



T1D
Exchange

QI Project: Screening for stage 1 And stage 2 type 1 diabetes

January 24, 2025

Agenda

- Welcome
- Project Aim
- Monthly Data Reporting/Smartsheet Overview
- Center PDSA Cycles
- Coordinating Center Updates
- Next Steps

AIM Statements

Increase, by at least 15% (from baseline,) the proportion of people screened for T1D in 18 months. (June 2024 - December 2025)

Increase, by at least 30% (from baseline,) the proportion of eligible people monitored for progression to stage 3 T1D over 18 months. (June 2024 -December 2025)

Timeline	Expectations
January 2025	<ul style="list-style-type: none">• Attend monthly coaching calls• Teams report on their recent intervention activities.• The group will continue to test PDSA Cycles.
February- March 2025	<ul style="list-style-type: none">• Attend monthly coaching calls• The group will continue to test PDSA Cycles.• Reporting Data on Smartsheet• Focus Groups
April 2025	<ul style="list-style-type: none">• Attend monthly coaching calls• The group will continue to test PDSA Cycles.• Reporting Data on Smartsheet



Monthly Data Reporting/Smartsheet Overview

Data Reporting by Center

Centers	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
Children's National												
Texas Children's												
Lurie Children's												
University of Indiana												



Center PDSA Cycles



Texas Children's

T1D Screening Project: Implementation Rolling Action Item List

AIM: Increase by at least 15% (from baseline) the proportion of people screened for T1D in 18 months. (June 2024- Dec 2025)

Key Driver	Intervention	PDSA	Point Person	Progress Note	Next Steps	Next Report T1Dx	Status
PCPs unaware of need for T1D screening	PCP education on T1D screening, staging, and prevention	<ol style="list-style-type: none"> 1) TCP live Webinar (Aug 2024) led by Lauren Culbreth and Dr. Aguirre 2) Webinar was shared with external Pediatric offices (Oct 2024) 	Daniel DeSalvo				Adopted
No current model for T1D prevention clinic or mechanism for referral	Utilize new referral mechanism for PCPs	<ol style="list-style-type: none"> 1) PCP referral type update: "Screening and staging to delay type 1 diabetes" (Aug 2024) 2) Algorithm for central scheduling at TCH update to schedule into SIT Down T1D clinic (Aug 2024) 3) Education about new referral type at TCP Webinar (Aug 2024) 4) Education about new referral type to TCH Pediatric Endocrinology faculty and fellows (Sep 2024) 5) 5) Based on feedback from TCP providers, change referral to "Pre-symptomatic screening for type 1 diabetes" with just 1 click 	Curtis Yee (practice administrator)				Adopted
Patients/families unaware of need for T1D screening	Multimodal education to patients and families	<ol style="list-style-type: none"> 1) New onset binder (July 2024) 2) Flier in exam rooms (Sep 2024) 3) Future: MyChart letter to current T1D patients 	Melissa Marshall (Clinic Manager)				In-process
No current model for T1D prevention clinic or mechanism for referral	Schedule pre-diabetes referrals with normal BMI in SIT Down T1D clinic	<ol style="list-style-type: none"> 1) Meet with clinical lead for pre-diabetes – Dr. Horne (Oct 2024) 2) Revise protocol so that pre-diabetes referral with BMI <90th%, age <10y, +autoimmune condition, goes to SIT Down clinic (Nov 2024) 	Dr. Horne and Curtis Yee				In-process
Patients/families feeling overwhelmed with diagnosis	Psychology involvement	<ol style="list-style-type: none"> 1) Meet with diabetes psychologists (Drs. Gallagher and Carreon) – Jan 2025 2) Consider having separate telemedicine vs. shared medical/psychology visit 	Dr. Gallagher				In-process
Families seeking interventions to aid in delay of Stage 3 T1D	Addressing nutrition	<ol style="list-style-type: none"> 1) Provider discusses avoidance of concentrated sweets 2) Include Smartphrase in patient message (AVS) after visit concluded 3) Consider referral to RD on case-by-case basis (Jennifer Cleveland, RD) 	Jennifer Cleveland, RD				Adopted



Children's National

Children's National

T1D Screening Project

AIM: Increase by at least 15% (from baseline) the proportion of people screened for T1D in 18 months. (June 2024- December 2025)

Key Driver	Intervention	PDSA	Point Person	Progress Note	Next Steps	Next Report T1Dx	Status
Integrative EMR system	Create Cerner early stage powerform and add variables into dashboard	1) Submit Cerner request form (TBD)		Ticket submitted for powerform creation. In meantime, team is still tracking externally	Continue external tracking and explore feasibility of temporary data integration using Tableau/another analytics tools.		In progress
	Streamline ordering process	1) Consider building order set to include autoantibodies, A1c and education (talking points) (TBD)					In progress
Patient and family awareness of need to screen for T1D	Education for families on screening and prevention opportunities	1) Create screening handout, translate (November 2024)		Screening handout awaiting feedback from larger early stage team before going to translation.			Completed
		2) Handout in new onset binder & exam rooms (TBD)					In progress
		3) CDCES educational materials for early stage T1D patients (TBD)					In progress
		4) Portal message blast (TBD)					In progress
Specific, streamlined workflow	Develop and implement succinct policies and procedures. While in process, determining team member roles and responsibilities	1) Identify and engage key stakeholders (clinical director, admin staff, providers, nurses). (January 2024). Determine specific roles in the workflow (TBD)		Manual complete, shared with provider team (on-call addition). Final step is to engage admin team member			In progress
		2) Draft, pilot and launch policies and procedures. Monitor success (TBD)					Completed

Children's National (continued)



PDSA Worksheet Intervention #1

Project Title:	Screening for stage 1 and stage 2 type 1 diabetes	Test Cycle Number:	1
Change Idea:	Develop, translate, and implement screening-specific education materials		
Test Cycle Start Date	10/1/2024	Test Completion Date:	

PLAN *(to be completed before the test cycle)*

Describe the intent and structure of the test cycle: What are you trying to accomplish? Action steps to carry out the test cycle (who, what, where & when)

We aim to increase awareness about stage 1 and stage 2 type 1 diabetes screening through education. This cycle will involve creating and disseminating educational handouts that explain the importance of early screening, early signs of T1D, and how to access screening.

What do you predict will happen in this cycle? (Make sure its realistic)

We predict an increase in patient awareness about the importance of early screening for T1D, with at least ____% patients indicating that they have read and understood the material via _____.

DO: *(to be completed after the test cycle)*

What happened? Describe your observations and data. Was there anything that occurred that was not part of the plan?





Lurie Children's

Lurie Children's

T1D Screening Project

AIM: Increase by at least 15% (from baseline) the proportion of people screened for T1D in 18 months. (June 2024- December 2025)

Key Driver	Intervention	PDSA	Point Person	Progress Note	Next Steps	Next Report T1Dx	Status
Education	Educate families of established Type 1 patients	Update flowsheet to include the discussion of screening T1D siblings, obtain Enable kits for clinic, and share education materials with families	Guido	Flowsheet updated and screening kits obtained	Offer Enable kits, ASK, and TrialNet, create dot phrase in AVS, create family handout on Teplizumab		In Progress
Education	Educate Providers	Build order set to include all 5 autoantibodies, provider education of early stages of T1D, and use shared list for tracking pts	Mary, Laura	Order set updated, outreach to GI, and shared list created	Present at division meeting and have providers complete flowsheet		In Progress
Workflow	Increase screening in patients with 2 or more autoimmune conditions						

Lurie Children's (continued)

Test Cycle Start Date

10/21/2024

Test Completion Date:

PLAN *(to be completed before the test cycle)*

Describe the intent and structure of the test cycle: What are you trying to accomplish? Action steps to carry out the test cycle (who, what, where & when)

To increase family education, we need to:

1. Update flowsheet to include the discussion of screening T1D siblings
2. Obtain Enable Kits for clinic
3. Create dot phrase for after visit summary with patients
4. Present option of using Teplizumab for families
5. Create 1-page flyer to post in clinic rooms

What do you predict will happen in this cycle? (Make sure its realistic)

Our prediction is that more families will want to screen. Some families might still be hesitant to find out results.

DO: *(to be completed after the test cycle)*

What happened? Describe your observations and data. Was there anything that occurred that was not part of the plan?

All action items for this cycle have been successfully completed. Below is the status of each:

1. Updated Flowsheet to Include Discussion of Screening T1D Siblings:

The flowsheet has been revised to ensure that the discussion of screening for Type 1 Diabetes (T1D) siblings is included as part of the clinical workflow.

2. Obtained Enable Kits for Clinic

Enable Kits have been procured, with a plan in place to share them across other clinics to ensure accessibility for all patients.

3. Created Dot Phrase for After Visit Summary with Patients

A dot phrase has been created for use in the after-visit summary, facilitating clear communication with patients regarding key information discussed during their visit.

4. Presented Option of Using Teplizumab for Families

The option of using different medication has been successfully presented to families as part of the treatment discussions, ensuring they are informed of all available options.

5. Created 1-Page Flyer to Post in Clinic Rooms

A 1-page flyer is being printed and will be available to post in clinic rooms to provide families with relevant information and resources regarding their care.



Lurie Children's (continued)

STUDY: (to be completed after the test cycle)

Did the results match your prediction?

Yes No

How did the results compare to your prediction? Was the process efficient? Did you encounter unexpected effects? What were your general observations? What did you learn?

Was the process efficient?

Overall, the process was efficient, but it highlighted the need for further education and discussions to address the concerns and emotional reactions of families, especially those with young children already diagnosed with T1D.

What were your general observations?

Families with prior experience of T1D with their children seem to have more emotional responses to the idea of screening, possibly due to the challenges they've faced in managing the condition. This has created some resistance, indicating that further support and communication may be needed to help families feel more comfortable with the screening process.

What did you learn?

We learned that families who have already been through the experience of T1D with their children may need additional reassurance and understanding before consenting to screening. Emotional factors play a significant role in their decision-making, and addressing these concerns will be critical in improving engagement.

ACT: (to be completed after the test)

Adapt

Adopt

Abandon

Next Steps:

- Share the family flyer with GI, Rheumatology, and other providers to ensure all teams are aligned in discussing screening with families.
- Ensure that all clinics have access to the Enable Kits to facilitate the process and ensure consistency across clinics.

Lurie Children's (continued)

Test Cycle Start Date	12/1/2024	Test Completion Date:	
PLAN <i>(to be completed before the test cycle)</i>			
Describe the intent and structure of the test cycle: What are you trying to accomplish? Action steps to carry out the test cycle (who, what, where & when)			
<p>To increase Provider Education, we need to:</p> <ol style="list-style-type: none"> 1. Partner with GI for awareness 2. Encourage use of flowsheet 3. Present at division meeting 4. Build order set to include all 5 autoantibodies 5. Use shared list for tracking patients 6. Teach providers to screen patients with multiple autoimmune conditions 			
What do you predict will happen in this cycle? (Make sure its realistic)			
Our prediction is that there will be provider concerns on these new changes. We do hope to see more screenings done.			
DO: <i>(to be completed after the test cycle)</i>			
What happened? Describe your observations and data. Was there anything that occurred that was not part of the plan?			
All action items for this test cycle have been completed, with the exception of the first one. Below is the status of each action:			
<ol style="list-style-type: none"> 1. Partner with GI for Awareness This action is still in progress. We are working on establishing a partnership with the GI team to raise awareness, but it has not been completed yet. 2. Encourage Use of Flowsheet The flowsheet has been successfully implemented, and providers have been encouraged to use it in their clinical practice. 3. Present at Division Meeting A presentation was given at the December division meeting. It included education on identifying patients who are at risk and should be considered for screening, proper documentation in the flowsheet, and the updated order set. We will plan to present again in Spring. 4. Build Order Set to Include All 5 Autoantibodies The order set has been successfully built and now includes all 5 autoantibodies, ensuring comprehensive testing and streamlined orders for providers. 5. Use Shared List for Tracking Patients A shared list for tracking patients has been established and is now being used to monitor progress and ensure continuity of care across different providers. 6. Teach Providers to Screen Patients with Multiple Autoimmune Conditions Providers have been trained on the importance of screening patients with multiple autoimmune conditions, ensuring that appropriate care steps are taken. 			

Lurie Children's (continued)

STUDY: (to be completed after the test cycle)

Did the results match your prediction?

Yes No

How did the results compare to your prediction? Was the process efficient? Did you encounter unexpected effects? What were your general observations? What did you learn?

Was the process efficient?

Yes, the process was efficient overall. We saw an increase in the number of screenings performed. The development of SlicerDicer by DAR, with the correct data, and the generation of monthly reports have streamlined the tracking and submission of necessary information (e.g., November and October reports).

What were your general observations?

The general observation is that screenings have increased, and the outcomes in terms of positive results are relatively low. The use of SlicerDicer has been effective in managing data and improving reporting efficiency. There is also a need for continuous education to keep the screening process top of mind for providers.

What did you learn?

We learned that regular reminders and education are crucial for maintaining the momentum of screening efforts. Additionally, while screenings are increasing, we still need to broaden the scope of providers involved.

ACT: (to be completed after the test)

Adapt

Adopt

Abandon

Next Steps:

- Revisit the screening process in the Spring or Summer.
- In two months, resend the information to providers and refresh education to keep the topic relevant. We could include a simple 1-slide presentation as a reminder.
- We are working on connecting with approximately 80 pediatricians to discuss when to screen and when to refer patients. Since not all pediatricians meet at once, exploring a webinar or other digital communication methods may be the best way to reach all of them efficiently.



University of Indiana

University of Indiana

- 1. Optimized Referral Process:** Referral process for the Early-Stage Type 1 diabetes clinic has been streamlined, with fellows triaging referrals using a decision tree. This has improved clinic slot utilization, ensuring patients who need T1D autoantibody screening and monitoring are appropriately scheduled.
 - A decision diagram is being developed to provide feedback to HCPs who refer prediabetic patients, aiming to refine the referral process and clarify the urgency of these cases.
- 2. T1D Encounters and Screening Discussions:** Between October 11, 2024, and January 17, 2025, Dr. Tuttle conducted 41 T1D encounters, with 73% documenting discussions about T1D IAAb screening. 80% of these were new discussions during which screening information was provided, and most patients showed interest in screening.
 - A new NP has been documenting these discussions as well, with similar findings in terms of the percentage of encounters having documented screening conversations. Some challenges include missing discussions with more complex or newly diagnosed patients, though documentation and workflow are improving.

University of Indiana (continued)

- 3. Expansion of In-Person Visits:** The clinic is expanding its in-person visits, with a new NP joining to offer more slots for early-stage T1D follow-ups and monitoring. Some concerns about phlebotomist capacity for OGTTs are being addressed, and telehealth options are being considered for patients who don't need in-person testing.
- 4. Patient-Facing Screening Materials:** Patient-facing materials from Sanofi have been placed in the waiting room and patient rooms to encourage conversations about screening. However, no families have brought up screening voluntarily, indicating that further effort is needed to initiate these discussions.
- 5. Capillary and Blood Spot Kits Availability:** TrialNet capillary kits and Enable Bioscience blood spot kits are available at the Methodist diabetes clinic, but due to workflow constraints, no families have been able to collect samples on-site. Families tend to prefer screening via ASK, but there's a desire to explore how to better integrate these kits into the clinic's offerings.
- 6. Educational Outreach:** Plans to include FAQs and ongoing education about screening and monitoring in the weekly Endocrinology faculty newsletter are underway to enhance communication and awareness among staff.



Questions/Next Steps