



T1D
Exchange

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

October 18, 2024

Agenda

- Welcome
- Monthly Data Reporting/Survey Overview
- PDSA Cycles
- 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
October 2024	<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.
November 2024	<ul style="list-style-type: none">• Attend monthly coaching calls• Teams report on their recent intervention activities.• Review preliminary results from survey.• The group will continue to test PDSA Cycles.
December 2024	<ul style="list-style-type: none">• Attend monthly coaching calls• Teams report on their recent intervention activities.• Review Data from Smartsheet• The group will continue to test PDSA Cycles.



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
Children's National	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Texas Children's	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red
Lurie Children's	Green	Red	Green	Green	Green	Green	Green	Green	Red	Red
University of Indiana	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red

PDSA Cycles



Children's National

Children's National PDSA Cycle



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 educational handouts that explain the importance of early screening, early signs of T1D, and how to access screening.

1. Create draft of patient handout
2. Seek team feedback
3. TBD Submit for approval from [new patient reading level analyst]?
4. Submit for Spanish & Amharic translation

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 75% patients receiving materials.



Children's National PDSA Cycle



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 _____.





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- December 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 (August 29, 2024) led by Lauren Culbreth and Dr. Rebecca Aguirre 2) Webinar was shared with external Pediatric offices (October 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" (August 2024) 2) Algorithm for central scheduling at TCH update to schedule into SIT Down T1D clinic (August 2024) 3) Education about new referral type at TCP Webinar (August 2024) 4) Education about new referral type to TCH Pediatric Endocrinology faculty and fellows (September 12, 2024) 	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 (September 2024) 3) Future: MyChart letter to current T1D patients 	Melissa Marshall (Clinic Manager)				In-process



University of Indiana

University of Indiana's PDSA Cycle



PDSA Worksheet Intervention #1

Project Title:	Optimizing Screening & Monitoring for Early Stage	Test Cycle Number:	1
Change Idea:	Increase intentional discussion and documentation in EHR of screening during outpatient T1D clinic visits		
Test Cycle Start Date	9/23/2024	Test Completion Date:	10/11/2024

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)

Incorporating discussion of IAAb screening of 1st-degree relatives as part of routine annual/screening monitoring for T1D, this will increase family awareness of the availability of IAAb screening and may result in specific plans for actualizing screening via available methods (TN-01 vs. Telehealth visit for further discussion/serum screening).

Dr. Tuttle will add a new AutoText to his future outpatient diabetes notes, prompting discussion and documentation of discussion outcomes. Aiming for 90% of all visits.

A weekly review of all diabetes visit notes will be conducted for the next 1 month to determine:

1. did documentation occur
2. if discussion leads to successful consideration of screening vs. family reporting non-interest in screening vs. other reasons for not screening

Review of same notes after 3 and 6 months to determine if discussion leading to interest in screening lead to actual completion of screening at follow-up

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

- i. How much more time will it take to discuss and answer questions about screening? - It will likely take 5 minutes and efficiency can be increased with time if there are appropriate educational resources available. Eventually, screening discussions could potentially be incorporated into CDCES annual check-ins.
- ii. Will this create more documentation burden? - AutoTexts can be created to streamline documentation of discussion outcomes and decrease the time burden.
- iii. What will be done for families that desire screening? - Appropriate information for screening via TN-01 or referral will be placed to ESC
- iv. What if families do not want to screen? - Reason, where possible will be documented in outcome of discussion - plan to revisit/ask about screening annually to account for changes to available therapies or changes within the family

University of Indiana's PDSA Cycle

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?

Dr. Tuttle had 9 total T1D encounters over 6 different half-days of clinic. 4 of 9 (44%) had documented screening discussions with 100% of these discussions with positive interest in pursuing screening. All offered screening via TrialNet pathway and provided information with Post-card containing QR code for screening. 1 of the 4 I sent a message directly to TrialNet for family interested in screening (3+ family members).

1 of 9 families I documented the need for screening discussion at next visit (lack of time). Others I did not document need for follow-up discussion (perhaps something I should be doing, especially if these patients end up seeing a different provider or NP at next visit).

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?

Documentation burden increased by about 30 seconds - process is more efficient with drop-down/check boxes and fill-in segments

Discussion took less than 2-3 minutes for families with known T1D member in the household - will need to consider writing a simplified "script" for other providers

All families in this case were interested in free screening via TN-PTP - I usually encouraged filling out online form and scheduling a venous draw rather than POC kit

Efficient?

Could be better - need to improve AutoText questions and flow. Need AVS AutoText or handout with more details about screening/monitoring

Unexpected effects? - No

Learning Points:

Documentation of screening is feasible

Routine discussion about screening not always feasible depending on complexity of visit

Post-card with QR code convenient, but need to continue to follow-up with patients on if used/forgotten/issues coordinating screening

At least 2 encounters there were siblings brought to visit = missed opportunity to screen while present

University of Indiana's PDSA Cycle

ACT: *(to be completed after the test)*

Adapt

Adopt

Abandon

Debrief with the team and decide on next steps based on what you observe from the study phase

Continue documentation on all T1D follow-up and TOC encounters. Update/Adapt AutoText for efficiency. Create AVS AutoText and physical handout with screening/monitoring info/FAQs.

Will present AutoText to other providers and assess for volunteers for expansion/use

University of Indiana's PDSA Cycle



PDSA Worksheet Intervention #1

Project Title:	Optimizing Screening & Monitoring for Early Stage	Test Cycle Number:	1
Change Idea:	Increase # of appropriate patients scheduled for in-person Early-Stage Clinic slots (reserved for confirmatory screening/staging, c		
Test Cycle Start Date	10/2/2024	Test Completion Date:	10/18/2024

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)

Fellows screen all incoming endo/diab referrals and often decide which clinics a patient is seen in. Due to the limited number of in-person visit slots in ESC, patients in need of confirmatory IAAb or metabolic/ongoing monitoring must be seen in the in-person slots. Referrals for families desiring to learn more about screening in general OR who decide to pursue screening outside of a research pathway OR who live far distances from clinic may be more appropriate for telehealth slots (dedicated telehealth slots not yet established outside of add-ons during 1/2-day ESC clinic)

Action: Dr. Tuttle will review all decisions the fellows feel are appropriate for in-person ESC. If inappropriate, Dr. Tuttle will: 1) Provide feedback on appropriate referral location 2) Document reasons for inappropriate referral request

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

There will be multiple referrals that fellows feel are appropriate, but actually do not meet the rigorous criteria for in-person evaluation.

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?

Since 10/2/2024 I was only sent 5 questions about referrals to ESC from the fellows. Of these, 2 of 5 were inappropriate referrals to ESC. These two individuals had multiple other health comorbiditids, no T1D IAABs, prediabetic A1cs x 1, no definitive hx of FHx of T1D or other autoimmune diseases, bordering BMIs - recommended further evaluation in FA Endo slot (quicker eval) where IAbb screening can be sent if deemed necessary. For one of these patients, patient was seen in ED, so we recommended T1D IAAb sent at that time.



University of Indiana's PDSA Cycle

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?

Fellows are busy and screen multiple referrals. It is clear that from referral information, decision about who is an optimal candidate for limited in-person ESC slots is challenging. Therefore, we need to be very strict on who these slots are offered to (this should be only individuals who have a known IAAb+ +/- FHx of T1D or other autoimmune condition). All others may be better screened with FA Endo.

At my clinic on 10/17 I had 1 appropriate and 3 inappropriate patients in my clinic - 2 of 3 already had negative IAABs.

Currently, review of incoming referrals is doable. It is dependent on which fellow is on service, so frequent reminders will be needed for fellows to send these to me for review, otherwise some may be missed.

University of Indiana's PDSA Cycle

ACT: *(to be completed after the test)*

Adapt

Adopt

Abandon

Debrief with the team and decide on next steps based on what you observe from the study phase

For now will continue to request ESC referrals for review from fellows as they review them. May be better to cut out middle-man and simply have these sent directly to me to ensure no referrals are missed, however I will continue to evaluate for appropriate referrals scheduled over next few months in our ESC slots.

University of Indiana's PDSA Cycle



PDSA Worksheet Intervention #1

Project Title:	Optimizing Screening & Monitoring for Early Stage	Test Cycle Number:	1
Change Idea:	POC screening kits available within the Methodist Diabetes Center clinic		
Test Cycle Start Date	10/2/2024	Test Completion Date:	NA

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)

Currently, there are significant delays in discussion about the pros/cons of screening and actually having screening performed. This may lead to families changing their mind to obtain screening, putting it off, and forgetting to screen. Offering POC screening kits in clinic may help increase screening completion rates.

Action: Dr. Tuttle will obtain POC kits and offer these to families in clinic for in-clinic collection for 1 family per clinic (ideally one of the last families of the day).

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

Assuming a child of a T1D patient is in the clinic who is eligible for TrialNet vs. Enable Bioscience screening, information can be collected and screening can be completed in office.

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?



University of Indiana's PDSA Cycle

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?

We were unable to procure POC kits from TN or Enable Biosciences in a timely manner for this PDSA cycle.

- Hurricane Milton affecting supply delivery for TN kits - logistics of getting an iPad and a RedCap form in clinic also need to be figured out
- Awaiting Enable Bioscience kits - requested 2 weeks ago - informed there may be delays in shipping

University of Indiana's PDSA Cycle

ACT: *(to be completed after the test)*

Adapt

Debrief with the team and decide on next steps based on what you observe from the study phase

Adopt

Will continue to pursue this PDSA cycle once supplies are available. Need to continue work with TN team members to determine logistics behind informed consent collection prior to sample collection. Will need to determine if phlebotomy samples can be collected at Methodist lab (how samples get returned for processing - needs SOP)

Abandon



Lurie Children's

Lurie Children's PDSA Cycles

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 PDSA Cycles



PDSA Worksheet
Ann & Robert H. Lurie Children's Hospital of Chicago
Intervention #1

Project Title:	Increase Family Education	Test Cycle Number:	1
Change Idea:	Increase by at least 15% (from baseline) the proportion of people screened for T1D by December 2025		
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

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?



Lurie Children's PDSA Cycles



PDSA Worksheet

Ann & Robert H. Lurie Children's Hospital of Chicago Intervention #2

Project Title:	Increase Provider Education	Test Cycle Number:	1
Change Idea:	Increase by at least 15% (from baseline) the proportion of people screened for T1D by December 2025		
Test Cycle Start Date	12/1/2024	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)

To increase Provider Education, we need to:

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: *(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?





Next Steps