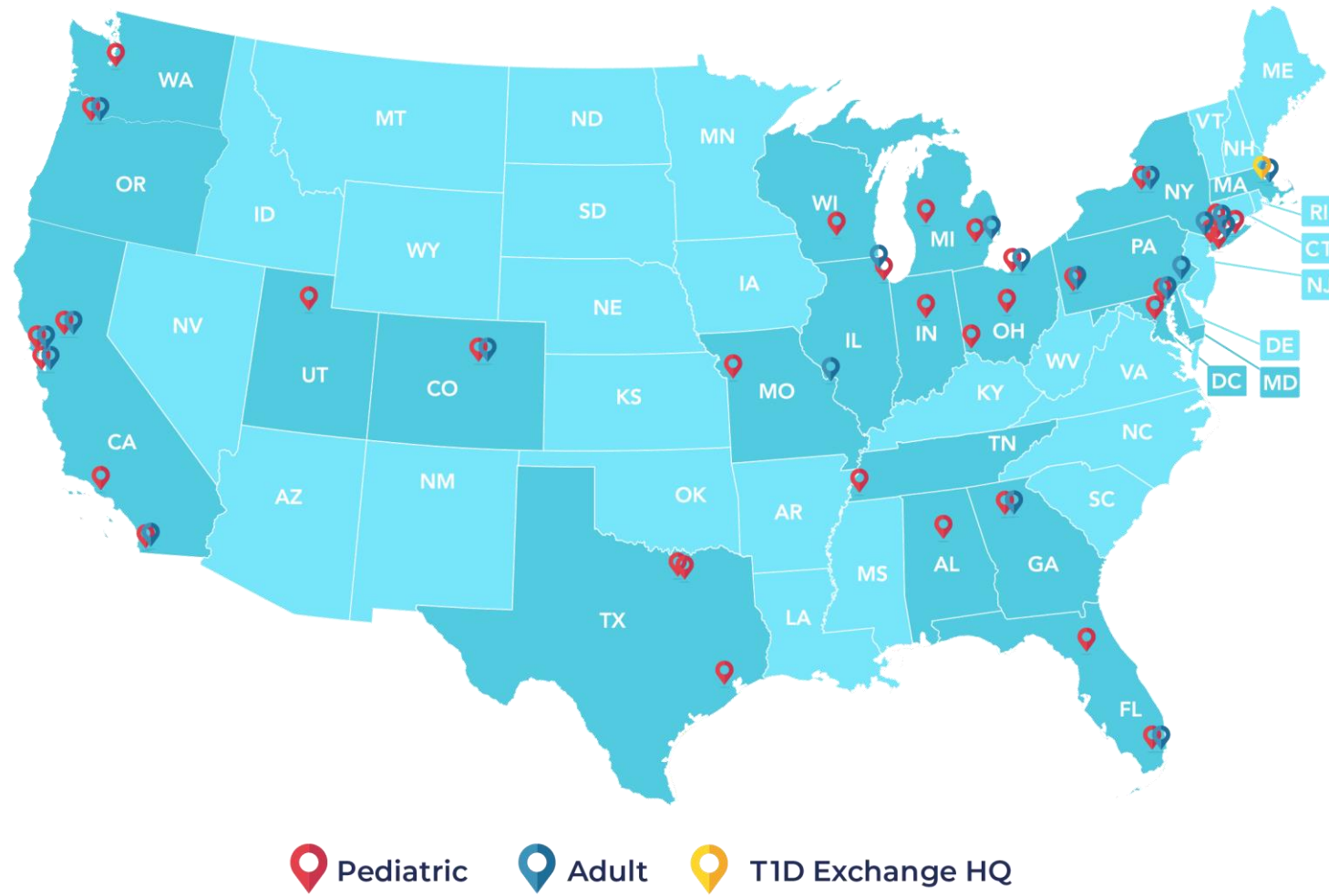


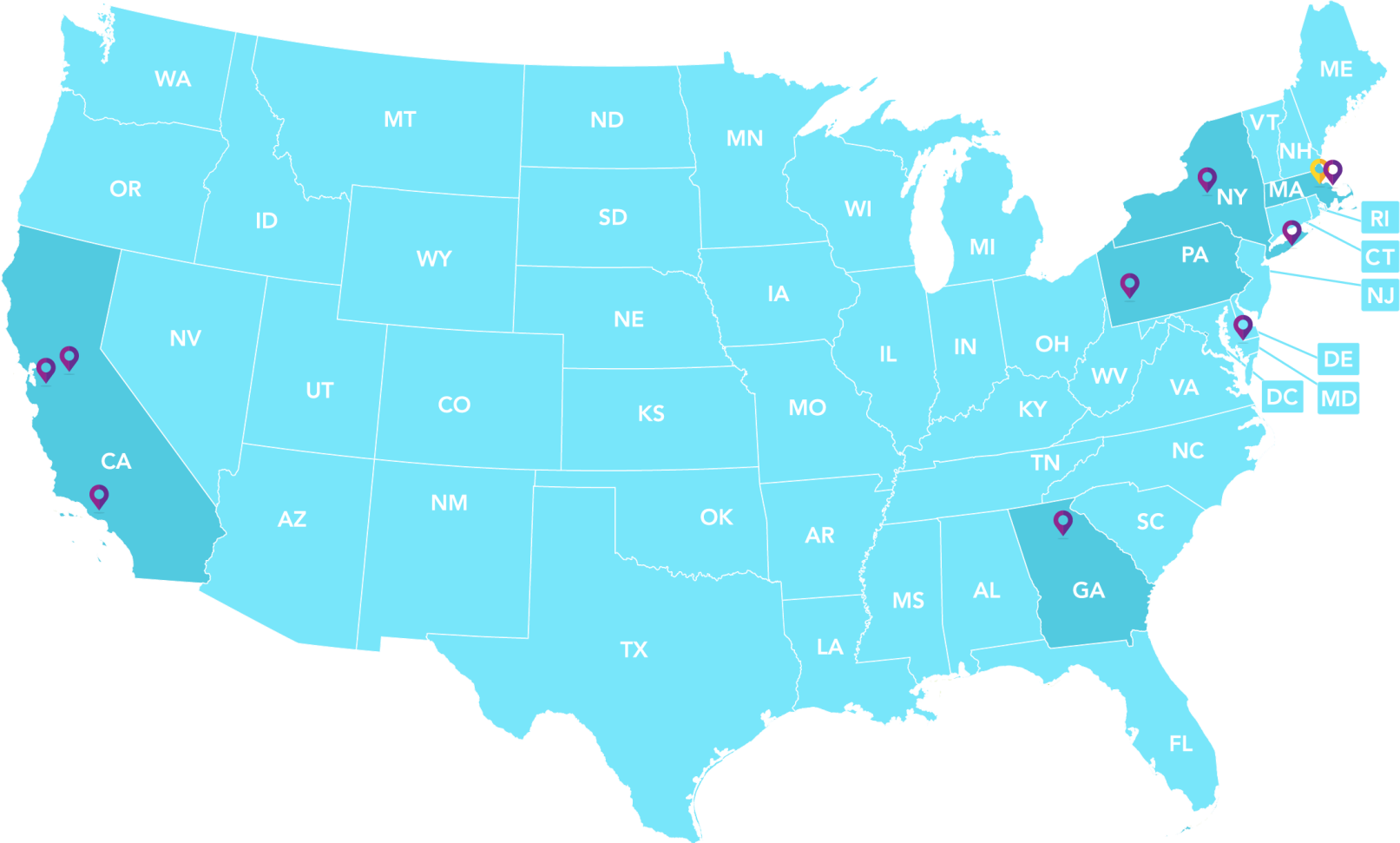


# T1D Exchange Updates

# T1DX-QI network of 55 centers, caring for 85,000+ T1D patients across 21 states and Washington D.C.



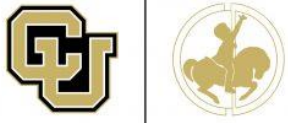
# T2DX-QI has expanded to 9 centers across 6 states



 T2D       T1D Exchange HQ



# 35 pediatric clinics – caring for 55,000 patients with T1D



## 35 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 Tamara Hanon 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
Children's Medical Center Abha Choudhary, MD	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 & Allison Smego MD
Cleveland Clinic, Andrea Mucci MD MASc	Mount Sinai Robert Rapaport MD	Oregon Health & Science University Ines Guttmann-Bauman MD	University of Wisconsin, Madison Liz Mann MD
Cohen Children's Medical Center, Northwell Health, Jennifer Sarhis MD & Allison Mekhoubad MD	Nationwide Children's Manu Kamboj MD	University of Alabama Mary Lauren Scott MD	Weill Cornell Zoltan Antal MD
Cook Children's Paul Thornton MD & Susan Hsieh MD			

# T1D Publication Journey

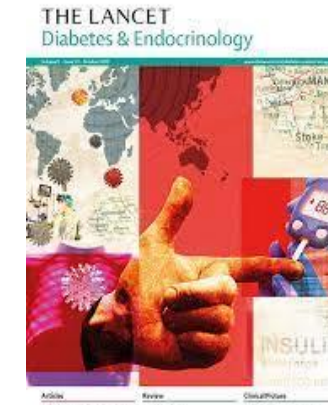
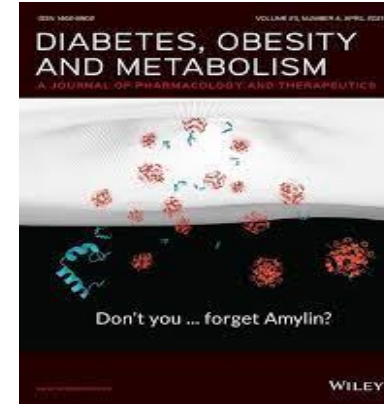
Cumulative number of articles published,  
Q1 2020 - Q3 2023



# T1DX-QI Publications

We have published 62 papers together!

We are grateful for all your contributions.



nature



# Learning Session

When: November 14-15 (Tues-Wed)

Where: NYC, Westin Grand Central





# T1DX-QI Collaborative Fun Run 5k



# 2023 Learning Session Abstracts

We are excited to share that there were 45 accepted abstracts for the 2023 November Learning Session!

We are thrilled to continue our partnership with *Journal of Diabetes* again this year and look forward to seeing these go live before the Learning Session!




Abstract | [Free Access](#)

**November 7–8, 2022, T1DX-QI Learning Session, *Journal of Diabetes Abstracts***


First published: 04 November 2022 | <https://doi.org/10.1111/1753-0407.13321> | Citations: 1

SECTIONS PDF TOOLS SHARE



Volume 14, Issue S1  
Supplement: November 7–8,  
2022, T1DX-QI Learning  
Session, *Journal of Diabetes*  
Abstracts  
November 2022  
Pages 4-30

Advertisement



WILEY

**Raise your profile,  
benefit your career**

*Journal of Diabetes* is recruiting an  
Early Career Researcher Board

Deadline: October 15, 2023

Related Information

Recommended



# Learning Session Agenda

---

**Day 1** November 14, 2023

7:00 - 8:00 am

**Breakfast**

---

8:00 - 8:10 am

**Greetings, Logistics, and Agenda Overview, *Nicole Riales***

---

8:15 – 8:55 am

**Introduction and Welcome from New York Adult PI's,  
*Moderated by Devin Steenkamp***

---

9:00 – 9:20 am

**Partnering with T1D Exchange, *Dave Walton***

---

9:20-9:50 am

**Improving Outcomes for PwT1D, *Osagie Ebekozen***

---

9:50 - 10:10 am

**T1D Exchange and Journal of Diabetes Partnership,  
*Robert Rapaport and David Bloomgarden***

---

# Learning Session Tuesday November 14 (continued)

---

10:00- 10:15 am

Break

---

10:15-11:15 am

***Diabetes Care in NY: A Discussion with Pediatric Collaborative PIs, Moderated by Todd Alonso***

---

**Health Equity Session, Moderated by Joyce Lee**

**Social Determinants of Health, Moderated by Francisco Pasquel**

11:20 - 12:30 pm

**Psychosocial Support, Moderated by Marina Basina**

**Breakout Session 1**

**Access & Transitions of Care, Moderated by Manu Kamboj**

---

12:30-1:30 pm

**Lunch**

---

1:30-2:00 pm

***International Comparisons in Diabetes Outcomes: Lessons from Abroad, David Maahs***

---

# Learning Session Tuesday November 14 (continued)

---

2:05 - 3:10 pm  
Breakout Session 2

**Health Literacy & Education**, *Moderated by Carol Levy*  
**New Therapies and Devices for Early Career Practitioners**  
*Moderated by Linda DiMeglio*  
**Care Models and Outcomes**, *Moderated by Mark Clements*  
**Insight from the T1D Exchange**, *Moderated by Abha Choudhary*

---

3:10-3:20 pm

**Collaborative Group Photo**

---

**T1D Exchange** | 101 Federal Street, Suite 440 | Boston, MA 02110  
qi@t1dexchange.org | t1dexchange.org

---

---

4:00-5:00 pm

**New York Hospital Tours**  
*Mount Sinai and NYU Langone*

---

7:00-9:00 pm

**Dinner at Arno** for RSVPed attendees

---



## Day 2

November 15, 2023

7:00-8:00 am

**Breakfast**

---

8:00-8:30 am

**Logistics and Awards**, *Nicole Rioles*

---

8:30-9:00 am

**JDRF Vision**, *Sanjoy Dutta*

---

9:05-10:10 am

**Breakout Session 3**

**Insulin Delivery, Pumps, Pens, Inhaled, Looping/DIY, HybridClosed Loop**, *Moderated by Viral Shah*

**Remote Monitoring, Digital Health, Data Science & Use of Data**, *Moderated by Halis Kaan Akturk*

**Building Your Career in T1D Research**, *Moderated by Linda DiMeglio*

**Shared Decision Making**, *Moderated by Anastasia Albanese O'Neill*

---

10:10- 10:25 am

**Break**

# Group Photo Will be Taken Before Clinic Tours



# Learning Session Wednesday November 15

---

10:25 – 11:30 am

**Funding Opportunities from the Helmsley Charitable Trust and JDRF, Panel Discussion**

Deniz Dalton, Laurel Koester, Sean Sullivan, Danny Kovarik and Anastasia Albanese-O'Neill

---

11:30 – 12:00 pm

**Supporting People w/Diabetes to be Self-Advocates, *Marissa Town***

---

12:00-1:00 pm

**Lunch**

---

1:05-1:25 pm

**Perspectives from People with Diabetes, *Shivani Agarwal***

---

1:30- 2:50 pm  
**Breakout Session #4**

1. **Committee & Working Group Updates: Diabetes Distress; Hybrid Closed Loop; Transitions of Care; Glucose Monitoring**
  2. **QI Champions**
- 

2:50-3:00 pm

**Wrap-up and Evaluation, *Dave Walton***

---

*All times in EST*





# T1DX-QI November Learning Session Virtual Attendance

zoom

### T1DX-QI 2023 November Learning Session

---

Date & Time    Nov 14, 2023 07:30 AM  
Nov 15, 2023 07:30 AM

Time shows in Eastern Time (US and Canada)

---

**Meeting Registration**

**First Name\***  **Last Name\***

This field is required.      This field is required.

**Email Address\***

This field is required.

**City**

**State/Province**

**Organization\***

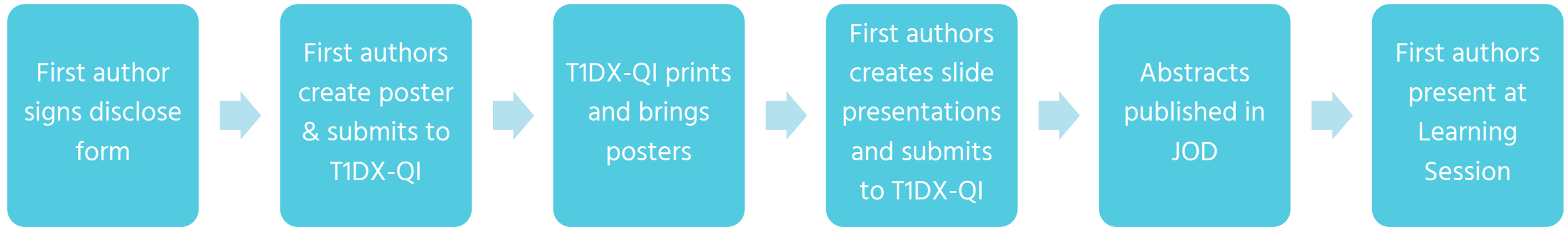
**Credentials\***

Information you provide when registering will be shared with the account owner and host and can be used and shared by them in accordance with their Terms and Privacy Policy.

[Register](#)



# Presentations Reminders



- Share BU CME Disclosure forms by October 1<sup>st</sup>
- Please share your draft slides for CME by October 8<sup>th</sup>
- Please share your posters for printing by October 15<sup>th</sup>
- Share Final slides for presenting at the Learning Session by October 27<sup>th</sup>

# Pre/Post learning



# Clinical Presentation:



**Weill Cornell Medicine**  
Pediatrics

**NewYork-Presbyterian**  
Komansky Children's Hospital

# Transitioning Children and Adolescents to HCL Insulin Pumps

Emily Coppedge, CPNP, CDCES

September 21, 2023

# Learning Objectives

- Review rationale for promoting HCL use to improve A1c and TIR
- Review cycles to discuss efficient and inefficient PDSA cycles
- Review importance of choosing 'right' HCL with the patient



# Questions

1. Which of the following are benefits of HCL pumps?
  - a. Increased TIR
  - b. Improved A1c
  - c. Improved sleep quality
  - d. All of the above
  
2. True/False: We saw a 1% improvement in A1c amongst all pump users

# WCM Peds Endocrine/ NYP-Cornell

- Located in NYC on the Upper East Side
- Practice Make Up
  - 5 MDs
  - 3 Fellows
  - 2 Nurse Practitioners (1 CDCES)
  - 2 RNs
  - 1 RD, CDCES
  - Social Worker
- 184 T1D, 35 T2D
- Type 1: 42% Medicaid/58% Private

WCM/NYP-Cornell

Nov Meeting





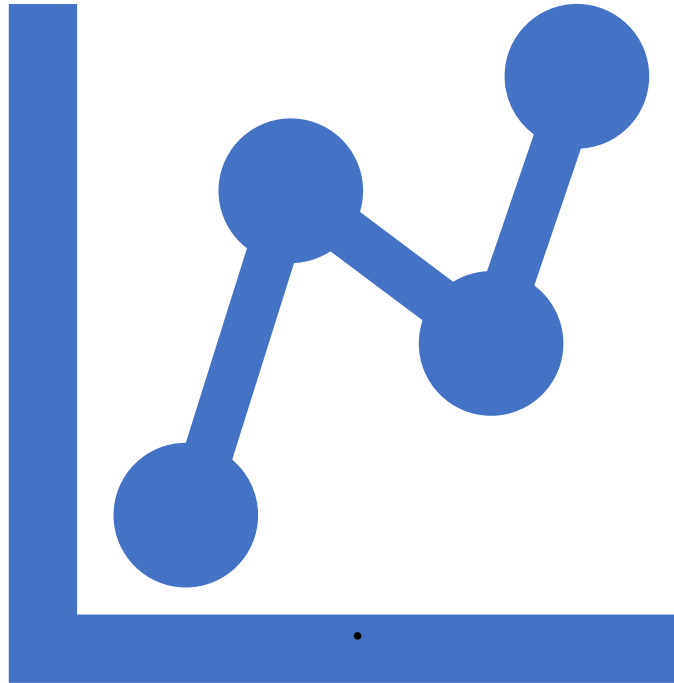
# How our plans started:

End of 2021- Looking for a direct effect on A1c

Omnipod 5 with pending FDA approval

Mid pandemic with provider burnout

In short- we needed a win, and so did our patients



## Problem and Aim Statement

### **Problem:**

- A small percentage of patients are on closed loop pumps. Data suggests that closed loop pumps --> improvements in blood sugar control and A1C, TIR

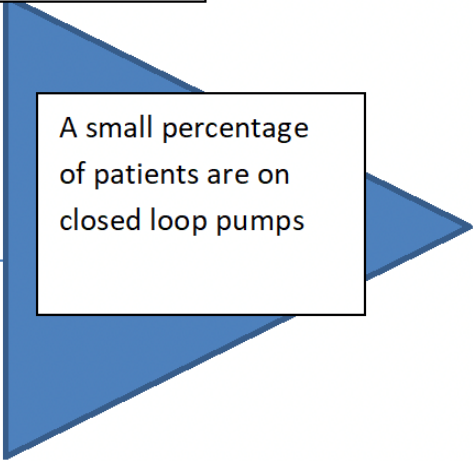
### **Aim statement:**

- Within 12 months, 50% of all pump users will be on a hybrid closed loop pump

- Product:**
- Hybrid closed loops pumps
    - o Medtronic, Tandem, Omnipod
    - o How long of an appointment(s) will be necessary to train a patient on a new pump
    - o Will resources be available in multiple languages?
    - o Will different insurances accept the product?
  - How to keep track of the number of patients on closed loop pumps?

- Policies & Procedures:**
- Coordination with pump companies about available closed loop systems (i.e. Omnipod)
  - Additional training may be needed for patients new to sensors
  - Access to representatives from pump companies to facilitate new pump training
    - o New training for hybrid closed loops (for both patients and providers)

- Place:**
- Do we have a room/space to discuss pump transition and train on use?
  - Do patients have access to all appropriate technology?



- Equity:**
- Health Literacy
    - o Are the benefits of transitioning or going onto a closed loop pump communicated to the patient in a way that is easy to understand?
    - o Inclusion of patients from different socioeconomic backgrounds
    - o Inclusion of patients with cognitive or developmental disabilities
    - o Inclusion of patients who speak different languages
    - o Equal access to appropriate technology for pump use

- People:**
- Will we be able to assist patients and families who are non-English speaking?
  - Health Literacy
    - o Different understanding of technology, educational backgrounds
  - Will patients be receptive to pump changes or addition of a pump?
  - Facilitate education with schools/nurses

- Process:**
- Diabetes team creates list of all patients on pumps/type
  - All patients eligible to be on a hybrid closed loop
  - WC provider works with the patient, insurance, and pump company to facilitate the transition
    - o Education for both families and providers on pump technology
    - o Providers given talking points to review hybrid closed loop pumps and benefit at visits
      - Given brevity of appointment, patients are referred to CDCES with further questions
    - o Expand providers who are trained to place pumps
      - Who is training these providers?
    - o Will providers have time to train patients during appointments?

### Change Ideas

#### Aim

Within 12 months, 50% of all pump users with Type 1 Diabetes will be on a hybrid closed loop pump

#### Primary Drivers

Health Literacy/Education and Support

- Pump education provided in-person and virtually with both digital and physical copies of education materials available
- Assessing individual patient readiness and create clear action steps
- Referral to nutrition to understand carb counting
- Pump training sessions
- Pump education class

Social Determinant of Health

- Barriers to pump use (insurance approval, time required for training, pump acceptance)

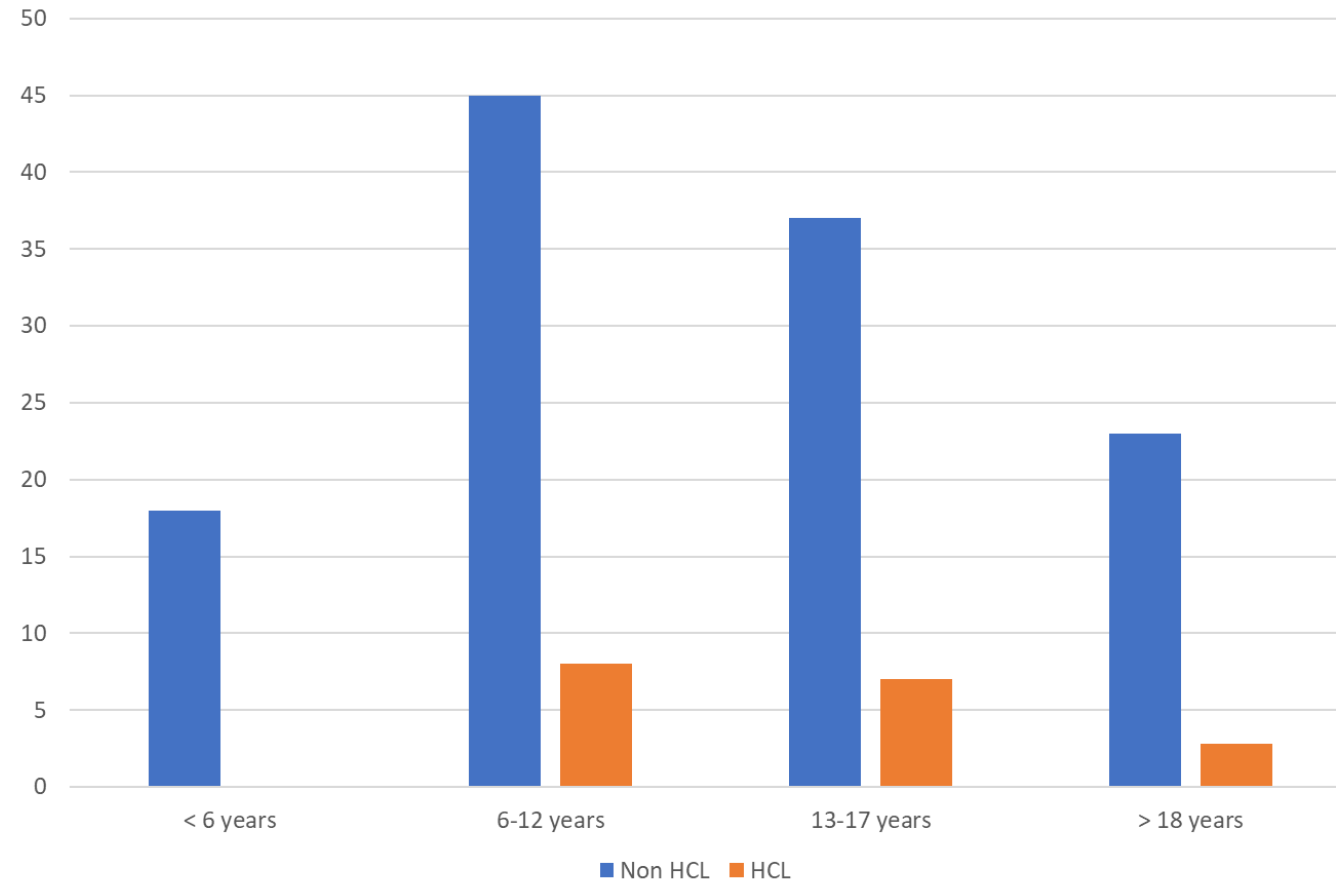
Glucose monitoring

- Device data reviews and interpretation
- Encourage CGM use with HCL systems
- Provide contact information for device reps/patient support

Psychosocial Support

- Conduct routine (annual) mental health screens for all eligible patients
- Provide mental health referrals
- Social work available to address patient needs

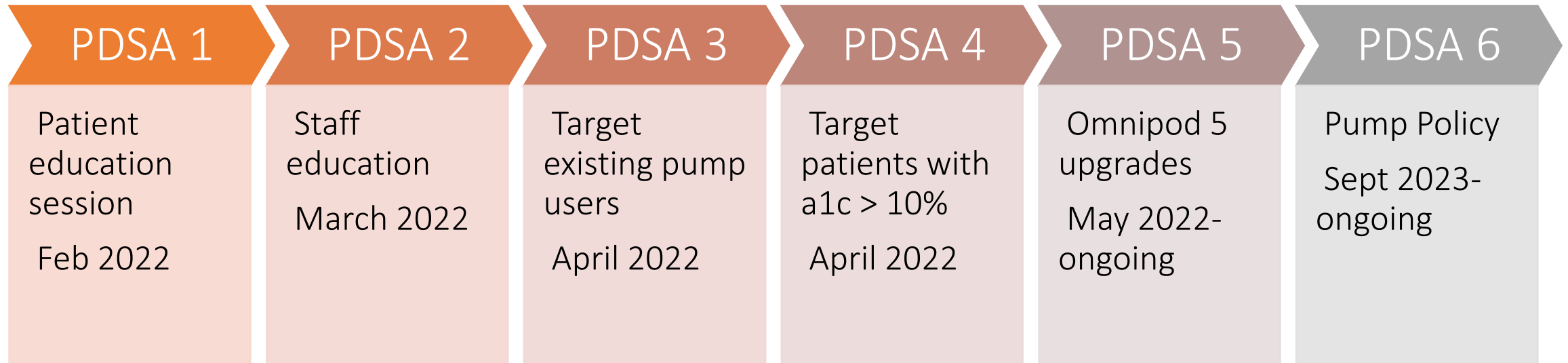
# Background data on pump use at WCM Peds



73% of total patients with T1D on pumps

**14% of pump users on HCL**

# PDSA Map



# Patient Education

---

- Educate families on available options and benefits of hybrid closed loop pumps
- Hosted an educational zoom about HCL Technology and benefits of wearing HCL pump
  - Over 20 families attended
- Information about HCL in our Quarterly newsletter that is distributed online and at in-person visits to promote interest and education

## DIABETES NEWSLETTER



Winter 2022



### Hybrid Closed-Loop Pumps:

#### What is a hybrid closed loop pump?

Hybrid closed loop (HCL) pumps are insulin pumps that communicate with continuous glucose monitors (or sensors). These pumps have a special calculator, or algorithm, that can automatically deliver basal insulin every few minutes based on your blood sugars readings and trends to keep levels in range. Some versions of the hybrid closed loop pumps give automatic corrections. HCL pumps do NOT replace bolusing for food.

#### What are the benefits?

Hybrid closed-loop pumps make diabetes management easier by reducing the number of diabetes decisions we have to make in a day. They have been shown to improve blood sugar control, including hemoglobin A1c and time in range, as well as decrease hypoglycemic episodes. In short, better control with less effort!

#### What are my options?

We recommend hybrid closed-loop pumps for all patients with Type 1 Diabetes! For a hybrid closed-loop system to work, you will need be on a pump as well as a sensor. Talk to your diabetes provider about which system may be right for you.



# Staff Education

---

- Educated diabetes staff about QI project to encourage patients to start pump therapy or transition to HCL from current pump.
- Reviewed script to providers for discussion during visits

- **Not on a pump yet-**

I'd like to talk to you today about why it would be beneficial for you to start using an insulin pump. Insulin pumps can improve quality of life and improve blood sugar control. For one, you will need less shots. With an insulin pump, you can program different basal rates, or insulin amounts, throughout the day to meet your changing insulin needs-whether that be when you are sleeping or exercising. There are now pumps called hybrid closed-loop pumps that can make diabetes management even easier by further reducing the number of diabetes decisions you have to make in a day. These pumps have a special calculator/algorithm that can automatically give basal insulin every few minutes based on your blood sugar readings and trends. Some options also automatically give blood sugar corrections. You will need to wear a CGM or sensor with a HCL to communicate your blood sugars to the pump. These pumps do NOT replace bolusing for food. Though in short, better control with less effort!

These are the different systems that exist-

- Tandem Control IQ
- Medtronic 770G
- Coming soon-Omnipod 5

Next steps: schedule an appointment for pump training once patient has received pump

- **Already on a pump-**

I'd like to talk to you today about why it would be beneficial for you to upgrade to a hybrid closed loop insulin pump. There are now pumps called hybrid closed-loop pumps that can make diabetes management even easier by further reducing the number of diabetes decisions you have to make in a day. They have been shown to improve blood sugar control, including hemoglobin A1c and time in range, as well as decrease hypoglycemic episodes. These pumps have a special calculator/algorithm that can automatically give basal insulin every few minutes based on your blood sugar readings and trends. Some options also automatically give blood sugar corrections. You will need to wear a CGM or sensor with a HCL to communicate your blood sugars to the pump. These pumps do NOT replace bolusing for food. In short, better control with less effort!

These are the different systems that exist-

- Tandem Control IQ
- Medtronic 770G
- Coming soon-Omnipod 5

Next steps:

- If patient would like to upgrade current system-reach out to pump company
- If patient would like to change pumps-check with insurance





# Targeting existing pump users



Reached out to existing pump users to schedule appointments for upgrade to HCL



Increase in HCL pumps (Tandem/Medtronic) of 8 patients



20% of pump users (25/123) now on HCL pumps



Difficult to get patients to schedule appointments

For Tandem, required pump update

# Targeting high risk patients on MDI



Reached out to patients with a1c over 10%  
to discuss transitioning to pump



Challenges with agreeing to appointments  
and interest in pump therapy



Ongoing, but in the background, cycle



Did see some success-  
required creativity with  
HCL

3 patients transitioned to  
Basal + Control IQ  
2/3 with significant  
improvement in A1c (>14% to  
7.9% and 12.8% to 9.9%)

# Omnipod Upgrades



Target patients on Omnipod DASH and EROS



Prescribe Omnipod 5 and complete prior authorization

Barriers and delay with insurance approval, pump supply



Scheduled appointments to train on Omnipod 5

Limited staff availability (both from Omnipod and WCM)  
Additional appointments required



Difficulty tracking patients self upgrading and seeing HCL data

# Pump Policy



1. Patients need to attend a pump info class prior to starting an insulin pump. These will be held bimonthly via zoom starting Sept 2022



2. Patients need to be seen by nutrition via video visit to ensure understanding of carb counting and recommendation to pre-bolus



3. At this time, patients can choose pump and it will be ordered by practice



4. Patients to be trained by company pump trainer / Omnipod 5 upgrade can be self-learn



5. Patients must schedule a follow-up appointment with our office (in-person) for 1-3 weeks after pump training

# Results

- **Pre-Intervention:**

- Median A1c of ALL pump users: 8.15%
  - Non HCL: 8.4%
  - HCL: 7.25%
- TIR > 50%: 38% of ALL pump users
- TIR > 70%: 13% of ALL pump users

- **Post-Intervention**

- Median A1c of ALL pump users: 7.1%
  - Non HCL: 7.7%
  - HCL: 7.1%
- TIR > 50%: 62% of ALL pump users
- TIR > 70%: 21% of ALL pump users

**HCL use increased from 14% to 80% by June**  
**202398 out of 123 pump users**

# What did we learn?

---

- **Fair insurance access to pumps allowed for a change in the ENTIRE practice**
- Needed more trainers (have since increased trained staff)
- Intro to Pumping class increased education and streamlined our pump process
- HCL Pumps changed our appointments-
  - Increased ability for telehealth visits
  - More relaxed appointments
  - Patients' behaviors factor into making the best HCL pump choice

# Limitations

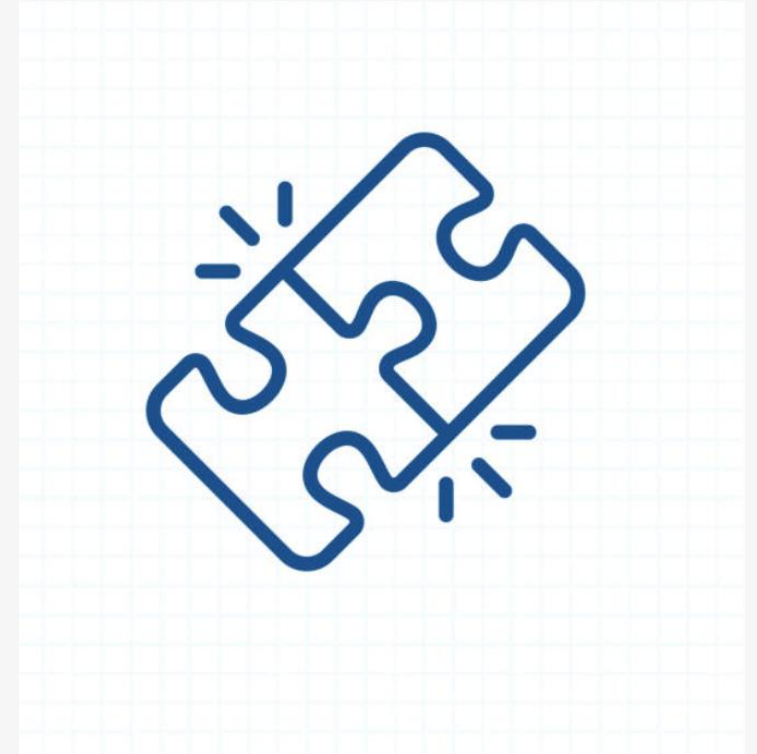
---

- Difficulty tracking data:
  - We did not consistently track TIR data in 2021
  - Some patients self-trained on Omnipod 5
  - A1c data not available for all telehealth visits
- Challenges with summarizing results
  - Comparing pre and post practice data vs pre and post patient data

---

## Where to go from here

- PDSA Cycle 1000 (just kidding- Lucky #7)- Helping the patient make the ' best choice'
  - Patients switching to different HCL systems for best fit
    - Typically, patients who need auto corrections
  - Pump Class now has a slide with different features of insulin pumps
  - Recommend discussion of pump choice with provider prior to ordering







Questions?



# Pre/Post learning



# Clinical Presentation:

# Addressing “TechQuity” to Reduce Disparities in Glycemic Outcomes in Children with Type 1 Diabetes

September 21, 2023

*Quality Improvement Team:*

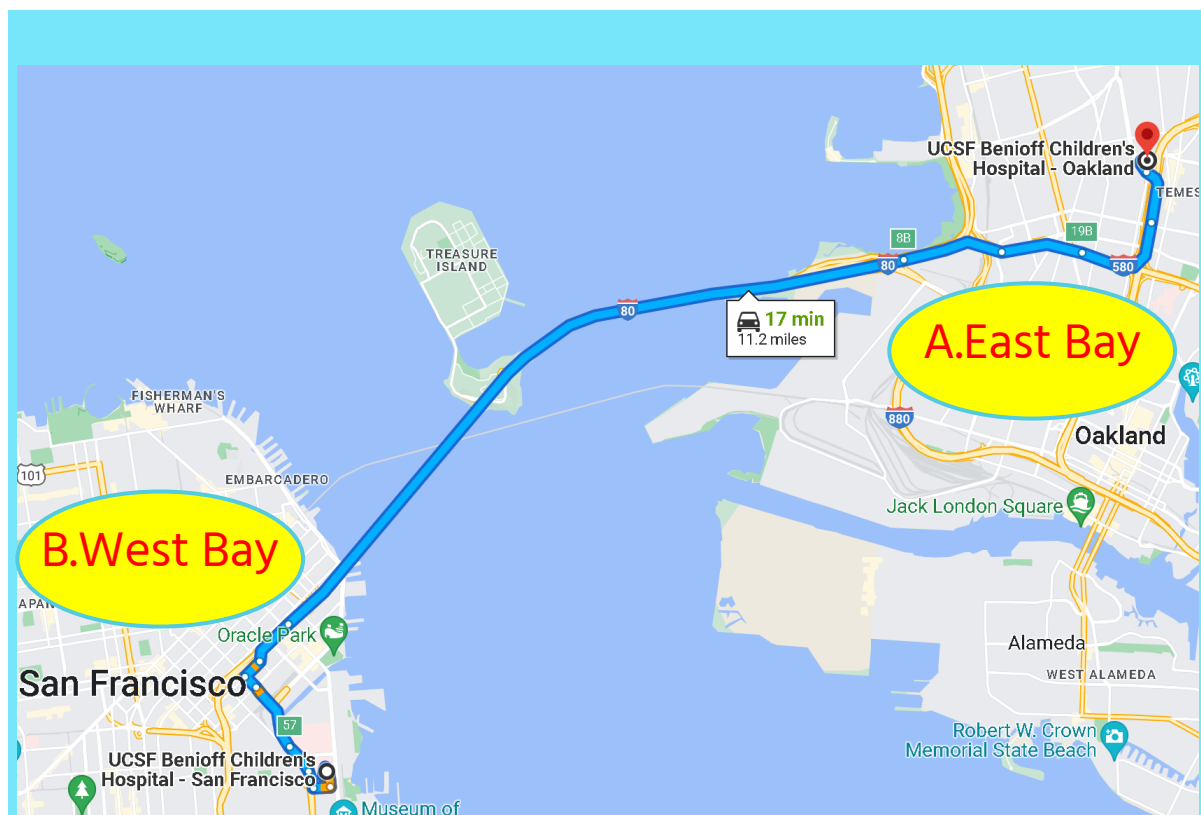
Jenise C. Wong, MD PhD

Angel Nip, MD

Barbara Liepman, RN MS CDCES

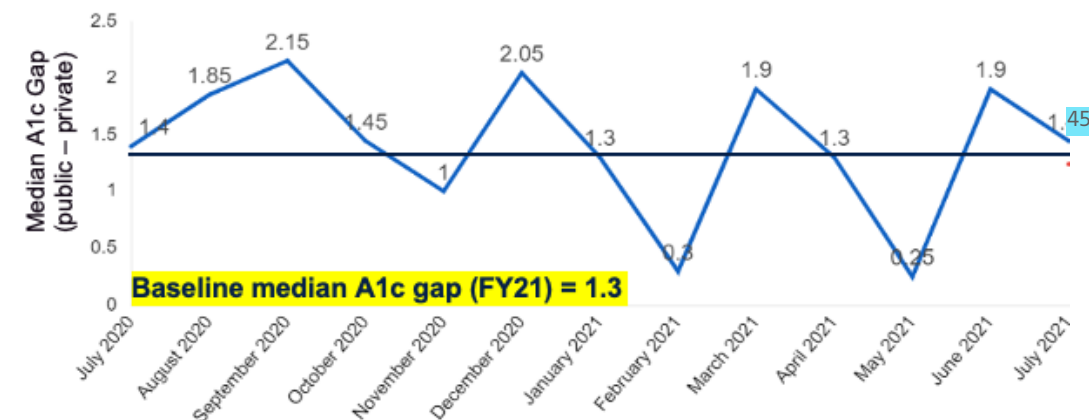
Clinic	Multidisciplinary Team	Volume and Demographics	Contacts
<p><b>UCSF</b> (pediatric) Benioff Children's Hospitals</p> <p><b>Locations</b></p> <ul style="list-style-type: none"> <li>• 2 main campuses (San Francisco and Oakland)</li> <li>• 6 satellite clinics</li> </ul>	<ul style="list-style-type: none"> <li>• 24 attending physicians (16 provide diabetes care, ~7 FTE)</li> <li>• 6 fellows (1 med/peds)</li> <li>• 1.2 NP (for diabetes)</li> <li>• 6 RN/CDCESs</li> <li>• 3.6 dieticians/CDCESs</li> <li>• 2.5 social workers</li> <li>• 1 psychologist (pending)</li> <li>• 1 transition coordinator</li> </ul>	<p><b>Volume</b></p> <ul style="list-style-type: none"> <li>• 150-200 newly diagnosed T1D patients seen annually</li> <li>• ~1600 established T1D and ~420 T2D patients</li> </ul> <p><b>Demographics</b></p> <ul style="list-style-type: none"> <li>• 53% with government insurance (40% in SF, 63% in Oakland)</li> <li>• 30% Latinx, 9% Black, 7% Asian American/Pacific Islander</li> </ul>	<p><b>Site PI-West Bay lead</b> Jenise Wong, MD PhD <a href="mailto:jenise.wong@ucsf.edu">jenise.wong@ucsf.edu</a></p> <p><b>East Bay lead</b> Angel Nip, MD</p> <p><b>Quality Coordinator</b> Barbara Liepman, RN MS CDCES</p>

# UCSF Benioff Children's Hospitals

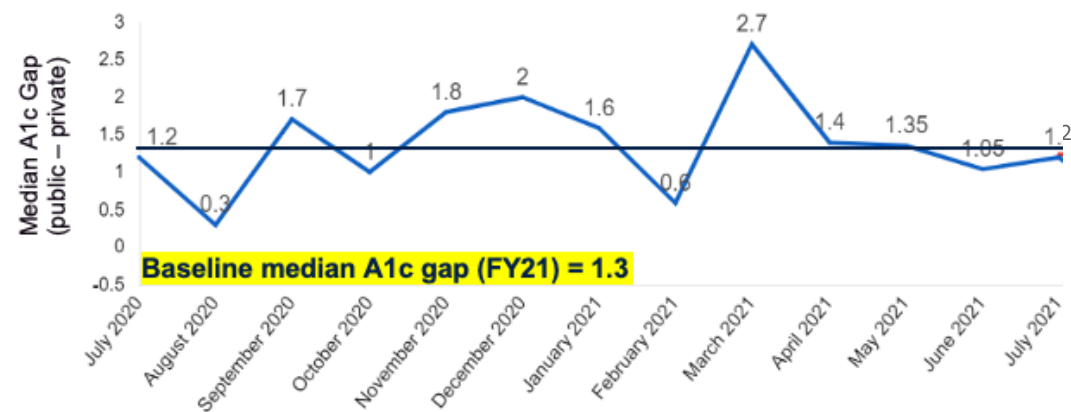


Disparities in glycemic outcomes exist between publicly and privately insured children with type 1 diabetes (T1D).

**A**



**B**



# FY2022 Objectives

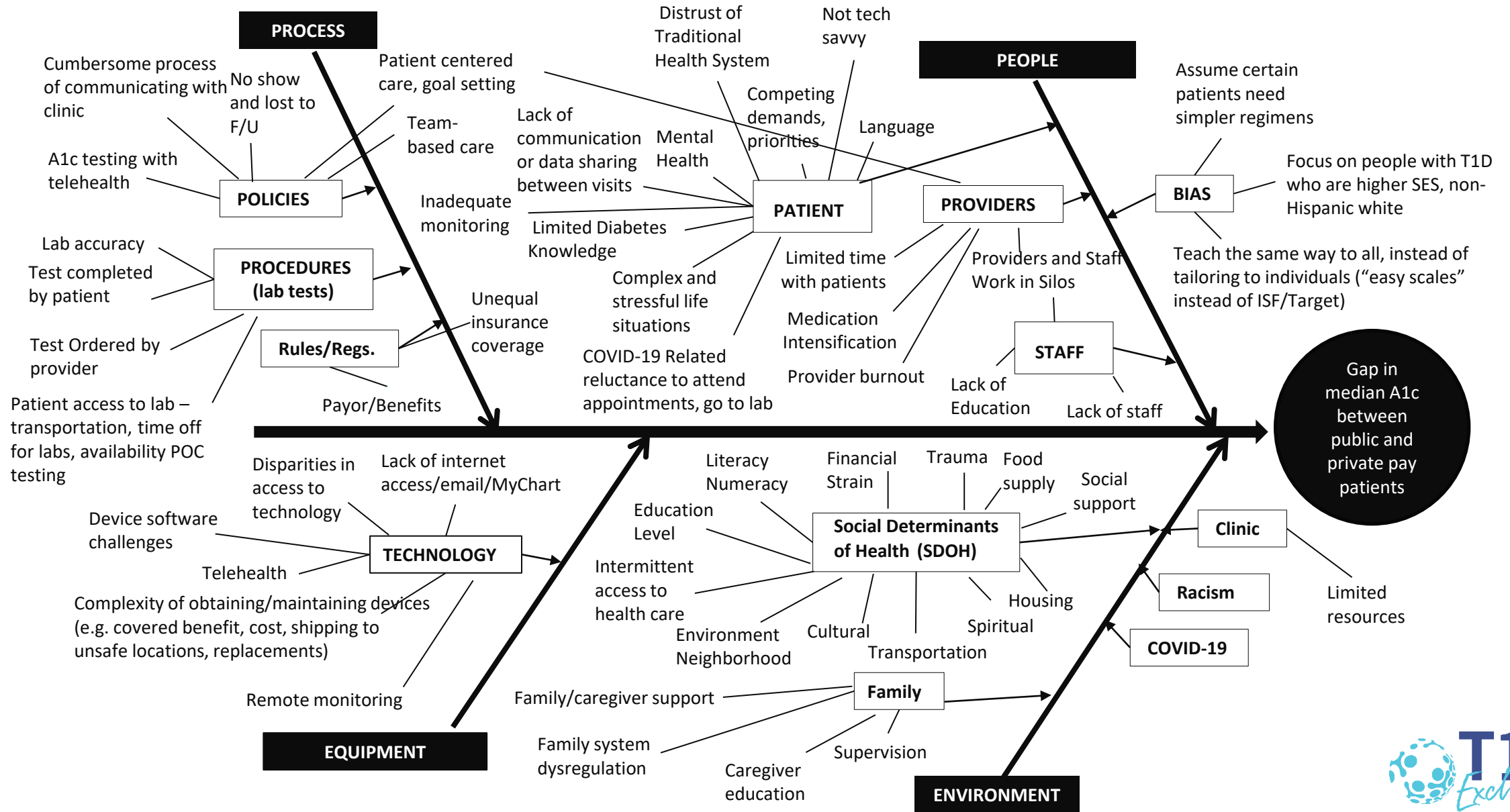
## Project goal

- Reduce the monthly median A1c gap to  $\leq 1.24\%$  (5% reduction) between publicly and privately insured children with T1D by end of December 2021, and further reduce to  $\leq 1.17\%$  (10% reduction) in April-June 2022 without either population's median A1c increasing above baseline (1.3%).

## Global aim

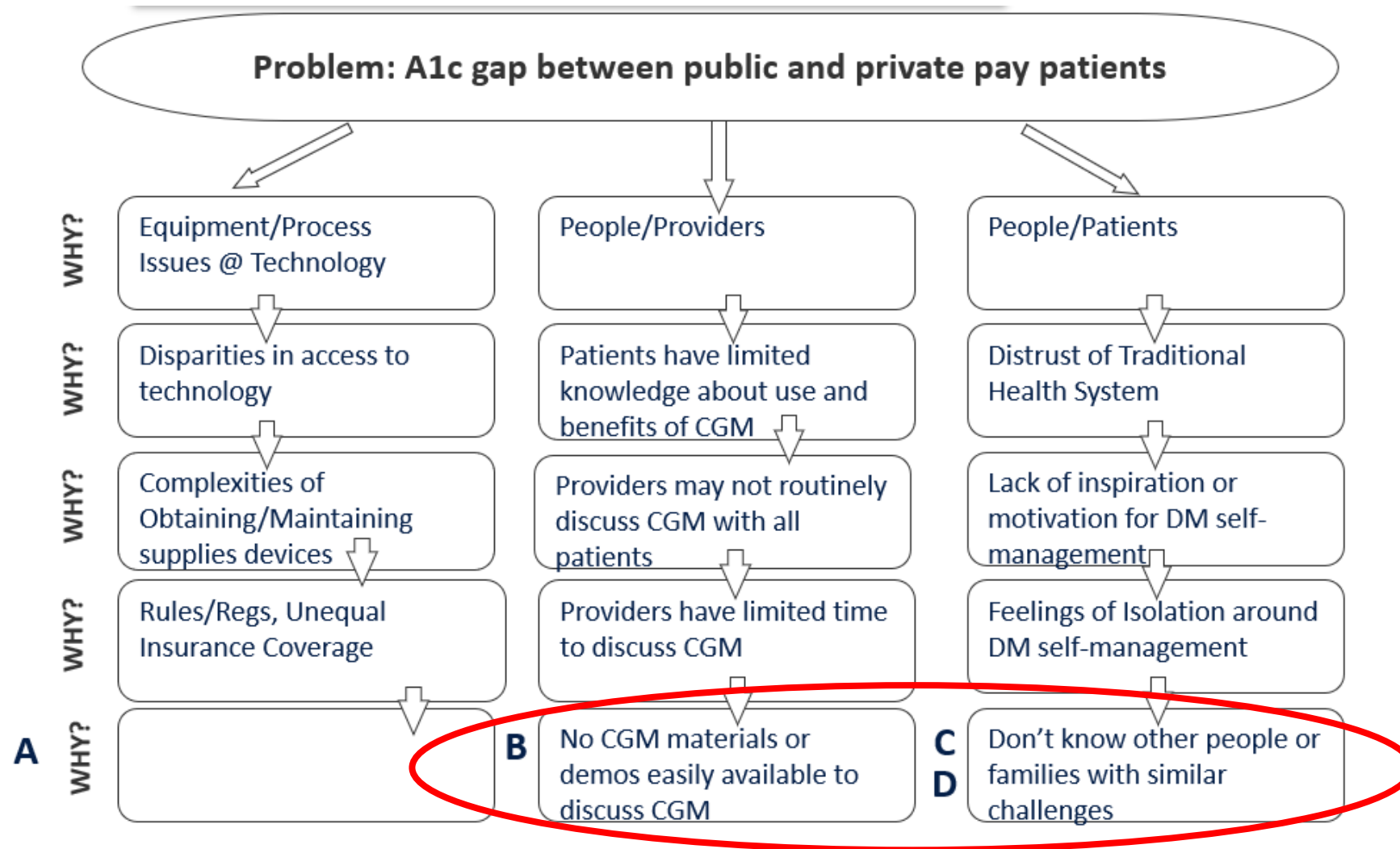
- Achieve health equity for children with diabetes seen at Benioff Children's Hospitals (BCH).

# Diagram





# 5 Whys



# Selected Key Drivers FY22

## Primary Drivers

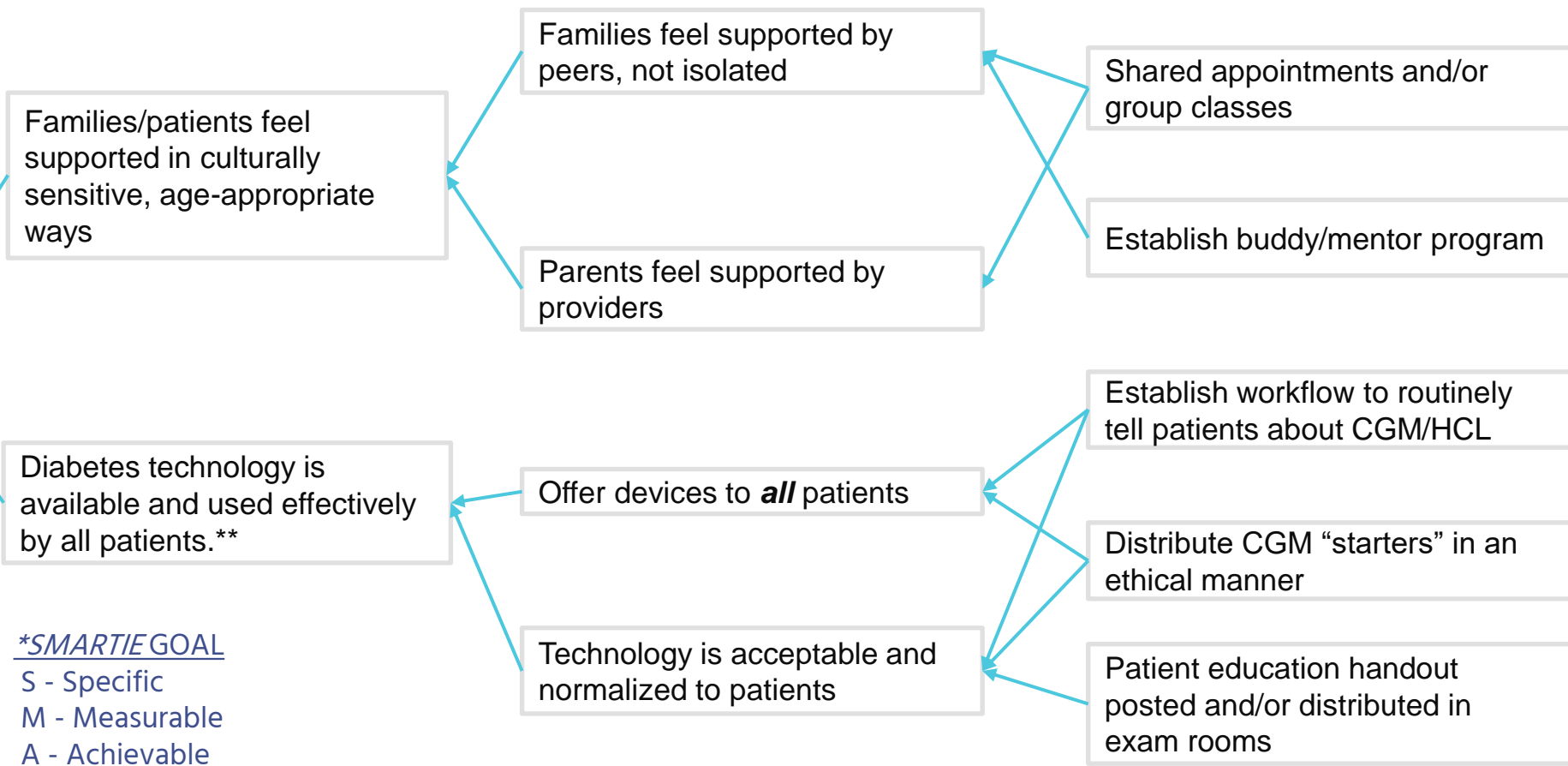
## Secondary Drivers

## Interventions

### SMARTIE\* Goal

Reduce the gap in median A1c between privately and publicly insured patients with T1D by 10% in FY22

**Global Aim:**  
*Achieve health equity for children with diabetes seen at BCH*

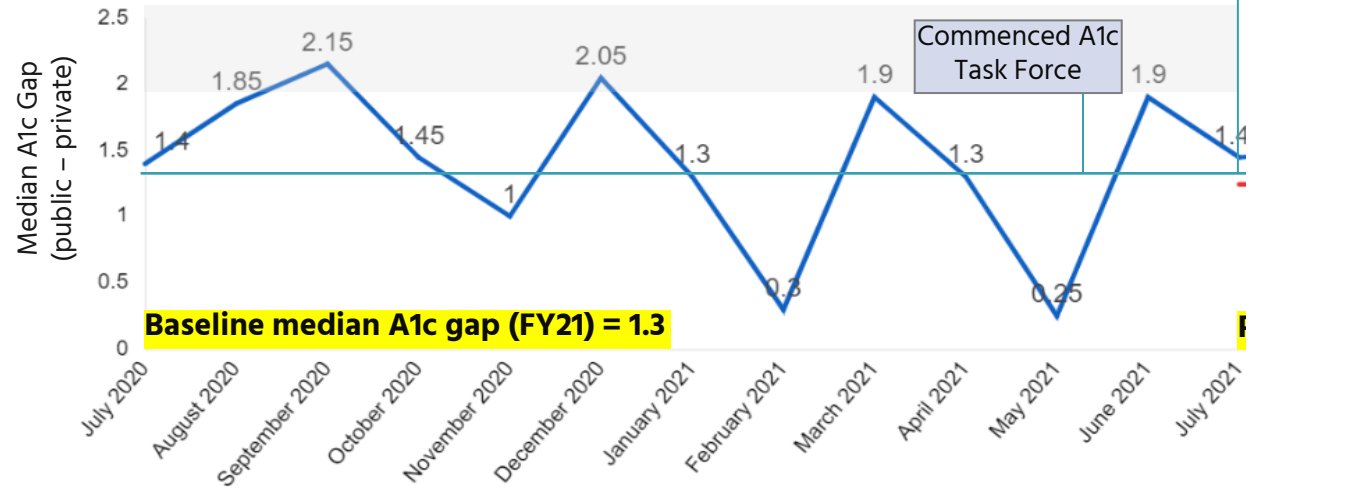


\*SMARTIE GOAL

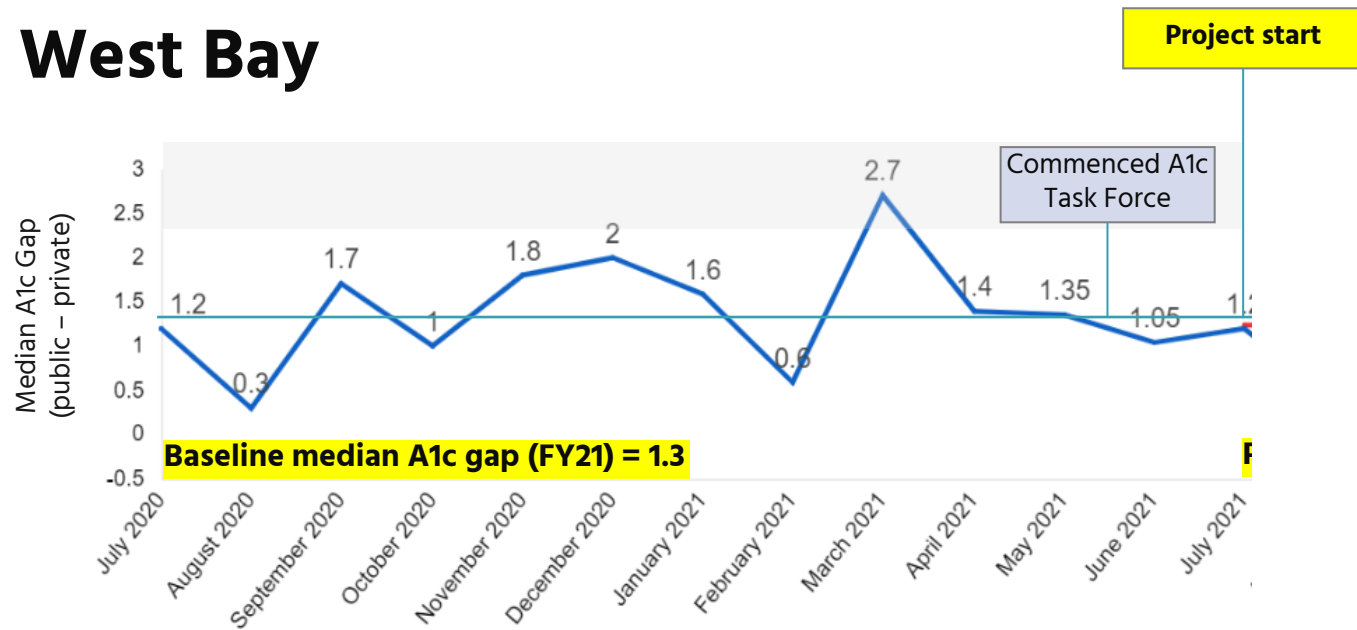
- S - Specific
- M - Measurable
- A - Achievable
- R - Realistic
- T - Timebound
- I - Inclusive
- E - Equitable

\*\*Focus on "**TechQuity**": the strategic development and deployment of technology to advance health equity

# East Bay



# West Bay



● Public-Private Difference ● FY22 Goal Q1-Q3 (<=1.24); Q4 (<=1.17)

FY22 Goal: A1c Gap ≤1.17 (10% reduction from FY21 baseline of 1.3) in April, May and June 2022 without either population's median A1c increasing above baseline.



# FY2023 Objectives

Percentage of pediatric patients <21 yo with A1c > 9% in FY22

- Publicly insured: 45%
- Privately insured: 20%

Project goal

- Reduce the percentage of pediatric publicly insured patients (<21 yo) with type 1 diabetes with an A1c > 9% from 45% to ≤40% by the end of FY23.

Global aim

- Achieve health equity for children with diabetes seen at Benioff Children's Hospitals (BCH).

# Selected Key Drivers FY23

## Primary Drivers

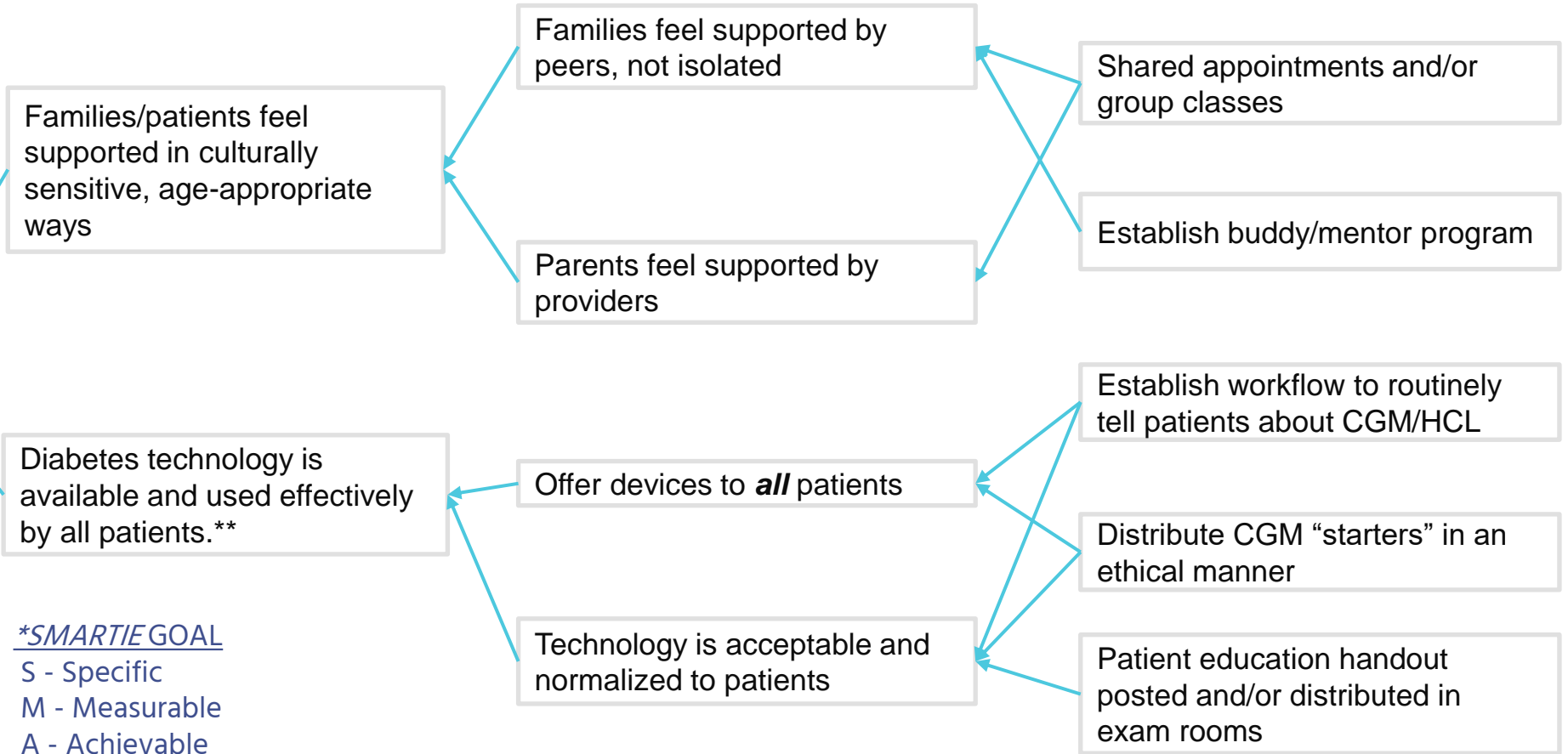
## Secondary Drivers

## Interventions

### SMARTIE\* Goal

Reduce the % of pediatric publicly insured patients (<21 yo) with T1D with an A1c>9% from 45% to ≤40% by the end of FY23.

**Global Aim:**  
*Achieve health equity for children with diabetes seen at BCH*



\*SMARTIE GOAL

- S - Specific
- M - Measurable
- A - Achievable
- R - Realistic
- T - Timebound
- I - Inclusive
- E - Equitable

\*\*Focus on "**TechQuity**": the strategic development and deployment of technology to advance health equity

# Standardizing CGM initiation

## Hospitalization for new onset T1D diagnosis

- Incorporate CGM initiation into standard new onset teaching
- CGM company provided CGM starter kits for inpatients at no cost

## Ethics for publicly insured patients

- CGM covered by Medi-Cal (Medicaid) as a pharmacy benefit in January 2022
- Few to no gaps in coverage

## Concern about increased volume of calls to clinic

- Partnered with CGM company patient care specialist (CDCES)
- Documentation shared with clinic CDCES and entered into EHR

# Data collection

Outcome measure: percentage of patients with A1c > 9%

Process measures:

- Number of hospitalized, publicly insured patients with CGM starts
- Number of patients with new starts who continued to use CGM during the project period

Balancing measures: phone encounters with patient care specialist and with the clinic

# PDSA#1

## CGM start for publicly insured, newly diagnosed inpatients with T1D

### Plan

- Workflow established with inpatient educators, CGM company reps, and patient care specialist
- Created educational material for patients about CGM (English and Spanish)

### Do

- Cycle 1: Started on 6/27/2022 in the West Bay (WB)
- Cycle 2: Started on 9/13/2022 in the East Bay (EB)

Study: 42 newly diagnosed inpatients started on CGM

### Act

- Adopt: continue workflow for newly diagnosed inpatients
- Adapt: expand CGM starts to hospitalized, established patients not using CGM



# PDSA#2

CGM start for publicly insured, established inpatients with T1D

## Plan

- Workflow expanded to include established patients with T1D not currently using CGM

## Do

- Cycle 1: Started on 9/13/2022 in the WB
- Cycle 2: Started on 1/18/23 in the EB

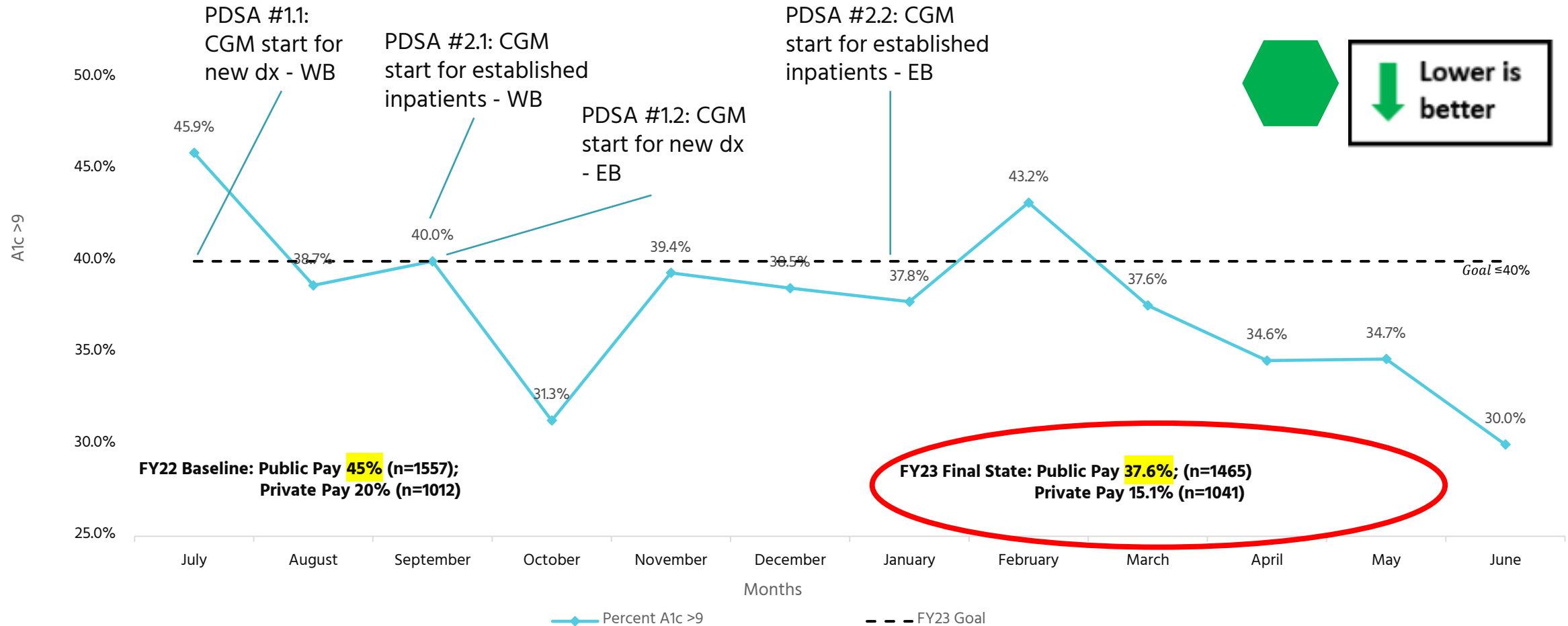
Study: 4 established inpatients started on CGM

## Act

- Adopt: continue workflow for established inpatients

# FY23 A1c Health Equity Project

Percent of publicly insured patients (age <21 yo) with T1D with A1c > 9%



Data Source: APeX Report #REP0068437

# Process measures

Publicly insured inpatients with T1D started on CGM 6/30/2022– 8/29/2023

	n
Total started on CGM	46
Newly diagnosed	42
Established patients	4
West Bay	16
East Bay	30

# Process measures

Patients still using CGM at time of follow-up (range 1-12 months)

	Newly diagnosed (n=42)	Established patients (n=4)	All patients (n=46)
Using CGM at follow-up	71%	50%	70%
Not using CGM at follow-up	14%	25%	15%
Unknown	14%	25%	15%

# Balancing measures

Patient contacts after discharge from the hospital (n=31)

---

Patients with documentation from  
patient care specialist

n = 20

Patients with a clinic telephone  
encounter prior to first outpatient visit

n = 2

# Addressing Techquity to reduce disparities

## Summary

- CGM initiation with inpatients was associated with reduction in A1c disparities
- Most patients who started CGM at diagnosis generally continued use
- Proactive support from the device company may have reduced burden on the clinic team

## Impact beyond the intervention

- Increased awareness to discuss and start CGM with *all* patients
- Noted reduction in A1c levels in privately insured patients
- Adult diabetes inpatient program interested in replicating project

# Selected Key Drivers FY23

## Primary Drivers

## Secondary Drivers

## Interventions

### SMARTIE\* Goal

Reduce the % of pediatric publicly insured patients (<21 yo) with T1D with an A1c>9% from 45% to ≤40% by the end of FY23.

**Global Aim:**  
*Achieve health equity for children with diabetes seen at BCH*

Patients and caregivers experience culturally sensitive, age-appropriate support.

Techquity: Diabetes technology is available and used effectively by all patients.

Recognition that social risks are determinants of glycemic control

Peer support (including modalities to reduce isolation) is available to all patients.

Caregivers/patients feel supported by health care team

Devices offered to **all** patients

Technology options addressed and normalized for patients

Social determinants of health are included in the treatment plan.

Provide shared appointments and/or group classes

Establish buddy/mentor program

Focus on patients with highest needs (A1c>9%), including addressing access to care

Equitably distribute CGM starter kits

Provide patient education handout posted, distributed in exam rooms, and sent electronically

Routine clinic screening for social determinants of health

\*SMARTIE GOAL  
S - Specific  
M - Measurable  
A - Achievable  
R - Realistic  
T - Timebound  
I - Inclusive  
E - Equitable

# Ongoing and future work

## Interventions to address disparities in care

### Limitations

- Focused on high impact, lower effort interventions due to limited staffing and resources
- In person-only interventions impacted by continued use of telehealth

### Access to care for patients with A1c above goal

- Focus on those with missed appointments, and/or no visits within 6 months
- Goal 4 visits per year

### Screening for social risks at every in person visit

- Food and transportation security
- Goal to screen every patient at least annually





Department of  
Pediatrics

Division of Endocrinology

# *Transforming child health*

## Quality Improvement Team

- Angel Nip, MD, EB Lead
- Barbara Liepman, RN MS CDCES, Quality Coordinator
- Jenise Wong, MD PhD, WB Lead

## CGM Start Project Leads

- Diana Arellano, RN CDCES
- Kathy Love, RD CDCES

## Diabetes Educators

- Yvette Anderson, RN
- Karen Cadigal, RN
- Angelica Chavez, RN CDCES
- Yanming Jiang, RD CDCES
- Monica Mueller, RN CDCES
- Cate Whitridge, RN
- Krista Keim, RN

- Dexcom: Britni Frazier, Linda Schmidt, Zen Kieu, Sharon Galvan



# Pre/Post learning