



**Texas Diabetes Council
2023 State Plan to
Prevent and Treat
Diabetes and Obesity**

**As required by
Texas Health and Safety Code,
Section 103.013**

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Executive Summary

[Texas Health and Safety Code, Chapter 103](#), establishes the Texas Diabetes Council (TDC). Section 103.013 requires the TDC to develop and implement a state plan for diabetes treatment, education, and training. In conjunction with developing the state plan, the TDC also assesses existing state programs for the prevention and treatment of diabetes, in accordance with Section 103.0131. The assessment includes a review of state agency programs that provide diabetes-related services. The assessment can be found on the Department of State Health Services [legislative reports website](#).

This plan is based on review and discussion of diabetes prevention and self-management, cost-savings studies, and evidence-based diabetes research studies. TDC members have extensive professional expertise in the prevention and treatment of diabetes, diabetes education and training, nutrition education, and public health policy. The TDC developed the priorities as outlined in the 2023 State Plan to Prevent and Treat Diabetes and Obesity (2023 State Plan):

- Improving eye health in all persons with diabetes
- Improving mental health in all persons with diabetes
- Reducing identified health disparities for all persons with diabetes and/or obesity
- Expanding the use of advanced diabetes technologies
- Increasing access to insulin and diabetes treatments

Introduction

The TDC was established by the Legislature per [Texas Health and Safety Code, Chapter 103](#). It is composed of 11 members appointed by the Governor, as well as nonvoting members from the Texas Department of State Health Services (DSHS), the Texas Health and Human Services Commission (HHSC), the Texas Workforce Commission Vocational Rehabilitation Division, the Employees Retirement System of Texas, and the Teacher Retirement System of Texas.

[Texas Health and Safety Code, Section 103.013](#), requires the TDC to develop and implement a biennial state plan for diabetes treatment, education, and training. Section 103.013 allows the state plan to include provisions that ensure that:

- Individual and family needs are assessed statewide, and all available resources are coordinated to meet those needs; and
- Healthcare provider needs are assessed statewide, and strategies are developed to meet those needs.

Section 103.013 also allows the TDC to include in the state plan provisions to address obesity treatment, education, and training related to:

- Obesity-dependent diabetes; and
- The health impacts of obesity on a person with diabetes (PWD).

The TDC has established two workgroups. The Advocacy and Outreach Workgroup brings together diabetes stakeholders, such as the American Diabetes Association (ADA), the Association of Diabetes Care and Education Specialists (ADCES), healthcare systems, health plans, and other interested parties to develop recommendations for issues affecting PWD. The Healthcare Professional and Outcome Workgroup assembles Texas diabetes experts to assess the effectiveness of diabetes management in Texas. Both workgroups assist TDC members (Appendix A) in developing the state plan for diabetes and obesity treatment and education and supporting TDC initiatives.

The prevalence of diabetes in Texas and the nation has substantially increased over the past decade.¹ In Texas, diabetes prevalence increased from 10.2 percent in 2011 to 11.5 percent in 2021. In 2021, more than 2.5 million people in Texas had diabetes.² In 2017, about 23.8 percent of PWD were unaware of their diagnosis.³

Late diagnosis:

- Delays treatment;
- Increases the risk for diabetes-related complications, such as diabetic ketoacidosis, blindness, heart attack, stroke, kidney failure, and amputation; and
- Reduces both longevity and quality of life.

Overall, diabetes-related complications have a greater mortality risk than many types of cancer.⁴

The overall cost of diabetes care makes up a large portion of total healthcare expenditures in Texas. In 2012, direct medical expenses for diabetes in Texas totaled \$18.9 billion, while indirect costs (e.g., absenteeism, reduced productivity, or inability to work because of diabetes) totaled an additional \$6.7 billion.⁵

Diabetes-related complications further increase healthcare spending. The Centers

¹ Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health. Chronic Disease Indicators (CDI) Data [online]. [Accessed June 2, 2023]. URL: <https://nccd.cdc.gov/cdi>.

² Texas Department of State Health Services. Texas health data - behavioral risk factor surveillance system (BRFSS). 2023. Accessed June 1, 2023. <https://healthdata.dshs.texas.gov/dashboard/surveys-and-profiles/behavioral-risk-factor-surveillance-system>.

³ National Center for Chronic Disease Prevention and Health Promotion. Diabetes and Prediabetes. Centers for Disease Control and Prevention. September 6, 2022. Accessed June 2, 2023. <https://www.cdc.gov/chronicdisease/resources/publications/factsheets/diabetes-prediabetes.htm>.

⁴ American Cancer Society. Cancer Facts & Figures 2019. Atlanta: American Cancer Society; 2019. Accessed June 2, 2023. <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2019/cancer-facts-and-figures-2019.pdf>

⁵ Sundar S. Shrestha, Amanda A. Honeycutt, Wenya Yang, Ping Zhang, Olga A. Khavjou, Diana C. Poehler, Simon J. Neuwahl, Thomas J. Hoerger; Economic Costs Attributable to Diabetes in Each U.S. State. *Diabetes Care* 1 December 2018; 41 (12): 2526–2534. <https://doi.org/10.2337/dc18-1179>

for Disease Control and Prevention (CDC) reported that in 2014 there were more than 10,000 diabetes-related nontraumatic lower limb amputations in Texas.⁶

The burden of diabetes is not equally shared among all Texans. Compared with non-Hispanic white adults, the risk of having diabetes is 71.3 percent greater among African Americans and 94.3 percent higher among Latinos/Hispanics.⁷ Geographic factors also contribute to disparities in diabetes care. In 2015, the CDC found that counties in East Texas, North Texas, and along the U.S.-Mexico border had a higher prevalence of diabetes compared with the remainder of the state.⁸ Many of these counties did not have programs specifically related to diabetes prevention.

Diabetes has a significant impact on longevity, quality of life, productivity, and healthcare expenditures for affected Texans. The 2023 Texas Diabetes State Plan outlines proposals to improve access to healthcare, medications, advanced technologies, education, and diabetes prevention for all Texans.

⁶ Centers for Disease Control and Prevention. Diabetes State Burden Toolkit- *Hospitalizations for Lower Extremity Amputations in Adults with Diabetes, Texas, 2014*, from <https://nccd.cdc.gov/Toolkit/DiabetesBurden/Hospitalization/Lea>

⁷ Centers for Disease Control and Prevention. US Diabetes Surveillance System. Accessed on June 16, 2023, from <https://gis.cdc.gov/grasp/diabetes/diabetesatlas-surveillance.html#>

⁸ Johnson EP, Dunn M, Cooper M, Bhakta N. Diabetes Prevention Program Sites Compared With Diabetes Prevalence and Ratio of Primary Care Physicians in Texas. *Prev Chronic Dis.* 2019;16:E165. Published 2019 Dec 26. doi:10.5888/pcd16.190175

2021 Texas Diabetes State Plan Update

Over the 2022-23 biennium, stakeholders across Texas collaborated to make progress towards achieving the 2021 State Plan for Diabetes and Obesity Treatment priorities:

- Increasing transparency in insulin and drug pricing for diabetes treatments
- Reducing therapeutic interference in hospital settings
- Making telehealth a permanent benefit
- Decreasing identified health disparities for all persons with diabetes
- Expanding use of automated diabetes technologies

Increasing Transparency in Insulin and Drug Pricing for Diabetes Treatments

In recent years, the Legislature made statutory changes related to this priority. [House Bill 18 \(87th Legislature, Regular Session, 2021\)](#) establishes a prescription drug savings program for certain uninsured individuals. [Senate Bill 827 \(87th Legislature, Regular Session, 2021\)](#) caps insulin co-pays at \$25 per month for each prescription for individuals insured through state-regulated health benefit plans. [House Bill 2536 \(86th Legislature, Regular Session, 2019\)](#) requires pharmaceutical drug manufacturers to report the current wholesale acquisition cost (WAC) of Food and Drug Administration (FDA)-approved drugs sold in or into Texas. They are also required to separately report specific information related to WAC increases. That information is made available to the public.

Despite the progress being made on this topic, barriers to accessing diabetes drug treatments remain. The TDC has kept this priority for the 2023 State Plan.

Reducing Therapeutic Interference in Hospital Settings

The TDC voted to write a letter about this issue and send it to the Texas Legislature in 2021. This letter asked the Legislature to enact legislation that prevents hospitals from restricting access to medications treating acute and chronic diseases. In this letter, the TDC also asked that hospitals not interfere with the medical treatment prescribed by the treating physician.

After further discussion, the TDC believes that they have limited ability to further address this issue. Therefore, TDC will not continue to address this priority area in the 2023 State Plan.

Making Telehealth and Telemedicine Permanent

Since the beginning of the Coronavirus Disease 2019 (COVID-19) pandemic, there have been many moves to aid telehealth services and virtual medicine in becoming a more readily available service. The Texas Legislature also addressed this topic in the 87th Legislature, Regular Session, 2021.

[Texas Occupations Code, Section 51.501](#) regulates telehealth services to prevent fraud and allows most services, except those stated otherwise, to be deemed eligible for telehealth. [Texas Government Code, Section 531.0216](#) aids Medicaid recipients with reimbursement for telehealth services used under Medicaid.

Although the TDC believes that this topic is still important to access quality care in Texas, others are advocating for telehealth and telemedicine services. Therefore, TDC has decided to discontinue this priority for the 2023 State Plan.

Decreasing Identified Health Disparities for All Persons with Diabetes and Obesity

[Senate Bill 73 \(87th Legislature, Regular Session, 2021\)](#) expands Medicaid enrollment capacity to include local health departments. This gives greater access and opportunity for Texans to enroll in Medicaid. [Senate Bill 672 \(87th Legislature, Regular Session, 2023\)](#) expands Medicaid reimbursement to include behavioral healthcare in a collaborative care service environment.

DSHS releases an educational newsletter every quarter discussing the prevention and management of diabetes, called [Diabetes News You Can Use](#). The newsletter has included health disparities education opportunities in every edition since the recommendation was written in the 2021 State Plan. In those seven editions, there were 13 total articles shared related to health disparities.

Despite progress made on this topic, the TDC believes there is still more work to be done, which is why they have decided to keep this issue as a priority for the 2023 State Plan.

Expanding the Use of Automated Diabetes Technologies such as Continuous Glucose Monitoring

While there have been new diabetes technologies introduced during the 2022-23 biennium, this priority has yet to be addressed by the TDC. Therefore, the TDC is keeping this priority for the 2023 State Plan.

2023 Texas Diabetes State Plan

The TDC has developed a Texas Diabetes State Plan with priorities that build on past accomplishments and use current national, state, and local efforts to improve diabetes education and management. Work in the priority areas that follow is dependent on continued funding from the Texas Legislature and support of the Diabetes Prevention and Control Program at DSHS.

The 2023 State Plan priorities include:

- Improving eye health in all persons with diabetes
- Improving mental health in all persons with diabetes
- Reducing identified health disparities for all persons with diabetes and/or obesity
- Expanding the use of advanced diabetes technologies
- Increasing access to insulin and diabetes treatments

Improving Eye Health in All Persons with Diabetes

Eye health is a critical component of diabetes management and essential for patients to retain their independence. PWD have a 25 times higher risk of blindness than individuals without diabetes, and more than 90 percent of vision loss caused by diabetes can be avoided with early detection and treatment.⁹ Despite facing a higher risk of blindness, 50 percent of PWD do not get annual eye exams.¹⁰ Only 33.4 percent of Texans with diabetes received an eye examination or eye screening in 2020, compared to the national average of 55.1 percent.¹¹

Chronic hyperglycemia, or high blood glucose, from diabetes is associated with long-term damage, dysfunction, and failure of the eyes, kidneys, nerves, heart, and

⁹ Thomann KH, Marks ES, Adamczyk DT, eds. *Primary Eye Care in Systemic Disease*. 2nd ed. McGraw-Hill; 2001:793

¹⁰ Centers for Disease Control and Prevention. Keep an Eye on Your Vision Health. *Vision Health Initiative (VHI)*. <https://www.cdc.gov/visionhealth/resources/features/keep-eye-on-vision-health.html>. Updated October 1, 2020. Accessed September 21, 2021.

¹¹ Texas Health Care Information Collection. State of Texas; 2022. Accessed May 30, 2023. <https://www.opic.texas.gov/wp-content/uploads/2021/09/2020-2021-Guide-to-Texas-HMO-Quality-Report.pdf>.

blood vessels.¹² Diabetic retinopathy, the most common eye complication, is the leading cause of vision loss among the working aged population in the United States.^{13,14} Regular eye examinations can help prevent vision loss by finding complications earlier and intervening sooner.

Overall health expenditures increase substantially following vision loss in a PWD. Preserving vision by early detection of diabetes-related eye disease will ultimately lower healthcare spending, preserve patient independence, and improve quality of life by decreasing associated vision loss.

Texas Diabetes Council Recommendations

- Enhance public awareness of eye health complications related to diabetes
 - ▶ Collaboration with [DSHS Grand Rounds](#) to provide eye health education
 - ▶ Creation of an educational poster that would be available at no cost to health facilities across the state, with DSHS support
 - ▶ Formation of an ad hoc consortium with Texas-based diabetes associations, including the ADCES, ADA, American Association of Clinical Endocrinology, optometry and ophthalmology associations, etc., to spread knowledge and information about eye health complications related to diabetes
- Prioritize and thus increase the percentage of people living with diabetes receiving comprehensive eye exams
 - ▶ Support the inclusion of eye care services as part of the Primary Health Care Services Program through HHSC or explore ways to implement another program in which low-income or at-risk Texans with diabetes could access comprehensive eye care services at community health centers
 - ▶ Improve National Committee for Quality Assurance Healthcare Effectiveness Data and Information Set measures specific to members who had an eye exam or screening for diabetic retinal disease by 25 percent over the next 2-4 years

¹² American Diabetes Association. Diagnosis and classification of diabetes mellitus. *Diabetes Care*. 2014;37 Suppl 1:S81-S90. doi:10.2337/dc14-S081

¹³ Klein BE. Overview of epidemiologic studies of diabetic retinopathy. *Ophthalmic Epidemiol*. 2007;14(4):179-183. doi:10.1080/09286580701396720

¹⁴ Fong DS, Aiello L, Gardner TW, et al. Retinopathy in diabetes. *Diabetes Care*. 2004;27 Suppl 1:S84-S87. doi:10.2337/diacare.27.2007.s84

- ▶ Encourage funding for eye care visits in Community Health Centers and the establishment of Uniform Data System measures on comprehensive diabetic eye examinations
- Increase standardization for interprofessional communications regarding outcomes of diabetic eye examinations
- Study access to eye care providers in Texas, such as optometrists and ophthalmologists, including state workforce needs and participation levels in Medicaid programs and payment policy that impacts participation

Improving the Mental Health of All Texans with Diabetes

Diabetes is a psychologically burdensome chronic condition. PWD must manage multiple, complex self-care recommendations, including taking medications, monitoring blood glucose levels, following a healthy diet, and engaging in regular physical activity.¹⁵ About 4 in 10 adults with type 2 diabetes have emotional health problems such as depression, anxiety, and diabetes distress.¹⁶ Diabetes distress is the emotional burden and subsequent worry, frustration, anger, and burnout that results from managing diabetes.^{17, 18} PWD face multiple adaptive tasks which include navigating the medical system, managing stress, and keeping an emotional balance, including maintaining a positive self-image due to changes in physical status.¹⁹ Due to these challenges, diabetes may impair a PWD's quality of life and their physical, psychological, and social functioning status, which negatively impacts overall life satisfaction.²⁰

¹⁵ Beverly E, Lammert L, Gawlik K, et al. Diabetes distress: screening tools and intervention strategies. <https://www.cardi-oh.org/best-practices/lifestyle/diabetes-distress-screening-tools-and-intervention-strategies>. Published June 2022. Accessed March 12, 2023.

¹⁶ Peyrot M, Rubin RR, Lauritzen T, Snoek FJ, Matthews DR, Skovlund SE. Psychosocial problems and barriers to improved diabetes management: results of the Cross-National Diabetes Attitudes, Wishes and Needs (DAWN) Study. *Diabet Med*. 2005;22(10):1379-1385. doi:10.1111/j.1464-5491.2005.01644.x

¹⁷ Powers MA, Bardsley J, Cypress M, et al. Diabetes Self-management Education and Support in Type 2 Diabetes: A Joint Position Statement of the American Diabetes Association, the American Association of Diabetes Educators, and the Academy of Nutrition and Dietetics. *Diabetes Care*. 2015;38(7):1372-1382. doi:10.2337/dc15-0730

¹⁸ Skinner TC, Joensen L, Parkin T. Twenty-five years of diabetes distress research. *Diabet Med*. 2020;37(3):393-400. doi:10.1111/dme.14157

¹⁹ Snoek FJ. Mental health in diabetes care. Time to step up. *Front. Clin. Diabetes Healthc*. 2022; 3:1039192. doi: 10.3389/fcdhc.2022.1039192

²⁰ Megari K. Quality of life chronic disease in patients. *Health Psych Res*. 2013;1(e27): 141-148. Published 2013 Sep 23. doi:10.4081/hpr.2013.e27

For people living with severe mental illness, including schizophrenia and bipolar disease, the rates of diabetes are two to three times higher than those living without severe mental illness. Additionally, diabetes-related factors may also contribute to overall mental burden and lead to an increased risk of diabetes complications and mortality.²¹

Early and regular psychosocial screening can help identify cognitive burdens so that interventions and resources can be provided to those living with diabetes and severe mental illness. The ADA and the ADCES recommend that psychosocial care should be provided to all PWD.^{22, 23} There is no gold standard for how often PWD should be screened for diabetes distress. However, more screenings may be needed when they experience co-morbidities, diabetes-related complications, food insecurity, changes in life events, or changes in their diabetes treatment plan.^{24, 25}

Barriers in clinical practice can hinder the detection and management of psychosocial issues in diabetes care. As shown in Table 1, barriers can occur at the patient, provider, and practice level. Early recognition, routine screening, and the use of evidence-based treatment approaches for depression and diabetes distress can improve health outcomes for PWD and result in medical cost savings.²⁶

²¹ Stenov V, Joensen LE, Knudsen L, Hansen DL, Tapager IW. Mental Health Professionals Have Never Mentioned My Diabetes, They Don't Get into That": A Qualitative Study of Support Needs in Adults with Type 1 and Type 2 Diabetes and Severe Mental Illness. *C Can J Diabetes*. 2020;44(6): 494-500. <https://doi.org/10.1016/j.jcjd.2020.02.006>

²² Powers MA, Bardsley J, Cypress M, et al. Diabetes Self-management Education and Support in Type 2 Diabetes: A Joint Position Statement of the American Diabetes Association, the American Association of Diabetes Educators, and the Academy of Nutrition and Dietetics. *Diabetes Care*. 2015;38(7):1372-1382. doi:10.2337/dc15-0730

²³ ElSayed NA, Aleppo G, Aroda VR, et al., American Diabetes Association. Facilitating positive health behaviors and wellbeing to improve health outcomes: Standards of Care in Diabetes—2023. *Diabetes Care*. 2023; 46(Suppl. 1):S68-S96. doi:10.2337/dc23-S005

²⁴ Young-Hyman D, de Groot M, Hill-Briggs F, et al. Psychosocial Care for People with Diabetes: a Position Statement of the American Diabetes Association. *Diabetes Care*. 2016;39(12):2126-2140. doi:10.2337/dc16-2053

²⁵ Owens-Gary MD, Zhang X, Jawanda S, Bullard KM, Allweiss P, Smith BD. The Importance of Addressing Depression and Diabetes Distress in Adults with Type 2 Diabetes. *J Gen Intern Med*. 2019;34(2):320-324. doi:10.1007/s11606-018-4705-2

²⁶ Owens-Gary MD, Zhang X, Jawanda S, Bullard KM, Allweiss P, Smith BD. The Importance of Addressing Depression and Diabetes Distress in Adults with Type 2 Diabetes. *J Gen Intern Med*. 2019;34(2):320-324. doi:10.1007/s11606-018-4705-2

Table 1. Perceived Barriers and Strategies to Address Psychological Conditions²⁷

Level	Perceived Barriers
Patient	<ul style="list-style-type: none">● Stigma about mental health● Denial of depression and diabetes distress symptoms or diagnosis● Lack of information and resources to address mental health conditions
Physician	<ul style="list-style-type: none">● Lack of or inadequate mental health training and uncertainty about what to do when patients report serious emotional distress● Workload demands or time constraints● Managing physical condition (e.g., diabetes) takes up providers' time● Perceptions of mental health issues being out of providers' area of expertise or responsibility are areas of concern● Perception that patients may not follow through with mental health referral
Practice	<ul style="list-style-type: none">● Psychological screening in busy clinics may come with logistical problems which may be perceived as a disruption to normal clinical routine● Lack of access to mental health specialists● Lack of access to diabetes distress, depression, and other mental health assessment tools● Lack of a reminder system

Given the prevalence of diabetes distress and depression among PWD, it is important to provide ongoing patient-centered psychosocial care that utilizes a

²⁷ Peyrot M, Rubin RR, Lauritzen T, Snoek FJ, Matthews DR, Skovlund SE. Psychosocial problems and barriers to improved diabetes management: results of the Cross-National Diabetes Attitudes, Wishes and Needs (DAWN) Study. *Diabet Med*. 2005;22(10):1379-1385. doi:10.1111/j.1464-5491.2005.01644.x

collaborative care model approach, integrating diabetes and mental health expertise.^{28, 29}

Texas Diabetes Council Recommendations

- Create efficient systems to assess and address depressive symptoms and or diabetes distress as part of routine diabetes care³⁰
 - ▶ Promote the use of standardized, age-appropriate, validated tools for psychosocial screening and monitoring³¹
 - ▶ Improve referral and access to a qualified behavioral and/or mental health professional, ideally one who specializes in diabetes, which may include telehealth services for medically underserved areas
 - ▶ Expand diabetes self-management education and support (DSMES) programs that include psychosocial health in its curriculum content
 - ▶ Explore appropriate approaches in psychosocial screening and monitoring of PWD with severe mental illness
- Distribute mental health and diabetes resources through the DSHS website, which may include information on psychosocial screening tools
 - ▶ Continue to amplify messaging related to health and diabetes through its website and social media presence; this messaging should include the importance of psychological well-being in diabetes health
 - ▶ Encourage health organizations across Texas to disseminate this information to their stakeholders
- Strengthen the healthcare workforce to provide diabetes-related behavioral health services, mental health services, or both
 - ▶ Promote, through DSHS and other organizations, free or reduced-cost professional training on mental health and diabetes

²⁸ Snoek FJ. Mental health in diabetes care. Time to step up. *Front. Clin. Diabetes Healthc.* 2022; 3:1039192. doi: 10.3389/fcdhc.2022.1039192

²⁹ Fisher L, Polonsky WH, Hessler D. Addressing diabetes distress in clinical care: a practical guide. *Diabetes Med.* 2019;36:803-812. doi:10.1111/dme.13967

³⁰ McMorrow R, Hunter B, Hendrieckx C, et al. Effect of routinely assessing and addressing depression and diabetes distress on clinical outcomes among adults with type 2 diabetes: a systematic review. *BMJ Open.* 2022;12(5):e054650. Published 2022 May 25. doi:10.1136/bmjopen-2021-054650

³¹ Young-Hyman D, de Groot M, Hill-Briggs F, et al. Psychosocial Care for People with Diabetes: a Position Statement of the American Diabetes Association. *Diabetes Care.* 2016;39(12):2126-2140. doi:10.2337/dc16-2053

- ▶ Identify funding sources to compensate and incentivize healthcare providers treating PWD with public health insurance
- ▶ Ensure adequate reimbursement for psychosocial care from both public and private payors so that all PWD can equally access the support they need
- ▶ Reduce the cost of training programs for licensed counselors in diabetes care
- Promote mental health and diabetes resources, including *Texas Health Steps* online healthcare provider training courses, *Mental Health First Aid*, and the ADA's *Diabetes Education 101 for the Behavioral Health Provider Program*
 - ▶ Identify gaps in mental health and diabetes professional development training and partner with statewide organizations to meet this need
- Collaborate with DSHS Grand Rounds to present on diabetes and mental health

Reducing Health Disparities for All Texans with Diabetes and/or Obesity

Managing chronic conditions such as diabetes and obesity can be challenging, even under ideal circumstances. This problem is exacerbated for PWD who experience barriers to healthcare services. A lack of coordinated delivery of care has been shown to adversely impact chronic disease outcomes, including diabetes.^{32, 33}

For many PWD in Texas, there is limited availability of healthcare services to adequately manage their diabetes. Healthcare deserts are communities that lack six key healthcare services needed to provide an infrastructure to support a healthy community:

1. Pharmacies
2. Primary care providers
3. Hospitals

³² Patel MR. Social Determinants of Poor Management of Type 2 Diabetes Among the Insured. *Curr Diab Rep.* 2020;20(11):67. Published 2020 Nov 5. doi:10.1007/s11892-020-01354-4

³³ McDonald KM, Sundaram V, Bravata DM, et al. Closing the quality gap: a critical analysis of quality improvement strategies (Vol. 7: Care Coordination). Rockville (MD): Agency for Healthcare Research and Quality (US); 2007. (Technical Reviews, No. 9.7.) Background: Ongoing Efforts in Care Coordination and Gaps in the Evidence Available from: <https://www.ncbi.nlm.nih.gov/books/NBK44011/> Accessed March 22, 2023.

4. Hospital beds
5. Trauma centers
6. Low-cost health centers

Nearly 82 percent of U.S. counties have at least one healthcare desert dimension. Living in a healthcare desert can disproportionately affect PWD, particularly in rural counties. About 60 percent of Texas' 254 counties are completely rural or non-metropolitan with a population size under 20,000.³⁴ Available data for these counties show that these areas are healthcare deserts for primary care, hospital beds, and pharmacies. Of the 153 counties classified as completely rural or non-metropolitan, 63.4 percent were designated as primary care shortage areas.³⁵ Most of these counties were also shown to be hospital deserts with an average of 1.80 hospital beds per 1,000 individuals, which is lower than Texas' rate of 2.3 hospital beds per 1,000.^{36, 37} Three hospital beds per 1,000 is the simple threshold standard set by the World Health Organization.³⁸ Access to a pharmacy is another concern for these Texas counties. As shown in [Appendix B](#), across the 153 rural and non-metropolitan Texas counties, the proportion of the population living within 1, 2, 5, and 10 miles of a community pharmacy was less than the Texas average.³⁹

The availability of DSMES is a critical component of diabetes care. In Texas, some counties with disparities in diabetes prevalence are diabetes education deserts. Researchers geocoded 167 Texas DSME programs and found that 47 programs

³⁴ United States Department of Agriculture (USDA). Rural-Urban Continuum Codes. *Economic Research Service*. <https://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx>. Accessed March 29, 2023

³⁵ Health Resources and Services Administration (HRSA). Medically Underserved Area Find. *data.HRSA.gov*. <https://data.hrsa.gov/tools/shortage-area/mua-find>. Accessed March 29, 2023

³⁶ Urban Institute. Understanding Hospital Bed Capacities Nationwide amid COVID-19. Updated 2018. <https://www.urban.org/policy-centers/health-policy-center/projects/understanding-hospital-bed-capacities-nationwide-amid-covid-19>. Accessed March 29, 2023.

³⁷ National Center for Health Statistics. Health, United States, 2019. Table 43 Community hospital beds and average annual percent change, by state: United States, selected years 1980–2018. Hyattsville, MD. 2021. DOI: <https://dx.doi.org/10.15620/cdc:100685>

³⁸ Nguyen A, van Meijgaard J, Kim S, Marsh T. Mapping Health Care Deserts: 80% of the Country Lacks Adequate Access to Healthcare. GoodRxHealth. <https://www.goodrx.com/healthcare-access/research/healthcare-deserts-80-percent-of-country-lacks-adequate-healthcare-access>. Accessed March 29, 2023.

³⁹ Berenbrok LA, Tang S, Gabriel N, et al. Access to community pharmacies: A nationwide geographic information systems cross-sectional analysis. *J Am Pharm Assoc (2003)*. 2022;62(6):1816-1822.e2. doi:10.1016/j.japh.2022.07.003

(28.7 percent) were in a single county, and only 49 counties (19.3 percent) of Texas's 254 total counties had at least one DSME program. Their findings also revealed that the 25 counties (10 percent) with the highest diabetes prevalence had only 4 DSME programs (2.4 percent). Three counties were identified as diabetes education deserts based on the distance from each county center to the nearest DSME program and diabetes prevalence.⁴⁰

To tackle barriers to diabetes care, health systems need standards for addressing disparities, including training and adequate care coordination. The TDC aims to increase training opportunities for the healthcare workforce to provide culturally competent diabetes care, which will help reduce health disparities. The TDC proposes to reduce health disparities using a social determinant of health (SDOH) framework as a guide.⁴¹ SDOH are social and environmental factors that affect a wide range of health, functioning, and quality-of-life outcomes and risks.⁴² Addressing health disparities necessitates understanding and mitigating the impact of SDOH, which accounts for 50 percent to 60 percent of diabetes-related health outcomes.⁴³

Texas Diabetes Council Recommendations

- Identify Texas healthcare deserts in diabetes care and services
 - ▶ Build linkages with academic institutions, communities, and healthcare organizations to assess county or local accessibility, availability, and affordability of healthcare services for diabetes care
 - ▶ Conduct regional forums to facilitate community engagement and support, identify needs, and determine next steps for a plan of action to address gaps

⁴⁰ Baek J, Cheon O, Lee S, Nwana N. Diabetes Education Desert: Regional Disparity Between Diabetes Prevalence and Diabetes Self-Management Education Programs in Texas. *Popul Health Manag.* 2021;24(2):266-274. doi:10.1089/pop.2020.0006

⁴¹ Centers for Disease Control and Prevention. Social Determinants of Health at CDC. About CDC- Social Determinants of Health at CDC. December 8, 2022. Accessed June 28, 2023. <https://www.cdc.gov/about/sdoh/index.html>

⁴² Hill-Briggs F, Adler NE, Berkowitz SA, et al. Social Determinants of Health and Diabetes: A Scientific Review [published online ahead of print, 2020 Nov 2]. *Diabetes Care.* 2020;44(1):258-279. doi:10.2337/dci20-0053

⁴³ American Diabetes Association. *Health Equity Bill of Rights*. Published online 2023. Accessed May 30, 2023. https://diabetes.org/sites/default/files/2020-08/Health%20Equity%20Bill_2nd_v2.pdf.

- Collaborate with DSHS Grand Rounds to present on topics that include but are not limited to understanding the impact of SDOH on PWD and best practice strategies to provide culturally competent care to PWD
- Continue to disseminate resources and educational opportunities that address health disparities through the DSHS *Diabetes News You Can Use* quarterly electronic newsletter

Expanding Use of Automated Diabetes Technologies

The ability to effectively manage diabetes in people of all ages and abilities relies on access to medical technologies. Automated diabetes technologies improve patients' lives.⁴⁴ Randomized trials continue to validate these United States (U.S.) Food and Drug Administration (FDA) approved technologies and their individual components. In 2023, insulin pumps, continuous glucose monitoring devices, and smart insulin pens constitute a standard of care in the management of insulin-requiring types of diabetes.⁴⁵ Proven benefits of these technologies include the attainment of greater blood sugar "time in range," which is associated with lower hemoglobin A1c results, lower blood sugar excursions through the day, and fewer acute diabetes related complications, such as severe hypoglycemia or diabetic ketoacidosis. Furthermore, improved metabolic control is associated with greater longevity and improved quality of life.⁴⁶

To benefit from diabetes technologies, patients must have access to them. Systematic inequities exist in the access to diabetes technologies. SDOH contributes to disparities in diabetes healthcare delivery and access to FDA-approved therapies. This has been documented in recent data from over 35,000 patients followed by the Type 1 Diabetes Exchange QI Initiative.⁴⁷ There may not

⁴⁴ Michael Heile, Betty Hollstegge, Laura Broxterman, Albert Cai, Kelly Close; Automated Insulin Delivery: Easy Enough to Use in Primary Care? *Clin Diabetes* 1 December 2020; 38 (5): 474–485. <https://doi.org/10.2337/cd20-0050>

⁴⁵ ElSayed NA, Aleppo G, Aroda VR, et al., American Diabetes Association. Facilitating positive health behaviors and wellbeing to improve health outcomes: Standards of Care in Diabetes—2023. *Diabetes Care*. 2023; 46(Suppl. 1):S68–S96. doi:10.2337/dc23-S005

⁴⁶ Grunberger G, Sherr J, Allende M, et al. American Association of Clinical Endocrinology Clinical Practice Guideline: The Use of Advanced Technology in the Management of Persons With Diabetes Mellitus. *Endocr Pract*. 2021;27(6):505-537. doi:10.1016/j.eprac.2021.04.008

⁴⁷ Grunberger G, Sherr J, Allende M, et al. American Association of Clinical Endocrinology Clinical Practice Guideline: The Use of Advanced Technology in the Management of Persons With Diabetes Mellitus. *Endocr Pract*. 2021;27(6):505-537. doi:10.1016/j.eprac.2021.04.008

be appropriate technology devices for people with disabilities, who are often served by Medicare, Medicaid, or both. Diabetes advocates throughout the state are encouraging diabetes home use technologies to be made accessible to bridge the gap and allow individuals to independently manage their disease and avoid life-threatening situations.⁴⁸ Whereas private insurers in Texas provide coverage for most of these technologies, public healthcare insurers do not provide the same coverage.

Technological advancements in diabetes now occur at a staggering pace. Persons with Type 1 diabetes receive medically proven benefits from hybrid closed loop insulin delivery systems using glucose sensing technologies.⁴⁹ With these systems, PWD have the necessary tools to achieve near normal blood glucose levels. The direct benefit to the individual includes fewer hospital admissions, reduced risk of diabetes-related complications, improved quality of life and greater longevity and productivity.⁵⁰ The benefit to public health insurers is reduced healthcare costs due to fewer acute and chronic diabetes complications.

As diabetes technologies expand, Texas practitioners who prescribe these technologies have become overwhelmed with the administrative burden of the pre-authorization process. Burdens of paperwork deter practitioners and their professional staff from providing quality face-to-face educational time with patients and families.⁵¹ Chief among the stressors reported are complicated pre-authorization protocols and time delays in getting patients what they need.⁵² These hurdles delay timely patient access to effective diabetes technologies and add unnecessary administrative workloads on diabetes specialists and their diligent

⁴⁸ Schakowsky Reintroduces Legislation to Guarantee Home-Use Medical Devices Are Accessible to Blind and Low Vision Americans. (2023). *United States Congresswoman Jan Schakowsky- representing the 9th District of Illinois*. Jan Schakowsky.

⁴⁹ Boucsein A, Watson AS, Frewen CM, et al. Impact of Advanced Hybrid Closed Loop on Youth With High-Risk Type 1 Diabetes Using Multiple Daily Injections. *Diabetes Care*. 2023;46(3):628-632. doi:10.2337/dc22-1971

⁵⁰ Grunberger G, Sherr J, Allende M, et al. American Association of Clinical Endocrinology Clinical Practice Guideline: The Use of Advanced Technology in the Management of Persons With Diabetes Mellitus. *Endocr Pract*. 2021;27(6):505-537. doi:10.1016/j.eprac.2021.04.008

⁵¹ Taranu SM, Ilie AC, Turcu AM, et al. Factors Associated with Burnout in Healthcare Professionals. *Int J Environ Res Public Health*. 2022;19(22):14701. Published 2022 Nov 9. doi:10.3390/ijerph192214701

⁵² Erickson SM, Rockwern B, Koltov M, McLean RM; Medical Practice and Quality Committee of the American College of Physicians. Putting Patients First by Reducing Administrative Tasks in Health Care: A Position Paper of the American College of Physicians. *Ann Intern Med*. 2017;166(9):659-661. doi:10.7326/M16-2697

staff. As access to diabetes technologies expands, easing the administrative workload on practitioners and staff is critical to maximize clinical effectiveness and keep the best and brightest providers in Texas.

The role of the TDC is to advise state leaders on timely issues related to the health and well-being of Texans living with all types of diabetes. The TDC may also recommend needed legislative or executive action to address identified priorities. A TDC legislative priority is addressing inequities in diabetes healthcare delivery. The TDC believes access to diabetes technologies needs to be improved through legislative action. The TDC recommends that the Texas Legislature facilitate greater access to and use of FDA-approved and validated 21st century diabetes technologies, including automated insulin delivery systems, continuous glucose monitoring systems and “smart” insulin pens.

Texas Diabetes Council Recommendations

- Increase the number and types of advanced diabetes technologies available as direct pharmacy benefits
- Encourage third-party payers to streamline the pre-authorization process to reduce approval time and practitioner administrative burden
- Establish a best practices model for selecting and training patients on automated insulin delivery systems and include curriculum-based instruction in-person and through telehealth

Increasing Access to Insulin and Diabetes Treatments

Rising healthcare costs, including from diabetes medications and complications, limit Texans from accessing the quality of treatments they need to improve their health. Twenty-four percent of American adults say that prescription drugs are hard to afford, and 10 percent admit to not taking medication as prescribed in order to save money.⁵³ In January 2022, the average price increase for prescription drugs was almost \$150 per drug from July 2021. In July 2022, it was \$250 higher than

⁵³ Becerra X. Comprehensive Plan for Addressing High Drug Prices: A Report in Response to the Executive Order on Competition in the American Economy . Office of the Assistant Secretary for Planning and Evaluation. September 9, 2021. Accessed May 26, 2023. https://aspe.hhs.gov/sites/default/files/2021-09/Drug_Pricing_Plan_9-9-2021.pdf

the previous January.⁵⁴ Over 11 percent of Texans have diabetes, with another 34 percent having prediabetes.⁵⁵ It is imperative to lower out-of-pocket costs of insulin and other diabetes drugs so that PWD can afford this life-saving medication.

Some health providers encounter barriers that prevent them from offering diabetes care services. For example, unlicensed diabetes care assistants (UDCAs) may assist students in schools without a school nurse with their diabetes care and management. However, the DSHS training manual that explains how they should be trained is out of date. As a result, many schools are not training UDCAs or are missing the most up to date information. This may hinder the effective treatment and management of diabetes in Texas students.

Excess weight increases the risk for diabetes, and 36.1 percent of Texans are obese.⁵⁶ The best treatment for diabetes is prevention, and diabetes can often be prevented through 7 percent or more of weight loss.

Currently, there are no known statutes or regulations to preclude states from covering treatment for obesity through Medicaid or private insurance. In 2004, the Centers for Medicare and Medicaid Services removed language from the Medicare Coverage Issues Manual that stated that obesity was not an illness.⁵⁷ Research has demonstrated that eligible children under Medicaid already have coverage for comprehensive obesity services through the Early and Periodic Screening,

⁵⁴ Bosworth A, Sheingold S, Finegold K, De Lew N, Sommers BD. Price Increases for Prescription Drugs, 2016 -2022. Office of the Assistant Secretary for Planning and Evaluation. September 30, 2022. Accessed May 26, 2023. <https://aspe.hhs.gov/sites/default/files/documents/e9d5bb190056eb94483b774b53d512b4/price-tracking-brief.pdf>

⁵⁵ Arlington V. American Diabetes Association Applauds Texas as it's Added to Growing List of States Working to Reduce Cost-Sharing on Insulin. American Diabetes Association. June 15, 2021. Accessed May 26, 2023. <https://diabetes.org/newsroom/press-releases/2021/ada-applauds-TX-added-to-growing-list-states-working-reduce-cost-sharing-insulin>

⁵⁶ Texas Department of State Health Services. Texas health data - behavioral risk factor surveillance system (BRFSS). 2023. Accessed June 1, 2023. <https://healthdata.dshs.texas.gov/dashboard/surveys-and-profiles/behavioral-risk-factor-surveillance-system>.

⁵⁷ Lee, J. S., Sheer, J. L., Lopez, N., & Rosenbaum, S. (2010). Coverage of obesity treatment: a state-by-state analysis of Medicaid and state insurance laws. *Public health reports (Washington, D.C. : 1974)*, 125(4), 596-604. <https://doi.org/10.1177/003335491012500415>

Diagnostic, and Treatment program.⁵⁸ Obesity medications have been approved and added to Medicaid in 16 of the 51 states and territories.⁵⁹ As of April 2023, 19 percent of the Texas population is covered by Medicaid or the Children’s Health Insurance Program.⁶⁰ Adding obesity treatment to the Medicaid formulary and increasing access to obesity treatment may help address the clinical and economic burden associated with obesity and its comorbidities, including diabetes.

The implications of medication nonadherence are widespread and have financial consequences on providers, payers, health systems and most importantly, patients. In the United States, the costs of nonadherence to prescribed medications are high and place significant financial strains on the healthcare system.⁶¹ Medication nonadherence is associated with worse health outcomes and higher healthcare costs among PWD. These factors may be intensified by a lack of healthcare and pharmacy access in the community, lack of trust and effective communication with providers, and limited patient involvement in shared decision-making.⁶² Pharmacists can assist with coordination with providers and payers/insurance companies to ensure improved access and reduction in barriers to adherence. According to the U.S. Community Preventive Services Task Force, pharmacist-delivered patient care services can have a positive impact on disease outcomes, quality care, cost-containment, patient safety and overall health system efficiency.⁶³

⁵⁸ Lee JS, Sheer JLO, Lopez N, Rosenbaum S. Coverage of Obesity Treatment: A state-by-state analysis of Medicaid and State Insurance Laws. *Public Health Reports*. 2010;125(4):596-604. doi:10.1177/003335491012500415

⁵⁹ STOP Obesity Alliance. Obesity Treatment Coverage - State Medicaid Program. STOP Obesity Alliance | Milken Institute School of Public Health- George Washington University. 2017. Accessed May 26, 2023. <https://stop.publichealth.gwu.edu/coverage/medicaid>

⁶⁰ Centers for Medicare & Medicaid Services. April 2023 Medicaid & CHIP Enrollment Data Highlights. Accessed August 30, 2023. <https://www.medicaid.gov/medicaid/program-information/medicaid-and-chip-enrollment-data/report-highlights/index.html>

⁶¹ Benjamin RM. Medication adherence: Helping patients take their medicines as directed. *Public Health Reports*. 2012;127(1):2-3. doi:10.1177/003335491212700102

⁶² National Center for Chronic Disease Prevention and Health Promotion, Division for Heart Disease and Stroke Prevention. Tailored pharmacy-based interventions to improve medication adherence. Division for Heart Disease and Stroke Prevention. February 24, 2023. Accessed May 26, 2023. <https://www.cdc.gov/dhdsp/pubs/medication-adherence.htm#references>.

⁶³ Department of Health and Human Services. Heart disease and stroke prevention: Tailored pharmacy-based interventions to improve medication adherence. The Community Guide. May 12, 2023. Accessed May 26, 2023. <https://www.thecommunityguide.org/findings/heart-disease-stroke-prevention-tailored-pharmacy-based-interventions-improve-medication-adherence.html>

Pharmacists across many practice settings, including the U.S. Department of Veteran’s Affairs (VA), have been successful at improving patient outcomes when they are involved in the delivery of patient care services.⁶⁴ The implementation of more expanded pharmacy practice models through comprehensive and disease-specific medication management demonstrates improved performance measures through evidence-based outcomes.⁶⁵ Within some healthcare systems, pharmacists manage medications for chronic diseases in high-risk patients. Within the VA, for example, pharmacists have prescriptive authority and access to each patient's extensive medication history, prescription fill history, and in-depth knowledge of the formulary and criteria for use. Pharmacists also work within the primary care team as an interdisciplinary team member, seeing patients between primary care and specialty appointments to provide closer monitoring and follow-up for patients who need it. Readily involving pharmacists in collaborative care could increase medication adherence, patient health outcomes, and access to quality care and treatment. Moving toward pharmacist-involved diabetes care could benefit PWD across Texas and make Texas an exemplary example in diabetes care and treatment.

Many long-term care facilities offer services to help older adults with diabetes. Some PWD in assisted living facilities experience issues managing their diabetes care with the limited professional personnel available. Often, there are no Registered Nurses or Licensed Vocational Nurses on site at assisted care facilities. As only nurses have the authority to inject patients with medication, elderly patients must have family members assist them or are left to inject themselves.⁶⁶ The TDC recommends that HHSC amend [26 Texas Administrative Code \(TAC\), Section 557.105](#), to allow medication aides to give injections to assist residents

⁶⁴ U.S. Department of Veterans Affairs. Clinical Pharmacist Practitioner (CPP) Role in Management in Transition of Care and Hospital Readmissions. Veterans Health Administration. June 2021. Accessed May 26, 2023. https://www.pbm.va.gov/PBM/CPPO/Documents/ExternalFactSheet_CPPRoleinManagementinTransitionofCareandHospitalReadmissions_508.pdf

⁶⁵ Chisholm-Burns, Marie A. PharmD, MPH, FCCP, FASHP; Kim Lee, Jeannie PharmD, BCPS; Spivey, Christina A. PhD, LMSW; Slack, Marion PhD; Herrier, Richard N. PharmD; Hall-Lipsy, Elizabeth JD, MPH; Graff Zivin, Joshua PhD; Abraham, Ivo PhD, RN; Palmer, John MD, PhD; Martin, Jennifer R. MA; Kramer, Sandra S. MA; Wunz, Timothy PhD. US Pharmacists' Effect as Team Members on Patient Care: Systematic Review and Meta-Analyses. *Medical Care* 48(10):p 923-933, October 2010. doi: 10.1097/MLR.0b013e3181e57962

⁶⁶ Health and Human Services. Allowable and Prohibited Practices of a Medication Aide. Texas administrative code. 2018. Accessed May 26, 2023. [https://texreg.sos.state.tx.us/public/readtac\\$ext.ViewTAC?tac_view=4&ti=26&pt=1&ch=557&rl=Y](https://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=4&ti=26&pt=1&ch=557&rl=Y).

with diabetes in their care. In addition, the TDC recommends requiring medication aides to be trained and tested on injection competency prior to being allowed to assist.

Texas Diabetes Council Recommendations

- Update the document required by the [Texas Health and Safety Code, Section 168.005](#), that explains how to train school professionals who are not diabetes professionals
- Encourage Texas Medicaid to add all FDA-approved weight and obesity medications to the Medicaid formulary
- Promote the utilization of pharmacists as healthcare providers who help manage chronic disease and deliver patient care services, as well as support increased access to medications and improve medication adherence
 - ▶ Evaluate existing education materials for healthcare providers and PWD on the role of the pharmacist to improve medication use and adherence; explore opportunities to create an educational campaign if existing materials prove insufficient
 - ▶ Create a gold standard for pharmacist patient care services and medication access
- Encourage HHSC to amend 26 TAC Section 557.105 so that diabetes medications requiring injections can be given by medication aides for those who need additional assistance

Conclusion

Diabetes is the 8th leading cause of death in Texas and accounted for 27.5 out of every 100,000 deaths in Texas in 2021.^{67, 68} If left unaddressed, the number of people in the U.S. living with diabetes is projected to increase by 54 percent by 2030, which will significantly increase the economic burden in the state.⁶⁹ Diabetes affects all areas of a person's health and quality of life. The TDC chooses to prioritize the following issues in the 2023 State Plan:

- Poor mental health outcomes
- Lack of proper access to diabetes drugs and treatments
- Health disparities
- Hindrances to diabetes technology advancements
- Limited knowledge of and access to eye health services

The TDC is committed to identifying ways to simultaneously reduce overall expenditures while improving the delivery of evidence-based, cost-effective prevention and health services that improve population health. The TDC proposes these priorities for the 2024-25 biennium with the hope that there will be positive change for the benefit of all Texans.

⁶⁷ Texas. Centers for Disease Control and Prevention, National Center for Health Statistics website. Accessed September 12, 2023. www.cdc.gov/nchs/pressroom/states/texas/tx.htm

⁶⁸ Centers for Disease Control and Prevention, National Center for Health Statistics. *National Vital Statistics System, Mortality 2018-2021 on CDC WONDER Online Database, released in 2021*. Data are from the Multiple Cause of Death Files, 2018-2021, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Retrieved on February 3, 2023, from <http://wonder.cdc.gov/ucd-icd10-expanded.html>

⁶⁹ Rowley, W. R., Bezold, C., Arikan, Y., Byrne, E., & Krohe, S. (2017). Diabetes 2030: *Insights from Yesterday, Today, and Future Trends*. *Population health management*, 20(1), 6–12. <https://doi.org/10.1089/pop.2015.0181>

List of Acronyms

Acronym	Full Name
ADA	American Diabetes Association
ADCES	Association of Diabetes Care and Education Specialists
CDC	Centers for Disease Control and Prevention
DSHS	Department of State Health Services
DSMES	Diabetes Self-Management Education and Support
FDA	Food and Drug Administration
HHSC	Health and Human Services Commission
PWD	Person with diabetes
SDOH	Social Determinants of Health
TDC	Texas Diabetes Council
UDCA	Unlicensed Diabetes Care Assistants
VA	United States Department of Veteran's Affairs
WAC	Wholesale Acquisition Cost
2023 State Plan	2023 State Plan to Prevent and Treat Diabetes and Obesity

Appendix A. Texas Diabetes Council Membership

Governor-Appointed Representatives

Name	Position	Expertise
Aida "Letty" Moreno-Brown, RD, LD	General public member with expertise or demonstrated commitment to diabetes issues	Diabetes Advocate
Christine Wicke, PharmD	Consumer member	Pharmacist
Dirrell Jones, JD	General public member with expertise or demonstrated commitment to diabetes issues	Lawyer, Diabetes Advocate
Gary Francis, MD, PhD	Licensed physician with specialization in diabetes treatment	Pediatric Endocrinologist
Jason Ryan, JD	Consumer member	Lawyer, Diabetes Advocate
Maryanne Strobel, RN, MSN, CDCES	Registered nurse with a specialization in diabetes education and training	Certified Diabetes Care and Education Specialist
Ninfa Peña-Purcell, PhD, CHWI	General public member with expertise or demonstrated commitment to diabetes issues	Professor, Master Certified Health Education Specialist

Name	Position	Expertise
Stephen Ponder, MD	Member with experience and training in public health policy	Pediatric Endocrinologist, Certified Diabetes Care and Education Specialist

Non-Voting State Agency Representatives

Name	Organization
Diana Kongevick	Employee Retirement System of Texas
Kelly Fegan-Bohm, MD, MPH, MA	Texas Department of State Health Services
Lisa Golden, MA.Ed.HD, CRC, CDCES	Texas Workforce Commission
Mitchel Abramsky, MD, MPH	Texas Health and Human Services Commission
Umme Salama Oan Ali	Teacher Retirement System of Texas

Appendix B. Percentage of People Driving to a Community Pharmacy

	Percent within 1 mile	Percent within 2 miles	Percent within 5 miles	Percent within 10 miles
Texas	30.9	45.7	56.6	69.8
Rural and Non-Metropolitan Texas Counties	29.0	39.3	46.0	56.4