



T1D
Exchange

QI Collaborative Call, Pediatrics

1/26/23



Welcome & introductions

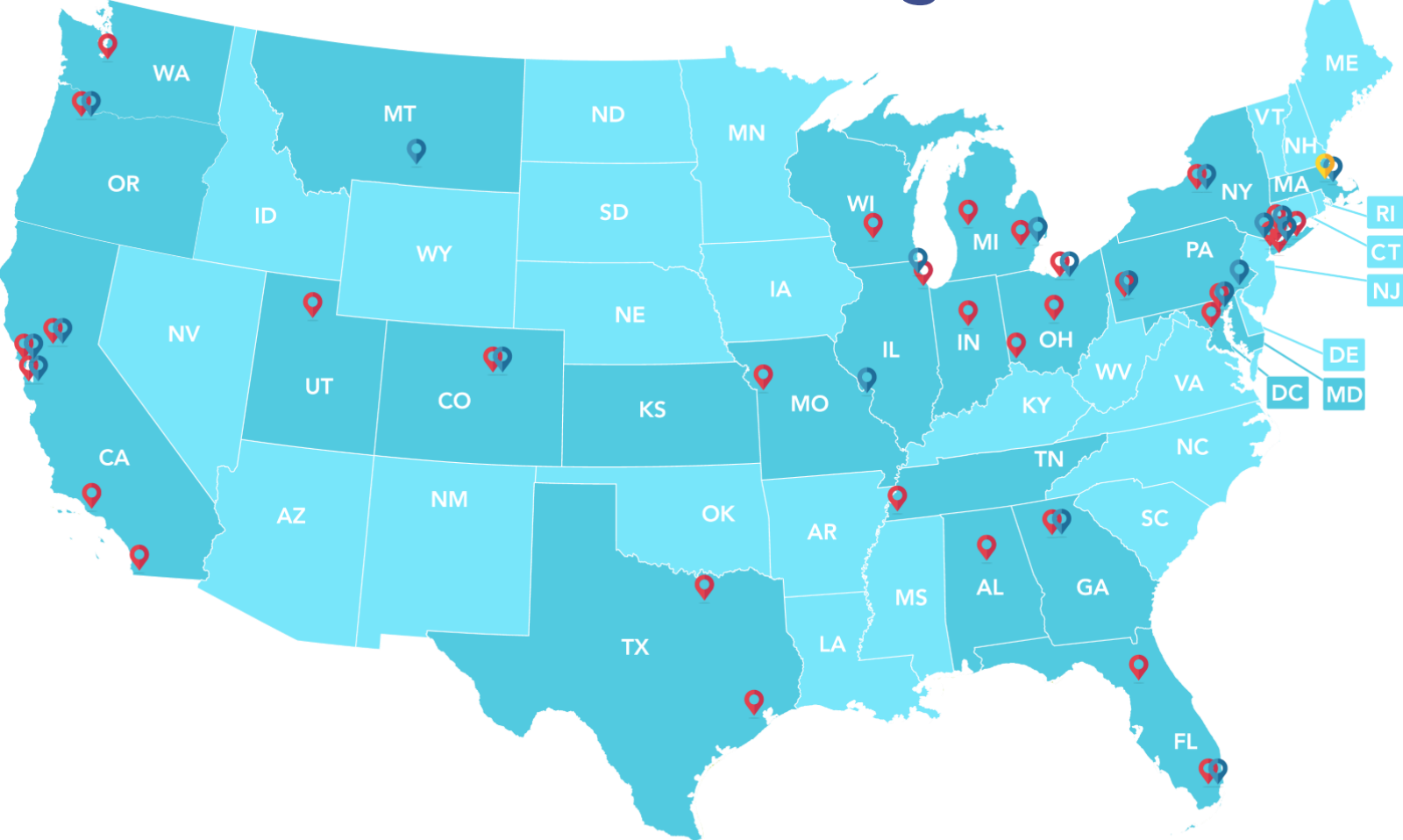
Agenda

- Collaborative updates
 - New clinics joining the Collaborative
 - Reporting Measures
 - T2D program
- January Collaborative presentations
 - Dr. Majidi, Children's National
 - Dr. Accacha NYU Langone Long Island



T1D Exchange Updates

T1D Exchange Quality Improvement network of 54 centers, caring for 85,000+ T1D patients across 21 states and Washington D.C.



 Pediatric  Adult  T1D Exchange HQ

Priya Prahalad, Nicole Riales et al. T1D Exchange Quality Improvement Collaborative: Accelerating Change through Benchmarking and Improvement Science for People with Type 1 Diabetes. Journal of Diabetes. Nov. 2021



34 pediatric clinics – caring for 54,000 patients with T1D



34 participating pediatric clinics

Barbara Davis Center Todd Alonso MD	Helen Devos Children's Donna Eng MD	Rady Children's Carla Demeterco Berggren MD PhD	University of Florida Laura Jacobsen, MD
Children's Mercy Hospital Mark Clements MD PhD	Indiana University Health Anna Neyman MD	Seattle Children's Hospital, Faisal Malik MD, MSHS and Alissa Roberts MD	UPMC Alissa Guarneri, MD, MBOE
Children's Hospital Los Angeles Brian Miyazaki, MD	Johns Hopkins, Risa Wolf MD	Stanford University Priya Prahalad MD	University of Miami Janine Sanchez MD
Cincinnati Children's Hospital Sarah Corathers MD	Le Bonheur Children's, U TN Grace Bazan MD	SUNY Roberto Izquierdo MD	UC Davis Stephanie Crossen MD & Caroline Schulmeister, MD
CHOA Kristina Cossen MD	Lurie Children's Naomi Fogel MD	Texas Children's, Daniel DeSalvo MD	UCSF Jenise Wong MD
Cleveland Clinic, Andrea Mucci MD MASc	Mott Children's Joyce Lee MD	NYU Langone: Accacha MD. Hassenfeld Children's Hospital at NYU Mary Pat Gallagher MD	University of Utah, Intermountain Healthcare Vandana Raman MD
Cohen Children's Medical Center, Northwell Health, Jennifer Sarhis MD & Allison Mekhoubad MD	Mount Sinai Robert Rapaport MD	Oregon Health & Science University Ines Guttmann-Bauman MD	University of Wisconsin, Madison Liz Mann MD
Cook Children's Paul Thornton MD & Susan Hsieh	Nationwide Children's Manu Kamboj MD	University of Alabama Mary Lauren Scott MD	Weill Cornell Alexis Feuer MD

Welcome Johns Hopkins and UC Davis!



Risa Wolf, MD
Associate Professor
Division of Endocrinology, Department
of Pediatrics. Medical Director, Camp
Charm City. The Johns Hopkins
Hospital.



Stephanie Crossen, MD, MPH
Associate Professor, Pediatric
Endocrinology, UC Davis



Caroline (Carrie) Schulmeister, M.D.
Assistant Professor Department of
Pediatrics, Division of Pediatric
Endocrinology & Diabetes



Collaborative Clinic Profile: Adult Diabetes Center at Johns Hopkins



Center and Providers	Multidisciplinary Team Members	Volume and Demographics	Contact Names
<p>Johns Hopkins Comprehensive Diabetes Center (Johns Hopkins Hospital - Rubinstein, Mount Washington Pediatric Hospital, Bethesda Outpatient Center)</p>	<p>Pediatric Endo MD: 10 APP: 2 Pediatric Endo Fellows: 5 CDCES: 6 (1 RD, 5 RN)</p> <p>PharmD/Prior auths: 1 Social worker: 1 Psychologist: 0.2 FTE Child Life: Shared Research Team: 6</p>	<p>~750 patients with T1D seen in last 1 year</p> <p>Newly diagnosed patients with T1D per year 90-100 per year</p> <p>Insurance: Medicaid: 35%</p> <p>Race: NH White: 58% NH Black: 26% Hispanic: 5% Multi-racial: 4%</p>	<p>Site PI: Risa Wolf, MD rwolf@jhu.edu</p> <p>Site coordinator: Elizabeth Brown, MPH ebrow122@jhu.edu</p>

Collaborative Clinic Profile

The Pediatric Diabetes Clinic at UC Davis Health

Care Team	Patient Population	T1DX-QI Team Contacts
7 Ped Endos 1 PA-C/RD/CDCES 2 Ped Endo Fellows 3 RN/CDCES 1 RN 2 RD/CDCES 2 MA “diabetes navigators” 1 SW	<u>~650 patients with T1D</u> <ul style="list-style-type: none"> • 60% publicly insured • 23% Latino • 63% White, 10% Black, 7% Asian, 4% Native American, 16% Other Race • ~70 new T1D diagnoses/year <u>Large geographic area served</u> <ul style="list-style-type: none"> • >30 counties in CA + western NV + southern OR 	Stephanie Crossen, MD, MPH <i>(scrossen@ucdavis.edu)</i> Carrie Schulmeister, MD <i>(cschulmeister@ucdavis.edu)</i> Erin Conboy Heiser, MSN, RN, CDCES <i>(echeiser@ucdavis.edu)</i>

Learning Session

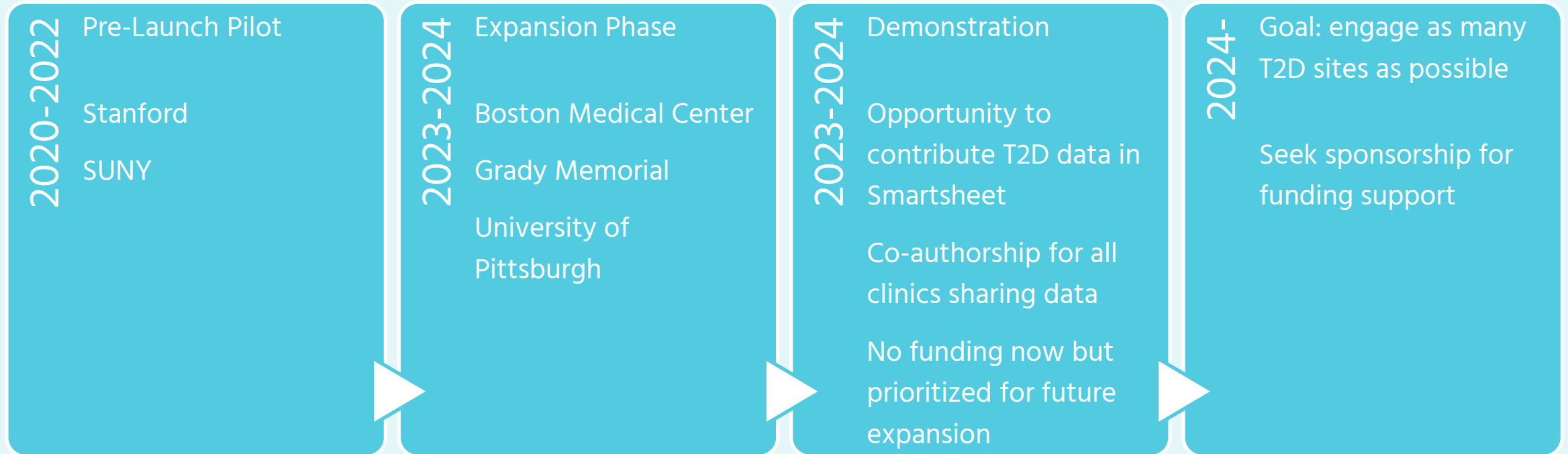
Reminder: T1D Exchange will not accept reimbursements for the 2022 learning session after Jan 30, 2023. Please share your flight receipts to QI@t1dexchange.org this week!

Quarterly invoices for 2022 deliverables are due by Jan 31, 2023 to close our books on 2022.

2023-2025 reporting

- Q4 2022 data reporting are due now and use the previous Smartsheet table definitions for numerators and denominators.
- Reminder: reporting for the 2023-2025 period, which began 1/1/2023.
- Expectations: centers should report monthly data for the Jan 1-31, 2023 period by 3/1/2023.
- You can find Reporting Measures on the “New Clinics” page of the T1DX-QI member website.
- Questions about reporting or the Smartsheet access? Ask your QI coach and/or email qi@t1dexchange.org

T2D Program





Clinical Presentation:



Implementation of the Diabetes Food Pharmacy Program

Overview of Program

1. Identifying the Need
2. Setting up the Food Pharmacy Program
3. Implementing the Program
4. Current Progress
5. The Future of the Program





Identifying the Need

Food Insecurity

- The U.S. Department of Agriculture (USDA) defines food insecurity as a lack of consistent access to enough food for an active, healthy life. ¹



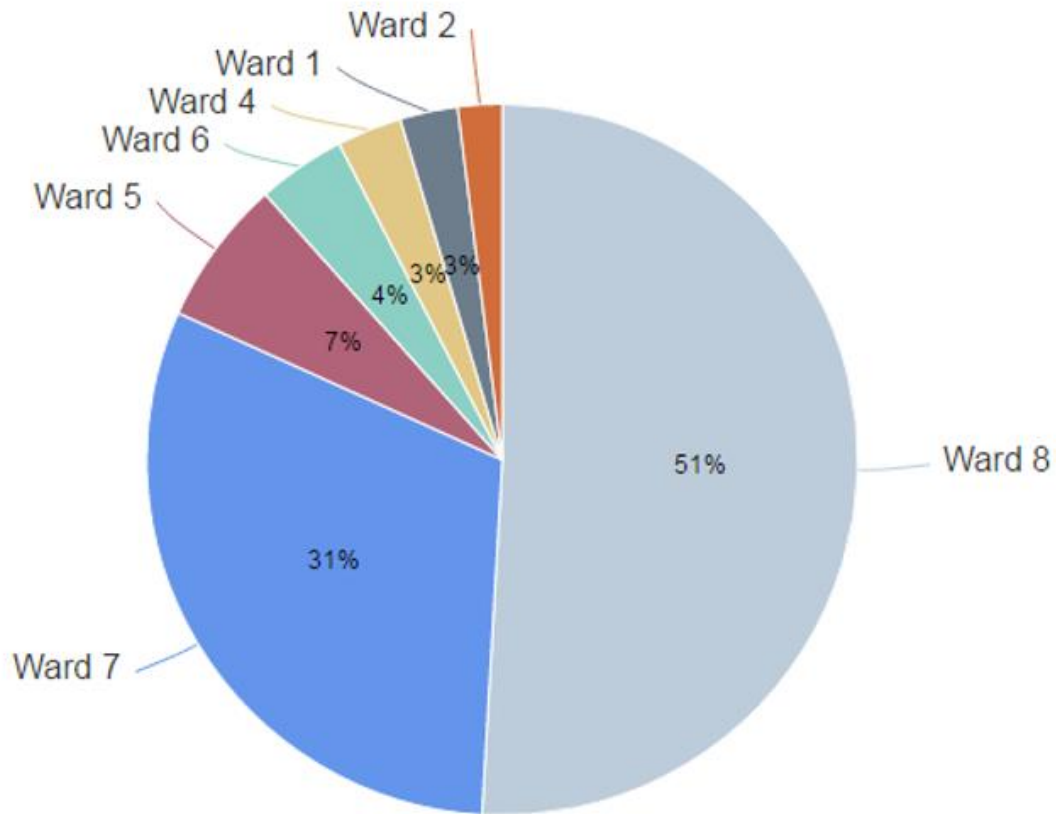
Source: Adapted from the USDA Economic Research Service.

Diabetes and Food Insecurity

- Proper nutrition is a cornerstone of both diabetes care and prevention.³
- Lifestyle interventions have been shown to be the most effective means of preventing progression from prediabetes to type 2 diabetes (T2D).⁴
- T2D disproportionately impacts low-income and underrepresented individuals.⁵
- Food insecurity has been associated with higher hemoglobin A1c levels and rates of hospitalization.⁶

Half of D.C. food deserts are in Ward 8

Areas with limited food access in the District (based on grocery or supermarket proximity, household income, and car access), by ward



Facts and Figures by Ward

- Over **80%** of Food Deserts in District of Columbia are in Wards 7 & 8
- In DC, **~10%** of people are food insecure
- **1 in 7** children in DC are food insecure ²



Racial Inequalities

- **82%** of DC's food desserts are in wards 7 & 8
- **92%** of people living in wards 7&8 identify as Black, Indigenous, and people of color (BIPOC)⁷
- **91%** of children diagnosed with T2D at CNH in the last 4 years identify as BIPOC
 - Over ½ of those children with a primary address in DC live in wards 7&8
- Incident cases of T2D increased **182%** over the pandemic ⁸
 - **68%** of those diagnosis were BIPOC

In House Needs Assessment

We surveyed patients in our clinic and found that **66%** of those surveyed met criteria for food insecurity using the hunger vital signs. ⁹

Food and Transportation Questionnaire

Within the past 12 months, we worried about whether our food would run out before we got money to buy more.

often true

- never true sometimes true always true

Within the past 12 months, the food we bought just didn't last and we didn't have money to get more.

- never true sometimes true always true

Do you often choose prepackaged foods over fresh foods due to price?

- never true sometimes true always true

Do you feel like you are able to purchase fresh fruits and vegetables at a reasonable price at your local grocery store/corner store?

- never true sometimes true always true

If you could receive boxes of food from the clinic, would it help you and your family prepare healthier meals?

- Yes
 No



Setting Up the Food Pharmacy Program

Identifying a Team and Partners



Securing a Space

- Non-patient area
 - Black Bear Kitchen
- Register with Department of Health
- Become ServSafe certified
 - A ServSafe certified team member present when food pharmacy is open
 - Same guidelines as other food service operations for storing foods





Partnering with a Supplier

- Donors
- Memorandum of understanding (MOU)
- Legal Agreements



Implementing the Food Pharmacy Program

FOOD PHARMACY MENU

Winter 2022



GRAINS

Kix Cereal
Oatmeal
Brown Rice
Whole Wheat
Pasta

VEGETABLES

Cabbage
Broccoli
Canned Corn
Diced Tomatoes
Ginger
Garlic
Onions
Canola Oil

PROTEINS

Kidney Beans
Canned Salmon
Canned Chicken
Black Beans
Peanut Butter

DAIRY

Choose:
1% Milk OR
Unsweetened
Almond Milk

FRUIT

Oranges
Apples
Canned Mixed
Fruit



What's on the menu?



Procuring the food



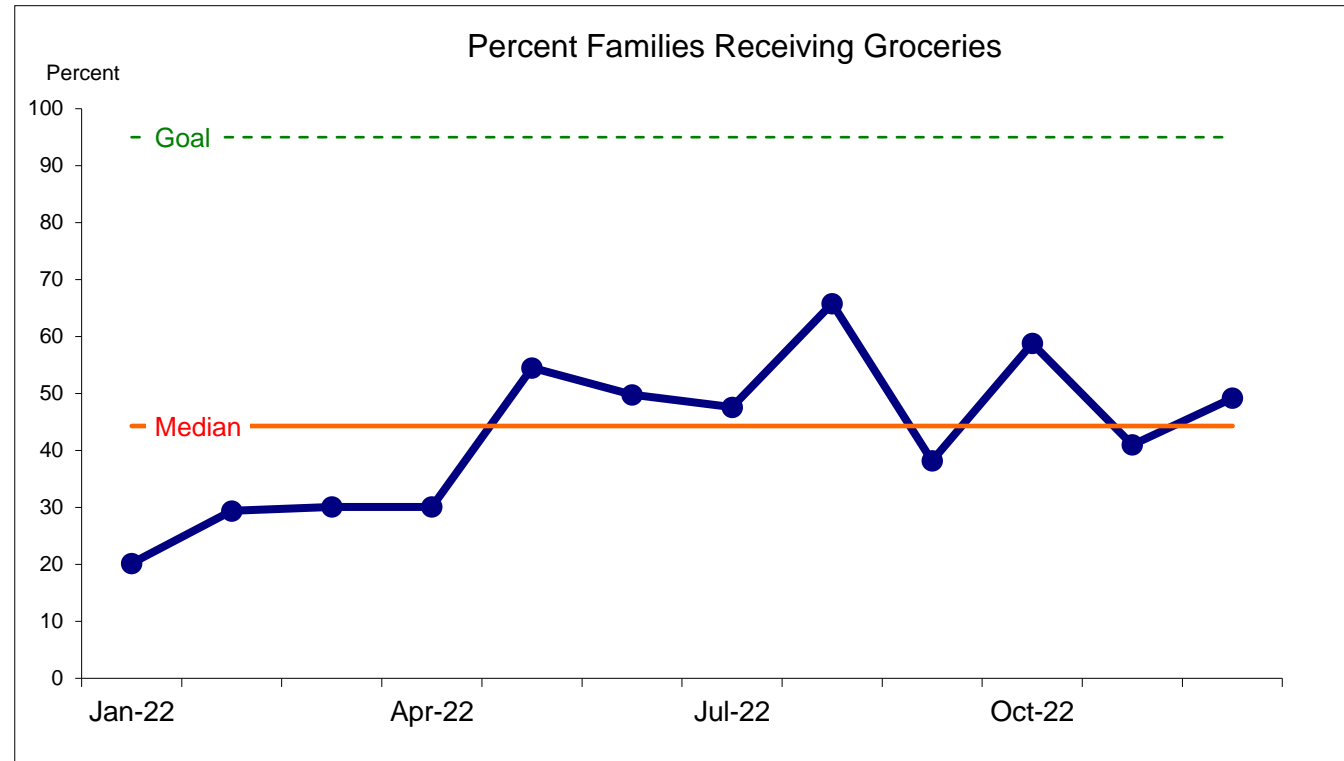
Prepacking and distributing the grocery bags

- Set a goal of 120 bags per month and order food
- Identify participants
 - Screening for food insecurity
- Distribution of bags to families
- Other supplies provided
 - Recipes cards
 - Nutrition education handouts
 - Grocery carts



How many have we served to date?

- Food Insecurity Screening survey given to all families at appointment time
 - 62% have screened positive for food insecurity
- As of 1/25/2023, **980** unique families have received groceries from the Food Pharmacy.
- **Over 24,800 pounds** of groceries have been distributed





 **Children's National.**

Research and the Future of the Program

Research

- **A Clinic-Based Food Pharmacy Intervention for Children with Type 2 Diabetes or Pre-diabetes and food insecurity**
 - Aim 1: Evaluate the effect on an intensive food intervention on diabetes, medical, and psychosocial outcomes in children with T2D and pre-diabetes
 - Aim 2: Assess the effect of an intensive food intervention on health care utilization and costs in children with T2D and pre-diabetes
- Weekly food deliveries for 12 months + 6 months post-intervention follow-up

Future of the Program

- Follow-up Surveys
- Meet demands
 - Increase number of deliveries
- *Expand to other diabetes outreach sites*
- *Expand to other departments within the main hospital*

• References

1. US Department of Agriculture, (2019). Definitions of Food Security. Available online at: <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx>
2. Smith, R. (2017). Food access in D.C is deeply connected to poverty and transportation. *DC Policy Center*. Retrieved from <https://www.dcpolicycenter.org/publications/food-access-dc-deeply-connected-poverty-transportation/>
3. Divers, J., Mayer-Davis, E. J., Lawrence, J. M., Isom, S., Dabelea, D., Dolan, ; Lawrence, Imperatore, G., Santica Marcovina, ;, David, ;, Pettitt, J., Pihoker, C., Richard, ;, Hamman, F., Saydah, S., & Wagenknecht, L. E. (2002). *Morbidity and Mortality Weekly Report Trends in Incidence of Type 1 and Type 2 Diabetes Among Youths-Selected Counties and Indian Reservations, United States, 2002-2015*.
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6. Marjerrison, S., Cummings, E. A., Glanville, N. T., Kirk, S. F. L., & Ledwell, M. (2011). Prevalence and associations of food insecurity in children with diabetes mellitus. *Journal of Pediatrics*, 158(4), 607–611. <https://doi.org/10.1016/j.jpeds.2010.10.003>
7. *2022 Demographics*. (2022). DC Health Matters. <https://www.dchealthmatters.org/?module=demographicdata&controller=index&action=index&id=131494§ionId=940>
8. Marks, B. E., Khilnani, A., Meyers, A., Flokas, M. E., Gai, J., Monaghan, M., Streisand, R., & Estrada, E. (2021). Increase in the Diagnosis and Severity of Presentation of Pediatric Type 1 and Type 2 Diabetes during the COVID-19 Pandemic. *Hormone Research in Paediatrics*, 94(7–8), 275–284. <https://doi.org/10.1159/000519797>
9. Gattu, R. K., Paik, G., Wang, Y., Ray, P., Lichenstein, R., & Black, M. M. (2019). The hunger vital sign identifies household food insecurity among children in emergency departments and primary care. *Children*, 6(10). <https://doi.org/10.3390/children6100107>

- THANK YOU!
- Alex Richardson, RD CDE
- Hadley Kessenich, RD CDE
- Emily Frymark, RD
- The entire Diabetes Educator Team
- Capital Area Food Bank
- Children's National Hospital
- All our patients and families!



- Questions?

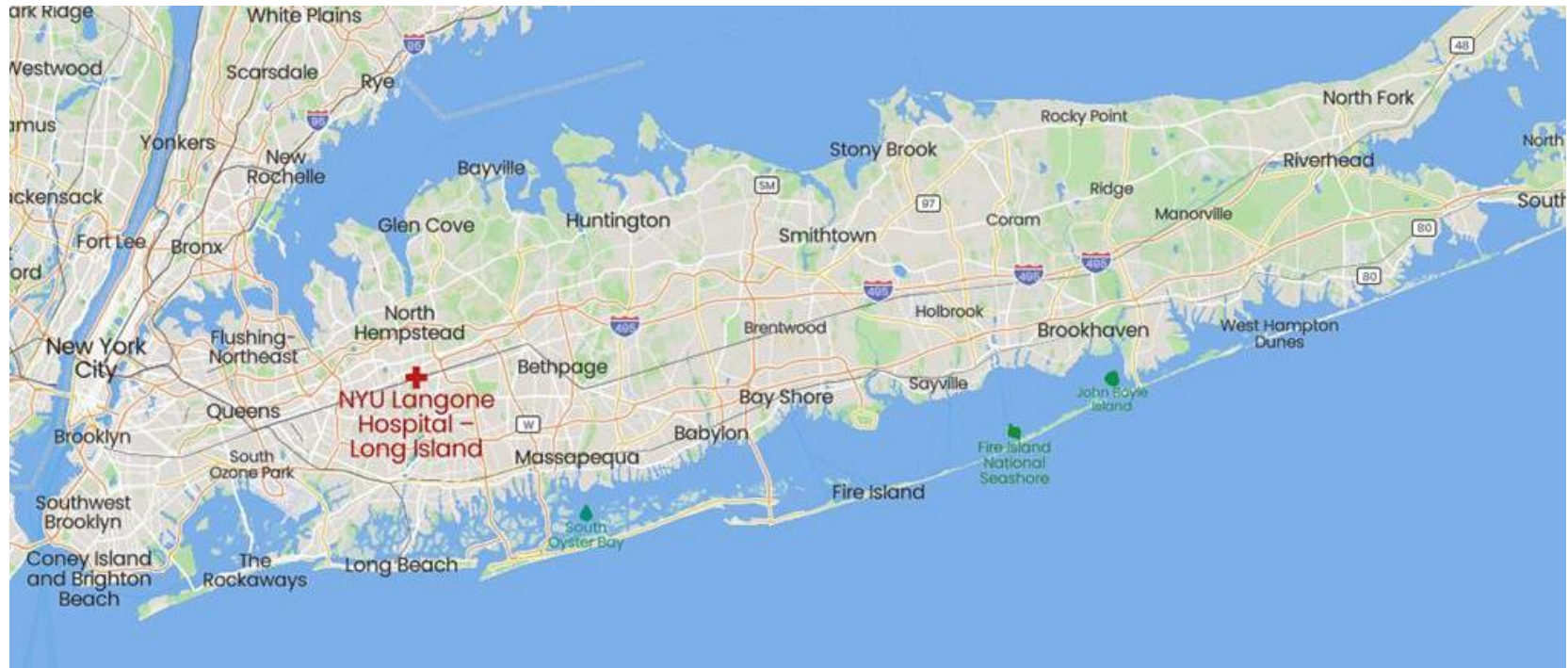


Clinical Presentation:

Improving Depression Screening in patients with Type 1 Diabetes Mellitus

Sheila Dennehy, RN, MSN, CDCES, Lori Benzoni MPH,
Ulka Kothari, MD, Danielle Alessio, LCSW, Siham Accacha, MD

Geographic region and catchment area



NYU Langone Hospital – Long Island

Clinic	Multidisciplinary Team Members	Volume & Medicaid	Contact Names
NYU Langone Hospital – Long Island	<ul style="list-style-type: none"> - 7 Attending Physicians - 2 Endocrinology Fellows - 2 RN CDCES - 2 Registered Dietician/Nutritionists CDCES - 2 Nurse Practitioners (1 with CDCES) - 1 Social Worker 	<ul style="list-style-type: none"> - 850-900 established T1D patients receiving ongoing care at 2 locations - 40-50 Newly diagnosed T1D patients seen annually - Estimated in past 1 year Medicaid–15% Commercial Insurance-85% - LCSW services free of charge for patients/families - 4 active supports groups - Annual FREE Spring Conference for patients and families 	<p>Site PI Siham Accacha, MD Siham.Accacha@nyulangone.org</p> <p>Site Coordinators Sheila Dennehy, RN, MSN, CDCES Sheila.Dennehy@nyulangone.org</p> <p>Lori Benzoni, MPH Lori.Benzoni@nyulangone.org</p>

Annual Bite of Hope Fundraiser

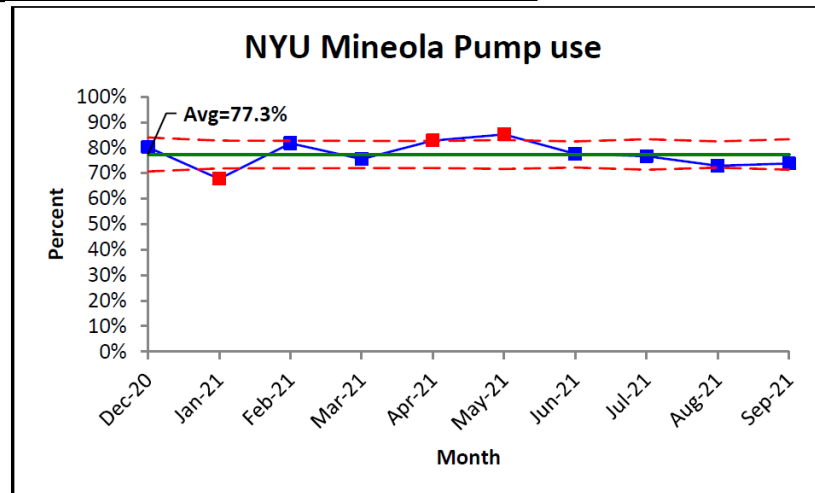
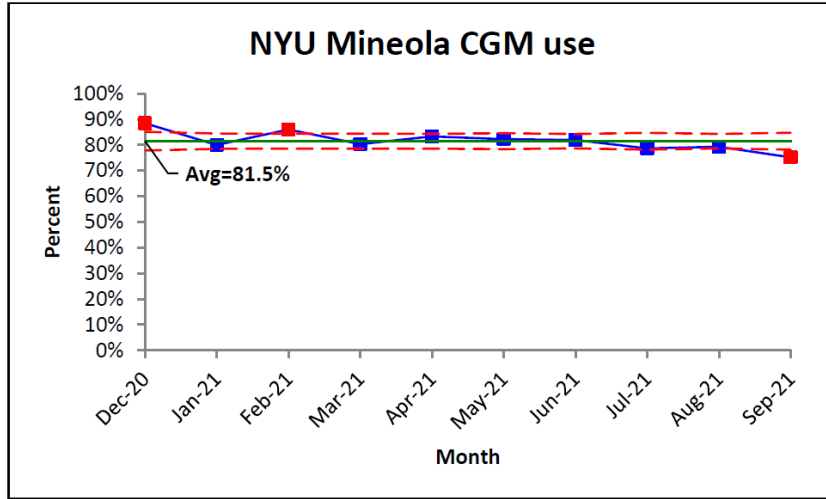
- Profits enable us to offer our psychosocial services provided to our patients with Type 1 Diabetes free of charge
 - LCSW salary
 - 4 Support groups
- Event is typically a in person 4 hour gala but has been was held virtually since 2020.
- Honor one family and one youth achievement award recipient annually



Statistics

2021 Type 1 Diabetes
2894 outpatient visits

2021 Endocrinology (excluding diabetes)
16,587 outpatient visits
9,369 unique patients



NYU LI SCHOOL OF MEDICINE

Our graduate medical education programs offer postgraduate medical education training in more than 20 specialties.



Learning Objectives

1. Identify barriers to performing depression screening in Teens
2. State 2 methods/tools utilized to engage and educate staff

Introduction

- Depression is one of the most common mental illnesses in the pediatric population, particularly amongst adolescents.
- Longitudinal studies of community samples of children and adolescents suggest an average age of onset between 11 and 14 years old.
- In 2019, about 15.5% of adolescents (age 12-17) experienced at least one major depressive episode and 18.8% reported seriously considering a suicide attempt.
- Youth with type 1 diabetes (T1D) have significantly higher rates of depression over the general population and having depression may impact the management of diabetes.
- Despite its high prevalence, depression is widely undertreated in this population: about 40% of pediatric patients with this disorder are not treated.



Olfson M, Blanco C, Wang S, et al. JAMA Psychiatry 2014; 71:81.
O'Connor BC, et al. JAMA Pediatr. 2016 Apr;170(4):373-80.

PHQ-9 and PHQ-9A

- Quality improvements efforts to improve screening with the Patient Health Questionnaire 9 (PHQ-9) in adolescent and adult populations are widespread, particularly in primary care settings.
- Identifying depression in specialty care is difficult unless standardized screening and diagnosis tools are used along with a formal diagnostic process.
- **The Patient Health Questionnaire 9 for Adolescents (PHQ-9A)** is a widely used, validated tool used to monitor and measure the severity of depression. The instrument consists of nine questions about depression symptoms during the past 2 weeks followed by a single question that assesses associated impairment; the resulting scores are used to determine depression severity and range from 0 to 27.
- A score of 10 or above has a sensitivity of 89% and a specificity of 77% for major depression.

Bitsko RH, Claussen AH, Lichtstein J, Black LJ 2013 – 2019 MMWR, 2022 / 71(Suppl-2);1–42.

Purpose

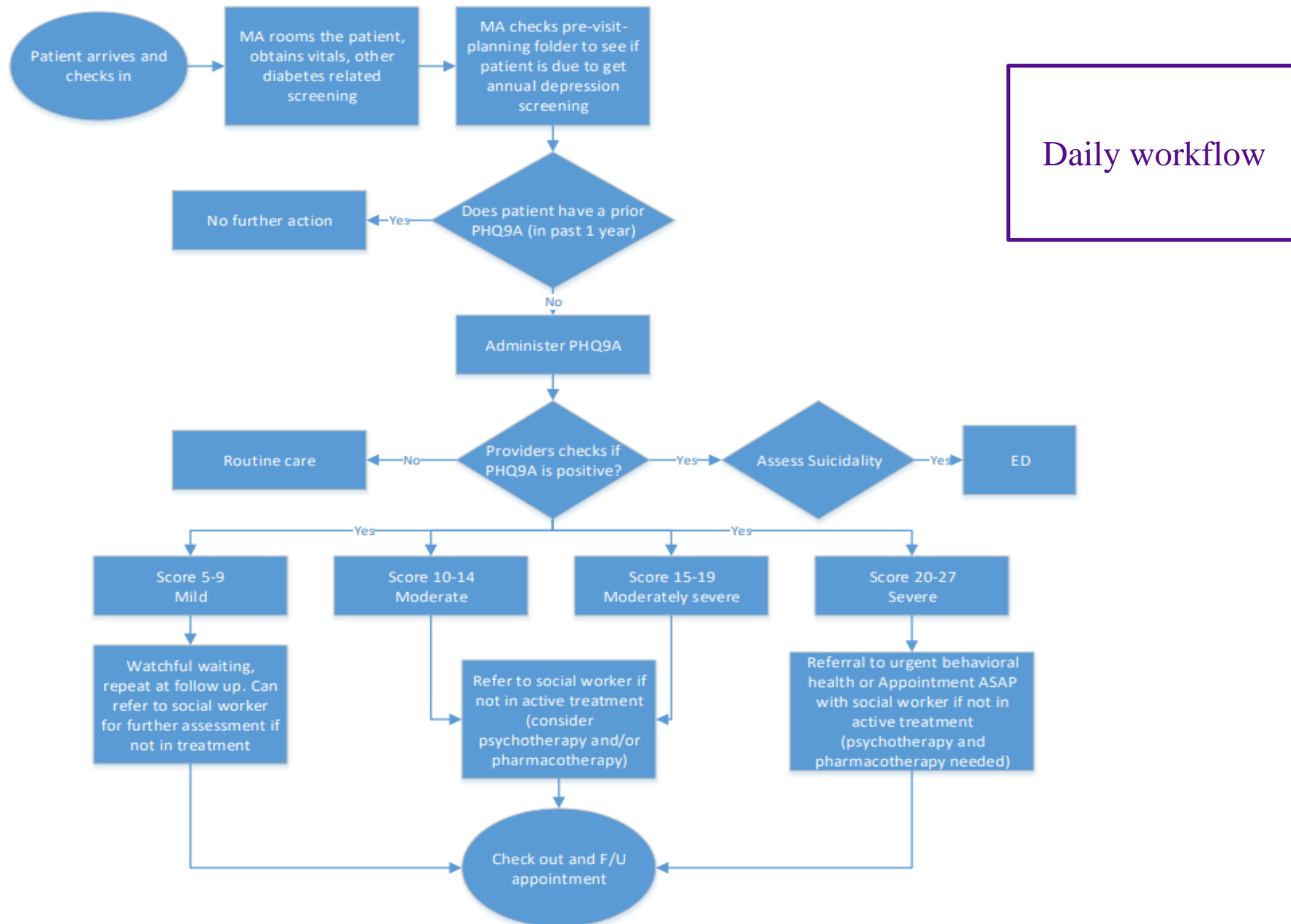
To improve recognition of adolescent depression in patients, with T1D, ages 11-17yo, through implementation of standardized annual screening for depression using PHQ-9A from baseline of 0% to 75% by December of 2022.

Method

A multidisciplinary team of physicians, RN, CDCES, medical assistants, and social worker was created.

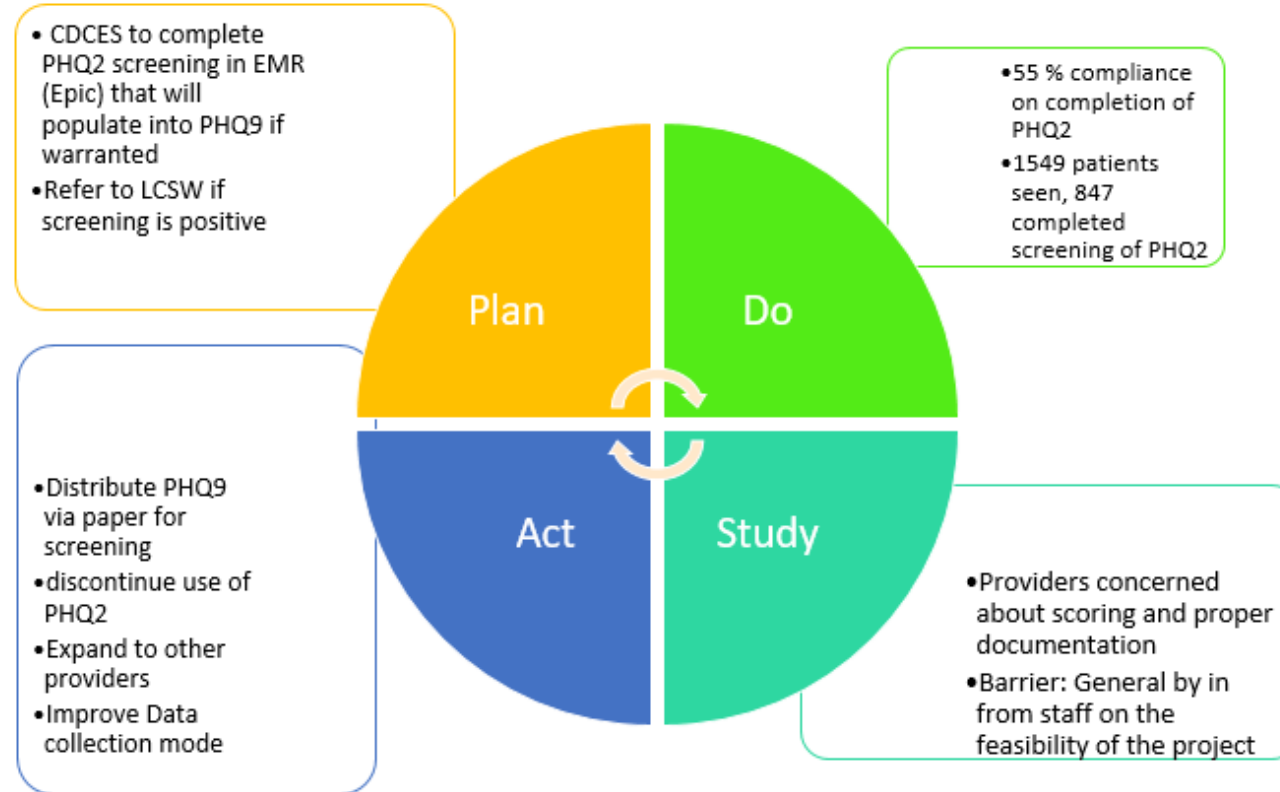
Many PDSA cycles were conducted for education, folder for resources, written algorithm.



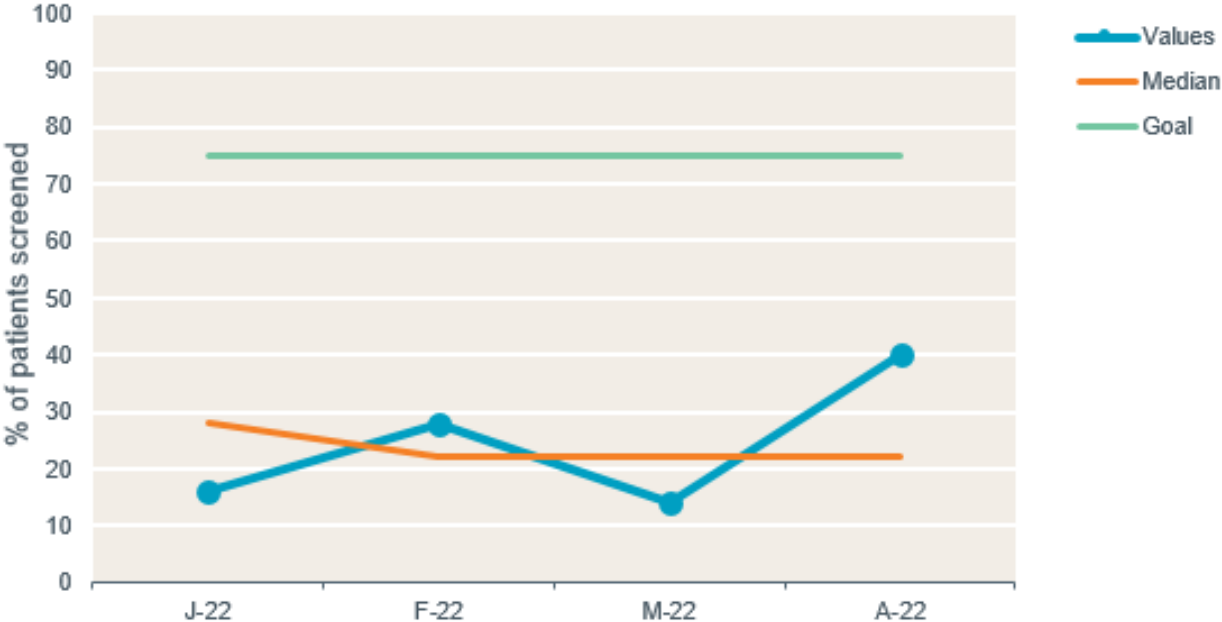


PDSA Cycles

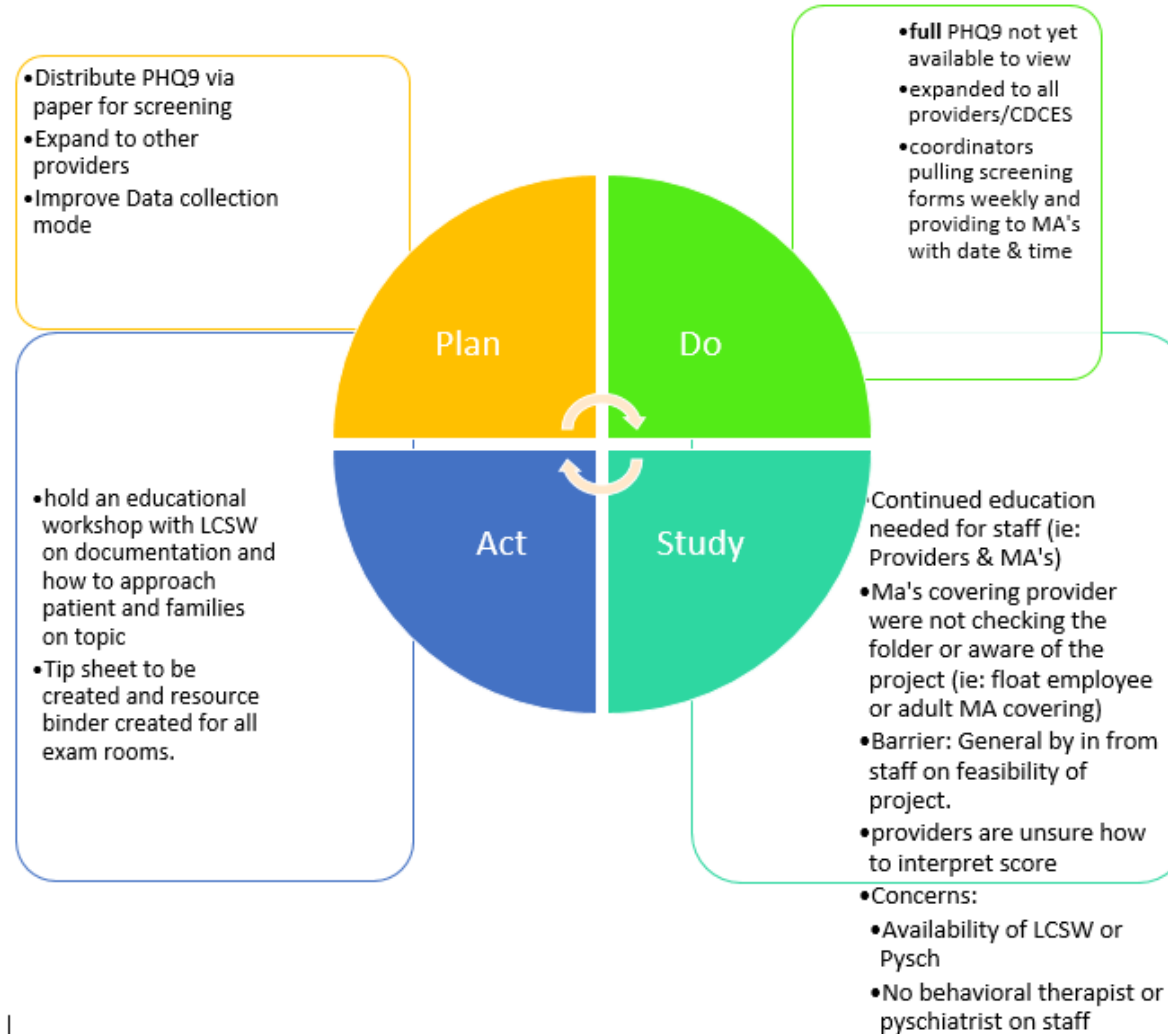
PDSA cycle #1 - 1/1/22-3/31/2022



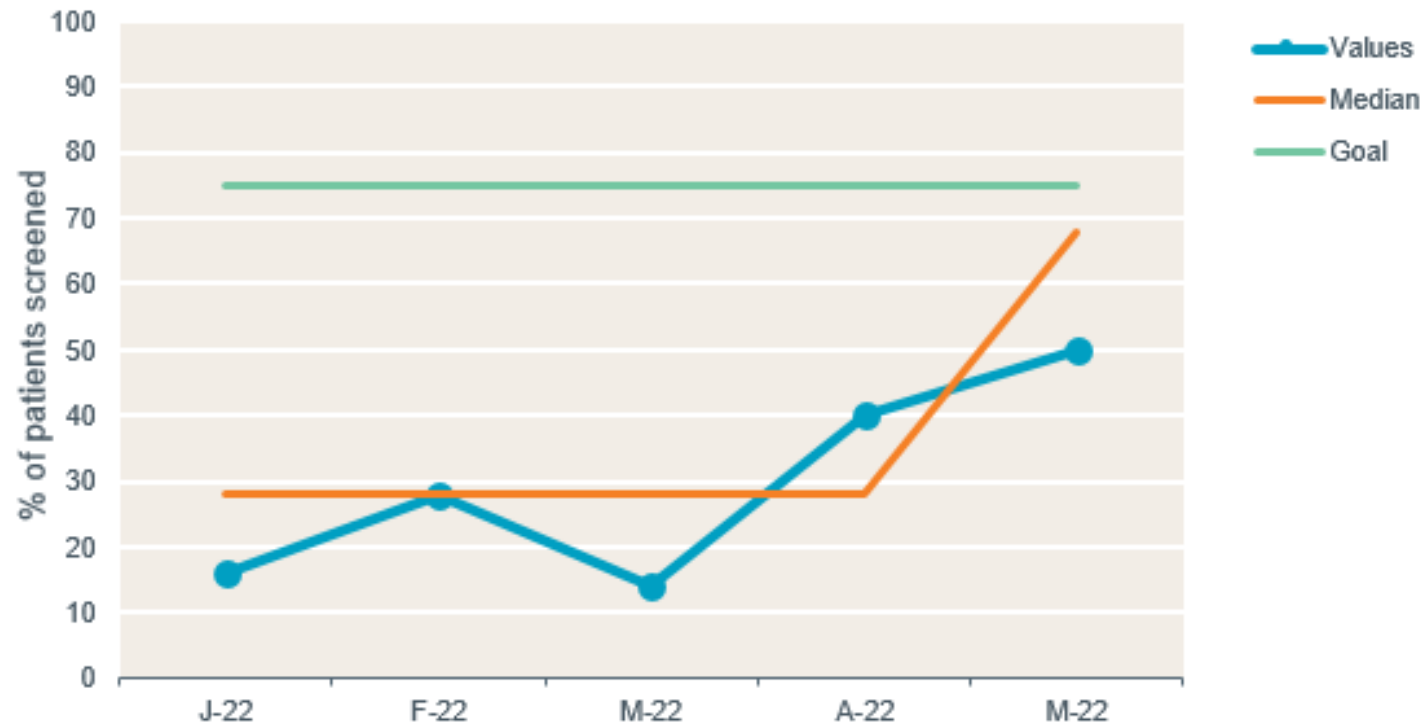
Depression Screening in Type 1 Diabetes Patients Pediatric Endocrinology



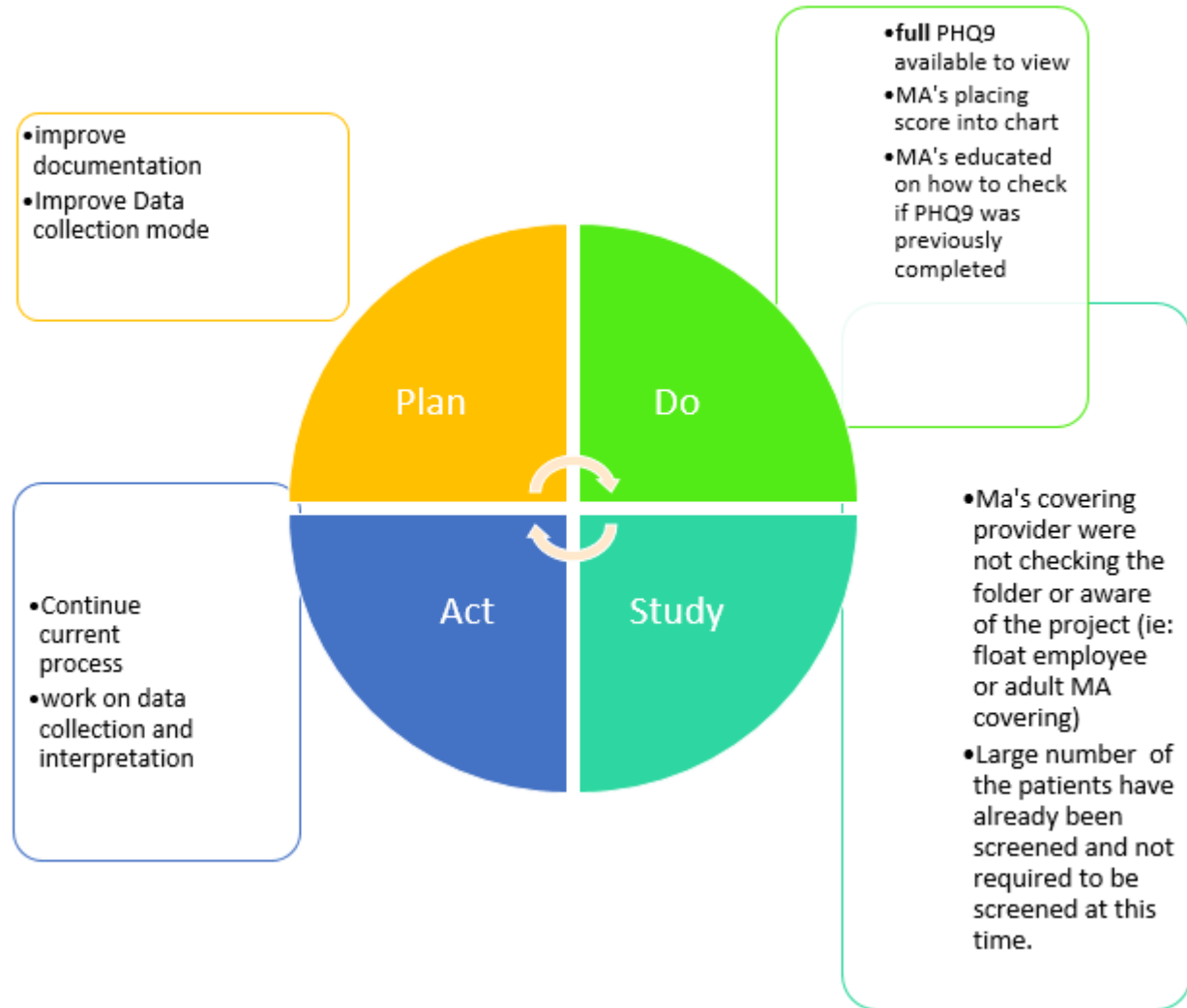
PDSA cycle #2 – 4/1/2022-5/15/2022



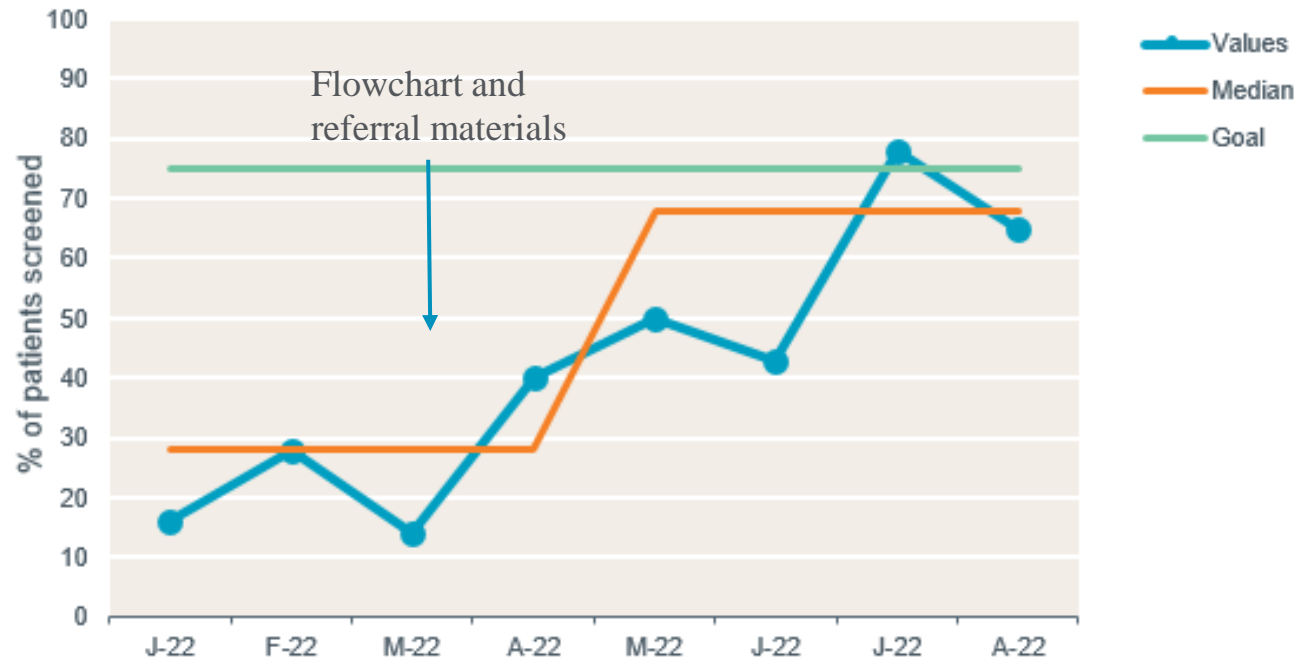
Depression Screening in Type 1 Diabetes Patients Pediatric Endocrinology



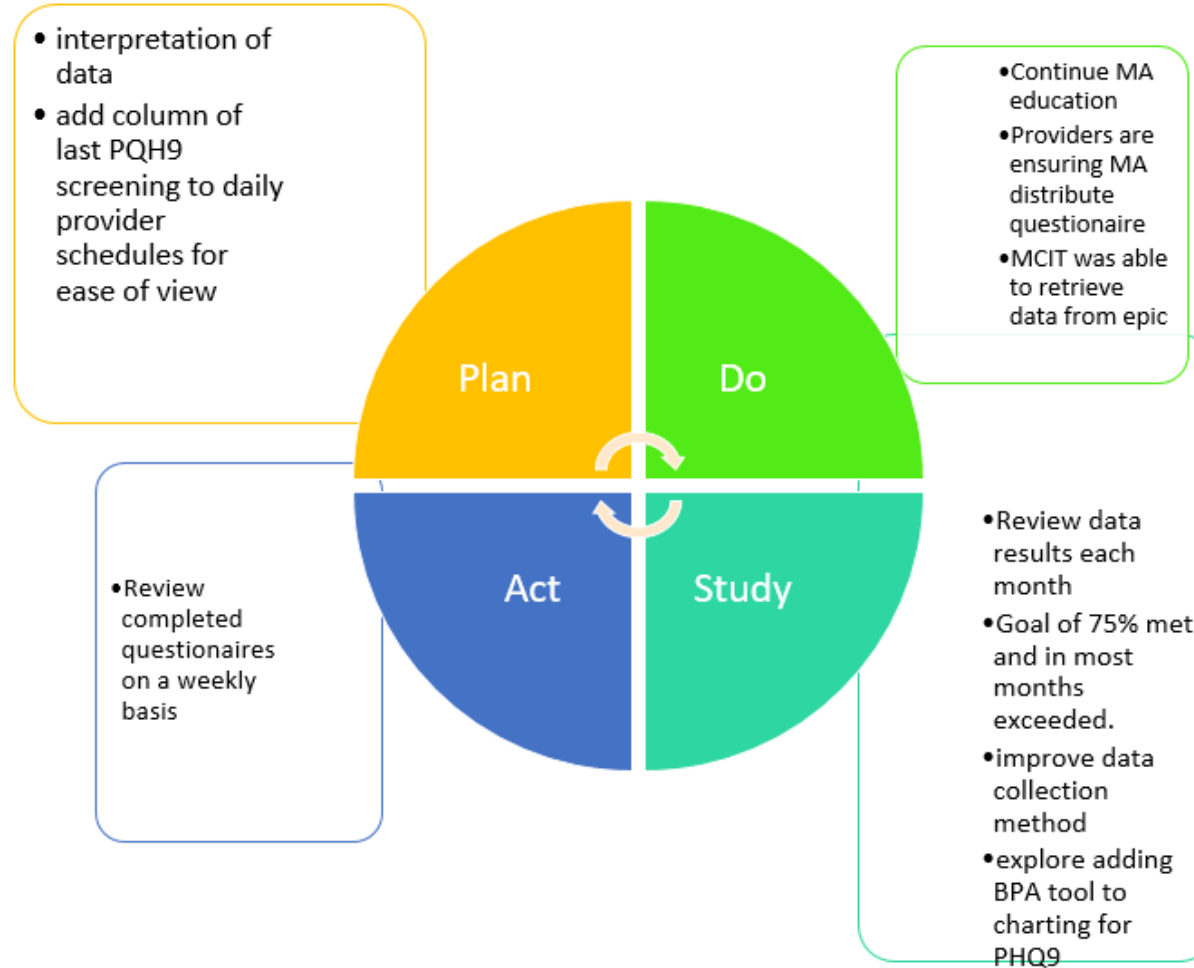
PDSA cycle #3– 5/16/2022-7/2022



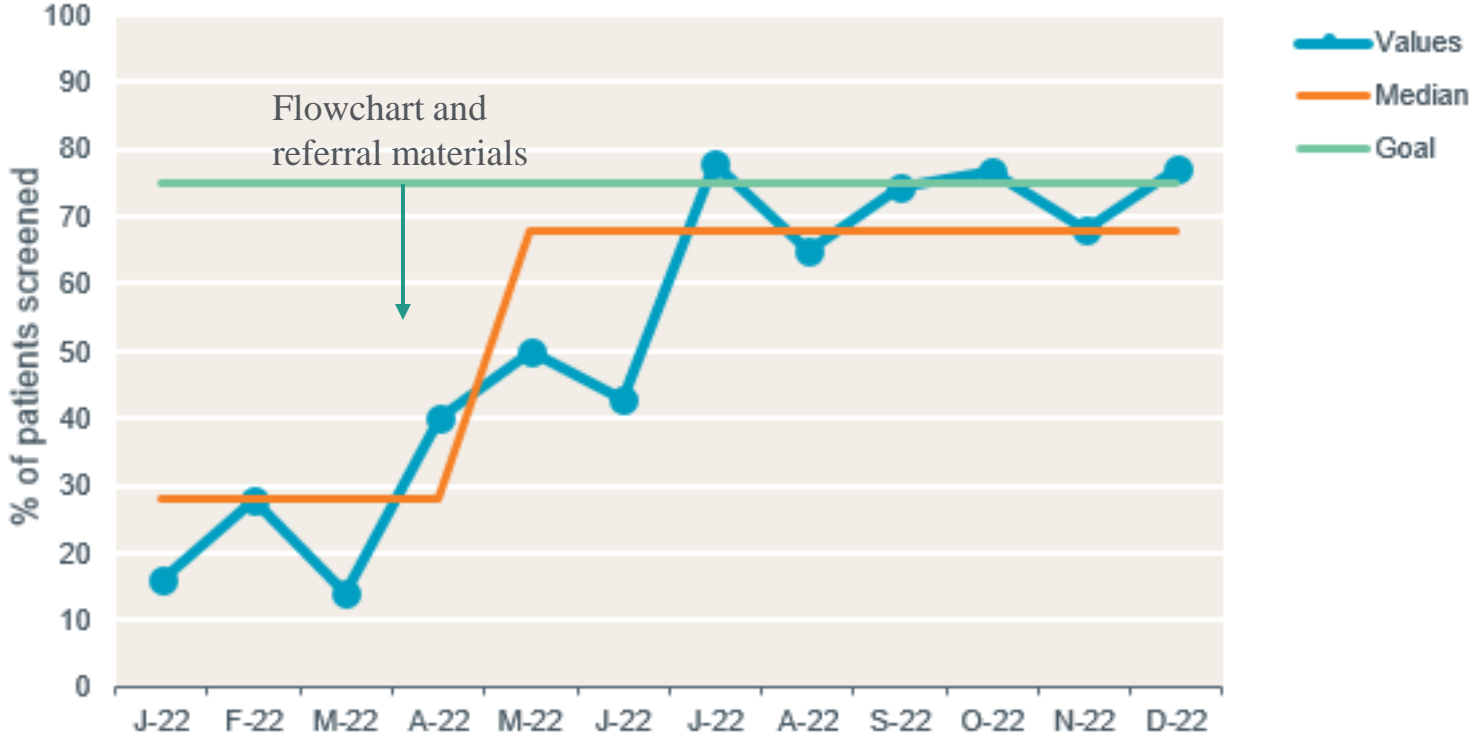
Depression Screening in Type 1 Diabetes Patients Pediatric Endocrinology



PDSA cycle #4– 8/2022- 12/2022



Depression Screening in Type 1 Diabetes Patients Pediatric Endocrinology



Results

- Systematic processes and multiple PDSA cycles led to increase in the number of patients screened for depression.
- Many patients with elevated scores were noted to already be connected with a mental health provider and receiving therapies/ medications.
- Depression was noted in the chart as a co-morbidity, in these patients with type 1 diabetes, allowing focus on whole person care in addition to diabetes alone.
- Making changes in EMR facilitated better recognition of patients due for an annual screening.



Looking forward:



- Hardwire processes- have the MA's/Providers assess if a patient is due for screening
- Feb: Go-live with an alert that patient is due for annual depression screening

SCREENING DUE: DEPRESSION

This patient may be due for depression screening based on the following recommendation:

- Patients ages 11-17 years and older: Depression screening yearly

Update the patient's screening status by performing the following:

- Perform depression screening (PHQA)

[Jump to PHQA](#)

Acknowledge Reason _____

- Education of new staff includes education on screening for depression
- Ongoing feedback to the team on depression screening metrics and addressing barriers

Conclusions

- Multidisciplinary approach to chronic disease management is key to improving patient outcomes.
- Co-location of mental health provider helps facilitate timely screening, referral and follow up for patients with depression.
- EMR can aid in provider decision support about patients who are due for screening.
- Social worker helped create a list of community based providers for timely referral of newly diagnosed patients.
- Tracking data and ongoing PDSA cycles helped initiate and improve screening for depression in adolescent patients with type 1 diabetes.

References

1. Bitsko RH, Claussen AH, Lichtstein J, Black LJ. Surveillance of Children's Mental Health – United States, 2013 – 2019 MMWR, 2022 / 71(Suppl-2);1–42.
2. Olfson M, Blanco C, Wang S, et al. National trends in the mental health care of children, adolescents, and adults by office-based physicians. *JAMA Psychiatry* 2014; 71:81.
3. O'Connor BC, Lewandowski RE, Rodriguez S, Tinoco A, Gardner W, Hoagwood K, Scholle SH. Usual Care for Adolescent Depression From Symptom Identification Through Treatment Initiation. *JAMA Pediatr.* 2016 Apr;170(4):373-80.
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Questions?

Thank You

Pre/Post learning