T1D Exchange

Pediatric Collaborative Call

July 24, 2025

Agenda

- Updates from T1DX-QI Coordinating Center, Nicole Rioles, MA

- Presentations
  - Indiana University, Tamara Hannon, MD, MS; Katie Haberlin-Pittz, MPH, CHES, CHWC
  - UC Davis, Rachael Lee FNP-BC,CDCES, BC-ADM
  - Cincinnati Children's, Sarah Corathers, MD

Learning Session November 11-12, 2025, Atlanta, GA

- Tues-Wed, Nov 11-12th
- Hotel: The Whitley Hotel Atlanta Buckhead. 3434 Peachtree Rd NE, Atlanta, GA 30326
- Plan your travel for arriving on the afternoon of Monday November 10th and departing on the late afternoon or evening of Wednesday November 12th
- Link for registration
- T1DX will cover two hotel nights for two guests.

THE WHITLEY
ATLANTA BUCKHEAD

Learning Session Abstracts

T1D Exchange has opened a call for abstracts for the November Learning Session

- Abstracts will be considered for publication in the Journal of Diabetes as well as for oral or poster presentations at LS.
- Clinics are welcome to submit on T1D and T2D topics
- Link for the abstract submission
  - The link includes ideas for topic areas of interest
  - Page also shows JOD formatting requirements
  - Submission deadline: 8/15

Annual Survey deployment

T1D Exchange will be releasing the 2025 Annual Survey on 8/18.

- One survey should be completed by each clinic.
- Deadline for survey completion is 10/1/2025
  - Abstract submissions for 2026 ADA
  - Manuscript opportunities for 2026 (7-8)

2025 Annual Survey Topic Areas

- Center demographics, staffing, and structure
- T1D Screening, Staging, and Monitoring
- 4T
- Dietician support
- Health equity
- Healthcare transition
- GLP-1 use in children with T2D
- Economics
- T1DX-QI Portal
- T1DX-QI experience

Invoice deadline SOW work ending in June 2025

All invoices must be received by 8/15/2025 deadline.
Consult your SOW for deliverable details.

7	Contribute to the quality improvement Collaborative, as described in sections 1.c. and 1.d.i.	Jan 1, 2025	Jun 30, 2025

Appendix B: Invoicing

Please invoice for payment following the deliverables schedule in 1.D. Please include deliverable number and date.

All payments will be made through electronic funds transfer (EFT). Please include your banking information on invoice.

1. Bank account name & address
2. Bank account number
3. Bank account routing number

Invoices should be sent via email attachment

To: Nicole Rioles- nrioles@t1dexchange.org
CC: Rene Weathers- rweathers@t1dexchange.org
Linda Crasco- linda.crasco@t1dexchange.org

Center Presentation

Problem Areas in Diabetes-Teen (PAID-T) Implementation

PI: Tamara Hannon, MD, MS

Site Coordinator: Katie Haberlin-Pittz, MPH, CHES®, CHWC

Riley Children's Health
Indiana University Health

Diabetes Team

- Physician: 18 FTE
- NP/PA: 6.9 FTE
- Social workers: 2.8 FTE
- RN CDCES: 6.3 FTE
- RD CDCES: 5.4 FTE
- Psychologist: 1 FTE
- MA: 4 FTE

Riley T1 Diabetes Patients

- Total diabetes patients: 1,782
  - Type1: 1,600
  - Approx # of new diagnoses of T1 per year: ~175
- Insurance
  - 56% private
  - 44% Medicaid
- Clinic sites across the state (Indianapolis, Carmel, Ft. Wayne, Evansville, Bloomington, South Bend)

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Background

- Adapted from PAID questionnaire for adult population
- 14-item tool for validated for teens
- Examines diabetes-related distress
- Asks how bothersome items are on 1 to 6 scale in the last month
- Can provide more insight than only depression and anxiety screeners
- High diabetes-related distress can be associated with:
  - Suboptimal self-management
  - Elevated A1c
  - More frequent severe hypoglycemia
  - Impaired quality of life
  - Increased chance of "diabetes burnout"

	Not A Problem		Moderate Problem		Serious Problem	
1. Feeling sad when I think about having and living with diabetes.	1	2	3	4	5	6
2. Feeling overwhelmed by my diabetes regimen.	1	2	3	4	5	6
3. Feeling angry when I think about having and living with diabetes.	1	2	3	4	5	6
4. Feeling “burned-out” by the constant effort to manage diabetes.	1	2	3	4	5	6
5. Feeling that I am not checking my blood sugars often enough.	1	2	3	4	5	6
6. Not feeling motivated to keep up with my daily diabetes tasks.	1	2	3	4	5	6
7. Feeling that my friends or family act like “diabetes police” (e.g. nag about eating properly, checking blood sugars, not trying hard enough).	1	2	3	4	5	6
8. Feeling like my parents don’t trust me to care for my diabetes.	1	2	3	4	5	6
9. Missing or skipping blood sugar checks.	1	2	3	4	5	6
10. Feeling that I am often failing with my diabetes regimen.	1	2	3	4	5	6
11. Feeling like my parents blame me for blood sugar numbers they don’t like.	1	2	3	4	5	6
12. Feeling that my friends or family don’t understand how difficult living with diabetes can be.	1	2	3	4	5	6
13. Worrying that diabetes gets in the way of having fun and being with my friends.	1	2	3	4	5	6
14. Feeling like my parents worry about complications too much.	1	2	3	4	5	6

Aims

- Primary aim: Each T1D patient screened with PAID-T annually
- Secondary aim: Patients with score 44 or higher addressed in real-time at clinic visit
- Tertiary aims: Document process in EMR

Fishbone Diagram

Process:
- Clinic flow inconsistent between clinic types (T2 vs. T1. vs pre vs. endo) which can be confusing
- Long wait times to get patients into exam rooms
- Hard to implement new forms into workflow
  - Who? Front desk vs MA vs CDCES vs MSW
- Patients who express distress may be concerned with lack of immediate follow-up
- Will providers remember to check before meeting with patient? How to address positive screenings?
- How quickly can social work team respond to positive screening form?

- **Primary outcome: Each T1D patient screened with PAID-T annually**
- **Secondary outcome: Patients with score of 44 or higher addressed while still at clinic visit**
- **Tertiary: Document process in EMR**

Product:
- Using paper forms creates extra steps for staff (data entry into Cerner/other database)
- Unable to be integrated into Cerner
- Once widespread, will be burdensome to enter responses into Redcap database for tracking
- Easy to skip second page of form

People:

Staff
- Sw-high case load; may not be at clinic for real-time response
- Front desk-unaware of form
- Providers- time with each patient limited; will they remember to look at responses; unsure of how to respond to positive screening
- Staff unaware of form use in clinic

Patients/families
- Anxious to leave clinic if wait times long
- Caregivers fill out form instead of patient
- Have social needs that take priority
- Patients leave responses blank or forget to complete second page
- Discouraged if distress is disclosed and not addressed

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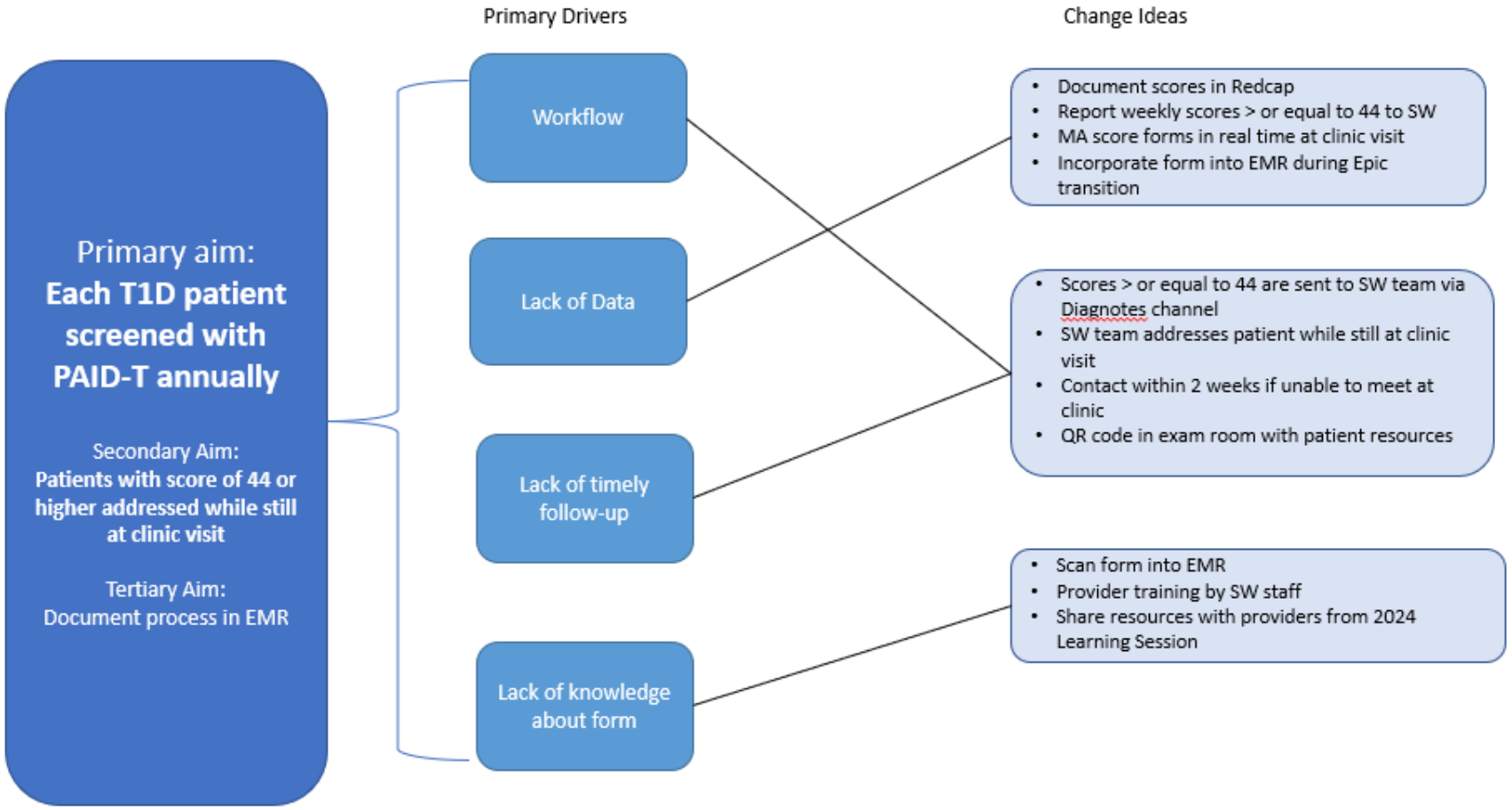
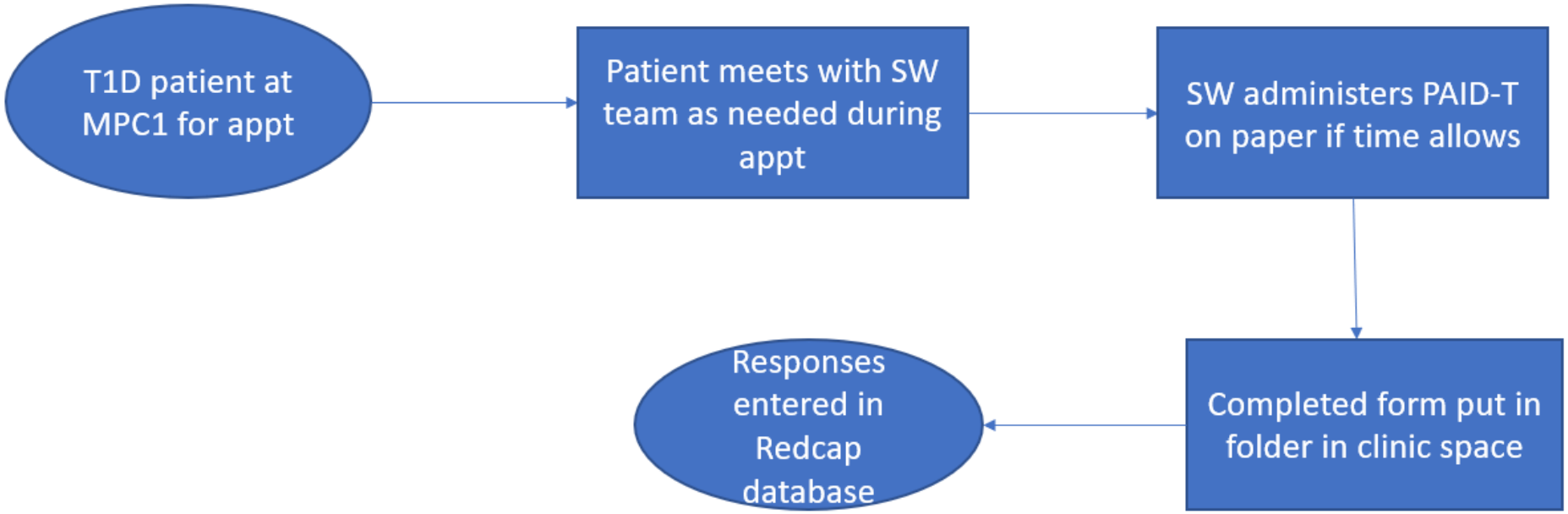
Key Driver Diagram



PDSA 1



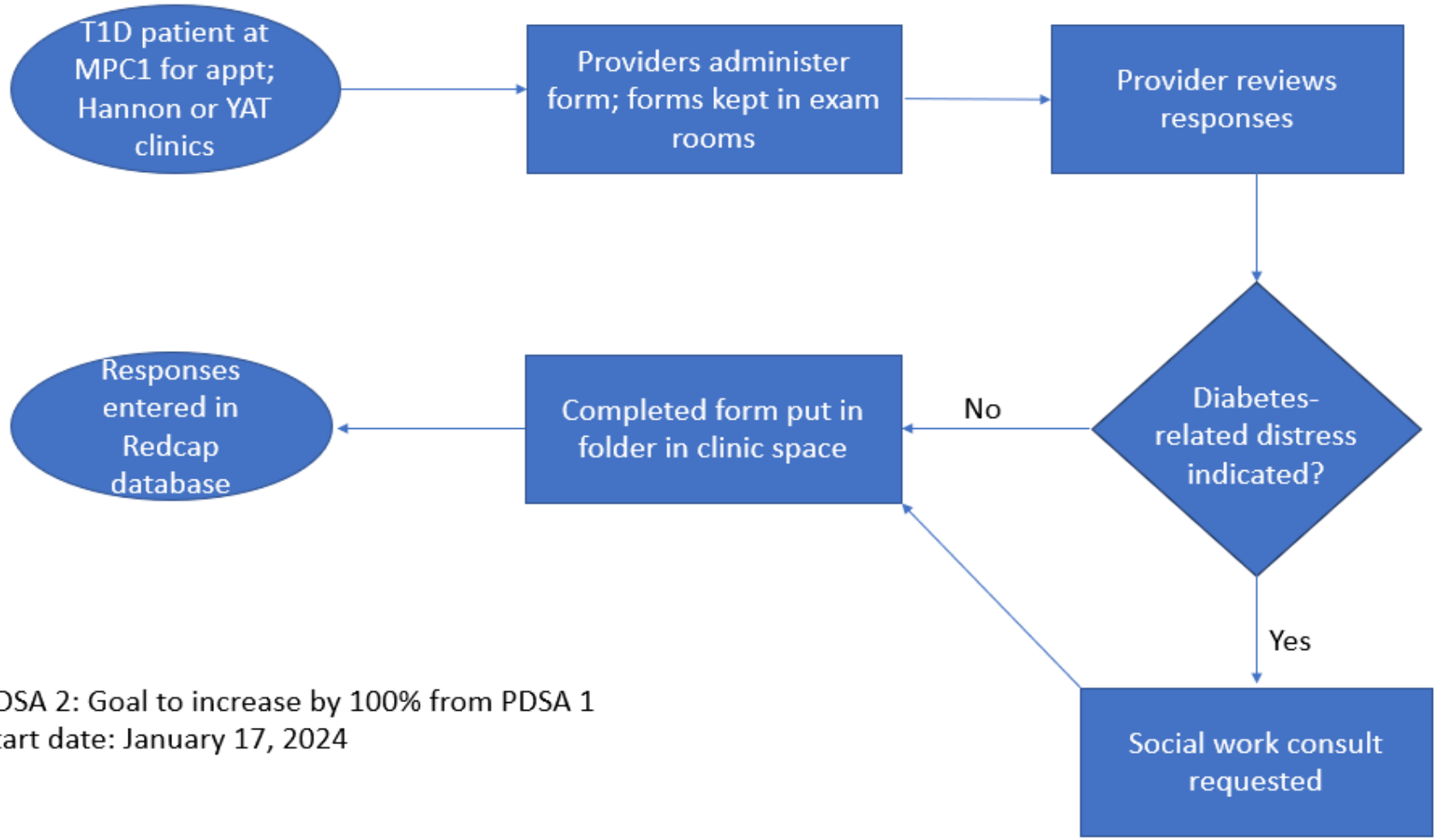
PDSA 1: Social workers administer when able
Started: 10/4/2023
Ended: approx. 1/15/2024
Total responses: 5

Observations/Barriers PDSA 1

- 2 MSWs with large patient load; often cover satellite clinics across state
- Social work time/workload
- Process made it easy for SW to forget
- Patients had other social needs that required immediate attention
- Unsure what to do with patients who respond 5/6 to a question or otherwise indicate high distress
- Other staff support issues

- ADAPT process for PDSA 2

PDSA 2



PDSA 2: Goal to increase by 100% from PDSA 1
Start date: January 17, 2024

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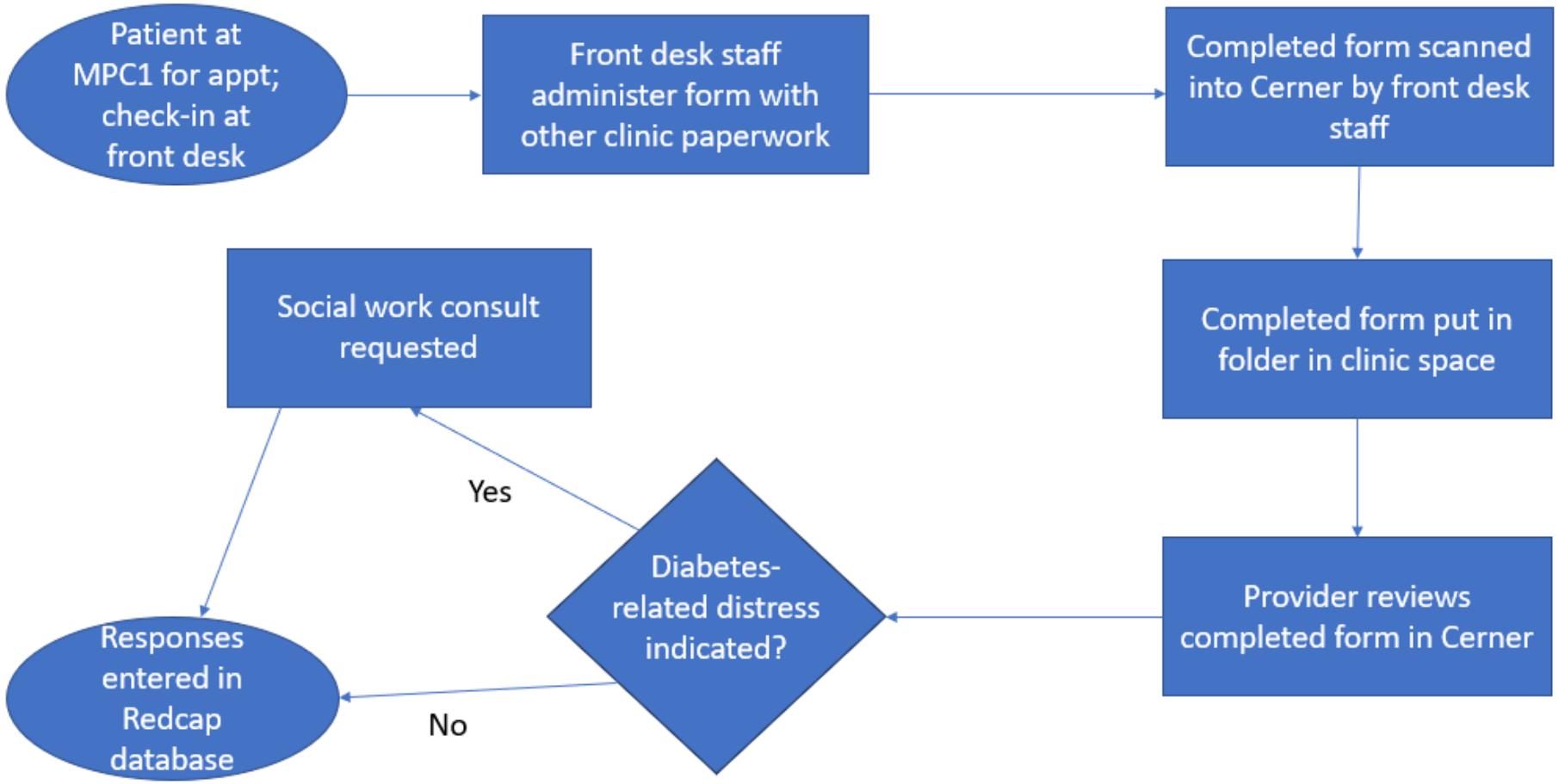
Observations/Barriers PDSA 2

- New LCSW liked using the form with patients
- We collected 15 new responses which exceeded our prediction of an increase of 100% (10 total)
- Relying on social workers alone is not an efficient way to collect responses from a large population.
- Want to incorporate the PAID-T into the normal patient paperwork packet for diabetes patients at MPC1.
- Involving the front desk staff and incorporating into clinic workflow in the next PDSA will be helpful.

- Adapt process for PDSA 3

PDSA 3



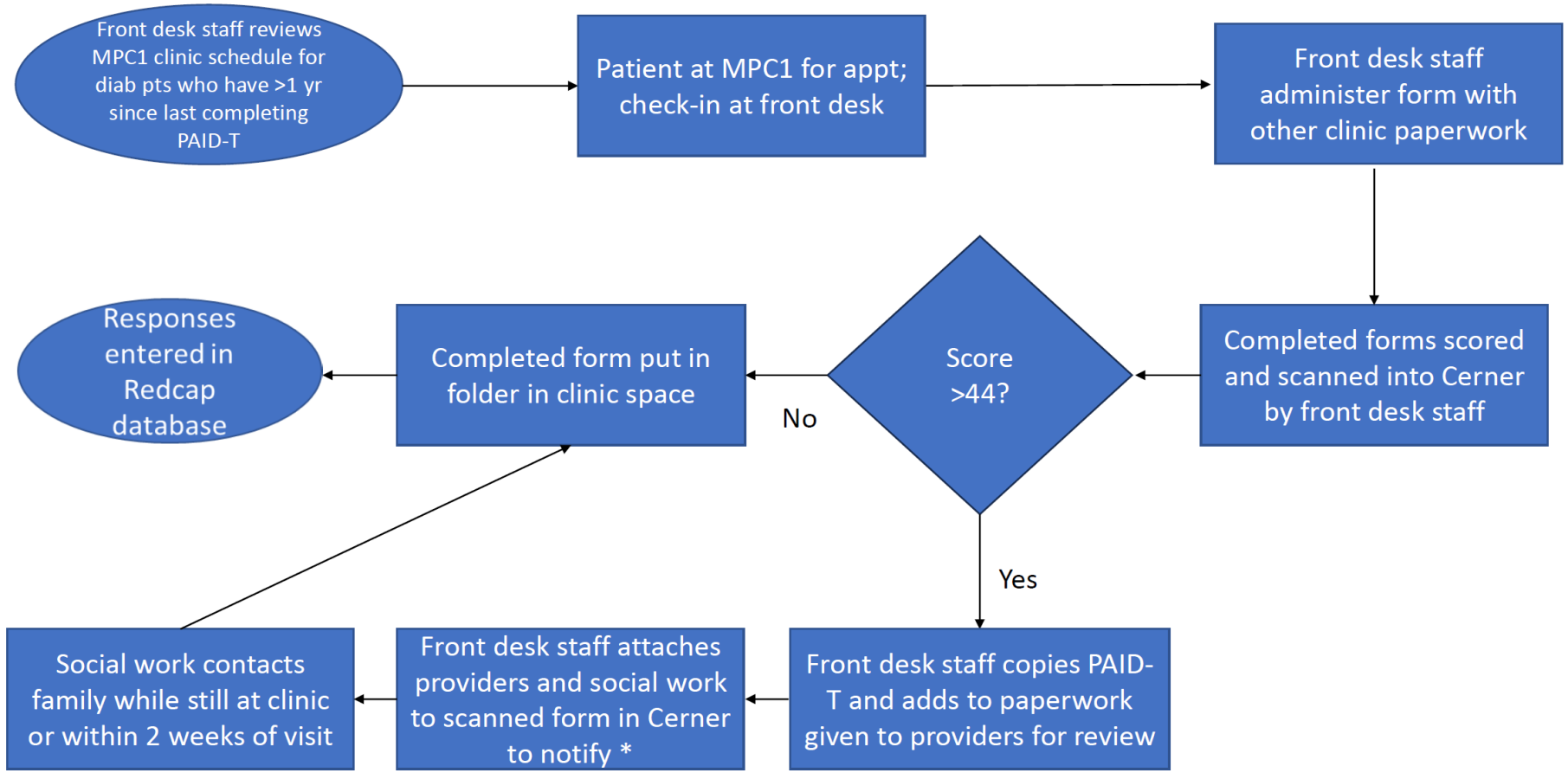
PDSA 3: Goal to increase by 100% from PDSA 2
Start date: April 22, 2024

Observations/Barriers PDSA 3

- Easy to collect responses by including the PAID-T in the patient paperwork packet.
- As of 7/22/2024, collected/entered at total of 501 records total (around 475 since last PDSA cycle).
- The process integrated into normal clinic paperwork.
- Need plan to notify the providers and social workers of scores >44 in real-time while the patient is still at the clinic visit.
- Forms were not being scanned into Cerner so providers were not aware of positive results

- Adapt for PDSA 4

PDSA 4

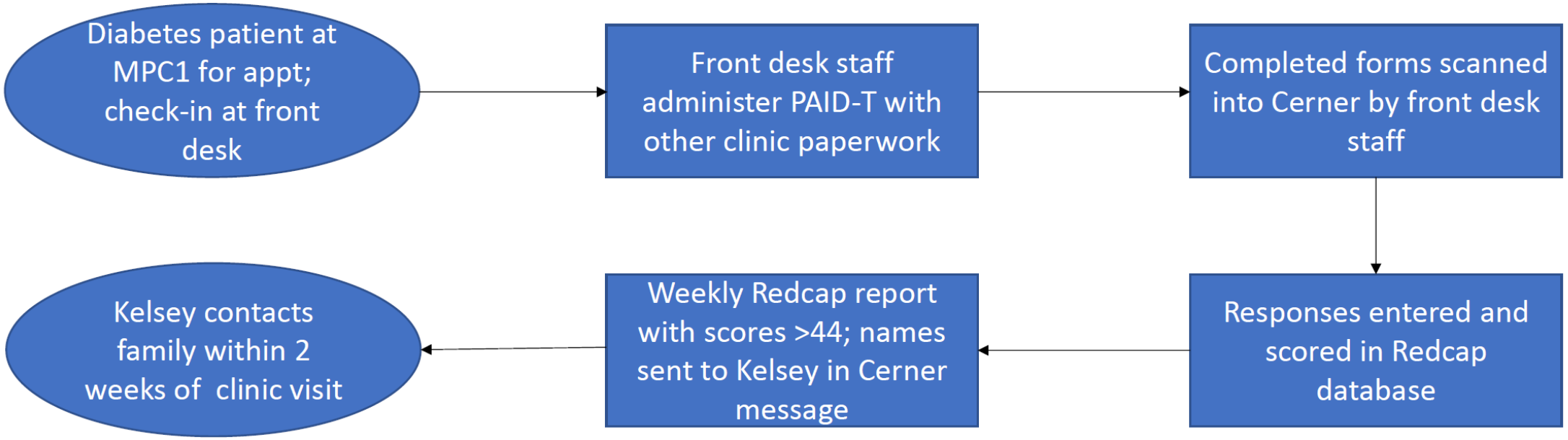

Front desk staff reviews MPC1 clinic schedule for diab pts who have >1 yr since last completing PAID-T
Patient at MPC1 for appt; check-in at front desk
Front desk staff administer form with other clinic paperwork
Completed forms scored and scanned into Cerner by front desk staff
Score >44?
No
Completed form put in folder in clinic space
Responses entered in Redcap database
Yes
Front desk staff copies PAID-T and adds to paperwork given to providers for review
Front desk staff attaches providers and social work to scanned form in Cerner to notify *
Social work contacts family while still at clinic or within 2 weeks of visit

Observations/Barriers PDSA 4

- We learned that this cycle may work in the future for our site, but right now we need to scale it back
- No clinic manager/short-staffed
- In the short term run weekly reports of scores >44 and send those names to social work or Kelsey. They will address responses with patients through resources, counseling, etc.

- Abandoned cycle and went back to process from PDSA 3

PDSA 5

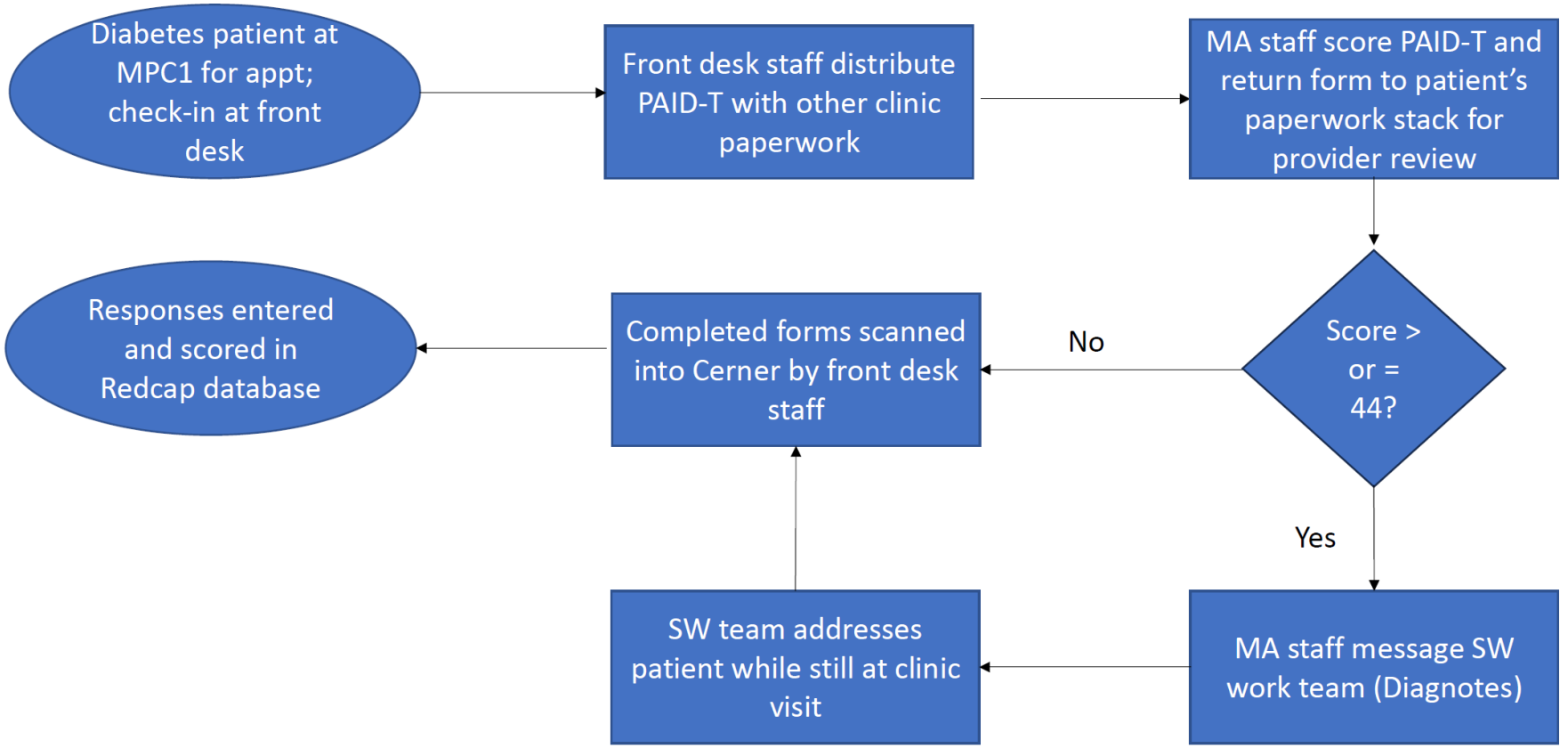

Diabetes patient at MPC1 for appt; check-in at front desk
Front desk staff administer PAID-T with other clinic paperwork
Completed forms scanned into Cerner by front desk staff
Responses entered and scored in Redcap database
Weekly Redcap report with scores >44; names sent to Kelsey in Cerner message
Kelsey contacts family within 2 weeks of clinic visit

Observations/Barriers PDSA 5

- 5-10 diabetes patients per week at MPC1 had a score of > or = 44.
- A message was sent to LCSW in each patient's chart with their high PAID-T score.
- LCSW did reach out within 2 weeks from clinic visit and offer services.
- Need to integrate newly hired psychologist into process.
- While the team was able to access patients within 2 weeks of their diabetes appointment a MPC1, it was agreed that we need a better way to reach out to patients with a score of 44 or higher while they are still at clinic.

- Adapt process for PDSA 6

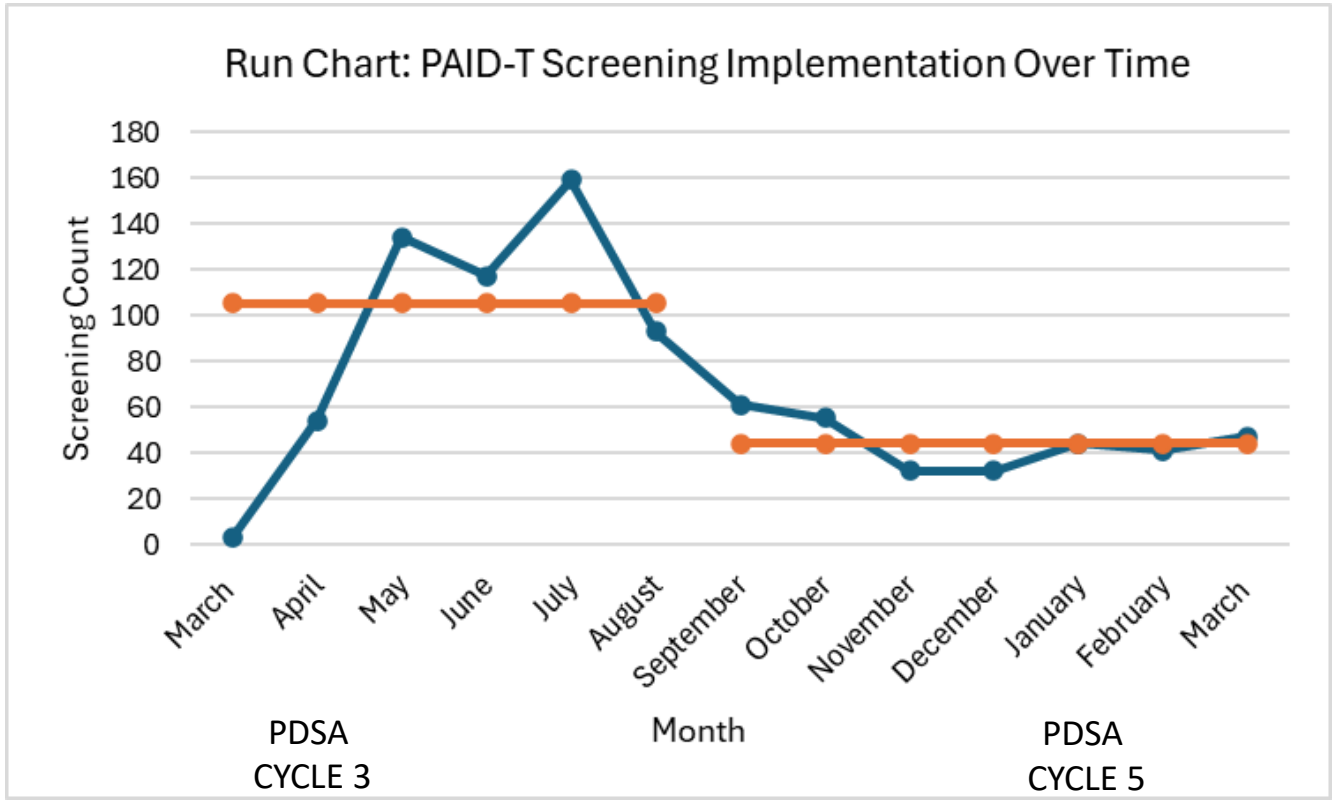
PDSA 6


Diabetes patient at MPC1 for appt; check-in at front desk
Front desk staff distribute PAID-T with other clinic paperwork
MA staff score PAID-T and return form to patient's paperwork stack for provider review
Score > or = 44?
No
Yes
Completed forms scanned into Cerner by front desk staff
Responses entered and scored in Redcap database
MA staff message SW work team (Diagnotes)
SW team addresses patient while still at clinic visit

Current Observations/Barriers PDSA 6

- So far process seems to be effective in notifying SW team of positive scores
- A few patients may be missed if social workers and psychologists are working with other families

Current results – Number of Patients Screened with PAID-T



This run chart shows the number of **unique patients** who completed a PAID-T screening each month.
To avoid overcounting, we only included each patient's first screening during the 12-month period, in line with the goal of one annual screen per patient.

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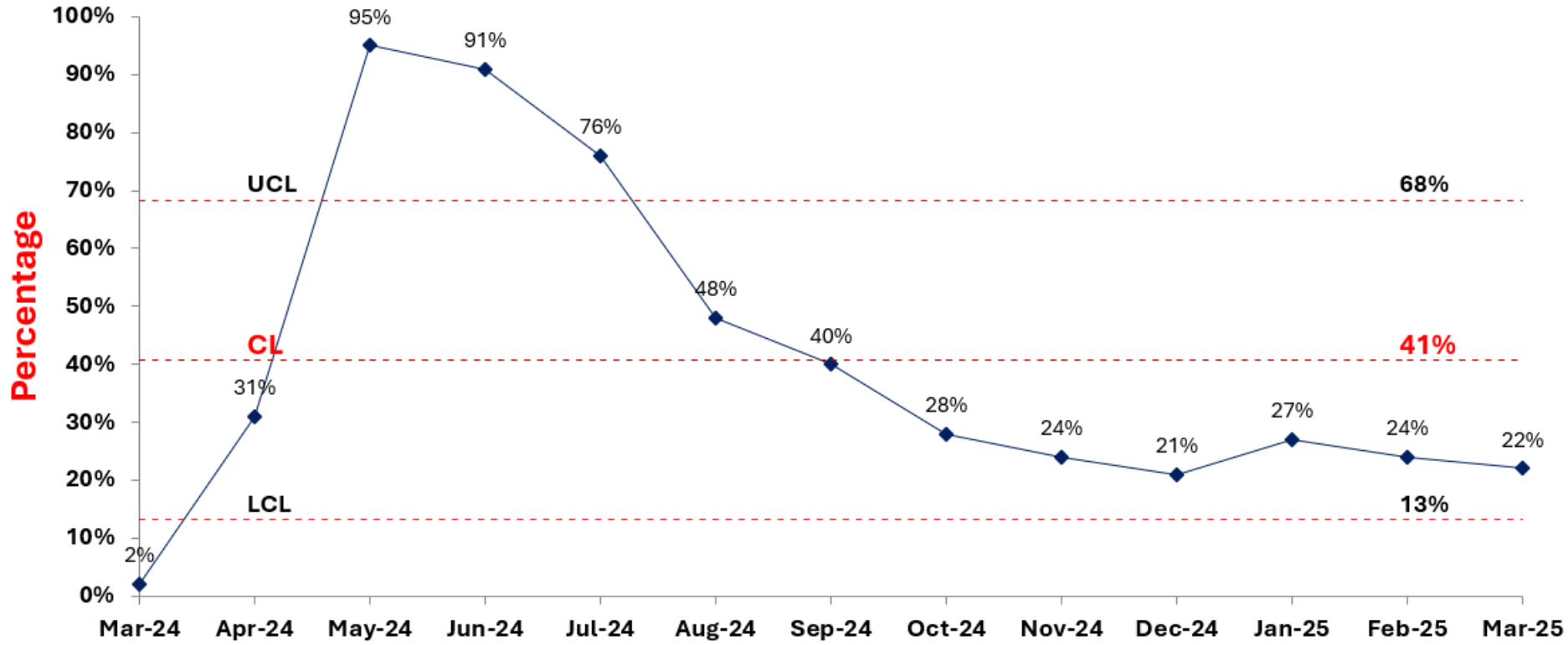
Current results - Monthly Screening Rate



The monthly screening rate reflects the number of **unique first-time PAID-T screens** divided by the **total number of clinic appointments** that month.
In some months, the screening rate appears artificially low because patients who had already been screened earlier in the year continued to return for follow-up visits, contributing to the denominator but not to the numerator.
This approach ensures we uphold the annual screening goal, but it may underestimate actual screening performance across visits.

Future Plans

- Train providers on PAID-T form during staff retreat (scoring, interpretation, and follow-up for high scores)
- Assess provider barriers to utilizing from in clinic (pre training and post training) starting in August
- Offer Learn2Breathe to patients indicating diabetes distress (mindfulness-based stress reduction program for teens)
- Incorporate into Epic build with real-time scoring, alerts to providers
- Reduce survey burnout and only administer once per year
- Expand to other clinic sites

Sources:

- Snoek FJ, Pouwer F, et al. Diabetes-related emotional distress in Dutch and US diabetic patients: crosscultural validity of the problem areas in diabetes scale. Diabetes Care. 2000;23(9):1305-9.
- Fisher L, Mullan JT, et al. Predicting diabetes distress in patients with type 2 diabetes: a longitudinal study. Diabetic Medicine. 2009;26(6):622-7.
- Ting RZ, Nan H, et al. Diabetes-related distress and physical and psychological health in Chinese type 2 diabetic patients. Diabetes Care. 2011;34(5):1094-6.
- Hessler D, Fisher L, et al. Reductions in regimen distress are associated with improved management and glycemic control over time. Diabetes Care. 2014;37(3):617-24.
- Hessler DM, Fisher L, et al. Diabetes distress is linked with worsening diabetes management over time in adults with type 1 diabetes. Diabetic Medicine. 2017;34(9):1228-34.
- Gonzalez JS, Kane NS, et al. Tangled up in blue: unraveling the links between emotional distress and treatment adherence in type 2 diabetes. Diabetes Care. 2016;39(12):2182-9.
- Fisher L, Mullan JT, et al. Diabetes distress but not clinical depression or depressive symptoms is associated with glycemic control in both crosssectional and longitudinal analyses. Diabetes Care. 2010;33(1):23-8.
- Van Bastelaar K, Pouwer F, et al. Diabetes-specific emotional distress mediates the association between depressive symptoms and glycaemic control in type 1 and type 2 diabetes. Diabetic Medicine. 2010;27(7):798-803.
- Reddy J, Wilhelm K, et al. Putting PAID to diabetesrelated distress: the potential utility of the Problem Areas In Diabetes (PAID) scale in patients with diabetes. Psychosomatics. 2013;54(1):44-51.
- Cummings DM, Lutes LD, et al. Randomized trial of a tailored cognitive behavioral intervention in type 2 diabetes with comorbid depressive and/or regimenrelated distress symptoms: 12-month outcomes from COMRADE. Diabetes care. 2019;42(5):841-48.
- Hendrieckx C, Halliday JA, et al. Severe hypoglycaemia and its association with psychological well-being in Australian adults with type 1 diabetes attending specialist tertiary clinics. Diabetes Research and Clinical Practice. 2014;103(3):430-6.
- Balfe M, Doyle F, et al. What's distressing about having type 1 diabetes? A qualitative study of young adults' perspectives. BMC Endocrine Disorders. 2013;13(1):25.
- Polonsky WH. Diabetes burnout: what to do when you can't take it anymore. Virginia, USA: American Diabetes Association; 1999.

Thank you!

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UC DAVIS HEALTH

Diabetes Devices: Inpatient Subcutaneous Insulin Calculator

CHILDREN'S HOSPITAL

Rachael Lee FNP-BC,
CDCES, BC-ADM

About Us: UCD Pediatric Endocrinology

800 people with T1D

T1D using CGM: 93%

T1D using insulin pump: 68%

156 people with T2D

T2D using CGM: 44%

T2D using insulin pump: 2%

Staff: Clinical FTE

4 Endocrinologists

2 APPs (NP/PAs)

1.9 RN CDCES

2.0 RN

0.9 RD CDCES (shared with adult)

1.0 RD

2.0 Social Worker

Demographics

T1D

Insurance:

- Private: **30%**
- Public: **70%**

Race:

- White: **59%**
- Black/African American: **10%**
- Asian: **7%**
- Other: **24%**

Ethnicity:

- Latinx: **23%**
- Non-Latinx: **77%**

Ages:

- <6: **5%**
- 6-12: **23%**
- 13-18: **41%**
- 18+: **31%**

T2D

Insurance:

- Private: **16%**
- Public: **84%**

Race:

- White: **28%**
- Black/African American: **12%**
- Asian: **4%**
- Other: **41%**

Ethnicity:

- Latinx: **59%**
- Non-Latinx: **41%**

Ages:

- <6: **0%**
- 6-12: **8%**
- 13-18: **45%**
- 18+: **47%**


California
Oregon
Idaho
Nevada
Utah
Arizona
Mexico
Pacific Ocean
Channel Islands
Del Norte
Siskiyou
Modoc
Humboldt
Trinity
Shasta
Lassen
Tehama
Plumas
Glenn
Butte
Sierra
Nevada
Mendocino
Colusa
Yuba
Placer
Lake
Sutter
El Dorado
Yolo
Alpine
Sonoma
Napa
Sacramento
Amador
Solano
Calaveras
Marin
Tuolumne
Mono
Contra Costa
San Joaquin
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
Monterey Bay
Fresno
Inyo
San Benito
Monterey
Tulare
Kings
San Luis Obispo
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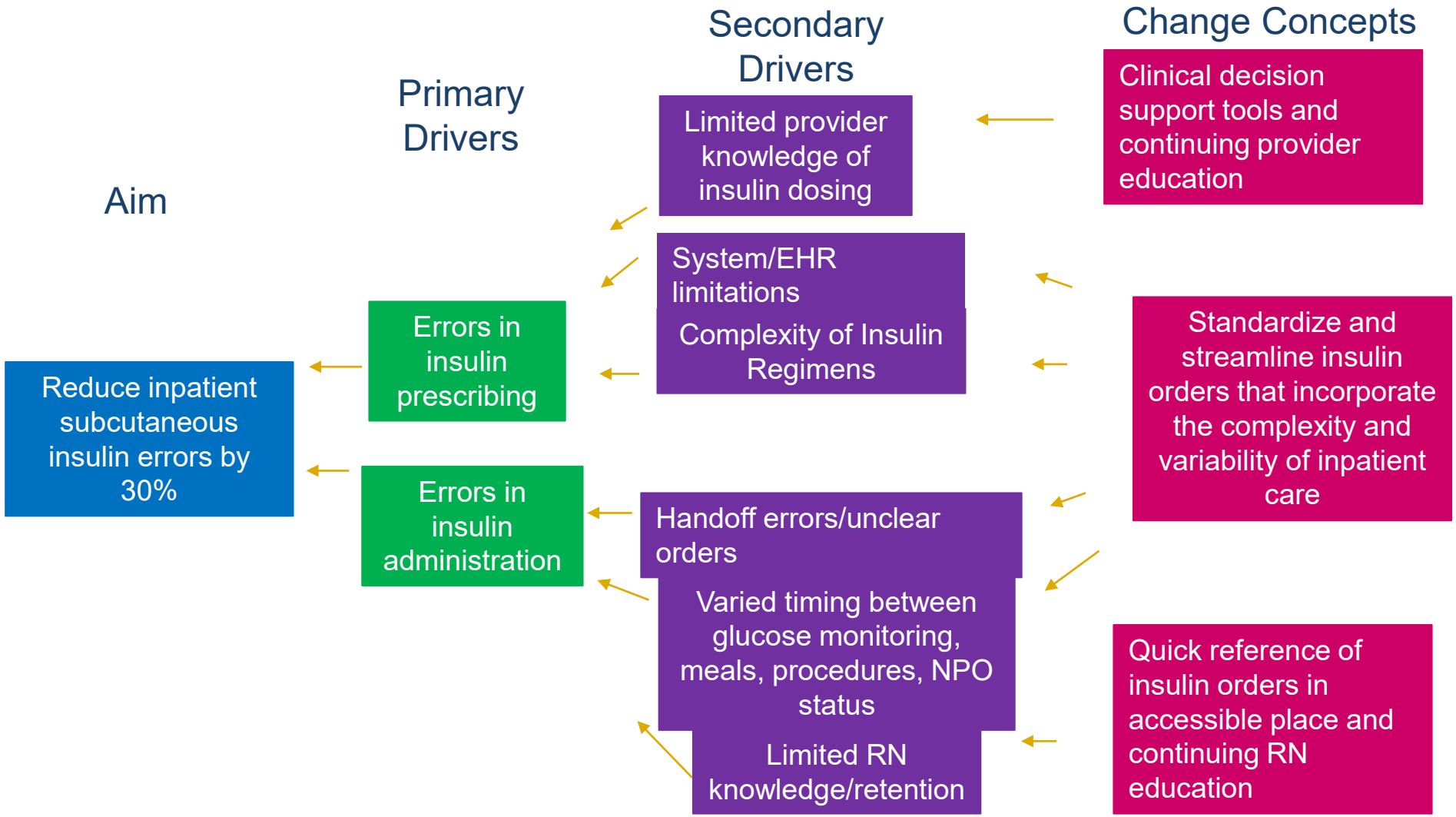
Inpatient Insulin Delivery

- Background:
  - ~60 new onset diabetes patients admitted every year
  - Insulin is a common medication associated with inpatient medication errors due to:
    - Manual calculations by nurses
    - Order entry errors by prescribers (order errors)
- Subcutaneous Insulin Related Medication Errors (January 2020-December 2021)
  - 2.1 errors per month
    - 1.4 prescribing errors (order errors by providers)
    - 0.7 administration errors (by nursing)

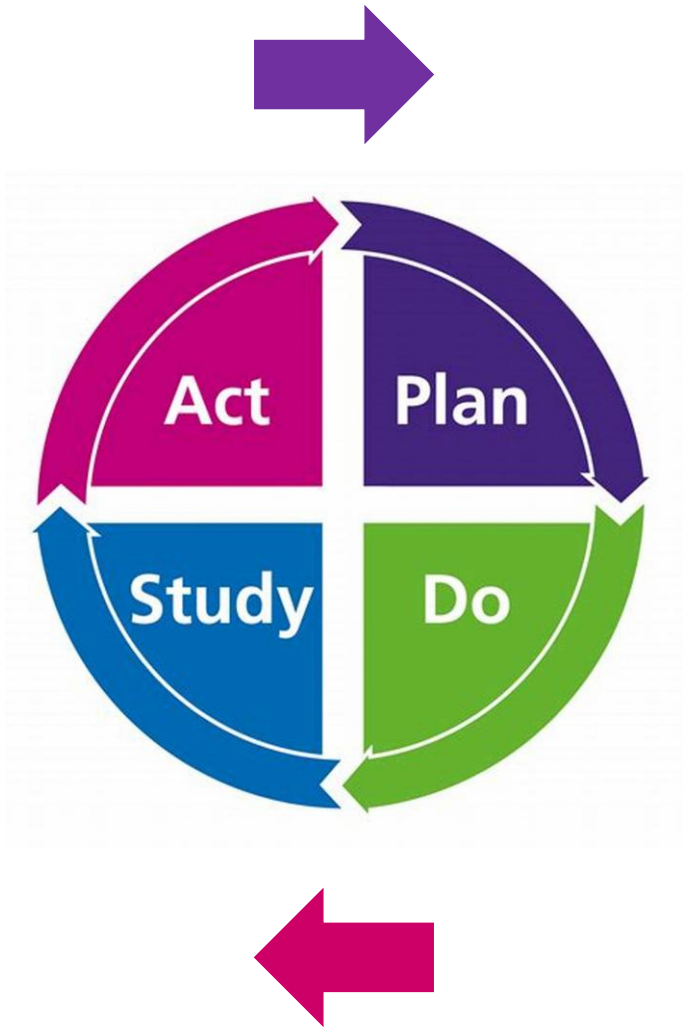
- *The aim of this project is to reduce the number of insulin related medication errors by 30% in the inpatient setting*

Key Drivers


Aim
Primary Drivers
Secondary Drivers
Change Concepts
Reduce inpatient subcutaneous insulin errors by 30%
Errors in insulin prescribing
Errors in insulin administration
Limited provider knowledge of insulin dosing
System/EHR limitations
Complexity of Insulin Regimens
Handoff errors/unclear orders
Varied timing between glucose monitoring, meals, procedures, NPO status
Limited RN knowledge/retention
Clinical decision support tools and continuing provider education
Standardize and streamline insulin orders that incorporate the complexity and variability of inpatient care
Quick reference of insulin orders in accessible place and continuing RN education

PDSA

Cycle 1 (11/2023): Inpatient subcutaneous insulin calculator implementation. Order set/panel developed. Education with inpatient providers and nurses

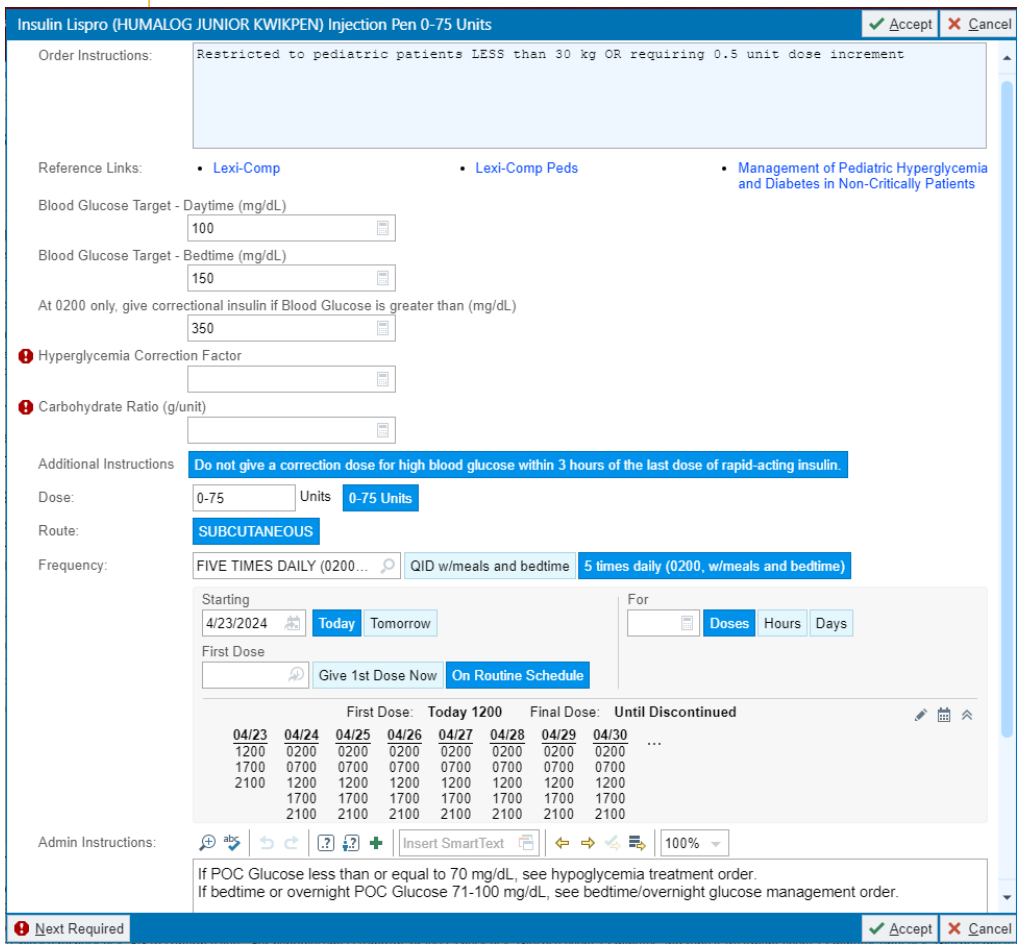


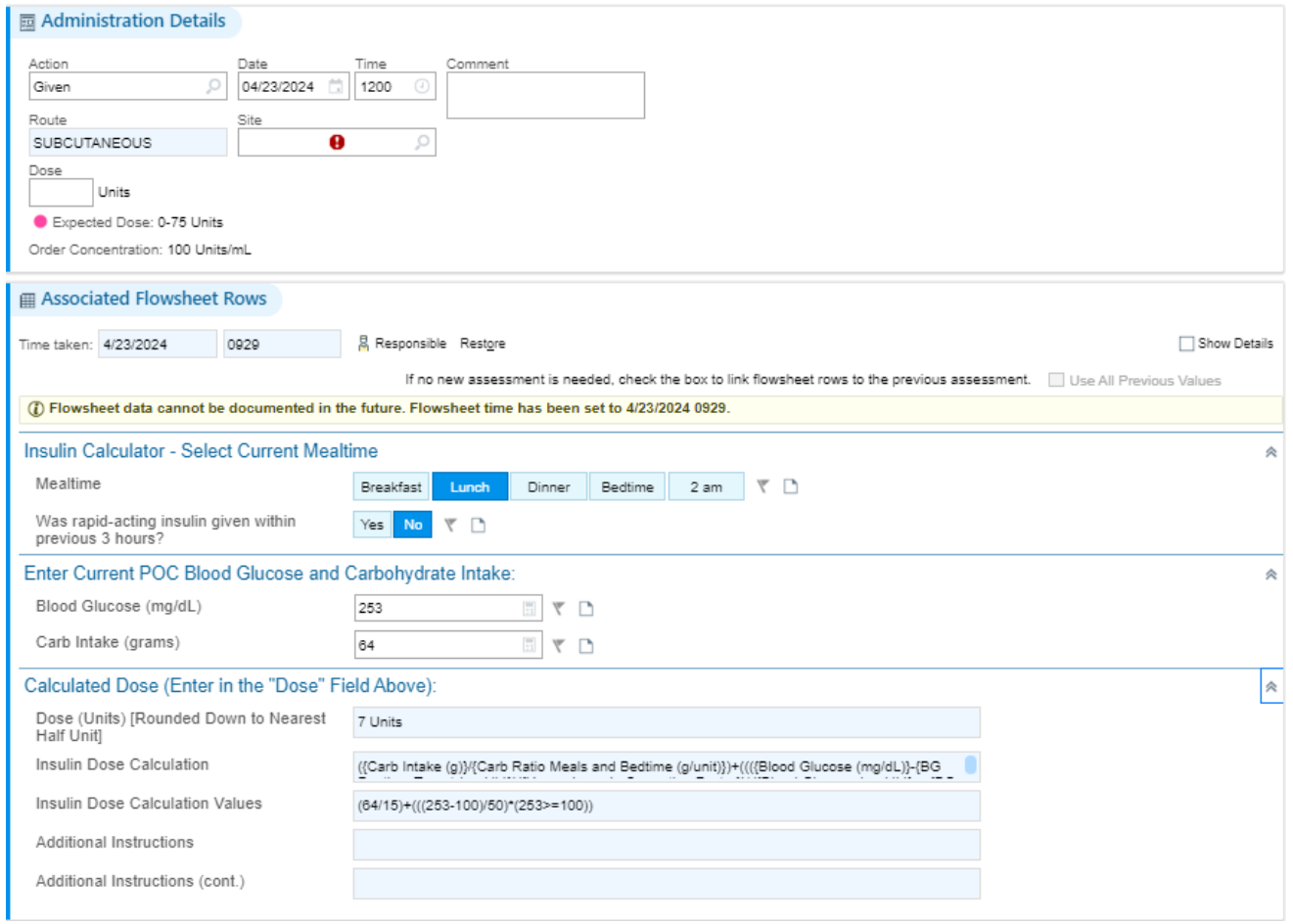
Cycle 2 (2/2024): Customization of calculator for ICR to include 0

Cycle 3 (3/2024): Inpatient hyperglycemia guideline developed with calculator guidance. Education with inpatient providers and nurses

Cycle 4 (4/2024): Implementation of guardrails to ICR and ISF.

Inpatient Subcutaneous Insulin Calculator – Cycle 1





Inpatient Subcutaneous Insulin Calculator – Cycle 2

Insulin Aspart (NOVOLOG) Injection Pen 0-75 Units

Reference Links: • Lexi-Comp • Lexi-Comp Peds

Blood Glucose Target - Daytime (mg/dL)
100

Blood Glucose Target - Bedtime (mg/dL)
150

At 0200 only, give correctional insulin if Blood Glucose is greater than (mg/dL)
350

Hyperglycemia Correction Factor
50

Carbohydrate Ratio (g/unit)
0

Administration Details

Action: Given | Date: 07/07/2025 | Time: 1700 | Comment:
Route: SUBCUTANEOUS | Site:
Dose: 0-75 Units
Cannot be a range
Ordered:
0-75 Units
Enter correct dose.
Order Concentration: 100 Units/mL

Associated Flowsheet Rows

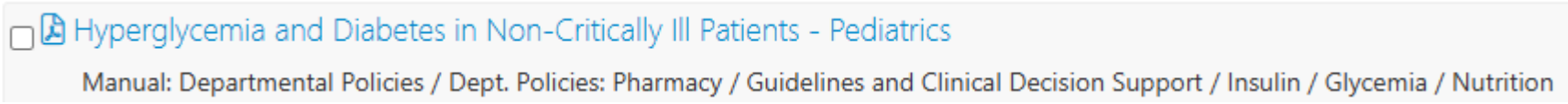
Time taken: 7/7/2025 1332 Responsible Restore
If no new assessment is needed, check the box to link flowsheet rows to the previous assessment.
Flowsheet data cannot be documented in the future. Flowsheet time has been set to 7/7/2025 13:32:00.

Insulin Calculator - Select Current Mealtime
Mealtime: Breakfast | Lunch | Dinner | Bedtime | 2 am
Was rapid-acting insulin given within previous 3 hours? Yes | No

Enter Current POC Blood Glucose and Carbohydrate Intake:
Blood Glucose (mg/dL): 300
Carb Intake (grams): 45

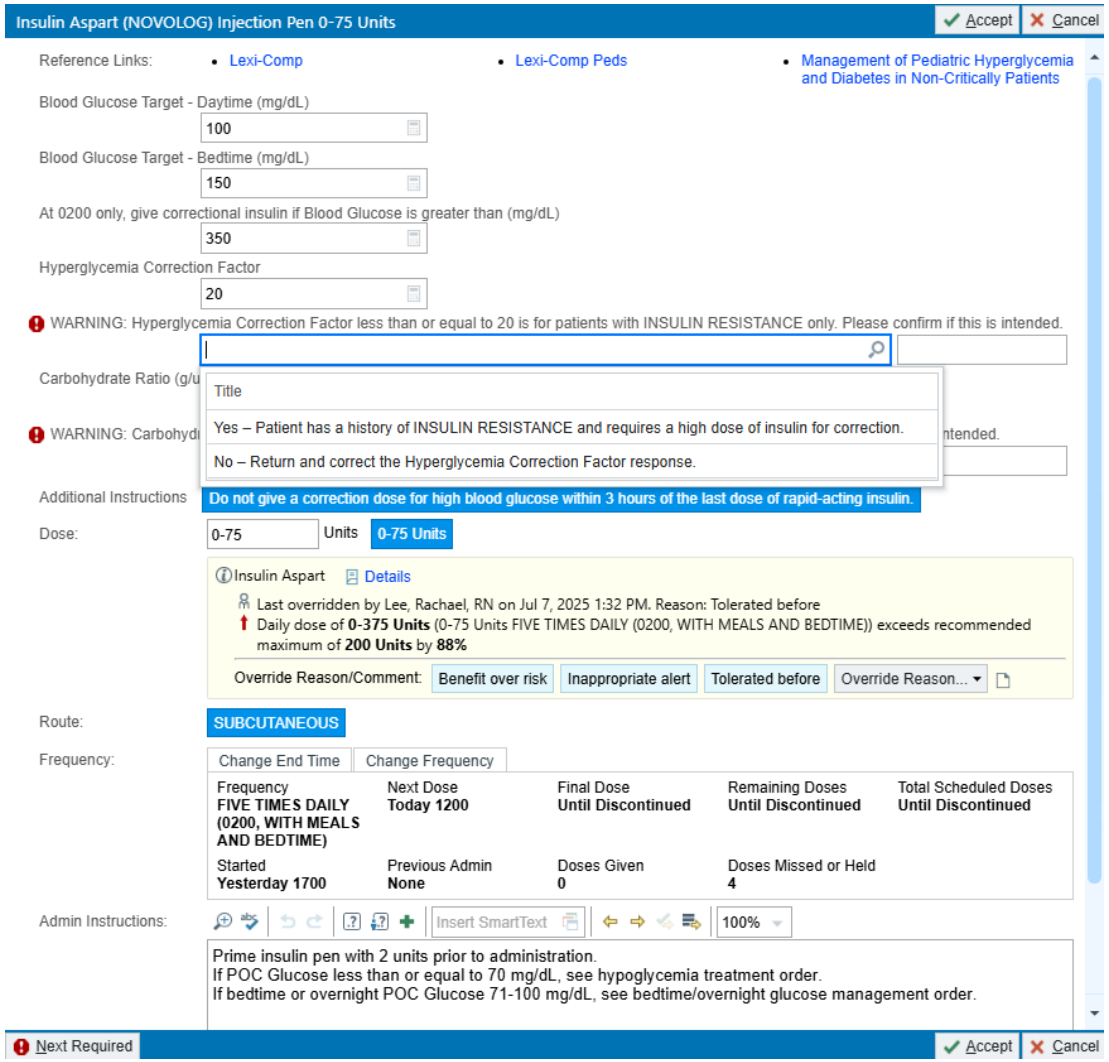
Calculated Dose (Enter in the "Dose" Field Above):
Dose (Units) [Rounded Down]: 4 Units
Insulin Dose Calculation: ((({Blood Glucose (mg/dL)}-{BG Daytime Target (mg/dL)})/{Hyperglycemia Correction Factor})*({Blood Glucose (mg/dL)}>={BG Daytime Target (mg/dL)}))
Insulin Dose Calculation Values: (((300-100)/50)*(300>=100))
Additional Instructions:
Additional Instructions (cont.):

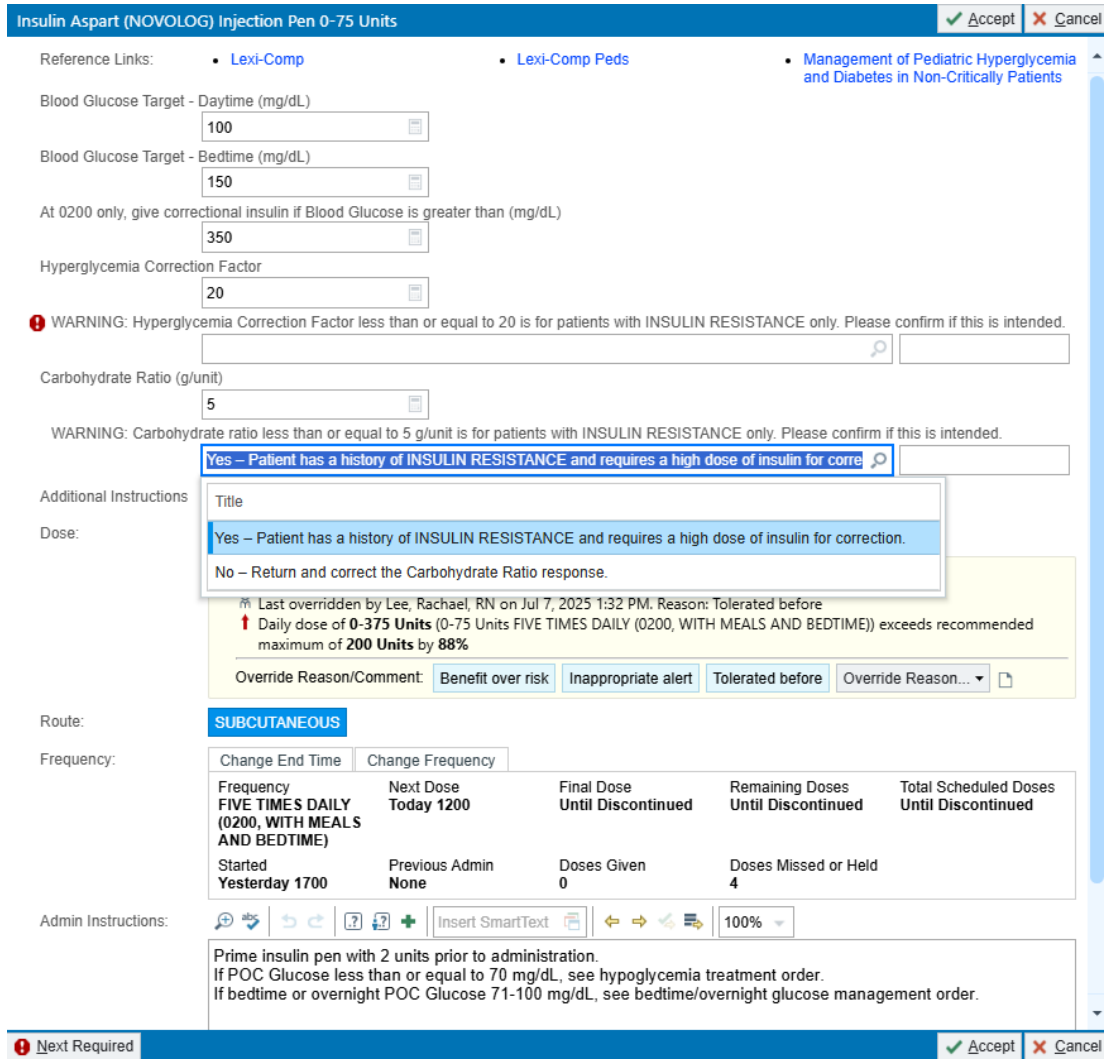
Inpatient Subcutaneous Insulin Calculator – Cycle 3



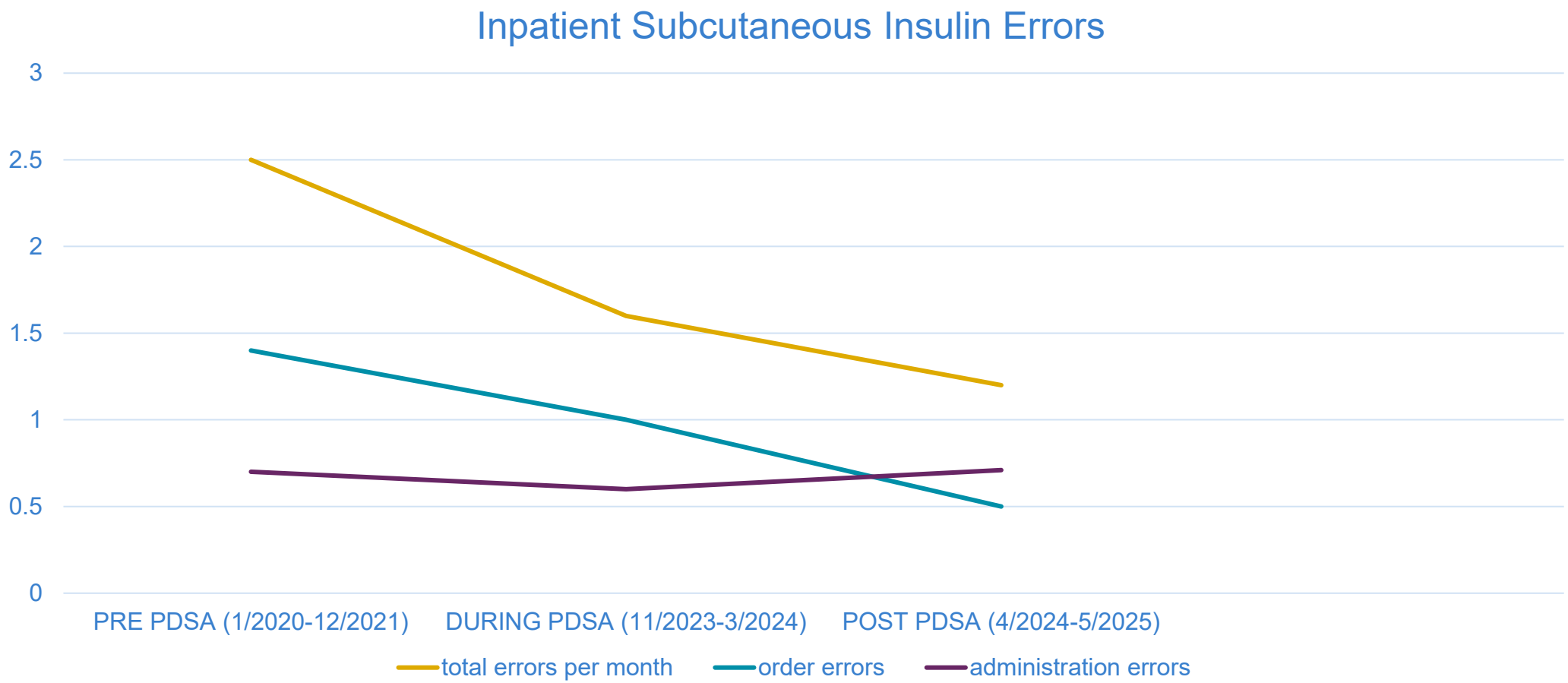
- Inpatient hyperglycemia guideline with calculator guidance developed and circulated throughout hospital.
- Provider education
  - New pediatric resident onboarding
    - Ongoing education throughout the year
  - Pediatric M&M
  - Pediatric hospitalists
- Nursing education
  - Skills days on all pediatric units
  - New hire orientation
  - PICU training program
  - Inpatient Pediatric Hyperglycemia virtual lecture
  - Utilization of Diabetes Champions to do check ins with nurses taking care of pediatric diabetes patients

Inpatient Subcutaneous Insulin Calculator – Cycle 4





Inpatient Subcutaneous Insulin Errors



T1DX-QI Collaborative Call

Cincinnati Children's Diabetes Center

7.24.25

Sarah D. Corathers, MD

THE LEONA M. AND HARRY B. HELMSLEY CHARITABLE TRUST

CONNECT1D
INNOVATION FOR THE CARE OF TYPE 1 DIABETES

Cincinnati Children's™
changing the outcome together

Objectives

ConnecT1D aims to reinforce connections between patients, clinic, and community partners to achieve excellent and equitable glycemic and psychosocial outcomes for young people with type 1 diabetes.

- Get ConnecT1D
  - Design ideation
- Be ConnecT1D
  - Intervention map
- Stay ConnecT1D
  - Device integration and partnerships: Rising T1DE, 4T

Changing care delivery

Improving health outcomes

Closing equity gaps

Cincinnati Children's
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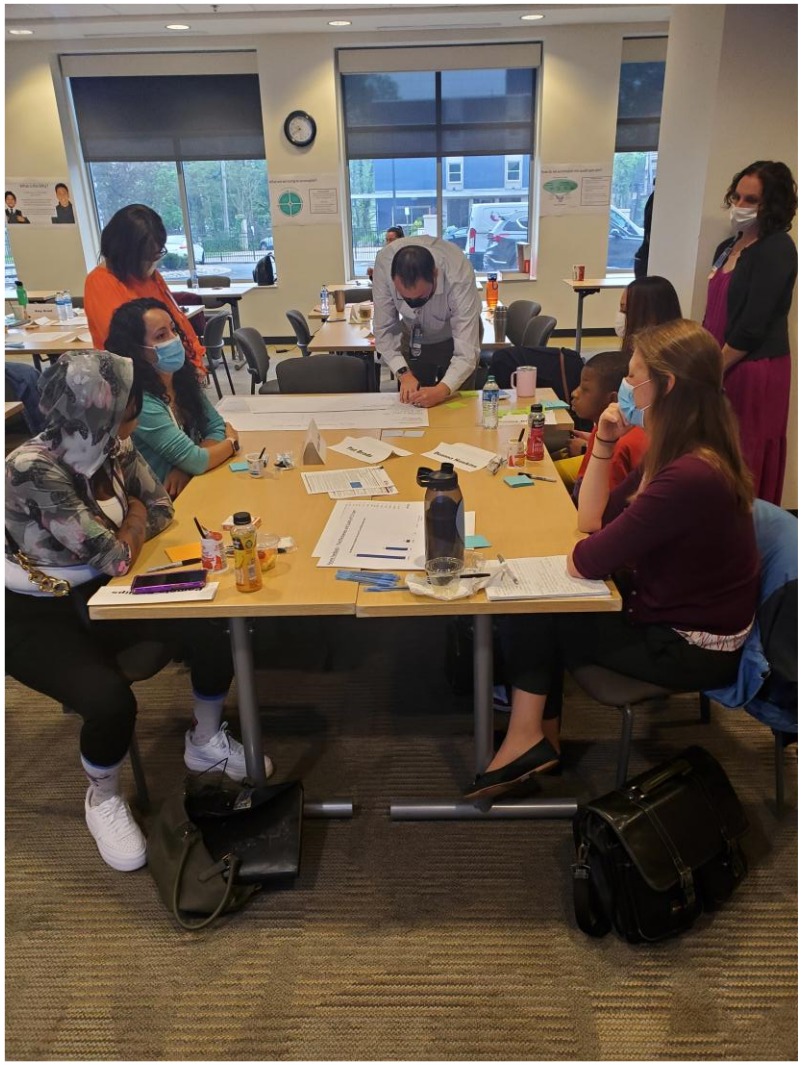


Design Day Session: Engaging Patients, Caregivers, & Diabetes Center May 2022

ConnecT1D—HCT Key Driver Diagram (KDD)

Project Leader: Sarah Corathers, MD

Revision Date: 8/1/2024

Global Aim

Achieve excellent and equitable outcomes for children with Type 1 Diabetes

SMART Aims

Decrease mean A1c of HealthVine T1D patients from 9.4% to 8.2% by February 1, 2025.

Increase percentage of HealthVine T1D patients on CGM with time in range above 50% from x% to y% by February 1, 2026

Population

Youth 0-18 yr with Type 1 Diabetes and HealthVine insurance

Focus Areas & Process Measures

Access
Increase the percentage of HealthVine T1D patients with consistent clinic visits* from 90% to 95% by February 1, 2025
*Seen in Diabetes Clinic by medical provider in the last 150 days

Technology
Increase the percentage of HealthVine T1D patients on CGM from 58% to 90% by February 1, 2025.

Increase the percentage of HealthVine T1D patients on AID from 53% to 75% by February 1, 2026.

Psychosocial
Increase the percentage HealthVine T1D patients with social work or BMCP encounter* within the proceeding 12 months from 55% to 80% by February 1, 2025.
*Visits during DM clinic and appts outside of DM clinic

Key Drivers

- Standardized system, processes, and polices to support consistent follow-up
- Available appointments and optimized access for family's needs/preferences
- Structured preparation and coordination for clinic visits
- Affordable and patient-centered technology access across the continuum of care
- Support and connection for patients/families between visits
- Proactive review of diabetes device data between visits
- Trusting and collaborative relationships amongst patient/family, community, school, & DM Center
- Impactful psychosocial support
- Tailored treatment options to meet patient's individualized needs

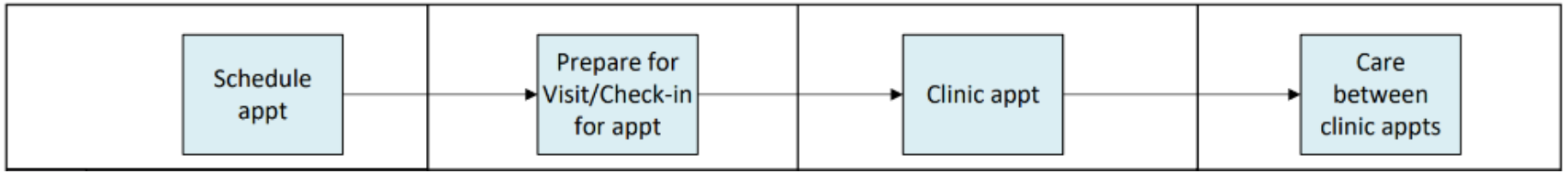
Interventions

- Expand clinic locations (LOR 2) (EB-M)
- Use Epic report to call/schedule patients who are overdue for follow-up (LOR 2)
- Utilize a mobile outreach van (LOR 2) (EB-M)
- Expand CGM trial program (LOR 2)
- Initiate access to CGM technology at CCHMC pharmacy and DME (LOR 2)
- Use a No CGM List with pre-visit planning (LOR 1)
- Utilize coordinator roles: Financial counselor, insurance navigator, care coordinator (LOR 2) (EB-M)
- Integration of diabetes data into EHR (LOR 2)
- Create Listserv for emailing resources/information to HealthVine patients/families (LOR 2)
- Enhance current school nurse program (LOR 1) (EB-VL)
- Review charts of all HealthVine patients during the month of their birthdate (LOR 1)
- Have an embedded psychologist in clinic (LOR 2) (EB-M)
- Create high-risk patient list using data filters for risk factors (i.e. A1c, no tech, admissions, SDH) (LOR 2)
- Collaborate with Diabetes Community Health Worker and care manager (LOR 2) (EB-M)
- Identify and address social determinants of heath with SDH screening (LOR 2) (EB-L)

Legend
- Potential intervention
- Active intervention
- Adopted intervention
- Abandoned intervention

Note: LOR # = Level of Reliability Number, e.g., LOR 1
Evidence Base : EB Level *EB-H, EB-M, EB-L, EB-VL, or EB-C (High, Moderate, Low, Very Low, Consensus)*

Interventions for Diabetes Patients/Families



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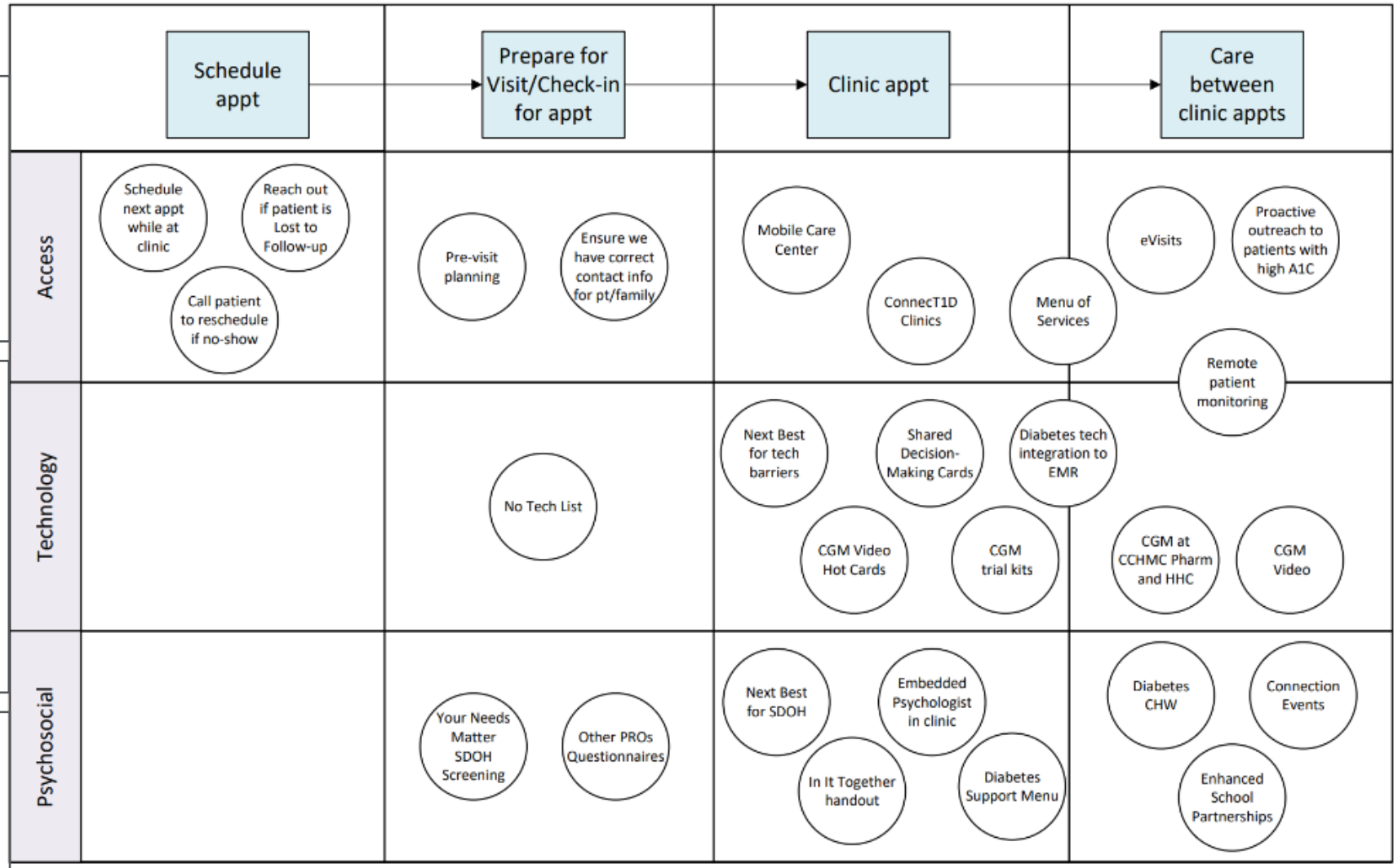

Intervention Champions/Contacts

- Access scheduling appts interventions-- Gail Patten, Sandy Kellam Molly Neely
- Pre-visit planning-- Gail Patten
- Mobile Care Center-- Internal: Sarah Corathers, Gail Patten; External: Becky Taylor
- ConnecT1D Clinics-- Sarah Corathers, Nana Jones, Laura Smith
- Menu of Services-- Pat Brady
- eVisits-- Yoori Noh
- Proactive outreach-- Jen Kelly
- Remote patient monitoring-- Amy Poetker
- No Tech List-- Nana Jones, Gail Patten
- Next Best for tech barriers-- Nana Jones
- CGM video and hot card-- Nana Jones
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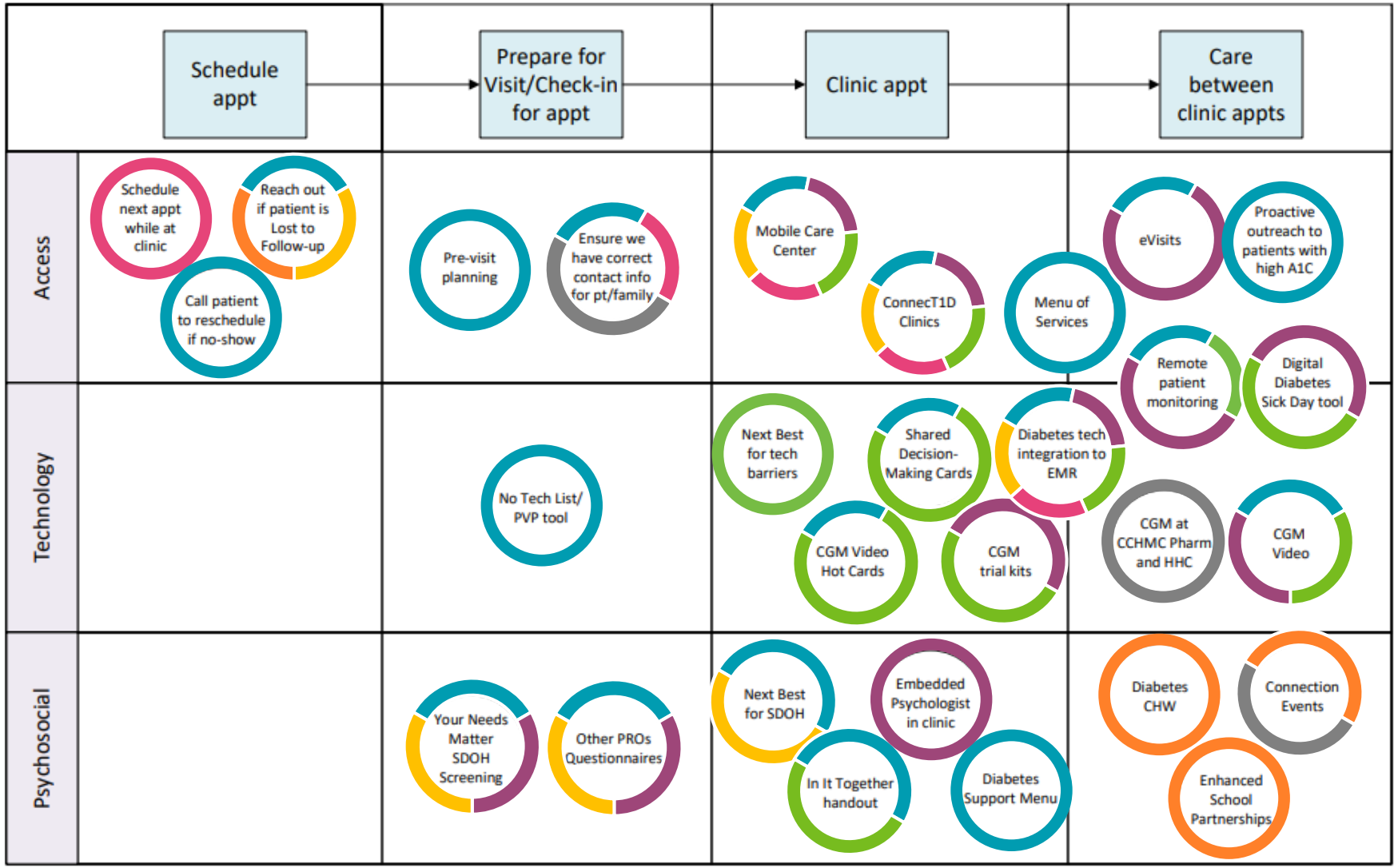
- Diabetes CHW-- Molly Neely
- Connection events-- Molly Neely
- Enhanced school partnerships-- Karishma Tilton

Interventions for Diabetes Patients/Families

Diabetes Center Roles

- = MA
- = RN Care Coordinator
- = Provider
- = CDCES
- = SW
- = Support Staff
- = Community



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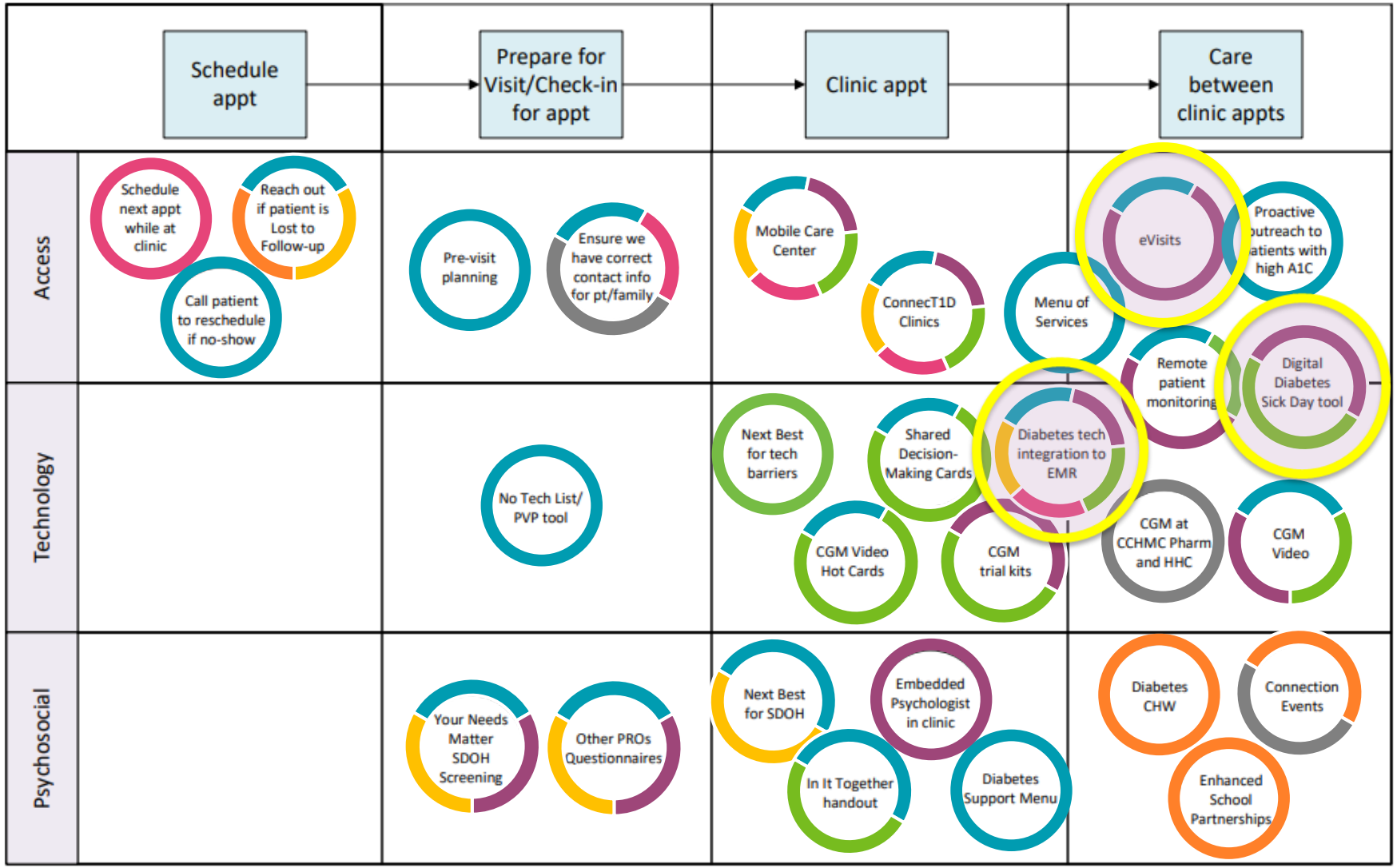

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E-visits, asynchronous care

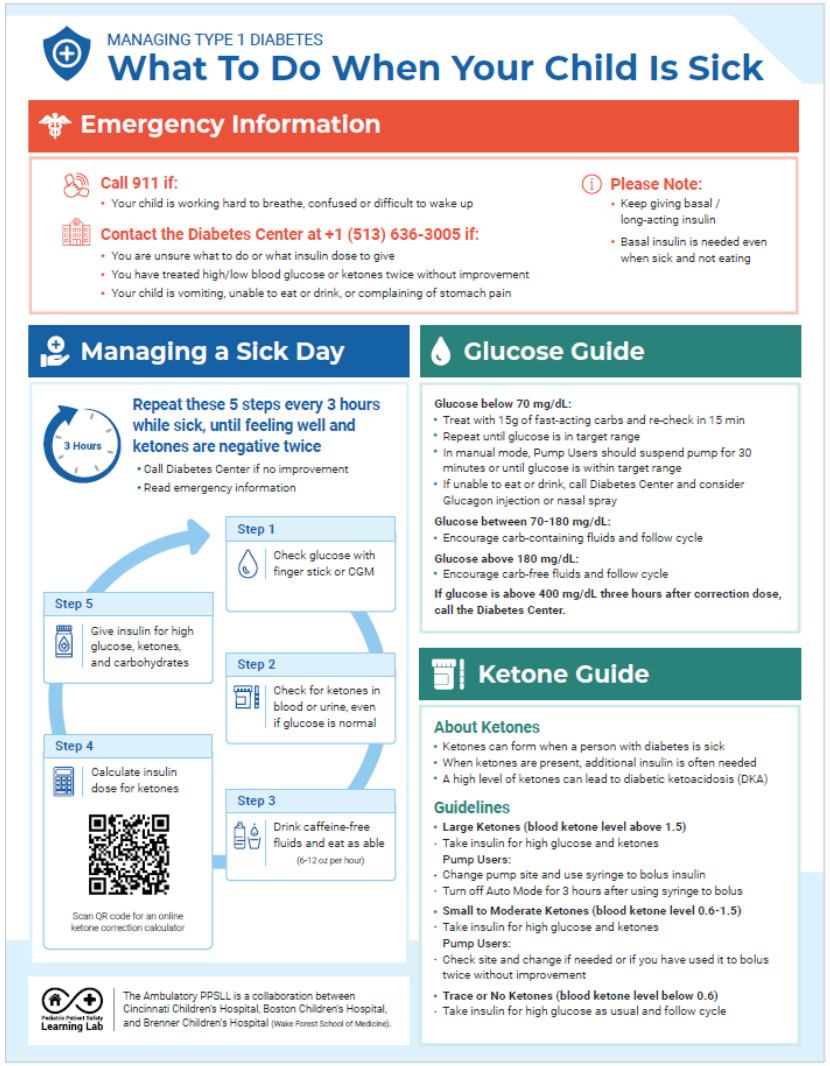
- An eVisit is a self-guided questionnaire that families can complete via MyChart to request glucose review and insulin adjustment at a time convenient for them.
- Once completed, the clinician will respond within 48 hours.
- The e-visit service is billed to insurance and costs less than a telehealth or in-person visit.
- Since November 2023, we have completed 627 eVisits for 310 unique patients.
- In preliminary analysis of eVisit data, we see an almost ~2% reduction in HgbA1C with multiple visits over 12 months.
- Importantly, these wins occur with kids missing less school and parents missing less work.

# E-visits	HbA1c Decrease at 12 months	TIR Increase at 12 months	# Unique Patients
2	-0.8%	4.5%	132
3	-1.1%	7.3%	63
4	-1.1%	8.9%	32
5	-2%	16%	22

CPT code	Description	Charges	Self-Pay Rates
99421	5-10 minutes of provider time	$61	$31.11
99422	11-20 minutes of provider time	$121	$61.71
99423	21+ minutes of provider time	$274	$139.74

Yoori Noh et al. Presented at T1Dx-QI 11/2024 Chicago; ISPAD 10/2024 Lisbon; Manuscript in preparation

Sick Day Management



- https://diabetessickday.org

- Process mapping of diabetes care at home
- Simulation of sick-day scenarios
- End-user design sessions to co-create updated tools

Pediatric Safety Learning Lab is a collaboration between Cincinnati Children's Hospital, Boston Children's Hospital, and Brenner Children's Hospital (Wake Forest School of Medicine) and supported through research funded by the Agency for Healthcare Research and Quality under award number R18HS026644.

Kirkendall ES, Brady PW, Corathers SD, Ruddy RM, Fox C, Nelson H, Wetterneck TB, Rodgers I, Walsh KE. Safer Type 1 Diabetes Care at Home: SEIPS-based Process Mapping with Parents and Clinicians. *Pediatric Quality and Safety* 8 (2023):e649.
Delsart, H, Corathers, SD, Fox,C, Geis, G, Brady, P, Smith, E, Kirkendall, E, Walsh, K. Novel Use of a Simulation in Pediatric Type 1 Diabetes Sick-Day Education for Patients and Caregivers. Diabetes Spectrum. In Press.

CGM EHR Integration

Integration of Continuous Glucose Monitor Data into the Electronic Health Record

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	Abbott	Glooko
Patient Connection Order	CGM Abbott Enrollment Order (must be ordered first)	N/A
Matches By	Legal Name (first + last), DOB, e-mail in enrollment order must match LibreView Account	1.Legal first and last name and DOB 2.MRN and DOB 1. Must match Glooko account
Order Name	CGM Abbott Discrete Data CGM Abbott Daily Log CGM Abbott AGP Report	Glooko Metrics
CGM Data - Discrete	Results Review	Results Review
CGM Data – PDF of Reports	Chart Review-> Other Orders-> CGM Abbott AGP Report/CGM Abbott Daily Log -> Linked Documents -> Report Link	Chart Review -> Other Orders-> Glooko Metrics -> Linked Documents -> Report Link
Device Data - Discrete	N/A	Glooko Device Data Flowsheet
Device Data - PDF	N/A	Chart Review -> Other Orders-> Glooko Metrics -> Linked Documents -> Report Link

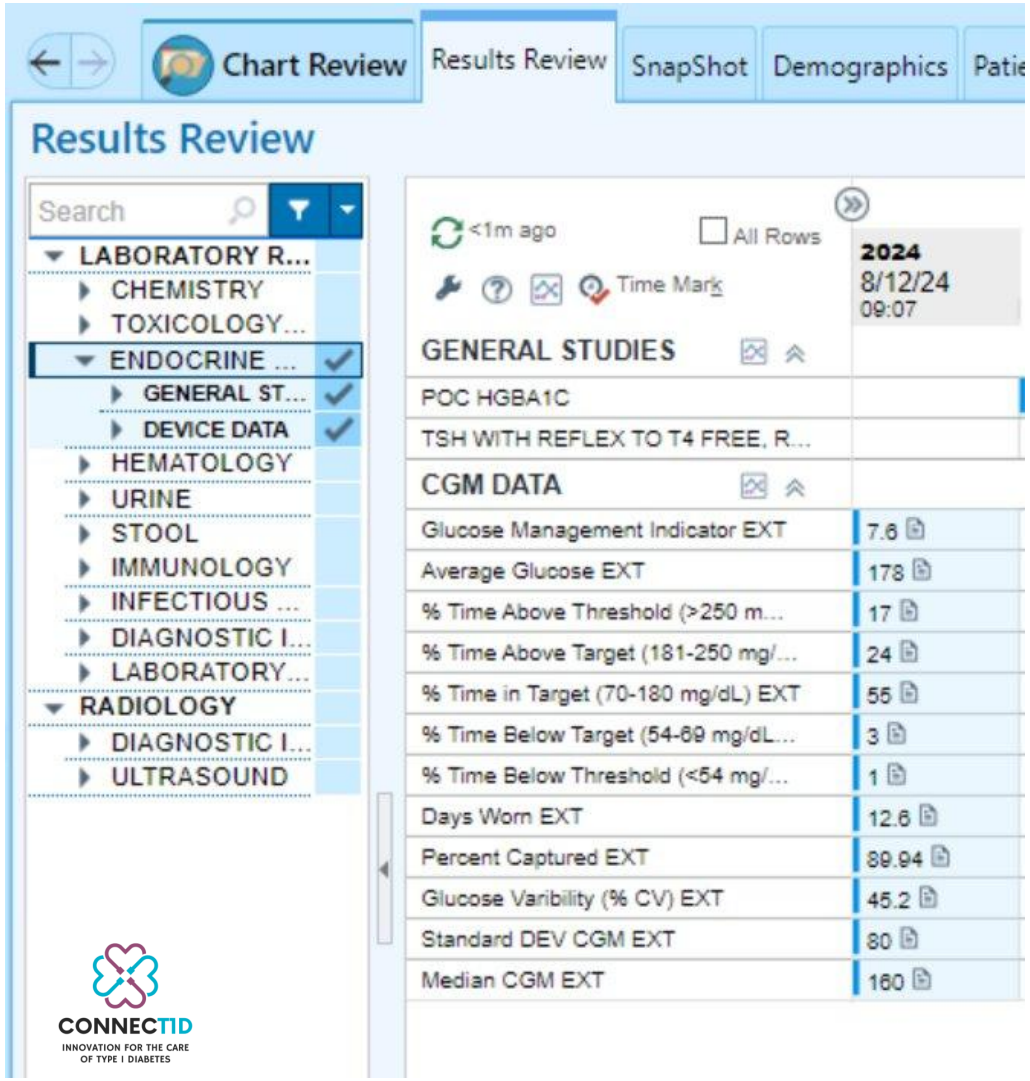

Table compiled by Michelle I. Knopp, MD – Clinical Informatics; manuscript in preparation

ConnecT1D Results 2022-2025

CONNECT1D
INNOVATION FOR THE CARE OF TYPE 1 DIABETES

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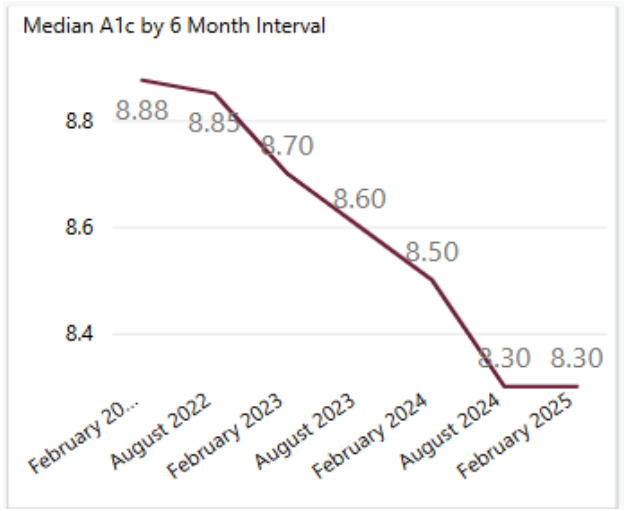
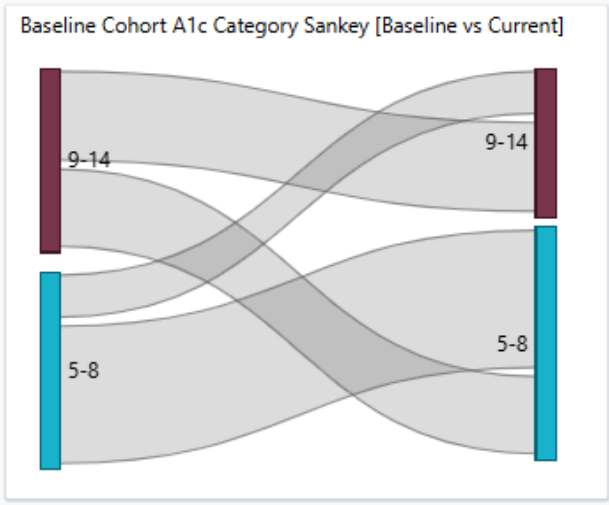
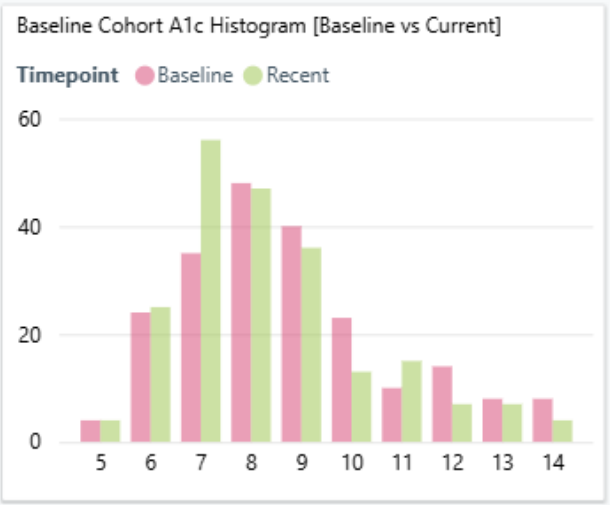
- Consistent clinic visits > 90%
- Psychology and/or Social Work visit > 70%
- CGM use increased from 56% to 92%
- Insulin pump use increased from 50% to 70%
- Mean HbA1c over time among Healthvine population decreased by 0.6%, with a concurrent improvement of 0.4% in the non-HealthVine cohort demonstrating that a focus on closing health equity gaps can still drive improvement for the entire population







Next Steps and Questions

- Ongoing quality improvement
  - Sustain and spread high impact interventions
  - Decreasing time to AID following new onset diagnosis
  - Reducing hospital days, Well ConnecT1D program
  - Closing health equity gaps
- Partnerships
  - 4T
  - Rising Tide Alliance
- With appreciation to the entire ConnecT1D team, Cincinnati Children's Diabetes Center and center for Digital Health, T1DX-QI network, and support from The Helmsley Charitable Trust

Next meeting

Pediatric: September 23rd 3:30 pm – 5:00 pm EST