

Opening Remarks from T1D Exchange



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T1D
Exchange

T1D Exchange Overview

November 2024 Learning Sessions

t1dexchange.org

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T1D Exchange drives real world impact in diabetes

- Nonprofit dedicated to improving diabetes outcomes through RWE and collaborative change
- HQ in downtown Boston
- 33 people*
 - 2 w/ MD
 - 6 w/ PhD
 - 7 w/ MPH
 - 6 w/ T1D
- Funding
 - 60% in grants from foundations
 - 40% from revenue from custom research projects, collaborations & sponsorships



* Some have dual degrees

T1D Exchange: Key Programs

- Quality Improvement & Population Health



- Online Direct to Participant Registry



- Custom Research (e.g., outcomes / market)



- Online Community



- Study Recruiting



T1D Exchange Registry Participants (Nov 2024)

- Over 20,600 people with T1D have been screened, consented and have completed a baseline questionnaire since 2019
 - 17,500+ adults
 - 3,000+ children (<18)
- Nearly 3,850 adults have also shared longitudinal continuous glucose monitoring (CGM) device data via Dexcom Clarity API
- Almost 24,000 annual questionnaire updates have been completed (note: only 3,000 were eligible to complete annual update in 2021, with about 5,000 additional eligible participants each year)
- Heavy technology use (CGM, insulin pumps, etc.) and good glucose control in the majority of participants
- Good age distribution - Skewed towards women, highly educated and white



Primary Data Collected in Registry (Patient-Reported)

- Demographic and socioeconomic
- Insurance and access
- Clinical
 - Age and date diagnosis
 - A1C
 - Glucose thresholds for correction (hyperglycemia and hypoglycemia)
 - DKA and severe hypoglycemia
 - Height and weight
 - Care team
 - Family history T1D, T2D
 - Psychosocial (diabetes distress, anxiety and depression)
 - Other comorbidities
- Diabetes management
 - Insulin brand
 - Insulin delivery method & brand
 - Total daily dose of insulin (basal, bolus amounts)
 - BGM/CGM use and brand
 - Noninsulin medications

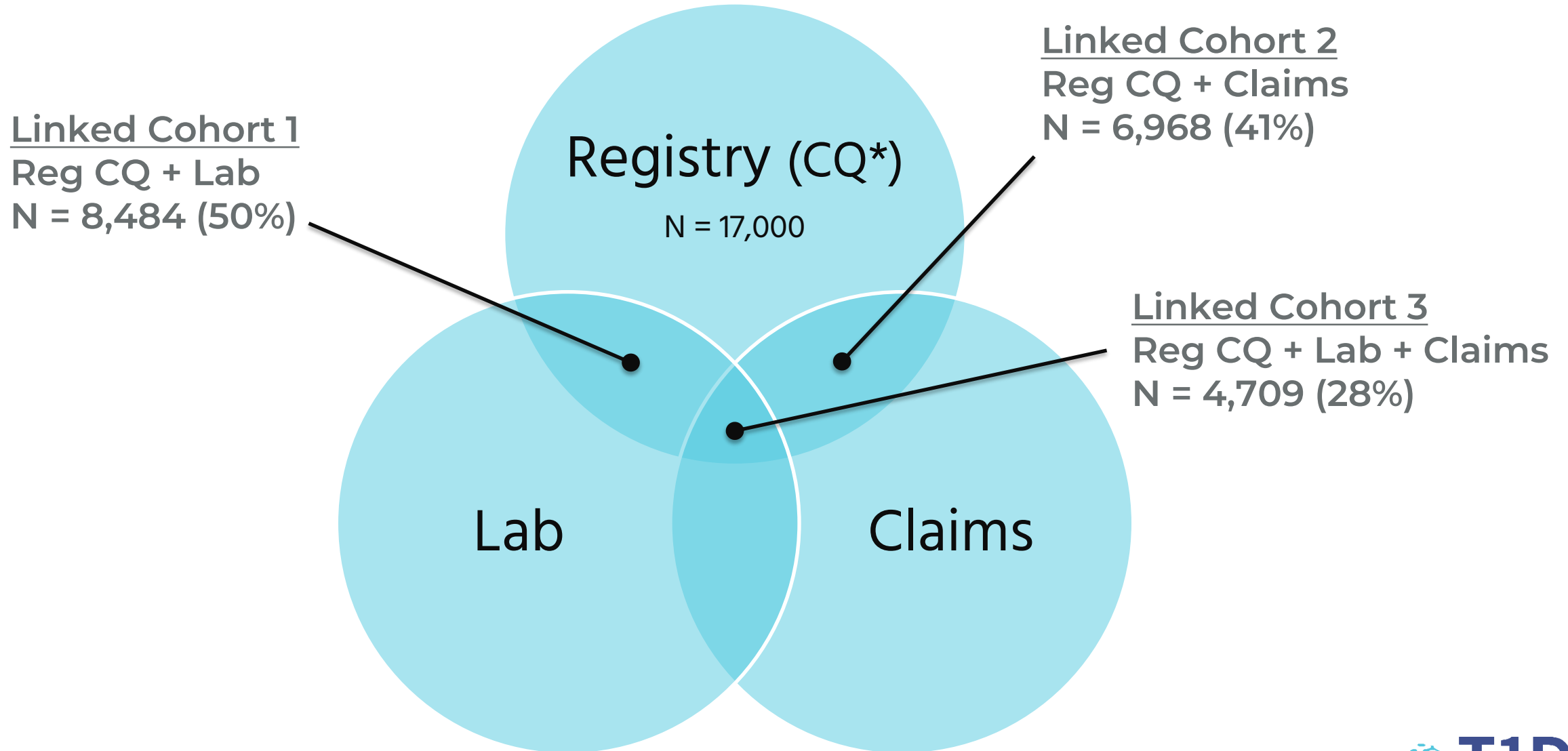
Data Expansion: Registry Data Linking Initiative (Breakthrough T1D)

- **Goal:** To augment our Registry data (self-reported data and CGM tracings) with complementary data from the same individuals found in external data repositories, unlocking novel and impactful T1D research areas
- **Method:** Tokenize PII of Registry cohort to enable token-based links
 - Expert determination used to ensure HIPAA-compliant anonymized linkage
 - Exempt determination secured from our IRB
- **Partners**
 - **Datavant** – tokenization algorithm, access to potential partners via Datavant portal, expert determination / HIPAA certification
 - **Panalgo** – data partner
 - Lab (MMIT): 50% overlap with Registry
 - Closed medical/pharmacy claims (Tessa): 41% overlap with Registry

Both data sets span from 1/1/2017 – early 2024 (7+ years)

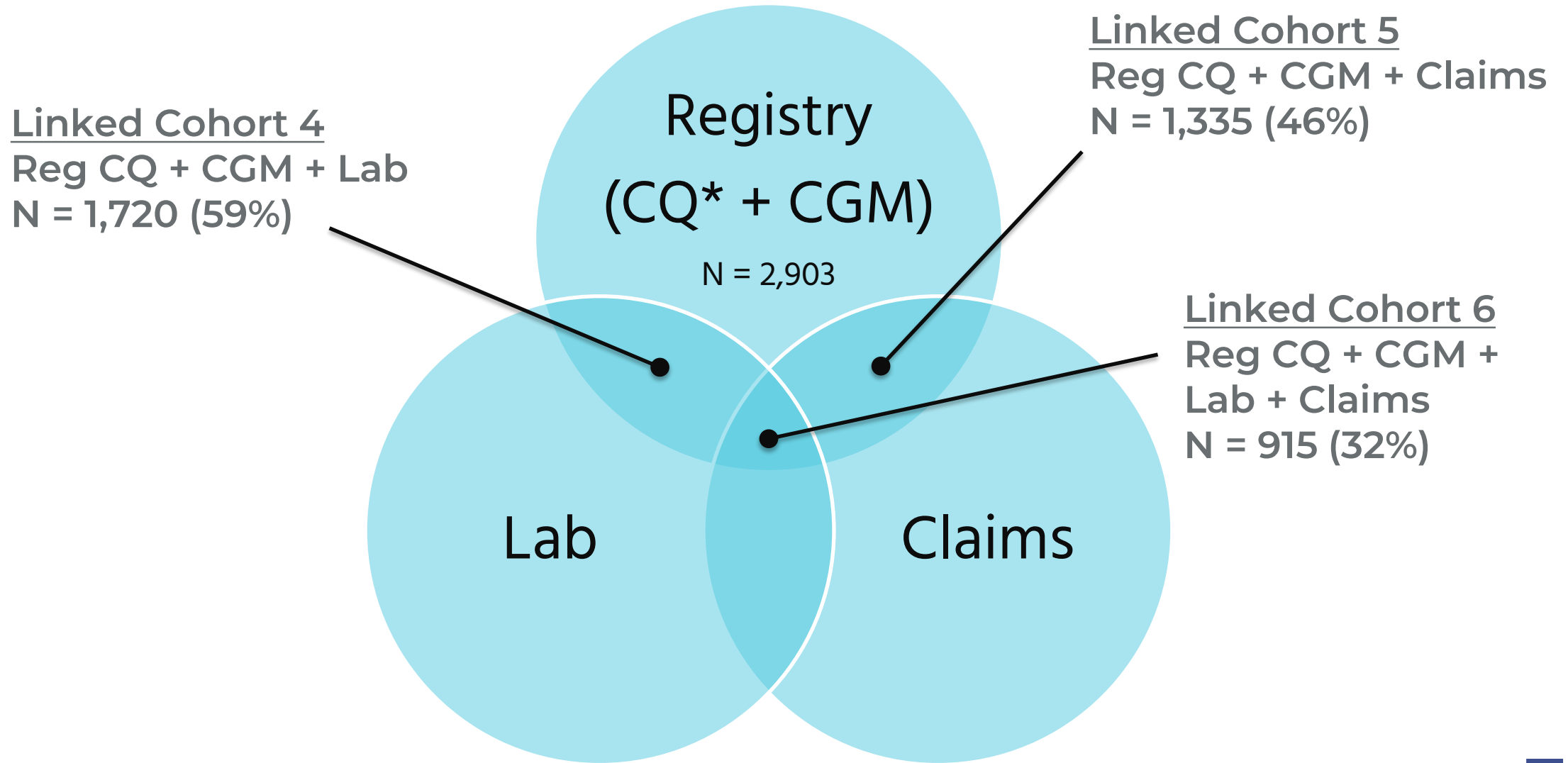


Current Overlaps and Cohorts



* CQ = Core Questionnaire – self-reported

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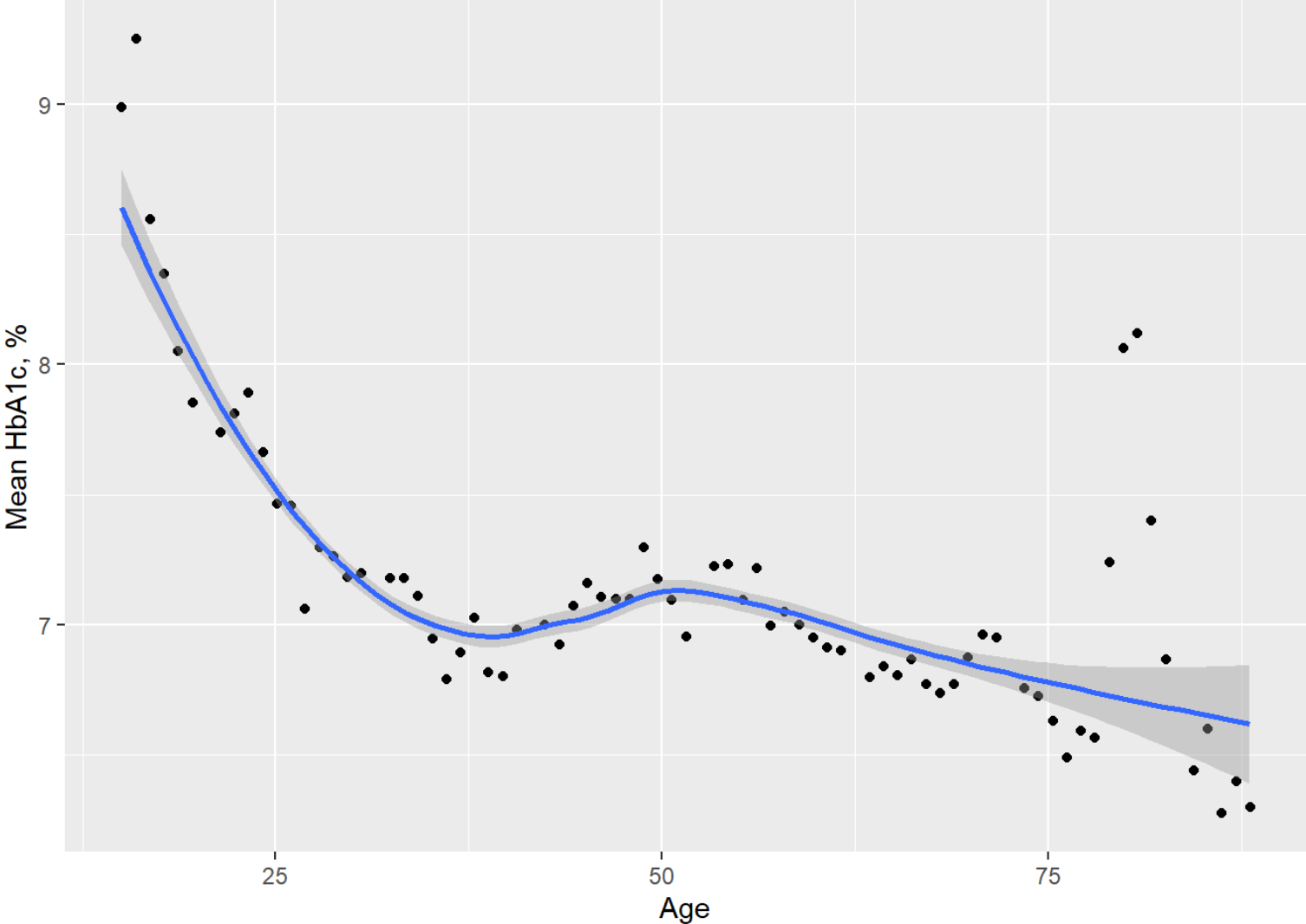
Research Questions – Breakthrough T1D Grant

- 1. Interrogation of the targets and ranges used in current clinical guidelines to determine fundamental real-world evidence around topics including:**
 - How many people with T1D meet the current recommended glycemic management targets and targets for other labs?
 - Are the targets appropriate (based on complications/comorbidities dx's), or do real-world data indicate they should be updated?
- 2. What level of improvement in CGM-derived metrics constitutes a clinically meaningful improvement in clinical endpoints?**
- 3. Adjunctive medications: What are the benefits, risks, and outcomes in T1D?**
 - GLP-1 receptor agonists (e.g., Ozempic, Wegovy, Victoza)
 - SGLT2 inhibitors (e.g., Invokana, Jardiance)
 - CVD-related medications



HbA1c vs age shows “similar” pattern to other sources

A1c vs age, Cohort 1 (Reg CQ + Lab)



*HbA1c based on Panalogo Lab Data

*Among people in T1D Exchange Online Registry



Building our Registry Data via Participants

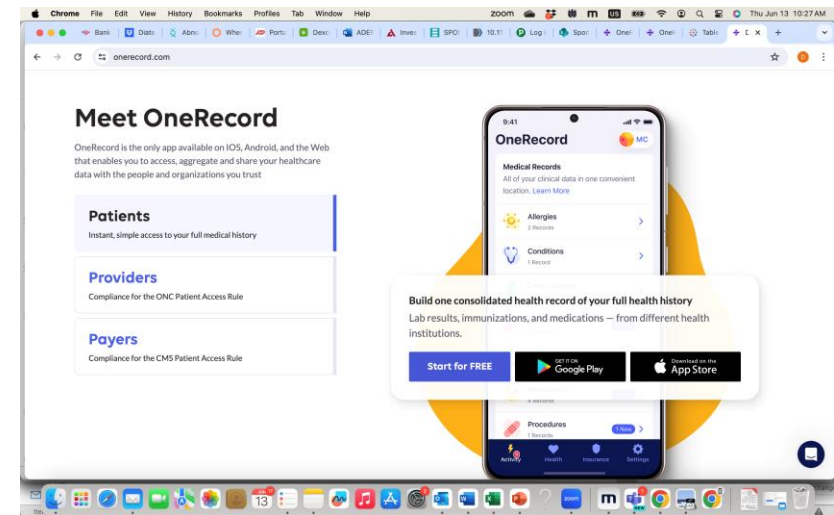
- Continue growth of CGM data
 - Dexcom 3,850 sharers – goal to reach 5,000 in 2025
 - Discussing Libre data sharing with Abbott
 - Re-engaging with Tidepool to discuss both EMR integration and direct connection to online Registry
- Pilot addition of EMR data for 200 participants using One Record
 - Participant searches and selects provider(s) and imports EMR data into our environment



Dexcom
CLARITY



TIDEPOOL

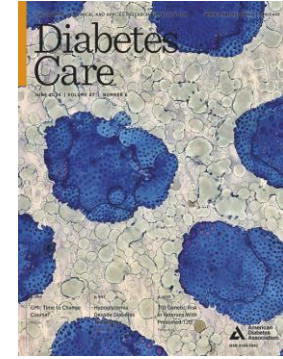


Custom Research Areas of Activity

- Interviews
- Focus groups
- Cross-sectional surveys
- Longitudinal surveys
- Mixed method design
- Patient reported outcomes
- CGM analysis (linked to survey responses or other data)
- Quantitative and qualitative data analyses
- Abstract/publication development & presentations

Some 2024 Publications of our Custom Research

- *Severe Hypoglycemia and Impaired Awareness of Hypoglycemia Persist in People With Type 1 Diabetes Despite Use of Diabetes Technology: Results From a Cross-Sectional Survey (Sherr JL, et al.)*
- *The Emotional Burden of Type 1 Diabetes: A Cross-Sectional Study to Understand Associations Between Diabetes Distress and Glucose Metrics in Adulthood (Kelly CS, et al.)*
- *Insights into Knowledge and Attitudes About Autoantibody Screening from People Affected by Type 1 Diabetes: A Brief Report (Kelly CS, et al.)*



Note: Several additional manuscripts have been or will be submitted by Dec 2024



Study Recruitment Assistance

The screenshot shows a Chrome browser window displaying the T1D Exchange website. The URL in the address bar is t1dexchange.org/fill-your-study/. The website header includes the T1D Exchange logo and navigation links: "For People with T1D", "For Researchers", "For Clinics", "For Partners", "Get Involved", and "More". A "Join / Login" button is visible in the top right.

Study Recruitment

Fill Your Study Faster

T1D Exchange accelerates research through our successful study recruitment efforts. With more than 45,000 people directly connected to T1D in our Registry and Online Community, we have built a community that is a source for study recruitment.

Over the past few years, we have helped to quickly fill dozens of T1D research studies, sometimes within just a matter of minutes.

Here's a glance at the variety of research our extensive recruitment efforts made possible:

- Patient experiences of severe hypoglycemia
- Safety, tolerance, and potential efficacy of cell-based therapy
- Patient experiences with closed-loop insulin pump apps
- Patient evaluation of adhesives for an investigation CGM sensor
- Safety, tolerability, and efficacy of islet cell infusion therapy
- Financial stress related to diabetes for T1D caregivers
- Effects of exercise on blood glucose levels

Study Recruitment: Partnering with Universities

- Diabetes Distress Survey



- Behavioral Intervention in Emerging Adult Study



- Nutrition in Older Adults Survey



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

- Artificial Intelligence in Healthcare & Diabetes Survey



- Swimming and Impact on Diabetes Survey



- Microvascular Dysfunction with GLP-1 RA and Exercise Clinical Trial



- Exercise in Diabetes Survey



- Intermittent Fasting in Adults with T1D Study











- NIDDK Covid Assessment Study



- CGM Pilot Study



Study Recruitment: Partnering with Industry Sponsors

- Clinical Study of VX-880 Islet Cell Infusion in T1D 
- Clinical Study of CT-868 GLP-1/GIP RA in T1D 
- Clinical study of ZT-01 to prevent nocturnal hypoglycemia in T1D 
- Clinical study of HDV-Lispro, liver-targeted insulin to reduce hypoglycemia risk 
- Clinical study of Pfizer's Paxlovid in Peds w/ chronic disease (not started) 
- Clinical Study of Finerenone in Chronic Kidney Disease(CKD) and T1D 
- Gathering saliva samples for tool to discern T1D vs T2D in newly diagnosed 
- Survey on Experiences with Insulin Infusion Disruption / Occlusions 

New Capability: T1DX-Hosted Study Landing Page



T1D Exchange is collaborating with Carmot Therapeutics to help recruit for their clinical trial evaluating a new GLP-1/GIP specifically designed for people living with T1D.

T1D Exchange is not a sponsor and is not administering this clinical trial, nor are we implying that you will qualify. We are sharing this information with you so you can decide whether or not to seek more information or to participate.

[See if You Qualify](#)



TRIAL DETAILS

Carmot Therapeutics, Inc., is conducting a clinical trial to evaluate a new GLP-1/GIP for treatment of overweight and obese adults with type 1 diabetes (T1D).

Over the past few years, GLP-1/GIP medications, such as Mounjaro, have transformed the diabetes management landscape through their ability to support weight loss and glucose management. However, these medications



ELIGIBILITY CRITERIA

Carmot Therapeutics is looking for adults (age 18 or older) who:

- Have type 1 diabetes;
- Are generally healthy and do not use tobacco;
- Have an A1C level between 7% to 10%;
- Have been using a CGM for at least 3 months;
- Have a Body Mass Index (BMI) of 27 or greater and have not



Participant Eligibility Screening

The screenshot shows a web browser window with the URL t1dexchange.org/you-have-qualified-for-this-glp-1-gip-study/. The page features the T1D Exchange logo and navigation links: Articles, Community, Quality Improvement, Registry, Research, Partners, More, and a Join / Login button. The main heading is "You may qualify for this study".

Based on your answers, it looks like **you may be eligible to participate in Carmot Therapeutics' GLP-1/GIP clinical trial**. To protect your privacy, we will not share your contact information with the study staff.

If you are interested in participating, **you must contact the clinical trial staff directly**.

Please select the closest location and contact the study staff via the phone or email provided.

AdventHealth	Innovative Research Institute	Rainier Clinical Research Center
301 E. Princeton St Orlando, FL 32804 cfd.tri.recruitment@adventhealth.com 407-303-7193	21942 Edgewater Dr Port Charlotte, FL 33952 Veronica Valle vvt@irius.org 941-505-2100 Ext. 120	800 SW 39th St Suite 110 Renton, WA 98057 Sydney Beyer SBeyer@rainier-research.com 241-625-0040

The screenshot shows a web browser window with the URL t1dexchange.org/thank-you-for-your-interest-in-glp1-gip-study/. The page features the T1D Exchange logo and navigation links: Articles, Community, Quality Improvement, Registry, Research, More, and a Join / Login button. The main heading is "Thank you for your interest".

Thank you again for participating in our survey. Although you did not qualify, we can let you know about future research studies.

Do you want to be notified about other diabetes-related research opportunities? Fill out this form to be notified.

First Name*

Last Name*
Email*

T1D Exchange is committed to protecting and respecting your privacy. You may unsubscribe from these communications at any time. For more information on how to unsubscribe, our privacy practices, and how we are committed to protecting and respecting your privacy, please review our [Privacy Policy](#).

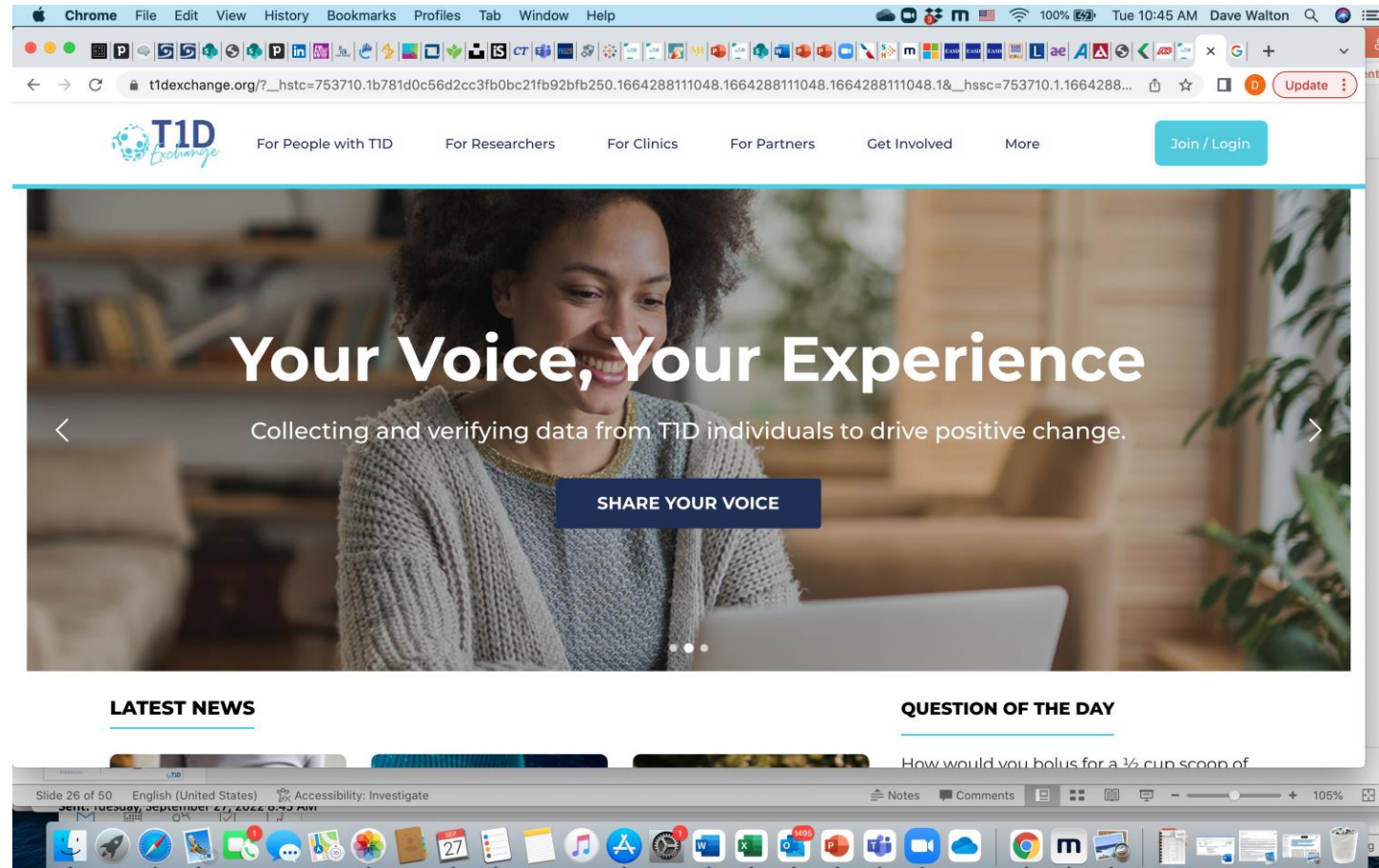
I agree to receive communications from T1D Exchange.

By clicking submit below, you consent to allow t1dexchange.org to store and process the personal information submitted above to provide you the content requested.

protected by reCAPTCHA

Online Community & Resources

- Over 30,000 email addresses (75%+ are T1Ds)
- More than 30,000 social media followers
- Post Question of the Day
- Send/post featured articles on companies, technologies or other relevant diabetes topics
- Provide resources on website (e.g., Automated Insulin Delivery review)
- **Can serve as additional source of T1Ds for study recruiting**



The screenshot shows the homepage of the T1D Exchange website. The browser is Chrome, and the URL is t1dexchange.org. The page features a navigation bar with links for 'For People with T1D', 'For Researchers', 'For Clinics', 'For Partners', 'Get Involved', and 'More', along with a 'Join / Login' button. The main content area has a large hero image of a smiling woman with curly hair looking at a laptop. Overlaid on the image is the text 'Your Voice, Your Experience' and a sub-headline 'Collecting and verifying data from T1D individuals to drive positive change.' Below this is a dark blue button that says 'SHARE YOUR VOICE'. At the bottom of the page, there are sections for 'LATEST NEWS' and 'QUESTION OF THE DAY'. The bottom of the screenshot shows a presentation slide titled 'Slide 26 of 50' and a macOS dock with various application icons.

Looking Forward to 2025

- Expanded data integration (CGM, lab, claims, EMR, other devices)
- More T1D “screening” activities (e.g., awareness building)
- Expanded market research / marketing services
- Expanded study recruiting support (more study pages, digital screeners)
- Building T2D EMR data set
- Stronger collaboration with other diabetes-focused non-profits

T1D Exchange Partners: Non-Industry

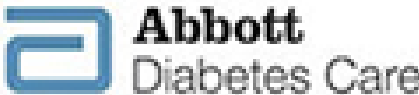
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T1D Exchange Partners: Industry



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