

2022 ANNUAL REPORT



FROM OUR CEO



The year 2022 was T1D Exchange's most productive year to date, building off very strong momentum from 2021. The initiatives and programs that shape our organization are making a real impact and are gaining notable traction in the diabetes community, healthcare space, and the diabetes industry. And we are thrilled to maintain this momentum into 2023.

Our work is thriving, as we continue to operate in a primarily remote fashion, with a passionate team of 36 full-time employees. Our staff is comprised of a unique combination of talented individuals with Ph.D., MD, MPH, MBA, and other graduate degrees working tirelessly in data science, quality improvement, and population health and outcomes research in particular. We also have a significant portion of employees who either live with T1D or have an immediate family member living with T1D, offering additional perspective and passion to our work.

In 2022, the Quality Improvement Collaborative (T1DX-QI) that we manage grew from 41 to 54 diabetes clinics across the U.S., caring for over 100,000 people living with diabetes. We partnered with dedicated clinicians and quality improvement professionals to drive real-world outcome improvement across all participating clinics. Our collective work within the T1DX-QI resulted in 18 articles published across a variety of top medical journals, and 25 abstracts presented at five international conferences. The T1DX-QI has helped drive impact such as increasing the number of people meeting their HbA1c targets, improving mental health screenings, increasing CGM and pump prescriptions, reducing hospitalizations for diabetes ketoacidosis and reducing the frequency of severe hypoglycemic events.

We gather non-identifiable Electronic Medical Record (EMR) data from many of our centers for all the individuals with T1D for whom they provide care. This enables us to continue conducting data-driven research and quality improvement initiatives in a timely manner, benchmarking performance on many important variables. Our work often involves helping centers improve their documentation of key data in the EMR that is relevant to diabetes care, thus contributing to our very large, unique, and high-quality repository of patient-level diabetes data.

The Health Equity Advancement Lab (HEAL), which we initiated in 2021, grew tremendously this year — with significant research highlighting the critical gaps in care for by people of non-white racial and ethnic backgrounds. HEAL leverages expertise from our partners working on front lines of diabetes care, as well as from an advisory board of health equity experts. In 2022, HEAL launched a pilot program and expanded to include those living with type 2 diabetes, quickly shining a bright light on inequitable health disparities for evolution and improvement.

HEAL's research continues to pinpoint dramatic health inequities in prescriptions for new technology, access to new technology, prescriptions for newer types of insulin and medications, likelihood of developing complications, risk of hospitalization, and more. While this work is ongoing, abstracts and publications will be presented throughout 2023 at ATTD, ADA, and elsewhere.

The T1D Exchange Registry — our online registry of information gathered directly from people with T1D or their caregivers — grew remarkably in 2022. The number of individuals participating increased from 12,500 to over 18,000 participants, providing us with extensive data on demographic, treatment, and patient-reported outcome information. Many Registry participants also participate in additional research opportunities we present to them, ranging from virtual market research to in-person clinical research. Our goal is to ensure that recruitment for any research involving those w/ T1D or their caregivers is completed as quickly as possible, which we have accomplished with numerous studies.

We successfully recruited participants for 25 different third-party studies in 2022. These partners included Pfizer Inc., Stanford University, Indiana University, Nemours Health, Xeris Pharmaceuticals, Albert Einstein College of Medicine, Eli Lilly & Co., JDRF, Wayne State University, and more. Our work to support these studies combines a variety of efforts including revising the marketing messaging, creating graphics, sending recurring recruitment emails, and our newest feature — recruiting via text message.

The number of individuals in the Registry who linked their continuous glucose monitor (CGM) data via the cloud to their Registry online accounts also increased from 1,200 to about 1,800 for two different studies. This ongoing data project continues to fuel research endeavors in 2023 and beyond, using discrete CGM data and associated metrics, such as time-in-range, to explore a wide array of research topics.

Our Outcomes Research team took on an impressive variety of in-depth projects on topics including using emergency glucagon to treat severe hypoglycemia, fear of hypoglycemia, attitudes about autoantibody screening, and experiences with CGM adhesives. This work contributes to real-world developments in treatments for hypoglycemia, mental healthcare for hypoglycemia, increasing awareness and education on autoantibody screening, and the design of adhesives for today's diabetes technology.

None of this would be possible without the generous funding we've received from The Helmsley Charitable Trust, funding nearly 50 percent of our collective work, and enabling us to further our mission of improving outcomes for all those with T1D through real-world collaborative change. I would also like to thank the employees of T1D Exchange who worked diligently throughout the year to deliver these results. And lastly, a tremendous thank you to the individuals, providers, and researchers in industry and academia who also make all our work possible.

David Walton, CEO
T1D Exchange



EXECUTIVE SUMMARY

OUR GROWTH AND PRODUCTIVITY IN WORK THAT IMPROVES LIFE FOR PEOPLE WITH T1D IN 2022 WAS SIGNIFICANT.

HERE IS A GLIMPSE WHAT WE ACCOMPLISHED LAST YEAR:

- Growth of the Quality Improvement Collaborative from 41 to 54 clinic sites, supporting over 85,000+ people with T1D and 20,000 people with T2D
- Supported 90+ active research studies across 54 clinic sites
- Published 18 peer reviewed articles across top medical journals
- Presented 25 abstracts across five conferences
- Launched a pilot program focused on type 2 diabetes
- Surpassed over 18,000 participants with data in our Registry
- Received an average of 427 responses per day to our Question of the Day — 32% more than 2021
- Received 543 responses to our most-answered question of the year
- Recruited third-party study participants for five universities and 20 organizations
- Promoted dozens of research studies for a variety of partners throughout the diabetes industry including JDRF, Jaeb Center for Health Research, Vertex Pharmaceuticals, Eli Lilly & Co., Dexcom, Inc., Xeris Pharmaceuticals, and more

We are proud of the work we accomplished in 2022 and eager to see our potential in 2023.



RESEARCH THAT MAKES A DIFFERENCE: OUR IMPACT IN 2022

In 2022, T1D Exchange continued to demonstrate our ability to recruit high quality participants for a broad range of research.

Research through our Registry, Custom Research, and Quality Improvement Collaborative was presented via dozens of presentations at national and international conferences. We successfully recruited participants from our Registry, our Online Community, our following on social media, and the 54 participating clinics within T1DX-QI.

Our ability to successfully design, populate, facilitate, and publish research is indisputable. Here is a glance at the variety of research our extensive recruitment efforts made possible:

- Investigating diabetes distress in adults using CGMs
- Emotional burden of hypoglycemia in children on parents
- Comparing real-time vs. flash CGMs in T1D management
- Developing screening tool for fear of hypoglycemia
- Real-world providers focus groups on fear of hypoglycemia screening tool
- Surveying people with T1D, caregivers, and relatives about their attitudes on autoantibody screening
- Surveying healthcare providers to understand barriers of autoantibody screening
- Understanding experiences of severe hypoglycemia and impact of nasal glucagon
- Surveying patients on CGM adhesives
- Impact on HbA1c when switching from BGM to CGM
- Investigating automated insulin delivery use in T1D management
- Impact of socioeconomic status and health insurance on HbA1c
- Identifying barriers to using smart insulin pens
- Reducing DKA with closed-loop insulin pumps
- Reducing severe hypoglycemia with closed-loop insulin pumps
- Increasing CGM use in underserved patients
- Investigating factors that influence HbA1c results
- Investigating factors that worsen diabetes care

This work, step by step, strives to improve outcomes and quality of life for people with T1D.

CHANGING PATIENT CARE: THE T1D EXCHANGE QUALITY IMPROVEMENT COLLABORATIVE

Launched in 2016 with the support of The Leona M. and Harry B. Helmsley Charitable Trust, the T1D Exchange Quality Improvement Collaborative (T1DX-QI) works to refine best practices and improve the quality of care and outcomes for individuals living with T1D. This work is growing rapidly — with 54 endocrine clinics from across the U.S. now participating in the Collaborative, caring for over 100,000 people with diabetes. — including 20,000 with type 2 diabetes (T2D).

The T1DX-QI is comprised of thought leaders, clinicians, people living with T1D, industry partners, and other key stakeholders. Participating members share institution-based EMR data using the T1DX-QI portal, engage in targeted change, and measure QI outcomes. Successful, innovative approaches are shared broadly, improving the delivery of care, and in turn, the lives of individuals living with T1D.

What is the T1DX-QI trying to accomplish? T1D Exchange's Chief Medical Officer and VP of Quality Improvement, Osagie Ebekozien, MD, MPH, CPHQ, points to the following questions that should influence every part of this work:

- Do we have the right kind of data to drive real-world improvements?
- Are we making the best decisions based on available data?
- How can we improve clinical and population health outcomes?
- Are outcomes equitable?

Since its creation, the T1DX-QI has accomplished a variety of impactful work, including:

- Currently supporting 90+ active projects striving to improve patient care
- Launched a pilot program to serve the type 2 diabetes population in 2022
- Published research in over 40 top medical journals since 2019
- Shared 70+ presentations at international conferences
- Active international collaborations

- Expanded the Health Equity Advancement Lab (HEAL) program
- Mapped data at 16 participating centers with 29 total in 2022
- Improved overall HbA1c trends across all participating clinics
- Published 18 manuscripts in 2022
- Presented 25 abstracts at five international conferences in 2022

In a disease as complex as T1D — with rapidly changing tools and medications available to manage it — the potential benefits of working collaboratively are limitless — particularly for those living with T1D.

The real-world changes that can result from collaborative work across multiple endocrinology clinics are greater than we can convey in one publication. Just as getting through the day with T1D comes down to dozens of micro-decisions, so does support and caring for people with T1D in a clinical setting.

The T1DX-QI creates the ultimate environment for providers to identify and improve any area of patient care.

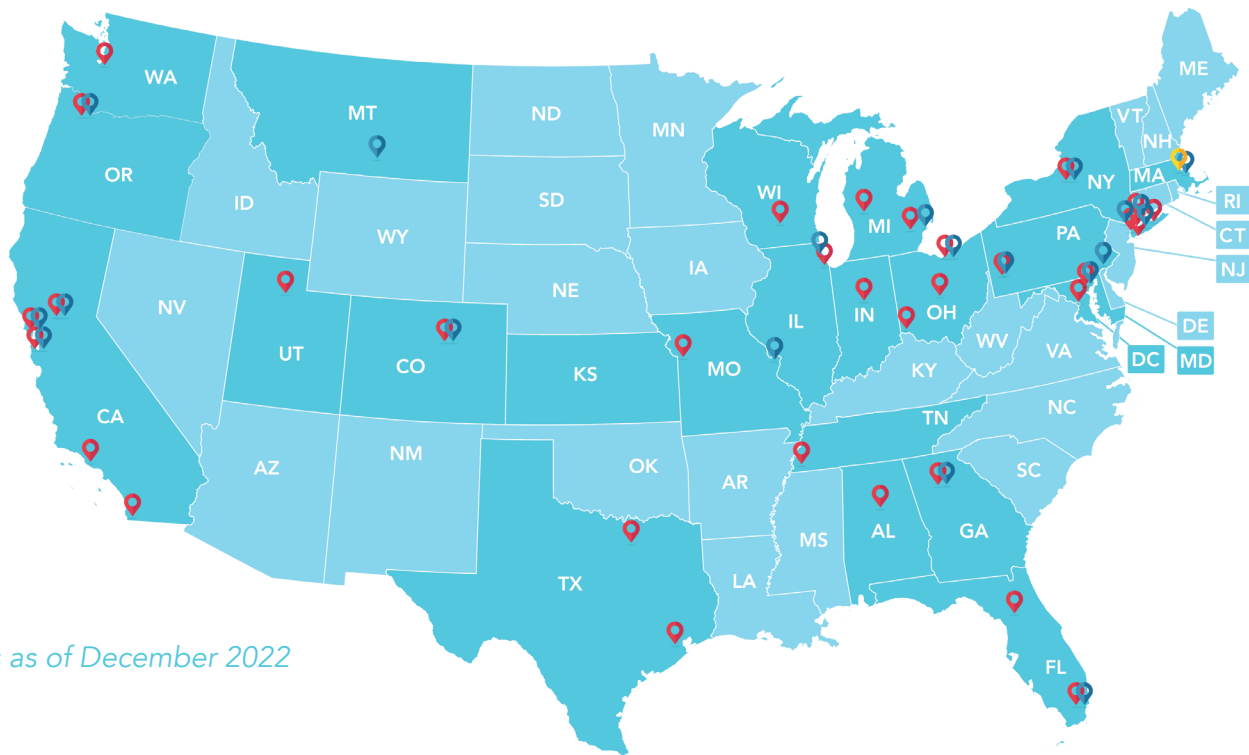
“We are very thankful for the continued support of the Helmsley Charitable Trust, our other partners, and the practitioners putting their hearts into improving diabetes care,” explained David Walton, CEO, MBA.



T1DX-QI CLINICS

Albert Einstein College of Medicine
Ann & Robert H. Lurie Children's Hospital of Chicago, Pediatric Endocrinology
Barbara Davis Center for Diabetes, Adult Clinic
Barbara Davis Center for Diabetes, Pediatric Clinic
Boston Medical Center
Children's Healthcare of Atlanta, Pediatric Endocrinology
Children's National
Children's Hospital Los Angeles, Endocrinology, Diabetes and Metabolism
Children's Mercy Kansas City, Childhood Diabetes Center
Cincinnati Children's Endocrinology
Cleveland Clinic, Adult Endocrinology
Cleveland Clinic, Pediatric Endocrinology
Cohen Children's Northwell Health, Pediatric Endocrinology
Cook Children's, Endocrinology
Grady Memorial Hospital
Indiana University School of Medicine, Pediatric Endocrinology
The Johns Hopkins Hospital, Adult Endocrinology
The Johns Hopkins Hospital, Pediatric Endocrinology
Le Bonheur Children's Hospital, Diabetes and Endocrinology
Mount Sinai, Children
Mount Sinai, Adults
Nationwide Children's, Endocrinology
Northwestern Medicine
NYU Langone Health, Center for Diabetes & Metabolic Health
Hassenfeld Children's Hospital at NYU Langone
NYU Langone Hospital—Long Island
Oregon Health and Sciences University Adult Endocrinology
Oregon Health and Sciences University Pediatric Endocrinology
Penn Medicine, Penn Rodebaugh Diabetes Center
Rady Children's Hospital San Diego, Endocrinology / Diabetes
Seattle Children's, Endocrinology and Diabetes
Spectrum Health, Helen DeVos Children's Hospital, Pediatric Diabetes
Stanford Children's Health, Lucille Packard Children's Hospital
Stanford Health Care, Endocrinology Clinic

Texas Children's Hospital, Diabetes and Endocrinology
 UF Health Pediatric Endocrinology
 University of Alabama at Birmingham
 University of California Davis Health, Adult
 University of California Davis, Pediatrics
 University of California, San Diego, Adult Clinic
 University of California, San Francisco, Adult Clinic
 University of California, San Francisco, Pediatric Clinic
 University of Miami Health System, Endocrinology, Diabetes and Metabolism
 University of Miami Health System, Endocrinology, Diabetes and Metabolism, Pediatric Endocrinology
 University of Michigan, C.S. Mott Children's Hospital, Pediatric Diabetes
 University of Pittsburgh, Adult Clinic
 University of Pittsburgh, Pediatric Clinic
 University of Utah, Intermountain Healthcare, Pediatrics
 Upstate University Hospital, Joslin Diabetes Center, Adult Endocrinology, Diabetes and Metabolism Program
 Upstate University Hospital, Joslin Diabetes Center, Pediatric Endocrinology and Diabetes
 University of Wisconsin
 Washington University, St. Louis, Missouri
 Wayne State University Endocrinology
 Weill Cornell Medicine, Pediatric Endocrinology



Clinics as of December 2022

 Pediatric
  Adult
  T1D Exchange HQ

T1DX-QI PUBLISHED RESEARCH IN 2022

Here are highlights from just six of the 18 published manuscripts from the T1DX-QI in 2022. This work was presented at multiple conferences around the world — including ADA 2022, ATTD 2022, ADCES 2022, and ISPAD 2022.

Using Real World Data and Quality Improvement to Advance Diabetes Outcomes

[Diabetes Journals](#)

“Individuals with type 1 diabetes may struggle with diabetes management at various times throughout their lives because of physiological and psychosocial changes,” explains the study. “Identifying factors associated with optimal diabetes management can provide opportunities for health care teams to implement real-time changes for improvement.”

Facilitators and Barriers to Smart Insulin Pen Use

[Clinical Diabetes](#)

“High-impact barriers included insurance coverage and prescribing processes; high-impact facilitators included improved diabetes clinic visit quality and use of SIPs as an alternative to insulin pump therapy,” explains the study. “Findings indicated the need for provider and care team education and training on proper SIP features, use, and prescribing.”

Factors Associated with Improved Hemoglobin A1c Among Adults with T1D in the U.S.

[Clinical Diabetes](#)

“Many adults with diabetes do not reach optimal glycemic targets, and, despite advances in diabetes management, diabetes technology use remains significantly lower in racial/ethnic minority groups,” explains the study. “Individuals attaining the target A1C were more likely to be older, White, have private health insurance, and use diabetes technology and less likely to report depressive symptoms or episodes of severe hypoglycemia or diabetic ketoacidosis than those with higher A1C levels. These findings highlight the importance of overcoming inequities in diabetes care.”

Factors Associated with Achieving Target HbA1c in Children and Adolescents with Type 1 Diabetes

[Clinical Diabetes](#)

“The optimal care of type 1 diabetes involves consistent glycemic management to avoid short-and long-term complications,” explains the study. “However, despite advancements in diabetes technology and standards, achieving adequate glycemic levels in children and adolescents remains a challenge. This study aimed to identify factors associated with achieving the recommended A1C target of <7% from the United States–based multicenter T1D Exchange Quality Improvement Collaborative cohort, including 25,383 children and adolescents living with type 1 diabetes.”

Hybrid Closed Loop Systems and Glycemic Outcomes in Children and Adults with Type 1 Diabetes

[Diabetes Journals](#)

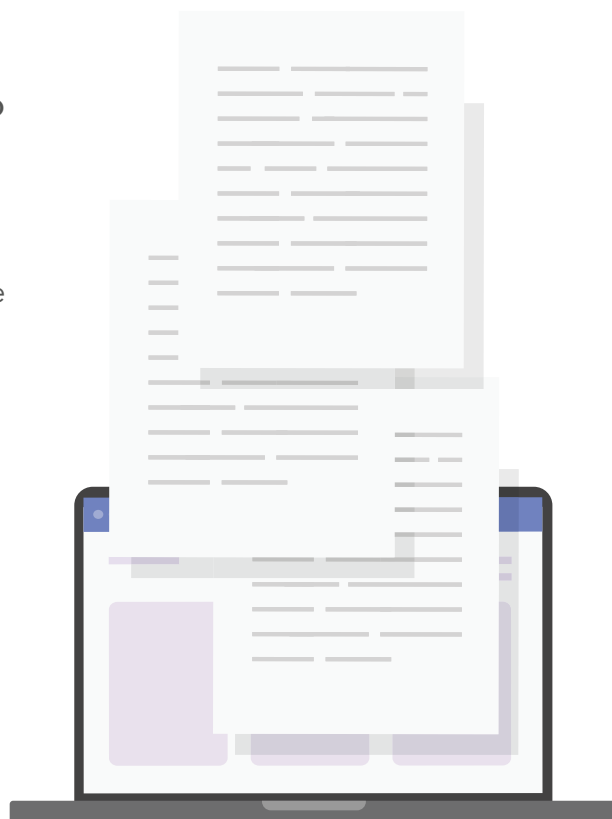
“Increasing evidence demonstrates the benefits of new diabetes technologies, including insulin pumps and continuous glucose monitors (CGM), for glycemic management in people with type 1 diabetes (T1D),” explains the study. “In addition to the independent use of these technologies, hybrid closed-loop systems (HCLS), which combine insulin pumps and CGM with a closed-loop algorithm controller to automate insulin delivery, can improve glucose levels. This study compared glycemic outcomes in users of HCLS with those of users of insulin pumps and CGM without automated insulin delivery and those using multiple daily insulin injections (MDI) with CGM in youth and adults with T1D.”

Implicit Racial-Ethnic and Insurance Mediated Bias to Recommending Diabetes Technology

[Diabetes Technology and Therapeutics](#)

“Despite documented benefits of diabetes technology in managing type 1 diabetes, inequities persist in the use of these devices,” explains the study. “Provider bias may be a driver of inequities, but the evidence is limited. Therefore, we aimed to examine the role of race/ethnicity and insurance-mediated provider implicit bias in recommending diabetes technology. Provider implicit bias to recommend diabetes technology was observed based on insurance and Race/Ethnicity in our pediatric and adult diabetes provider cohort. These data raise the need to address provider implicit bias in diabetes care.”

Thank you to the dedicated care and expertise of our participating clinics — this work continues to improve life for people with T1D!



PAVING THE WAY IN DIABETES HEALTH EQUITY RESEARCH

In 2022, the Health Equity Advancement Lab (HEAL) dug deeper into the differences in care and quality of life for different groups of people with T1D — particularly for those of BIPOC ethnic and racial groups.

This work has inevitably established T1D Exchange as one of the leaders in diabetes health equity research, shining a critical light on severe inequities in care.

“We are still very far from where we should be in caring for people with diabetes,” said Chief Medical Officer, Osagie Ebekozien, MD, MPH, CPHQ. “In part because the issues of health equity, including structural and systemic racism, are so ingrained into our system.”

So far, research within the HEAL program has found that people with T1D of non-white populations are:

- Less likely to be prescribed a continuous glucose monitor (CGM)
- Less likely to be prescribed an insulin pump
- Less likely to receive education regarding newer diabetes technology
- Less likely to have access to CGM and insulin pump technology
- Less likely to be prescribed newer types of insulin and glucagon medications
- More likely to develop complications including neuropathy, retinopathy, and nephropathy
- More likely to be frequently hospitalized for severe hypoglycemia
- More likely to be frequently hospitalized for diabetes ketoacidosis (DKA)
- More likely to be hospitalized due to COVID-19
- More likely to die from COVID-19

The first step, in 2021, was determining what health inequity looks like. The next step, in 2022 and beyond, is working to change it.

The HEAL program operates within T1D Exchange’s Quality Improvement Collaborative (T1DX-QI) with its own [advisory committee](#). Comprised of 20 clinical healthcare professionals that work with clinics across the country, the HEAL program uses a multi-pronged approach to address the many systemic factors contributing to health inequities in T1D care.

“We see biases in a number of places in healthcare, and so when we see the stark inequities in technology use, especially in Black and Hispanic T1D patients when compared with white T1D patients, it’s definitely a factor worth examining,” explained Ann Mungmode, MPH, CPHQ, Quality Improvement Program Manager at T1D Exchange.

“There are multiple strategies because inequities can occur due to individual or interpersonal reasons, institutional practices and systems, and structural elements that exist in society,” explained Mungmode.

While the list of areas to tackle may seem overwhelming, the HEAL program is already making a direct impact on the lives of people with T1D.

By combining clinical health outcomes (including A1c levels, complications, etc.) with real-world data, the HEAL program has begun addressing health inequity through a variety of avenues. Truly improving the care BIPOC racial and ethnic groups receive requires change across many different levels in the healthcare system — starting with every healthcare provider’s potential bias and prejudice.

Since its inception, the T1D Exchange Diabetes Technology Equity Project has:

- Provided custom bias training for more than 200 providers to identify, prevent, and change prejudice in healthcare

- Increased rates of CGM access from 50% to 82% of patients ages 2+ at one diabetes clinic

- Reduced disparity in CGM access for Non-Hispanic Whites and Non-Hispanic Blacks from 18% to 6%

- Reduced CGM disparity by 3% for Hispanics compared to Non-Hispanic Whites, averaged over six clinics

- Published an article on T1D Exchange Equity project in the Journal of Diabetes

This research continues the call for interventions that decrease racial/ethnic inequities in diabetes care among people with type 1 diabetes. T1D Exchange is an innovative leader in addressing diabetes health equity and has delivered real world results using quality improvement principles to address health inequities in T1D.



HEAL'S PUBLISHED RESEARCH IN 2022

The following are a handful of studies produced by the HEAL program in 2022.

Differences in A1c levels based on race and ethnicity

HEAL determined difference in A1c levels among 36,390 children and adults with T1D who were followed from 2016 to 2021:

- Non-Hispanic White: Decrease from 8.5% in 2016 to 8.2% in 2021
- Hispanic: Remained stable from 9.0% in 2016 to 8.9% in 2021
- Asian: Remained stable at 8.4% in both 2016 and 2021
- Non-Hispanic Black: Increased from 9.6% in 2016 to 9.9% in 2021

Insulin pump use based on race and ethnicity

HEAL determined the following differences in pump use based on race and ethnicity:

- Non-Hispanic White: 45% use insulin pumps
- Non-Hispanic Black: 17% use insulin pumps
- Hispanic: 26% use insulin pumps

CGM use based on race and ethnicity

HEAL determined the following differences in CGM use based on race and ethnicity:

- Non-Hispanic White: 58% use CGMs
- Non-Hispanic Black: 49% use CGMs
- Hispanic: 48% use CGMs

Improving provider bias and prescribing habits with targeted interventions

HEAL developed targeted interventions in clinical settings to address provider biases that influence who receive prescriptions for CGM technology. These interventions included CGM equity awareness, staff training, and workflow efficiency to substantially increase CGM prescription rates in underserved populations.

Improving access to CGMs for high-risk patients

HEAL defined the existing process—with feedback from patients, caregivers, and staff—to better understand and identify disparities in CGM prescribing and insurance coverage for publicly insured patients. This patient group also faces a higher risk of developing diabetes-related complications and difficulty reaching blood glucose targets. Interventions included increasing provider awareness of CGM insurance coverage and prescribing habits, reducing disparities in CGM coverage for publicly insured patients, and providing access to CGM devices during clinic visits.

CGM prescriptions and provider's bias based on a patient's insurance coverage

HEAL determined that a patient's insurance provider was a significant factor in whether or not they recommended and prescribed CGM technology. Insurance coverage also proves to play a significant role in a patient's A1c and other diabetes-related health outcomes.

Providers prescribing habits based on a patient's name

HEAL determined that a significant percentage of providers held an implicit bias when prescribing diabetes technology. Patients with English-sounding names received recommendations and prescriptions for diabetes technology more frequently than patients with ethnic-sounding names.



LEARNING SESSIONS 2022: MIAMI, FL

The T1D Exchange Quality Improvement Collaborative (T1DX-QI) Learning Session event 2022 took place in Miami, FL, on November 7 and 8: "T1DX-QI 52 Centers Strong: Implementation and Advocacy for Change."

Members from participating endocrinology clinics across the country came together to share insights on improving the care provided to people with diabetes — with the goal of improving quality of life and overall health.

Here is a handful (out of dozens) of the impactful quality improvement research presented at our Learning Session event in 2022 (*next page*):



Interventions to Improve Technology Equity in Young Adults (YA) with Type 1 Diabetes

Presenter: Priyanka Mathias, MD

Albert Einstein College of Medicine and Montefiore Medical Center

Young adults are the fastest growing population with T1D, explains this research. This population also has the lowest rate of using diabetes technology despite the benefits. Compared to other age groups with T1D, young adults have:

- Higher HbA1c levels
- Higher hospitalization rates
- Higher psychiatric comorbidity
- Higher risk of mortality

Despite adjusting for social and economic factors, the disparities in technology use in the young adult population are significant. This research established a goal of examining technology use in patients aged 18 to 35 years old from January 2019 to December 2021.

Participant ethnicities were:

- 55% Hispanic
- 22% Non-Hispanic Black
- 10% White
- 13% Other/unknown

This research focused on addressing those disparities using the SEAD model of care:

- Talk directly to patients
- Equity focus
- Manage expectations
- Build people up, emphasize positives
- Manage negatives
- Avoid doomsday talk

Overall, using the SEAD model of care significantly increased CGM usage rates in young adults with T1D:

- Overall increase: 31% to 69%
- Hispanic increase: 12.5% to 71%
- Non-Hispanic Black increase: 33% to 55%
- White increase: 33% to 75%

This research concluded that it's very possible to increase CGM usage in the young adult population but requires a more intentional effort.

Increasing Frequency of Clinic Visits among Medicaid Insured Children and Adolescents with Type 1 Diabetes

Presenter: Carla Demeterco-Berggren, MD, MPH
Rady Children's Hospital and University of California, San Diego

This research aimed to improve the frequency of clinic visits in youth with T1D on Medicaid. There is a known relationship between frequent clinic visits and achieving target HbA1c levels. While the recommendation is clinic visits once every three months, only about 50% of patients on Medicaid meet this frequency.

Using electronic health records, they identified patients with Medicaid, identifying these ethnicities and racial groups:

- 53% Hispanic
- 16% African American
- 3.2% Asian
- 11% refused to identify
- 16.1% White

Interventions to increase clinic visit frequency include:

- Monthly diabetes dashboard review
- Care navigator outreach
- Provider engagement
- Rescue visits slots added to NP schedule
- Care navigator appointment reminder calls
- Health maintenance created in the EHR
- Diabetes RN champion outreach call

This study is ongoing and has not collected results at this time.



A Program to Decrease Diabetic Ketoacidosis (DKA) Admissions: Diabetes Wellness Program (DWP)

Presenter: Pediatric Diabetes Program, Roberto Izquierdo, MD
Upstate Golisano Children's Hospital, Joslin Diabetes, and Upstate Medical University

Pediatric DKA admissions have risen by 40% in the US with the most vulnerable groups at the highest risk. This research focused on reducing DKA admissions in pediatric patients with T1D through the Diabetes Wellness Program (DWP).

- Hospital charges per DKA admission have increased from \$14,548 to \$20,997
- Length of hospital stay has decreased from 2.5 to 2.2 days
- Patients with frequent ER visits have an average HbA1c over 14%

For patients ages 8 to 21 years old with multiple DKA admissions, the following process taking place over the course of six weekly phone calls is proposed:

- Ensure usage of MyChart
- Keep BG low or download device data
- Set SMART goals
- Assess the need for nutritional support
- Review ketone testing and sick-day education
- Review hypoglycemia protocol: use of glucagon, checking BG frequently, driving safety guidelines
- Review physical activity and BG management education
- Review technology, blood sugar patterns, making small adjustments, establishing routines
- Increase education on independent insulin dose adjustments
- Discuss long-term habits for long-term success
- Discuss "after-hours" game

77% of the participants who completed this program significantly improved their quality-of-life scores based on results from the pre- and post-admission surveys.

100% of participants reported that the DWP helped them:

- Prevent future DKA admissions
- Improve overall quality of life
- Feel more confident in diabetes management

This program is proving effective in reducing DKA hospitalizations.

Supporting Successful Health Care Transition from Pediatric to Adult Diabetes Care

Presenter: Faisal Malik, MD, MSHS, Sarah Corathers, MD

Seattle Children's Research Institute and University of Washington School of Medicine, Cincinnati Children's Hospital and University of Cincinnati Department of Pediatrics

With the goal of transitioning pediatric patients with T1D to adult diabetes care, this research aimed to identify a successful timeline and necessary support. This is a critical timeframe when patient care can suffer due to a lack of transition support and process.

- Over 70% of pediatric clinics have a formal transition policy.
- Over 40% of adult clinics were unsure if they had a formal transition policy.
- Less than 40% of pediatric clinics said their transition policy was created with input from patients.
- Less than 40% of pediatric clinics use a transition readiness patient questionnaire.
- Only 27% of pediatric clinics have a process in place to complete the transfer of care.

Depending on the patient's individual diabetes education and management habits, this transition can begin anywhere between 14 to 21 years old, based on success from the Adolescent and Young Adult Diabetes (AYA) program from University of Washington State School of Medicine (UWMDI).

Factors to consider throughout the transition of pediatric to adult care include:

- A clinic's transition and care policies
- Tracking and monitoring patient's health data
- Reflecting on each individual patient's transition readiness
- Planning that transition ahead of time and discussing with patient
- The actual transition to adult care
- Confirming transfer completion between clinics

The providers on any successful transition team should include:

- Endocrinologist
- Dietician
- Social worker
- Diabetes educator
- Psychologist

The AYA program proposes using their Diabetes Program Registry READDY questionnaire to assess readiness and monitor the transition process for every patient.

Technology, Device Use, and TIR/A1C Targets

Presenters: Nudrat Noor, PhD, MPH, Mark Clements, MD, PhD, and Francisco Pasquel, MD, MPH (virtual), Children’s Mercy Kansas City Hospital and University of Missouri-Kansas City School of Medicine

This research focused on the impact of diabetes technology on HbA1c levels and time-in-range (TIR). Cohort details include:

- 1,867 participants
- Median HbA1c level: 8.1%
- 728 were eligible for depression screening / 452 successfully screened
- 79% used a CGM
- 7.2% of non-CGM users checked blood sugar at least 4x per day
- 68.8% used an insulin pump / 30.3% on multiple daily injections
- 99.1% were effectively administering daily insulin
- HbA1c levels correlate closely with the “Six Habits” of diabetes self-management:
- Using a CGM or checking blood sugar at least 4x per day with glucometer
- Giving at least 3 rapid-acting boluses per day
- Using an insulin pump
- Delivering mealtime insulin before meals
- Reviewing glucose data at least once between clinic visits
- Self-adjusting insulin doses at least once between clinic visits
- **(Future habit to propose when ready: Improving overall diet)**
- **(Future habit to propose when ready: Increase daily physical activity)**

The average HbA1c of patients engaged in all six habits = 8%. Patients with the fewest habits had average HbA1c levels around 12%.



2022 T1DX-QI AWARDS

Joining the T1DX-QI is a commitment, calling for both time and persistence from the staff within every participating clinic who are devoted to making it a priority.

In 2022, we honored the following individuals and clinics for their contributions to making the program a successful effort in improving the lives of people with T1D.

Outstanding Adult & Pediatric Principal Investigator

This award recognized a Principal Investigator (PI) who has gone above and beyond in their leadership, QI methodologies, and population health research across the collaborative. This past year we recognized two PIs, one in pediatric endocrinology and another in adult endocrinology, who have been exceptional in mentoring other faculty members, leading scholarly initiatives, and impacting patient lives through QI and Population Health projects in the T1DX-QI.

Francesco Vendrame, MD, PhD (Adult)

University of Miami Health System

"I'm very honored by this award recognizing my work done with the T1DX Collaborative. It's exciting being part of such a tremendous initiative able to accelerate improvements and equity in care for people with type 1 diabetes."

Faisal Malik, MD, MSHS (Pediatric)

Seattle Children's Hospital
University of Washington

"I am so honored and humbled to receive the Outstanding Pediatric Principal Investigator award. I believe it is our obligation to help individuals with T1D live the best lives they can and feel incredibly fortunate to be part of the T1DX-QI community."

Outstanding Team (Adult & Pediatric)

This award recognizes well-rounded teams with diverse team roles, good camaraderie, and the ability to scale QI work in their organization. The team continues working at its highest capacity, supporting peer sites, and inspiring others to track necessary diabetes device measures that support better diabetes outcomes.

Le Bonheur Children's Hospital (Pediatric)

"We are grateful to be part of the T1D exchange QI consortium and somewhat overwhelmed to get this recognition amidst such an amazing group of people working together. We also couldn't have done any of it without the support from our entire clinic staff."

Boston Medical Center (BMC) (Adult)

"The BMC adult diabetes team appreciates this award of recognition for the work we all do every day in our respective clinics – striving to make a meaningful impact in the lives of people living with T1D."

Outstanding QI Champion

This award recognizes a QI Champion who has gone above and beyond in program engagement, supporting the team's QI and population health project, data sharing, and active contribution to the T1DX-QI's overall success.

[Jeniece Ilkowitz RN, MA, CDCES](#)

Hassenfeld Children's Hospital
NYU Langone

"Through our center's partnership with the T1D Exchange, I have learned so much about performing quality improvement work, the amazing efforts being done at other centers, and about our patients here at NYU."

The Nicole Riales Outstanding Parent/Patient Advocate

This award recognizes the dedication, hard work, and passion of a T1D Exchange Patient/Parent Advocate. In 2021, we celebrated an exceptional leader who has been remarkable in supporting families through advocacy and driving improvements in health outcomes for those living with T1D.

[Emily DeWit, MASL](#)

"I truly appreciate how patient and parent voices are intentionally and thoughtfully woven into all of the meaningful work of the T1D Exchange."

Congratulations to these outstanding members of the T1DX-QI! We are so grateful for your dedication to improving the lives of people with type 1 diabetes.



CONGRATULATIONS, OSAGIE EBKOZIEN, MD: WINNER OF THE 2022 “LEONARD AWARD”

Congratulations to the [2022 winner of the Leonard Award](#) — our very own Osagie Ebekozién MD, MPH, CPHQ, CMO! Dr. Ebekozién is the recipient of the Researcher category, selected from an impressive group of fellow researchers.

“I am deeply honored to receive the 2022 Leonard Award,” said Dr. Ebekozién. “I dedicate this award to my village of support including my family, team, co-investigators, and everybody impacted by diabetes.”

This award from Lilly Diabetes was named after [Leonard Thompson](#) — the first person with type 1 diabetes to receive an injection of insulin in 1922. Leonard was 14 years old. He lived for another 13 years thanks to this breakthrough in medical history.

Through four recipients in different categories, Lilly Diabetes donates a total of \$100,000 to [Life for a Child](#) — a critical program working to get insulin to children across the globe who struggle to access it but depend on it for survival.

Dr. Ebekozién’s work in developing and leading the T1D Exchange Quality Improvement Collaborative (T1DX-QI) and the Health Equity Advancement Lab (HEAL) program has led to an outstanding amount of research. Ongoing research within the T1DX-QI is designed to improve the quality and efficacy of healthcare provided to all people with T1D.

Dr. Ebekozién added that he is both humbled and energized by the Leonard Award, inevitably fueling his drive to do more. T1D Exchange is immensely grateful for the passion and expertise he brings to every part of this work and for the immeasurable impact it has on the lives of people with diabetes.





USING OUR METHODS TO IMPROVE TYPE 2 DIABETES CARE

Our ability to develop and facilitate research that improves care and life with diabetes is no longer limited to T1D. In 2022, we utilized the same methodologies and systems in the T1DX-QI to launch our type 2 diabetes (T2D) pilot program.

The T1DX-QI currently reaches 20,000 patients with T2D — with rapid growth expected throughout 2023.

Here is a glimpse of the research conducted in 2022 supporting cardiovascular health in people with T2D at two clinics: Stanford Primary Care and SUNY Endocrinology through the T1DX-QI:

- **Impact of screening for social determinants of health (SDOH):** This program introduced using a screening tool to assess a patient's SDOH. The incorporation of this tool aimed to ensure HCPs properly address a patient's SDOH because related issues can directly affect diabetes health — including access to food, dependable transportation, and secure housing.
- **Increase the prescribing of medications to improve cardiovascular health for eligible patients:** Using an established workflow, this program works to increase the number of patients eligible to receive cardiovascular-protective medications and education related to those medications. This focused predominantly on SGLT2 inhibitors and GLP-1 agonists — both of which are rapidly becoming first lines of defense in treating T2D. It also included increasing access and medication treatments for statin use for patients with hyperlipidemia and ACE inhibitors and ARBs for patients with hypertension.

Results:

- Within seven months, both sites successfully screened a total of 6,515 patients by implementing the SDOH screening tool into their standard patient workflow.
- Depression screenings increased by 34%.
- Prescriptions for SGLT-2 inhibitors and GLP-1 agonists increased by 18%.

What's next?

The pilot effort expanded in 2022, and will continue through 2024, focusing on areas such as increasing the percentage of patients with T2D who have access and use CGMs as well as increasing the number of clinics participating in interventions to increase access, education, and prescribing of cardiovascular protective medications. This work in T2D is early but exciting, and we anticipate tremendous progress in facilitating T2D care improvement in 2023.





T1D EXCHANGE REGISTRY EXCEEDS 18,000 PARTICIPANTS

We ended the third full year of open Registry enrollment with over 18,000 participants. We want to thank our participants and hope to continue growing this incredible cohort in 2023.

The Registry — t1dregistry.org — is a long-term T1D research study for which participants volunteer to provide their self-reported data for research. Participants are asked to take a brief questionnaire. The Annual Questionnaire provides insight into changes year-to-year, allowing researchers to analyze data over time, helping them to explore disease management and progression, blood glucose management, and the utilization of health services, for example.

Once Registry participants have completed the initial questionnaire, they can sign up for other T1D-related studies that are tailored to the information the individual provided. For example, if a study needs people with T1D in a particular geographic area or in a specific age group, we notify Registry participants who meet the inclusion criteria for that study.

By utilizing their T1D Exchange Registry dashboard, participants can view all applicable online and in-person surveys or studies. The Registry helps connect researchers directly to thousands of people with T1D who are excited to contribute to research.

Participating in research through the T1D Exchange Registry allows individuals to contribute to meaningful scientific work that is incredibly helpful for T1D researchers who may otherwise have difficulty finding eligible participants.

“This has been an important year for the T1D Exchange Registry. We are continuing to grow our dataset thanks to engaged participants. We’ve shared snippets of our insights with participants and look forward to sharing the results at large with the T1D community,” said Wendy Wolf, PhD, Vice President of the T1D Exchange Registry and Outcomes Research.

By reducing barriers to research participation, we are proud to say that we have connected over 4,400 participants to T1D studies this year. In 2022, we’ll have a heightened focus on annual data collection, which is critical to understanding trends in diabetes management and outcomes.

Our Annual Questionnaire is part of what makes the Registry so impactful. We received 9,182 completed responses in 2022 — nearly three times the responses in 2021. It provides insight into how T1D management can change year to year, allowing researchers to look at this chronic disease longitudinally.

GETTING TO KNOW OUR REGISTRY: PARTICIPANTS STATS & FACTS

With over 18,000 participants, we gathered many new and valuable voices in the Registry. Here are a few interesting facts about our Registry participants:

What's their relationship with T1D?

- 15,248 participants live with T1D
- 2,841 participants parent a child with T1D

Who uses an insulin pump?

- 53% of Children (< 13 years old)
- 64% of Teens (aged 13-17 years old)
- 66% of Young Adults (aged 18-26 years old)
- 68% of Adults (aged 27-39 years old)
- 68% of Middle Adults (aged 40-65 years old)
- 69% of Older Adults (>65 years old)

Who experiences anxiety or depression?

- 8% of Children (< 13 years old)
- 20% of Teens (aged 13-17 years old)
- 57% of Young Adults (aged 18-26 years old)
- 58% of Adults (aged 27-39 years old)
- 54% of Middle Adults (aged 40-65 years old)
- 33% of Older Adults (>65 years old)

What type of health insurance plan do they have?

- 69% have private insurance
- 14% have Medicare
- 14% have Medicaid

What types of diabetes complications are they living with?

- 25% have been diagnosed with at least one diabetes-related complication
- 16% have one or more eye diseases (retinopathy, cataracts, glaucoma, diabetes macular edema)
- 10% have peripheral neuropathy
- 9.2% have gastroparesis
- 3.5% have nephropathy

Who lives with other autoimmune conditions common in people with T1D?

- 13.1% live with Hashimoto's or Grave's disease
- 4.5% live with Celiac Disease



RESEARCH FROM THE REGISTRY

The Registry's Core and Annual questionnaires provide some valuable insights into how participants are managing their T1D. As part of the efforts to further characterize Registry participants, the Registry team (along with the Outcomes Research team) collaborated on two projects that were presented at ADA's 2022 Scientific Sessions.

Automated Insulin Delivery Use Registry Participants

- We assessed AID use in 12,065 Registry participants and found that 24.6% of Registry participants reported using AID features. AID use was associated with lower HbA1c compared to non-AID pump use and MDI, and fewer severe hypoglycemic events compared to MDI. These results were presented at ADA's 2022 Scientific Sessions.

Unique Associations Between Health Insurance and HbA1c in Adults with Type 1 Diabetes

- Among adults (n = 7725) in the Registry, demographics (for example, race, gender), diabetes technology (pump use, CGM), and insurance type were examined simultaneously to assess their relationship with HbA1c. Insurance type was associated with differences in HbA1c: Medicaid insurance and having no health insurance were associated with higher HbA1c. These results were presented at ADA's 2022 Scientific Sessions.
- We further explored the initial findings by exploring the relationships between county-level income (general socioeconomic status) and insurance type with HbA1c. Could people in higher vs. lower income counties fare differently because of their insurance? Yes, for people with Medicaid or No Insurance, HbA1c was highest in those in lower income counties. These results were presented at the T1DX-QI 2022 Learning Sessions.



OUTCOMES RESEARCH

The Outcomes Research team works to better understand the needs and experiences of people living with T1D in the Registry, the Online Community, and through other avenues. Sponsored work with industry leaders — where the Outcomes Research team designs and executes custom patient-reported outcome studies — is a large focus of this work. In 2022, the Outcomes Research team completed several large projects with industry sponsors, which has led to multiple presentations, publications, and opportunities for further research.

Sponsored Work with Eli Lilly

Screener for Severe Hypoglycemia

Validation work on a newly developed screener for Fear of Hypoglycemia was completed and the screener was piloted to clinicians several participating clinics for a real-world use feasibility assessment.

This work was presented at ADCES in 2022 and a manuscript is under development.

Perceptions of Nasal Glucagon and Traditional Glucagon

Continued from development in 2021, this survey work was completed to understand experiences of severe hypoglycemia and perceptions of nasal glucagon (along with comparisons to perceptions of traditional injectable glucagon) in emerging adults with T1D (aged 18-26) and caregivers to a young person with T1D (under age 17 or between ages 18-26).

This work was presented at ADA in 2022 and an encore was shared at ADCES. A manuscript is currently under review.

Sponsored Work with Janssen

Exploring Attitudes about Autoantibody Screening

This two-part study began with focus groups on autoantibody screening in adults with T1D, caregivers to a (biological) child with T1D, and (biological siblings) to a person with T1D to understand experiences with autoantibody screening in participants' own words.

The second part of this study was a self-reported survey developed from the themes that emerged in focus groups to further understand and compare attitudes about autoantibody screening in people living with or affected by T1D. This included adults with T1D, caregivers to a (biological) child with T1D, and first-degree biological relatives to a person with T1D.

The publication of findings for this work is continuing into 2023 and we hope it will spark robust discussion around screening.

Sponsored Work with Vertex

Further Understanding Technology Use and Glycemic Targets in Adults with T1D

Analyses continued on the dataset from the 2021 Vertex study with the Real-World Evidence project to understand blood glucose and glycemic metrics in approximately 2,000 adults with and without CGM.

This continued work resulted in two additional presentations during ADA's Scientific Sessions in June 2022: Persistence of Impaired Awareness of Hypoglycemia, Severe Hypoglycemic Events, and Suboptimal Hypoglycemic Control Despite Advanced Diabetes Technologies; and, Gaps Remain in Achieving Target T1D Glycemic Goals Despite Advanced Technologies.

Sponsored Work with LifeScan

Satisfaction with CGM in People with Diabetes (T1D and T2D)

The results of this study — which examined CGM satisfaction and the importance of accuracy, device connectivity, and decision support in people with T1D and T2D — were shared at ATTD 2022 and a manuscript is currently under development.

Outcomes Research & Registry Team Collaborations for Internal Studies

The Outcomes Research also collaborated with the Registry team to develop, manage, and interpret findings from internal studies. In 2022, the teams ran a pilot study for Registry participants to determine the feasibility and usability of a two-item diabetes distress measure as part of the Core Questionnaire and Annual Questionnaire.

Diabetes Distress in Adult CGM Users with Type 1 Diabetes (Research & Registry)

This brief study surveyed 244 adult CGM users to assess their self-reported experiences with diabetes distress (regimen distress and emotional burden). We found even in this sample with high tech use, people still experienced diabetes distress. These results were presented at the 2022 ADCES conference.

This work has continued into 2023, where additional insights are being examined in the associations between diabetes distress and CGM metrics.

HIGHLIGHTS FROM OUR ONLINE COMMUNITY

With over 50,000 people in our Online Community, visitors can read articles from experts in the field, peruse recent study results, answer the Question of the Day, and learn from others in the community.

Our most read content in 2022 included:

- [FDA Approves First Drug to Delay the Full Onset of Type 1 Diabetes](#)

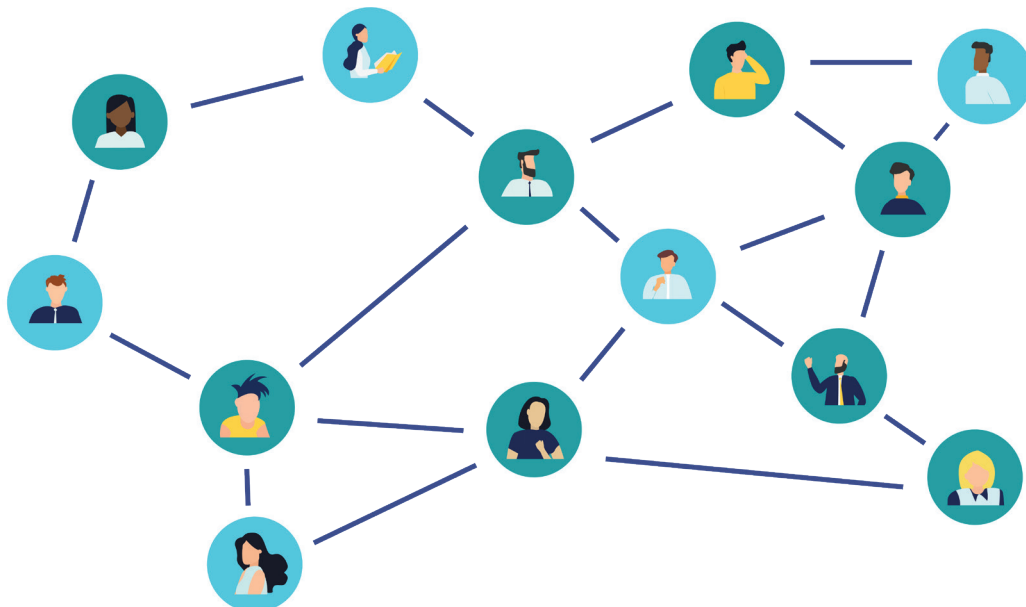
This article covers the breakthrough FDA-approval of Provention Bio's teplizumab (Tziel). Tziel offers the potential to delay the full onset of T1D for an average of two years. A critical component to Tziel's impact on T1D is educating society on the importance of autoantibody screening to detect T1D in its earliest stages, years before symptoms develop.

- [Delaying Type 1 Diabetes with Tziel: What's the Process Really Like?](#)

This article dives into the real-life details of qualifying for Tziel, working with your healthcare team and Tziel manufacturers to get insurance approval, etc., and actually receiving infusions over the course of 14 days.

- [Is Type 1 Diabetes a Disability?](#)

This article looks at why T1D is considered a disability by the Americans with Disabilities Association Act, and when this qualification as a person with a disability might be most relevant.



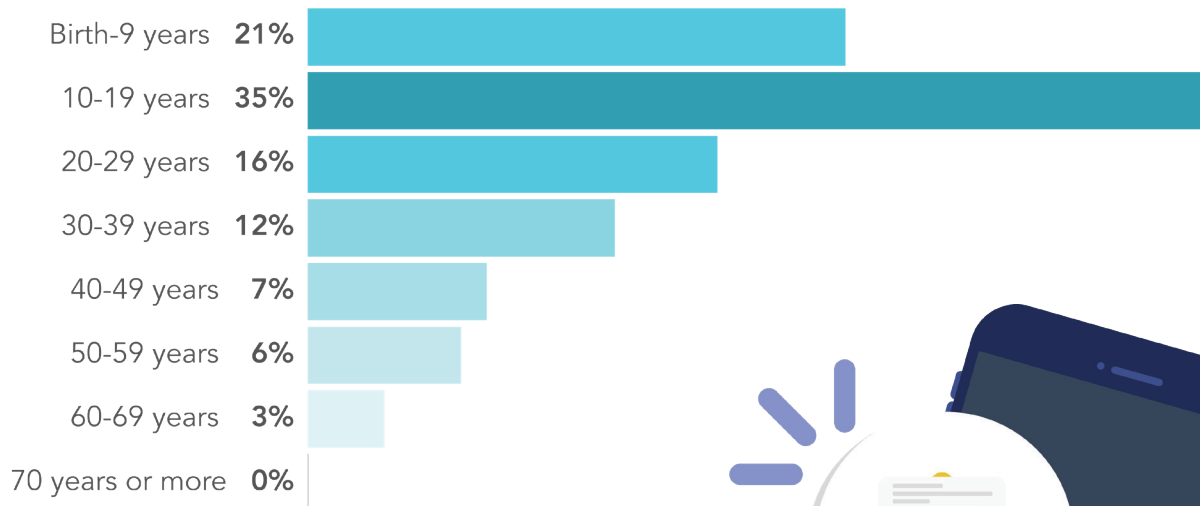
OUR TOP QUESTIONS OF THE DAY

Question of the Day is a daily individual survey question that asks about a certain aspect of life with T1D. While the results are not associated with an official research study, they heavily influence future research, highlight common struggles and challenges of the disease, provide learning opportunities for onlookers and participants, and remind participants they are not alone.

Each Question of the Day (QOTD) usually receives more than 400 responses. Here are five of the most popular questions we asked our Online Community in 2022.

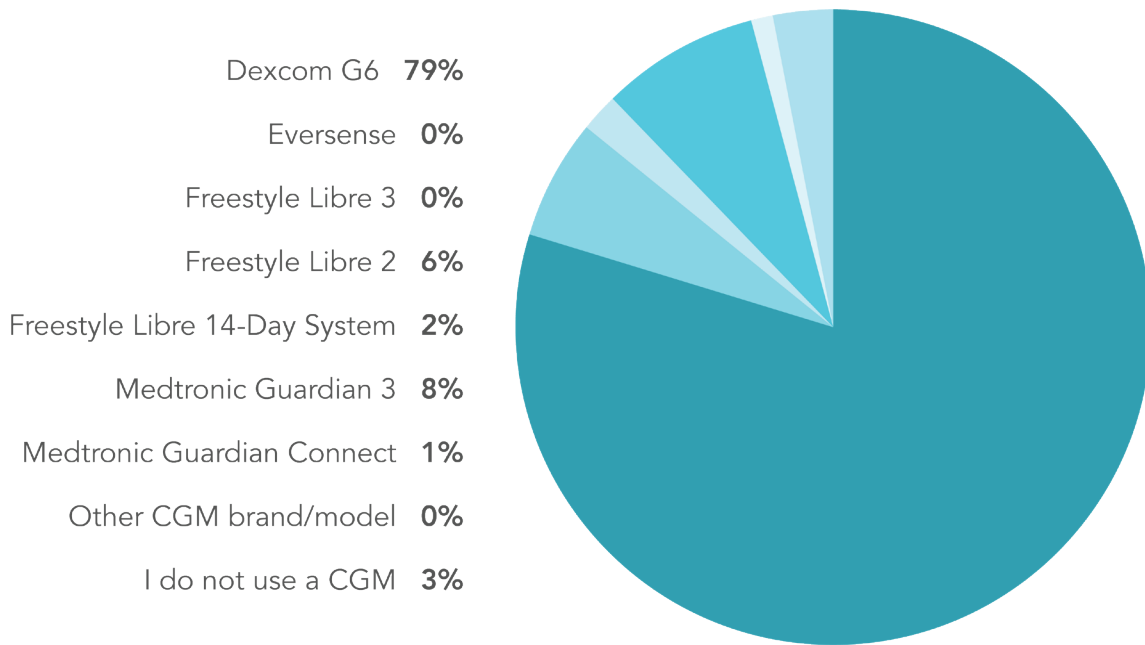
QOTD: At what age were you diagnosed with T1D?

8/2/2022



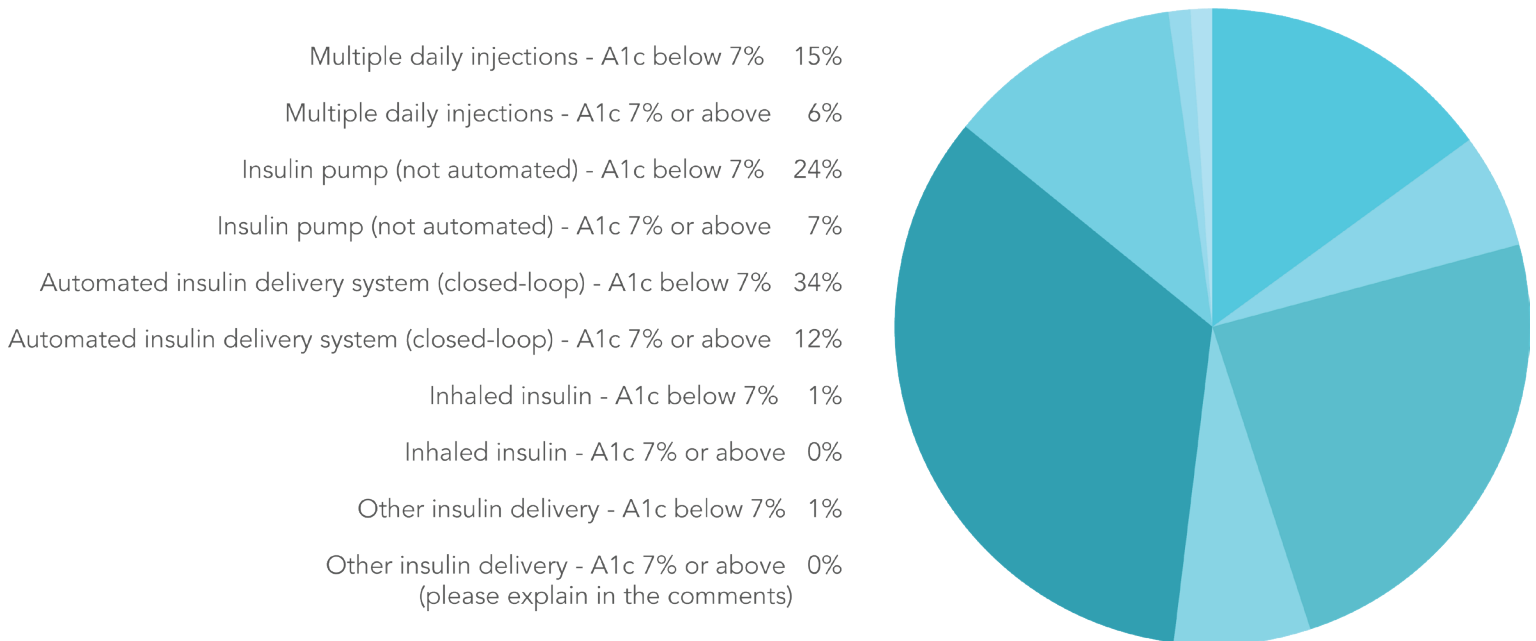
QOTD: Do you currently use any of the following CGM systems?

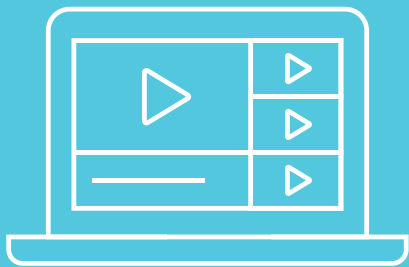
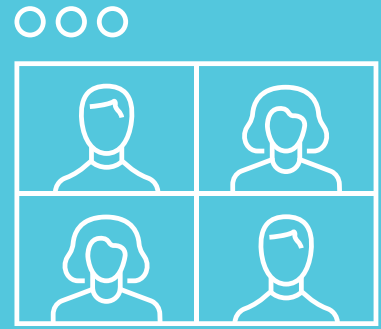
8/22/2022



QOTD: Which of the following options best describes your primary insulin delivery method (the one you use most) and your most recent A1c?

1/20/2022





BOARD MEMBER ANNOUNCEMENTS

In 2022, we continued to strengthen the governance of T1D Exchange through the recruitment of two outstanding new Board members, Dr. Juan Frias and Doug Williams, who begin their terms in 2023.

“Dr. Juan Frias and Doug Williams are incredible assets to our board and our mission at T1D Exchange,” explained David Walton, President. “Dr. Frias, an endocrinologist with extensive experience in diabetes patient care and research, is extremely accomplished, and most recently has established himself at the forefront of GLP-1 research. Meanwhile, Mr. Williams brings extensive experience in healthcare software, technology and data management that has relevancy to many of our pursuits at T1D Exchange. Both are pioneers in their fields and we are grateful to have their passionate expertise on our team.”

Juan Frias, MD

Juan Frias, MD, is the Medical Director and Principal Investigator of the National Research Institute in Los Angeles, CA. Born in Chile, Dr. Frias earned his bachelor’s at the University of Florida, and his medical degree from Vanderbilt University. He served in the US Navy as a General Medical Officer for five years and completed his internal medicine training at Vanderbilt University and the University of Tennessee. His fellowship in Endocrinology, Diabetes, and Metabolism was under the guidance of Dr. Jerold Olefsky at the University of California in San Diego.

His past work includes serving as an assistant professor at several universities and as a former medical director of Animas and LifeScan. He’s also worked in various roles for Lilly, Pfizer, Amylin, and the Barbara Davis Center.

Today, he is also an Assistant Clinical Professor of Medicine in the endocrinology department at the University of California in San Diego. Dr. Frias has spent over 20 years in diabetes and metabolism-related research and is the author of numerous endocrinology publications. Passionate about treatments for type 2 diabetes and obesity, Dr. Frias is the lead investigator for the Phase 2 study on tirzepatide.

We are grateful to have Dr. Frias’ dedicated expertise on our board.



Douglas Williams

Douglas (Doug) Williams, BSEE, MBA is the founder of Centanni Park — a digital e-health consultancy firm. His extensive experience in healthcare data technology includes serving as the CTO and VP of Engineering and Product design for many startups, including Zipcar, Runkeeper, and the Family Education Network.

Today, Mr. Williams is the MIT Product Lead at Orbit Software for the Martin Trust Center for Entrepreneurship. Throughout his career, he has led the development of data technology that supports cloud based FHIR platforms with top insurance companies (including commercial and Medicaid), hospital systems, and healthcare partners. His work has involved the healthcare data of millions of people across the country.

Mr. Williams also serves as a mentor for other organizations including Mass Challenge, HealthTech, MIT Enterprise Forum, and the Dana-Farber Cancer Institute.

We are grateful to have Mr. Williams' extensive experience on our board.



TREMENDOUS GRATITUDE

Our work is the direct result of our relationships with our partners, members, sponsors, healthcare professionals, people living with T1D, and our team. Each of these contributing voices adds their own value and impact to our work. These relationships are crucial to every aspect of our mission, and without them, we could not effectively work to improve life for people with T1D.

We are endlessly grateful for our growing team of passionately brilliant individuals. Their energy, creativity, and dedication are what fuels every bit of the work we do. One-third of our team lives with T1D, and every member of this team has a direct connection to T1D.

We must also thank the tireless effort and devotion of the members of the T1DX-QI working on the front lines of patient care, the academic institutions that value our data, and the many members of our team who work behind the scenes to execute every critical detail that brings our work to life.

Thank you to the members of our T1DX-QI Patient/Parent Advisory Board and Data Governance Committee for their insights and dedication to our mission.

Last, we must thank the members of our Online Community and Registry who are affected by T1D in their daily lives. Your resilience amidst the non-stop responsibility of managing this disease is impossible to truly put into words. We admire and appreciate your willingness to share your voice and your story with us. Thank you!



NONE OF THIS WOULD BE POSSIBLE WITHOUT...

First, we are honored to acknowledge the generous and vital support of the Leona M. and Harry B. Helmsley Charitable Trust. The Trust and its board have been steadfast and critical backers and partners throughout all our years, helping us build the capacity to do this vital work.

Thank you to our academic partners, including Advent Health, Albert Einstein College of Medicine, Jaeb Center for Health Research, Nemours Children's Health, Stanford University, Wayne State University, University of California, San Francisco, University of Florida, and University of Illinois, Chicago.

THANK YOU TO OUR PARTNERS, MEMBERS AND SPONSORS

Abbott Diabetes Care

JDRF

American Diabetes Association

Lexicon Pharmaceuticals

Bayer Pharmaceuticals

LifeScan

Beyond Type 1

MannKind

Children with Diabetes

Medtronic Diabetes

Dexcom

Provention Bio (a Sanofi Company)

Diotech Diabetes

The Diabetes Link

Eli Lilly and Company

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