Advancing Oral Health Equity in Texas: A Community-Driven Approach

February 2024

TEXAS HEALTH INSTITUTE

Funding support provided by

CareQuest Institute for Oral Health

ABOUT TEXAS HEALTH INSTITUTE

Texas Health Institute (THI) is a nonprofit, nonpartisan public health institute with the mission of advancing the health of all. Since 1964, we have served as a trusted, leading voice on public health and health care issues in Texas and the nation. Our expertise, strategies, and nimble approach makes us an integral and essential partner in driving systems change. We work across and within sectors to lead collaborative efforts and facilitate connections to foster systems that provide the opportunity for everyone to lead a healthy life. For more information, visit texashealthinstitute.org and follow us on LinkedIn, Instagram, Facebook, and YouTube.

THI adopted an equity-centered and community-engaged approach to the development of this report. This approach builds on THI's robust experience and core focus on health equity over the last 12 years. THI's approach is grounded in the belief that improving community health must be centered on advancing and achieving health equity–ensuring that everyone has the opportunities they need, free from preventable barriers, to pursue their best health. THI recognizes that doing so requires a deep understanding of the importance of social determinants of health and systems factors that shape a community's health needs and drive health inequities.

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ACKNOWLEDGEMENTS

Texas Health Institute developed this report with funding support from CareQuest Institute for Oral Health.

Additionally, we recognize all our partners, most importantly the many community members, organizations, agencies, and leaders, who assisted with outreach, engagement, and sharing their time, experience, and expertise.

Centering the Community Voices

THI would like to thank the 96 community members for sharing their perspectives during focus groups and trusting us to respectfully lift their voices for the advancement of oral health equity. THI would also like to thank the following community-based organizations (CBOs) who served as research partners on this project. Their community voices were the driving force behind this report:

- Acres Homes Community Advocacy Group, Houston, Texas
- Area Health Education Center, Laredo, Texas
- Cancer & Chronic Disease Consortium, El Paso, Texas
- Equality Texas, Austin, Texas
- Maternal Health Equity Collaborative (Black Mamas ATX), Austin, Texas
- Texas Impact, Austin, Texas
- Texas Parent to Parent, Austin, Texas
- Tri-County Community Action, Center, Texas

Key Informants

THI would like to thank the eight key informants for sharing their perspectives and expertise during interviews and ongoing support of this project. As subject matter experts leading oral health efforts across Texas, their participation provided needed context to translate research into action.

SUGGESTED CITATION

Texas Health Institute. (2024).
Advancing Oral Health Equity in Texas: A Community-Driven Approach.

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EXECUTIVE SUMMARY

Oral Health is a Public Health Issue

Oral health affects a person's physical, psychological, and social well-being, yet Texans often consider it a privilege to visit the dentist—delaying care due to cost and overlooking oral health as essential to their overall health. By separating coverage for oral health from medical health, insurance and employers reinforce this idea that oral health is not essential to overall health. An estimated 11 million Texans do not have regular visits to the dentist. Additionally, oral health problems account for over 1 billion dollars in state spending in Texas every year—excluding the societal costs related to absenteeism and diminished productivity at school and work related to unmet dental needs.

Often described as a "silent epidemic," oral health struggles to command attention and urgency from public health leaders in proportion to its prevalence, cost burden, and importance to the overall well-being of communities and the economy. Given the importance and need for improved oral health, Healthy People 2030 includes a Leading Health Indicator to increase the proportion of children and adults who use the oral health system (OH-08).[1]

A Need for Oral Health Equity

Oral health and overall health are intrinsically connected and when everyone has the opportunities they need, free from barriers, to pursue their best oral health, we see healthier communities. The oral health system is historically reactive, disease-focused, inaccessible, costly, and directly contributes to worsening inequities. In recognition of this, the first Surgeon General's Report on Oral Health[2] placed oral health at the forefront of national health priorities, attributing racial oral health inequities to inadequate dental care access.Subsequent efforts include increased Medicaid provider reimbursement rates, dental student loan repayment, and research funding; however, significant and persistent disparities continue to worsen and impact the well-being of populations experiencing a multitude of health disparities.

As noted in the Oral Health in Texas: Bridging Gaps and Filling Needs report,[3] abundant opportunities exist within and beyond the context of clinical care to address increasingly complex and urgent oral needs in the state Indeed, there are exemplary areas of the state that achieve aspirational results, uniting clinical care with efforts to minimize adverse health risk behaviors, support chronic disease management, and community-based efforts to protect good oral health. By taking deliberate steps to translate scientific advances to communities in need, public health leaders in Texas are well-positioned to advance oral health equity.

> ***"In this nation, oral health care is experienced differently by different groups of people. Somehow, the scientific advances we've made have not been fully translated over to communities in need."***
>
> *– Rena D'Souza DDS, PhD, NIDCR Director*
>
> NIDCR Oral Health in America: Advances and Challenges, 2021.

Centering the Community Voices

Oral health disparities have important implications for health equity. Successful and sustainable solutions to advance health equity can be found by centering the community voices— in research methodology[4] and subsequent action. As such, this action-oriented report goes beyond identifying disparities with the purposeful use of community-engaged research methodologies to inform policy, practice, and system transformations to advance oral health equity.

This human-centered approach provides opportunities to engage communities, build trust, co-create solutions with the community, find common ground[5] through deliberative[6] and shared language[7] necessary to align efforts across sectors,[8] and improve public health performance measures related to the person-centered delivery of oral health care. Additionally, the methodology and subsequent actions outlined in this report can be replicated in other health equity projects.

Process and Methods

Community voices serve as the driving force for the priorities identified in this report and they are supplemented with context provided by key informants, formal evidence, and publicly available data—highlighting where the community-based research findings can be translated into priority areas of action.

With funding support from CareQuest Institute, THI engaged eight community-based organizations (CBOs) as research and engagement partners to assess and contextualize oral health disparities by age, race and ethnicity, disability status, sexual orientation and gender identity, and geography. As research and engagement partners, the CBOs received THI's training and support to recruit participants, facilitate focus groups within their respective communities, and attend a sense-making session to validate takeaways, contextualize findings, and discuss any study limitations.

The CBOs are ideal research and engagement partners for community-engaged research. They have well-established trust, relationships, and shared lived experiences with each of their respective populations—Texas-Mexico border communities, rural residents of East Texas, members of a historically Black neighborhood of Houston, and statewide advocacy groups representing faith leaders, Texans who have disabilities, and LGBTQ+ Texans.

In partnership with the CBOs, THI made every effort to make all 10 focus groups accessible and inclusive for each of the 96 participants—all questions were delivered in plain language with translation services (English, Spanish, other) and settings were virtual, flexible, and intentional to ensure participants felt comfortable sharing their perspectives. After all focus groups were complete, THI met with the CBOs for a sense-making session. In addition to providing context, the CBOs expressed enthusiasm to support community-driven solutions to advance oral health equity.

To provide programmatic, systems, and political context, THI also engaged eight key informants leading various oral health initiatives across the state. Each participant provided perspectives during structured, virtual interviews.

Advancing Oral Health Equity in Texas: A Community-Driven Approach

The action-oriented, synthesized findings highlighted in this report are grounded in the lived experiences of our state's high-risk and marginalized populations, supplemented with evidence, and contextualized by community and system leaders leading oral health and health improvement efforts across the state.

This report confirms that the lived experiences of demographically diverse Texans align with existing research on disparities in oral health outcomes due to systemic social, commercial, and political factors. These disparities also serve as a litmus test for the state's capacity to deliver person-centered care and highlight a need for system transformation that centers care on patient outcomes and needs, specifically:

- Racial equity[9] in access to oral health care and career opportunities.
- Appropriate accommodations to ensure accessibility to timely,[10] person-centered care[11] that respects shared decision-making between patient and health care provider.
- Integration[12] and care coordination to increase access to timely dental and medical care.

In alignment with evidence and key informants, community voices reinforced the importance of policy, community, and data across three areas:

- **Affordability, Availability, and Accessibility**
- **Person-Centered Care Delivery and Aligned Performance Measures**
- **Dental and Medical Integration**

While not exhaustive, this report explores priority areas with a concise and purposeful synthesis of community voices, context, and evidence needed to advance oral health equity.[13]

Priority Area 1: Improve affordability, availability, and accessibility of oral care to increase equitable access and utilization across Texas.

- **Advance upstream policy interventions** that address barriers to affordable, available, and accessible care.
- **Use a community-driven approach to co-develop and implement strategies** that aid in cost transparency, timely delivery of care, and appropriate accommodations for cultural beliefs, preferences, and specialized healthcare needs.
- **Leverage and build upon state-level data and performance monitoring efforts** to assess and improve affordability, availability, and accessibility– ensuring sufficient data for underrepresented populations (e.g., age, rurality, disability status, sexual orientation and gender identity, and pregnancy status).

Priority Area 2: Leverage workforce readiness and aligned patient-reported outcome measures to improve delivery, finance, and accountability of person-centered care.

- **Advance workforce policy interventions** to improve oral health workforce readiness and diversity, with a focus on encouraging youth, rural residents, and students representing communities of color to pursue careers in dentistry.
- **Use a community-driven approach to co-develop and implement strategies** that ensures workforce readiness to meet the oral health needs of a rapidly growing, diverse population.
- **Leverage and build upon state-level data and performance monitoring efforts** to assess, evaluate, and align data systems that drive person-centered care and development of dental patient reported outcomes measures for children and adults.

Priority Area 3: Build capacity for dental and medical integration.

- **Advance policy interventions** that address the dental-medical divide.
- **Utilize community-driven approaches to co-develop and implement strategies** that support the delivery of integrated and coordinated dental and medical care across disciplines.
- **Leverage and build upon state-level data and performance monitoring efforts** to assess, evaluate, monitor, and align with value-based payment models that incentivize quality and improved outcomes for children and adults, ensuring sufficient data for underrepresented populations (e.g., rurality, disability status, sexual orientation and gender identity, and pregnancy status).

Informed by community voices and supplemented with context and evidence, the following priorities translate research into recommended actions to advance oral health equity in Texas. For more information about the person-centered approach, methodology, and findings, please contact ***research@texashealthinstitute.org****.*

Priority Area 1: Affordability, Availability, and Accessibility

An estimated 11 million Texans do not visit a dentist each year.

Access to oral healthcare is crucial for overall health and wellbeing, yet an estimated 9 million adults[14] and 1.7 million children[15] in Texas did not visit a dentist or dental clinic in the past year. High out-of-pocket costs[16] and other factors such as scheduling difficulties, geography,[17] rurality,[18] negative patient experiences, and discrimination[19] contribute to delays or avoided dental care in Texas and the United States.

Findings triangulated from the community voice, key informants, and formal evidence align into three distinct themes further explored in this section of the report:

- **Affordability:** Costs for dental care should be affordable, transparent, and fair.
- **Availability:** Dental services should be timely and within a reasonable distance.
- **Accessibility:** Accommodations are made to increase inclusion for Texans who have unique needs due to disability, health condition, cultural beliefs, and preferences.

It is important to recognize that issue(s) related to affordability, accessibility, and availability are interconnected and not mutually exclusive or exhaustive. As such, they are multi-faceted, complex problems and the findings highlighted in this report are meant to capture and highlight lived experiences and real-life contexts to help inspire and advance action.

The following recommendations are community-informed and contextualized areas for action to improve affordable, available, and accessible oral health care in Texas:

Advance upstream policy interventions that address barriers to affordable, available, and accessible care.

Use a community-driven approach to co-develop and implement strategies that aid in cost transparency, timely delivery of care, and appropriate accommodations for cultural beliefs, preferences, and specialized healthcare needs.

Leverage and build upon state-level data and performance monitoring efforts to assess and improve affordability, availability, and accessibility—ensuring sufficient data for underrepresented populations (e.g., age, rurality, disability status, sexual orientation and gender identity, and pregnancy status).

Affordability:
The cost of dental care is consistently cited as an access barrier to dental care.

In general, focus group participants felt that visiting a dentist simply leads to more extensive and expensive treatments. In weighing the cost of dental care for themselves and their family, dental care often takes lower priority out of necessity. The focus group participants had an awareness to visit the dentist for preventive care, yet the concern of cost frequently led to delayed or forgone preventive dental care.

Among focus group participants living along the southern border of Texas, it was simply easier and cheaper to visit Mexico for care—a takeaway based on their own experiences, or a decision based on stories from family and friends.

In the sensemaking session, community partners shared concerns about surprise costs for dental work and how that can cause patients to delay care or question the transparency of fees. Community partners also highlighted the need to expand Medicaid dental benefits and address the age or financial thresholds that limit Medicaid coverage. Participants also recognized low, or no-cost programs offered through dental schools can somewhat alleviate current inequities.

> ***"Do I need groceries for the week? Or do my teeth take priority? 9 out of 10 times, the groceries, the bills, the rent is always going to take priority."***
>
> *– Focus Group Participant*

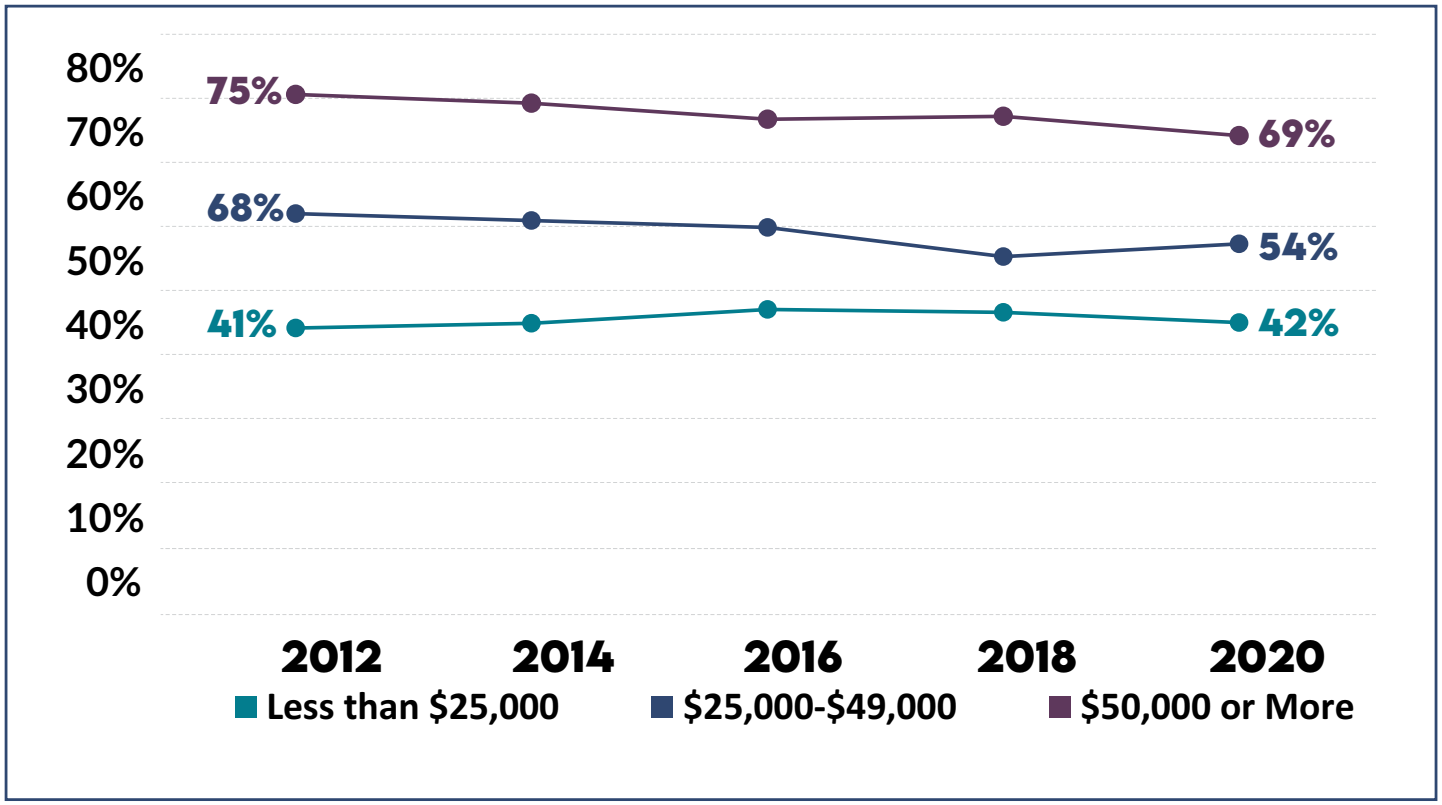
In Texas, an estimated 9 million adults and 1.7 million children did not regularly visit the dentist.

Sources: 2012-2020 Texas Behavioral Risk Factor Surveillance System[14,20] and 2020-2021 National Survey of Children's Health (NSCH)[15]

Key informants frequently cited affordability and low provider reimbursement rates as concerns. For individuals needing intensive dental work, waiting six to nine months is typical given the limited availability of operating rooms (OR) driven by low reimbursement rates compared to more common medical procedures.

For more common dental procedures such as routine cleanings, focus group participants, particularly those on public insurance plans, still cited wait times of several months to see their provider, delaying treatment and care.

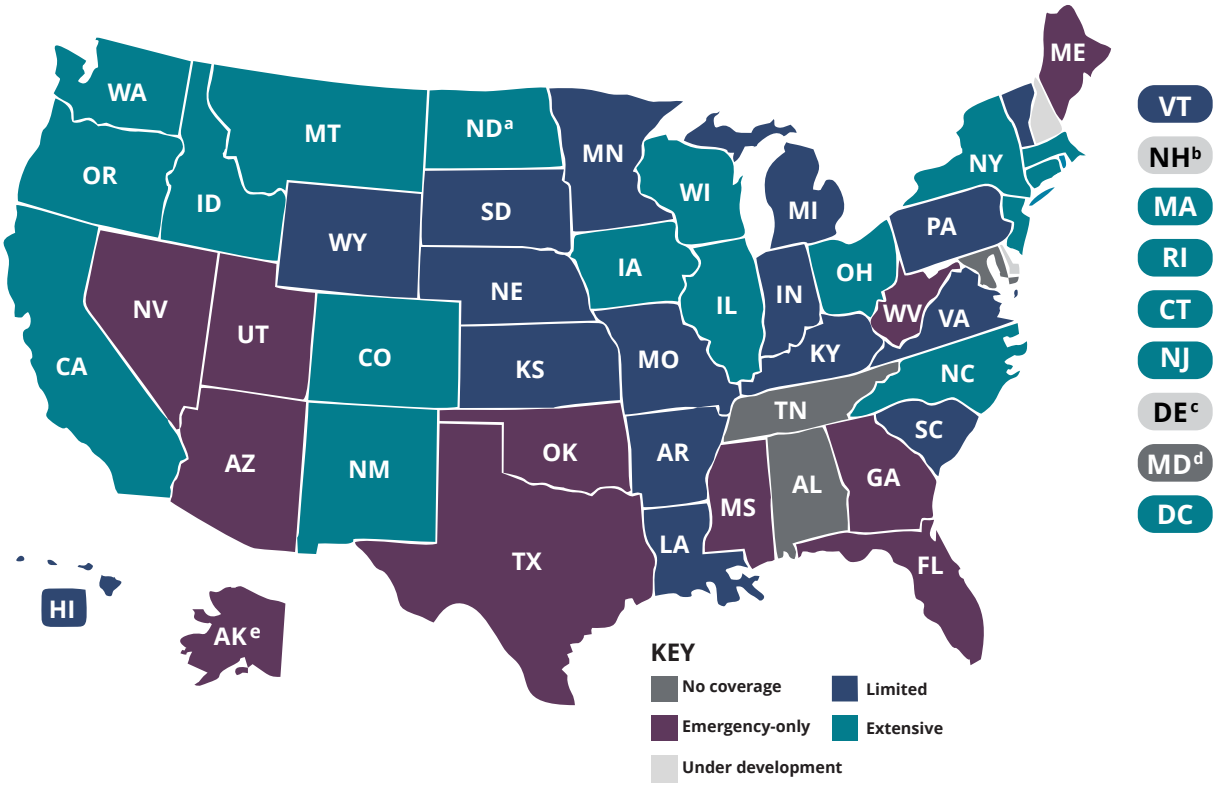
For more than a decade in Texas, adults with household incomes greater than $50,000 were more likely to visit a dentist compared to adults with lower household incomes.



Source: 2012-2020 Texas Behavioral Risk Factor Surveillance System[14]

Key informants were supportive of expanding the Texas social safety net for dental care, with the caveat of capacity. In other words, if Texas expanded Medicaid coverage to more individuals without addressing the limited number and distribution of dental providers, especially those who accept Medicaid patients, little good would be done as existing frustrations with extensive wait times and scheduling difficulties would continue and worsen.

Adults in Texas are eligible for emergency-only Medicaid dental benefits, whereas other states offer limited or extensive dental benefits.



[a] *North Dakota does not offer adult dental benefits to its Medicaid expansion population.*

[b] *Under New Hampshire's bill the Department of Health and Human Services is directed to develop a "comprehensive plan to ensure that Medicaid recipients can safeguard their smiles and their overall health."*

[c] *Under Delaware's bill the state will offer preventive and restorative dental coverage to adult Medicaid beneficiaries.*

[d] *Maryland offers treatment for symptoms in emergency situations but does not cover emergency surgery.*

[e] *Alaska's state budget was passed keeping adult dental coverage intact; however, the Governor's line item vetoes in the budget will result in cuts to the state's Medicaid program, including adult dental, unless the legislature moves to rescind them.*

Source: 2020 Texas Health and Human Services, Older Adults and Oral Health[21]

Availability:
A limited number of nearby dentists and facilities create barriers to timely care.

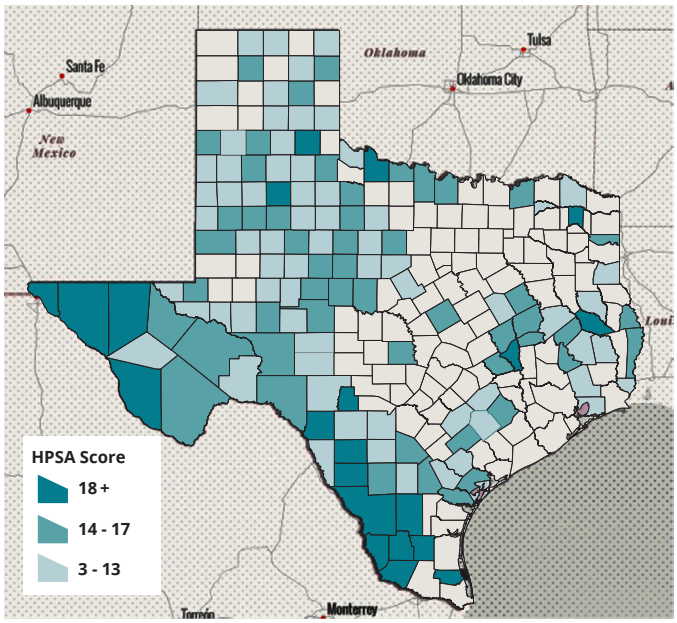
Among focus group participants living in rural Texas, a common belief exists that lower reimbursement or the desire of providers to live in the 'Big City' is the reason dental care is not available for them. Additionally, participants in rural areas west of Interstate 35 feel overlooked and unimportant, evident by 100+ mile drives and several month waits for any kind of dental care appointment.

Key informants also mentioned transportation and the lengths required for rural patients to receive needed dental care. Key informants provided several examples of initiatives to remedy this barrier, also highlighting challenges in doing so.

For example, dental schools in Texas are actively recruiting and accepting dental students from rural areas with the hope they will return there upon graduation, but this is outweighed by the number who train in heavily populated areas and decide to stay there, whether for lifestyle or the economic viability of a practice.

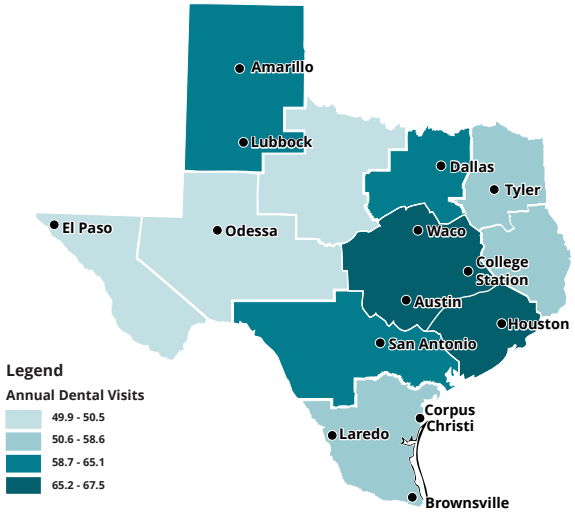
> ***"The rural areas seem to be probably the most lacking access to care. And those of us in rural areas, it's two, three, four to five hours, depending on what city was actually willing to [see us]."***
>
> *– Focus Group Participant*

Counties outside of larger metroplex areas have a limited number of local dental health care professionals, indicated by the darker shaded areas.



Source: 2023 Texas Department of State Health Services (DSHS) Dental Health Professional Shortage Areas[22]

Public health regions in darker shading indicate higher prevalence of annual dental visits.



Sources: Texas BRFSS. 2012, 2014, 2016, 2018
Prepared by: Maternal & Child Health Epidemiology, 3/13/2020. 9(ds)

Source: 2020 Texas Health and Human Services, Older Adults and Oral Health[21]

Accessibility:
Accessibility barriers to dental care make patients feel judged or unwelcome.

Focus group participants most likely to share concerns of being judged or unwelcome by their dental provider include adults or caregivers of children with a disability, Black patients, and members of the LGBTQ+ community. Given past negative experiences in addition to the burden of unknown out-of-pocket expenses, many expressed similar concerns that led to delayed or forgone preventive dental care.

Among focus group participants or caregivers of children with disabilities or specialized health care needs, finding an available provider that would both accept their insurance and offer the appropriate accommodations, with timely and coordinated care was perceived as near impossible. Often, they had to be the coordinator of their own care.

Additionally, focus group participants provided examples of where they felt negative experiences were racially motivated. Often, they sought care elsewhere or tried to locate a dentist who shared their background and/or lived experience.

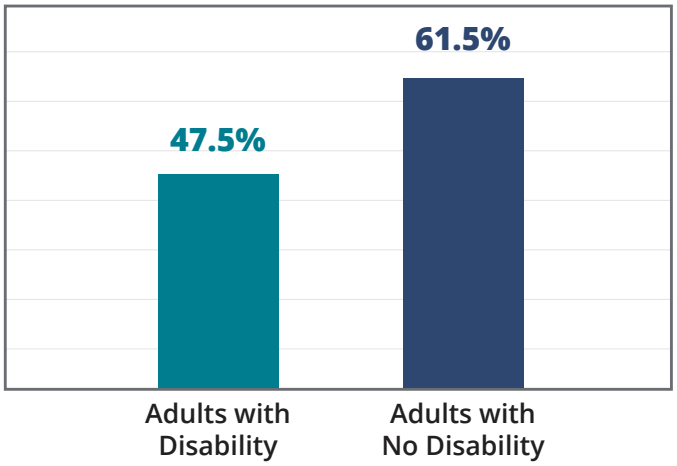
Focus group participants who self-identified as members of the LGBTQ+ community shared multiple examples where they felt their dentist did not respect their identity or was asking inappropriate, probing questions. Religious office décor or choice of television shows also sent non-verbal signals that made them feel uncomfortable or unwelcome in lobby areas. Given these experiences, they were strongly inclined to seek care elsewhere.

During the sensemaking session, community partners agreed that cultural accessibility is a critical barrier to care; though care navigators and community health workers are assets who strengthen trust and relationships.

> *"The way that the information is presented to people is so important because I've seen people walk away in tears on how they felt just trying to get the care that they needed. I think that's super important when we're dealing with this stuff because it's not something anybody wants, but the way that it's given to people is very, very important."*
>
> *– Focus Group Participant*

> *"It's incredibly challenging to walk into one of the only special needs dentists in the area that can medically even take care of my daughter knowing that I'm being judged because I don't get a toothbrush in her mouth enough."*
>
> *– Focus Group Participant*

Adults in Texas with a disability are significantly less likely to have a recent visit to a dentist or dental clinic.



Source: 2020 Texas Behavioral Risk Factor Surveillance System[14]

Priority Area 2: Person-Centered Care Delivery and Aligned Performance Measures

Texas is home to a rapidly growing, diverse population.

Texas is one of only two states with a population[23] of 30 million or more people, with the fastest population growth among racially and culturally diverse residents. In response to the state's rapidly growing population with unique health and socioeconomic needs, person-centered,[24] culturally competent,[25] and linguistically appropriate[26] care practices offer solutions for oral health care professionals seeking to engage in shared decision-making with patients. Building workforce capacity[11] and comfort[27] with person-centered care supports the bidirectional relationship between patient and provider. This collective effort strengthens[28] a diverse workforce[29] ready to meet the oral health needs of a rapidly growing population.

Findings align into two distinct themes further explored in this section:

- **Workforce Readiness:** A diverse dental workforce with the capacity to deliver person-centered care and shared-decision making.
- **Measuring Progress:** Aligned data systems to measure and sustain progress towards person-centered care with dental patient reported outcomes measures.

Findings reflect opportunities to improve the state's current oral health system. As leaders seek to reflect and respond to these findings, it is important to also consider the development and adoption of the patient centered medical home in healthcare systems and the population health benefits of implementing a similar model for the rapidly growing population.

The following recommendations are community-informed and contextualized areas for action to advance person-centered care delivery and measures in Texas:

Advance workforce policy interventions to improve oral health workforce readiness and diversity, with a focus on engaging and incentivizing youth, rural residents, and members of underrepresented communities to pursue careers in dentistry.

Use a community-driven approach to co-develop and implement strategies that ensures workforce readiness and meet the oral health needs of a rapidly growing, diverse population.

Leverage and build upon state-level data and performance monitoring efforts to assess, evaluate, and align data systems that drive person-centered care and development of dental patient reported outcomes measures for children and adults.

Workforce Readiness:
Delivery of person-centered care requires a diverse and adequate workforce.

Across the various communities that took part in focus groups, participants **sought the same basic human needs and rights in their dental care—dignity, respect, and compassion.**

Participants recognized the inherent pressures in the current health and oral health system. While many provided examples of gaps in care or negative experiences around empathy, others shared positive stories, such as visiting the same dentist for thirty years because of the level of trust and relationship built with their dental provider.

Focus group participants, community partners, and key informants are in strong alignment—oral health equity requires a diverse and adequate workforce. In the words of focus group participants, "We want providers that look, and talk like us."

Similarly, key informants spoke favorably about programs that encouraged, funded, or recruited dentists of diverse backgrounds.

Key informants spoke to progress in cultural competency, trauma-informed care, and other initiatives to inform dental professionals of how to be more understanding and attuned to diverse needs, particularly around race, ethnicity, and culture.

> ***"If there's more diversity in dental, it's going to help remove some of the stigma and maybe help develop trust where there hasn't been trust in the past, but there's still so much more to it than just that I don't think it's going to fix it [all]."***
>
> *– Focus Group Participant*

> ***"Populations that have been made underserved for a number of years, possibly generations. We really try to approach them as patient-centered and team-based care."***
>
> *– Key Informant*

Texas has one of the most diverse state populations, yet cultural competency training is not mandatory across the state.

Source: US Department of Health & Human Services[30]

Focus group participants and key informants also align on a common sentiment—**more progress is needed to grow and support a diverse workforce who represent and can adequately serve their communities.**

To meet the oral health needs of a growing, diverse population, a focus on engaging and incentivizing youth, rural residents, and members of underrepresented communities to pursue careers in dentistry is needed. This suggestion reflects alignment between the community voices and context from key informants and formal evidence.

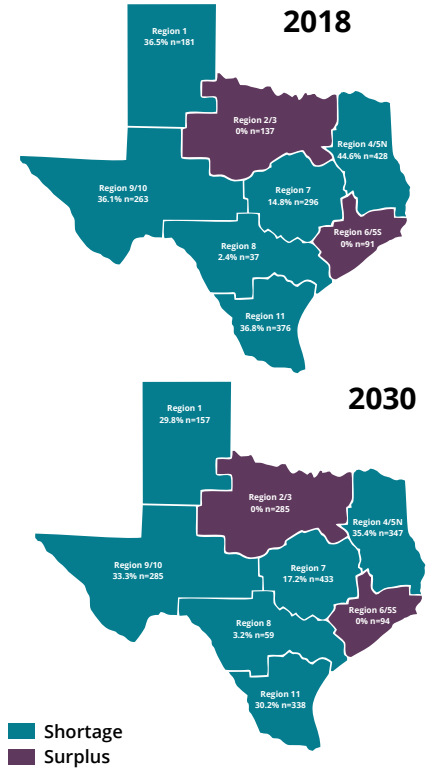
To meet the needs of those living in rural areas, community and key informants suggest a diverse and adequate workforce to address provider shortages and barriers of long commutes and wait times that impact timely access to oral health care. To address the barriers of long commutes and wait times that impact access to timely oral health care.

To meet the needs of the disability community, a diverse and adequate workforce includes dentists and oral healthcare providers who provide the appropriate accommodations, sensitivity, and timely coordinated care for themselves or their loved ones. Even when they were able to find providers that would accommodate sensitivity to light or other special needs, they relayed all-too-common feelings of judgment from their providers for what they know to be inadequate brushing frequency due to their child's disability.

To meet the needs of those with mental health needs, a diverse and adequate workforce includes integrated care and partnerships with mental health professionals. Feedback suggested this creates pathways to support patients with anxiety and depression or the delivery of trauma-informed care.

> *"One of the things [we want] to work on is developing that pipeline starting with junior high. We want to reach out to the Title I schools and focus on providing information about what a career in the dental health would look like and start showing that to junior high school students. But wouldn't it be great to have a curriculum [where] they could do online learning and their clinical part either at a dental office or a community health center and get a certificate."*
>
> – *Key Informant*

In both 2018 and 2030, North Texas (Region 2/3) and the Gulf Coast (Region 6/5S) are the only regions where the supply of all dentists is projected to exceed demand, indicated in blue.



Source: Texas Oral Health Coalition, Health Professional Shortage Areas[17]

Monitoring Progress:
Assessing oral health equity requires dental patient-reported outcome measures.

Data-driven approaches are necessary to advance oral health equity. Despite recent advances in equitable data practices and measurement, opportunities to address current data gaps and limitations persist. These gaps create barriers to effective funding, programming, policy, and as a result, the delivery of person-centered care. In contrast, well-crafted measures and strategic alignment support the delivery of value-based care—care that seeks to improve health outcomes through transformations in care delivery, and financing.

Data Equity:

Continued advancements will ensure relevant and comprehensive data are collected and analyzed across diverse populations. By understanding the unique challenges faced by different groups, such as low-income or marginalized communities, healthcare initiatives can be developed to address specific needs and advance oral health equity.

Dental Patient Reported Outcome Measures (dPROMs):

Continued advancements are needed to strengthen data collection tools and standards for racially and culturally diverse populations. Recent noteworthy efforts include those of the Dental Quality Alliance[31], and dPROMs. These include oral-health-related quality of life measures[32] and robust measures for use in clinical practice, research, advocacy, and population health.[33]

Aligning Data and Funding:

Equity and value[34] must be measured to finance and support workforce diversity. Texas Health and Human Services (HHSC) aims to achieve better care for individuals, better health for populations, and lower costs for the state through contract requirements for Dental Maintenance Organizations (DMOs).

> ***"Discussions and contracts with [Managed Care Organizations (MCOs)] that integrate the value of taking care of diverse populations and trying to improve health equity...have not been fully addressed."***
>
> *– Key Informant*

In Texas, the Dental Pay-for-Quality (P4Q) Program serves as a catalyst for Dental Maintenance Organizations (DMOs) to pursue value-based payment arrangements with providers to achieve desired outcomes using Dental Quality Alliance (DQA) measures to assess preventive care.

DQA Oral Evaluation, Dental Services	**Percentage of enrolled children,** who received a comprehensive or periodic oral evaluation within the reporting year
DQA Topical Fluoride for Children, Dental or Oral Health Services	**Percentage of enrolled children,** who received at least 2 topical fluoride applications within the reporting year as a dental or oral health service
DQA Sealants for 6-9-year-old Children at Elevated Risk, Dental Services	**Percentage of enrolled children,** at "elevated" risk for cavities (i.e. "moderate" or "high") and who received a sealant on a permanent tooth within the reporting year
DQA Sealants for 10-14-year-old Children at Elevated Risk, Dental Services	**Percentage of enrolled children,** at "elevated" risk for cavities (i.e. "moderate" or "high") and received a sealant on a permanent second molar tooth within the reporting year
DQA Measure: Sealant Receipt on Permanent 1st Molars, One Sealant and All Four Sealants	**Percentage of enrolled children**, who have ever received sealants on permanent first molar teeth: at least one sealant all four molars sealed by the 10th birthdate
DQA Measure: Sealant Receipt on Permanent 2nd Molars, One Sealant and All Four Sealants	**Percentage of enrolled children**, who have ever received sealants on permanent second molar teeth: at least one sealant all four molars sealed by the 15th birthdate

Source: Texas Health and Human Services,
Annual Report on Quality Measures and Value-Based Payments[35]

Priority Area 3: Dental and Medical Integration

Oral health and overall health are intrinsically connected

Oral health and overall health are connected in research and evidence, but Texans experience dental and medical services through disconnected systems. This dental-medical divide[36] negatively affects person-centered care delivery, health outcomes, patient and clinician satisfaction, reimbursement, and as a result, oral health equity.

Findings triangulated from the community voice, key informants, and formal evidence align into two distinct themes further explored in this section:

- **Insurance Coverage:** Alignment between medical and dental insurance to improve affordability, availability, and accessibility of oral health care.
- **Interprofessional Collaboration:** Alignment between medical and dental providers to improve coordination of person-centered care across specialties.

While the need for dental-medical integration is not new, this report specifically focuses on patient identified needs and opportunities that validate current efforts and uplift population specific opportunities that help leverage integration as a tool to advance oral health and health equity. Additionally, as the healthcare system in the US shifts from a volume-based care delivery model to a quality focused, value-driven system, adapting these shifts within the oral health system are fundamental to facilitate broader health system transformation efforts.

The following recommendations are community-informed and contextualized areas for action to advance dental and medical integration in Texas:

Advance policy interventions that address the dental-medical divide.

Utilize community-driven approaches to co-develop and implement strategies that support the delivery of integrated and coordinated dental and medical care across disciplines.

Leverage and build upon state-level data and performance monitoring efforts to assess, evaluate, monitor, and align with value-based payment models that incentivize quality and improved outcomes for children and adults, ensuring sufficient data for underrepresented populations (e.g., rurality, disability status, sexual orientation and gender identity, and pregnancy status).

Insurance Coverage: Align dental and medical care coverage.

Regardless of location in the state—East Texas, Austin, the Panhandle, or the Valley—focus group participants often came back to the idea of narrowing the clinical divide between dental care and medical care. Participants requested a one-stop shop clinic where they could handle not only all of their dental needs but their primary care check-ups as well. They also expressed a desire to bring all of their insurance for this care under one umbrella. Key informants recognized efforts and growing attention to medical and dental integration.

The recurring concerns of insurance coverage[37] and cost were evident as participants relayed stories of loved ones who neglected their teeth to the detriment of the rest of their body.

A participant shared a detailed story of how their physical health was impacted by their oral health, yet insurance didn't cover the cost of dental care, and out-of-pocket costs were unaffordable. As a result of the financial barriers, the participant was unable to receive needed care.

This story is common for millions of Texans who delay or skip needed care. In addition to unnecessary pain and negative impacts to overall health and well-being, barriers to dental care can result in ineffective and expensive overuse of emergency department[39] visits.

> ***"I think what would make it easiest would be that the health insurance companies would recognize that your mouth and your eyes are part of your body and that it should all be insurance for your body and be done with it."***
>
> *– Focus Group Participant*

In 2019, over one million adults in Texas had a least one recent visit to the emergency room for a dental problem.

Source: 2019 Texas Behavioral Risk Factor Surveillance System[14]

Interprofessional Collaboration: Includes care coordination across multiple disciplines.

The separation of medical and dental insurance creates barriers[39] to receiving whole-person care, which often leads to less effective healthcare delivery and poorer health outcomes.[2]

Focus group participants, who were also parents or caregivers, expressed deep frustration as they were making the best of their situation to get needed care for loved ones.

Key informants, particularly those with direct patient care experience, expressed similar concerns around coordinating care for medical and dental needs. Many envision a future where these two historically separate practices can work more closely as one, but in the short term want to ensure Texans are aware of the benefits already afforded to them.

Although the case for dental-medical integration can be made for all Texans, the information presented in this section primarily reflects opportunities for coordinated, integrated care among the following:

- Well-child visits
- Care before, during, and after pregnancy
- Individuals seeking coordinated care for specialized healthcare needs or disability

> ***"It would be easier if [dental] were tied to just regular annual checkups because part of the challenge for me is … when I have to reschedule, I'm scheduling around other appointments that my children have, primary care specialists that I have, and then the dentist doesn't have availability for months. And so that is how I ultimately end up not staying on schedule."***
>
> *– Focus Group Participant*

Integrate oral health in well-child visits to benefit child well-being.

Of the parents and caregivers who spoke to their experience raising children, almost all shared their intention to instill good dental habits early on in life. Parents also expressed concern for the ways in which poor dental health and appearance can impact the confidence and social development of their children.

Caregivers shared the challenge of scheduling appointments of all types— children's pediatric appointments, personal primary care appointments, and others. They expressed a desire to blend the healthcare process into a more uniform one for timely delivery of care. Many expressed that lost cost and time led to delayed or forgone preventive dental care.

Due to the pandemic, many children did not receive needed preventive or restorative dental care. As a result, our key informants shared a consistent worsening of condition for their patients, making them more difficult to treat, coordinate needed care, and have a greater effect on their overall health.

Key informants suggested a first step towards integrating oral health and primary health care might be incentivizing primary healthcare providers to be more actively involved with oral health - inspecting teeth and applying sealants or silver diamine fluoride at primary care check-ins.

> ***"If we can make our policy change where we include oral health to be a part of that well-child visit in that first year of life, I think we'd educate and change the trajectory of their life if we start them really early. That's where I think some policy change could be. We need to connect this to the rest of the body."***
>
> *– Key Informant*

1 out of 5 children ages 6–11 have experienced tooth decay in the last year.

Source: 2020-2021 National Survey of Children's Health (NSCH)[15]

Integrate oral health and medical care coordination to support healthy pregnancies and babies.

Key informants spoke to dental programs focused on pregnant populations and the recent expansion of Medicaid coverage to 12 months postpartum for Texas women; however, the intersection of pregnancy and oral health was not mentioned or discussed during focus groups, with the exception of a compelling story that captured multiple barriers to care during the COVID-19 pandemic. The abbreviated quote is highlighted here, demonstrating a need for care coordination between dental and medical care during pregnancy.

Despite positive progress in programming and policy, key informants expressed the need to address more upstream causes of dental programs and gaps in care before, during, and after pregnancy.

In recognition of changing recommendations, key informants pointed out that dentists were previously trained not to treat women during pregnancy. Now, with professional development and training programs, progress is being made in these practices.

Participants suggested the obstetrics/gynecologists (OB/GYNs) and other medical professionals who provide prenatal care would be ideal for promoting dental hygiene during and after pregnancy.

> ***"When I had insurance through my job, they would cover me going once a year for annual cleaning. Of course, when you go to the dentist once a year, they always find something new that's not covered, so I was going at least for the cleanings. And then when COVID hit, I was pregnant with my first son. And so, we got put on Medicaid. So, I would go, especially while pregnant because your teeth decay more. But I noticed well, my Medicaid just ended because right after-- I had two babies back-to-back. But I've noticed a lot less dentist offices are taking Medicaid. So, it was like trying to find an office that's close, that takes Medicaid, that's available when I need it to be available."***
>
> *– Focus Group Participant*

4 out of 10 pregnant women had their teeth cleaned during their pregnancy.

Source: 2012-2019 Texas Pregnancy Risk Assessment Monitoring System (PRAMS)[40]

Integrate dental and medical coverage, services, care, treatment plans, and communication between providers to ensure people with specialized health care needs and disability receive needed, timely care.

Parents of children with disabilities and adults with special needs were frequently caught in the struggle to apply the benefits afforded to them while paying out of pocket for everything else. For the disability community, particularly caregivers and parents, the connection between their dental health and overall health is obvious, but due to Texas's current system of insurance being only available for those 20 and younger with disabilities, parents struggle to find and provide the care they know their adult children need. When they do, there is a lack of clarity on what will be covered by dental and what will be covered under medical, leading to fear that more will be required from their own pocket.

One key informant shared their disappointment with the political process of bridging this divide. They noted that in 2019, House Bill 4533 was signed into law allowing for a pilot of preventative dental services for adults with Medicaid, but this was only funded successfully at the next legislative session two years later. Advocacy groups are still working with HHSC to implement these changes.

When asked for their solutions to address Texas oral health gaps, key informants frequently highlighted the experience of the disability community as a first step to cover those in need. They expressed frustration with the state's willingness to provide more comprehensive care for our most vulnerable and wonder if as a first step, Texas should cover more last-chance solutions instead—ignoring coverage for more preventative care in pursuit of coverage for dentures and extractions.

> ***"We're looking for another dentist and so she's going to have to be sedated because her teeth are so bad, but she has to do anesthesia in the hospital. She can't do it in a clinic. And I am willing to drive wherever I need to drive to find an adult dentist who would see her for her teeth cleaning and who has hospital privileges. Literally cannot find one and we are really, really stuck. And her teeth get worse every day because of it."***
>
> *– Focus Group Participant*

Adult Texans with disabilities are nearly twice as likely to visit the emergency room for a dental problem.

Source: 2019 Texas Behavioral Risk Factor Surveillance System[20]

CONCLUSION

Building on knowledge of oral health disparities with the use of community-engaged research, the following action-oriented recommendations advance oral health equity in Texas:

- **Priority 1: Improve affordability, availability, and accessibility of oral care to increase equitable access and utilization across Texas.**
- **Priority 2: Leverage workforce readiness and aligned patient-reported outcome measures to improve delivery, finance, and accountability of person-centered care.**
- **Priority 3: Build capacity for dental and medical integration.**

The action-oriented, synthesized findings highlighted in this report are grounded in the lived experiences of our state's high-risk and marginalized populations, supplemented with evidence, and contextualized by community and system leaders leading oral health and health improvement efforts across the state. While not exhaustive, the information presented in this report has implications for oral health equity in Texas and the United States, highlighting priorities for action in policy, community inclusion, and data efforts. Additionally, findings highlighted in this report echo and align with the Oral Health Human-Centered Design Customer Engagement[41] conducted by the Centers for Medicare & Medicaid Services (CMS) in early 2022.

This report confirms that the lived experiences of demographically diverse Texans align with existing research on disparities in oral health outcomes due to systemic social, commercial, and political factors. Furthermore, these disparities serve as a litmus test for the state's capacity to deliver person-centered care and signal a need for system transformations to advance oral health equity in Texas. By taking deliberate steps to promote and protect oral health, public health leaders in Texas are well-positioned to reduce the largely preventable consequences of oral disease and improve overall health and quality of life in their communities.

For more information about the person-centered approach, methodology, and findings highlighted in this report, please contact research@texashealthinstitute.org.

APPENDIX

Deliberative Language, Word Choice, and Definitions

This Action-oriented report is written for a diverse audience. For this report to support action across aligned systems[8] in the areas of shared purpose, governance, data, and funding, it is necessary to mindfully balance the use of inclusive, plain language and technical terms. Additionally, words, phrases, and languages may have differing interpretations across sectors. Given the role of languages in public health,[7] this report uses deliberative language[6] to find common ground[5] between various audiences (e.g., community, dental, medical, research, policy). For example, we recognize the industry preference for the term 'oral health,' however, 'oral health' and 'dental health' are used interchangeably in the report, as 'dental health' is plain language. Similarly, the purposeful use of the term 'person-centered care' aligns with the human-centered approach to this study and subsequent strategies; however, this term is often referred to as 'patient-centered care.'

As with any form of research where the term 'community' is used, 'community' requires a clear definition. For the purpose of this report, 'community voices' are defined as the perspectives of 96 demographically diverse participants (by age, race and ethnicity, disability status, sexual orientation and gender identity, and geography) and representatives from 8 community-based organizations (CBOs) who served as our research and engagement partners to recruit participants, facilitate focus groups within their respective communities, and attend a sense-making session to validate takeaways, contextualize findings, and discuss any study limitations. The community voices serve as the driving force for the priorities identified in this report and they are supplemented with context provided by key informants, evidence, and publicly available data, highlighting where the community-based research findings can be translated into action (e.g., policy, community-driven approaches, and data efforts).

Well-Being: A satisfaction with life, fulfillment, purpose, and positive functioning as a result of a positive physical, social and mental state, with met basic needs, and ability to achieve personal goals and participate in society.

Health Equity: Ensuring that everyone has the opportunities they need, free from barriers, to pursue their best health.

Oral Health Equity: Oral Health and overall health are intrinsically connected and when everyone has the opportunities they need, free from barriers, to pursue their best oral health, we see healthier communities.

LGBTQ+: Individuals who identify as lesbian, gay, bisexual, transgender, and queer/questioning sexual or gender identity.

Shared Decision-Making: Patients and healthcare providers collaborate on a shared decision regarding health services that incorporates evidence and patient values or preferences.

Social Determinants of Health (SDOH): The conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. For more, visit Healthy People 2030.

Commercial Determinants of Health (CDOH): The conditions, actions and omissions by commercial actors that affect health such as the provision of goods or services for payment and include commercial activities, as well as the environment in which commerce takes place. For more, visit World Health Organization.

Political Determinants of Health (PDOH): The political conditions that affect social drivers of living, social, and environmental conditions and equitable distribution of opportunities and resources. For more, visit Political Determinants of Health.

Methodology and Data Sources

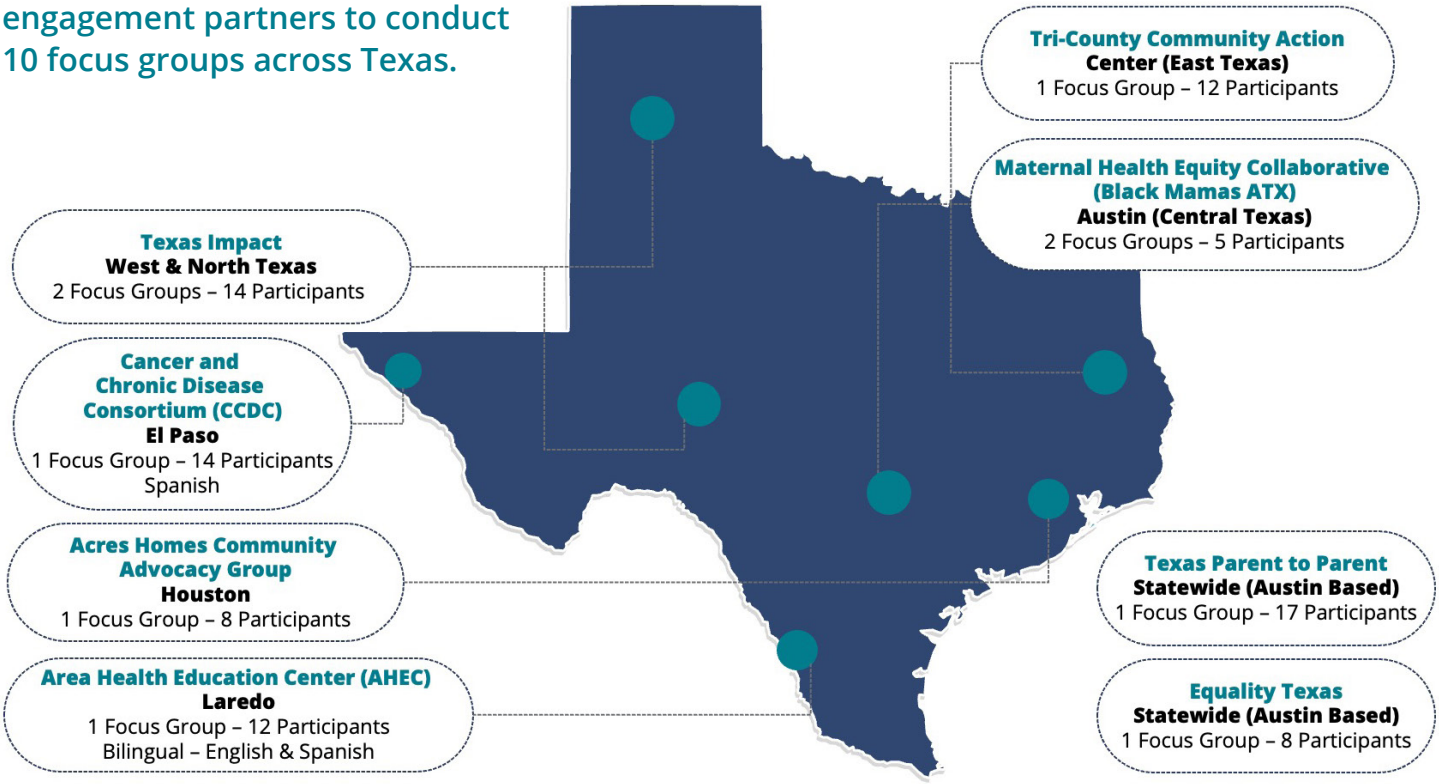
Community voices serve as the driving force for the priorities identified in this report and they are supplemented with context provided by key informants, formal evidence, and publicly available data—highlighting where the community-based research findings can be translated into priority areas of action.

With funding support from CareQuest Institute, THI engaged eight community-based organizations (CBOs) as research and engagement partners to assess and contextualize oral health disparities by age, race and ethnicity, disability status, sexual orientation and gender identity, and geography. As research and engagement partners, the CBOs received THI's training and support to recruit participants, facilitate focus groups within their respective communities, and attend a sense-making session to validate takeaways, contextualize findings, and discuss any study limitations.

The CBOs are ideal research and engagement partners for community-engaged research. They have well-established trust, relationships, and shared lived experiences with each of their respective populations—Texas-Mexico border communities, rural residents of East Texas, members of a historically Black neighborhood of Houston, and statewide advocacy groups representing faith leaders, Texans who have disabilities, and LGBTQ+ Texans. CBOs for this project include:

- **Acres Homes Community Advocacy Group, Houston, Texas**
- **Area Health Education Center, Laredo, Texas**
- **Cancer & Chronic Disease Consortium, El Paso, Texas**
- **Equality Texas, Austin, Texas**
- **Maternal Health Equity Collaborative (Black Mamas ATX), Austin, Texas**
- **Texas Impact, Austin, Texas**
- **Texas Parent to Parent, Austin, Texas**
- **Tri-County Community Action, Center, Texas**

THI engaged eight community-based organizations as research and engagement partners to conduct 10 focus groups across Texas.



In partnership with the CBOs, THI made every effort to make all 10 focus groups accessible and inclusive for each of the 96 participants—all questions were delivered in plain language with translation services (English, Spanish, other) and settings were virtual, flexible, and intentional to ensure participants felt comfortable sharing their perspectives. After all focus groups were complete, THI met with the CBOs for a sense-making session. In addition to providing context, the CBOs expressed enthusiasm to support community-driven solutions to advance oral health equity.

To provide programmatic, systems, and political context, THI also engaged eight key informants leading various oral health initiatives across the state. Each participant provided perspectives during structured, virtual interviews. For the purpose of this report, the identities of the key informants are withheld to protect their anonymity.

Findings in this report are supplemented with evidence from several national and state data sources, including but not limited to the Behavioral Risk Factor Surveillance System, National Survey of Children's Health, Texas Department of State Health Services, and Texas Health and Human Services Commission. Data limitations and opportunities in public health data systems are identified in this report.

For more information about the person-centered approach, methodology, and findings highlighted in this report, please contact research@texashealthinstitute.org.

Limitations

The community-based approach and methodologies utilized in this report confirm oral health disparities persist for Texans of all ages and backgrounds; however, it is not an exhaustive report of disparities and potential strategies to advance oral health equity. For the purposes of brevity, driving action, and diverse audiences, this report synthesizes findings at a high level with data and compelling quotes.

This report, like many other oral health disparities reports, identifies abundant opportunities within and beyond the context of clinical care to improve oral health. Indeed, there are exemplary areas of the state that achieve aspirational results, uniting clinical care with efforts to minimize adverse health risk behaviors, support chronic disease management, and community-based efforts to protect good oral health. With this in mind, notable limitations of this report include, but are not limited to:

- Most of the CBOs who served as research partners have health-focused purposes, activities, and relationships with the community. Because focus group participants were recruited through convenience sampling, participants may have an inherently greater awareness of community services; however, with a total of 96 participants, we reached saturation of key themes identifying similar patterns of persistent disparities.
- In many cases, participating CBOs and key informants were familiar with THI or have collaborated in some capacity in the past. This may have influenced the responses and engagement on this project.
- To protect the identity of focus group participants, key informants, and community-based organizations, the report does not include identifiable information. In cases where relevant stories provide rich content to the report, general details are provided instead.
- The racial demographics of focus group participants were relatively similar to the population of Texas; however, no focus group participants self-identified as Asian or American Indian/ Alaska Native. Barriers to oral health equity may be unique for members of this population. In the future, strategies for more purposeful sampling will ensure the inclusion of these populations.

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