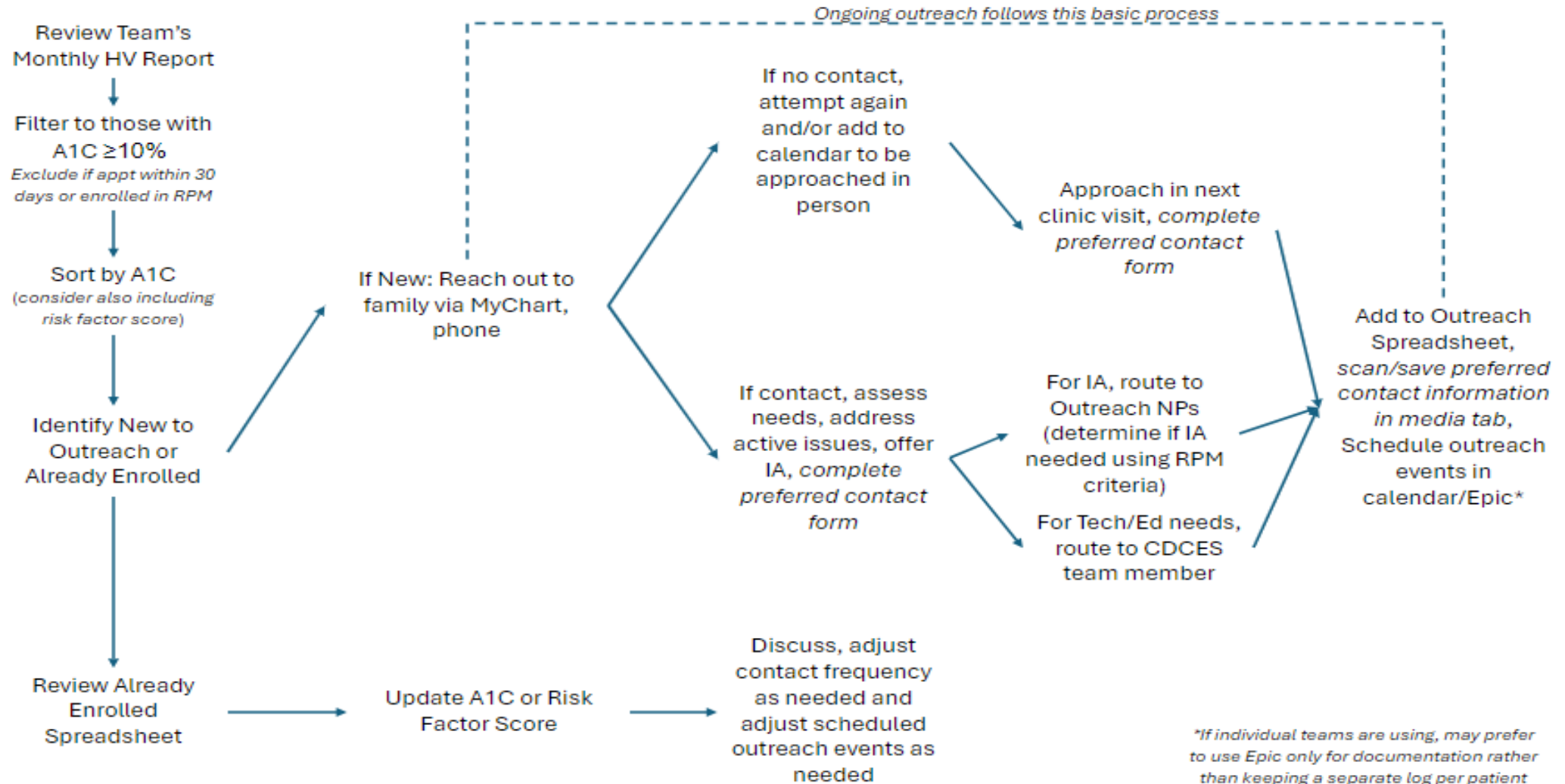
Is there anything that you would like us to help with later? This can be things like upgrading or obtaining pump or CGM, help with insurance approvals, or any other needs.

Phase 2 Ramp Summary



Connect1D: Proactive Outreach Intervention to Improve Equitable Care for Youth with Type 1 Diabetes		Test Cycle 1	Test Cycle 2	Test Cycle 3	Test Cycle 4
Date of Test		Jan 2024	April-Aug 2024	Aug-Oct 2024	Oct 2024
Plan	Describe the objective of the test cycle.	Retooled the previous program to concentrate on those with A1c > 10% and meet individualized needs on a pro-active basis	Refine process and add staff to better manage expanding enrollment	Add 1 RN coordinator to do outreach of 1 APRN while that APRN out on maternity leave.	Leverage work to build sustainability within care coordination teams
Do	What changed from the previous test cycle?		Added tracking for if IA performed. Added member to team. Completed a process map. Added Sticky note in chart for who is participating. Made process to disenroll or pause outreach.	Revise process map and solidify a safe process for RN coordinator to perform outreach including identifying when an IA is needed so can request an IA from the APRN on phones for the day.	Revise RN care coordinator process to the provider looking at the data for themes and if IA needed first then RN care coordinator calls participant with teaching and suggestions. Added 2 additional study phones so each of 3 groups has own texting capable phones.
Study	Results: Data and Observations	Pro-active outreach on the individual's schedule and preferred mode appreciated and well received. None who were approached declined.	Process map useful to better represent process of outreach. Increasing by 1 provider expanded outreach capacity. Process to pull back and stop outreach when doing well and sustained important to be able to add others as need arises.	Significant learning is needed to identify educational opportunities and need for an IA. Ready for basic teaching opportunities and relaying IAs as needed.	Safer and more streamlined process with less back and forth with participant therefore less stressful for the participants.
Act	Action (Adapt, Adopt or Abandon):	Adapt	Adapt	Adapt	Adapt and spread trial to Care Coordination teams

Process Map



**If individual teams are using, may prefer to use Epic only for documentation rather than keeping a separate log per patient*

Results

HbA1C/GMI Enrollment to 6 Months Post Enrollment

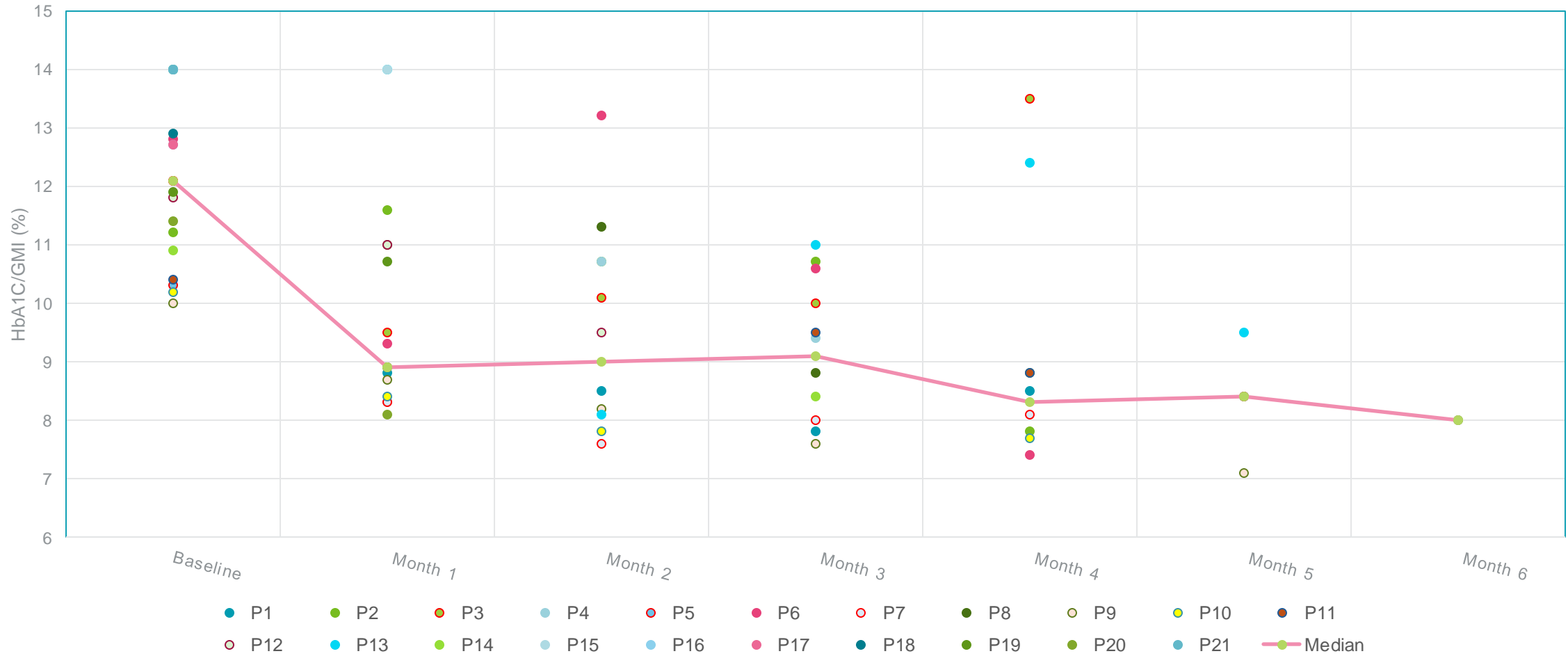


Figure legend: A median decrease in HbA1c or GMI of 2.5% observed within 2 months of enrollment in the pilot proactive reach out cohort.

Results



24 individuals were offered proactive outreach from January to July 2024

- 22 (92%) agreed to participate
- One person withdrew after enrolling



All individuals who were enrolled experienced improvement in HgbA1c or GMI within two months with a mean of 2.7% (median 2.5%)



Support given during contact included insulin adjustments, prescription assistance, device support, and general diabetes support/teaching topics

Conclusion

- Proactive personal outreach to participants resulted in substantially improved glycemic outcomes
- The outreach program was acceptable to families and feasible to conduct as an adjunct to routine care
- Results from this pilot are being tracked to confirm sustained improvement and design a scalable intervention for a larger population of youth with T1D

Next Steps – Sustainability and Spread

- RN Care Coordinators to share in helping to enroll and contacting eligible participants.
- Outreach to stay within Care Coordination teams to help to foster connections.
 - Teams consist of RNs, CDCESs, and both APRN and Physician providers
- Working towards identifying those with high risk factors who do not yet have A1c >10% and engaging before reaching this level.
- Working to expand to our full population and not just to those with Medicaid-managed care.

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