

Community Health Needs Assessment

North Region: Williamson County

**Ascension Seton Medical Center Williamson
Cedar Park Regional Medical Center
Post Acute Medical Rehabilitation Hospital of
Round Rock**

May 2019



**Ascension
Seton**

**For questions, comments or to request a hard copy of this report,
please visit <https://www.seton.net/chna-feedback/>.**

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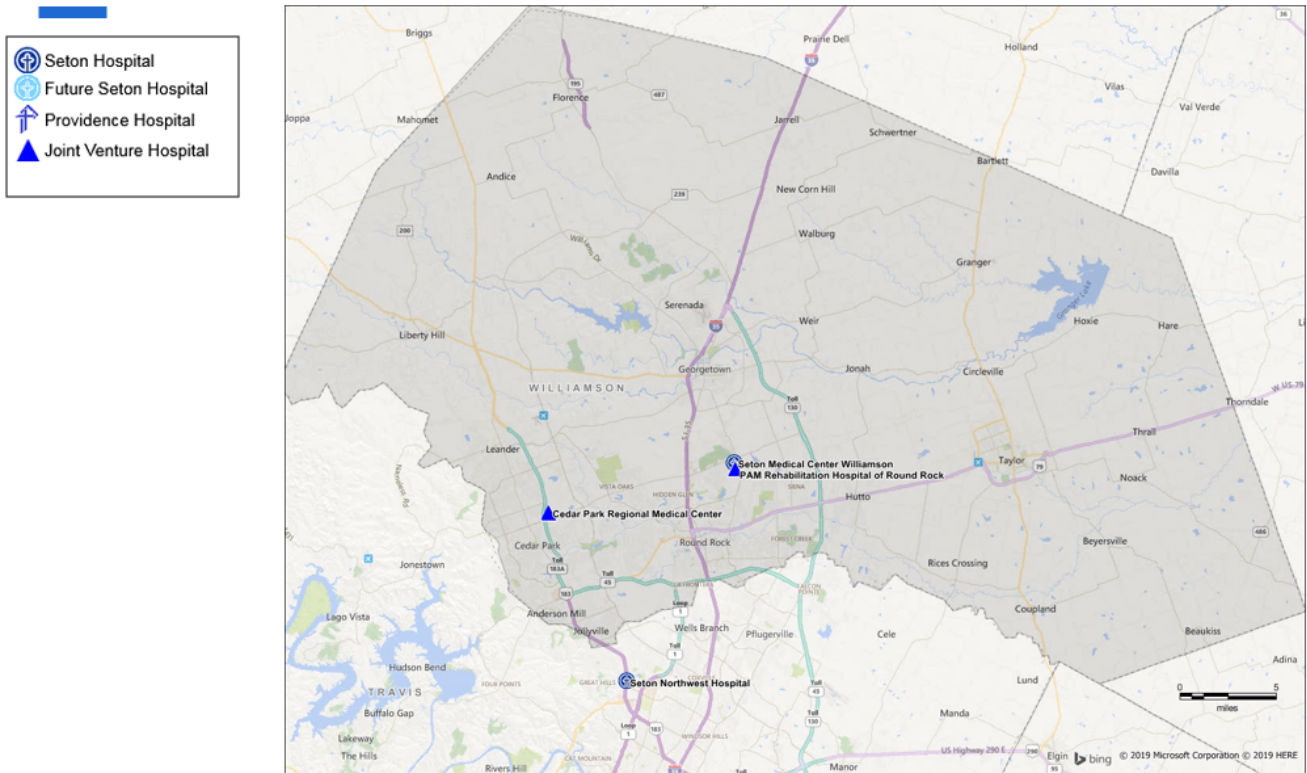
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Ascension

Ascension Seton (formerly known as Seton Healthcare Family) is a 501(c)(3) nonprofit organization with a long-standing history of serving Central Texas, not only as a health care provider, but as a leader and advocate for improving the health of the population as a whole. This community health needs assessment (CHNA) provides a snapshot of local health care needs in Williamson County and helps inform Ascension Seton's decisions about how to best serve the community.

This CHNA addresses the health care needs of Williamson County, Ascension Seton’s North Region. Williamson County is the focus of this CHNA because it is part of Ascension Seton’s primary service area. Ascension Seton Medical Center Williamson, Cedar Park Regional Medical Center and Post Acute Medical Rehabilitation Hospital Round Rock are all located in Williamson County.

CHNA – North Region





Because Ascension Seton associates actively participated in the creation of the Williamson County CHA, the Internal Revenue Service (IRS) allows health care entities to work collaboratively, and the CHA meets the federal legal requirements set forth for the Community Health Needs Assessments, Ascension Seton opted to adopt the Williamson County CHA report, as incorporated herein, as the official Ascension Seton Community Health Needs Assessment for its North Region (Williamson County).

Approval

Prepared by Ascension Seton. Formally adopted by the Ascension Seton Board on May 21, 2019.

Appendix One: Summary of Community Health Resources

The chart below provides a high-level overview of the health care resources available in Williamson County, including acute care facilities (hospitals), primary and specialty care clinics and practices, mental health providers and other nonprofit services that address the social determinants of health such as transportation, affordable housing and poverty. Many of the facilities and organizations listed below are potential resources to address the health needs identified in this CHNA. In addition to the resources listed below, the following government resources are available in each Texas county: Women, Infant and Children (WIC) nutrition program, Texas Health and Human Services Commission programs, Texas Workforce Commission, Texas Mental Health and Mental Retardation (MHMR) offices.

As part of the CHNA process, Ascension Seton along with community partners identified resources that currently support health. This list is not meant to be exhaustive.

Acute Care	Primary & Specialty Care	Mental Health	Other Resources
Ascension Seton Medical Center Williamson	Seton Family of Doctors at Chisholm Trail	Seton Mind Institute	Healthy Williamson County
Cedar Park Regional Medical Center	Seton Family of Doctors at Round Rock	Rock Springs Behavioral Health	Williamson County Healthcare Helpline
Baylor Scott & White Round Rock	Seton Family of Doctors at Williamson	Crisis Intervention Team	Catholic Charities of Central Texas
Baylor Scott & White Taylor	Ascension Seton Express Care	Bluebonnet Trails Community Services	Capital Area Rural Transportation System (CARTS)
Cornerstone Hospital of Round Rock	RediClinic	Georgetown Behavioral Health Institute	Post Acute Medical-Rehab Hospital of Round Rock
Five Start Emergency Room	Sacred Heart Clinic of Round Rock	Ascension Seton Shoal Creek	The Caring Place
St. David's Round Rock Medical Center	Lone Star Circle of Care	Integral Care	Round Rock Serving Center
St. David's Georgetown Hospital	Austin Regional Clinic		St. Vincent DePaul Center

Cornerstone Hospital of Austin			
Post Acute Medical Rehabilitation Center Round Rock			

Appendix Two: Evaluation of Impact of Actions Taken Since the 2016 CHNA

Ascension Seton conducted its last CHNA for Williamson County in 2016. The CHNA identified the following prioritized needs for FY 2016-FY 2018.

1. Mental health
2. Access to health care
3. Awareness of health care resources
4. Active living
5. Chronic diseases

Ascension Seton and Ascension Seton Williamson and Cedar Park Regional Medical Center have worked to address these needs. The summary below includes a summary of the impact Ascension Seton has made on these community needs over the past three years.

Ascension Seton operates the primary teaching hospital where Dell Medical School at The University of Texas (DMSUT) undergraduate and graduate medical students train. Ascension Seton and DMSUT have collaborated on medical resident training as medical students and residents have completed rotations in different specialties at many of the Ascension Seton facilities, including Dell Seton Medical Center at The University of Texas, Ascension Seton Medical Center Austin, Dell Children's Medical Center, and Ascension Seton Shoal Creek.

Ascension's national access and care coordination center, called AscensionConnect, supports the 11 counties that Ascension Seton serves. This innovative center provides comprehensive access to health and innovative solutions all under one roof. By utilizing one number patients are able to schedule primary and specialty care appointments, access 24/7 nurse advice, utilize the digital urgent care for minor illnesses, access behavioral health through an iPad, and enroll in comprehensive remote care management programs. The center is staffed by teams of multidisciplinary professionals with both clinical and administrative backgrounds that utilize digital technology to extend access to services that traditionally have been very difficult to find.

AscensionConnect's remote care program serves an average of 800 patients per month. Clinicians work with individuals suffering from chronic illness or individuals who are preparing for surgery. Our navigators tailor each care pathway based on the individual's personal needs. This program has been live for three years and has demonstrated a reduction in readmissions to as low as 2.59% for participants of the intervention.

Ascension Seton made the previous Williamson County CHNA report available online. The public was invited to submit comments via email. No comments were received on the 2016 CHNA.

Since the Post Acute Medical Rehabilitation Hospital of Round Rock opened in December 2018, this is the first CHNA for that entity. Consequently, there is no update to include on actions taken since 2016.

Ascension Seton Medical Center Williamson

Prioritized Need	Action	Actual Impact
Access to Care	Design, develop and deliver an Ascension Medical Mission at Home in Williamson County	Successfully Realized: <ul style="list-style-type: none"> • 997 patients served • 983 encounters • 170 prescriptions filled • 90 referrals documents for patient to establish a medical home • 34 pairs of eye glasses dispensed
Active Living	Health and wellness programs targeting women in Williamson County	Hosted annual Ignite Program supporting women's health services-served 1,050 Eating for Wellness cooking class-served 200 Ignite fitness training-served 100 BP screening-1000+ served Balance classes/screenings-50 served
Chronic Disease	Support for Williamson County residents newly diagnosed with diabetes, including education and nutritional support	Engaged with Williamson County Alliance and Cities Health District to identify opportunities and actions to improve the health of Williamson County residents, no specific data is available at this time but an action plan was completed and work began in 2019 <ul style="list-style-type: none"> • Cardiac Yoga; served 150 • Stroke support group; served 204 • Cardiac Support Group; 100 served
Systems of Care	Enrollment, navigation and health care services for Williamson County residents at or below 21% of the federal poverty limit	On June 29, 2017, Ascension Seton Medical Center Williamson hosted a Medical Mission at Home that served 1200 community residents. The mission offered medical, dental and vision care free of charge and provided referrals to community resources.

Cedar Park Regional Medical Center (CPRMC)

Prioritized Need	Action	Actual Impact - February, 2019
Access to Healthcare	Provide financial investment in United Way's efforts to expand access to care and services in Williamson County including the annual Agency Fair	Increased participation in United Way Agency Fair at CPRMC in 2018. In 2019, Healthcare Info Exchange program in place for Wilco hospitals. CPRMC ER navigation program for follow-up. Lonestar and Samaritan provides primary care resources for the uninsured.
Chronic Disease	Provide educational seminars to seniors on disease management, prevention, health screenings, nutrition, exercise and mental health	Monthly seminars on range of health promotion and chronic disease topics. Monthly blood pressure and glucose screenings beginning in 2019. Emergency Room navigation to primary care to manage chronic diseases.
Awareness of Healthcare Resources	Provide specialized wellness program for women on a health mind, body and spirit (Healthy Woman Program)	Monthly Healthy Woman newsletters and increased memberships to 9,000 in 2019. Regular wellness events in community and at CPRMC. ER navigator increases awareness of resources.
Active Living	Offer seniors discounted YMCA memberships and provide health education	Newsletters provide information on healthy lifestyle. Reduced YMCA membership fee are available. Service Excellence Council promotes wellness activities for associates.

COMMUNITY HEALTH ASSESSMENT 2019



WILLIAMSON COUNTY, TEXAS

Acknowledgements

The dedication, expertise, and leadership of a large number of agencies and people made the 2019 Williamson County Community Health Assessment (CHA) possible. This collaboratively developed plan engaged the community to produce a comprehensive assessment that will be used to develop the 2020-2022 Community Health Improvement Plan (CHIP). The Williamson County and Cities Health District (WCCHD) led this CHA effort in collaboration with strong community partners including Ascension Seton, Baylor Scott & White Health, Bluebonnet Trails Community Services, Georgetown Health Foundation, Lone Star Circle of Care, Opportunities for Williamson and Burnet Counties, St. David's Foundation, and the WilCo Wellness Alliance. The opportunity provided for collaboration between hospital systems and local public health agencies to collectively assess the health needs of the community we all serve was an important aspect of this project. This shared ownership of community health among diverse stakeholders enhances coordination and utilization of resources across entities to achieve improvements in the community's health. The following organizations and individuals graciously provided support for this project:



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City

Cedar Park
Georgetown
Hutto
Leander and Liberty Hill
Round Rock
Taylor
Williamson County
Williamson County

Organizations that participated in Key Informant Interviews and Stakeholder focus groups

Baylor Scott & White Health	Round Rock Area Serving Center
Bluebonnet Trails Community Services	Sacred Heart Community Clinic
Boys and Girls Club	Shepherd's Heart Food Pantry and Community Ministries
Central Texas Catholic Charities	Taylor City Council
Central Texas Food Bank	Taylor Housing Authority
Christ Fellowship Church	Taylor Press
Community Resource Center of Texas Inc.	Texas Department of State Health Services Region 7
Eastern Williamson County Collaborative	The Caring Place
Georgetown Health Foundation	The Pavilion Clubhouse of Round Rock
Georgetown Public Library	Tripp Center
Interagency Support Council of Eastern Williamson County	United Seniors of Taylor
LifePark Center	United Way of Williamson County
Lone Star Circle of Care	Williamson County and Cities Health District
	Williamson County EMS Mobile Outreach Team

Community Survey Distributors

AGE of Central Texas	LifeSteps Council on Alcohol and Drugs
Allen R. Baca Center	Muirfield Property Owners Association, Inc.
Avery Ranch Owners Association, Inc	Neighborhood Association of Southwestern Williamson County
Baylor Scott & White Medical Center - Taylor	Opportunities for Williamson and Burnet Counties
Bluebonnet Trail Community Services	Parmer Village Condominium Community
Christ Fellowship Church	Round Rock Public Library
City of Round Rock	Salvation & Praise Tabernacle Ministries
Cottages at Lake Creek Homeowners Association	Shepherd's Heart Food Pantry & Thrift Shop
Davis Spring Homeowners Association	Southeast Georgetown Community Council
Eastern Williamson County Collaborative	Southwestern University
Hill Country Community Ministries	Taylor Housing Authority
Hutto Has Heart	Texas State University Round Rock
Indian Oaks Neighborhood Association	The Caring Place
Interagency Support Council of Eastern Williamson County, Inc.	United Way
Intervention Services	WilCo Wellness Alliance
Lakeline Station, Foundation Communities	Williamson County
Liberty Hill Community Resource Center	Williamson County and Cities Health District

Organizations that participated in Stakeholder Facilitated Activity

AGE of Central Texas	Dell Children's Health Plan
American Foundation for Suicide Prevention	Eastern Williamson County Collaborative
American Heart Association	Family Eldercare
Annunciation Maternity Home	First Baptist Church Georgetown
April Lopez and Associates	Fort Hood Behavioral Health
Ascension Seton	Frost Insurance
Baylor Scott & White Health	Georgetown Behavioral Health Institute
BCFS Common Thread	Georgetown Gospel Justice Center
Blackland Food Co-op	Georgetown ISD
Bluebonnet Trails Community Services	Girls Empowerment Network
Boys and Girls Club	Girls with Grit
Brighter Days Food Pantry	Heidi Group
Cedar Crest Hospital and Residential Treatment Center	Hill Country Community Ministries
Celebration Church	Hope Alliance
Cenikor	Hutto Has Heart
City of Georgetown Library	Hutto ISD
City of Georgetown Parks and Recreation	

Interagency Support Council of Eastern Williamson
 County, Inc.
 Intervention Services
 IT'S TIME TEXAS
 Keep Hutto Beautiful
 Langlois Consultant Services LLC
 LifeSteps
 Lone Star Circle of Care
 Lone Star Justice Alliance
 Mature Driver Program
 MAXIMUS
 Mommie Support Network
 NAMI Austin
 Onestep Life Coach
 Opportunities for Williamson and Burnet Counties
 Palace Theatre
 Profile by Sanford
 Rock Springs
 Round Rock ISD
 Samaritan Center
 Senior Access
 Southeast Georgetown Community Council
 Southwestern University
 Spirit Reins
 STARRY
 Taylor Housing Authority
 Taylor ISD

CASPER Organizations

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 Texas State University
 Texas A&M University School of Public Health

Community Focus Group Convening Organizations

God's Way Christian Baptist Church
 Opportunities for Williamson and Burnet Counties
 Regarding Cancer
 The NEST

Texas Department of Agriculture
 Texas Department of State Health Services
 Texas Health Steps
 Texas State Technical College
 Texas State University
 The Arc of Texas
 The Christi Center
 The Georgetown Project
 The Key 2 Free
 The Pavilion Clubhouse of Round Rock
 The Volunteer Center
 TMF Health Quality
 United Seniors of Taylor
 United Way of Williamson County
 Upward Bound
 WCCHD WIC
 WGU
 WilCo Wellness Alliance
 Williamson County
 Williamson County and Cities Health District
 Williamson County EMS
 Williamson County Juvenile Services
 Williamson County Sherriff's Office
 WIOA Youth Workforce Solutions
 Wonders and Worries
 YMCA of GWC
 Yoga Yoga

WilCo Medical Reserve Corps
 Williamson County Office of Emergency Management
 Williamson County GIS

The Pavilion Clubhouse of Round Rock
 Tripp Center
 Williamson County and Cities Health District

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Executive Summary

Overview

In order to strategically address health issues within the community, it is vital to sustain broad community partnerships first and develop a shared vision and goals for the future. Led by the Williamson County and Cities Health District (WCCHD), the 2019 Williamson County Community Health Assessment (CHA) was developed by a strong task force of community partners (CHA Task Force): Ascension Seton, Baylor Scott & White Health, Bluebonnet Trails Community Services (BTCS), Eastern Williamson County Collaborative, Georgetown Health Foundation, Lone Star Circle of Care (LSCC), Opportunities for Williamson and Burnet Counties (OWBC), St. David's Foundation, United Way of Williamson County, and the WilCo Wellness Alliance. The 2019 CHA is designed to collect, analyze, and use data to educate and mobilize communities, develop priorities, gather resources, plan actions to improve population health, and provide a foundation of data to be used for evidence-based goal setting and decision making for Williamson County, Texas.

Methodology

The CHA Task Force used the National Association of County and City Health Officials (NACCHO) Mobilizing for Action through Planning and Partnerships (MAPP) process as a proven systematic framework for identifying community health needs and the resources for meeting those needs.⁽¹⁾ The MAPP process consisted of four assessments – the Community Health Status Assessment (CHSA), the Community Themes and Strengths Assessment (CTSA), the Forces of Change Assessment (FoCA), and the Local Public Health Systems Assessment (LPHSA).⁽²⁾ The findings from each assessment are included as individual sections in the report. Together, the four assessments provide a comprehensive view of the factors influencing the health of the community and guide the community's determination of priority areas. Through the process, the CHA Task Force engaged over 2,600 community members and stakeholders and 182 households.

The assessment process involved gathering both quantitative data (e.g. “numbers”) and qualitative data (e.g. “voices of the community”) through a variety of methods:

- Community Health Survey
- Facilitated activities at community meetings
- Community focus groups
- Stakeholder focus groups
- Key informant interviews
- Mom's Community Listening Forum
- Local Public Health Systems Assessment
- Community Assessment for Public Health Emergency Response (CASPER)
- Primary and secondary data analysis

Community Health Status Assessment

The CHSA explores aggregated, population-level data to define the health status of the county and provide key findings to residents and stakeholders. Indicators are divided into eleven broad categories based on the MAPP framework's “Core Indicator List.” The CHSA draws comparisons between Williamson County and Texas health indicators, as well as applicable Healthy People 2020 (HP2020) targets. The CHA Task Force obtained data from many primary and secondary sources at the local, state, and national level. Significant secondary data sources include American Community Survey, Behavioral Risk Factor Surveillance System, Texas Department of State Health Services, and U.S. Department of Agriculture. Local organizations, including BTCS, Hill Country Community Ministries, and LSCC, also provided primary data.

In 2017, the **TOP 10 CAUSES OF DEATH** in Williamson County were:

- | | |
|------------------------|---------------------------|
| 1. Cancer | 6. Unintentional Injuries |
| 2. Heart Disease | 7. Kidney Disease |
| 3. Alzheimer's Disease | 8. Suicide |
| 4. Stroke | 9. Diabetes Mellitus |
| 5. Lung Disease | 10. Parkinson's Disease |

Community Themes and Strengths Assessment

The CTSA focuses on identification of current community issues, perceptions about quality of life, and community assets through feedback from community stakeholders and the general public.

Strengths and Assets

Through the CTSA, nine strengths and assets in the county were identified by residents and stakeholders and can continue to be leveraged to improve the health and wellness of the community:

- **GOOD EDUCATION SYSTEM:** Residents identified good schools as the #1 strength of the county. Fifteen Independent School Districts and multiple higher education campuses provide resources and services.
- **LOW CRIME AND SAFE NEIGHBORHOODS:** Residents identified low crime and safe neighborhoods as the #2 strength of the county. However, focus group participants noted higher crime areas and unsafe neighborhoods in rural communities.
- **ACCESS TO HEALTHCARE:** Residents identified access to healthcare as the #3 strength of the county. There is a general perception that available healthcare is of high quality, especially for the insured.
- **PARKS, TRAILS, AND RECREATION FACILITIES:** Residents identified use of parks and recreation as the #4 strength of the county. The county has many parks, facilities, and over 208.6 miles of trails.
- **CLEAN ENVIRONMENT:** Residents identified a clean environment as the #5 strength of the county. A clean environment is essential to the health and well-being of residents.
- **RELIGIOUS OR SPIRITUAL VALUES:** Residents identified religious or spiritual values as the #2 strength in the East. Churches, a place of trust, play a key role in community support and delivery of services.
- **COMMUNITY PARTNERSHIPS AND COLLABORATIONS:** Stakeholders identified community partnerships as the #1 solution to improving health in the county. Many organizations that provide essential services have formed partnerships to provide wrap-around services and to meet gaps in service delivery.
- **COMMUNITY RESOURCES:** Residents perceive the county to have an abundance of available resources. Aunt Bertha listed 149 claimed organizations and 329 claimed programs in the county.
- **COMMUNITY SUPPORT:** The community is supportive of one another, especially in times of need. As one focus group participant noted, "we all pull together in the community and make miracles happen."

Concerns Identified

The CHA Task Force identified two cross-cutting themes and ten health concerns in the county.

Cross-Cutting Themes

- **LACK OF CULTURAL COMPETENCY:** Residents and stakeholders identified the need for translation and bilingual services among community and healthcare organizations and information disseminated in multiple languages. The local public health system should ensure a culturally competent workforce.
- **LACK OF HEALTH EQUITY:** Residents and stakeholders frequently mentioned differences in income, wealth, employment, access, and resources. Decision makers should prioritize underserved populations in the East and in rural areas that tend to have less access and worse health outcomes.

Social Determinants of Health

- **LACK OF AFFORDABLE HEALTHCARE:** Uninsured, low-income, and underserved populations tend to lack access to affordable healthcare. Residents listed multiple contributing factors, including rising medical bills, copays, deductibles, and cost to referral services.
- **LACK OF AWARENESS OF COMMUNITY RESOURCES:** Even though community resources are abundant, access and awareness differ by region and population. Decision makers should prioritize increasing access and awareness in the East, in rural communities, and in underserved populations.
- **LACK OF (PUBLIC) TRANSPORTATION:** Only about 4% of households had problems getting transportation in the past six months; however, access remains a major concern for residents and stakeholders. Decision makers should seek alternative solutions to improve transportation options.
- **LACK OF AFFORDABLE AND SAFE HOUSING:** Housing and rental prices have steadily increased making it less affordable for those that have always lived in the county. The county has no homeless shelters and few transitional services for individuals facing homelessness.
- **LACK OF COMMUNITY TRUST:** East residents and stakeholders mentioned distrust of local government by minority groups due to political, historical, and cultural issues. To become a more resilient Williamson County, decision makers should focus on the community resiliency framework.

Behavioral Health

- **MENTAL HEALTH, STRESS, AND WELL-BEING:** Mental health and stress affect all populations in the county and were ranked the #1 and #4 health problems, respectively. About one in ten households reported that a member of the household had been diagnosed with psychosocial or mental illness.
- **SUBSTANCE USE AND ABUSE:** Residents identified drug abuse as the #3 health problem in the East. The rate of excessive drinking among adults is higher in the county than the state, and tobacco use continues to remain high because of the increased prevalence of e-cigarette use.

Chronic Disease and Risk Factors

- **CHRONIC DISEASE (OBESITY AND DIABETES):** Following cancer, heart disease is the #2 cause of death in the county. Residents identified obesity as the #1 and diabetes as the #5 health problem in the county. Improving healthy food access and increasing physical activity rates will improve chronic disease rates.
- **LACK OF HEALTHY FOOD ACCESS:** Stakeholders identified healthy food access as the #3 health problem. The county contains multiple food deserts. Decision makers should increase grocery store access for low-income populations and households with no vehicle.
- **PHYSICAL INACTIVITY:** Adults who are sedentary are at an increased risk of many serious health conditions. One in five households reported having barriers or challenges that prevent physical activity, such as injury, illness, or disability.

Forces of Change Assessment

The FoCA identifies trends, factors, or events that influence the health and quality of life of the community and the Williamson County public health system. These external factors create many opportunities and challenges for the community and are categorized into eight forces of change.

- **AFFORDABILITY AND COST OF LIVING INCREASES:** As the cost of living increases and the county becomes a more affordable alternative to Austin, many current residents are being priced out of the housing market.

- **CITY DEVELOPMENT:** Cities are being developed to keep up with demand and the influx of new residents. While cities may have good intentions to develop new community resources for new residents, attention should also be placed on taking care of current residents and their needs.
- **CURRENT EVENTS:** Current events such as recent suicides and school shootings in the nation continue to affect the behavioral, emotional, and physical health and wellness of residents.
- **DEMOGRAPHIC CHANGES:** The Hispanic population and the aging population are each expected to double by 2050. Decision-makers should prioritize these populations in future planning efforts.
- **POLITICAL CLIMATE:** Due to shifting priorities at the state and national level, there have been funding cuts for social services, access to healthcare, and access to affordable health insurance.
- **POPULATION GROWTH:** Between 2010 and 2017 the county's population grew by 29.5%, adding about 20,000 residents per year, more than double the growth in Texas. Liberty Hill, Leander, and Hutto lead the county in growth.
- **SOCIAL MEDIA AND CHANGES IN TECHNOLOGY:** Social media use continues to become more pervasive in the county, mirroring nationwide trends. Social media affects how children and youth connect with one another other, while older adults are struggling to adapt to technological changes.
- **URBANIZATION AND GENTRIFICATION OF RURAL AREAS:** Growing numbers of the population are moving to traditionally rural areas. Rapid gentrification of areas in the county exacerbates income disparity and growing health inequity which is related to worse health outcomes.

Local Public Health Systems Assessment

The LPHSA provides an understanding of how the Williamson County public health system is performing and can help local partners make more effective policy and resource decisions to improve the community's health. The CHA Task Force identified the highest- and lowest-ranked performance measures of the public health system.

HIGHEST RANKED: Two of the five highest measures were related to establishing and assessing community partnerships.

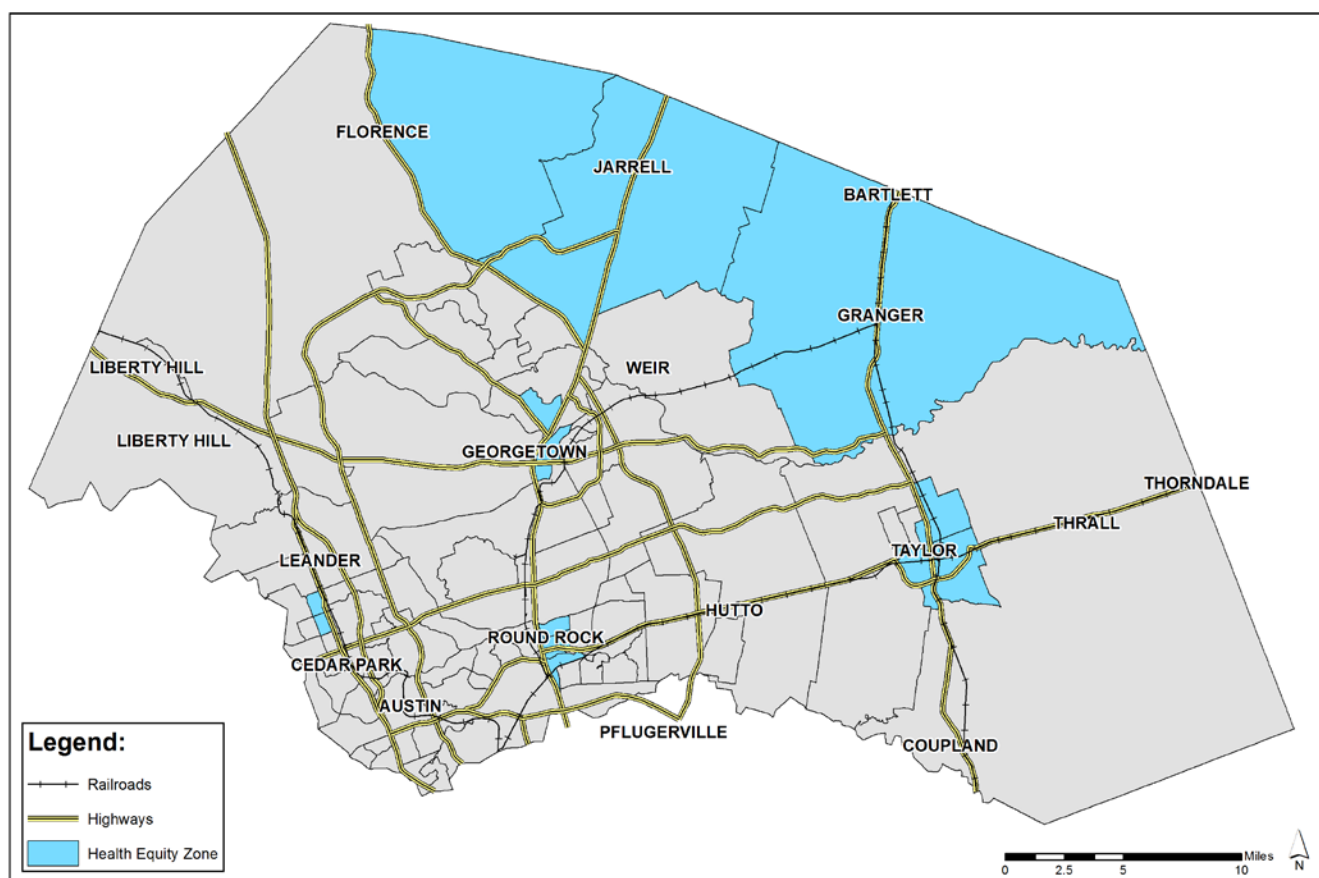
- 4.2.1. Establish community partnerships and strategic alliances to provide a comprehensive approach to improving health in the community
- 4.2.3. Assess how well community partnerships and strategic alliances are working to improve community health

LOWEST RANKED: Three of the five lowest measures were related to assuring a culturally-competent health care workforce.

- 8.3.1. Identify education and training needs and encourage the public health workforce to participate in available education and training
- 8.3.5. Continually train the public health workforce to deliver services in a culturally competent manner and understand the social determinants of health
- 8.4.4. Provide opportunities for the development of leaders who represent the diversity of the community

Health Equity Zones

According to the Robert Wood Johnson Foundation (RWJF), health equity “means that everyone has a fair and just opportunity to be as healthy as possible.”(3) Health equity is a critical factor that contributes to the economic prosperity, safety, and security of all county residents.(4) As of 2018, Williamson County ranked in the top three healthiest counties in Texas for the eighth consecutive year.(5) Overall, quality of life ranks high.(6) Despite being the second healthiest county in Texas, disparities in health and wellness continue to persist.(6) The CHA Task Force identified five Health Equity Zones in Williamson County. Health Equity Zones are census tract areas in the county that tend to have higher than average health risks and burdens.(7)



Williamson County, Texas Health Equity Zones

This map identifies five health equity zones in Williamson County, Texas. Health equity zones are census tract areas in the county that tend to have higher than average health risks and burdens.






Data Source: 2019 Williamson County Community Health Assessment
Date Created: 2/6/2019



Top Five Health Priorities

The CHA is just the first step of the community health improvement process. The companion document, the Community Health Improvement Plan (CHIP), will be the community's action plan for addressing the top five health priorities and coordinating county-wide efforts for the next three years. Through feedback and prioritization from residents and stakeholders, the CHA Task Force identified the following five health focus areas for decision makers in Williamson County to prioritize and to improve health and wellness for all residents.

Residents and stakeholders are highly invested in improving behavioral health, access to healthcare, and chronic disease in Williamson County. Behavioral health, stress, and well-being (with a focus on decreasing poor mental health, stress, and substance abuse) remain the #1 health priority in the county. Access to and affordability of healthcare (with a focus on increasing dental care and improving access to affordable health insurance for vulnerable populations) and chronic disease risk factors (with a focus on increasing healthy food access and physical activity) continue to remain in the top five. Social determinants of health (with a focus on increasing affordable and safe housing, access to transportation, and workforce development) is a new health priority for the county. These priorities highlight the need to build capacity in the county to tackle issues that require long-term solutions. Lastly, the CHA Task Force identified "Building a resilient Williamson County" as the #5 health priority of the county. Recent research and public health evidence have shown the impact of community resiliency on the health and wellness of a community and the necessity of this priority to improving the other four health priorities.

ICON	RANK	HEALTH PRIORITY
	1	Behavioral health, stress, and well-being <i>Focus on decreasing poor mental health, stress, and substance abuse</i>
	2	Chronic disease risk factors <i>Focus on increasing healthy food access and physical activity</i>
	3	Social determinants of health <i>Focus on increasing affordable and safe housing, access to transportation, and workforce development</i>
	4	Access and affordability of healthcare <i>Focus on increasing dental care and improving access to affordable health insurance for vulnerable populations</i>
	5	Building a resilient Williamson County <i>Focus on increasing the community's ability to utilize available resources to respond to, withstand, and recover from adverse situations</i>

Conclusion and Implications for Williamson County

The 2019 CHA provides a comprehensive snapshot into the health and quality of life of Williamson County residents. Though the county consistently ranks among the healthiest in Texas, health inequities continue to exist. Community partners will use this assessment to guide the development of the CHIP, the community's action plan to address the top health priorities and areas of need in the county. The CHA Task Force hopes this assessment will increase engagement in supporting health for all who live, learn, work, play, worship, and age in the county and spur on efforts to building a resilient Williamson County.



Introduction

Many factors shape the health and wellness of an individual and of a community. The five major determinants of health are biology and genetics, individual behavior, social factors, policy making, and health services.(8) Healthy People 2020 emphasizes the importance of addressing the social determinants of health to achieving health equity. Social determinants of health are “conditions in the environments in which 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.”(9) To improve the health of all Williamson County residents, the county must improve the places and the conditions in which people live in.

Sustained and widespread community involvement is necessary to strategically address the health issues within the community. These efforts require the resources of multiple agencies and individuals. This shared ownership of community health offers better mobilization and utilization of resources to achieve improvement. The first step in this community health improvement process is the Community Health Assessment (CHA).(1)

The CHA is designed to:

1. Collect, analyze, and use data to educate and mobilize communities, develop priorities, gather resources, and plan actions to improve population health
2. Provide a foundation of data to be used for evidence-based goal setting and decision-making

Williamson County CHA

The Williamson County and Cities Health District (WCCHD) led this CHA effort in collaboration with strong community partners. The 2019 Williamson County CHA Task Force (hereafter known as the CHA Task Force) included Ascension Seton, Baylor Scott & White Health (BSWH), Bluebonnet Trails Community Services (BTCS), Eastern Williamson County Collaborative (EWCC), Georgetown Health Foundation (GTHF), Lone Star Circle of Care (LSCC), Opportunities for Williamson and Burnet Counties (OWBC), St. David’s Foundation (SDF), United Way of Williamson County, and the WilCo Wellness Alliance (WWA).

The goals of the CHA Task Force were to:

1. Identify existing and emerging community health needs
2. Identify the strengths and assets available to improve health
3. Determine key issues that affect quality of life
4. Understand key forces of change influencing health in the community
5. Evaluate the local public health system and determine priorities for improvement
6. Identify top health priorities for future health improvement efforts

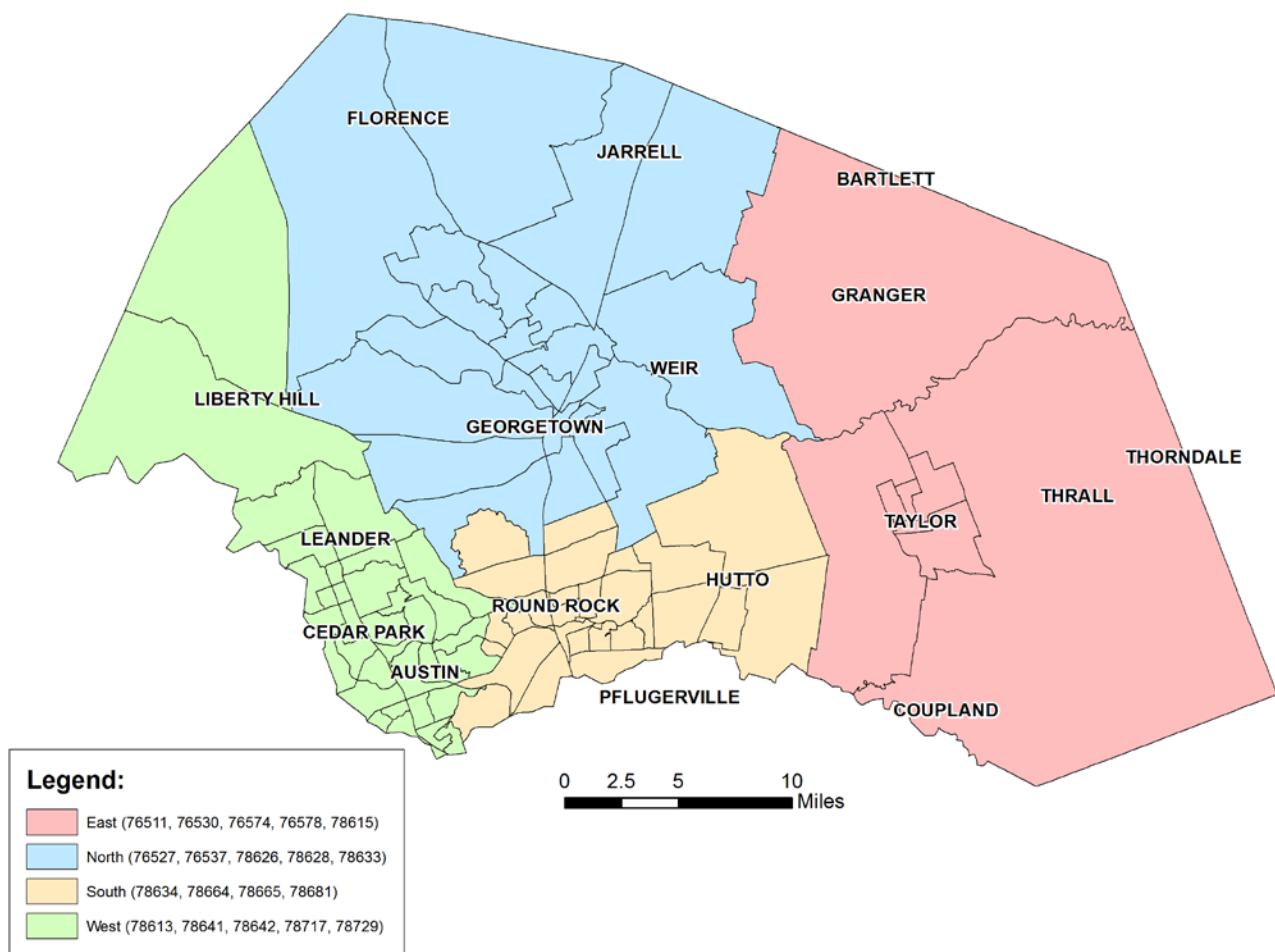
Community Description

Williamson County, Texas is bounded by Burnet County to the West, Bell County to the North, Milam and Lee Counties to the East, and Travis and Bastrop Counties to the South. Williamson County has an estimated population of 547,828 residents and this number has grown by about 30% over the past 10 years.(10) Austin’s continued increase in population and development has fueled local growth, with greater and greater numbers of Williamson County residents commuting into Austin for work each day. Williamson County is an economic magnet, with major employers such as Dell, Sears Teleserv, Emerson, Round Rock Premium Outlets, Baylor Scott & White Healthcare, St. David’s Round Rock Medical Center and Georgetown Hospital, Ascension Seton Medical Center Williamson, Cedar Park Regional Medical Center, Southwestern University, Texas A&M Health Science Center Round Rock, Texas State University, and TECO Westinghouse.

Overall, households were satisfied with the quality of life in Williamson County. Nine out of ten households reported that they were either very satisfied or satisfied with quality of life in the county.(6) As of 2018, the county ranked in the top three healthiest counties in Texas for the eighth consecutive year.(5) Out of 241 ranked counties, the county was second overall in health outcomes and fifth overall in health factors. Compared to 2016, the county increased in rank for clinical care from #4 to #2 and dropped in rank from #3 to #4 for social and economic factors. Compared to 2016, the county dropped in rank from #8 to #17 for health behaviors and #135 to #189 for physical environment. Adult obesity in the county is higher than the state. Sexually transmitted infections are higher than top performers in the United States. Percentage of households with at least one of four housing problems (overcrowding, high housing costs, or lack of kitchen or plumbing facilities) is lower than the state, but higher than top performers. Most residents (81%) are driving alone to work, which is about the state rate, and 43% of residents have long commute times of more than 30 minutes which is higher than the state rate.

Williamson County can be divided into four distinct geographic regions: North, East, South, and West (Figure 1).

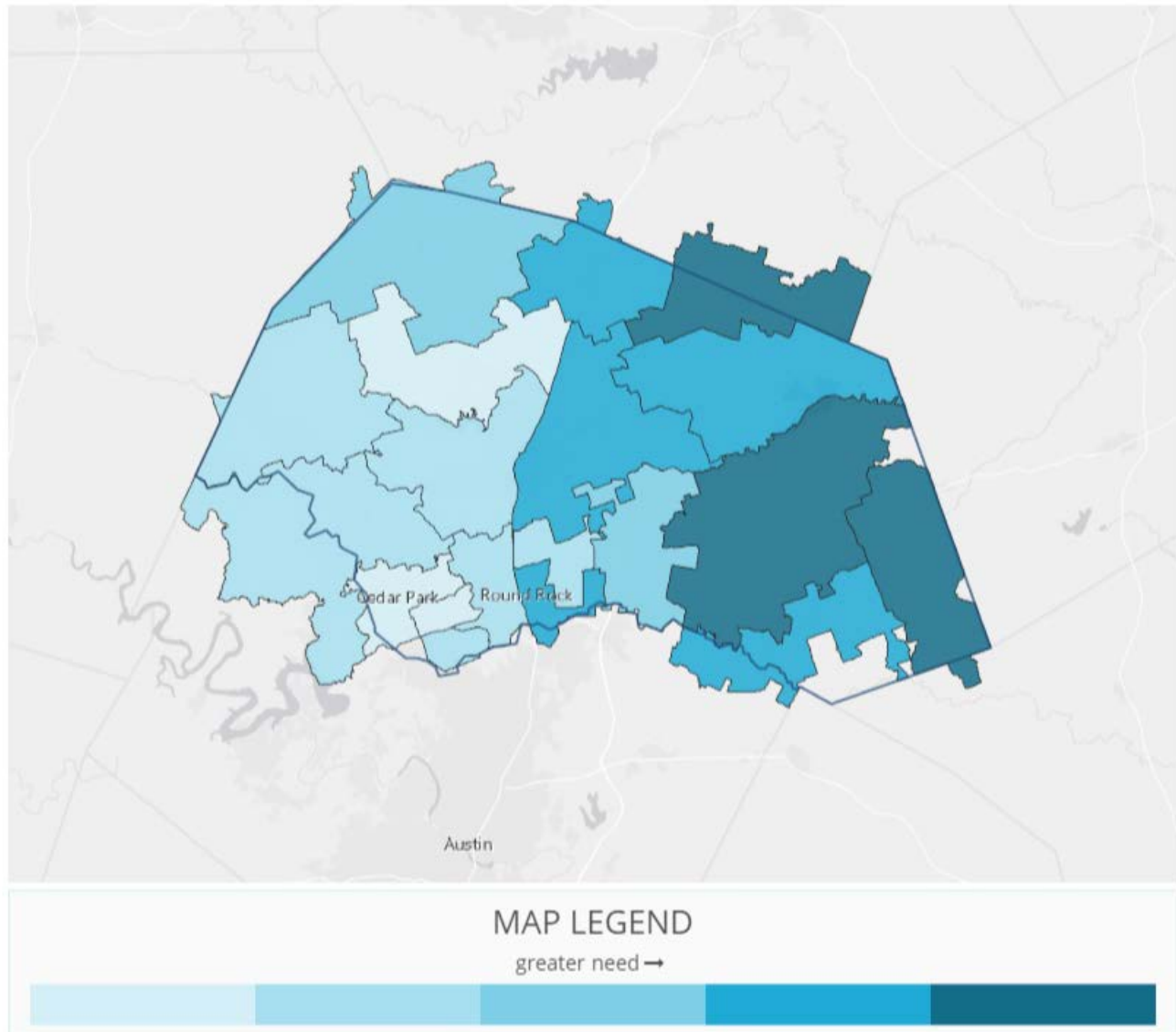
Figure 1: Map of Williamson County, Texas



Areas of highest needs move from West to East. The 2018 SocioNeeds Index is a measure of socioeconomic need that is correlated with poor health outcomes (Figure 2).(11) All zip codes, counties, and county equivalents in the United States are given an Index Value from 0 (low need) to 100 (high need). Areas with greatest need are in zip codes in the East and in dark blue: 76511 (73.9), 76574 (64.8), and 76578 (64.3).

Figure 2: SocioNeeds Index by Zip Code

Data Source: Conduent Healthy Communities Institute
Measurement Period: 2018



November 27, 2018

www.healthywilliamsoncounty.org

Methodology

The Mobilizing for Action through Planning and Partnerships Framework

The Mobilizing for Action through Planning and Partnerships (MAPP) framework from the National Association of County and City Health Officials (NACCHO) is a proven, systematic, and outcome-oriented process for the ongoing engagement of community stakeholders. MAPP provides a method to help communities prioritize public health issues, identify resources available, and take action. The CHA Task Force used this process to provide an update to the 2016 report. MAPP includes four assessments, each of which offer important information for improving community health. Together, the four assessments provide a comprehensive understanding of the health of the community.(2)

The four assessments are (Figure 3):








- The **Community Health Status Assessment (CHSA)** identifies priority health issues in the community and looks at health outcomes and health behaviors. Questions answered by this assessment include “How healthy are Williamson County residents?” and “What does the health status of our community look like?”
- The **Community Themes and Strengths Assessment (CTSA)** identifies important issues in the community and answers the questions “What is important to our community?” and “What assets do we have that can be used to improve community health?”
- The **Forces of Change Assessment (FoCA)** identifies factors that affect the context of the community such as legislation, technology, and other changes. The assessment answers the question “What is occurring or might occur that affects the health of our community or the local public health system?”
- The **Local Public Health System Assessment (LPHSA)** looks at the organizations and agencies that constitute the Williamson County public health system and answers the questions “What are the components, activities, competencies, and capacities of the local public health system?” and “How are the Ten Essential Services being provided to the community?”

Figure 3: MAPP Framework



Data Collection Methods

The CHA Task Force used both quantitative and qualitative data from primary and secondary data sources to compile the four MAPP assessments and determine health priorities.

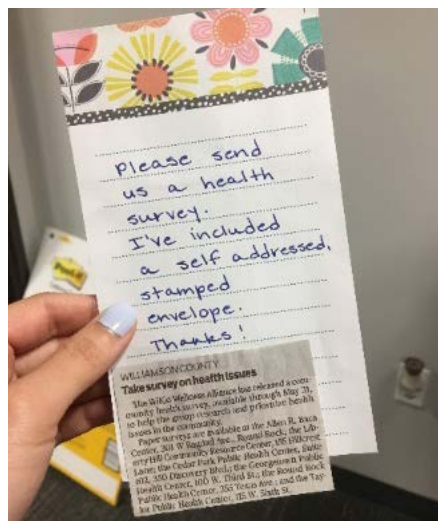
	METHOD	TIME FRAME	PARTICIPANTS	RESULTS	ASSESSMENT
	Community Health Survey	4/24/2018-5/31/2018	2,272 Community residents	Appendix F: Community Health Survey Results	CTSA
	Facilitated Activities at Community Meetings	4/19/2018-6/5/2018	262 Stakeholders, Community organizations	Appendix H: Community Meeting Facilitated Activities Results	CTSA
	Community Focus Groups	5/23/2018-9/19/2018	62 Community residents	Appendix J: Community Focus Groups Results	CTSA, FoCA
	Stakeholder Focus Groups	7/25/2018	26 Stakeholders (Williamson County, East)	Appendix K: Truven Stakeholder Focus Group Results	CTSA, FoCA
	Key Informant Interviews	8/1/2018-9/30/2018	9 Key informants (Williamson County, East)	Appendix L: Truven Key Informant Interview Notes	CTSA, FoCA
	Mom's Community Listening Forum	8/10/2018	50 Community residents and mothers, Community organizations	Appendix M: Mom's Community Listening Forum Report	CTSA
	Local Public Health Systems Survey and Fishbone Diagram	8/14/2018-9/17/2018	CHA Task Force/WCCHD District Leadership Team	Local Public Health Systems Assessment	LPHSA
	Community Assessment for Public Health Emergency Response (CASPER)	10/12-13/2018	182 Households in clusters	Appendix N: CASPER Report	CTSA
	Primary and Secondary Data Analysis	Dependent on data source	Dependent on data source	Community Health Status Assessment	CHSA

Community Health Survey



A county-wide Community Health Survey kicked off the first phase of data collection between April and May of 2018. The purpose of the survey was to understand resident perspectives on health and health-related needs, and the results guided topics for subsequent CHA data collection. Survey questions were adapted from the NACCHO example community health survey. The CHA Task Force piloted the community survey and adjustments were made based upon feedback. A copy of the Community Health Survey (English and Spanish) can be found in Appendix D: Community Health Survey. The survey consisted of five required questions and three optional demographic questions. Surveys were disseminated through multiple methods (group administration, convenience sampling, media distribution, paper surveys with drop boxes at local sites, and through the NextDoor App). Historically underrepresented groups were oversampled to ensure representation in the CHA. The CHA Task Force also partnered with EWCC to oversample Eastern Williamson County. All survey distribution locations are listed in Appendix E: Community Health Survey Locations of Distribution.

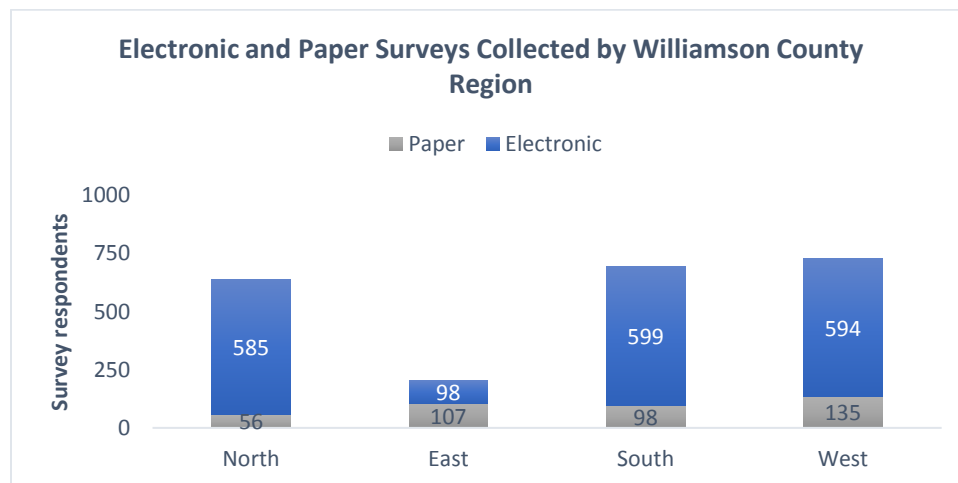
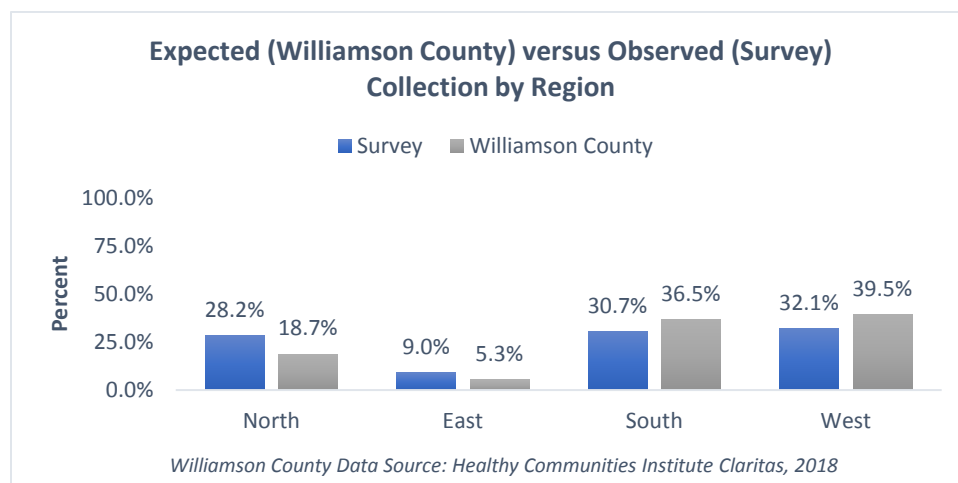
1. Group administration – Paper surveys in English and Spanish were distributed to all stakeholders who attended the EWCC May meeting.
2. Convenience Sampling – English surveys were distributed to participants through a booth at the WWA Health Equity Summit held on April 24, 2018 at the Georgetown Public Safety Operations and Training Center. The CHA Task Force partnered with organizations such as BTCs, OWBC, Hill Country Community Ministries (HCCM), and organizations in the EWCC to distribute paper surveys in English and Spanish to under-reached populations at Head Starts, Senior Centers, food pantries, and churches.
3. Media Distribution – Links to the electronic survey in English and Spanish were made available on the HealthyWilliamsonCounty.org/CHA website. Links to the electronic survey were distributed by different organizations through press releases, newsletters, and social media.
4. Drop boxes – Drop boxes for paper surveys in English and Spanish were held at Allen R. Baca Center, Liberty Hill Community Resource Center, Round Rock Public Library, and all four WCCHD Public Health Centers.
5. NextDoor App – NextDoor App is the private social network for neighborhoods. Individuals can connect with their neighbors and engage their local community. Links to the electronic survey in English and Spanish were posted as an update that reached all neighborhoods in Williamson County by the Williamson County Public Information Office.



The CHA Task Force collected 2,272 surveys (94.3% of total collected) with a Williamson County zip code. Four out of five surveys were electronic, and one out of five surveys was paper. Almost all the surveys (98.3%) collected were in English (Table 1). About 3% of households in Williamson County are linguistically isolated and have difficulty accessing services that are available to fluent English speakers.(12) When separated out by region, the West provided the most surveys (729), followed closely by the South (697) and the North (641). Paper surveys constituted over half of surveys collected in the East (Figure 4). Percentage of surveys collected was higher in the North (28.2%) and the East (9.0%) and lower in the South (30.7%) and West (32.1%) compared to the total percentage of individuals living in those regions (Figure 5). Additional survey results are in Appendix F: Community Health Survey Results.

Table 1: Total Surveys Collected in Williamson County

SURVEY TYPE	COUNT	PERCENT
Electronic	1,876	82.6%
English	1,873	82.4%
Spanish	3	0.1%
Paper	396	17.4%
English	360	15.9%
Spanish	36	1.6%
Total	2,272	100%

Figure 4: Electronic and Paper Surveys Collected by Williamson County Region**Figure 5: Expected (Williamson County) versus Observed (Survey) Collection by Williamson County Region**

Facilitated Activities at Community Meetings



Facilitated activities were conducted at coalition meetings to gain feedback from stakeholders. Stakeholders rotated around stations to answer five questions. The number of responses per question were later summarized and averaged across the various coalitions. These activities are detailed in Appendix G: Community Meeting Facilitated Activity Guide. Approximately 262 stakeholders participated in ten

facilitated activities conducted among coalitions throughout Williamson County (Table 2). Results from facilitated activities are in Appendix H: Community Meeting Facilitated Activities Results.

Table 2: Facilitated Activities Conducted at Community Meetings at Williamson County Coalitions

ORGANIZATION	GEOGRAPHICAL REGION	DATE	PARTICIPANTS
Williamson County Coalitions			
Hutto Resource Center (formerly known as Hutto Has Heart)	Hutto	4/19/2018	20
Round Rock Non-Profit Meeting	Round Rock	6/5/2018	~30
The Georgetown Project	Georgetown	5/2/2018	43
Interagency Support Council of Eastern Williamson County, Inc.	Taylor, East Williamson County	5/8/2018	25
Eastern Williamson County Collaborative	East Williamson County	4/26/2018	19
West WilCo Community Resources	Cedar Park, Leander, West Williamson County	5/23/2018	13
WilCo Wellness Alliance			
Maternal and Infant Health	Williamson County	5/1/2018	13
Healthy Living (Active Living, Employee Wellness, and Healthy Eating)	Williamson County	5/15/2018	19
Behavioral Health Task Force (Subcommittees: Child Youth Behavioral Health Task Force, Alan's Hope)	Williamson County	5/31/2018	63
LifeSteps Substance Abuse Coalition	Williamson County	5/16/2018	17



Community Focus Groups



The CHA Task Force conducted eight focus groups of eight to ten individuals to capture lived experiences and voices of residents from July to September of 2018. The team identified focus groups from populations that were either underrepresented or at-risk for worse health outcomes. The CHA Task Force partnered with trusted organizations in the community to recruit participants. Participants in the focus groups each received a \$20 gift card for participating. To ensure consistency, facilitators used a standardized guide

that was adapted from GTHF's Southeast Georgetown Needs Assessment Focus Group Protocol.(13) The focus group guide is found in Appendix I: Community Focus Group Guide. Facilitators asked open-ended questions to allow participants to share their stories of health and wellness in the community. Results of the focus groups are in Appendix J: Community Focus Groups Results.

A total of 62 community residents participated across the county. Focus groups were conducted among the following population groups:

- African American/Black
- Hispanic/Latino
- High risk youth
- Individuals affected by cancer
- Individuals living in rural cities in East Williamson County (Bartlett and Granger)
- Individuals in recovery for substance abuse
- Aging population

Stakeholder Focus Groups



An outside consultant, Truven Analytics, conducted two stakeholder focus groups of ten to fourteen stakeholders. One stakeholder focus group was conducted for the whole county and one stakeholder focus group was conducted for the East. Stakeholders discussed strengths and challenges of the health of the community, access and barriers to good health, community partnerships, and opportunities to improve health in the community, and prioritized community health needs. Summaries are in Appendix K: Truven Stakeholder Focus Group Results.

Key Informant Interviews



An outside consultant, Truven Analytics, conducted ten key informant interviews. Key informant interviews were conducted for all of Williamson County and for the East. Key informants discussed strengths and challenges of the health of the community, access and barriers to good health, community partnerships, and opportunities to improve health in the community, and prioritized community health needs. Key Informant Notes are in Appendix L: Truven Key Informant Interview Notes.

Mom's Community Listening Forum



The Maternal and Infant Health working group of the WWA hosted the Mom's Community Listening Forum on August 10th, 2018. The Mother's Listening Forum gave the community a chance to hear directly from mothers, whose voices may sometimes go unheard. An open forum stimulated community conversation about the service gaps that exist for mothers in Williamson County. The forum consisted of 1) a speaker panel of mothers to discuss their primary health concerns, challenges, and needs; 2) a listening panel of community organizations to discuss the services their organizations provide; and 3) an audience of community members to ask questions. The final report is linked in Appendix M: Mom's Community Listening Forum Report.

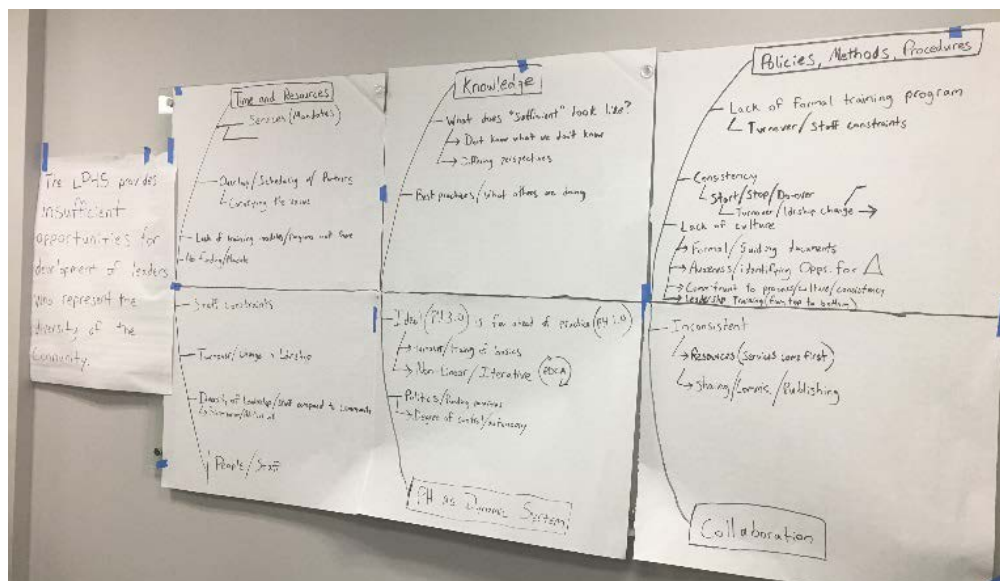


Local Public Health Systems Survey and Fishbone Diagram



The CHA Task Force assessed the Williamson County public health system by 1) administering a survey adapted from the National Public Health Performance Standards (NPHPS) Local Assessment Instrument to organizations that represented the local public health system; and 2) conducting a facilitated activity among WCCHD leadership to understand the root cause of the lowest ranked performance measure. Due to limited time and resources, the CHA Task Force modified the NPHPS Local Assessment Instrument into a survey.

The CHA Task Force identified 33 performance measures from the instrument to evaluate delivery of the Ten Essential Public Health Services.(14) The survey can be found in Appendix O: Local Public Health Systems Survey. Results were ranked and averaged and can be found in Appendix P: Local Public Health System Assessment Results. Each of the Ten Essential Public Health Services was given a score by averaging the relevant performance measures. The lowest-ranked measure was addressed in detail during a subsequent facilitated activity. The WCCHD District Leadership Team (DLT) participated in an hour-long facilitated activity using quality improvement tools such as the fish bone diagram and the 5 Whys to better understand the root causes of the lowest ranked performance measure.



Community Assessment for Public Health Emergency Response (CASPER)



The CHA Task Force conducted a CASPER on October 12-13, 2018 to obtain household-level data about the health status, behaviors, and needs of Williamson County residents. A CASPER is an epidemiological technique designed to provide quick, reliable, and accurate household-based information about community needs. The CASPER provides additional details about key issues in the county and identifies root causes of challenges faced by residents. The main goal of the CASPER was to gather household-level public health information to contribute to the 2019 CHA in Williamson County. The CHA Task Force surveyed 182 households in Williamson County. The report is in Appendix N: CASPER Report.



The CASPER had four objectives:

1. To assess awareness of resources and services in Williamson County
2. To explore health behaviors regarding obesity, mental health, and chronic disease in Williamson County
3. To evaluate access and barriers to healthcare, transportation, and community resources in Williamson County
4. To describe the types of medical needs and equipment used in Williamson County

Primary and Secondary Data Analysis



The CHA team obtained data from many secondary sources at the local, state, and national level.

Significant secondary data sources included:

- American Community Survey (ACS)
- Area Health Resource File (AHRF)
- Behavioral Risk Factor Surveillance System (BRFSS)
- Centers for Medicare & Medicaid Services (CMS)
- County Business Patterns (CBP)
- Dartmouth College Institute for Health Policy & Clinical Practice
- Feeding America
- Healthy Communities Institute
- National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP)
- National Vital Statistics System (NVSS)
- Nielsen Claritas and SiteReports
- Safe Drinking Water Information System (SDWIS)
- Surveillance, Epidemiology, and End Results Program State Cancer Profiles (SEER SCP)
- Texas Department of Family and Protective Services
- Texas Department of State Health Services (DSHS)
- Texas Education Agency (TEA)
- Texas Office of the State Demographer (OSD)
- Uniform Crime Reporting – FBI
- U.S. Census Bureau (Census)
- U.S. Department of Agriculture (USDA)

Primary data was also obtained from our local organizations.

- Bluebonnet Trails Community Services (BTCS)
- Hill Country Community Ministries (HCCM)
- Lone Star Circle of Care (LSCC)

Prioritization of Health Equity Zones and Top Five Health Priorities.

The CHA Task Force identified Health Equity Zones from available census-tract level measures that were related to lower health outcomes. Health priorities were selected based on themes identified through the four MAPP assessments and prioritization by the community through the Community Health Survey and Community Focus Group sticker activity and by stakeholders through the Facilitated Activities at community meetings.

Data Limitations

Community Health Status Assessment

The availability of data sources was the largest limitation to the CHSA. The lengthy process of data collection, aggregation, and publication by multiple sources prevented access to comprehensive, up-to-the-minute data for the CHSA. For some health indicators, the available data can be several years old and may no longer be representative of the community. Data may be suppressed and/or limited for certain race and ethnic groups due to small numbers of significant health events. This restricts the ability to identify disparities among subgroups, namely Asian Americans, American Indian/Alaskan Natives, and Native Hawaiian/Pacific Islanders. The CHA Task

Force strived to include the most up-to-date data available, incorporating local data from the most recent full calendar year and certain secondary data from the past two years. However, some secondary data sources are only available more than two years in the past, limiting the ability to draw full conclusions based on recent data. While there was a solid representation of local data from community organizations compared to past CHAs, the CHA Task Force would like to include more local data to provide a truly comprehensive snapshot of health status in Williamson County.

Community Themes and Strengths Assessment

For the CTSA, assuring representation from all population groups and sectors in Williamson County proved to be challenging. For the Community Health Survey, survey respondents tended to be older, female, and White compared to the demographics of Williamson County. The Community Health Survey lacked representation from vulnerable populations and minority groups. To ensure representation in the 2019 CHA, the Task Force conducted community focus groups among these population groups. However, the CHA Task Force did not conduct a community focus group among any Asian population groups. The Task Force could not identify a community organization from which to recruit participants. Moreover, the Task Force did conduct a community focus group among the Hispanic population; however, no focus group was conducted among only Spanish-speaking participants. To ensure representation from stakeholders, the Task Force conducted stakeholder focus groups and key informant interviews in the county, but some representatives were missing from the process, including those from the business community and media.

Forces of Change Assessment

The CHA Task Force decided not to conduct a prioritization activity and a traditional opportunities and threats analysis due to limited time and resources. The CHA Task Force identified the most prevalent forces of change indirectly through results of the various data collection methods.

Local Public Health Systems Assessment

The survey was adapted from a NACCHO instrument that was meant to be conducted as a facilitated discussion. According to the Local Instrument Guide, each performance measure would be compared to a “gold standard” and relevant participants to the Essential Service would discuss and classify the activity. Due to limited time and resources, no “gold standard” was identified for each performance measure, and no facilitated discussion took place to identify the percentage of activity met for each performance measure. Therefore, each survey respondent had a different perspective on what the “gold standard” is for optimal activity for that performance measure. Each organization that participated in the survey plays an active role in the local public health system; however, each organization is not responsible for delivering all the Essential Services or is knowledgeable and able to evaluate all aspects of the local public health system. In addition, participants had differences in knowledge about the public health system. This may have led to some interpretation differences and issues for some of the questions, potentially introducing a degree of response variability.

Other Community Assessments

Five additional community assessments were identified in Williamson County and can be used as references when evaluating the health of the county. A matrix of topics addressed by the assessments is in Appendix Q: Community Health Assessment Matrix.



Community Health Status Assessment

CORE INDICATORS

Based on the NACCHO MAPP Framework

- C1. Demographic Characteristics
- C2. Socioeconomic Characteristics
- C3. Health Resource Availability
- C4. Quality of Life
- C5. Behavioral Risk Factors
- C6. Environmental Health Indicators
- C7. Social and Mental Health
- C8. Maternal and Child Health
- C9. Death, Illness, and Injury
- C10. Communicable Disease
- C11. Sentinel Events

Overview

The Community Health Status Assessment (CHSA) presents aggregate population-level data in the form of statistics, graphs, charts, and maps to define the health status of Williamson County. Data were obtained from many primary and secondary sources at the local, state, and national level. The CHA Task Force collected primary data through online and household surveys, as well as focus groups. Quotes from focus groups are included to provide lived experiences and real-world context to supplement quantitative findings. Secondary data include health indicators, which have been analyzed to compare rates or trends of health outcomes and determinants.⁽¹⁵⁾ The most up-to-date secondary data can be found at www.healthywilliamsoncounty.org.

The CHSA divides indicators into eleven broad categories based on the MAPP framework's "Core Indicator List." Comparisons are drawn between Williamson County and Texas health indicators, as well as applicable Healthy People 2020 (HP2020) targets. HP2020 is a nationwide set of 10-year health promotion and disease prevention goals established by the United States Department of Health and Human Services.⁽⁹⁾ Achievements and gaps in health status are

identified among race, ethnicity, age, gender, or socioeconomic groups within the county. Key findings are summarized at the end of each section to help stakeholders plan, implement, and establish evidence-based health improvements for specific geographic areas and residents of Williamson County. For the purposes of this assessment, the non-Hispanic White population was referred to as "White," the non-Hispanic African American population was referred to as "Black," and the Asian American population as "Asian." The term "Hispanic" is used and does not distinguish by race, although the definition by the U.S. Census is "Hispanic White."

C1. Demographic Characteristics

*"TAYLOR IS GOING TO START TO GROW, SO WE HAVE
TO BE READY TO HANDLE THAT GROWTH."*

The population in Williamson County continues to grow and expand as more people move to Central Texas. This rapid population growth results in a changing population landscape, which will influence the availability of health resources and services. The tables, maps, and discussions in this section examine three key topic areas: demographic distribution, population change, and population projection. Demographic distribution describes gender, age, race, and ethnicity of Williamson County residents. Population change identifies growth and migration in the county, specifically by city and zip code. Lastly, population projection predicts county growth by 2050 for gender, age, race, and ethnicity. The continuous tracking of demographic trends will assist strategic planning and program development to address the health status of all Williamson County residents.

Demographic Distribution

The gender distribution in Williamson County is comparable to the gender distribution in Texas, with slightly more females (50.9%) than males (49.1%) in the county (Table 3).

Individuals ages 25 to 44 years make up the largest age group in the county (28.3%) and in Texas (27.4%) (Table 3). Additionally, the younger generation less than 18 years of age comprise 25.7% of the county's population, which is similar to Texas (25.9%). Williamson County and Texas have similar proportions of individuals ages 18 to 24 years and 65 years and older.

In 2018, the largest racial and ethnic group in Williamson County is White (74.7%), followed by Hispanic (24.6%), Asian (6.9%) and Black (6.6%) (Table 3). Compared to Texas, Williamson County has a higher percentage of White and Asian populations, and a smaller percentage of Black and Hispanic populations.

Table 3: Demographic Characteristics of Williamson County and Texas, 2018

Demographic Characteristics of Williamson County and Texas, 2018		
Population	Williamson County	Texas
Population Count	547,828	28,531,603
Percent Growth from April 1, 2010 to July 1, 2018	29.6%	13.5%
Gender		
Male	49.1%	49.6%
Female	50.9%	50.4%
Age		
<18	25.7%	25.9%
18-24	9.0%	10.1%
25-44	28.3%	27.4%
45-64	24.8%	23.9%
65+	12.1%	12.6%
Race/Ethnicity		
White	74.2%	67.5%
Hispanic/Latino	24.6%	39.6%
Black/African American	6.7%	12.2%
Asian American	7.2%	5.0%
American Indian/Alaskan Native	0.7%	0.7%
Native Hawaiian/Pacific Islander	0.1%	0.1%
Other	7.4%	11.2%

Data Source: Healthy Communities Institute, 2018

When examining the age and gender distribution of Williamson County residents, there is a higher percentage of males in the county less than 24 years old and a higher percentage of females in the county ages 25 and older (Table 4). Females ages 25 to 44 comprise the largest group at 14.4%, followed by males ages 25 to 44 at 14.0%, and males under 18 years old at 13.1%.

Table 4: Age and Gender Distribution in Williamson County, 2018

Age and Gender Distribution in Williamson County, 2018			
Age	Male	Female	Total
Under 18	13.1%	12.7%	25.7%
18 to 24	4.5%	4.4%	9.0%
25 to 44	14.0%	14.4%	28.3%
45-64	12.2%	12.7%	24.8%
65 and over	5.3%	6.8%	12.1%
Total	49.1%	50.9%	N/A

Data Sources: Healthy Communities Institute, 2018

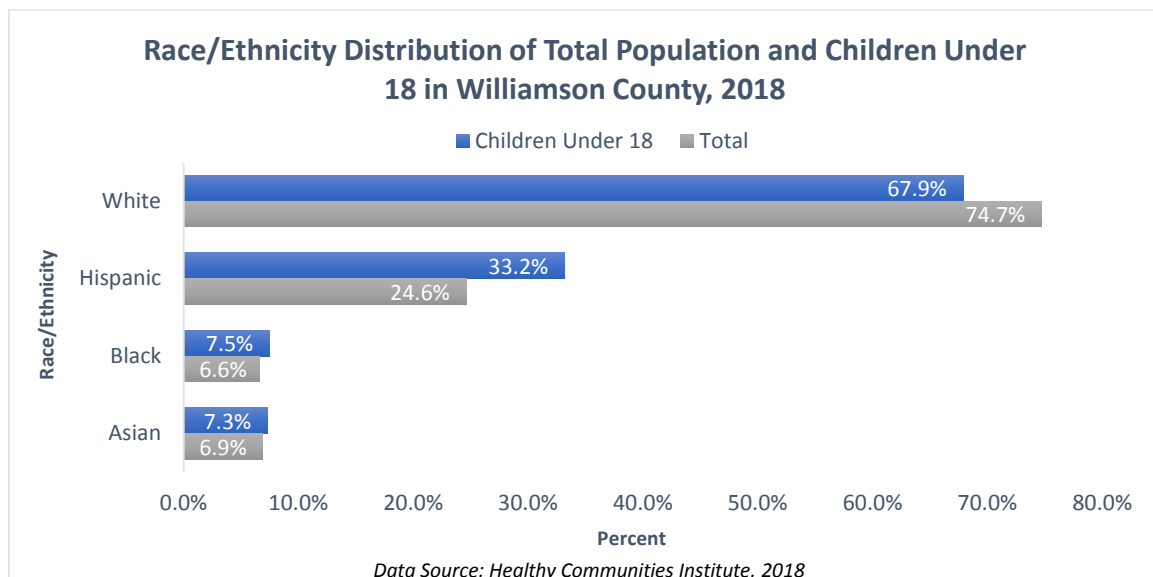
The combined gender and racial/ethnic group with the highest median age is White females (39.9 years), followed by White males (38.2 years), and Asian females (35.7 years) (Table 5).

Table 5: Median Age Among Gender and Race/Ethnicity Groups in Williamson County, 2018

Median Age among Gender and Race/Ethnicity Groups in Williamson County, 2018			
Race/Ethnicity	Male	Female	Median Age
White	38.2	39.9	39.1
Hispanic	26.6	28.4	27.5
Black	31.7	34.5	33.1
Asian	35.2	35.7	35.4
Total	35.9	37.5	36.7

Data Source: Healthy Communities Institute, 2018

In Williamson County, the distribution of the younger generation is similar to the overall county distribution, with the White population as the largest group, followed by the Hispanic population, the Black population, and the Asian population (Figure 6).

Figure 6: Race/Ethnicity Distribution of Total Population and Children Under 18 in Williamson County, 2018

Life Expectancy

Table 6 displays life expectancy for both females and males in Williamson County and Texas. Life expectancy is the average number of years a person can expect to live, describing a population's longevity and general health.(16)

Both males and females in Williamson County have longer life expectancies than their Texas counterparts. Females in Williamson County having a higher life expectancy (83.3 years) compared to males (80 years).

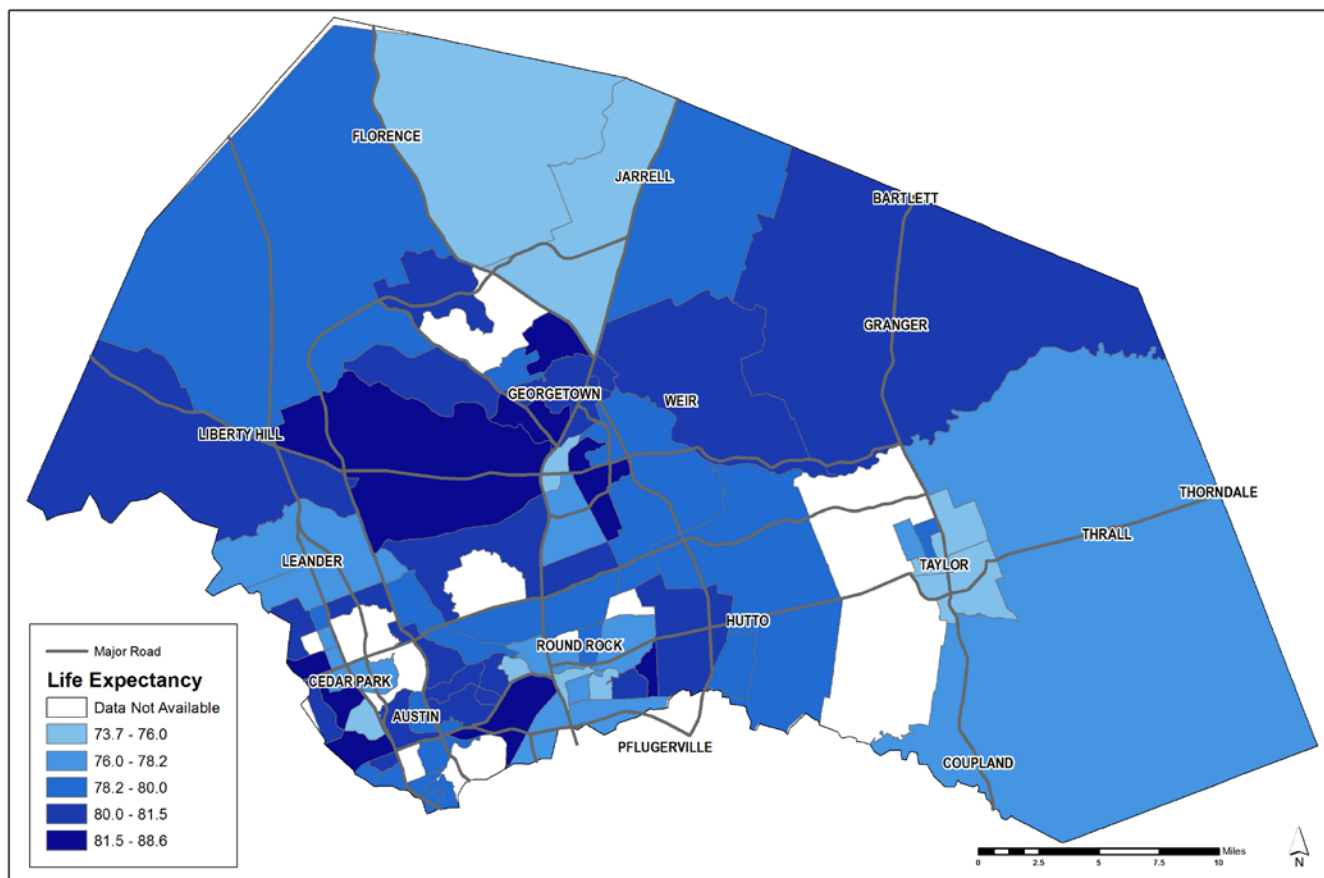
Table 6: Life Expectancy by Gender in Williamson County and Texas, 2018

Life Expectancy by Gender in Williamson County and Texas, 2018		
Gender	Williamson County	Texas
Male	80.0	76.2
Female	83.3	80.8

Data Source: Institute for Health Metrics and Evaluation, 2014

Figure 7 below displays life expectancy by census tract in Williamson County. Research has shown that life expectancy varies by geography, especially at the county level.(17) Tracking inequality at the county level over time is an important means of assessing progress toward more equitable health outcomes, as stated in the Healthy People 2020 objective: “Achieve health equity, eliminate disparities, and improve the health of all groups.”(17) In Williamson County, the census tract with the longest life expectancy is 88.6 years (Cedar Park), while the census tract with the shortest life expectancy is 73.8 years (Jarrell), which is a difference of 14.8 years. Census tracts with the shortest life expectancy (less than 76 years) include parts of Round Rock, Cedar Park, Taylor, Georgetown, Jarrell, and Florence.

Figure 7: Life Expectancy by Census Tract in Williamson County, 2010-2015



Life Expectancy by Census Tract in Williamson County, 2010-2015

This map illustrates life expectancy at birth in years. This represents the average number of years a person can expect to live from 2010 to 2015 for each census tract in Williamson County.

Data Source: U.S. Small-Area Life Expectancy Estimates Project, 2010-2015

Date Created: 2/12/2019



Population Change

Between 2010 and 2017, the county's population grew by 29.5%, which is more than double the growth within Texas (12.6%) (Table 6). Hutto, Leander, and Liberty Hill lead the county in growth, with Liberty Hill reaching growth that is three times more than the county growth rate and seven times more than the state growth rate.

Table 7: Population Change in Williamson County and Texas, 2010-2017

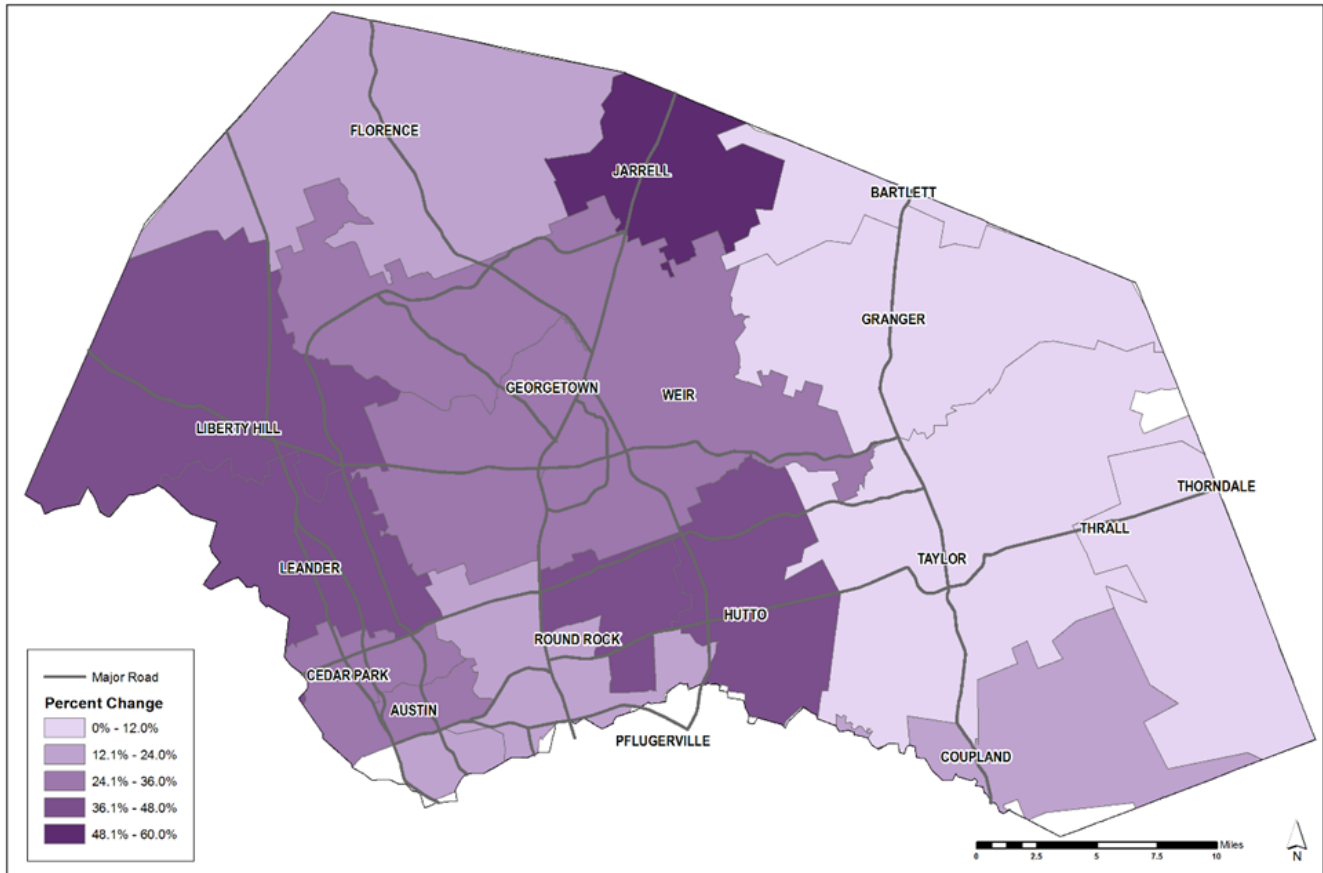
Population Change in Williamson County and Texas, 2010-2017			
Geographic Area	2010 Pop. ¹	2017 Pop. ²	% Growth 2010-2017*
Texas	25,145,561	28,304,596	12.6%
Williamson County	422,679	547,545	29.5%
Cedar Park	48,937	75,704	54.7%
Georgetown	47,400	70,685	49.1%
Hutto	14,698	25,367	72.6%
Liberty Hill	967	1,905	97.0%
Leander	26,521	49,234	85.6%
Round Rock	99,887	123,678	23.8%
Taylor	15,191	16,982	11.8%

Notes: *Growth from April 1, 2010 to July 1, 2017

Data Sources: ¹Census 2010; ²Census, 2017

Population change in Williamson County is broken down by zip code, as shown in Figure 8. All zip codes within Williamson County have experienced population growth from 2010 to 2018, ranging from 5.6% in 76511 (Bartlett) to 56.8% in 76527 (Jarrell). Other growing zip codes include 78634 (Hutto) at 45.1%, 78665 (Round Rock) at 44.7%, 78641 (Leander) at 39.7%, and 78642 (Liberty Hill) at 36.7%.

Figure 8: Population Change by Zip Code in Williamson County, 2010-2018



Population Change by Zip Code in Williamson County from 2010-2018

This map illustrates population change from 2010 to 2018 for each zip code in Williamson County.

Data Source: Healthy Communities Institute, 2018

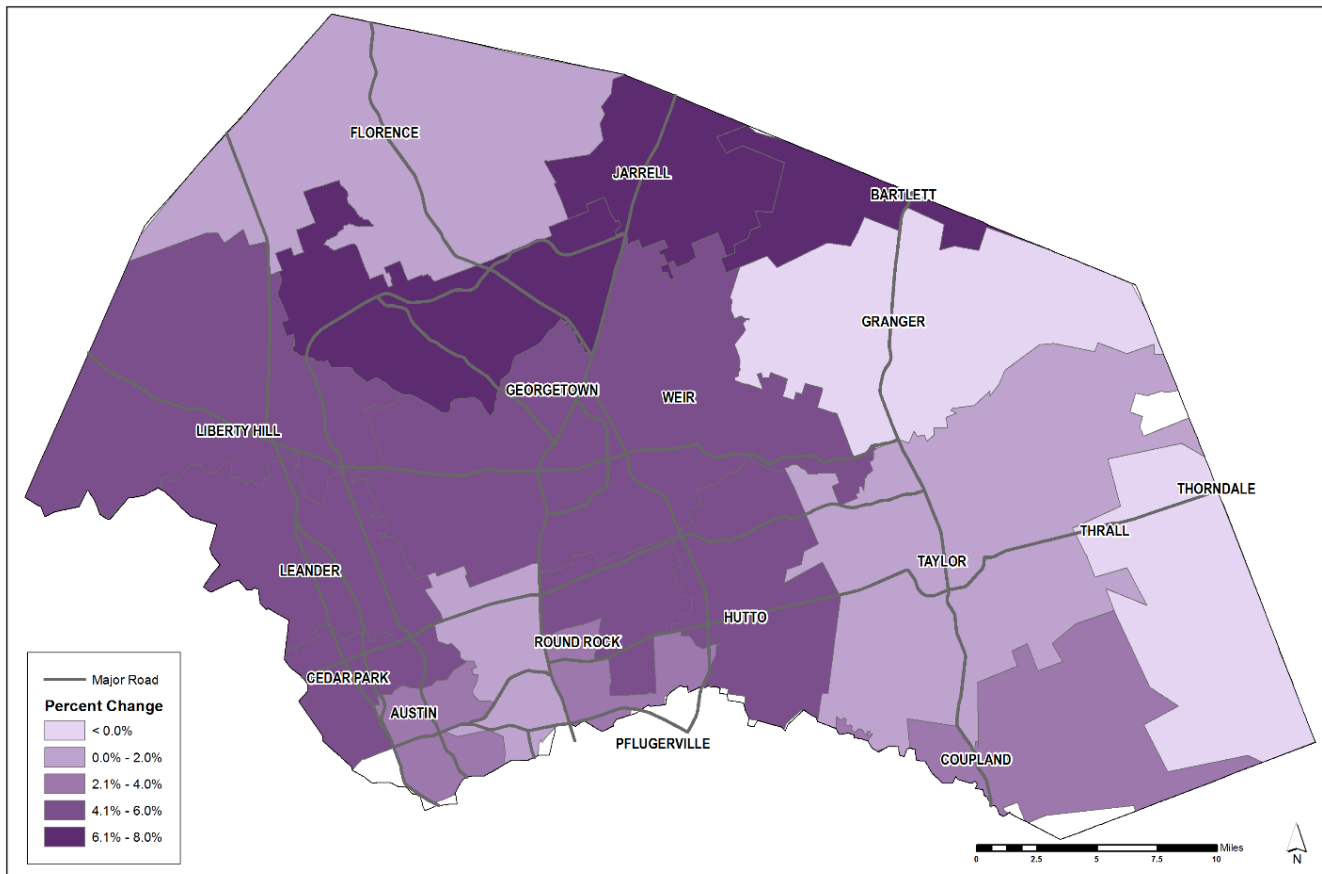
Date Created: 12/3/2018



The CHA Task Force mapped population growth and migration from 2011 to 2016 among White (Figure 9), Hispanic (Figure 10), Black (Figure 11), and Asian (Figure 12) populations across the county by zip code.

The White population has experienced the largest growth at 7.9% in 76511 (Bartlett), followed by 7.1% in 76537 (Jarrell), and 7.0% in 78633 (Georgetown). Moderate growth has occurred in 78641 (Leander), 78665 (Round Rock), and 78634 (Hutto). Migration occurred in 76578 (Thrall) at -2.8% and 76530 (Granger) at -0.9%.

Figure 9: Non-Hispanic White Population Change by Zip Code in Williamson County, 2011-2016



Non-Hispanic White Population Change by Zip Code in Williamson County from 2011-2016

This map illustrates population change among Non-Hispanic Whites from 2011 to 2016 for each zip code in Williamson County.

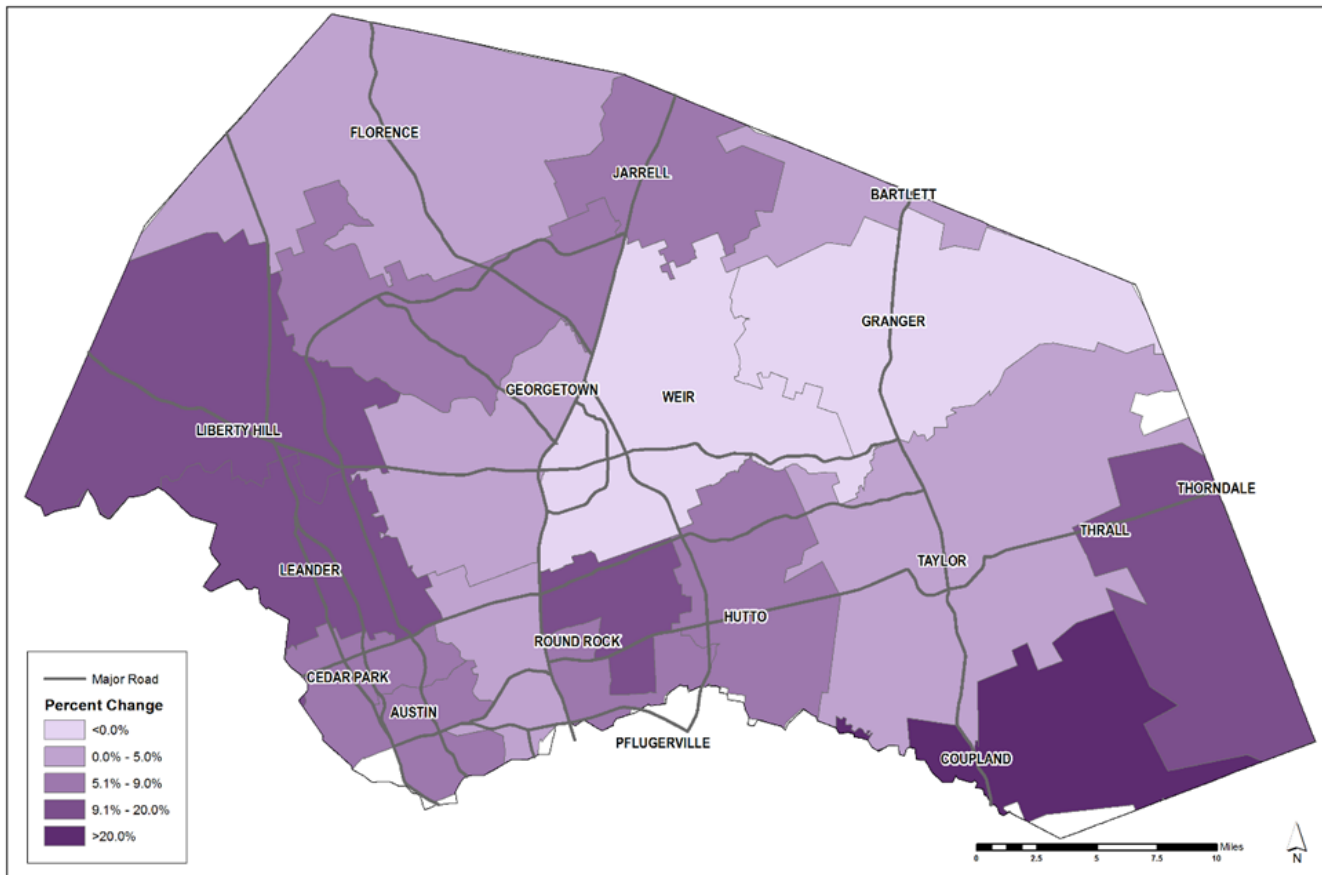
Data Source: American Community Survey, 2011-2016

Date Created: 12/3/2018



The Hispanic population has experienced the largest growth of any group at 752.5% in 78615 (Coupland). Moderate growth has occurred in 76578 (Thrall), 78642 (Liberty Hill), 78641 (Leander), and 78665 (Round Rock). Emigration reduced populations in 76530 (Granger) at -2.5% and 78626 (Georgetown) at -0.7%.

Figure 10: Hispanic Population Change by Zip Code in Williamson County, 2011-2016



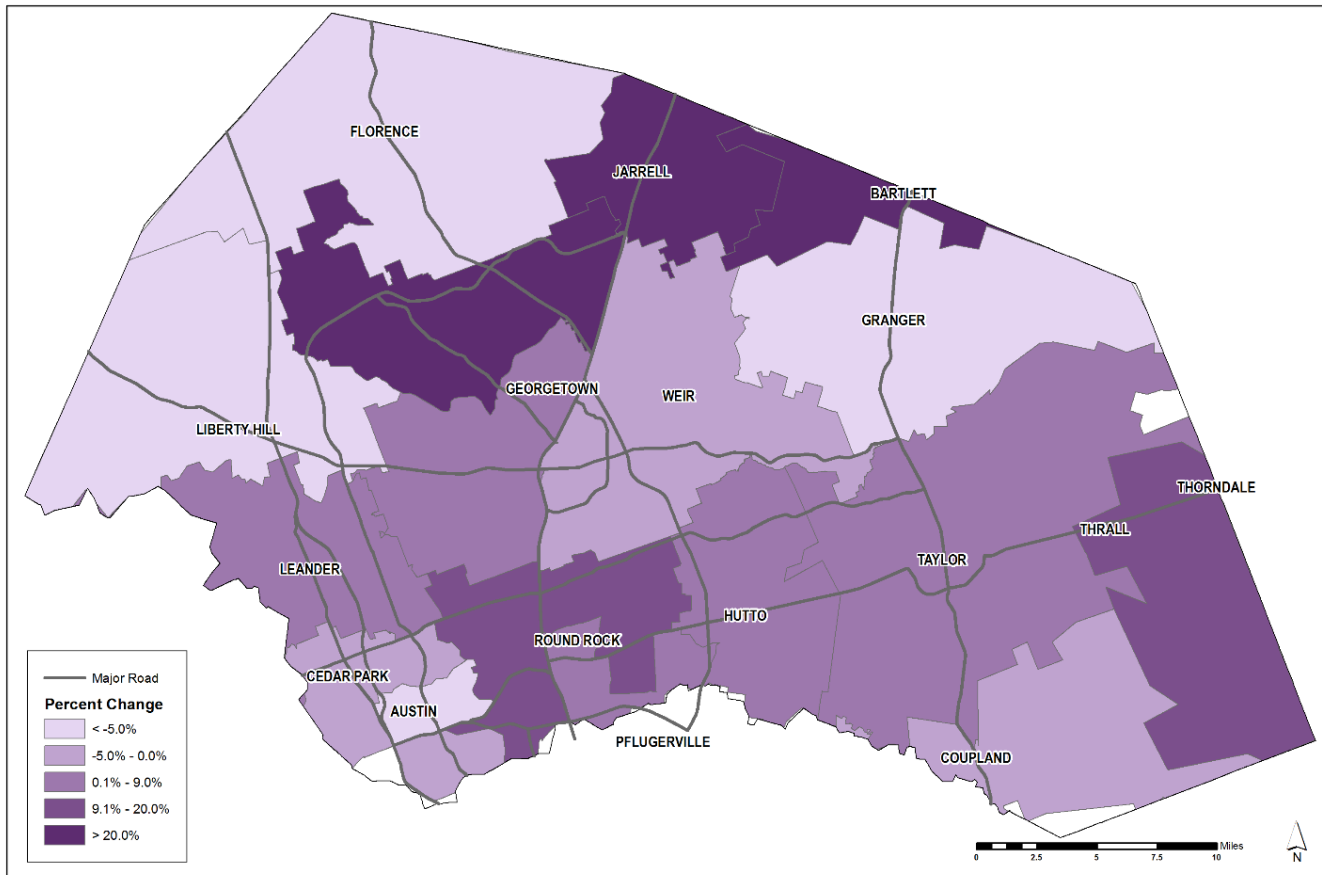
Hispanic Population Change by Zip Code in Williamson County from 2011-2016

This map illustrates population change among Hispanics from 2011 to 2016 for each zip code in Williamson County.
 Data Source: American Community Survey, 2011-2016
 Date Created: 12/3/2018



The Black population has experienced the largest growth at 97.6% in 78633 (Georgetown), followed by 59.0% in 76537 (Jarrell), and 30.2% in 76511 (Bartlett). Moderate growth has occurred in 76578 (Thrall), 78665 (Round Rock), and 78681 (Round Rock). The highest emigration rates occurred in 76527 (Florence) at -20.0%, 76530 (Granger) at -9.9%, and 78717 (Austin) at -6.0%.

Figure 11: African American Population Change by Zip Code in Williamson County, 2011-2016



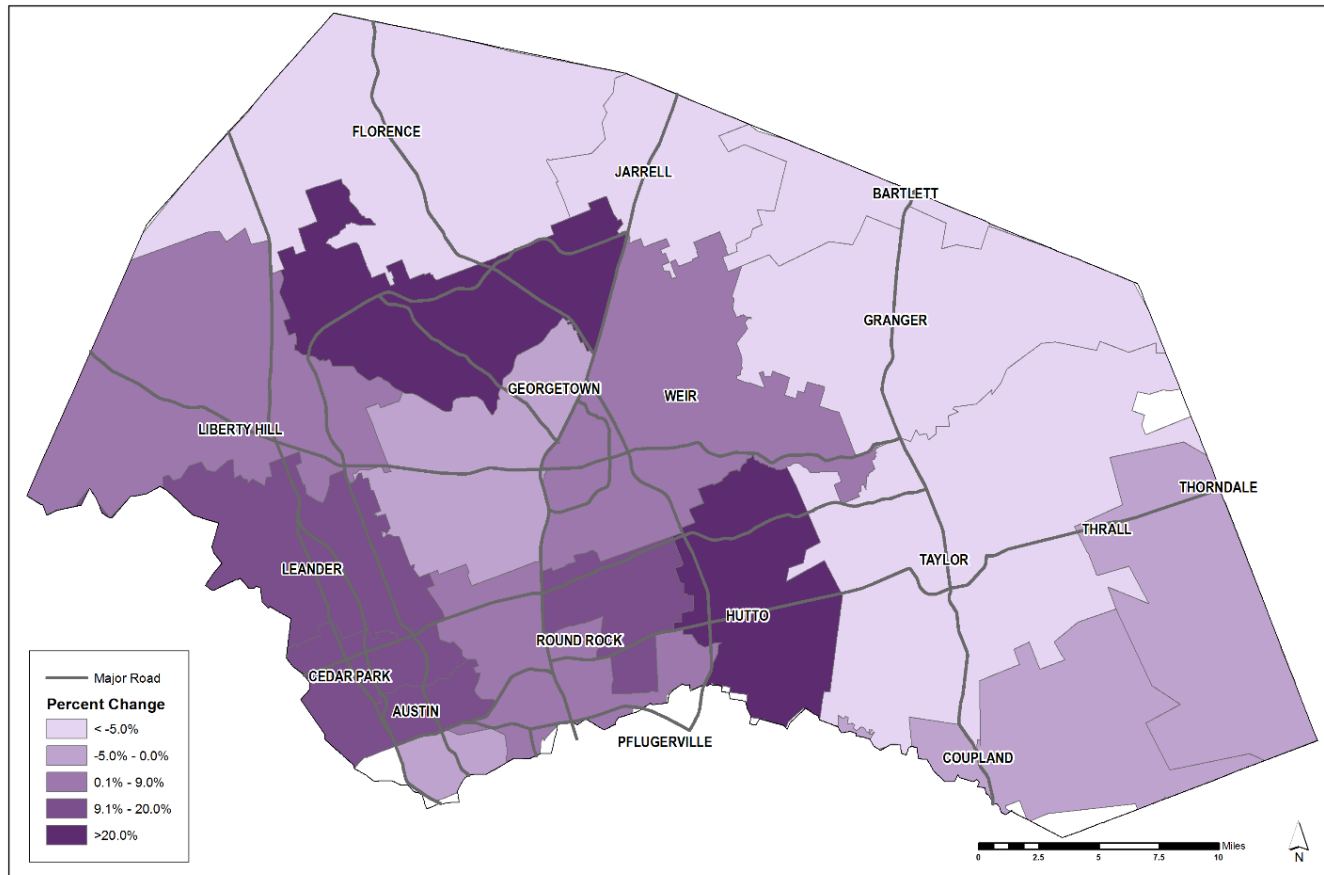
African American Population Change by Zip Code in Williamson County from 2011-2016

This map illustrates population change among African Americans from 2011 to 2016 for each zip code in Williamson County
 Data Source: American Community Survey, 2011-2016.
 Date Created: 12/3/2018



The Asian population has experienced significant growth at 158.2% in 78634 (Hutto) and 39.0% in 78633 (Georgetown). Moderate growth has occurred in 78665 (Round Rock), 78613 (Cedar Park), 78641 (Leander), and 78717 (Austin). The highest emigration rates occurred in 76527 (Florence) and 76530 (Granger) at -20.0%, and in 76574 (Taylor) at -10.2%.

Figure 12: Asian Population Change by Zip Code in Williamson County, 2011-2016



Asian Population Change by Zip Code in Williamson County from 2011-2016

This map illustrates population change among Asian Americans from 2011 to 2016 for each zip code in Williamson County.
 Data Source: American Community Survey, 2011-2016
 Date Created: 12/3/2018



Population Projection

At the current rate of growth, the Office of the State Demographer predicts that the county's population will reach almost 2 million residents by 2050 (Table 8). Williamson County is projected to experience population growth among multiple age, gender, and racial/ethnic groups. The percentage of females is projected to increase from 50.7% to 53% by 2050. Among racial and ethnic groups, the Hispanic population is projected to more than double by 2050, from 23.8% to 48.2%.

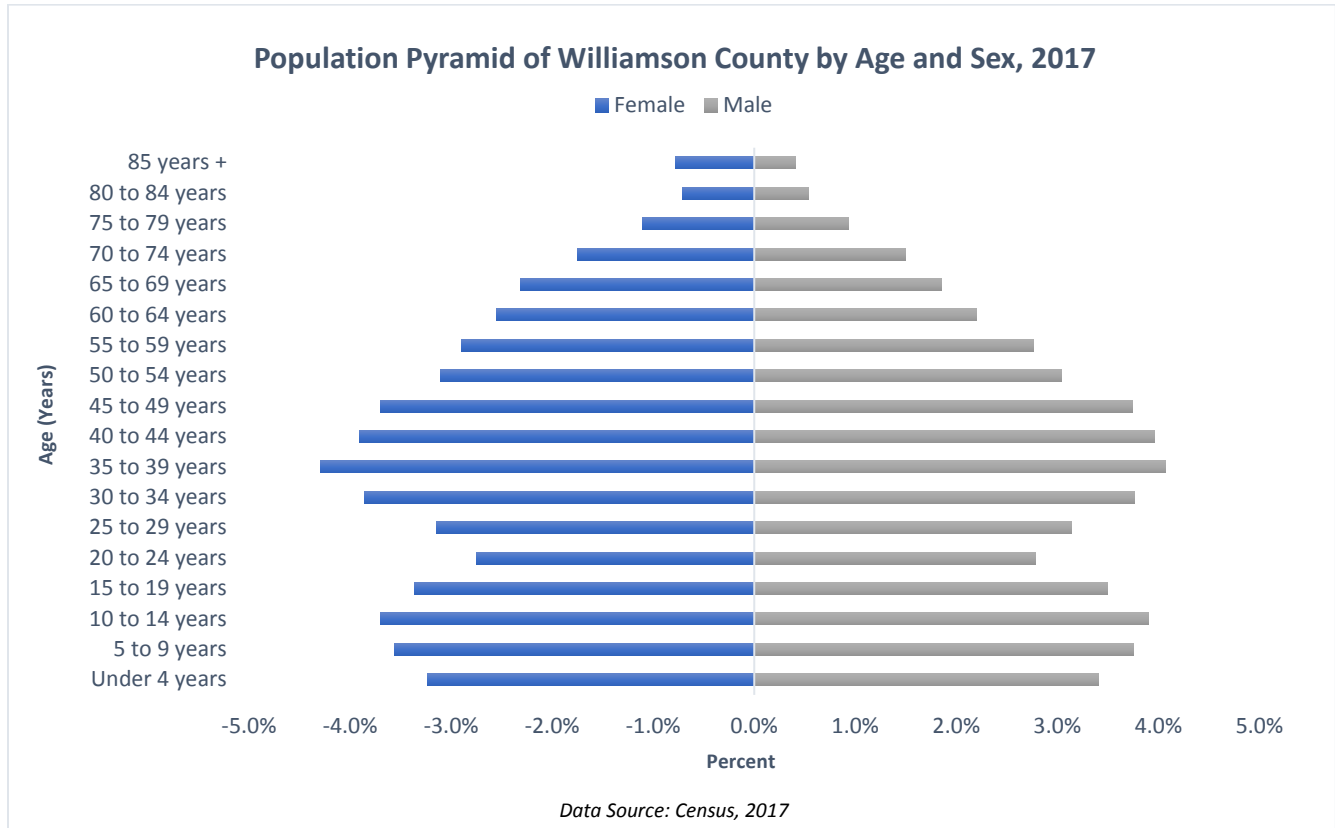
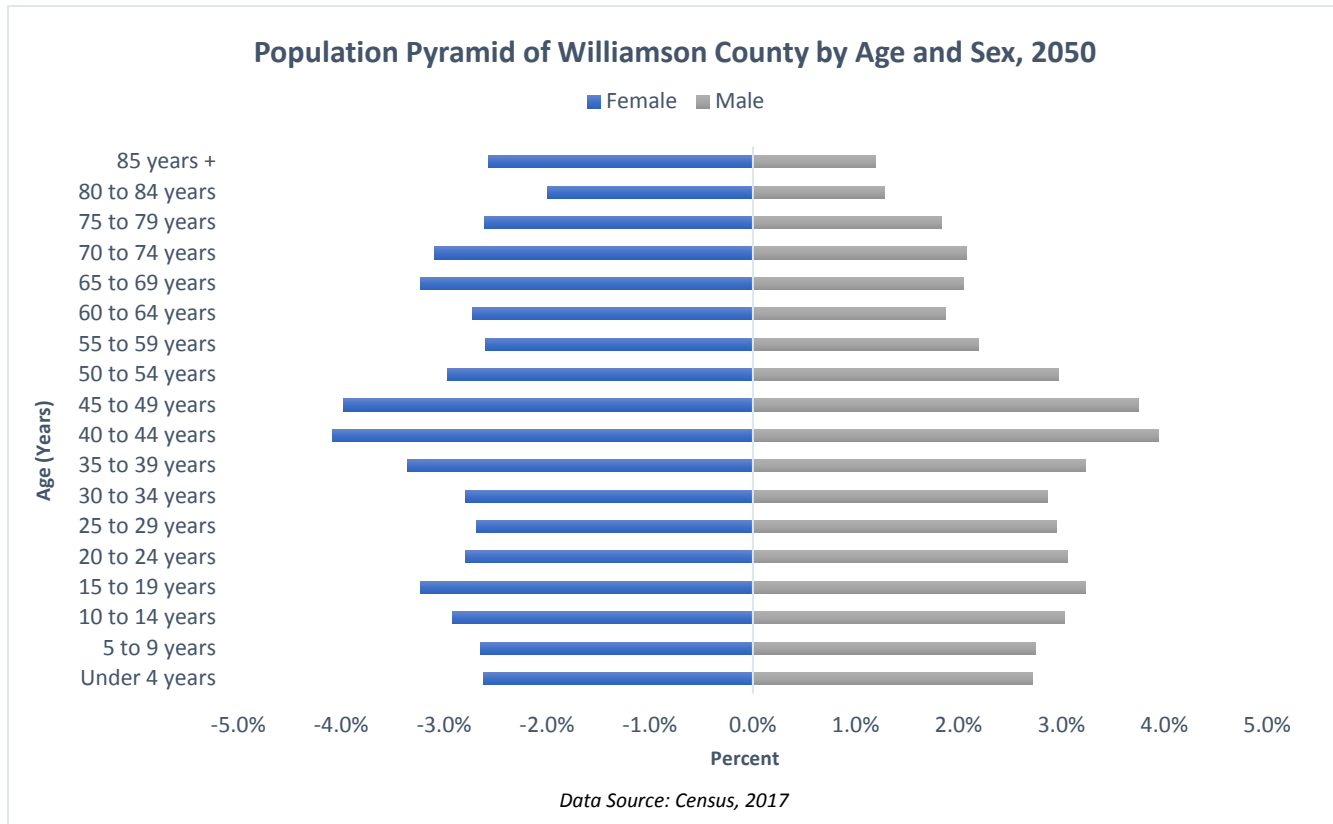
Table 8: Population Projection by Demographic Characteristics in Williamson County, 2018 and 2050

Population Projection by Demographic Characteristics in Williamson County, 2018 and 2050		
	2018	2050*
Population	547,828	1,976,958
Gender		
Male	49.1%	47.0%
Female	50.9%	53.0%
Age		
<18	25.7%	20.5%
18-24	9.0%	8.3%
25-44	28.3%	25.9%
45-64	24.8%	23.3%
65+	12.1%	21.9%
Race/Ethnicity		
White	74.7%	32.3%
Hispanic/Latino	24.6%	48.2%
Black/African American	6.6%	6.5%
Asian American	6.6%	N/A
American Indian/Alaskan Native	N/A	N/A
Native Hawaiian/Pacific Islander	N/A	N/A
Other	3.0%	13.0%

*Notes: *Population Projections: 1.0 Migration Rate; N/A: Population Percentages and Projections Not Available.*

*Data Sources: Healthy Communities Institute, 2018; *Office of the State Demographer, 2050*

The figures shown below display population pyramids for Williamson County in 2017 (Figure 13) and 2050 (Figure 14). Population pyramids are used to predict population growth by gender and age groups. As seen in Figure 13, the triangular pyramid shape represents a population that has a high proportion of younger and working-class age groups. Most of the population is clustered around the middle of the pyramid, which represents those ages 25 to 44 years. As this “reproductive” group ages over time, they will become the “post-reproductive” group of those ages 65 years and older. This population shift can be seen in Figure 14; the pyramid is more rectangular shaped, indicating a higher proportion of elderly residents compared to younger and working-class populations. By 2050, the post-reproductive group is expected to comprise 21.9% of the overall county population, which is nearly double the current proportion of 11.9%, and is a larger proportion compared to the same age group in Texas (17.4%) (Table 8). Simultaneously, a decrease is expected to occur in the number of younger residents, specifically those less than 18 years of age. By 2050, the percentage of those less than 18 years of age is expected to shift from 26.0% to 20.5%.

Figure 13: Population Pyramid of Williamson County by Age and Sex, 2017**Figure 14: Population Pyramid of Williamson County by Age and Sex, 2050**

Language Spoken at Home

A large majority (79.0%) of residents over the age of 5 years old spoke English at home, as compared to 64.7% of Texas residents (Table 9). Of the Williamson County residents who spoke a language other than English at home, 14.3% spoke Spanish.

Table 9: Language Spoken at Home (Ages 5 and Over) in Williamson County and Texas, 2013-2017

Language Spoken at Home (Ages 5 and Over) in Williamson County and Texas, 2013-2017

Indicator	Williamson County	Texas
Speak only English	79.0%	64.7%
Speak a language other than English	21.0%	35.3%
Spanish	14.3%	29.5%

Data Source: American Community Survey, 2013-2017

Key Findings

Williamson County has experienced rapid growth over the past eight years and will continue to experience significant growth over the next three decades. This growth has the potential to cause a shortage of providers and services, placing greater demands on the health care system. In addition, health resources and programs will need to be structured around age, race, ethnicity, culture, language, and geography to accommodate residents of Williamson County. Below are key considerations for stakeholders responsible for healthcare system planning and development.

- **Major population growth is expected for those ages 65 and older.** This will increase the prevalence of chronic diseases in Williamson County, since older adults often have more chronic conditions than other age groups.(18) Additionally, an aging population places burden upon the working-age population to support the large number of elderly dependents. (17) Future planning should consider chronic disease management, quality of life resources, and preventative health care for the aging population.
- **The Hispanic population is expected to more than double by 2050.** Certain chronic health conditions and risk factors, such as obesity and diabetes, disproportionately affect this population.(19) These findings should be considered when planning health improvement and intervention strategies. Moreover, the rates of individuals who speak Spanish or another language other than English is growing and needs to be addressed. Culturally competent programs that address language disparities are necessary to strengthen awareness, knowledge, and access to health resources and services.
- **Growing numbers of the population are moving to rural areas of the county, specifically Jarrell, Georgetown, Hutto, and Coupland.** Those living in rural areas cite transportation as a major barrier to healthcare access. Lack of adequate transportation may result in rescheduled or missed appointments, delayed care, and missed or delayed medication use.(20) This ultimately leads to poor management of chronic illness and health outcomes.(20) Programs should strongly consider expanding their services to these areas to increase health care coverage and access.

C2. Socioeconomic Characteristics

"IF THERE WAS SOME SORT OF VOCATIONAL TRAINING FOR ADULTS, THAT WOULD BE VERY HELPFUL, LIKE ELECTRICAL – LIKE WHATEVER – PLUMBING, ELECTRICAL, WHATEVER, BUT SOMETHING THAT SOME OF OUR ADULTS WHO JUST MAYBE DIDN'T GO TO SCHOOL RIGHT AWAY OR WANT TO GO BACK OR WHATEVER. WE JUST DON'T HAVE ANYTHING FOR THEM AS WELL."

Socioeconomic characteristics include indicators that affect health status, such as median household income, poverty, unemployment, and education. When examined together, these indicators describe an individual's socioeconomic status (SES). Research shows that SES is a consistent and reliable predictor of many health outcomes across the life span.(21)

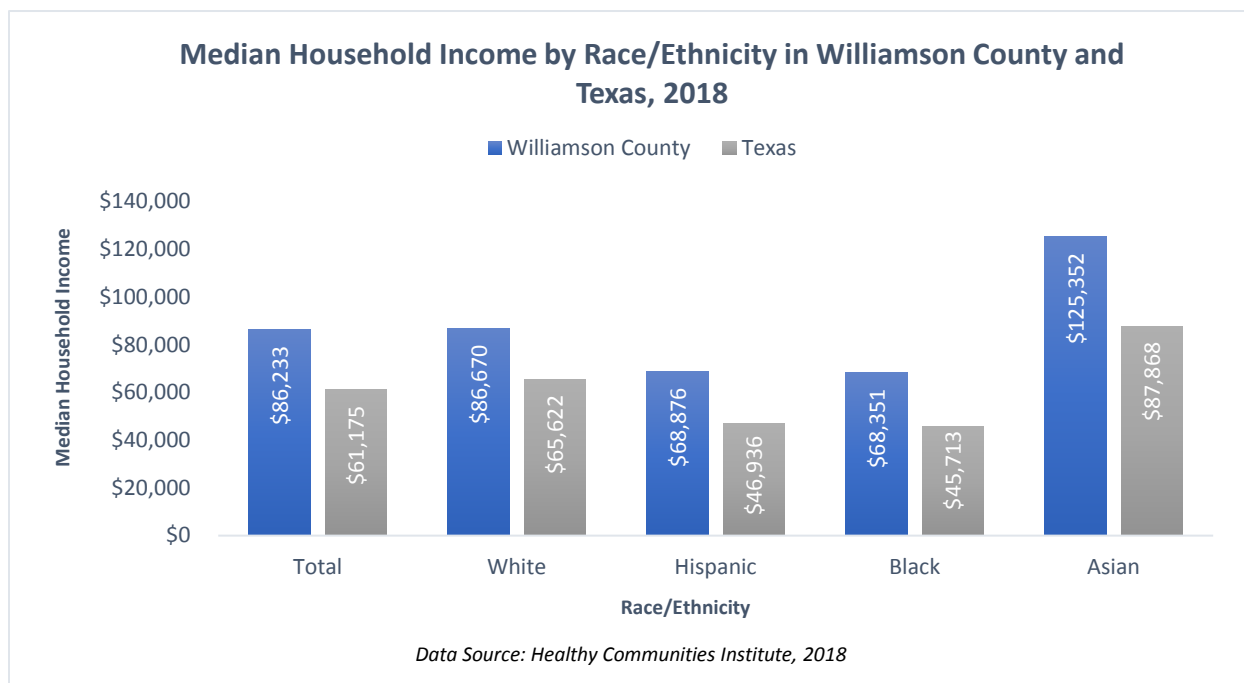
Median Household Income

Why is this important?

"Median household income reflects the relative affluence and prosperity of an area. Areas with higher median household incomes are likely to have more educated residents and lower unemployment rates. Areas with higher median household incomes also have higher home values and their residents enjoy more disposable income."(12)

Williamson County has a median household income of \$86,233, which is \$20,000 more than the median household income for Texas (Figure 15). Moreover, the median household income for each racial and ethnic group is higher in Williamson County compared to the same groups for Texas. The White (\$86,670) and Asian (\$125,352) populations earn above the Williamson County total median household income. The Hispanic (\$68,876) and Black/African American (\$68,351) populations earn below the total median household income compared to the county, but still earn above the median compared to the state.

Figure 15: Median Household Income by Race/Ethnicity in Williamson County and Texas, 2018



About one in five (19.7%) Williamson County households earn more than \$150,000, while almost one in ten (8.9%) households earn less than \$25,000 (Figure 16). Additionally, two in five (40.5%) households earn between \$75,000 and \$149,000 and one in three (29.4%) households earns between \$35,000 and \$74,999. When compared to Texas, Williamson County has a higher percentage of households who earn \$75,000 or more, while Texas has a higher percentage of households who earn less than \$75,000 (Figure 16 and Figure 17).

Figure 16: Median Household Income Distribution in Williamson County, 2018

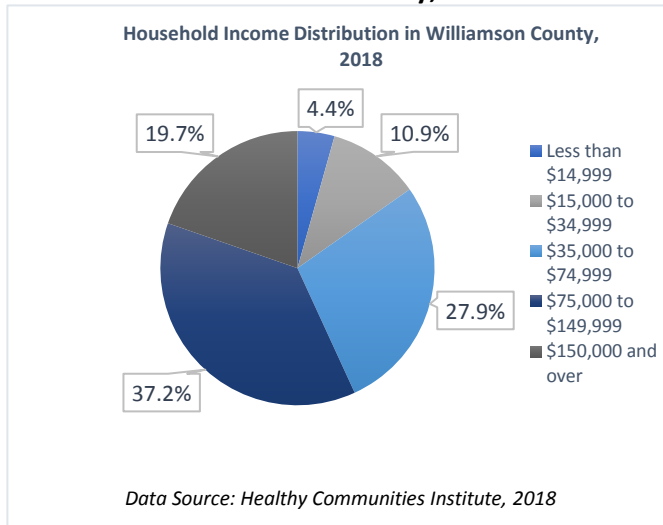
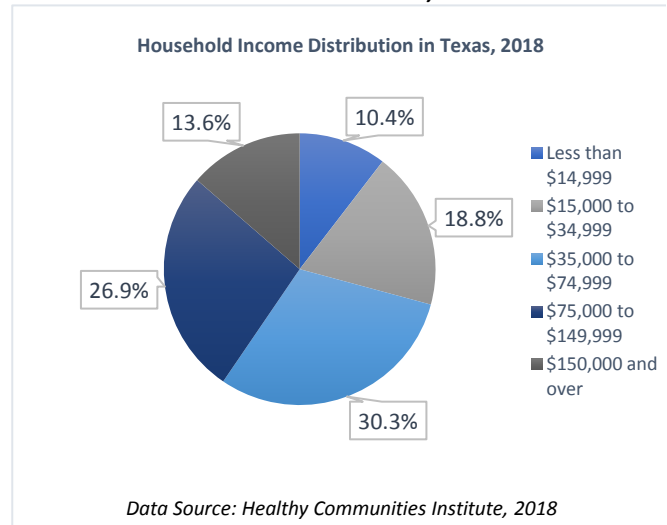


Figure 17: Median Household Income Distribution in Texas, 2018



Poverty

Why is this important?

“A high poverty rate is both a cause and a consequence of poor economic conditions. A high poverty rate indicates that local employment opportunities are not sufficient to provide for the local community. Through decreased buying power and decreased taxes, poverty is associated with lower quality schools and decreased business survival.”(22)

Williamson County has a lower percentage (7.0%) of individuals living below the Federal Poverty Line (FPL) compared to Texas (16.0%) (Table 10). The percentage of adults aged 65 and older who are living in poverty is 5.1% (Williamson County) and 10.7% (Texas). Of adults ages 18-64 with any disability, 15.0% (Williamson County) and 24.6% (Texas) are living in poverty. The percentage of youth under the age of 18 who are living in poverty is 8.4% (Williamson County) and 22.9% (Texas).

Table 10: Percent of Residents Living Below the Federal Poverty Line (FPL) in Williamson County and Texas, 2013-2017

Percent of Residents Living Below the Federal Poverty Line (FPL) in Williamson County and Texas, 2013-2017		
Indicator	Williamson County	Texas
People Living Below FPL	7.0%	16.0%
People 65+ Living Below FPL	5.1%	10.7%
People with a Disability Living Below FPL	15.0%	24.6%
Children Under 18 Living Below FPL	8.4%	22.9%

Data Source: American Community Survey, 2013-2017

Across all racial and ethnic groups, Williamson County had lower percentages of residents living below the FPL compared to Texas (Figure 18). In Williamson County, the percentage of residents living in poverty among White (6.7%) and Asian (5.8%) populations is less than the overall county value of 7.0% (Figure 19). In contrast, poverty among Hispanic and Black populations in Williamson County is higher than the overall county value, at 10.7% and 11.6% respectively.

Figure 18: Percentage Living Below the Federal Poverty Line by Race/Ethnicity in Williamson County and Texas, 2013-2017

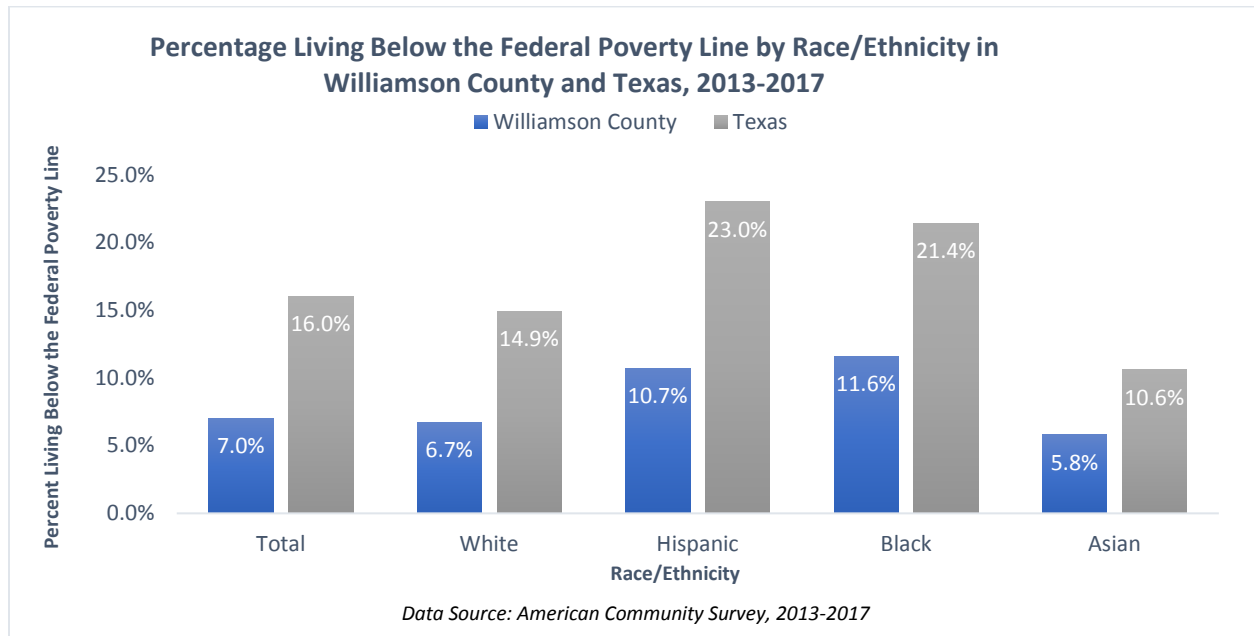
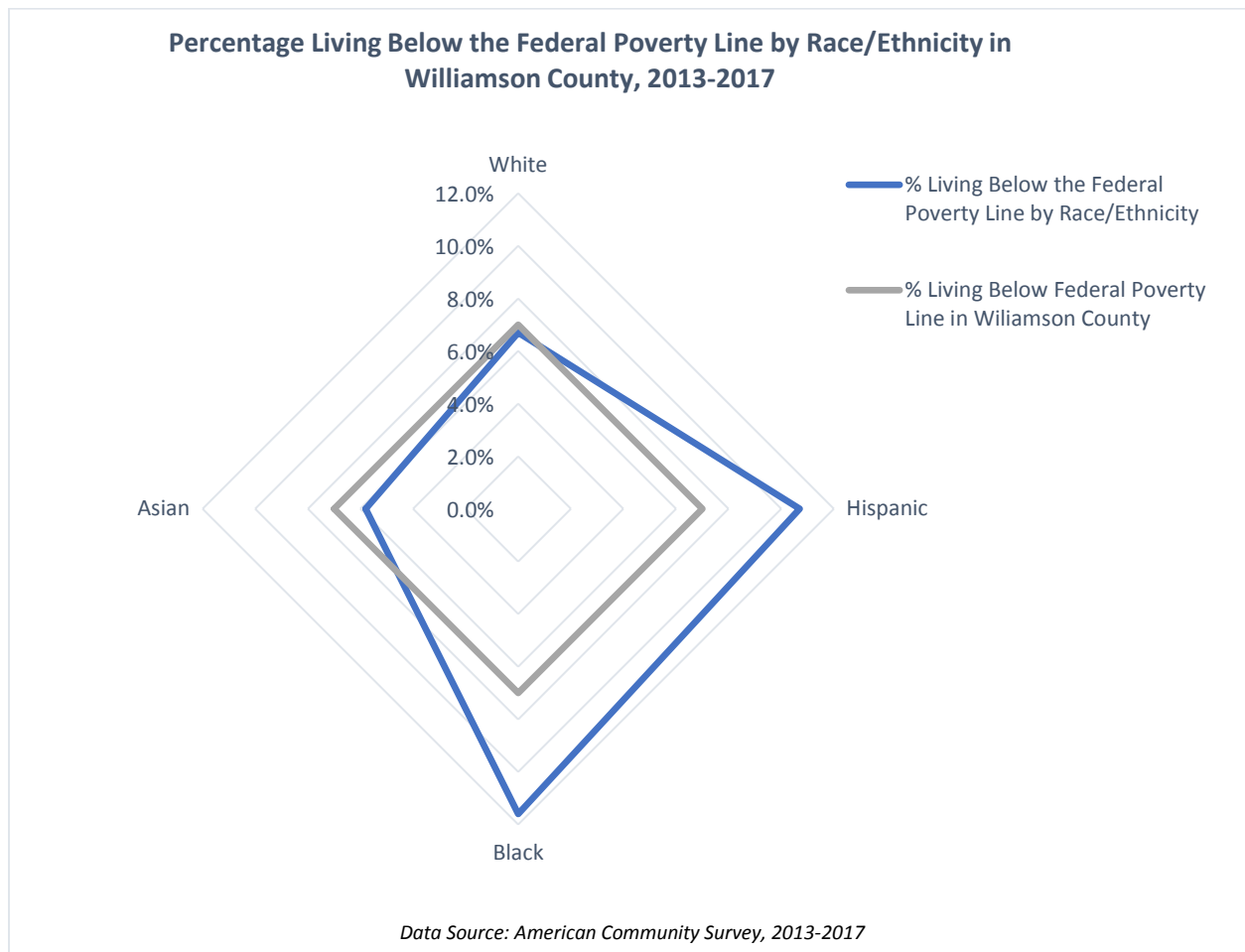


Figure 19: Percentage Living Below the Federal Poverty Line by Race/Ethnicity in Williamson County, 2013-2017



Unemployment

Why is this important?

“The unemployment rate is a key indicator of the local economy. Unemployment occurs when local businesses are not able to supply enough appropriate jobs for local employees and/or when the labor force is not able to supply appropriate skills to employers. A high rate of unemployment has personal and societal effects. During periods of unemployment, individuals are likely to feel severe economic strain and mental stress. Unemployment is also related to access to health care, as many individuals receive health insurance through their employer. A high unemployment rate places strain on financial support systems, as unemployed persons qualify for unemployment benefits and food stamp programs.”(23)

About three percent (3.2%) of the Williamson County workforce 16 years of age and older are unemployed, compared to 3.9% in Texas (Table 11). When looking at veterans specifically, Williamson County has a lower percentage of veterans unemployed (2.8%) compared to Texas (4.4%).

Table 11: Percentage of Civilian Workforce Unemployed in Williamson County and Texas, 2018

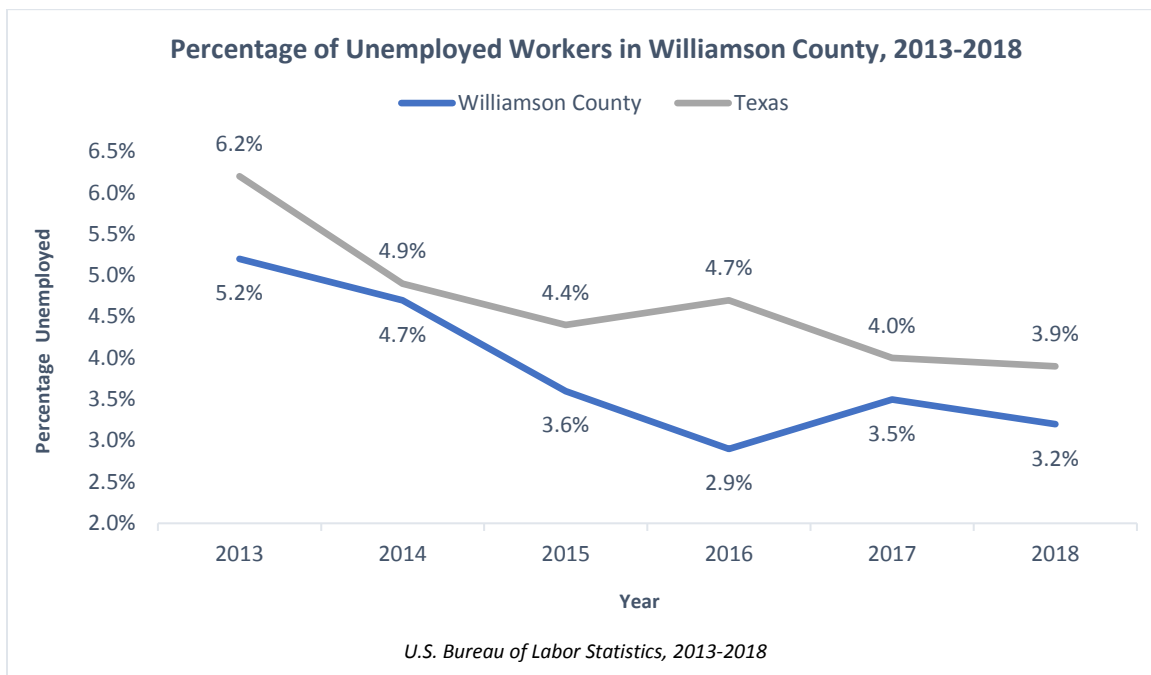
Percentage of Civilian Workforce Unemployed in Williamson County and Texas, 2018		
Indicator	Williamson County	Texas
Unemployment* ¹	3.2%	3.9%
Unemployment-Veterans ²	2.8%	4.4%

Notes: *Unemployment Rate as of August 1st, 2018

Data Sources: ¹U.S. Bureau of Labor Statistics, 2018; ²American Community Survey, 2012-2016

Between 2013 and 2018, unemployment rates among the civilian workforce have been less in Williamson County compared to Texas (Figure 20). The percentage of unemployed workers in Williamson County has decreased from 5.2% in 2013 to 3.2% in 2018.

Figure 20: Percentage of Unemployed Workers in Williamson County and Texas, 2013-2018



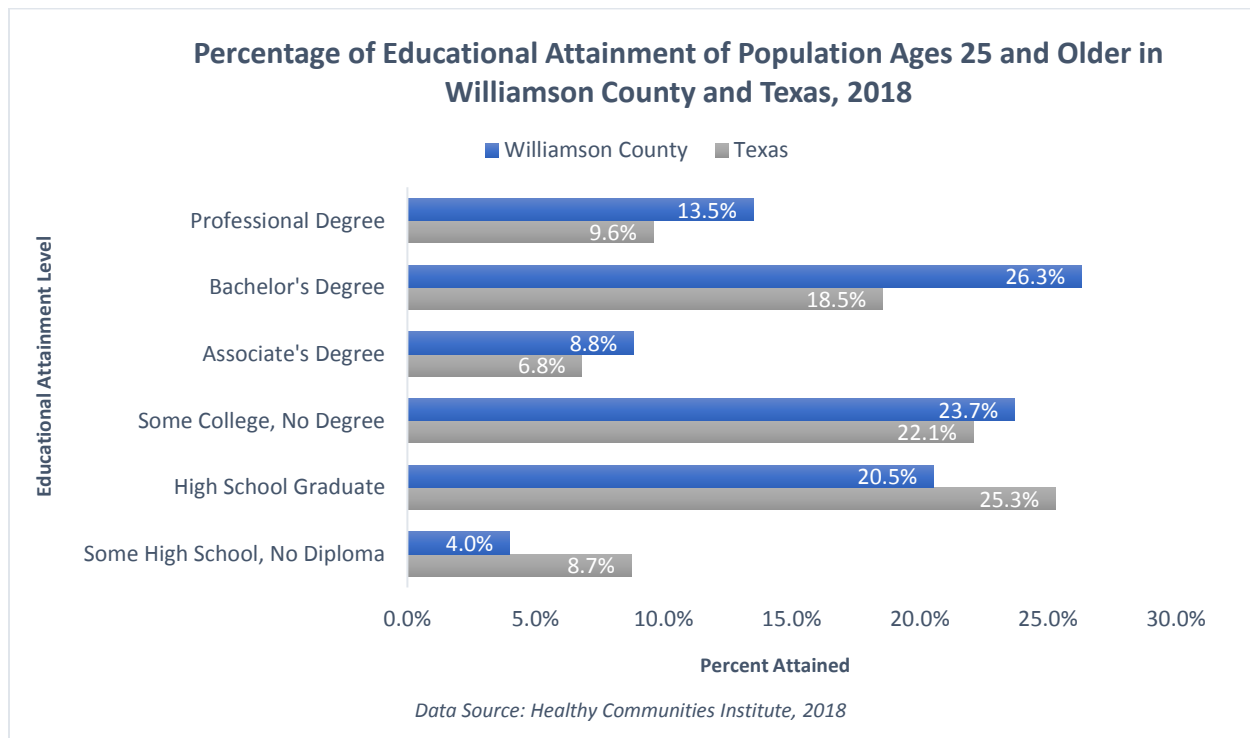
Educational Attainment

Why is this important?

“Graduating high school is an important personal achievement and is essential for an individual's social and economic advancement. Graduation rates are also an important indicator of the performance of the educational system.”(24) Furthermore, “the college experience develops cognitive skills, and allows learning about a wide range of subjects, people, cultures, and communities. Having a degree also opens up career opportunities in a variety of fields and is often the prerequisite to a higher-paying job. It is estimated that college graduates earn about \$1 million more per lifetime than non-graduate peers.”(25)

About 70% of Williamson County adults ages 25 years and older have some form of college or higher (combined percentages of those who have a professional, bachelor's, associate's some college), which is higher than Texas (57%) (Figure 21). In Williamson County, about one in 25 residents have some high school education but no college degree (4.0%), about one in five residents have obtained a high school diploma (20.5%), about one in four have some college experience but no degree (23.7%), about one in ten have an Associate's degree (8.8%), about one in four have a Bachelor's degree (26.3%), and about one in eight have a Master's or Doctoral degree (13.5%).

Figure 21: Percentage of Educational Attainment of Population Ages 25 and Older in Williamson County and Texas, 2018



Key Findings

Although Williamson County fares better than Texas concerning median household income, poverty, unemployment, and education, many socioeconomic factors should still be considered and addressed. Certain populations have substantially worse socioeconomic status compared to others, which is described in further detail below.

- The percentage of disabled adults who experience poverty is higher than the overall county value.**

“Persons with a disability are more likely to live in poverty as compared to the rest of the population. The poverty rate is especially high among persons with long-term disabilities. Without adequate income, individuals with disabilities may not be able to afford necessary expenses, such as rent or mortgage, utility

bills, medical and dental care, and food. People with disabilities living below the poverty level are more likely to experience material hardship in comparison to others living in poverty.”(26)

- **About one in ten youth experience poverty, which equates to 11,209 children under 18 years old.** “Compared to their peers, children in poverty are more likely to have physical health problems like low birth weight or lead poisoning and are also more likely to have behavioral and emotional problems. Children in poverty also tend to exhibit cognitive difficulties, as shown in achievement test scores, and are less likely to complete basic education.”(27)
- **Approximately 5% of the senior population experiences poverty.** “Seniors who live in poverty are an especially vulnerable group due to increased physical limitations, medical needs, and social isolation. Seniors often live on a fixed income from pensions or other retirement plans and social security. If this income is insufficient in the face of increasing prescription costs and other costs of living, most seniors have no way to supplement their income.”(28)
- **Historically, minority populations have a higher rate of poverty compared to other racial groups.** In Williamson County, poverty is significantly worse among Hispanic and Black populations compared to the overall county value. Additionally, both groups have a median household income that is below the overall county value. Income inequality is the largest factor contributing to higher poverty rates.(29)

The findings in this section provide evidence for increased intervention efforts to reduce poverty among high-risk groups. Research shows that increased educational attainment and income growth decreases poverty rates, therefore priorities and policies should be developed concerning these factors.

C3. Health Resource Availability

*“BIG DISTINCTION BETWEEN INSURANCE AND HEALTH CARE.
AND EVERYTHING NOWADAYS IS INSURANCE, INSURANCE,
INSURANCE WHEN THE FOCUS SHOULD BE ON HEALTHCARE.”*

Indicators in this section include availability of health care providers, Federally Qualified Health Centers (FQHCs), as well as preventable hospitalizations and health insurance rates covering the cost of the care provided. Deficiencies in these areas of the healthcare system may cause delayed or missed care, leading to serious and potentially fatal health outcomes.

Provider Access

Why is this important?

Access to healthcare providers, specifically primary care physicians, mental health providers, and dentists, increases the likelihood that individuals will receive preventative care that mitigates long-term health complications.

Table 12: Provider Access in Williamson County and Texas

Provider Access in Williamson County and Texas		
Indicator	Williamson County	Texas
Primary Care Provider Ratio ¹	1,510:1	1,670:1
Dentist Ratio ²	1,850:1	1,790:1
Mental Health Provider Ratio ³	1,110:1	1,010:1

Data Sources: ¹Area Health Resource File, 2015; ²Area Health Resource File, 2016; ³CMS, National Provider Identification, 2017

Findings based on Table 12:

- For every primary care provider in Williamson County, there are 1,510 residents, which is lower than the ratio in Texas (1,670:1).
- For every dentist in Williamson County, there are 1,850 residents, which is higher than the ratio in Texas (1,790:1).
- For every mental health provider in Williamson County, there are 1,110 residents, which is higher than the ratio in Texas (1,010:1).

Federally Qualified Health Centers

Why is this important?

Federally Qualified Health Centers (FQHCs) “provide care to underserved and vulnerable populations in settings like community health centers, migrant health centers, health care for the homeless centers, public housing primary care centers, and other settings.”(30) Additionally, they help lower health care costs and reduce the need for hospitalizations.

Compared to Texas, Williamson County has a higher rate of coverage by Federally Qualified Health Centers (FQHCs). For every 100,000 population, there are 2.1 FQHC locations in the county compared to 1.8 in Texas.(31)

Local Spotlight: Lone Star Circle of Care

In Williamson County, Lone Star Circle of Care (LSCC) is the local FQHC provider with nine locations across the county. Below is an overview of LSCC, which includes the average number of encounters per patient by type of practice and diagnosis.

In 2017, the practice with the highest number of patient encounters was behavioral health (5.8), which was significantly higher than the overall rate (2.7) (Figure 22). Senior Care (3.4) and Ob-Gyn (3.0) also had patient encounters that were higher than the overall rate. At LSCC, a patient diagnosed with schizophrenia was seen almost six times (5.6) on average, followed by major depressive recurrent disorder (5.2), diabetes (2.7), major depressive episodic disorder (2.4) and atrial fibrillation (2.1) (Figure 22).

Figure 22: Average Number of Patient Encounters by Practice at Williamson County Lone Star Circle of Care Clinics, 2017

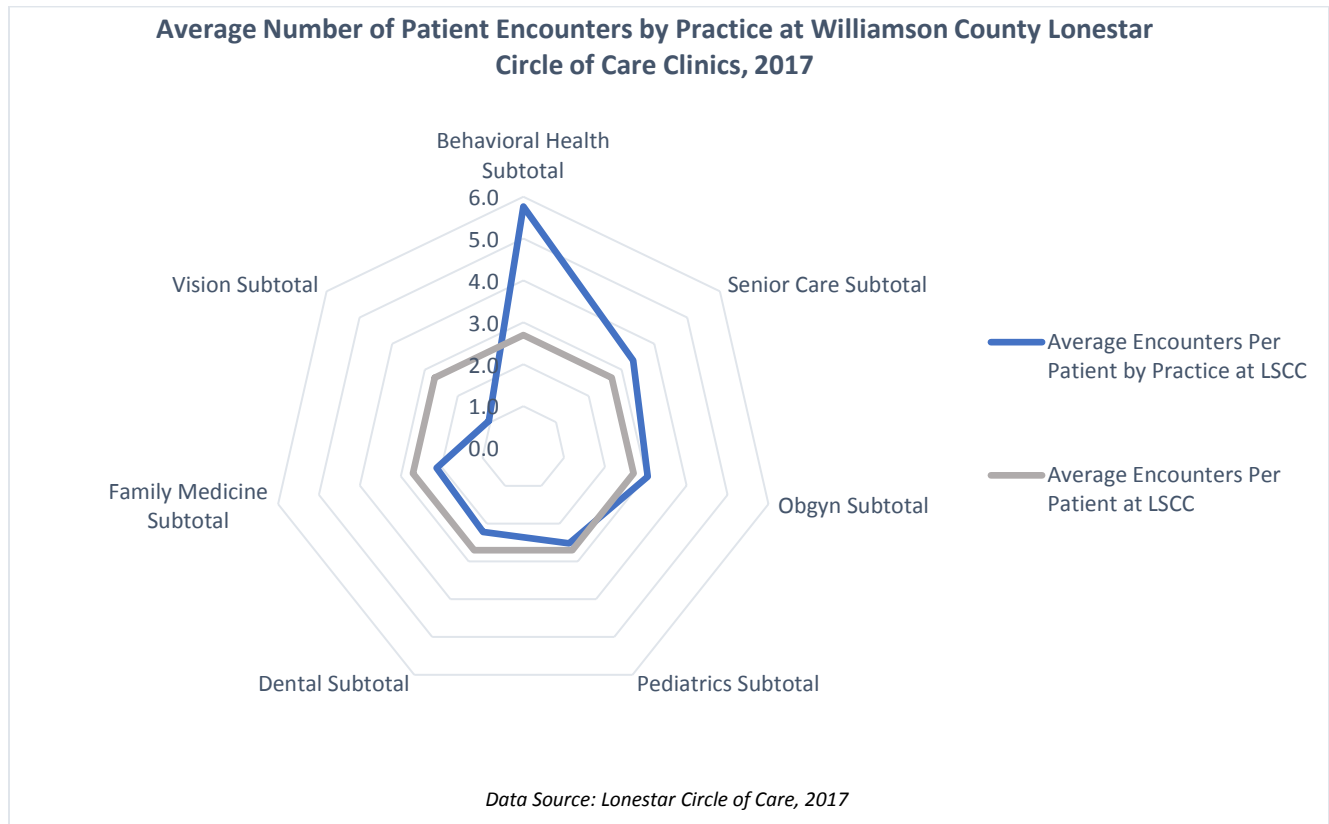
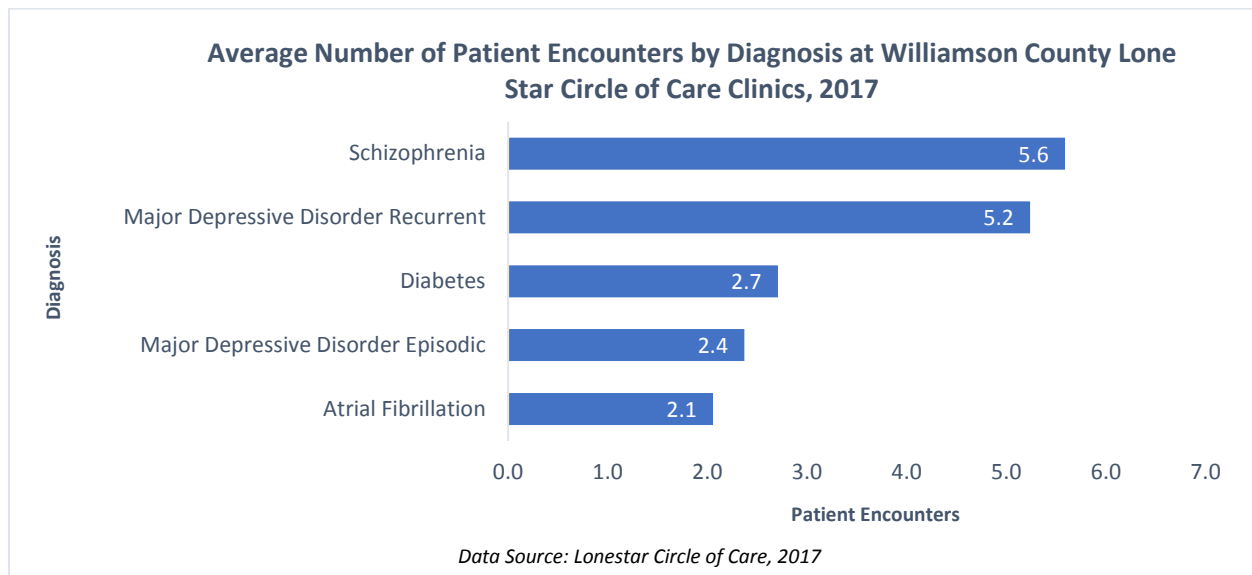


Figure 23: Average Number of Patient Encounters by Diagnosis at Williamson County Lone Star Circle of Care Clinics, 2017



Preventable Hospitalizations

Why is this important?

Hospitalization for diagnoses treatable in outpatient services suggests that the quality of care provided in the outpatient setting was less than ideal. The measure may also represent a tendency to overuse hospitals as a main source of care.(32)

In Williamson County, there were 38 preventable hospital stays per 1,000 fee-for-service Medicare enrollees, which is lower than the rate in Texas (53 per 1,000 fee-for-service Medicare enrollees).(33)

Health Insurance

Why is this important?

“Medical costs in the United States are extremely high, so people without health insurance may not be able to afford medical treatment or prescription drugs. They are also less likely to get routine checkups and screenings, so if they do become ill, they will not seek treatment until the condition is more advanced and therefore more difficult and costlier to treat. Many small businesses are unable to offer health insurance to employees due to rising health insurance premiums.”(34)

Figure 24 displays the percentage of total persons without health insurance in Williamson County (10.0%) and Texas (18.2%). When stratified by race/ethnicity, almost eighteen percent (17.5%) of the Hispanic population in Williamson County did not have health insurance as compared to 10.1% of the White population, 8.7% of the Asian population, and 8.4% of the Black population.

Figure 24: Percentage of Population without Insurance by Race/Ethnicity in Williamson County and Texas, 2013-2017

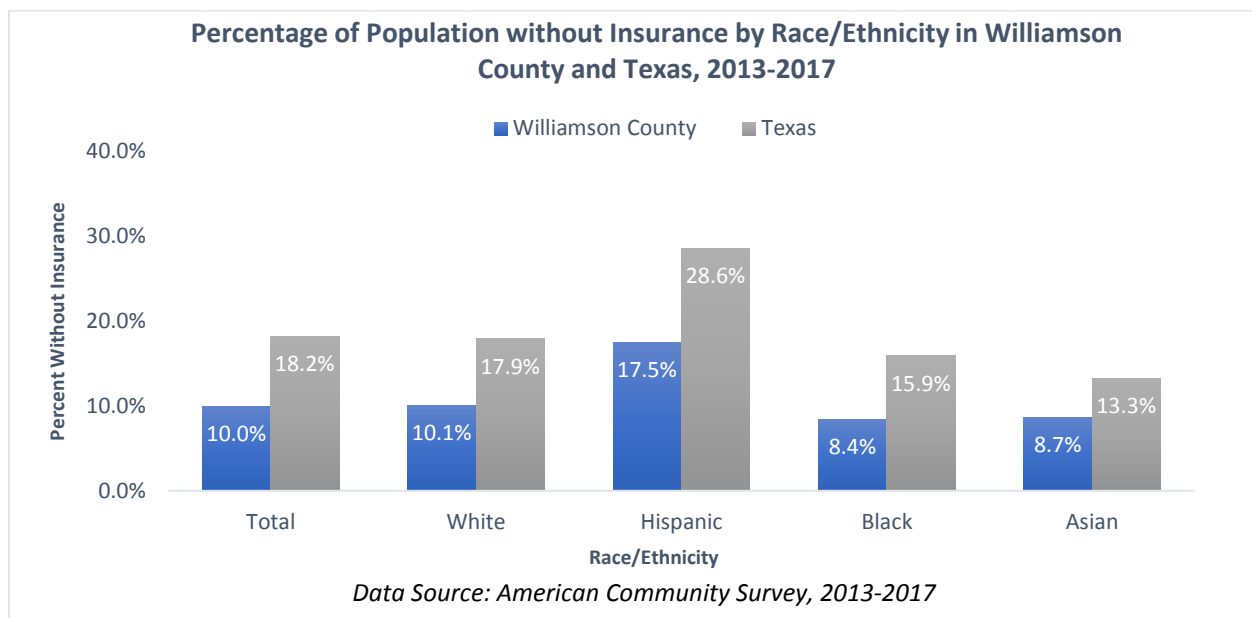


Figure 25 displays the percentage of individuals under age 18 without health insurance in Williamson County (6.7%) and Texas (11.0%). This equates to 9,428 children in Williamson County and 836,178 children in Texas who do not have any form of health insurance.

Figure 25: Percentage of Population without Insurance for Children and Persons in Williamson County and Texas, 2013-2017

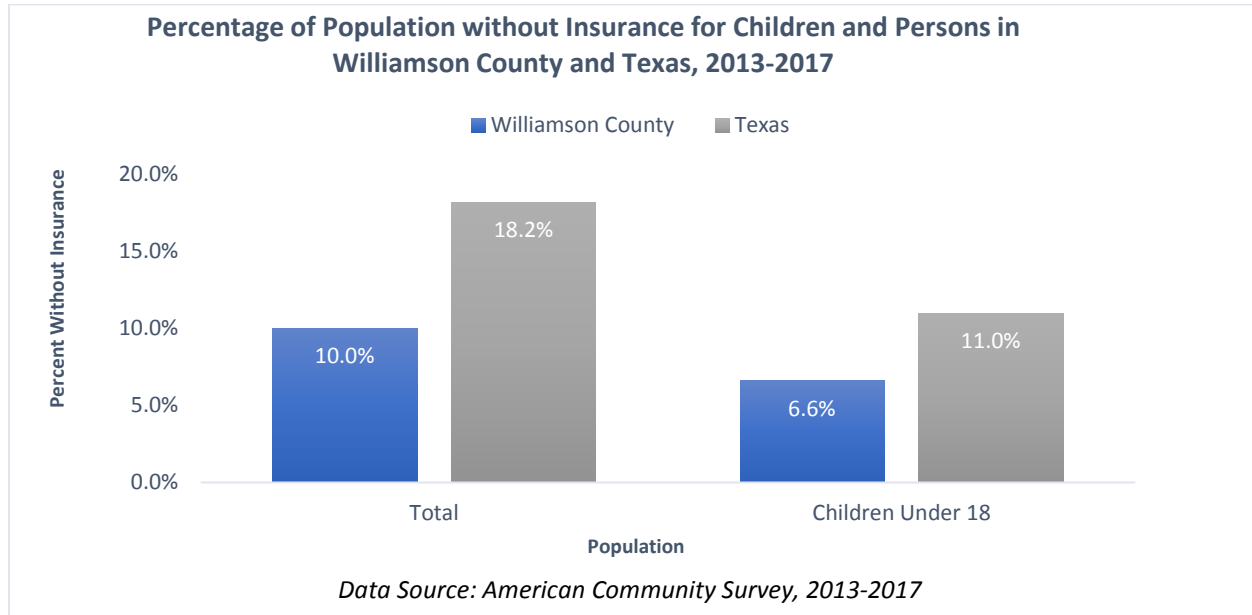


Figure 26 examines the total population without health insurance across various income levels in Williamson County and Texas. Almost twenty percent (20.7%) of those with a median household income of less than \$25,000 do not have health insurance in Williamson County, compared to 27.9% in Texas. As median household income increases, the percentage of those uninsured decreases; the uninsured rates in Williamson County for those who have a median household income of \$25,000-49,999, \$50,000-74,999, \$75,000-99,999, and over \$100,000 are 19.4%, 14.1%, 7.9%, and 4.5% respectively.

Figure 26: Percentage of Population without Insurance by Median Household Income in Williamson County and Texas, 2013-2017

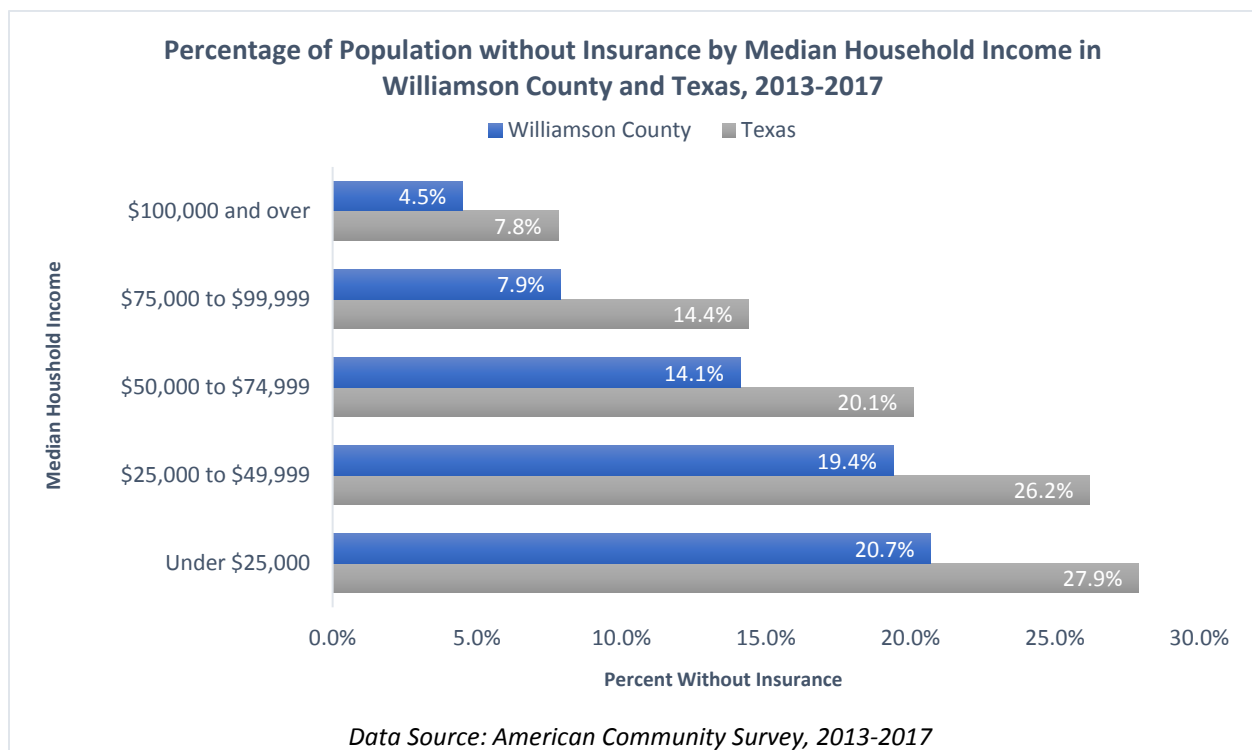


Figure 27 compares the insured and uninsured populations by federal poverty level (FPL) in Williamson County. Each year, the Census Bureau updates the FPL to define and quantify poverty in America; the further below the official poverty line one falls, the more vulnerable one is.(35) For example, a family of four living on an annual median household income of \$25,100 or less would fall below the 100% FPL; a family of four living on an annual median household income of less than \$34,638 would fall below the 138% FPL; a family of four living on an annual median household income less than \$100,400 would fall below the 400% FPL. In Texas, full coverage government health insurance plans or lower monthly premiums are available to households that fall below the 400% FPL. However, many of these households have incomes are too high to qualify for government health insurance plans or lower premiums, and income alone doesn't qualify a household for these insurance plans.

Williamson County households who fall below the 400% FPL have higher rates of not having health insurance. Over half (51.9%) of households who fall between the 138 to 399% FPL do not have health insurance, over ten percent (11.1%) of households who fall between 100-137% FPL do not have health insurance, and almost twenty percent (17.4%) of households who fall below the 100% FPL do not have health insurance.

Figure 27: Percentage of Population without Insurance by Poverty in Williamson County and Texas, 2013-2017

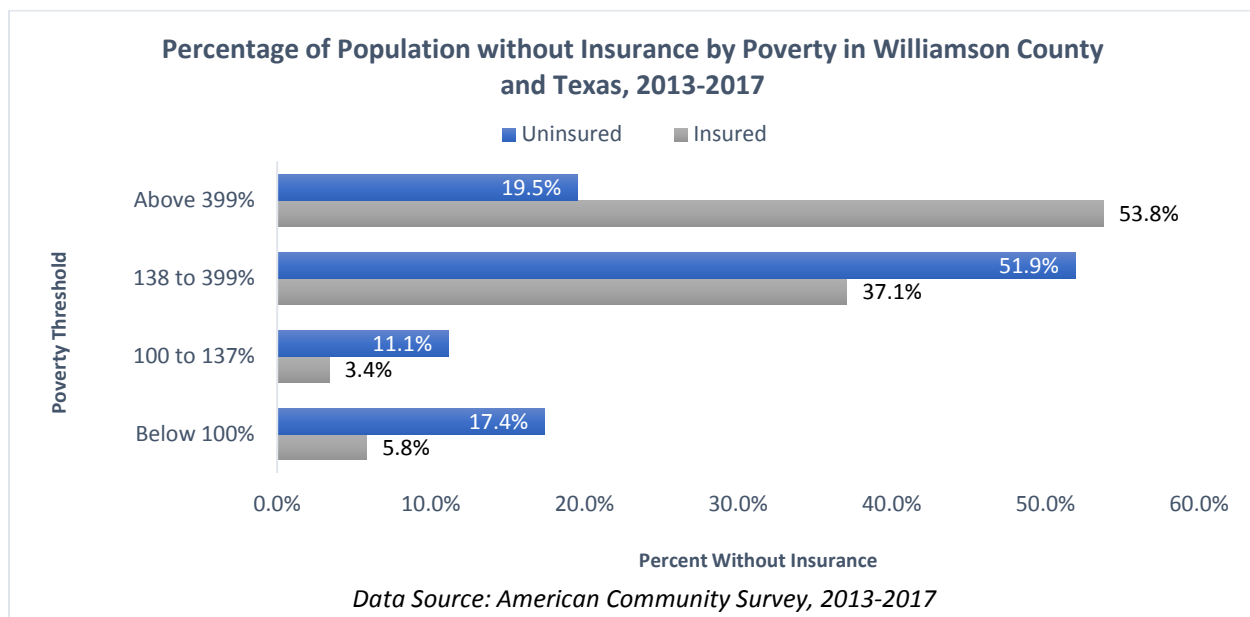
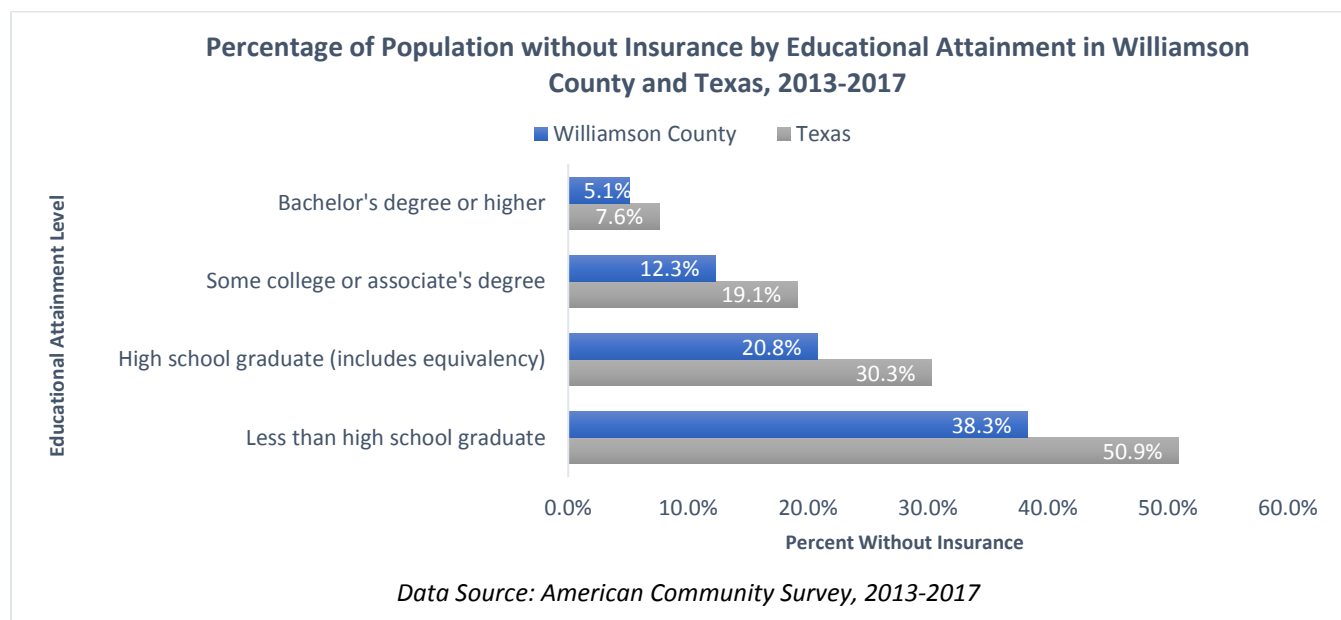


Figure 28 below examines the adult population (ages 26-64) without health insurance across various education levels in Williamson County and Texas. Almost forty percent (38.3%) of those with less than a high school diploma do not have health insurance in Williamson County, compared to 50.9% in Texas. As the population attains higher levels of education, the percentage of uninsured persons decreases. The uninsured rates in Williamson County for those who have attained a high school diploma, some college or Associate's degree, or a Bachelor's degree or higher is 20.8%, 12.3% and 5.1% respectively.

Figure 28: Percentage of Population without Insurance by Educational Attainment in Williamson County and Texas, 2013-2017



Key Findings

When the CHA Task Force examined healthcare resource availability in Williamson County, several gaps stood out. These should be addressed by stakeholders within the healthcare system, as well as those who develop policies regarding health care and health insurance.

- **The ratio of dental providers is worse in the county compared to Texas.** “Studies have linked oral infections with diabetes, heart disease, stroke, and premature, low-weight births.”(36) “Professional dental care helps to maintain the overall health of the teeth and mouth and provides for early detection of pre-cancerous or cancerous lesions. People living in areas with low rates of dentists may have difficulty accessing the dental care they need.”(37)
- **In conjunction with a low mental health provider ratio, the county’s local FQHC sees the most encounters per patient for mental health disorders.** “Psychological distress is important to recognize and address before issues become serious. Mental disorders are common across the United States, but only a fraction of those affected receive treatment. Although occasional down days are normal, persistent mental and emotional health problems should be evaluated and treated by a qualified professional.”(38)
- **Many Williamson County residents do not have health insurance.** The Hispanic population has the highest uninsured rate compared to other racial and ethnic groups. Moreover, those with low median household income, no high school diploma, and living in poverty are more likely to not have health insurance.

C4. Quality of Life

“WELL, I HEAR A LOT OF INDIVIDUALS TALKING ABOUT THE FACT THAT THEY’RE ON SOME FORM OF DISABILITY. AND YOU’D LIKE TO BETTER YOURSELF SO MAYBE GET A JOB OR SOMETHING LIKE THAT. AND THAT SOUNDS SIMPLE. WANT MORE MONEY? GO GET A JOB, RIGHT? BUT IT AFFECTS YOU SO NEGATIVELY... THERE’S A PERIOD OF TIME AT WHICH ONE IS VERY MUCH FINANCIALLY AT RISK WHICH PUTS EVERYTHING AT RISK, YOUR HOUSING, YOUR FOOD, YOUR MEDICAL, TRANSPORTATION. ALL OF THESE AREAS ARE IN JEOPARDY IF SOMEBODY IS ON SOME FORM OF DISABILITY AND WOULD LIKE TO BETTER THEMSELVES.”

Health-related quality of life is defined as “an individual’s or group’s perceived physical and mental health over time.”(39) Although health is one of the important domains of overall quality of life, there are other domains such as jobs, housing, schools, and neighborhood.(39) The data in this section describe individual-level quality of life indicators (health status, and physical/mental health perceptions), and community-level quality of life indicators (disability, transportation, housing, social/civic engagement, and Head Start facilities).

Self-Reported Health

Why is this important?

Self-reported health status is based on survey responses to the question: “In general, would you say that your health is excellent, very good, good, fair, or poor?”

Poor Physical Health Days is based on survey responses to the question: “Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?”

Poor Mental Health Days is based on survey responses to the question: “Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?”

Together, these measures determine health-related quality of life. Self-reported quality of life data is a reliable estimate of one’s recent health.(40)

Table 13: Self-Reported Health of Adults in Williamson County and Texas, 2016

Self-Reported Health of Adults in Williamson County and Texas, 2016		
Indicator	Williamson County	Texas
Poor or fair health	13%	18%
Poor physical health days	3	3.5
Poor mental health days	3.1	3.4

Data Source: Behavioral Risk Factor Surveillance System, 2016

Findings based on Table 13:

- Adults in Williamson County reported a better health status than adults in Texas. Approximately 13% of adults in the county rated their health as “poor” or “fair” as compared to 18% in the state.
- Adults in Williamson County reported an average of 3 poor physical health days in the past 30 days, while adults in Texas reported an average of 3.5 days.
- Adults in Williamson County reported an average of 3.1 poor mental health days in the past 30 days, while adults in Texas reported an average of 3.4 days.

Disability

Why is this important?

“People with a disability have difficulties performing activities due to a physical, mental, or emotional condition. The extent to which a person is limited by a disability is heavily dependent on the social and physical environment in which he or she lives. Without sufficient accommodations, people with disabilities may have difficulties living independently or fulfilling work responsibilities.”(41)

In 2017, the percentage of Williamson County’s population with a disability was 9.3%, compared to 11.6% in Texas (Figure 29). In Williamson County, the Native Hawaiian/Pacific Islander population had the highest percentage of disabilities (23.4%), followed by the American Indian/Alaskan Native population (13.3%). Moreover, these populations had higher percentages of disability compared to the overall county and Texas values. As individuals

age, their percentage of disability increases, as seen in Figure 30. Residents ages 75 and older have the highest percentage of disability (48.2%), followed by those ages 65-75 years (21.8%) and those ages 35-64 years (9.3%).

Figure 29: Percentage of Individuals with a Disability by Race/Ethnicity in Williamson County and Texas, 2013-2017

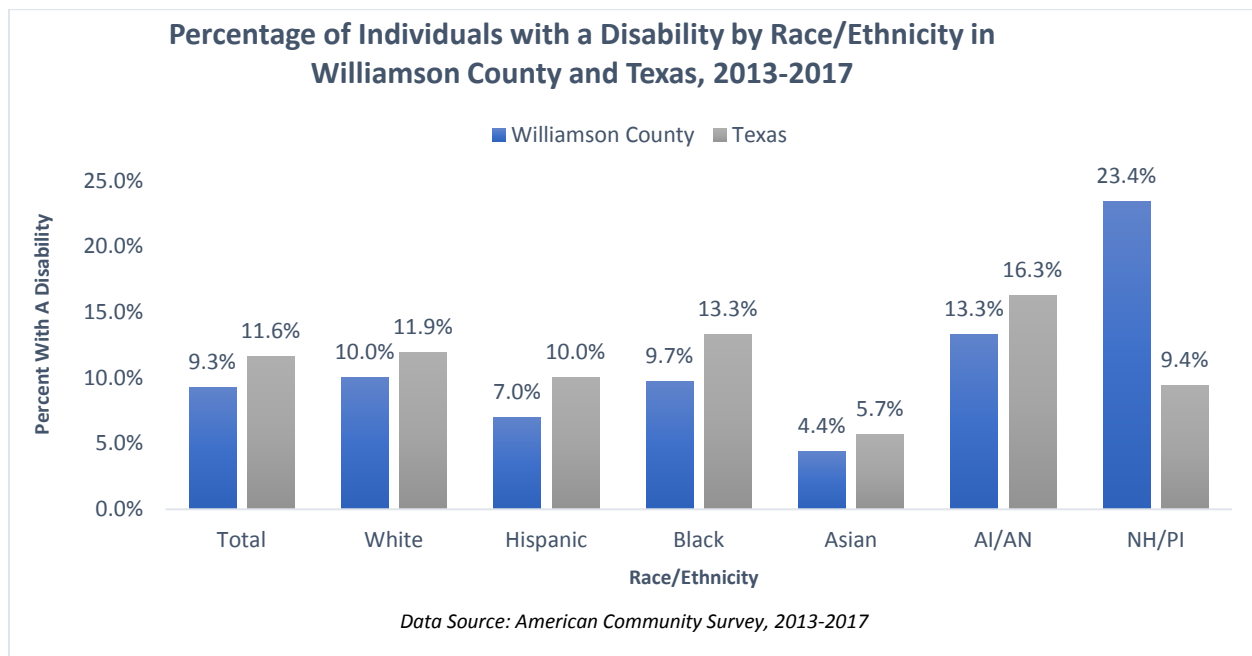
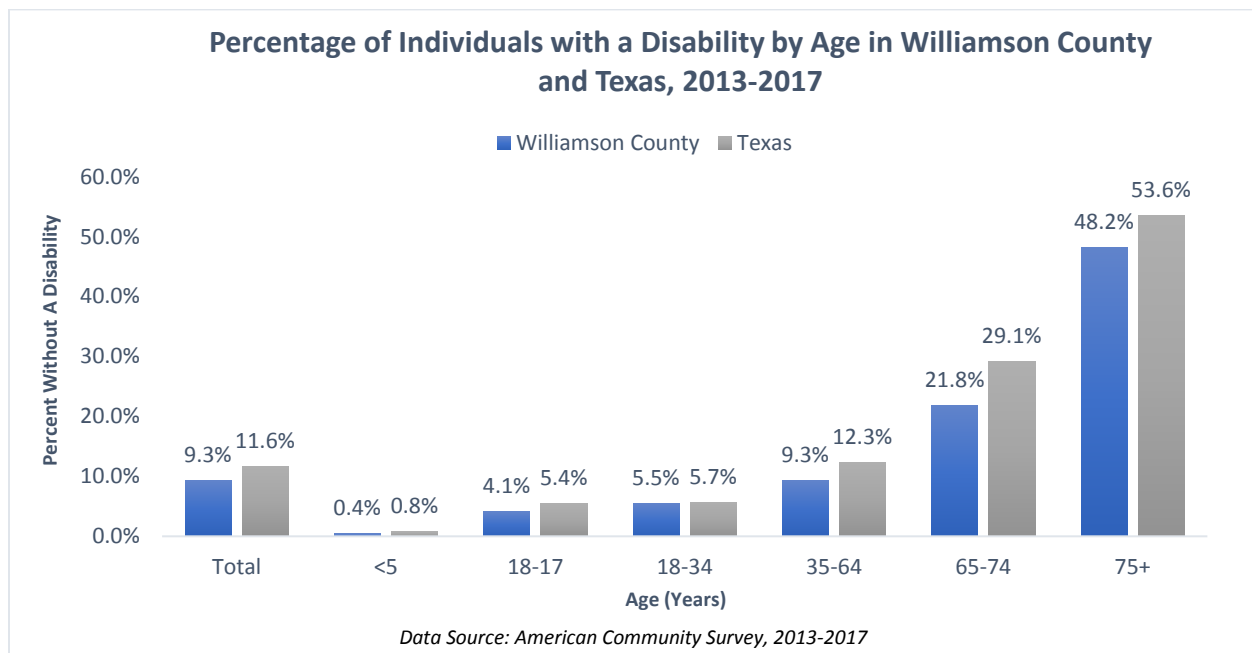


Figure 30: Percentage of Individuals with a Disability by Age in Williamson County and Texas, 2013-2017



Transportation

Why is this important?

There are many options for travel to work—the most common include driving alone in a personal vehicle, walking, or using public transportation. Driving alone “increases traffic congestion, especially in areas of greater population density,” while also causing “decreased levels of physical activity and cardiorespiratory health, and increased BMI

and hypertension.”(42) Moreover, “a lengthy commute to work cuts into one’s free time and can contribute to health problems such as headaches, anxiety, and increased blood pressure. Longer commutes require workers to consume more fuel which is both expensive for workers and damaging to the environment.”(43)

Alternatively, public transportation and walking to work offer more benefits, which include lowering commute costs, traffic congestion, and air pollution. Public transportation “offers mobility to U.S. residents, particularly people without cars. Transit can help bridge the spatial divide between people and jobs, services, and training opportunities. Public transportation is also beneficial because it reduces fuel consumption, minimizes air pollution, and relieves traffic congestion.”(44) “Walking to work is a good way to incorporate exercise into a daily routine. In addition to the health benefits, walking helps people get in touch with their communities, reduces commute costs, and helps protect the environment by reducing air pollution from car trips. Furthermore, studies have shown that walking to work improves employees' overall attitude and morale and reduces stress in the workplace.”(45)

Many households do not have a vehicle, which “is directly related to the ability to travel.” “In general, people living in a household without a car make fewer than half the number of journeys compared to those with a car. This limits their access to essential local services such as supermarkets, post offices, doctors' offices, and hospitals. Most households with above-average incomes have a car while only half of low-income households do.”(46)

Table 14: Transportation Indicators in Williamson County and Texas, 2013-2017

Indicator	Williamson County	Texas
Mean Travel Time to Work (minutes)	27.9	26.1
Percentage of Workers Who Drive to Work Alone	80.3%	80.5%
Percentage of Workers Who Walk to Work	0.9%	1.6%
Percentage of Workers Who Commute to Work by Public Transportation	0.8%	1.5%
Percentage of Households without a Vehicle	1.2%	2.2%

Data Source: American Community Survey, 2013-2017

Findings based on Table 14:

- In Williamson County, average daily travel time to work for workers ages 16 and older is 27.9 minutes, which is longer than Texas (26.1 minutes).
- The percentage of workers ages 16 and older who drive alone to work in Williamson County is 80.3% or roughly 400,000 persons, compared to 80.5% or roughly 21.6 million persons in Texas.
- The percentage of workers ages 16 and older who walk to work in Williamson County is 0.9% or roughly 4,400 persons, compared to 1.6% or roughly 430,000 persons in Texas. Both Williamson County and Texas fall below the HP2020 target of 3.1%.
- The percentage of workers ages 16 and older who commute to work by public transportation in Williamson County is 0.8% or roughly 3,900 persons, compared to 1.5% or roughly 400,000 persons in Texas. Both Williamson County and Texas fall below the HP2020 target of 5.5%.
- The percentage of households without a vehicle in Williamson County is 1.2% or roughly 3,037 households, compared to 2.2% or roughly 300,000 households in Texas.

Housing

Why is this important?

Quality of housing determines health outcomes and is one of the most significant social determinants of health. When home and rent values substantially increase, this can cause people to move more frequently, fall behind on housing payments, or not have a stable place to live.(47) Housing instability is associated with increased risk of teen pregnancy, early drug use, and depression among youth.(47) Housing foreclosures are associated with

depression, anxiety, increased alcohol use, psychological distress, and suicide.(47) Additionally, spending a high percentage of household income on housing may result in less income towards basic needs, such as food, clothing, transportation, medicine, and healthcare.

Between 2011 and 2016, rent in Williamson County increased by 10.6%, compared to 11.9% in Texas (Figure 30). However, Williamson County had a higher increase in home values compared to Texas, at 19.4% and 12.9% respectively.

From 2011 to 2016, all zip codes in Williamson County had a lower percent change in rent and home values compared to their respective county values (Figure 32 and Figure 33). The zip code with the highest percent change in rent value was 76511 (Bartlett) at 5.9% (Figure 32). Other zip codes with high percent changes in rent include 76578 (Thrall) and 78717 (Austin). Regarding home values, 76578 (Thrall) had the highest percent change at 5.8%, followed by 78613 (Cedar Park) at 4.5%, 78626 (Georgetown) at 4.4%, and 76537 (Jarrell) at 4.1% (Figure 33). Health Equity Zones reside in Bartlett, Jarrell, and parts of Georgetown.

Figure 31: Percent Increase in Rent and Home Values in Williamson County and Texas, 2011-2016

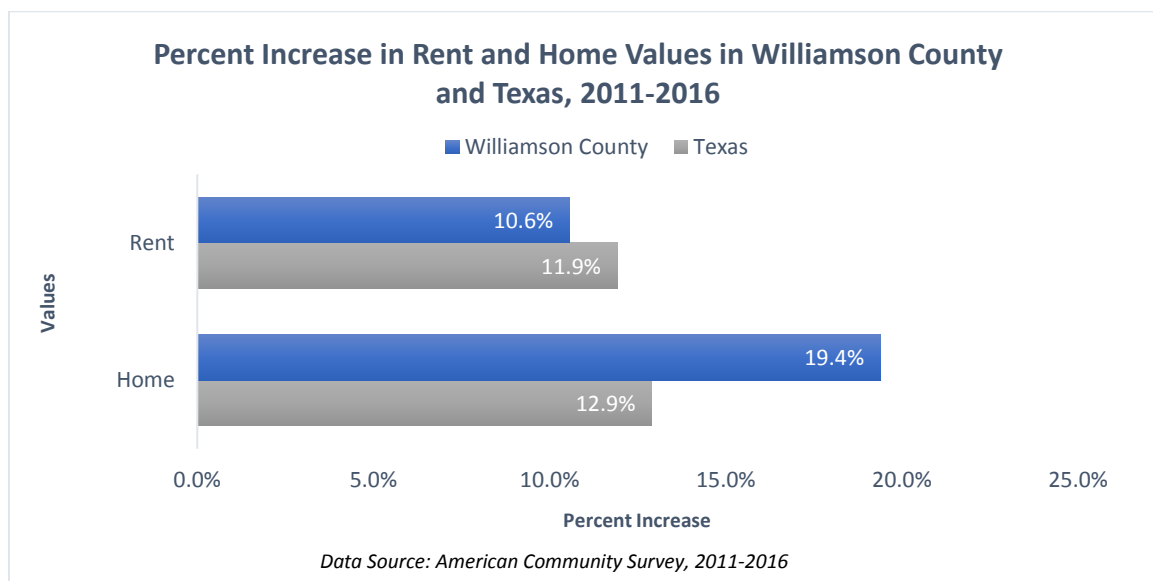
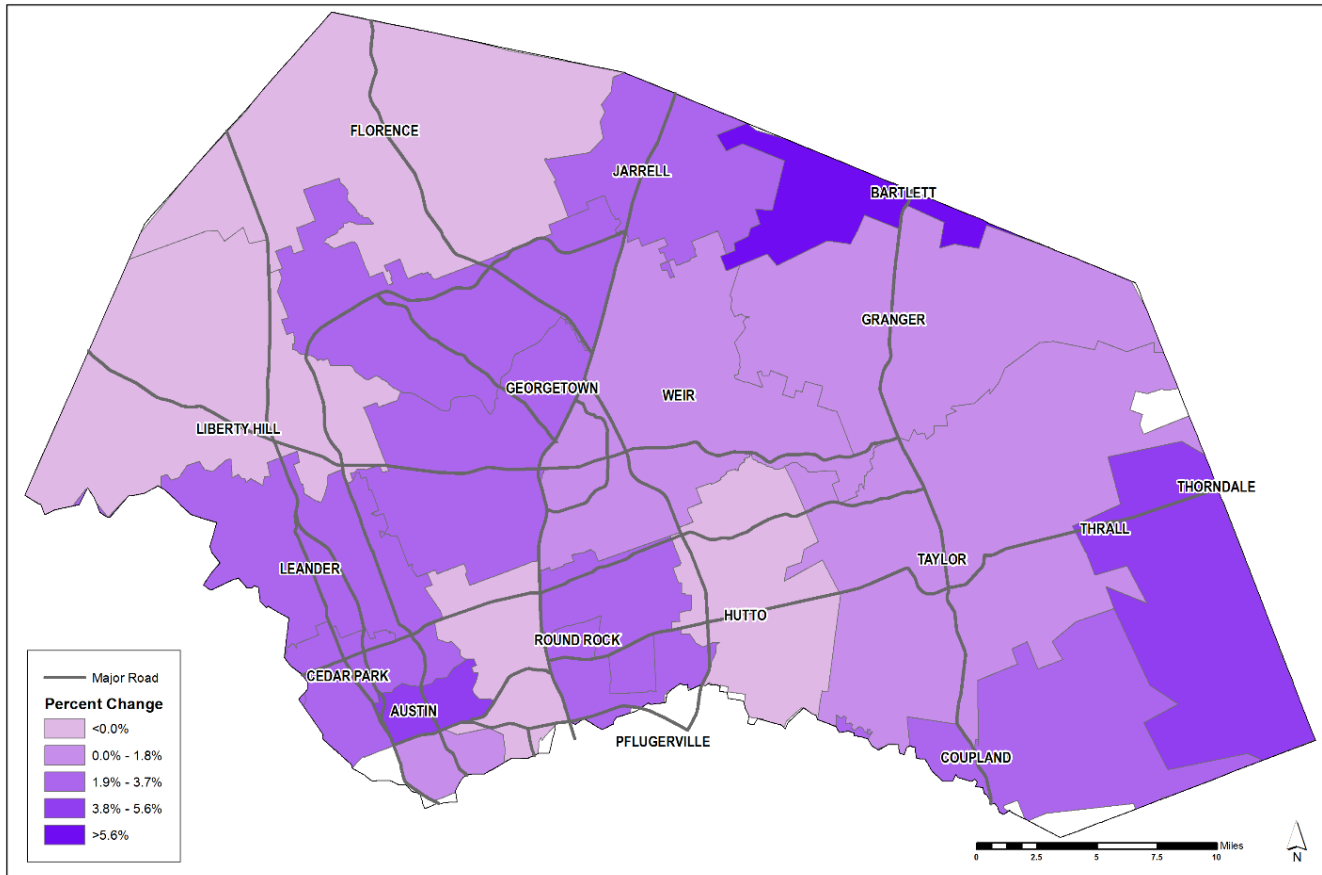


Figure 32: Percent Change in Rent Value by Zip Code in Williamson County, 2011-2016



Percent Change in Rent Value by Zip Code in Williamson County, 2011-2016

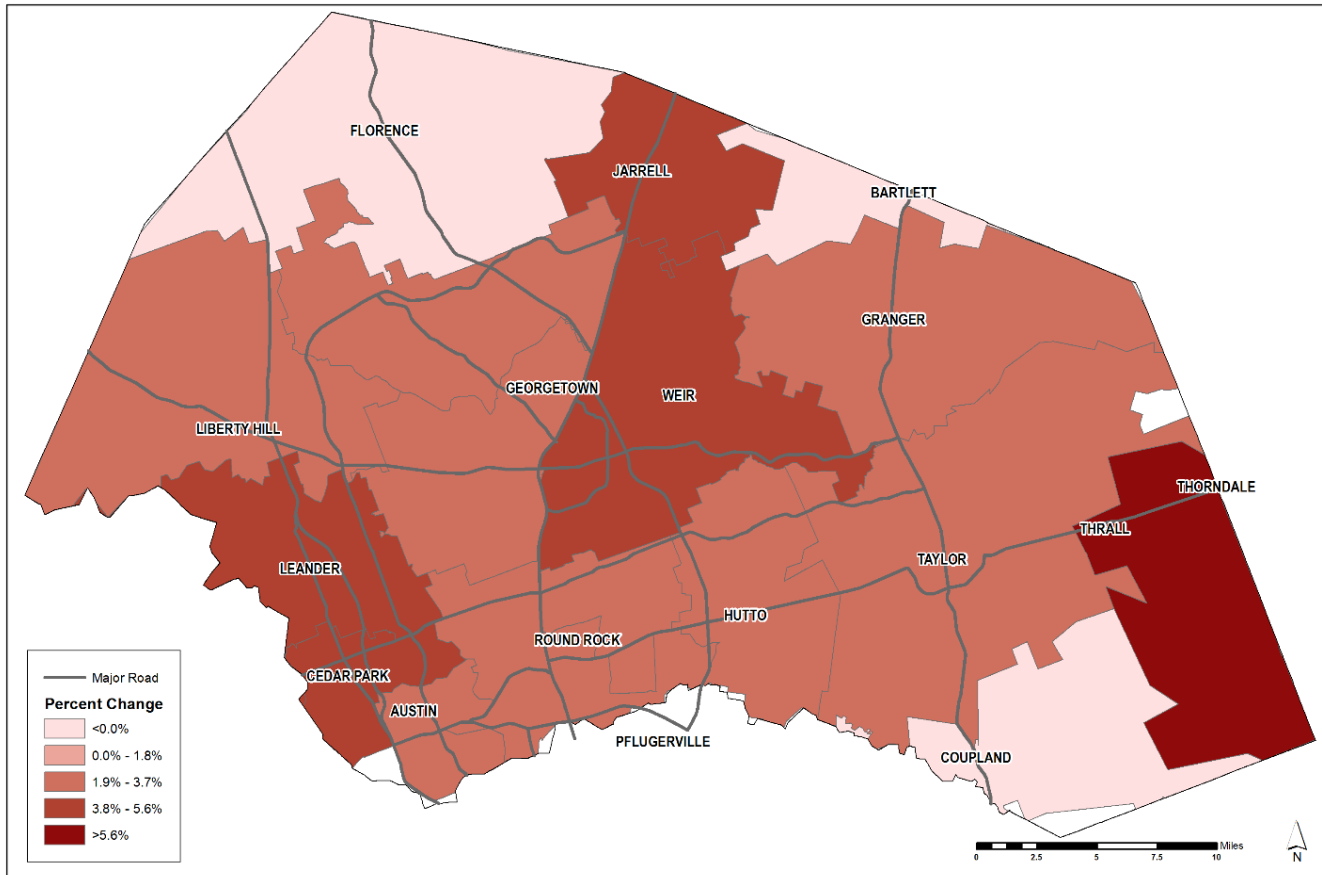
This map illustrates the percent change in median rent value from 2011 to 2016 for each zip code in Williamson County.

Data Source: American Community Survey, 2011-2016

Date Created: 12/3/2018



Figure 33: Percent Change in Home Value by Zip Code in Williamson County, 2011-2016



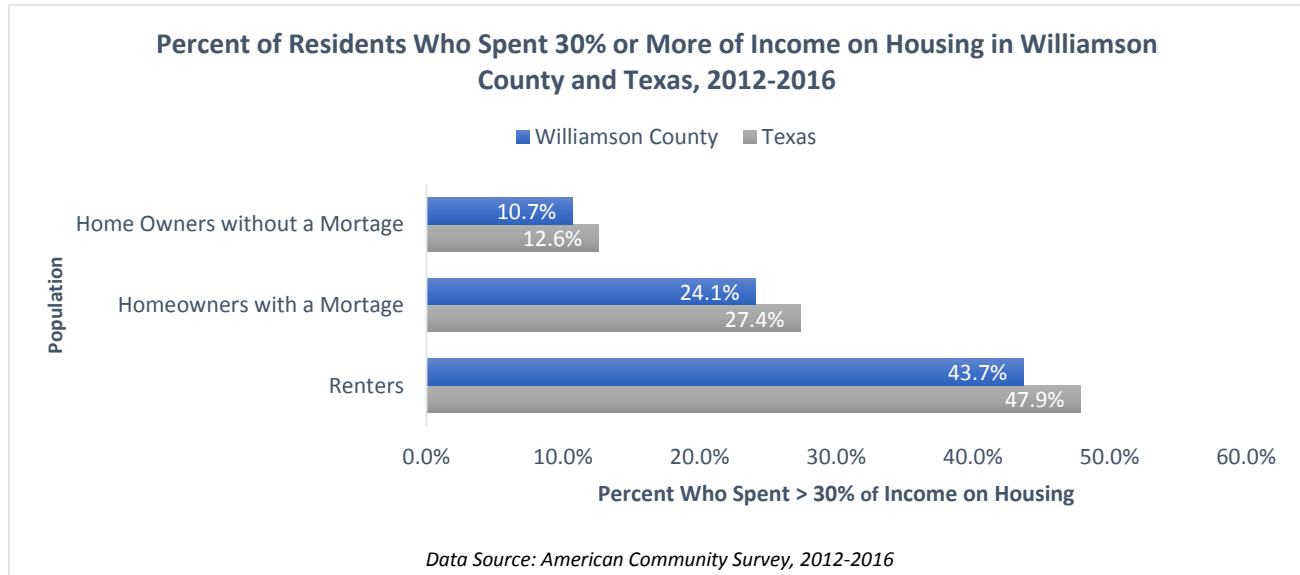
Percent Change in Home Value by Zip Code in Williamson County, 2011-2016

This map illustrates the percent change in median home value from 2011 to 2016 for each zip code in Williamson County.
 Data Source: American Community Survey, 2011-2016
 Date Created: 12/3/2018

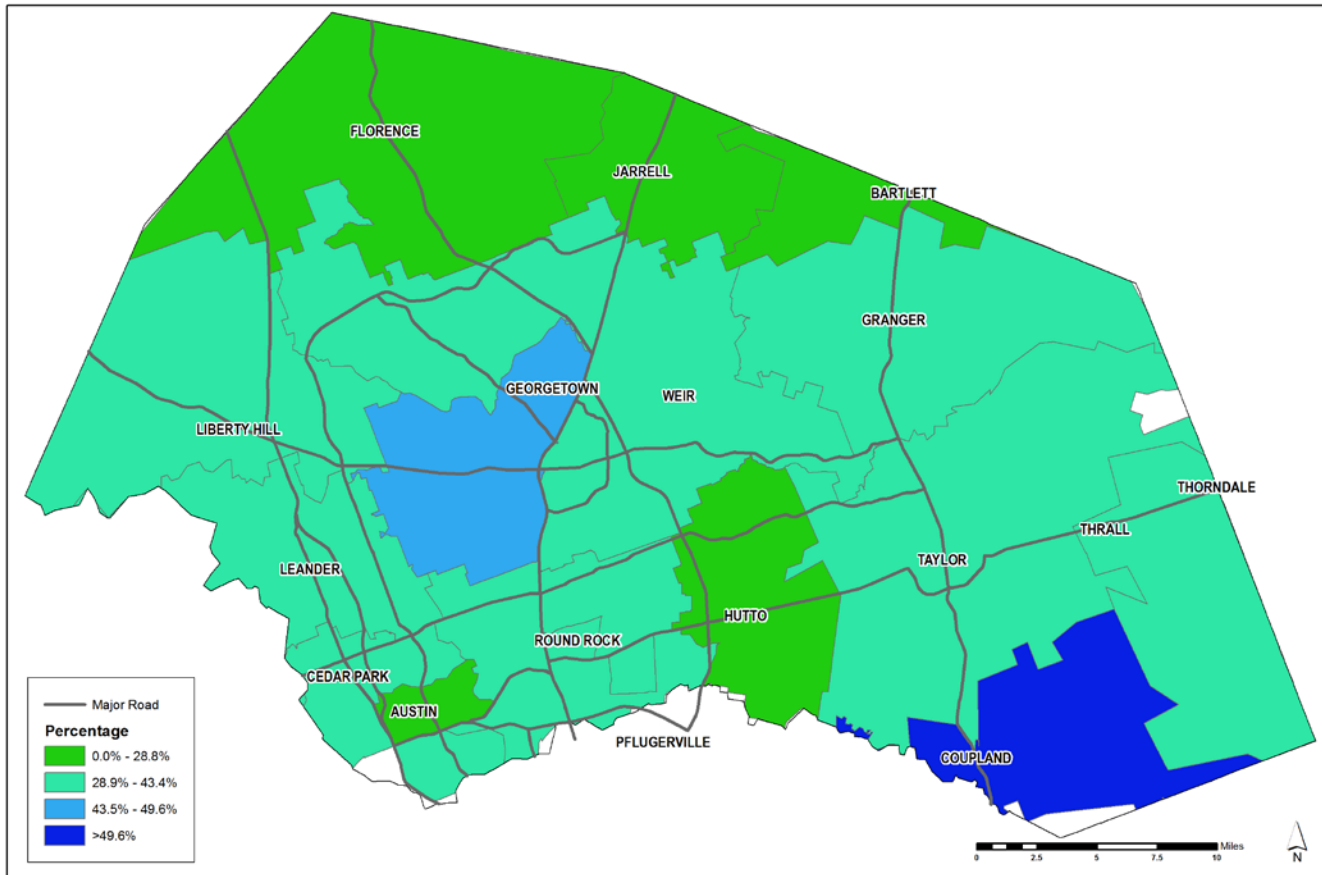


Compared to Texas, there are fewer renters and homeowners in Williamson County who spent 30% or more of their household income on housing costs (Figure 34). Almost half (43.7%) of renters in Williamson County spend 30% or more of their income on housing, which is much higher than homeowners with a mortgage (24.1%) and homeowners without a mortgage (10.7%).

Figure 34: Percent of Residents Who Spent 30% or More of Income on Housing in Williamson County and Texas, 2012-2016



Over half of renters (54.8%) in 78615 (Coupand) and 47.4% of renters in 78628 (Georgetown) spent 30% or more of their income on housing (Figure 35). Both zip codes have percentages higher than the overall county value (43.7%). In addition, 43.1% of renters in 78633 (Georgetown) and 41.1% of renters in 78641 (Leander) spent 30% or more of their income on housing. Part of a Health Equity Zone resides in Georgetown and Leander.

Figure 35: Rent as a Percentage of Household Income by Zip Code in Williamson County, 2016**Rent as a Percentage of Household Income by Zip Code in Williamson County, 2012-2016**

This map illustrates the percentage of residents whose monthly rental costs are more than 30% of their household income for each zip code in Williamson County from 2012-2016.

Data Source: American Community Survey, 2012-2016

Date Created: 12/3/2018



Social and Civic Engagement

Why is this important?

Poor or lack of social interaction with those in your community is associated with increased morbidity and early mortality (48). Research has found that people living in areas with high levels of social trust are less likely to rate their health status as fair or poor than people living in areas with low levels of social trust.(48) "Voting is one of the most fundamental rights of a democratic society. Exercising this right allows a nation to choose elected officials and hold them accountable. Voting ensures that all citizens can voice their opinions on issues such as the use of tax dollars, civil rights and foreign policy. By voting, individuals shape their communities and influence the next generation of society. A high level of turnout indicates that citizens are involved and interested in who represents them in the political system."(49)

Table 15: Social and Civic Engagement in Williamson County and Texas

Social and Civic Engagement in Williamson County and Texas		
Indicator	Williamson County	Texas
Presidential Voter Turnout ¹	67.7%	58.8%
Midterm Voter Turnout ²	62.5%	52.7%
Number of social associations per 10,000 population ³	6.2	7.6

Data Sources: Texas Secretary of State, ¹2016 and ²2018; ³County Business Patterns, 2015

Findings based on Table 15:

- The number of social associations per 10,000 population is 6.2 in Williamson County, compared to 7.6 in Texas. Associations include civic organizations, bowling centers, golf clubs, fitness centers, sports organizations, religious organizations, political organizations, labor organizations, business organizations, and professional organizations.
- Compared to Texas, Williamson County had higher voter turnout in the most recent presidential and midterm elections. In the 2016 presidential election, 67.7% of registered voters in Williamson County voted, compared to 58.8% in Texas. In the 2018 midterm election, 62.5% of registered voters in Williamson County voted, compared to 52.7% in Texas.

Head Start Facilities

Why is this important?

Head Start is a federal program that promotes the school readiness of children from birth to age five from low-income families by enhancing their cognitive, social, and emotional development. Head Start programs provide a learning environment that supports children's growth in many areas such as language, literacy, and social and emotional development.(50)

Compared to Texas, there are more Head Start centers in Williamson County for families who qualify based on income and poverty status. Williamson County has 5.2 Head Start centers for every 1,000 families with children under the age 5, which is higher than the rate in Texas (4.0).(51)

Key Findings

According to the CDC, health-related quality of life indicators make it possible to scientifically demonstrate the impact of health on quality of life and is a valid measure of unmet needs and intervention outcomes.(39) Self-reported health status, as well as physical and mental health perceptions of Williamson County residents, indicate that individual-level quality of life is above satisfactory. However, certain community-level quality of life indicators may require additional surveillance and prioritization:

- **The percentage of individuals affected by disability will most likely continue to increase as population growth occurs for those over the age of 65.** The aging population, as well as racial and ethnic groups with higher percentages of disability, should be considered when implementing policies, distributing funds, and developing programs for those with disabilities.
- **Transportation indicators are worse in Williamson County compared to Texas and applicable HP2020 Targets.** Alternatives to driving alone to work, such as public transportation and walking, should be promoted and prioritized to decrease traffic congestion, air pollution, and risk of chronic disease. Moreover, increasing public transportation options will assist households who do not own a vehicle.
- **A large majority of those who rent in Williamson County spend 30% or more of their income on housing, especially those in zip codes 78615, 78628, 78633, and 78641.** More affordable housing options for low-income residents should be established in Williamson County, with placement in geographic areas affected by increases in home and rent values. Part of Georgetown resides in a Health Equity Zone.

C5. Behavioral Risk Factors

"FOR ME, MY WIFE, WE'RE EMPTY NESTERS. ALL OUR KIDS HAVE MOVED OUT. WE'RE BOTH 58 YEARS OLD. I GUESS FOR US, IT'S THE CONCERNS OF FINDING WAYS TO STAY ACTIVE AS WE GROW OLDER."

Certain health-related behaviors, known as behavioral risk factors, contribute to injury and chronic disease, resulting in increased risk of morbidity and mortality. In this section, significant risk factors will be outlined, which include obesity and overweight, physical inactivity, unhealthy eating, tobacco use, and excessive drinking.

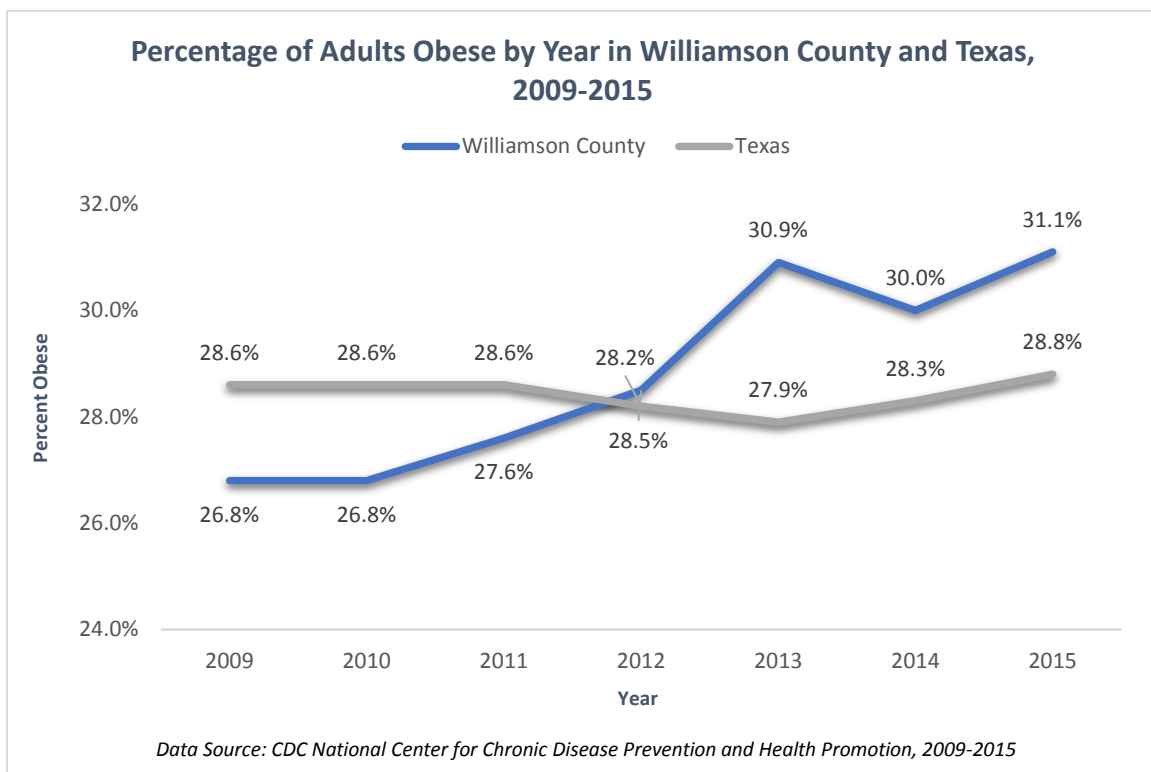
Obese and Overweight Adults

Why is this important?

“The percentage of obese adults (those with a Body Mass Index greater than or equal to 30) is an indicator of the overall health and lifestyle of a community. Being overweight or obese increases the risk of many diseases and health conditions, including heart disease, type 2 diabetes, cancer, hypertension, stroke, liver and gallbladder disease, respiratory problems, and osteoarthritis. Losing weight and maintaining a healthy weight help to prevent and control these diseases. Being obese also carries significant economic costs due to increased healthcare spending and lost earnings.”(52)

Williamson County has experienced an increasing trend of obese adults, increasing from 26.8% in 2009 to 31.1% in 2015 (Figure 36). In 2012, the percentage of obese adults (28.5%) in Williamson County surpassed the Texas value (28.2%). Moreover, the percentage of obese adults in Williamson County in 2013 (30.9%) and 2015 (31.1%) surpassed the HP2020 target of 30.5%. As of 2016, both Williamson County and Texas had high percentages of adults who are overweight or obese, at 64.5% and 68.4% respectively.(53)

Figure 36: Percentage of Adults Obese by Year in Williamson County and Texas, 2009-2015



Physical Inactivity

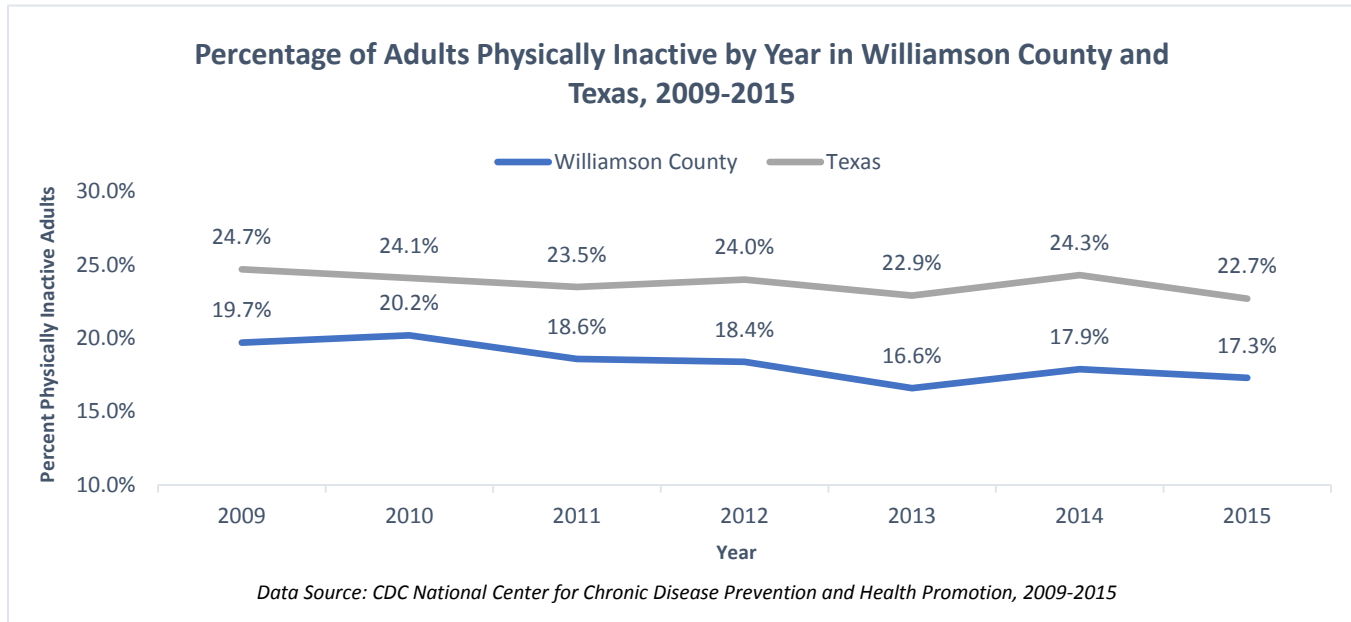
Why is this important?

“Adults who are sedentary are at an increased risk of many serious health conditions. These conditions include obesity, heart disease, diabetes, colon cancer, and high blood pressure. In addition, physical activity improves mood and promotes healthy sleep patterns. The American College of Sports Medicine (ACSM) recommends that

adults perform physical activity three to five times each week for 20 to 60 minutes at a time to improve cardiovascular fitness and body composition.”(54)

The percentage of adults in Williamson County and Texas who are physically inactive has remained relatively stagnant from 2009 to 2015 (Figure 37). Both the county and the state met the HP 2020 target of having less than 32.6% physically inactive adults. As of 2016, 19.3% of adults in Williamson County and 25.2% of adults in Texas do not participate in any physical activity or exercise.(53)

Figure 37: Percentage of Adults Physically Inactive by Year in Williamson County and Texas, 2009-2015



Unhealthy Eating

Why is this important?

“It is essential to eat a fresh, healthy and balanced diet in order to maintain a healthy weight and prevent chronic disease. Numerous studies have shown a clear link between the amount and variety of fruits and vegetables consumed and rates of chronic diseases, especially cancer. According to the World Cancer Research Fund International, about one third of all cancers can be prevented through a nutritious diet that includes fruits and vegetables, physical activity, and maintaining a healthy weight. The US Department of Agriculture (USDA) recommends making healthy daily food choices that include fruits and vegetables, although the recommended daily amounts depend on age, sex, and level of physical activity. Despite the benefits, many people still do not eat recommended levels of fruits and vegetables.”(55)

In 2015, about seventeen percent (16.6%) of adults ages 18 and older in Williamson County reported consuming fruits and vegetables five or more times per day, which is comparable to Texas (17.2%).(55)

Tobacco Use

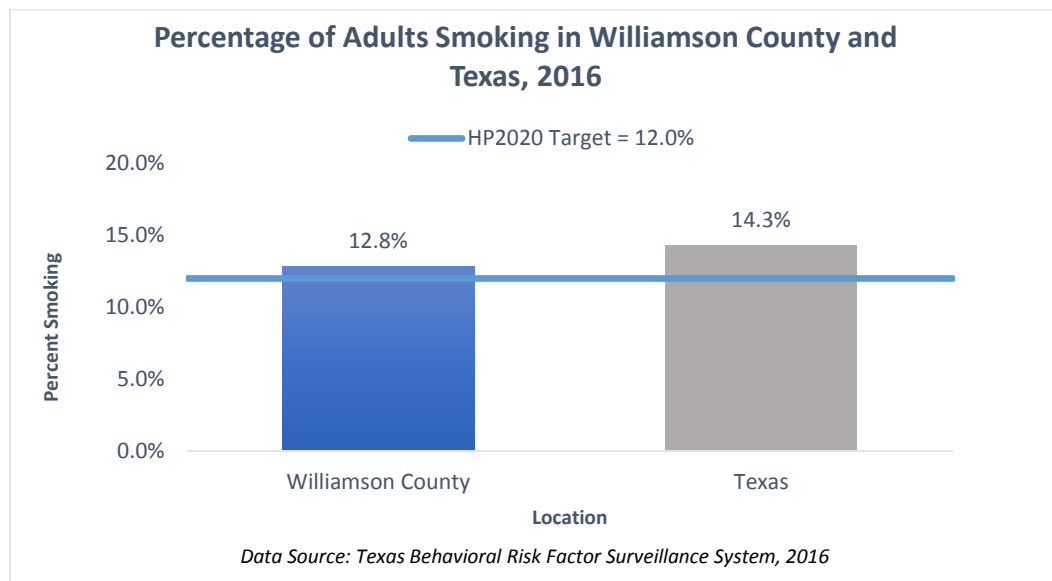
Why is this important?

“Tobacco is the agent most responsible for avoidable illness and death in America today. According to the Centers for Disease Control and Prevention, tobacco use brings premature death to almost half a million Americans each year, and it contributes to profound disability and pain in many others. The World Health Organization states that approximately one-third of all tobacco users in this country will die prematurely because of their dependence on tobacco. Areas with a high smoking prevalence will also have greater exposure to secondhand smoke for non-

smokers, which can cause or exacerbate a wide range of adverse health effects such as cancer, respiratory infections, and asthma.”(56)

Adults ages 18 and older had lower rates of smoking in Williamson County (12.8%) compared to Texas (14.3%) (Figure 38). Both Texas and Williamson County have smoking rates that surpass the HP2020 target of 12.0%. The reported rate from the CASPER survey in Williamson County indicated that 19.2% of households have used tobacco products, which is significantly higher than the individual level percentage in Williamson County. However, this may be due to the inclusion of e-cigarettes and vaping on the CASPER survey question.

Figure 37: Percentage of Adults Smoking in Williamson County and Texas, 2016

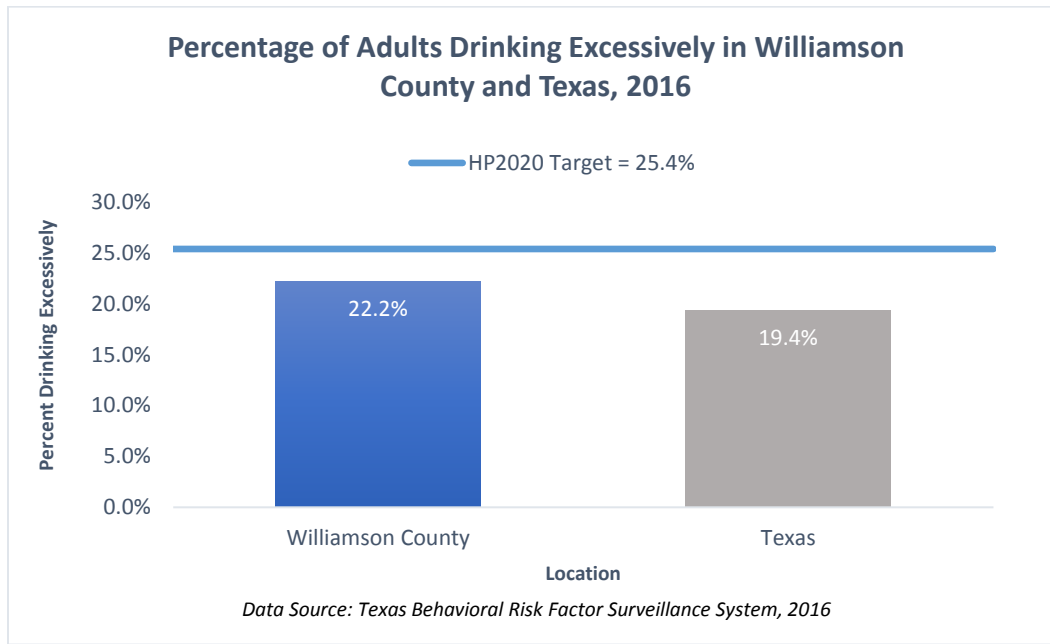


Drinking Excessively

Why is this important?

“Drinking alcohol has immediate physiological effects on all tissues of the body, including those in the brain. Alcohol is a depressant that impairs vision, coordination, reaction time, judgment, and decision-making, which may in turn lead to harmful behaviors. According to the Centers for Disease Control and Prevention, excessive alcohol use, either in the form of heavy drinking (drinking more than 15 drinks per week on average for men or more than eight drinks per week on average for women), or binge drinking (drinking more than five drinks during a single occasion for men or more than four drinks during a single occasion for women), can lead to increased risk of health problems, such as liver disease and unintentional injuries. Alcohol abuse is also associated with a variety of other negative outcomes, including employment problems, legal difficulties, financial loss, family disputes, and other interpersonal issues.”(57)

The percentage of adults ages 18 and older that drink excessively was higher in Williamson County (22.2%) compared to Texas (19.4%) (Figure 39). Both Texas and Williamson County have rates of excessive drinking that are below the HP2020 target of 25.4%.

Figure 38: Percentage of Adults Drinking Excessively in Williamson County and Texas, 2016

Cancer Screening

Why is this important?

“According to the Centers for Disease Control and Prevention (CDC), colorectal cancer is one of the most commonly diagnosed cancers in the United States and is the second leading cancer killer in the United States. The CDC estimates that if all adults aged 50 or older had regular screening tests for colon cancer, as many as 60% of the deaths from colorectal cancer could be prevented.”(58)

Additionally, the CDC states that “breast cancer is the second most common type of cancer among women in the United States.”(59) A mammogram is an X-ray of the breast used to detect breast cancer early, which ultimately lowers the risk of dying from breast cancer and increases option for treatment. The United States Preventative Services Task Force (USPSTF) recommends that women ages 50 to 74 years old should get a mammogram every two years.(59)

Table 16: Routine Cancer Screening in Williamson County and Texas

Routine Cancer Screening in Williamson County and Texas		
Indicator	Williamson County	Texas
Colonoscopy ¹	70.8%	62.3%
Mammogram Among Female Medicare Enrollees ²	68.0%	58.0%

Data Sources: ¹Texas Behavioral Risk Factor Surveillance System, 2016; ²Dartmouth Atlas of Health Care, 2014

Findings based on Table 16:

- The percentage of adults ages 50 and older who have ever had a colonoscopy is 70.8%, which is higher than Texas (62.3%).
- Approximately 68% of female Medicare enrollees ages 67-69 in Williamson County have received at least one mammogram over a two-year period, compared to 58% in Texas.

Key Findings

Research shows that unhealthy behaviors significantly increase the likelihood of injury, disease, and death. Fortunately, behavioral risk factors are modifiable with corrective action. The most concerning behavioral risk factors in Williamson County are discussed below, as well as recommendations for future data collection.

- **Two-thirds of adults are either obese or overweight, with an obesity trend that has continued to rise since 2004.** Limited data are available to examine correlated factors, such as high cholesterol and high blood pressure. Additionally, there is a lack of obesity and overweight data stratified by age, race/ethnicity, and social/economic factors. Increased surveillance and data collection are needed to identify long-term solutions to decrease the rate of overweight and obese adults in Williamson County.
- **Smoking among adults has surpassed the HP2020 goal.** As more tobacco-free and nicotine-containing products (e.g., e-cigarettes) become available, smoking rates have steadily increased. Although free of tobacco, smoking e-cigarettes increases the risk of using traditional cigarettes due to high levels of nicotine, an extremely addictive chemical.(60) E-cigarettes also contain chemicals that are highly toxic and cause irreversible lung damage and lung diseases.(60) The percentage of adults who have smoked tobacco products in Williamson County as measured by the Texas BRFSS is significantly less than what households reported as part of the CASPER survey. While there is a two-year difference in data collection and type of survey (individual v. household level), as well as the inclusion of e-cigarettes and vaping in survey questionnaires, the discrepancy in these smoking rates may indicate that the true smoking rate in Williamson County is underreported. Additionally, since the habit of smoking is usually established during teenage years, more data is needed to examine this emerging trend among the youth population.
- **The rate of excessive drinking among adults is higher in Williamson County compared to Texas.** There are many evidence-based strategies to reduce excessive drinking among adults, such as implementing effective prevention strategies and partnerships between law enforcement, health care agencies, and community organizations.(57) Ultimately, increased monitoring of excessive drinking is necessary to learn more about at-risk populations, such as underage adults and youth.

C6. Environmental Health Indicators

"SO, FINALLY THE PARENT GETS TO A DOCTOR AND THEY SAY, 'WELL, YOU NEED TO INCREASE MORE FRUITS AND VEGETABLES...' WELL, IN BARTLETT YOU HAVE ONE GROCERY STORE WITH FRUITS AND VEGETABLES THAT MOST OF THE TIME ARE ROTTEN."

Environmental health indicators "impact a wide range of health, functioning, and quality of life outcomes."(8) These indicators are part of the built environment, which include the location and amount of recreational facilities, fast food restaurants, grocery stores, Supplemental Nutrition Assistance Program (SNAP) retailers, and alcohol retailers. The built environment in a community will increase or decrease the likelihood of health behaviors, such as physical activity, healthy eating, and excessive drinking.

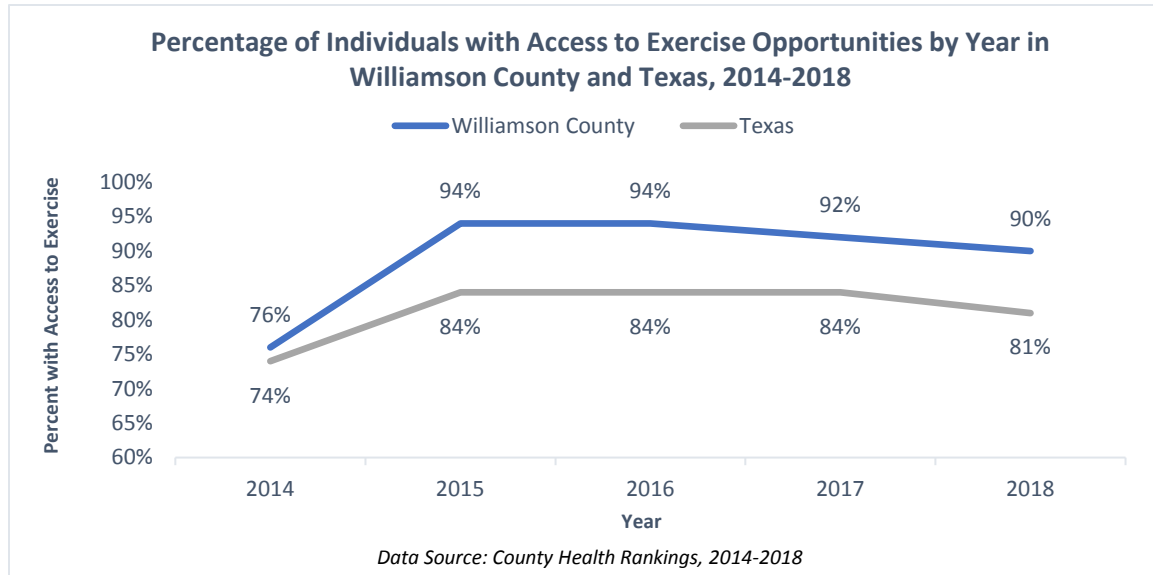
Access to Exercise Opportunities

Why is this important?

"Proximity to exercise opportunities, such as parks and recreation facilities, has been linked to an increase in physical activity among residents. Regular physical activity has a wide array of health benefits including weight control, muscle and bone strengthening, improved mental health and mood, and improved life expectancy. Furthermore, exercise reduces the risk of cardiovascular disease, type 2 diabetes, and some cancers."(61)

From 2014 to 2018, Williamson County and Texas have experienced similar trends regarding access to exercise opportunities (Figure 40). For both the county and the state, the percentage of individuals who live reasonably close to a physical activity location has decreased from 2016 to 2018. As of 2018, Williamson County has a higher percentage of exercise opportunities (90%) compared to Texas (81%).

Figure 39: Percentage of Individuals with Access to Exercise Opportunities by Year in Williamson County and Texas, 2014-2018



Healthy Eating Environment

Why is this important?

The accessibility, availability, and affordability of healthy and varied food options in the community increase the likelihood that residents will have a balanced and nutritious diet. A diet composed of nutritious foods, in combination with an active lifestyle, can reduce the incidence of heart disease, cancer, and diabetes, and is essential to maintain a healthy body weight and prevent obesity.(62)

Table 17: Healthy Eating Environment Indicators in Williamson County and Texas, 2016

Healthy Eating Environment Indicators in Williamson County and Texas, 2016		
Indicator	Williamson County	Texas
Food Insecurity ¹	13.0%	15.4%
Child Food Insecurity ¹	18.2%	23.0%
SNAP Authorized Retailer Rate* ²	58.9	79.9
Fast Food Restaurants Rate* ³	84.5	80.2
Grocery Store Rate* ³	9.7	13.8

Notes: *per 100,000 population

Data Sources: ¹Feeding America, 2016; ²USDA- SNAP Retailer Locator, 2016; ³County Business Patterns, 2016

Findings based on Table 17:

- Thirteen percent of the population in Williamson County are experiencing food insecurity, compared to 15.4% in Texas.
- Almost one in five (18.2%) children in Williamson County experience food insecurity, compared to almost one in four (23%) in Texas.

- In Williamson County, there are 58.9 SNAP retailers per 100,000 population, which is less compared to Texas (79.9 per 100,000 population). Moreover, almost all SNAP retailers in Williamson County reside within convenience stores, gas stations, mini-marts, fast food restaurants, and pharmacies.
- Williamson County has 84.5 fast food restaurants per 100,000 population, which is higher compared to Texas (80.2 per 100,000 population).
- Compared to Texas, which has a grocery store rate of 13.8 per 100,000 population, Williamson County has a lower grocery store rate (9.7 per 100,000 population).

Table 18: Grocery Store Access in Williamson County, 2015

Grocery Store Access in Williamson County, 2015	
Indicator	Williamson County
Low Grocery Store Access	33.7%
Low Income and Low Access to Grocery Store	8.0%
No Car and Low Grocery Store Access	1.3%

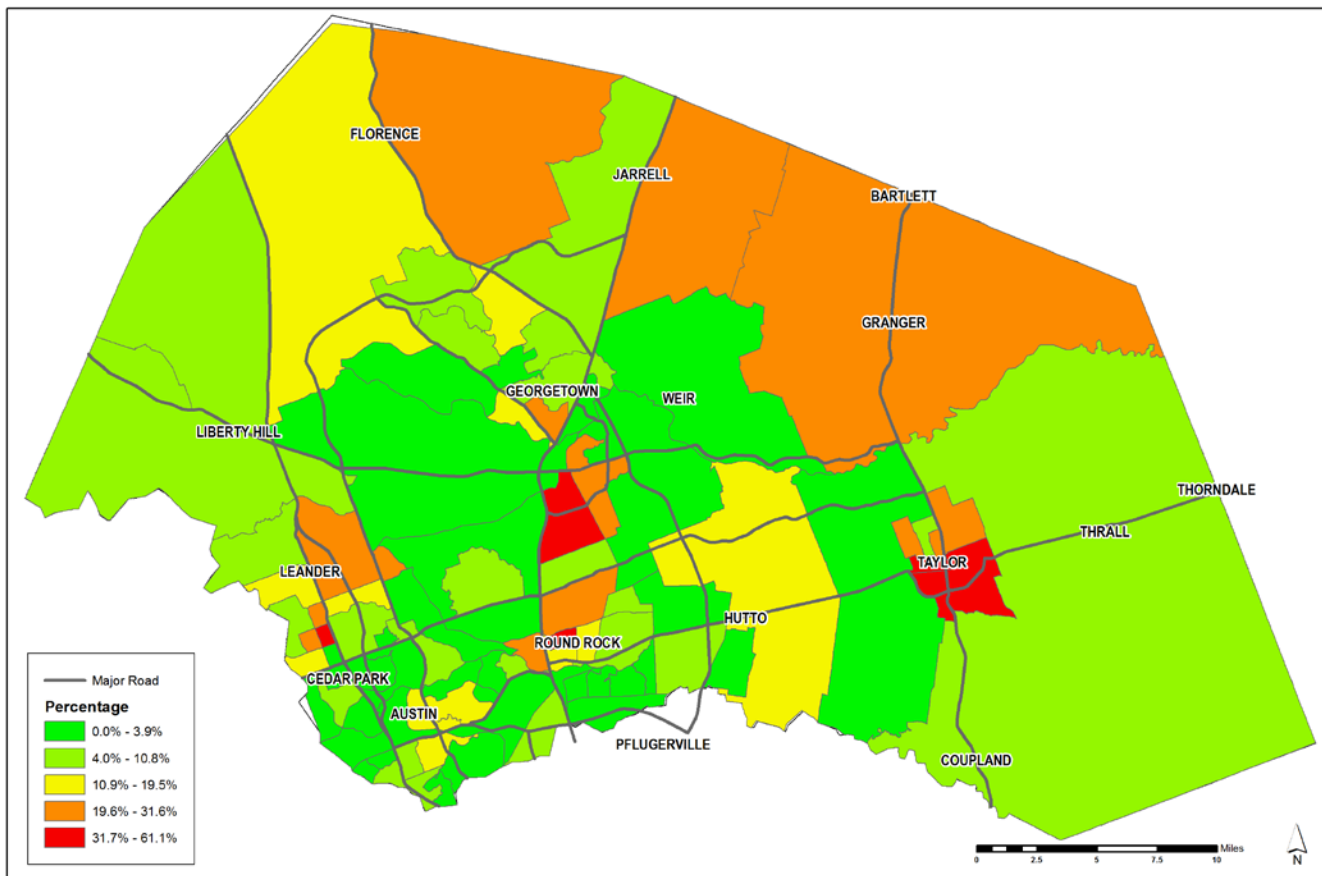
Data Source: U.S. Department of Agriculture -- Food Environmental Atlas, 2015

As of 2015, about one-third (33.7%) of Williamson County residents live far from a grocery store or supermarket (Table 18). If an individual resides in an urban area of the county, they have low grocery store access if they live more than one mile from a grocery store. If an individual resides in a rural area of the county, they have low grocery store access if they live more than 10 miles from a grocery store. The USDA defines a grocery store and/or supermarket as a storefront that reports at least 2 million dollars in annual sales, and contains all major food departments (i.e. meat, poultry, dairy, dry/package food, frozen food).

Approximately eight percent of the Williamson County population are live far from a grocery store *and* are low income (Table 18). Census tracts near Georgetown, Leander, Round Rock, and Taylor have the highest proportions (31.7% to 61.1%) of the population who are low income and have low grocery store access (Figure 40). Additionally, 19.6% to 31.6% of the populations in census tracts near Bartlett, Florence, Granger, and Jarrell are low-income and have low grocery store access.

A small percentage (1.3%) of households in Williamson County are living far from a grocery store *and* do not have a vehicle (Table 18). Of these households, most are from census tracts in Leander and Taylor, where the percentages of households without a car and low grocery access is 4.2-9.7% (Figure 41). Many of these census tracts are located within Health Equity Zones. Figure 42 maps the number of retailers and community resources that provide fresh food in Williamson County. Community resources such as food pantries, mobile food pantries, Meals on Wheels, and farmers' markets can provide grocery store-level accessibility to fresh food; however, they operate on very limited schedules.

Figure 40: Percentage of Population that are Low-Income and have Low Access to a Grocery Store by Census Tract in Williamson County, 2015



Percentage of Population that are Low Income and have Low Access to a Grocery Store by Census Tract in Williamson County, 2015

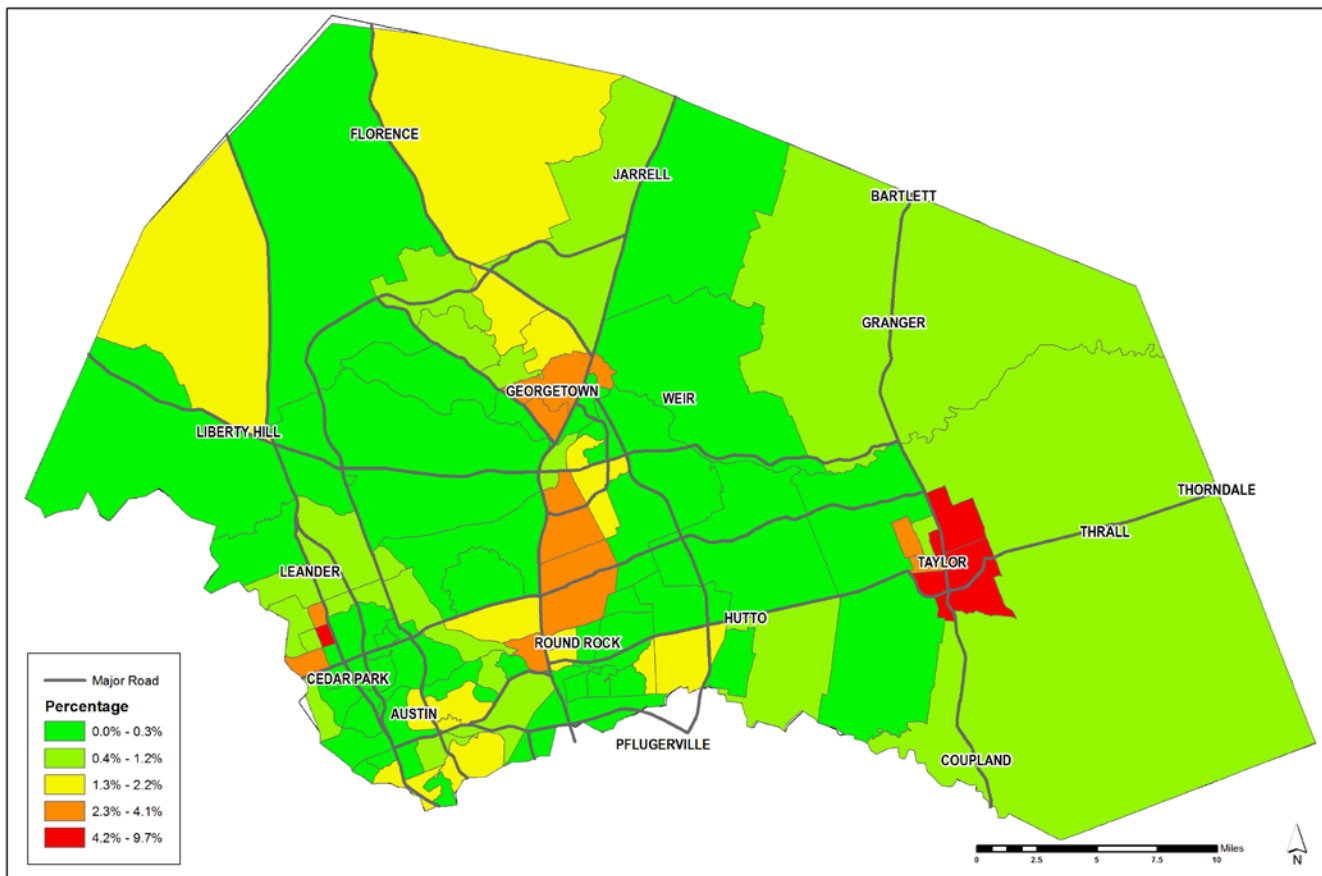
This map illustrates the percentage of the total population in Williamson County that is low income and living more than one mile from a supermarket or large grocery store if in an urban area, and more than 10 miles from a supermarket or large grocery store if in a rural area.

Data Source: U.S. Department of Agriculture – Food Environment Atlas, 2015

Date Created: 12/3/2018



Figure 41: Percentage of Households with No Car and have Low Access to a Grocery Store by Census Tract in Williamson County, 2015



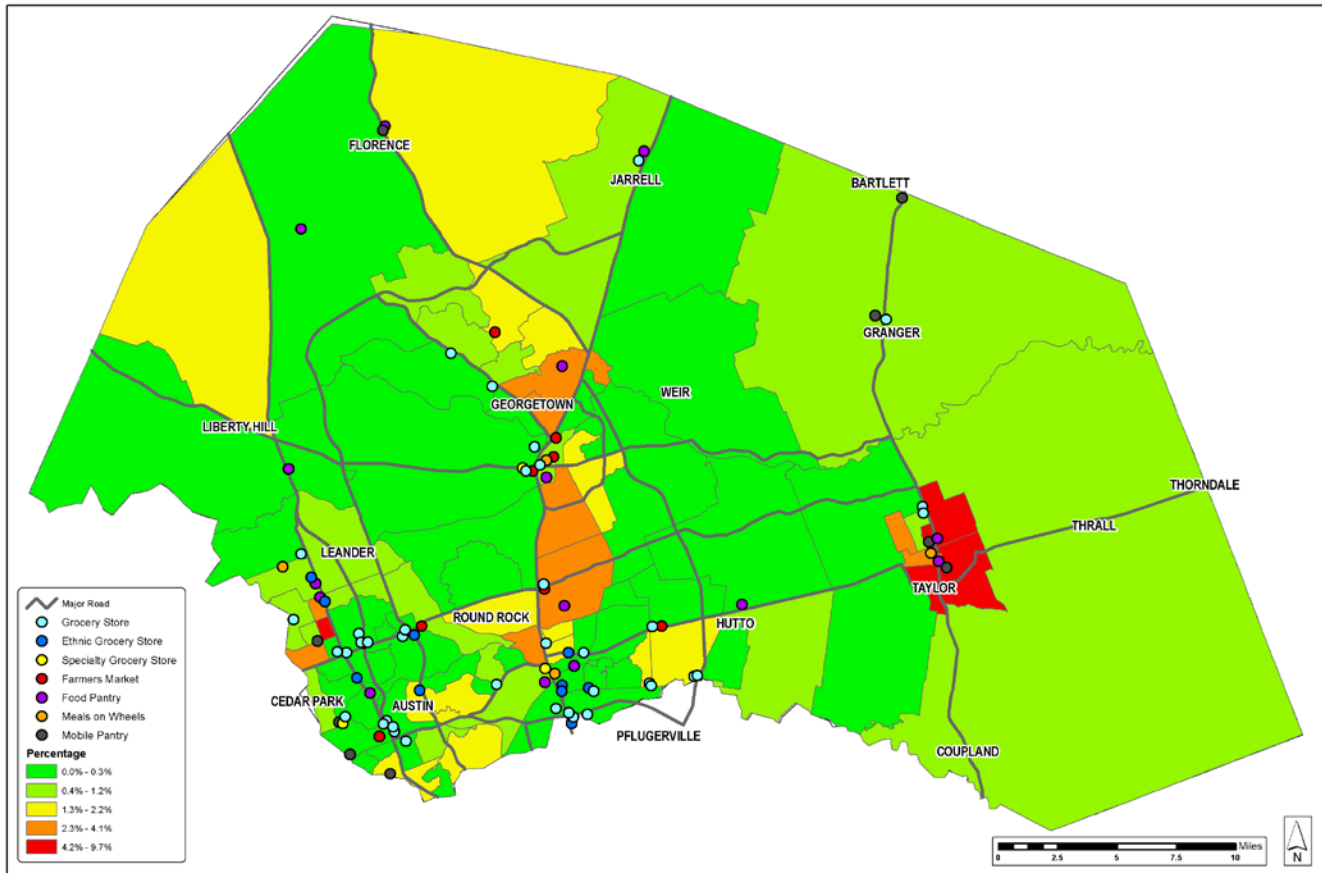
Percentage of Households with No Car and have Low Access to a Grocery Store by Census Tract in Williamson County, 2015

This map illustrates the percentage of housing units in Williamson County that do not have a car and are more than one mile from a supermarket or large grocery store if in an urban area, and more than 10 miles from a supermarket or large grocery store if in a rural area.

Data Source: U.S. Department of Agriculture – Food Environment Atlas, 2015
Date Created: 12/3/2018



Figure 42: Retailers and Community Resources that Provide Fresh Food in Williamson County, 2019



Fresh Food Retailers and Community Resources in Williamson County, 2019

This map illustrates the availability of fresh foods in Williamson County through retailers and community resources such as grocery stores, farmers markets, food pantries, mobile food pantries, and Meals on Wheels. Census tracts map the percentage of housing units in the county that do not have a car and are more than one mile from a supermarket or large grocery store if in an urban area, and more than 10 miles from a supermarket or large grocery store if in a rural area.

Data Source: USDA FNS SNAP Retail List, March 2019; USDA Food Environment Atlas, 2015 Date Created: 4/4/2019

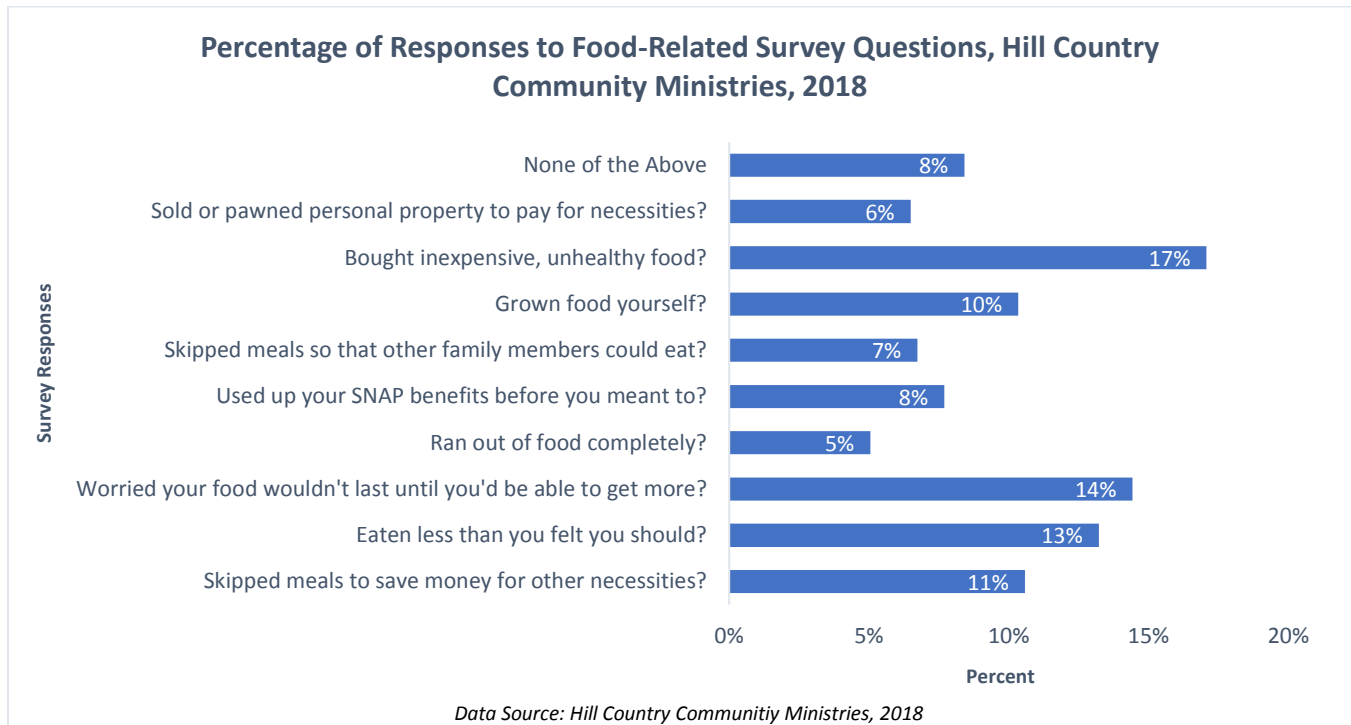


Local Spotlight: Hill Country Community Ministries

Hill Country Community Ministries (HCCM) is a local non-profit that is dedicated to serving Williamson County residents most in need, providing food, clothing, and other assistance. Those who received assistance from HCCM's Fresh Food for All program in certain Williamson County zip codes (78729, 78641, 78613, 76530, and 76527) were surveyed regarding food-related behaviors, perceptions, and barriers (Figure 43).

- 17% of respondents reported that in the past three months they had bought inexpensive, unhealthy food.
- 14% of respondents reported that in the past three months they worried their food wouldn't last until they'd be able to get more.
- 13% of respondents reported that in the past three months they had eaten less than they felt they should.

Figure 43: Percentage of Responses to Food-Related Survey Questions, Hill Country Community Ministries, 2018



Alcohol Retailers Rate

Why is this important?

The rate of beer, wine, and liquor stores in a geographic area increase the likelihood of certain health behaviors such as alcohol abuse and overdose, and alcohol-related motor vehicle accidents. These behaviors may result in chronic disease, unintentional injury, and death.(63)

In 2016, Williamson County had a rate of 8.0 beer, wine, and liquor stores per 100,000 population, which is higher than Texas (7.6 per 100,000 population).(64)

Key Findings

Many factors contribute to a healthy built environment in Williamson County. It is estimated that 9 out of 10 residents live within proximity to a recreational facility, creating an environment that promotes physical activity. However, improving the healthy eating environment in Williamson County remains a crucial element in decreasing outcomes such as obesity, heart disease, and diabetes. Below are gaps that should be addressed in reforming healthy food access in Williamson County:

- **Increase grocery store access for low-income populations and households with no vehicle.**
 - “People of all ages in Williamson County may experience food insecurity, which is limited or uncertain availability of nutritionally adequate foods or uncertain ability to acquire these foods in socially acceptable ways.”(65) Moreover, “people living farther away from grocery stores are less likely to access healthy food options on a regular basis and thus more likely to consume foods which are readily available at convenience stores and fast food outlets. Low-income individuals living in underserved areas often have limited numbers of stores that sell healthy foods. Additionally, vehicle ownership is directly related to the ability to travel. In general, people living in a household without a car make fewer than half the number of journeys compared to those

with a car.”(66) Specific areas of the county (Taylor and Leander/Cedar Park) should be targeted, since they reside within Health Equity Zones.

- **Increase the amount of SNAP retailers within grocery stores and farmer’s markets.**
 - “SNAP (Supplemental Nutrition Assistance Program), previously called the Food Stamp Program, is a federal-assistance program that provides low-income families with Electronic Benefit Transfers (EBTs) that can be used to purchase food. The purpose of the program is to assist low-income households in obtaining adequate and nutritious diets. According to the program, over 45 million people from over 20 million households receive SNAP benefits.”(67) Most SNAP retailers in Williamson County reside within convenience stores, gas stations, mini-marts, fast food restaurants, and pharmacies, rather than grocery stores and farmer’s markets. “Fast food is often high in fat and calories and lacking in recommended nutrients. Frequent consumption of these foods and an insufficient consumption of fresh fruits and vegetables increase the risk of overweight and obesity. Individuals who are overweight or obese are at increased risk for serious health conditions, including coronary heart disease, type-2 diabetes, multiple cancers, hypertension, stroke, premature death and other chronic conditions. Studies suggest that fast food strongly contributes to the high incidence of obesity and obesity-related health problems.” (68)

C7. Social and Mental Health

“LIKE WE’RE STILL NOT GOING TO THE DOCTOR LIKE AT ALL. I CAN’T REMEMBER THE LAST TIME I’VE BEEN TO A DENTIST. ALL OF US HAVE UNADDRESSED MEDICAL ISSUES. BOTH OF MY PARENTS ARE DIABETIC. AND IT’S GOTTEN TO THE POINT WHERE LIKE IF I DO ANYTHING WRONG LIKE IF ANY MENTAL HEALTH PROBLEM FOR ME FLARES UP AND I HAVE TO GET SENT TO THE HOSPITAL AGAIN, THEN MY PARENTS ARE GOING TO BE IN DEBT FOR A LONG TIME.”

According to the U.S. Department of Health and Human Services, “mental health includes emotional, psychological, and social well-being.” Approximately 20% of American adults have experienced a mental health issue.(69) Many factors contribute to mental health problems. These factors include biological factors, life experiences, and family history.(69) Furthermore, mental health disorders increase the risk for other diseases such as diabetes, heart disease, and Human Immunodeficiency Virus (HIV).(70)

Mental Health Indicators

Table 19: Mental Health Indicators in Williamson County and Texas

Mental Health Indicators in Williamson County and Texas		
Indicator	Williamson County	Texas
Percentage of Driving Deaths Involving Alcohol ¹	34.4%	28.3%
Drug Overdose Mortality Rate* ²	6.4	9.8
Child Abuse Rate* ³	410.0	850.0
Violent Crime Rate* ⁴	146.6	407.6
Firearm Fatality Rate* ⁵	9.0	11.0
Homicide Rate* ⁶	2.0	5.0
Depression Among the Medicare Population ⁷	18.1%	17.0%

Notes: *per 100,000 population

Data Sources: ¹FARS, 2012-2016; ²CDC Compressed Mortality File, 2014-2016; ³Texas Department of Family and Protective Services, 2017; ⁴Uniform Crime Reporting-FBI; CDC Wonder, ⁵2012-2016, ⁶2010-2016; ⁷Centers for Medicare and Medicaid Services, 2015

Findings based on Table 19:

- In Williamson County, the percentage of motor vehicle crash deaths involving alcohol was 34.4%, compared to 28.3% in Texas.
- Williamson County had a drug overdose mortality rate of 6.4 per 100,000 population, which was lower than the rate in Texas (9.8 per 100,000 population).
- In Williamson County, there were 410.0 children under 18 years of age that experienced abuse or neglect in cases per 100,000 children. This rate is lower than Texas, which has a rate of 850.0 child abuse cases per 100,000 children.
- Violent crime includes homicide, forcible rape, robbery, and aggravated assault. The total violent crime rate per 100,000 in Williamson County was 146.6 crimes per 100,000 population, which is significantly lower than the rate in Texas (407.6).
 - The rate of firearm deaths per 100,000 population in Williamson County was 9.0, compared to 11.0 in Texas.
 - The rate of homicide deaths per 100,000 population in Williamson County was 2.0, compared to 5.0 in Texas.
- Medicare is the federal health insurance program for persons aged 65 years or older, persons under age 65 years with certain disabilities, and persons of any age with end-stage renal disease (ESRD). As of 2015, an estimated 18.1% of Medicare beneficiaries in Williamson County were treated for depression, which is higher than in Texas (17.0%).

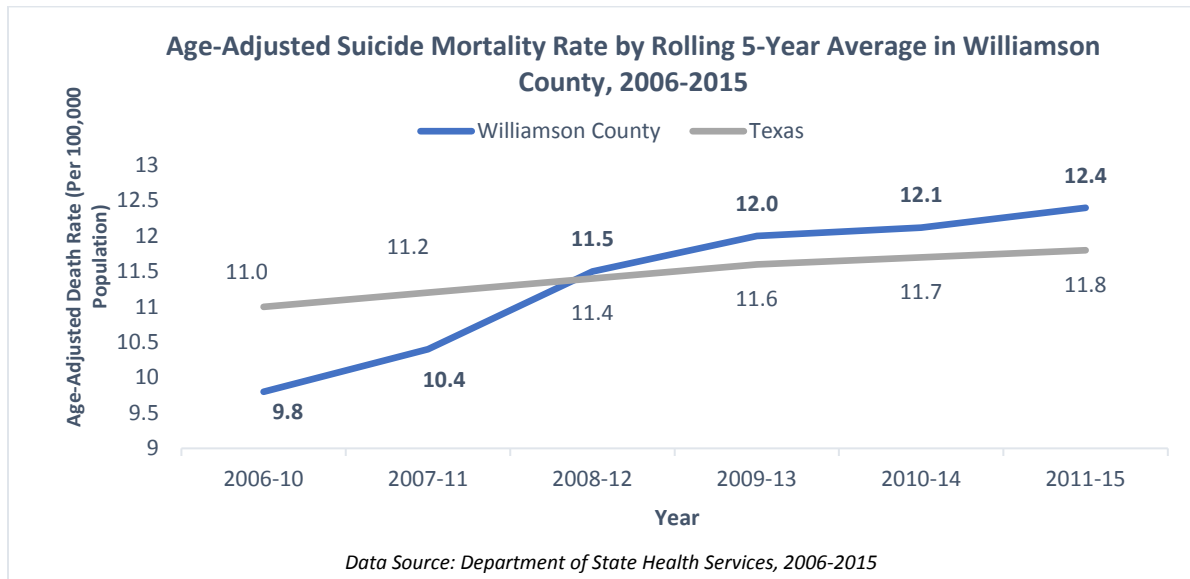
Suicide Mortality

Why is this important?

“Suicide is a leading cause of death in America, presenting a major, preventable public health problem. More than 33,000 people kill themselves each year according to the Centers for Disease Control and Prevention, but suicide deaths only account for part of the problem. An estimated 25 attempted suicides occur per every suicide death, and those who survive suicide may have serious injuries, in addition to depression and other mental problems. Other repercussions of suicide include the combined medical and lost work costs on the community, totaling to over \$30 billion for all suicides in a year, and the emotional toll on family and friends.”(71)

Suicide mortality rates in Williamson County have been rising since 2006 and surpassed the state rate in 2008 (Figure 44). Between 2011 and 2015, the age-adjusted suicide mortality rate was 12.4 deaths per 100,000 in Williamson County, comparable to 11.8 deaths per 100,000 in Texas. Both the Williamson County and Texas rates did not meet the HP2020 target (10.2 deaths per 100,000 population).

Figure 44: Age-Adjusted Suicide Mortality Rate by Rolling 5-Year Average in Williamson County and Texas. 2006-2015



Age-adjusted suicide mortality in Williamson County was highest among males (19.8 deaths per 100,000 population) and the White population (15.7 deaths per 100,000 population), with rates for both groups higher than the overall Texas value and the overall county value (Figure 45 and Figure 46).

Figure 45: Age-Adjusted Suicide Mortality Rate by Gender in Williamson County and Texas, 2011-2015

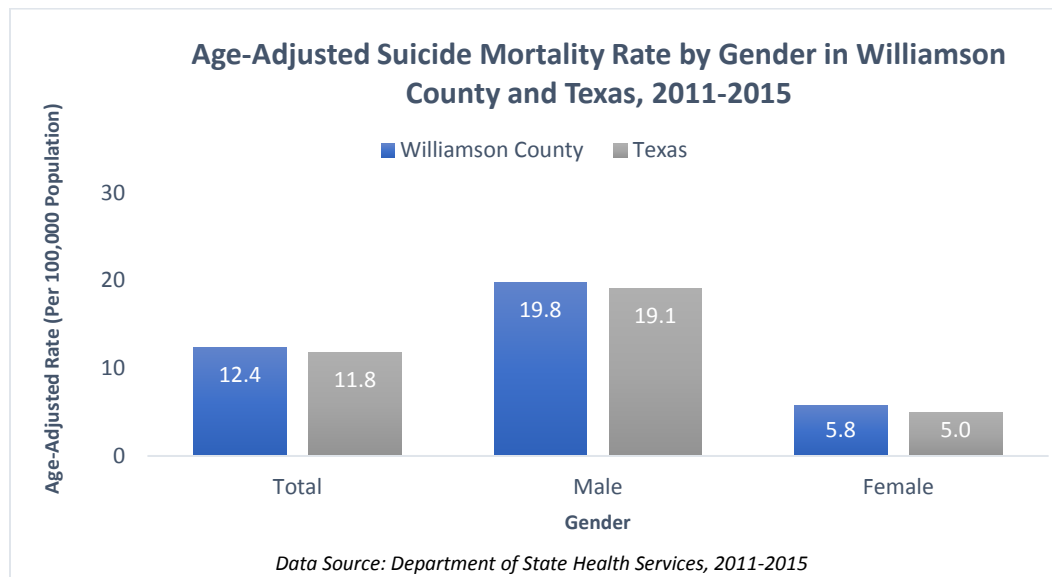
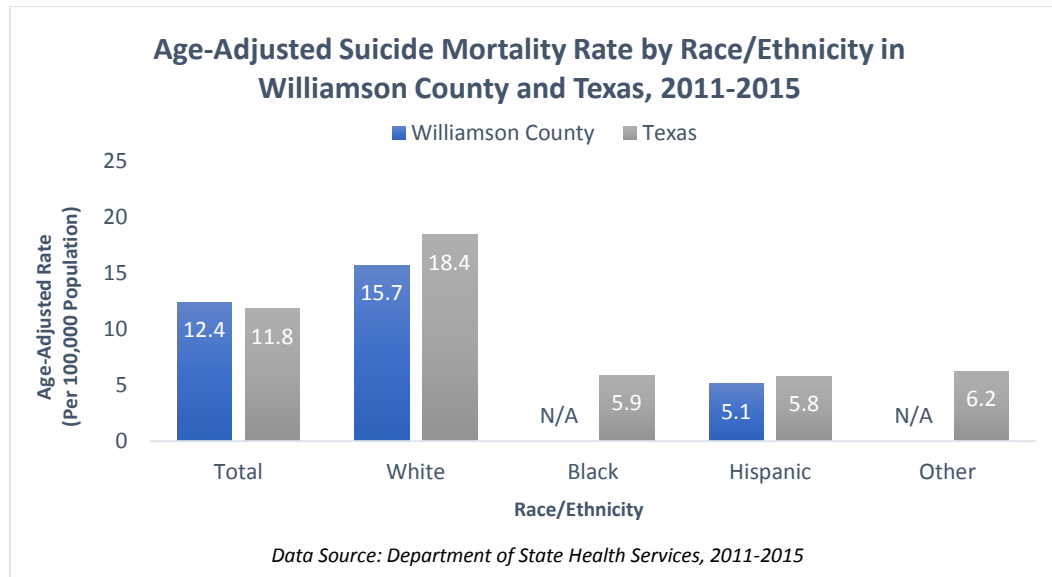


Figure 46: Age-Adjusted Suicide Mortality Rate by Race/Ethnicity in Williamson County and Texas, 2011-2015

Mental Health Hospitalizations

Table 20: Mental Health Hospitalizations in Williamson County and Texas, 2013-2015

Mental Health Hospitalizations in Williamson County and Texas, 2013-2015		
Age-Adjusted Hospitalization Rate per 10,000	Williamson County	Texas
Due to Mental Health	23.7	41.2
Due to Pediatric Mental Health	36.7	45.1

Notes: Hospitalizations include adjustment disorders; anxiety disorders; attention deficit conduct and disruptive behavior disorders; delirium, dementia, amnesic and other cognitive disorders; disorders usually diagnosed in infancy, childhood, or adolescence; mood disorders; personality disorders; schizophrenia and other psychotic disorders; and impulse control disorders not elsewhere classified.

Data Source: Department of State Health Services, 2013-2015

Findings based on Table 19:

- From 2013 to 2015, there were 23.7 mental health related hospitalizations per 10,000 population aged 18 years and older in Williamson County. This age-adjusted rate is lower compared to Texas, which has a rate of 41.2 mental health related hospitalizations per 10,000 population.
- From 2013 to 2015, there were 36.7 pediatric mental health related hospitalizations per 10,000 population under 18 years old in Williamson County. This age-adjusted rate is lower compared to Texas, which has a rate of 45.1 pediatric mental health related hospitalizations per 10,000 population.

Local Spotlight: Bluebonnet Trails Community Services (BTCS)

In Williamson County, the largest mental health provider is BTCS. Below is an overview of BTCS, which includes the number of services provided by category and the most diagnosed mental health disorders in 2017.

In 2017 at BTCS, there were 44,526 persons served for intellectual and developmental disability services, 45,884 for mental health services, 14,734 for early childhood intervention and autism, and 2,855 for substance abuse services (Figure 47). Within these encounters, BTCS served almost 700 persons experiencing a major depressive

disorder, almost 400 experiencing bipolar disorder, and almost 300 individuals living with an autistic disorder or an intellectual disability (Figure 48).

Figure 47: Number of Persons Served by Category at Bluebonnet Trails Community Services, Williamson County, 2017

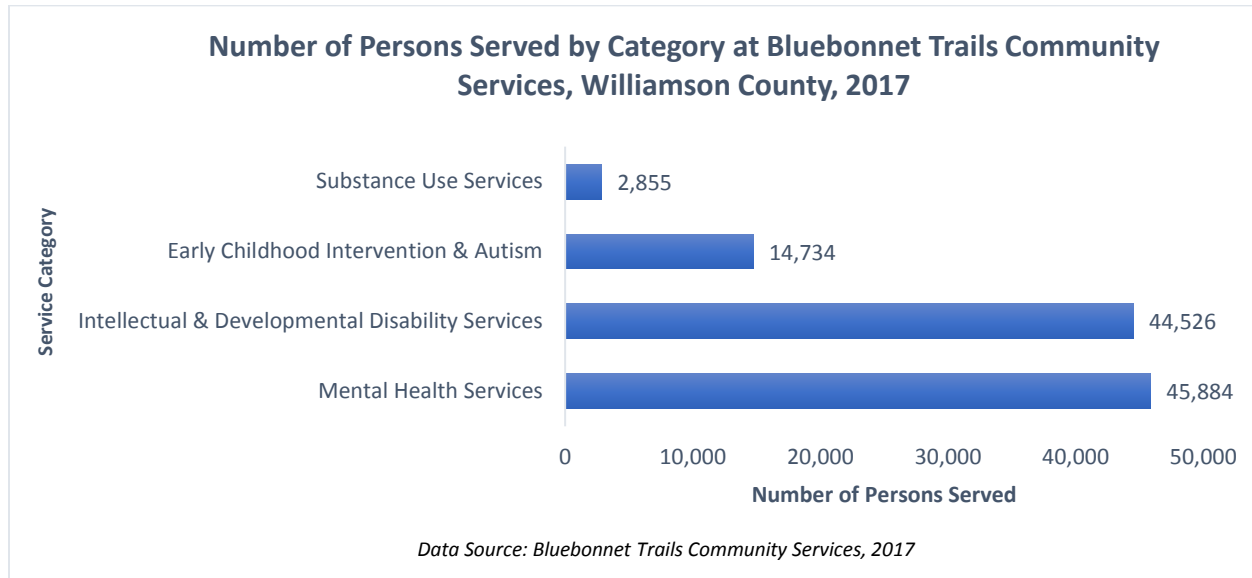
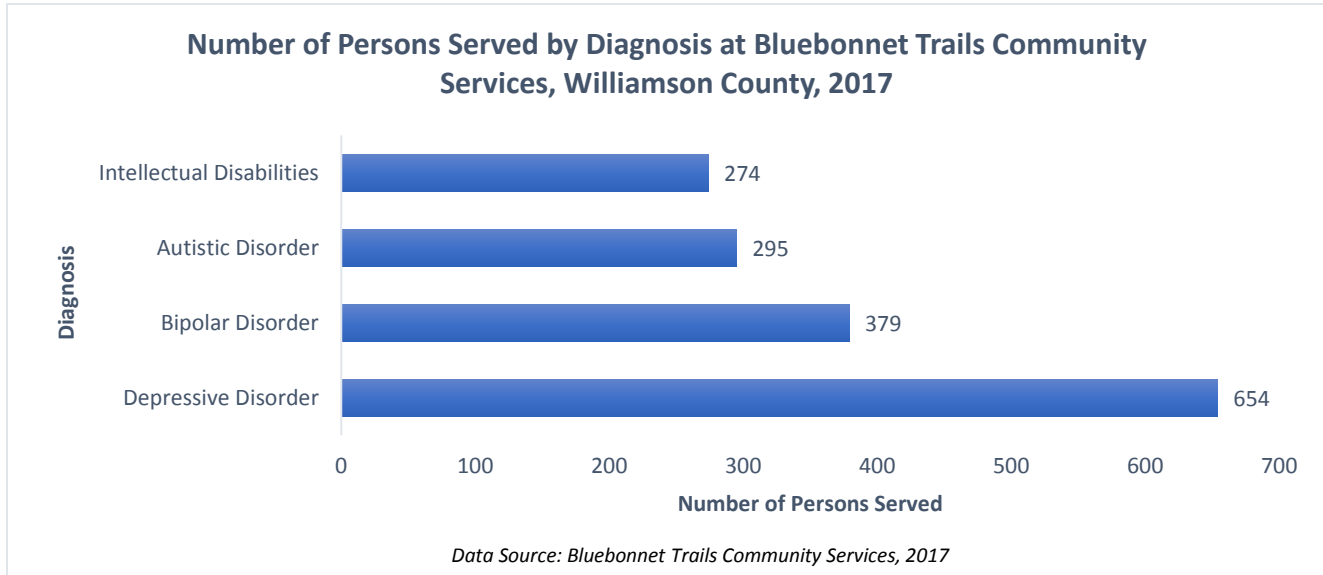


Figure 48: Number of Persons Served by Diagnosis at Bluebonnet Trails Community Services, Williamson County, 2017



Key Findings

Certain mental health indicators stood out for having mortality rates that are not only high, but higher than the overall Texas value and the HP2020 target. These indicators are described in full detail, with future recommendations:

- **Over one-third of motor-vehicle fatal accidents were due to alcohol.** Evidence-based efforts should be made to decrease the number of alcohol-related motor-vehicle deaths in Williamson County. The National Highway Traffic Safety Administration recommends strategies that are proven to be effective in reducing

drinking and driving. These include: sobriety checkpoints, vehicle technology (e.g., ignition interlocks), mass media campaigns, school-based education, license suspension laws, and alcohol screening/interventions in various settings (e.g., health care, university).(72) Additional data is needed to examine drinking patterns among youth populations, since they are at higher risk of being involved in a motor vehicle crash.(72)

- **Suicide mortality has been rising in Williamson County, surpassing the HP2020 target. Deaths due to suicide disproportionately affect men compared to women and the White population compared to other racial/ethnic groups.** Ensuring that “government, public health, healthcare, employers, education, the media and community organizations are working together is important for preventing suicide.” When public health departments bring together community partners to tackle this issue, there is a greater likelihood of preventing suicide.(73) However, additional data is needed to determine the specific factors of at-risk groups in Williamson County.

C8. Maternal and Child Health

“I CAN'T WORK. AND IT'S LIKE I'M GETTING ON MY FEET AND THEN I DON'T HAVE CHILD CARE SO I'M BACK IN A HOLE. AND THAT MESSES ME UP ALL THE TIME, WHERE IT'S ALWAYS VERY OVERWHELMING. IT'S HARD TO FIND CHILD CARE. AND EVEN IF WE DID, IT'S VERY EXPENSIVE. FOR ME, I HAVE FOUR KIDS, SO THAT'S REALLY HARD TO EVEN PAY FOR. IT'S LIKE YOU'RE WORKING JUST TO PAY.”

The prenatal care a mother receives heavily determines health outcomes of infants and children, an especially vulnerable population. According to the CDC, “safe motherhood begins before conception with proper nutrition and a healthy lifestyle and continues with appropriate prenatal care and the prevention and treatment of complications when possible.”(74) Prioritizing maternal health ensures full-term pregnancies without complications, delivery of a healthy infant, and creates a positive environment of support for the needs of mothers, infants, and families.(74)

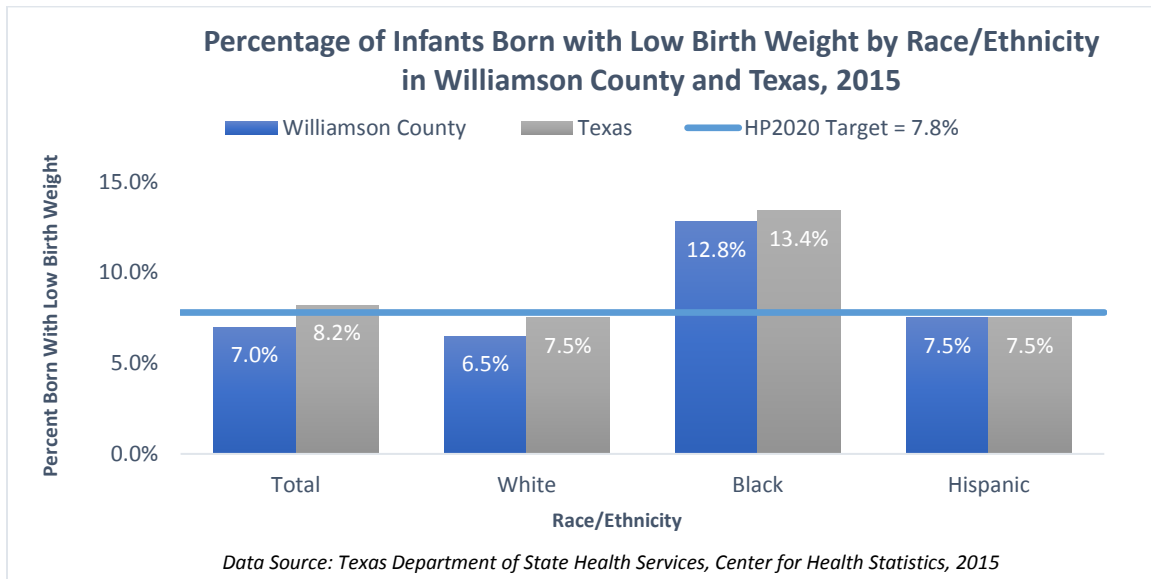
Low Birth Weight

Why is this important?

“Babies born with low birth weight are more likely than babies of normal weight to have health problems and require specialized medical care in the neonatal intensive care unit. Low birth weight is typically caused by premature birth and fetal growth restriction, both are influenced by a mother's health and genetics.”(75)

In 2015, approximately seven percent of babies in Williamson County were born weighing less than 2500 grams, which is lower than the percentage in Texas (8.2%) and the HP2020 target (7.8%) (Figure 49). However, the percentage of babies born with a low birth weight among the Black population in Williamson County was 12.8%, which is higher compared to the overall Texas percentage and the HP2020 target.

Figure 49: Percentage of Infants Born with Low Birth Weight by Race/Ethnicity in Williamson County and Texas, 2015



Infant and Child Mortality

Why is this important?

“Infant mortality rate continues to be one of the most widely used indicators of the overall health status of a community. The leading causes of death among infants are birth defects, preterm delivery, low birth weight, Sudden Infant Death Syndrome (SIDS), and maternal complications during pregnancy.”(76)

Child mortality rate has a large impact on years of potential life lost (YPLL). The leading causes of death among children ages 1 to 17 are unintentional injuries, specifically drowning and motor vehicle traffic accidents.(77)

Table 21: Child and Infant Mortality in Williamson County and Texas, 2016

Child and Infant Mortality in Williamson County and Texas, 2016		
Indicator	Williamson County	Texas
Infant Mortality Rate*	5.7	6.0
Child Mortality Rate^	18.1	21.5

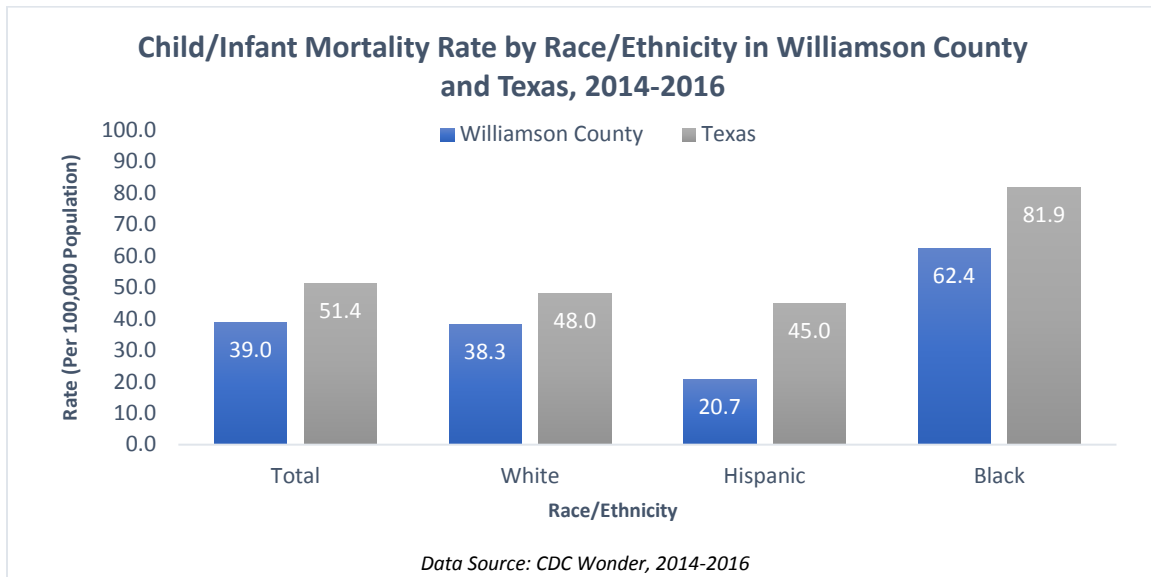
*per 1,000 live births; ^per 100,000 children

Data Source: CDC Wonder, 2016

Findings based on Table 20:

- Among infants less than 1 years old, the mortality rate in Williamson County (5.7 per 1,000 live births) is lower than both the Texas rate (6.0 per 1,000 live births) and the HP2020 target (6.0 per 1,000 live births).
- Among children ages 1 to 17, the mortality rate in Williamson County (18.1 per 100,000 population) is lower than the Texas rate (21.5 per 100,000 population).

The mortality rate for children less than 18 years of age in Williamson County (39.0 per 100,000 children) was lower compared to the state of Texas (51.4 per 100,000 children) (Figure 50). When stratified by race/ethnicity, mortality rates were higher in the state than in the county for all racial/ethnic groups. However, the mortality rate among the Black population (62.4 per 100,000 children) was higher than the overall rate for the county and the state.

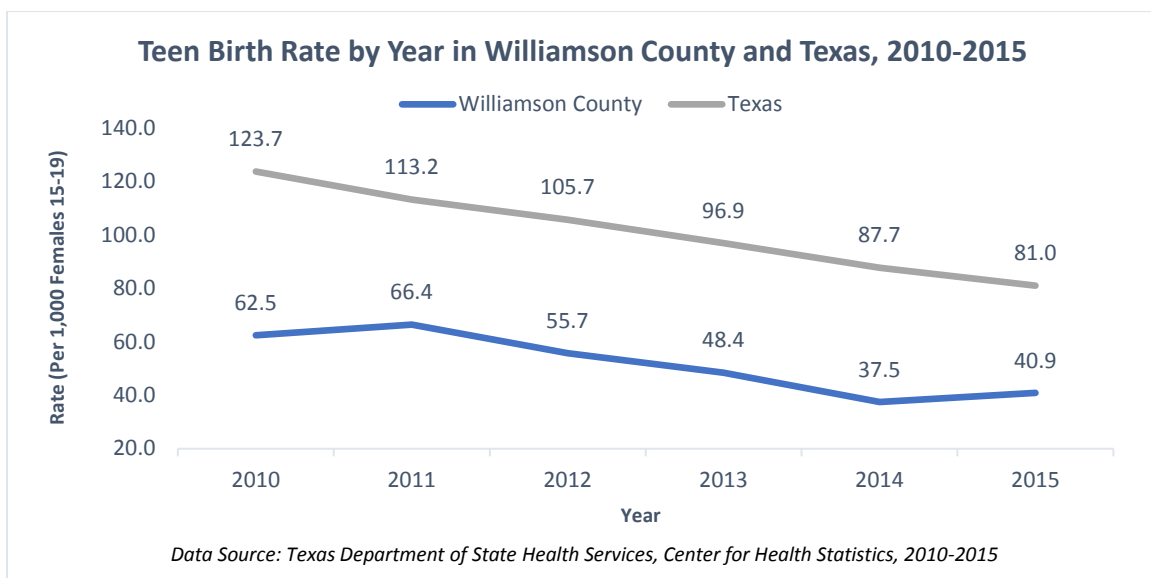
Figure 50: Child/Infant Mortality Rate by Race/Ethnicity in Williamson County and Texas, 2014-2016

Teen Birth Rate

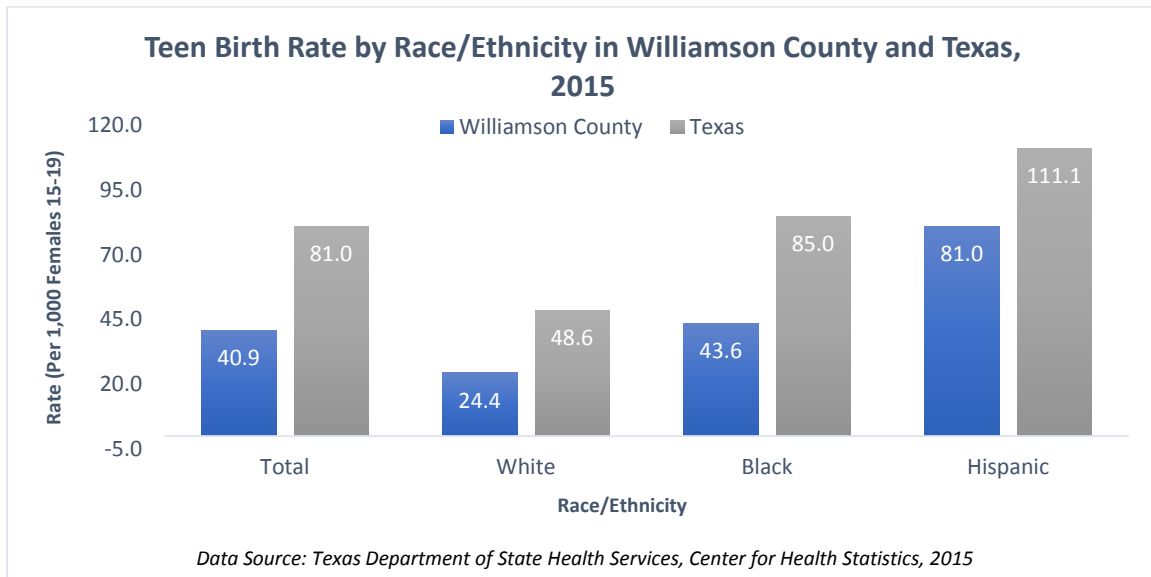
Why is this important?

Evidence suggests teen pregnancy significantly increases the risk of repeat pregnancy and of contracting a sexually transmitted infection (STI), both of which can result in adverse health outcomes for mothers, children, families, and communities. Teenage women who bear a child are less likely to graduate high school or college, more likely to be overweight/obese, and more likely to experience mental health distress.(78)

For both Williamson County and Texas, the birth rate among women ages 15 to 19 has tremendously decreased from 2010 to 2015 (Figure 51). In 2015, the teen birth rate in the county was 40.9 per 1,000 females, which is a thirty-five percent decrease from the rate in 2010 (62.5 per 1,000 females).

Figure 51: Teen Birth Rate by Year in Williamson County and Texas, 2010-2015

Across all racial/ethnic groups, Williamson County has lower teen birth rates compared to Texas (Figure 52). However, the rates of Williamson County Hispanic (81.0 per 1,000 females) and Black (43.6 per 1,000) populations are higher than the overall county rate (40.9 per 1,000).

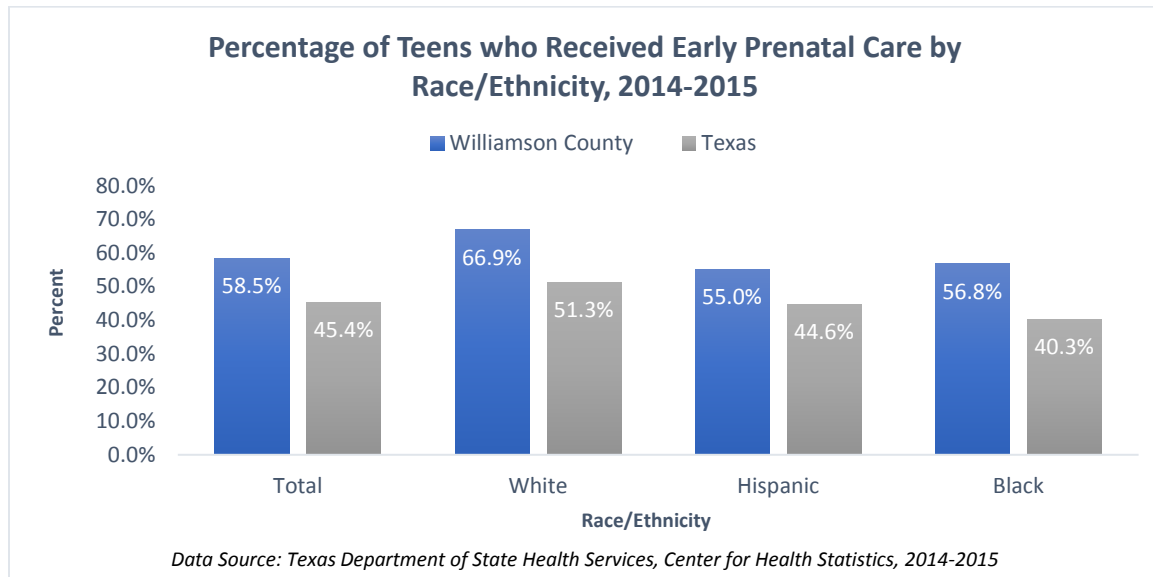
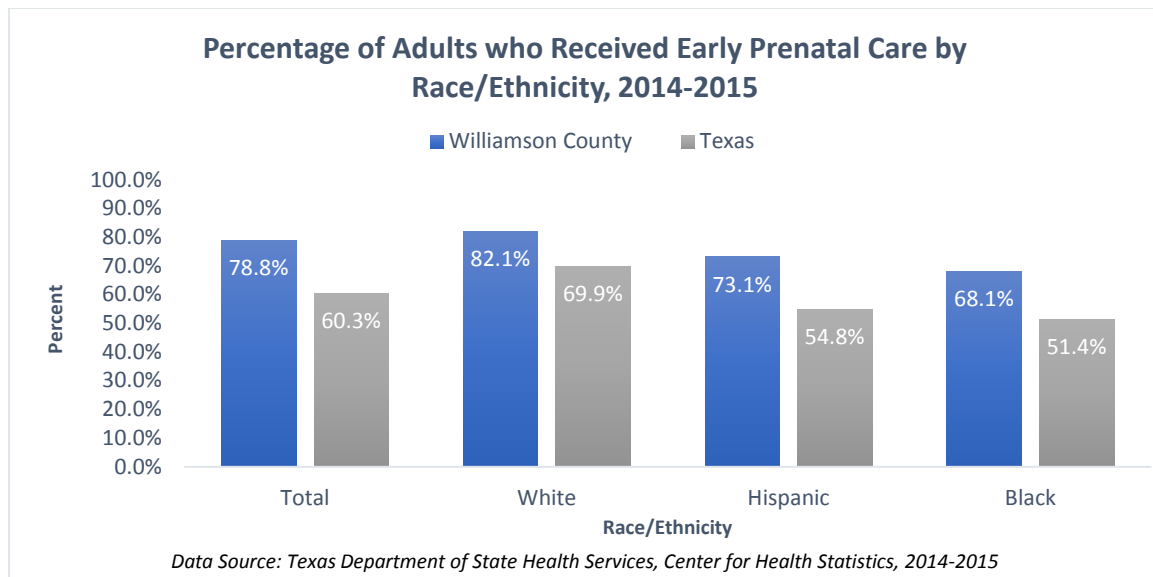
Figure 52: Teen Birth Rate by Race/Ethnicity in Williamson County and Texas, 2015

Prenatal Care

Why is this important?

“Babies born to mothers who do not receive prenatal care are three times more likely to have a low birth weight and five times more likely to die than those born to mothers who do get care. Early prenatal care (i.e. care in the first trimester of a pregnancy) allows women and their health care providers to identify and, when possible, treat or correct health problems and health-compromising behaviors that can be particularly damaging during the initial stages of fetal development.”(79)

In Williamson County, the percentages of teenage and adult mothers who received early prenatal care was higher than Texas across all race/ethnicity groups (Figure 53 and Figure 54). Among teen mothers in Williamson County, the percentage for Hispanic (55.0%) and Black (56.8%) populations fell below the overall county value (58.5%) (Figure 53). A similar trend is seen among adult mothers in Williamson County; the percentages for Hispanic (73.1%) and Black populations (68.1%) are lower than the overall county value (78.8%) (Figure 54). In addition, the percentage of teenage mothers who received prenatal care is lower than adult mothers across all race/ethnic groups.

Figure 53: Percentage of Teens who Received Early Prenatal Care by Race/Ethnicity, 2014-2015**Figure 54: Percentage of Adults who Received Early Prenatal Care by Race/Ethnicity, 2014-2015**

Key Findings

Williamson County has many notable strengths regarding maternal and infant health. These include low rates of child and infant mortality, low birth weight, and a declining teen birth rate. However, improvements should be made regarding maternal, infant, and child health outcomes for Hispanic and Black populations. Both groups have higher than average teen birth rates, as well as lower than average rates of receiving early prenatal care. Moreover, the Black population in Williamson County has a higher than average child/infant mortality rate and a high rate of infants born weighing less than 2,500 grams. Increasing prenatal care among teen and adult mothers who are Hispanic and/or Black can improve birth outcomes such as low birth weight and infant mortality.

C9. Death, Illness, and Injury

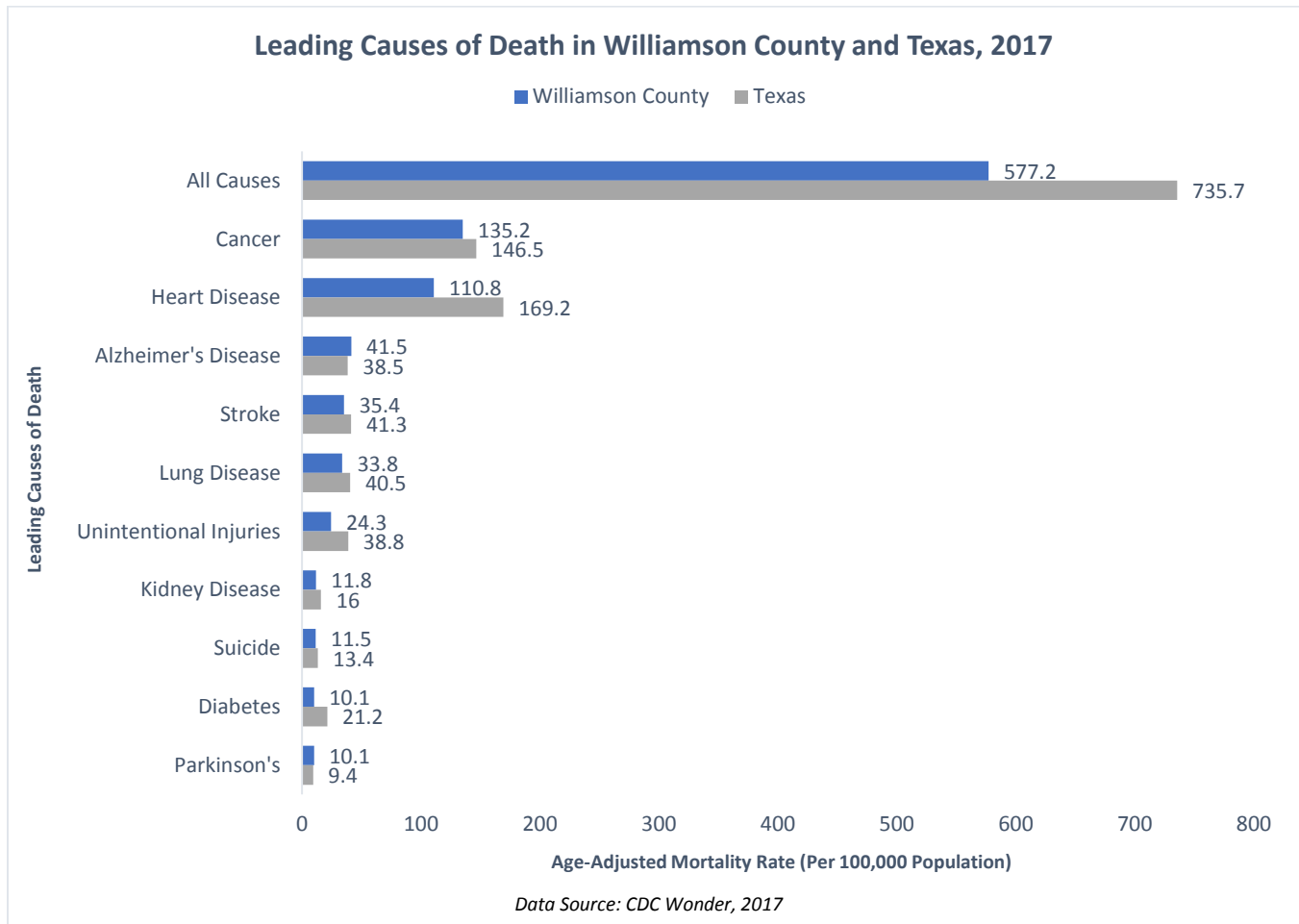
"IF I COULD SPEAK FOR REGARDING CANCER, ONE OF THE BIGGEST ISSUES WE HAVE IS TRANSPORTATION FOR OUR CLIENTS TRYING TO GET IN FOR INFUSION THERAPY OR EVEN JUST A DOCTOR'S APPOINTMENT. IF THEY DON'T HAVE A FAMILY MEMBER, FRIEND, OR CAR, WE DON'T HAVE REALLY ANY TRANSPORTATION AT ALL. AND I THINK THAT'S REALLY LACKING IN WILLIAMSON COUNTY FOR PEOPLE IN NEED. SO THAT'S A MAJOR ISSUE."

Mortality (rates of death within a population) and morbidity (rates of incidence and prevalence of disease) measure health status in a community.(80) In 2017, the top 10 causes of death in Williamson County were:

1. Cancer
2. Heart Disease
3. Alzheimer's Disease
4. Stroke
5. Lung Disease
6. Unintentional Injuries
7. Kidney Disease
8. Suicide
9. Diabetes Mellitus
10. Parkinson's Disease

This section further examines the relationship between gender, race/ethnicity, and mortality among the top five causes of death in Williamson County. Due to the low number of cases for Alzheimer's disease, stroke, and lung disease, the CHA team was not able to simultaneously examine gender and race/ethnicity for these diseases. Additionally, incidence data is only available for certain cancers, which include breast, lung, prostate, and colorectal cancers.

Figure 55 displays age-adjusted mortality rates for the top ten causes of death in Williamson County and Texas in 2017. For all causes of death, Williamson County (577.2 deaths per 100,000 population) had a lower age-adjusted death rate than Texas (735.7 deaths per 100,000 population). Compared to Texas, Williamson County had higher mortality rates for Alzheimer's (41.4 and 38.5 respectively) and Parkinson's (10.1 and 9.4 respectively) per 100,000 population. In 2017, the top cause of death in Williamson County was cancer, whereas in Texas it was heart disease.

Figure 55: Leading Causes of Death in Williamson County and Texas, 2017

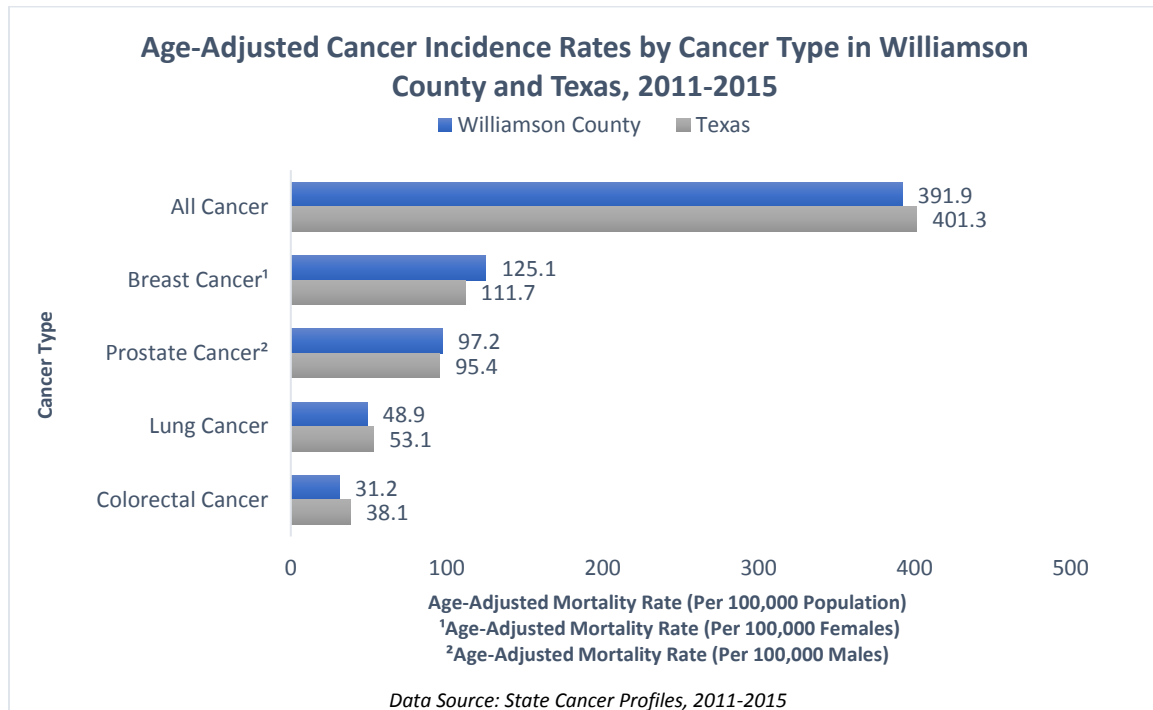
Cancer

Why is this important?

“The National Cancer Institute (NCI) defines cancer as a term used to describe diseases in which abnormal cells divide without control and are able to invade other tissues. According to the NCI there are over 100 different types of cancer, but breast, colon, lung, pancreatic, prostate, and rectal cancer lead to the greatest number of annual deaths. Risk factors of cancer include but are not limited to age, alcohol use, tobacco use, a poor diet, certain hormones, and sun exposure. Although some of these risk factors cannot be avoided--such as age--limiting exposure to avoidable risk factors may lower risk of developing certain cancers.”(81)

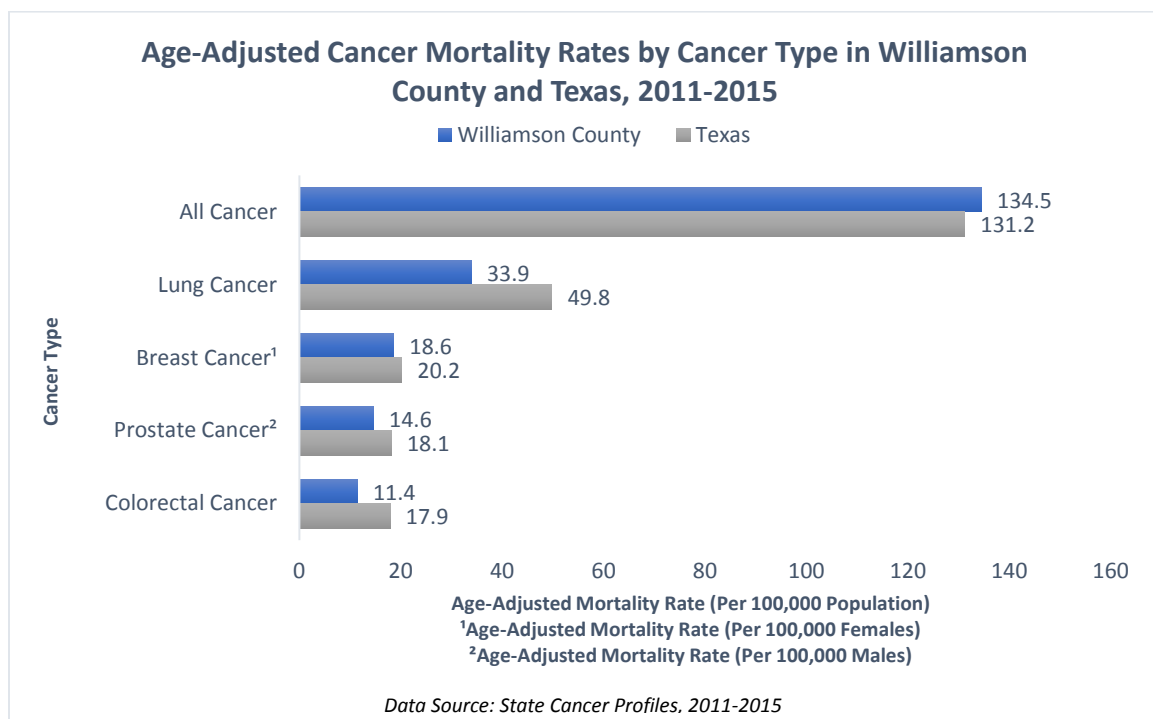
The age-adjusted cancer incidence rate, which describes newly diagnosed cases, was lower in Williamson County (391.9 per 100,000 population) compared to Texas (401.3 per 100,000 population) (Figure 56). However, incidence rates were higher in Williamson County compared to Texas for both breast and prostate cancer. Of all cancer types, breast cancer had the highest incidence rate in Williamson County (111.7 per 100,000 females), followed by prostate (97.2 per 100,000 males).

Figure 56: Age-Adjusted Cancer Incidence Rates by Cancer Type in Williamson County and Texas, 2011-2015



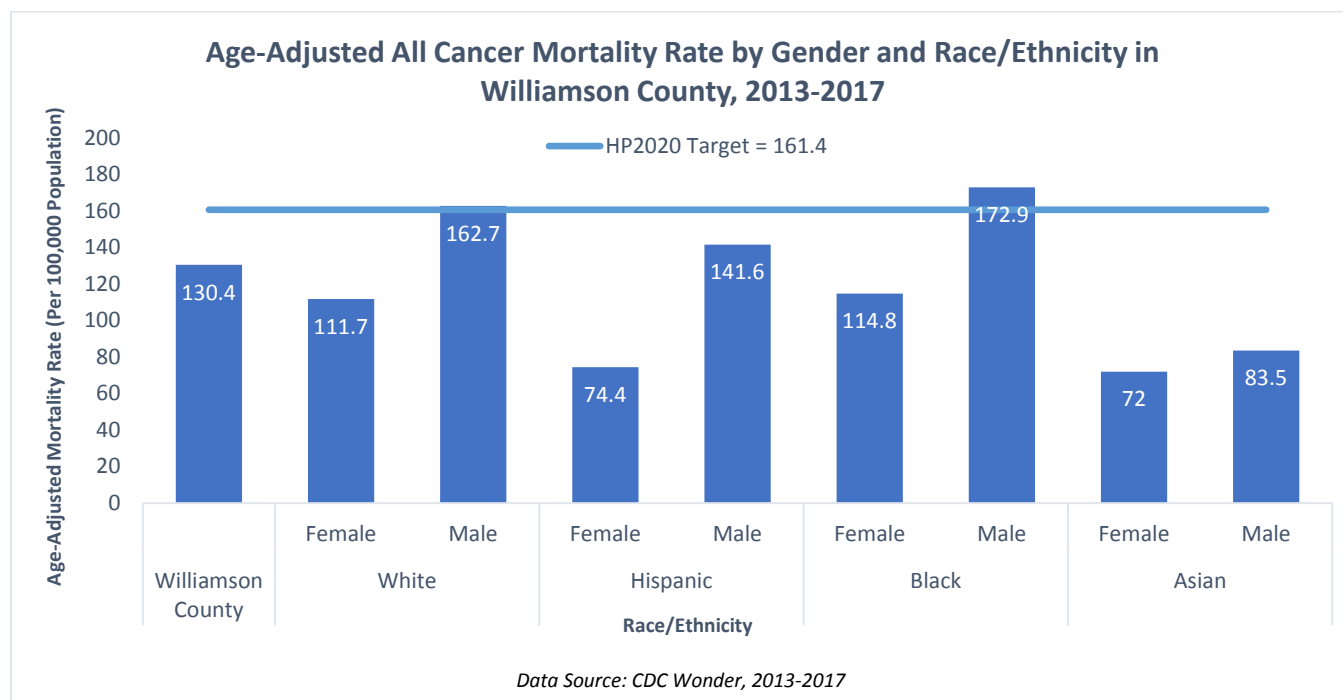
The age-adjusted cancer mortality rate was higher in Williamson County (134.5 per 100,000 population) compared to Texas (131.2 per 100,000 population) (Figure 57). In Williamson County, lung cancer has the highest mortality rate (33.9 per 100,000 population), followed by breast cancer (18.6 per 100,000 females).

Figure 57: Age-Adjusted Cancer Mortality Rates by Cancer Type in Williamson County and Texas, 2011-2015



When stratified by gender and race/ethnicity, Black males in Williamson County had the highest age-adjusted cancer mortality rate (172.9 per 100,000 population), followed by White males (162.7 per 100,000 population), and Hispanic males (141.6 per 100,000 population) (Figure 58). Additionally, these populations had cancer mortality rates above the overall county value (130.4 per 100,000 population), with rates for Black males and White males above the HP2020 target (161.4 per 100,000 population).

Figure 58: Age-Adjusted All Cancer Mortality Rate by Gender and Race/Ethnicity in Williamson County, 2013-2017



Cardiovascular Diseases

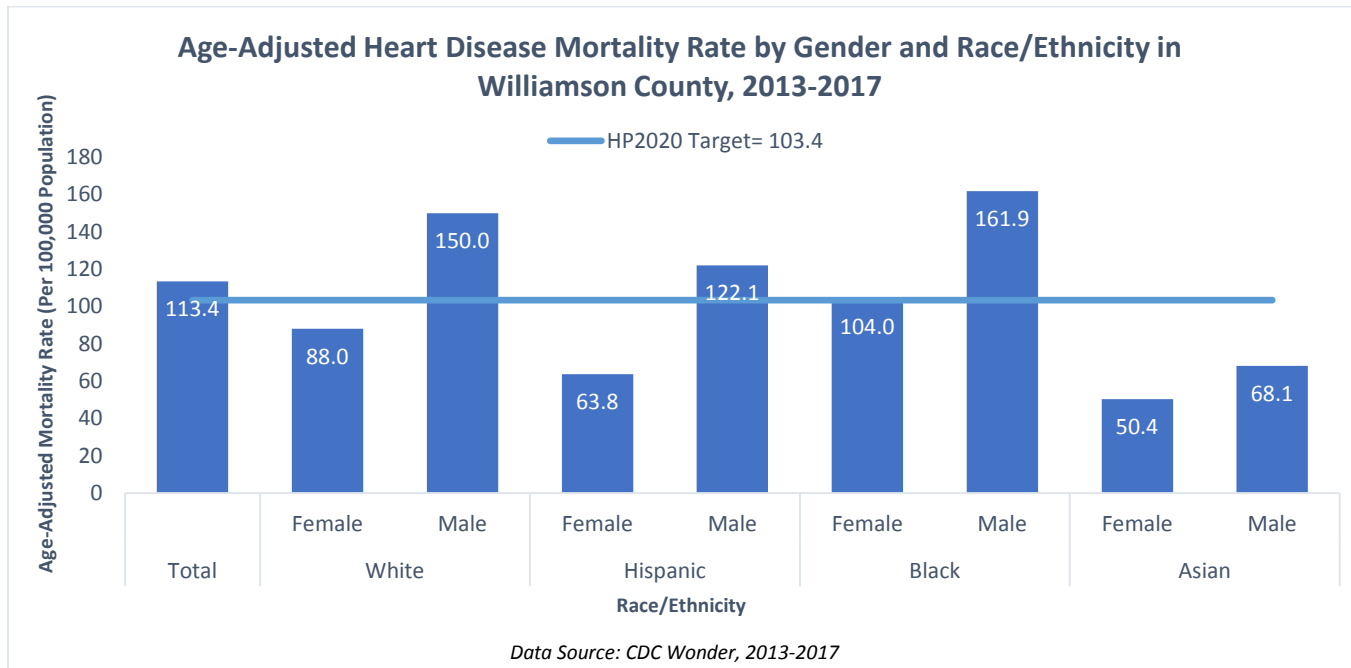
Why is this important?

“Cardiovascular diseases, including heart disease and stroke, account for more than one-third of all U.S. deaths and a leading cause of disability. Heart disease is a term that encompasses a variety of different diseases affecting the heart. The most common type in the United States is coronary artery disease, which can cause heart attack, angina, heart failure, and arrhythmias. There are many modifiable risk factors for heart disease and stroke including tobacco smoking, obesity, sedentary lifestyle, and poor diet. Controlling high blood pressure and cholesterol are also important prevention strategies.”(82)

When stratified by gender and race/ethnicity, Black males in Williamson County had the highest age-adjusted heart disease mortality rate (161.9 per 100,000 population), followed by White males (150.0 per 100,000 population), and Hispanic males (122.1 per 100,000 population) (Figure 59).

Additionally, these populations had heart disease mortality rates above the overall county value (113.4 per 100,000 population), and above the HP2020 target (103.4 per 100,000 population).

Figure 59: Age-Adjusted Heart Disease Mortality Rate by Gender and Race/Ethnicity in Williamson County, 2013-2017



From 2013 to 2017, males and females in Williamson County had age-adjusted stroke mortality rates that were similar to one another and the overall county value (34.7 per 100,000 population) (Figure 60). Age-adjusted stroke mortality rates for Black (37.5 per 100,000 population) and White populations (35.2 per 100,000 population) in Williamson County were higher than the overall county value and the HP2020 target (34.8 per 100,000 population) (Figure 61).

Figure 60: Age-Adjusted Stroke Mortality Rate by Gender in Williamson County and Texas, 2013-2017

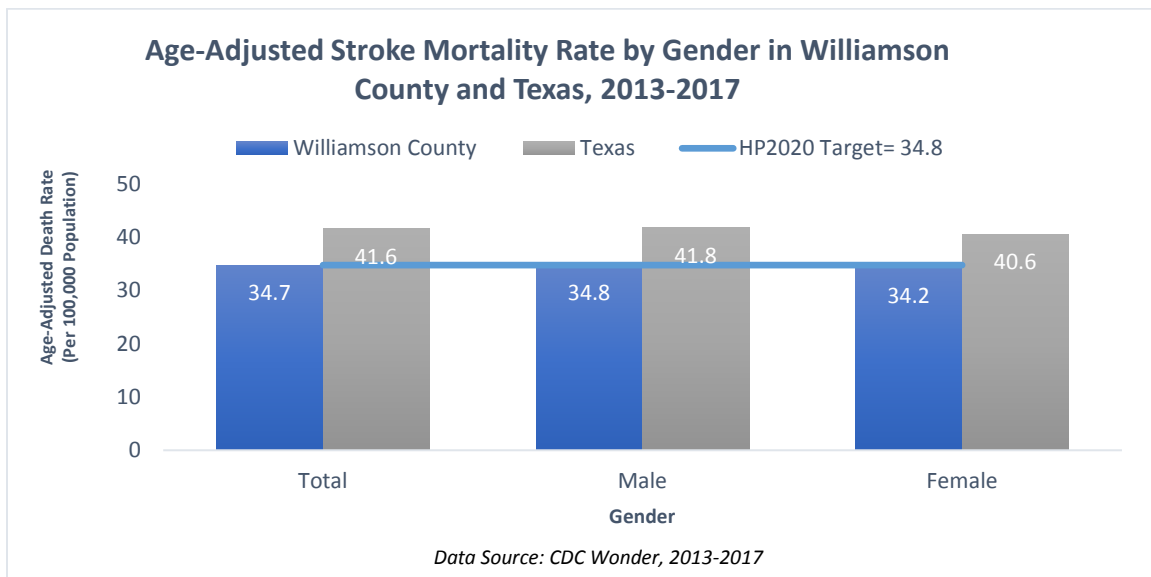
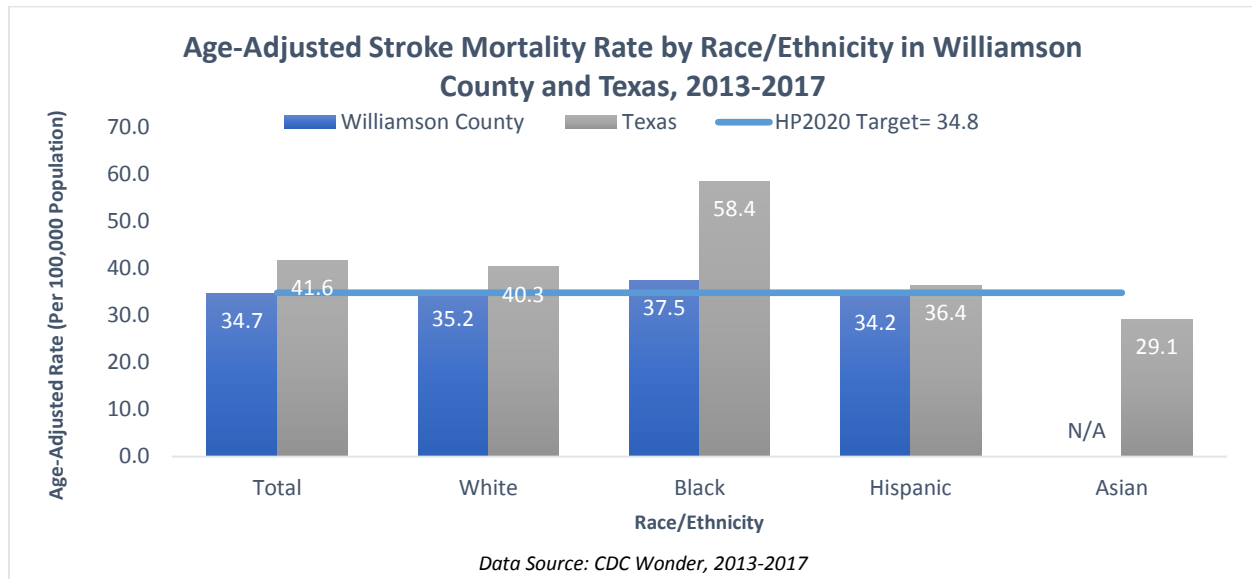


Figure 61: Age-Adjusted Stroke Mortality Rate by Race/Ethnicity in Williamson County and Texas, 2013-2017



Alzheimer's Disease

Why is this important?

"Alzheimer's disease is the most common form of dementia among older people. It is a progressive and irreversible disease that impairs memory and affects thinking and behavior, to the point of eventually interfering with daily tasks. The greatest risk factor currently known is increasing age. After age 65, the likelihood of developing the disease doubles every five years; the risk is nearly 50% after age 85. Alzheimer's imposes heavy emotional and financial burdens on families. While there is currently no cure, there are treatments that can slow the progression of Alzheimer's and improve the quality of life for people with Alzheimer's and their caregivers."(83)

In Williamson County, the age-adjusted Alzheimer's disease mortality rate was higher among females (39.1 per 100,000 population) compared to males (30.0 per 100,000 population) (Figure 62). Moreover, the rate among females was higher than the overall county value (35.8 per 100,000 population). The White population in Williamson County had the highest age-adjusted Alzheimer's mortality rate (37.2 per 100,000 population), which also surpassed the overall county value (Figure 63).

Figure 62: Age-Adjusted Alzheimer's Disease Mortality Rate by Gender in Williamson County and Texas, 2013-2017

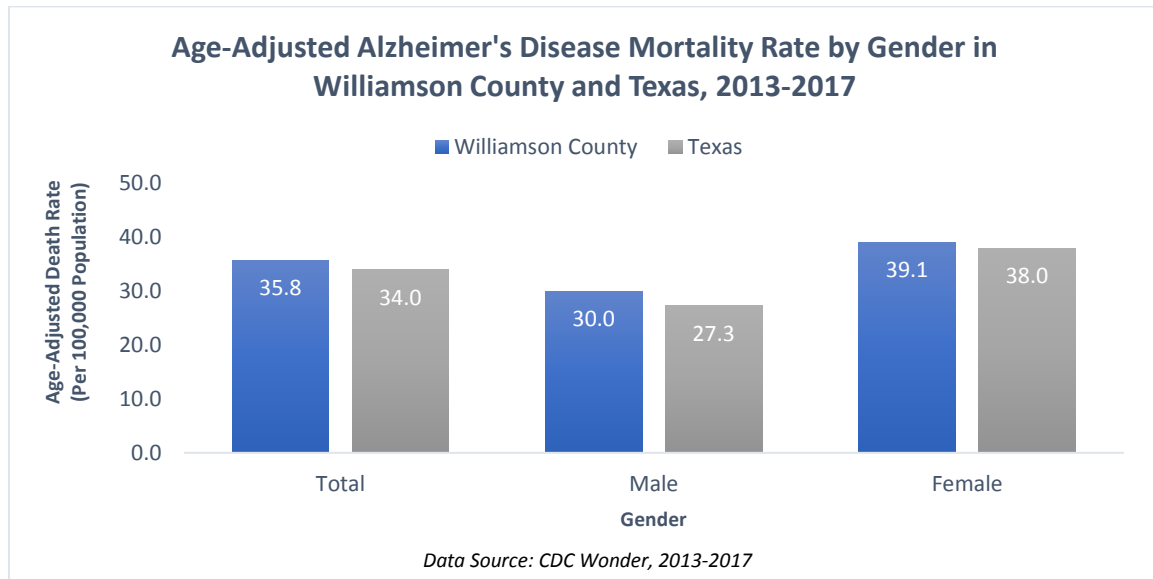
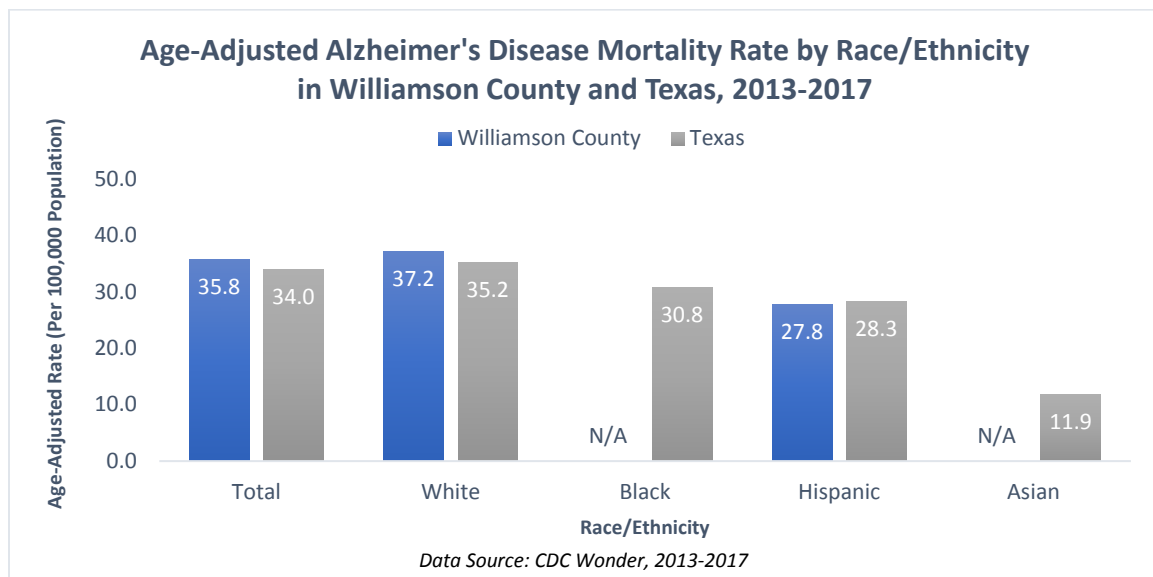


Figure 63: Age-Adjusted Alzheimer's Disease Mortality Rate by Race/Ethnicity in Williamson County and Texas, 2013-2017



Lung Disease

Why is this important?

According to the CDC, “chronic respiratory diseases are chronic disease of the airways and other structures of the lung.”(84) The most common types of lung disease are asthma, chronic obstructive pulmonary disease, occupational lung diseases, and pulmonary hypertension.(84) Tobacco smoke is the main risk factor for developing chronic respiratory diseases, followed by air pollutants in the home and workplace, genetic factors, and respiratory infections.(84)

The age-adjusted lung disease mortality rate was higher among males (34.1 per 100,000 population) compared to females (31.2 per 100,000 population) (Figure 64). Moreover, the rate among males was higher than the overall county rate (32.0 per 100,000 population). Additionally, the age-adjusted mortality rate among the

White population (33.1 per 100,000) was the highest across all racial/ethnic groups and higher than the overall county value (Figure 65).

Figure 64: Age-Adjusted Lung Disease Mortality Rate by Gender in Williamson County and Texas, 2013-2017

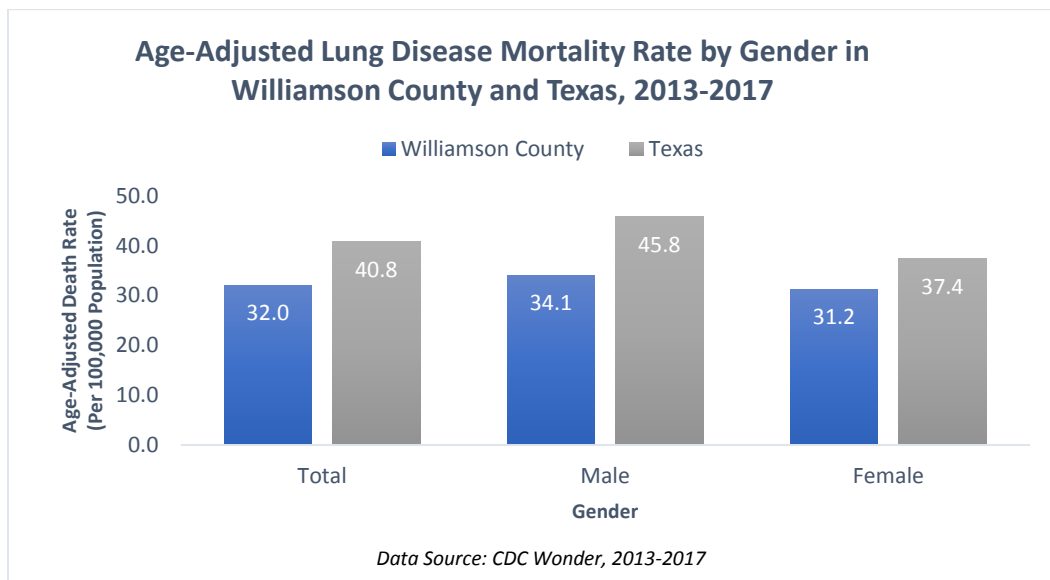
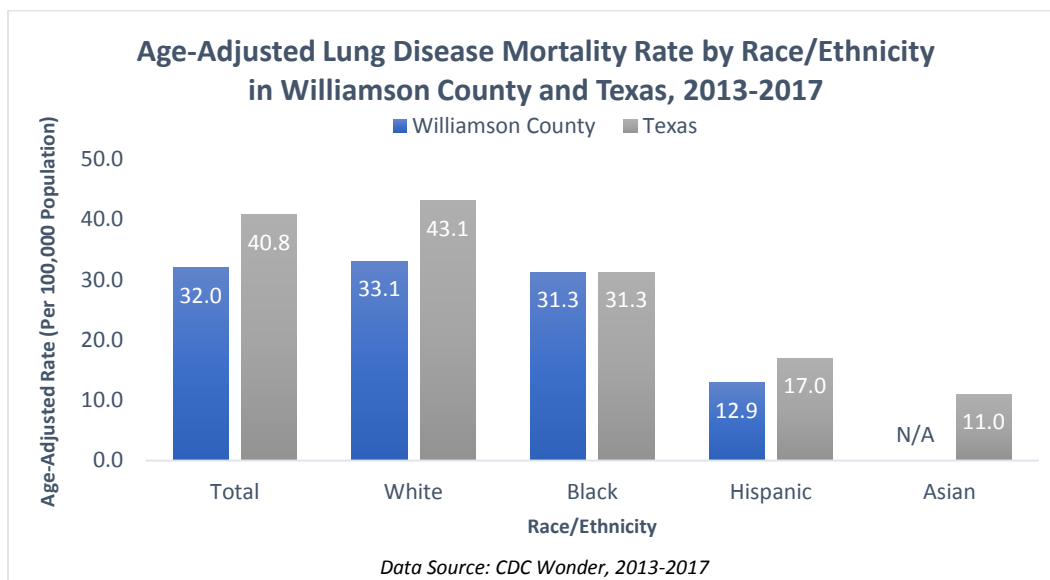


Figure 65: Age-Adjusted Lung Disease Mortality Rate by Race/Ethnicity in Williamson County and Texas, 2013-2017



Key Findings

Although Williamson County has lower rates of mortality compared to Texas, there are specific populations that carry a higher burden of disease and should be considered when developing interventions, programs, and services.

- **Cancer incidence rates are much higher than overall mortality rates for Williamson County.** Cancer screening should be prioritized to diagnose cancer during early stages before it becomes fatal. Recent incidence data are needed to inform early cancer detection and prevention activities in Williamson County.
- **Since cancer and heart disease are the leading causes of death in Williamson County,** program and service planning should consider high risk populations, which include Black, White, and Hispanic males.

- **Alzheimer's disease is the third leading cause of death in the county, with mortality rates that are higher in Williamson County compared to Texas.** The disease disproportionately affects women and the White population.

C10. Communicable Disease

Communicable diseases, which include sexually transmitted infections (STI) and tuberculosis (TB), pose a significant public health concern worldwide. Fortunately, there are ways to mitigate the spread of communicable diseases. Persons with Human Immunodeficiency Virus (HIV), Acquired Immune Deficiency Syndrome (AIDS), chlamydia, gonorrhea, and syphilis can prevent the spread of infection by using proper protection during sexual intercourse.⁽⁸⁵⁾ Individuals with tuberculosis should avoid physical contact with others, practice frequent handwashing, and take prescribed medicine as directed by a health professional.⁽⁸⁶⁾

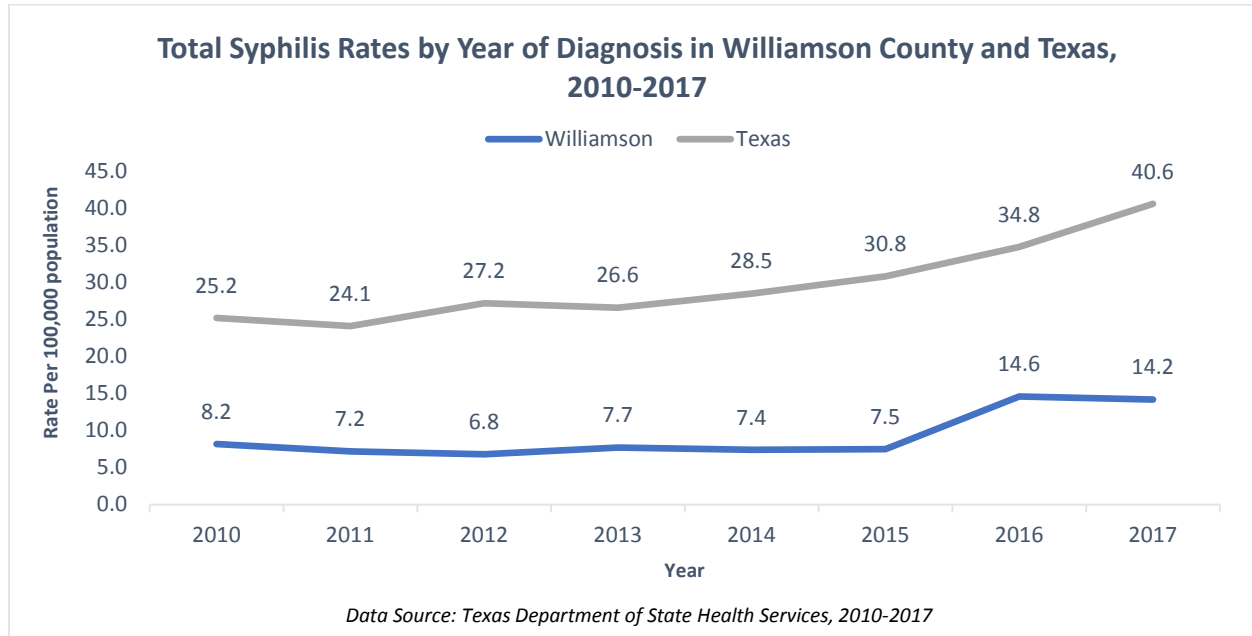
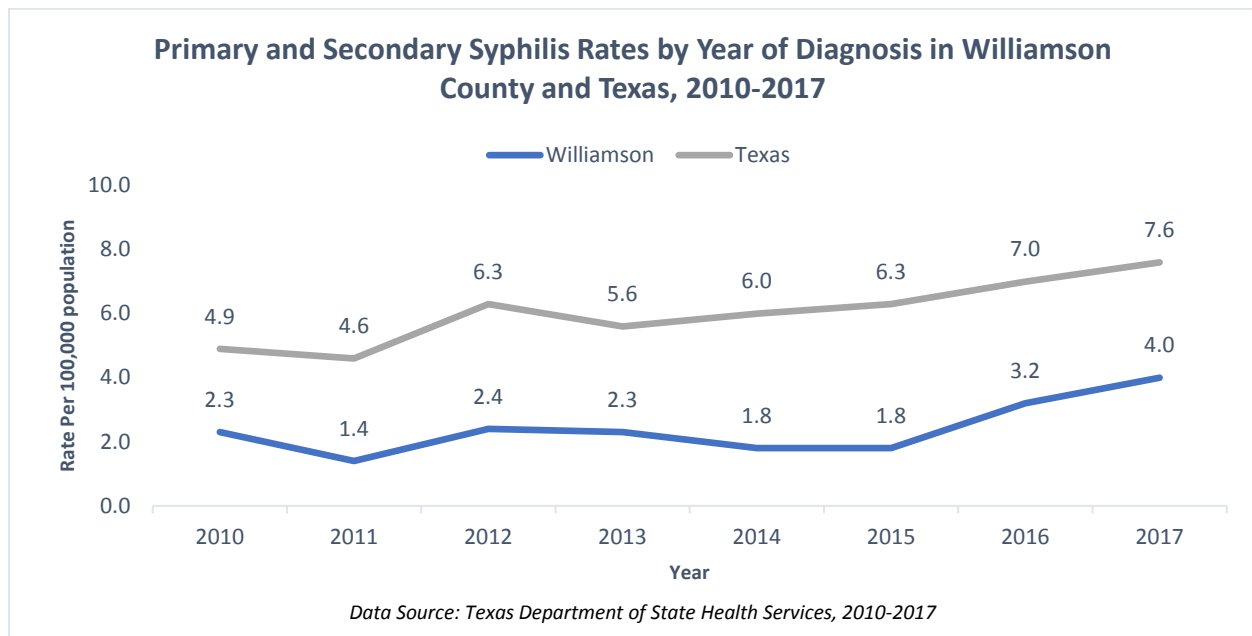
Most of the data in this section come from a passive disease surveillance system which collects diseases from the "Texas Notifiable Conditions List." Texas law requires that health care providers, hospitals, laboratories, and others report select conditions to local health departments, who then submit data to DSHS, and ultimately to the CDC. Since this surveillance system only captures diseases reported to health departments, there are missing cases that go undetected or unreported. Consequently, the data in this section may not completely represent the actual burden of disease, but still offer insight regarding disease trends and affected population groups.

Syphilis

Why is this important?

According to the CDC, "syphilis is a sexually transmitted infection that can cause serious health problems if not treated."⁽⁸⁷⁾ Syphilis is divided into stages, which include primary and secondary (P&S, mild signs and symptoms), latent (no signs or symptoms), and tertiary (associated with severe medical complications). Pregnant women with untreated syphilis can pass the infection to their infant and have a higher risk for fetal death.⁽⁸⁷⁾

Annual reported syphilis rates in Williamson County, which includes P&S and total (all stages), has remained lower than Texas rates from 2010 to 2017 (Figure 66 and Figure 67). However, the reported total syphilis rate in Williamson County has almost doubled between 2015 (7.5 infections per 100,000 population) and 2017 (14.2 infections per 100,000 population) (Figure 66). Moreover, reported P&S syphilis rates in Williamson County rose from 1.8 infections per 100,000 population in 2015 to 4.0 infections per 100,000 population in 2017 (Figure 67).

Figure 66: Total Syphilis Rates by Year of Diagnosis in Williamson County and Texas, 2010-2017**Figure 67: Primary and Secondary Syphilis Rates by Year of Diagnosis in Williamson County and Texas, 2010-2017**

In Williamson County, reported rates of P&S syphilis in both males (6.7 per 100,000 population) and females (1.4 per 100,000 population) were lower compared to rates among Texas males (65.2 per 100,000 population) and females (16.3 per 100,000 population) (Figure 68). However, the reported syphilis rate for females in Williamson County (1.4 infections per 100,000 population) is slightly higher than the HP2020 target for females (1.3 infections per 100,000 population). Males in Williamson County met the HP2020 target of 6.7 infections per 100,000 males. When stratified by race and ethnicity, the Black population in Williamson County had the highest reported rate of P&S syphilis at 17.2 per 100,000 population (Figure 69). Furthermore, rates of reported syphilis were the highest among those ages 15 to 24 (10.3 infections per 100,000) (Figure 70).

Figure 68: Primary and Secondary Syphilis Rates by Gender in Williamson County and Texas, 2017

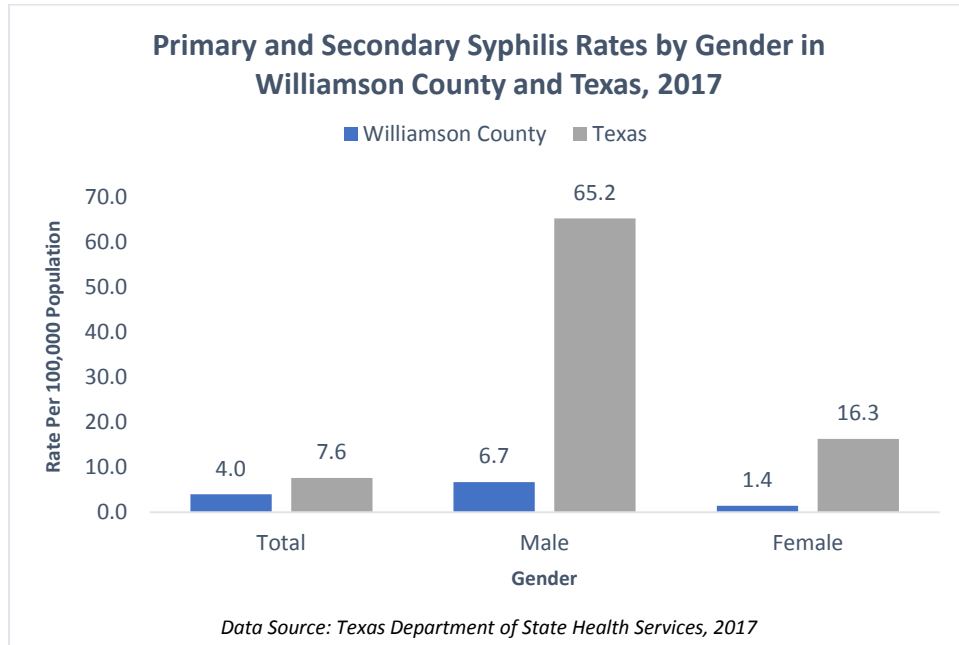


Figure 69: Primary and Secondary Syphilis Rates by Race/Ethnicity in Williamson County and Texas, 2017

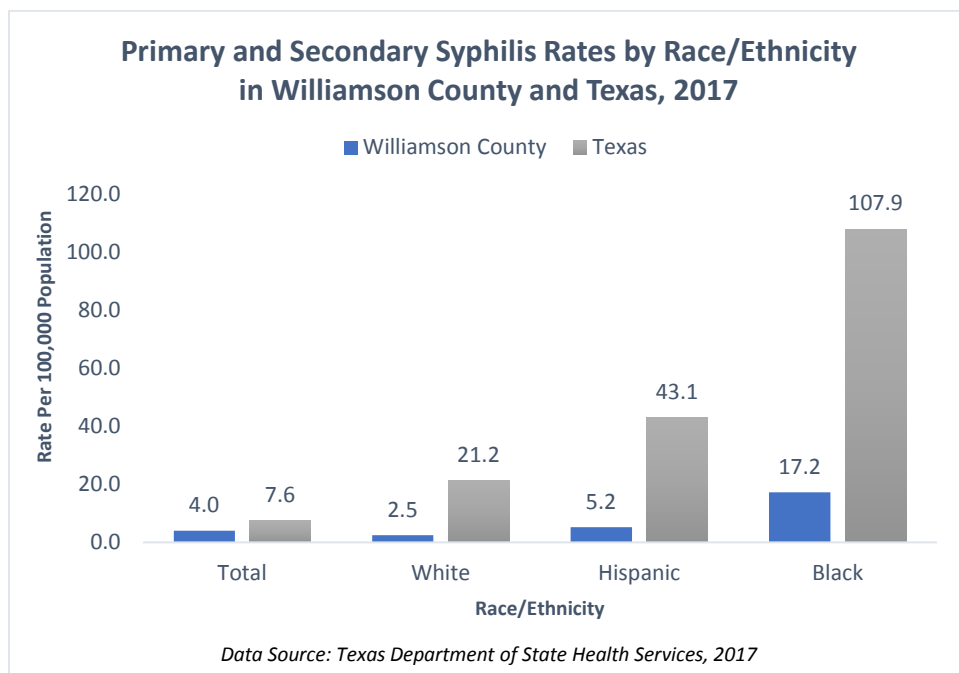
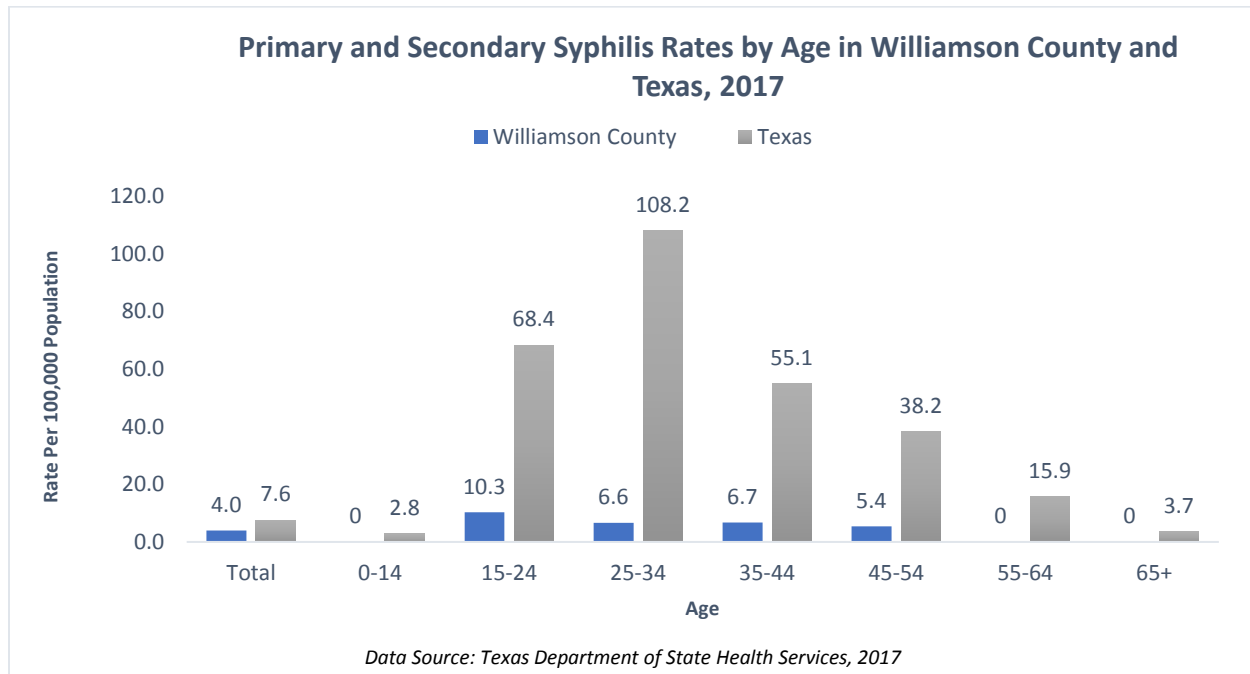


Figure 70: Primary and Secondary Syphilis Rates by Age in Williamson County and Texas, 2017

Chlamydia

Why is this important?

According to DSHS, chlamydia is the most frequently reported bacterial STI in the United States. Most individuals with chlamydia do not display symptoms, resulting in many cases that go unreported. Moreover, lack of screening to identify the infection may result in serious complications such as pelvic inflammatory disease and ectopic pregnancy in women, and urethritis and proctitis in men.(88)

From 2010 to 2017, reported chlamydia rates in Williamson County have remained mostly constant and lower than rates in Texas (Figure 71). Females in Williamson County have a higher reported chlamydia rate (350.7 per 100,000 population) than males (155.3 per 100,000 population) and the overall county rate (254.4 per 100,000 population) (Figure 72). The Black population had the highest reported chlamydia rate (709.5 per 100,000 population), followed by the Hispanic population (295.7 per 100,000 population) and the White population (121.0 per 100,000 population) (Figure 73). Additionally, the 15 to 24-year-old group had the highest reported rate (1334.1 per 100,000 population) compared to other age groups (Figure 74).

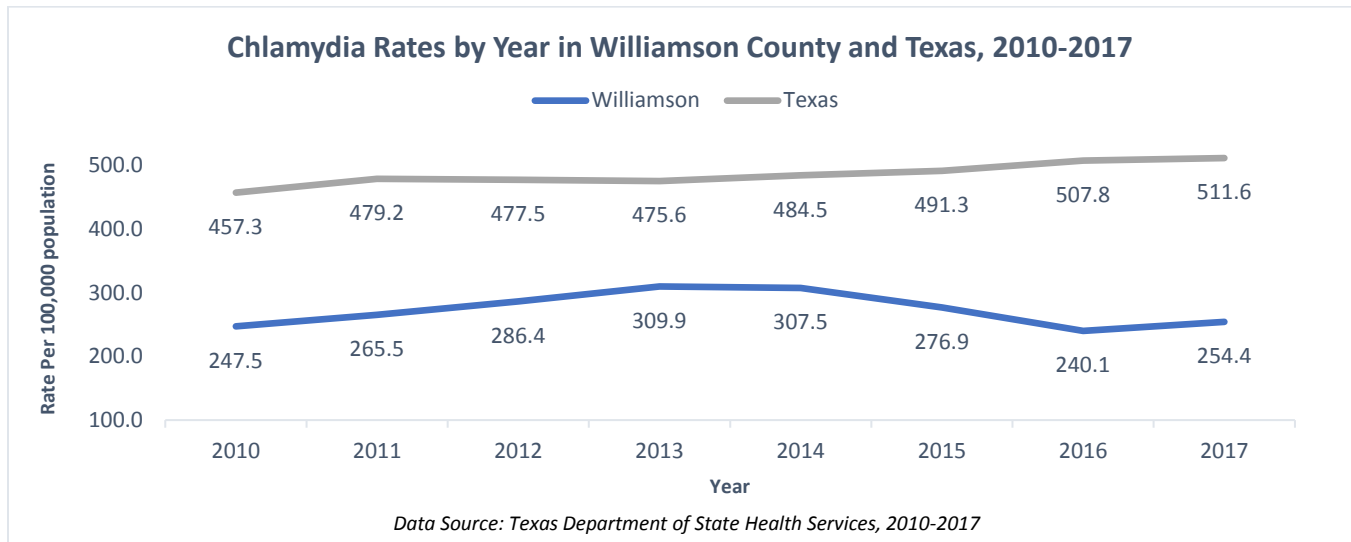
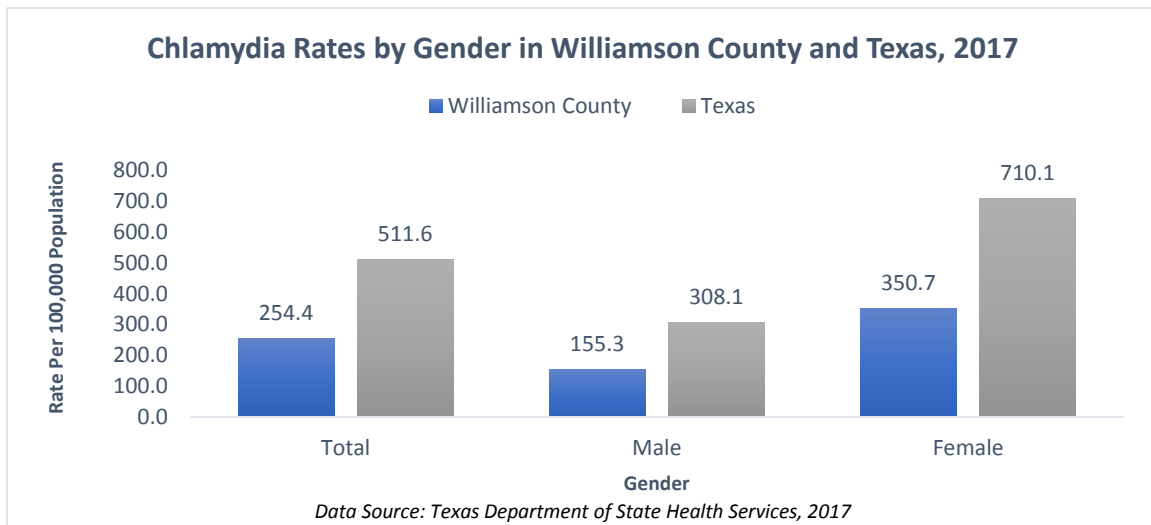
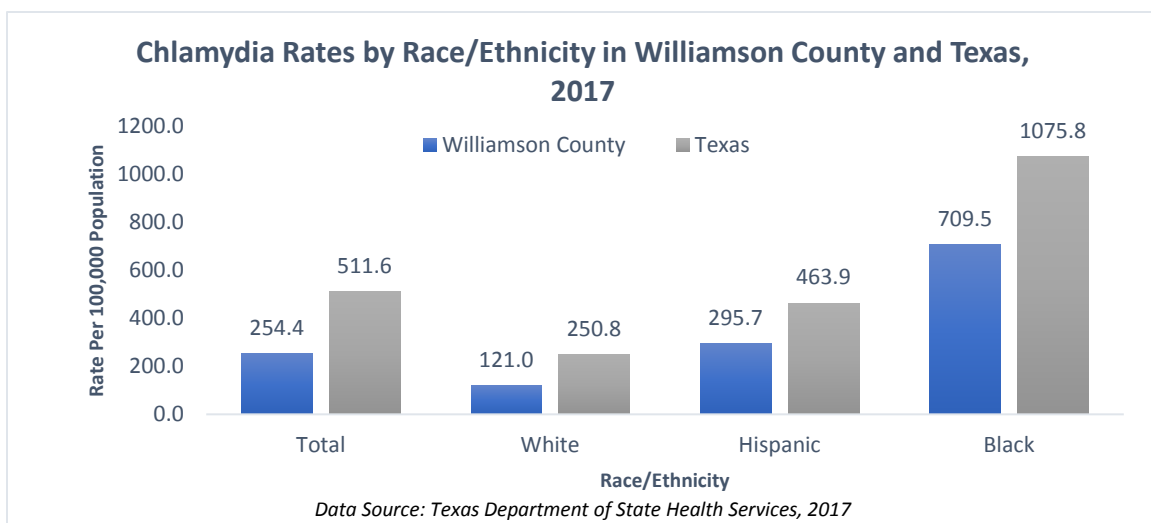
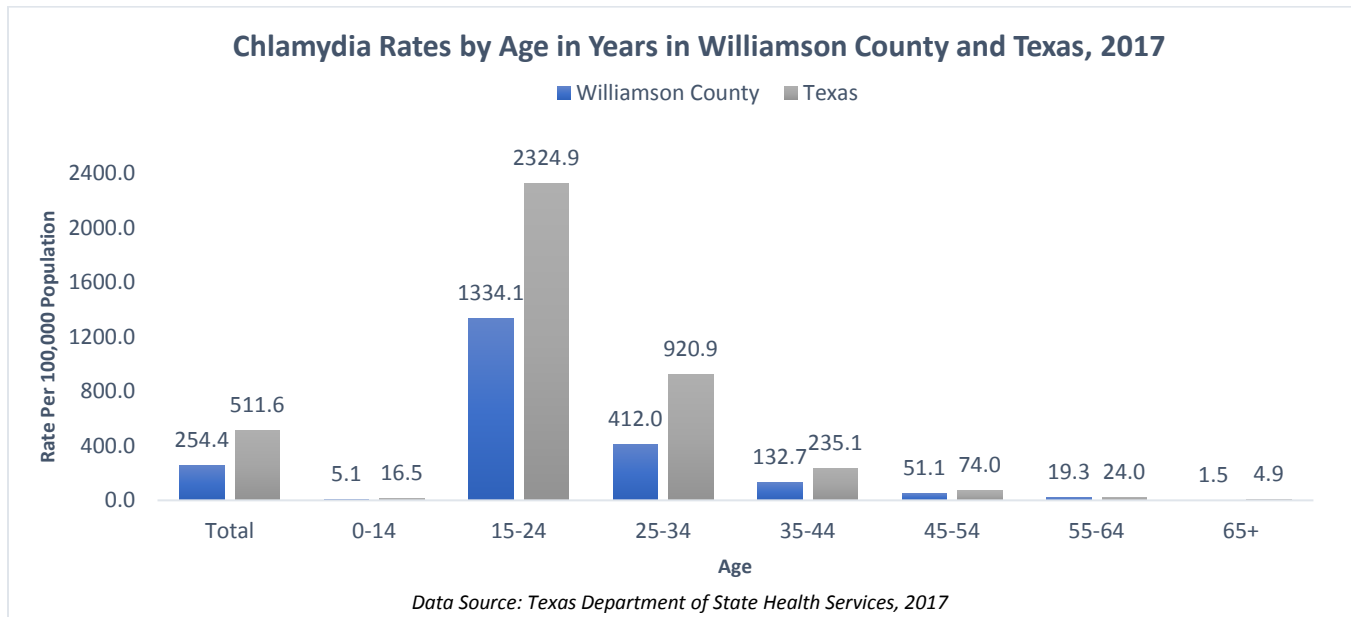
Figure 71: Chlamydia Rates by Year in Williamson County and Texas, 2010-2017**Figure 72: Chlamydia Rates by Gender in Williamson County and Texas, 2017****Figure 73: Chlamydia Rates by Race/Ethnicity in Williamson County and Texas, 2017**

Figure 74: Chlamydia Rates by Age in Years in Williamson County and Texas, 2017

Gonorrhea

Why is this important?

Gonorrhea is a very common sexually-transmitted infection that is treated using dual therapy (two drugs) to mitigate antibiotic resistance.(89) If not treated, gonorrhea can cause serious complications, such as infertility in both men and women.(89)

Reported rates of gonorrhea between 2010 to 2017 have been lower in Williamson County compared to Texas (Figure 75). However, Williamson County rates have steadily increased over this seven-year period, from 47.9 per 100,000 population to 76.7 per 100,000 population. Males in Williamson County have a higher reported gonorrhea rate (87.8 per 100,000 population) compared to females (65.9 per 100,000 population) and the overall county rate (76.7 per 100,000 population) (Figure 76). Reported gonorrhea rates for both males and females are lower than their respective HP2020 targets of 194.8 per 100,000 population and 259.18 per 100,000 population. The Black population in Williamson County have a significantly higher reported gonorrhea rate (327.4 per 10,000 population) compared to other racial/ethnic groups and compared to the overall county rate (Figure 77). Reported rates of gonorrhea were highest among the 15 to 24-year-old age group, at 305.1 per 100,000 population (Figure 78).

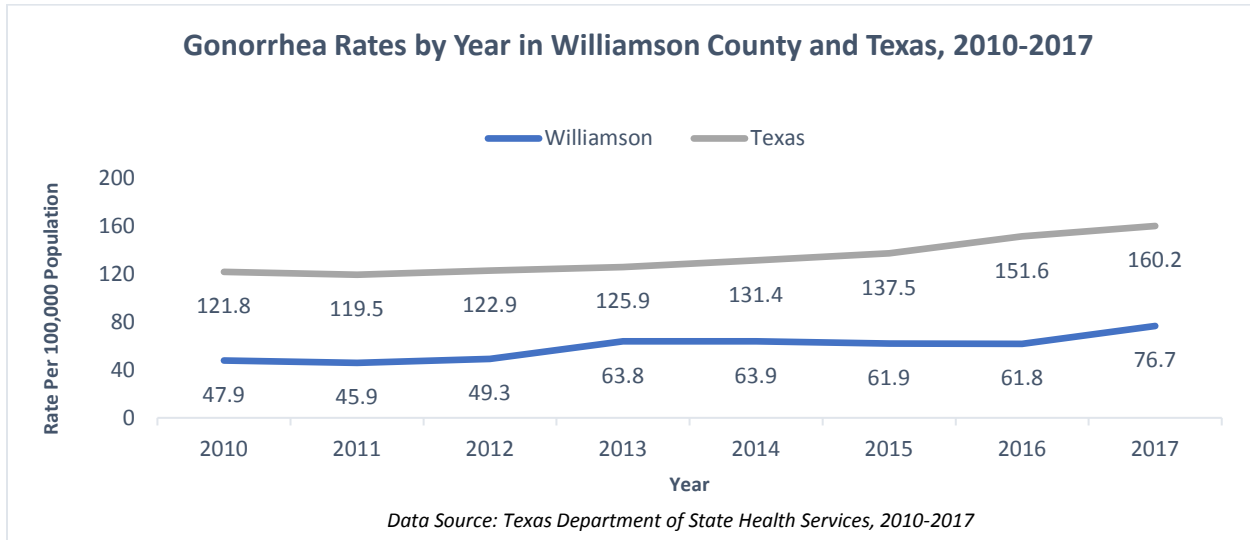
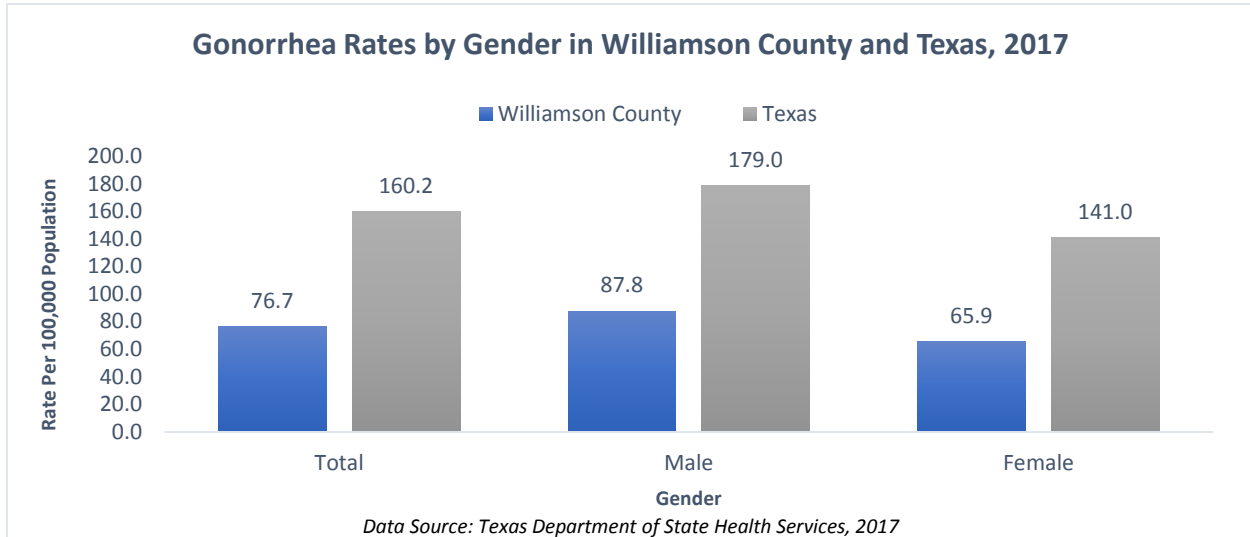
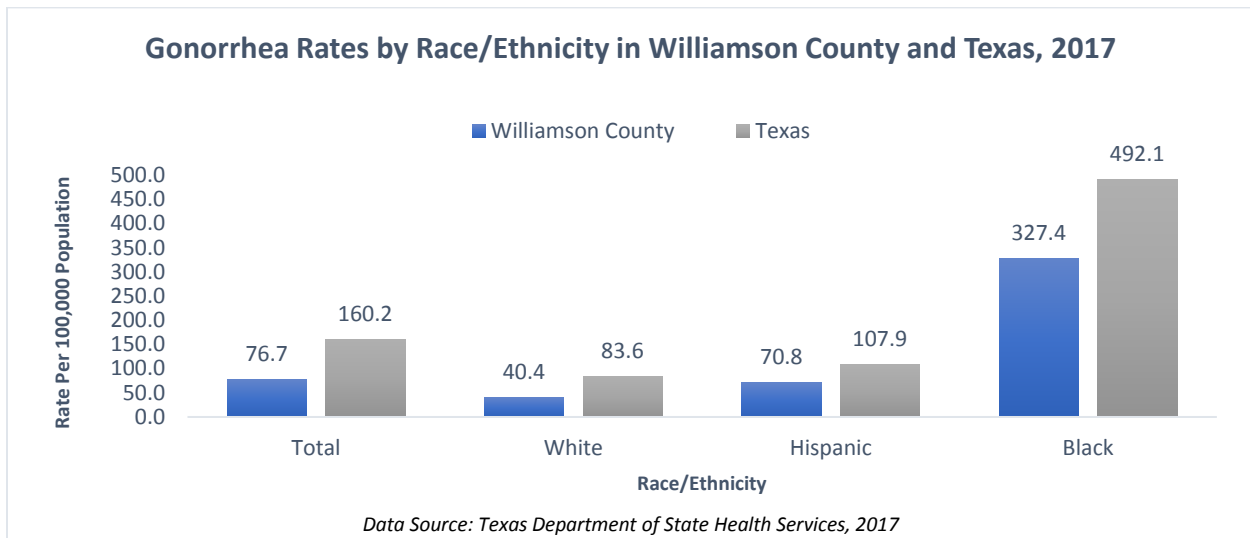
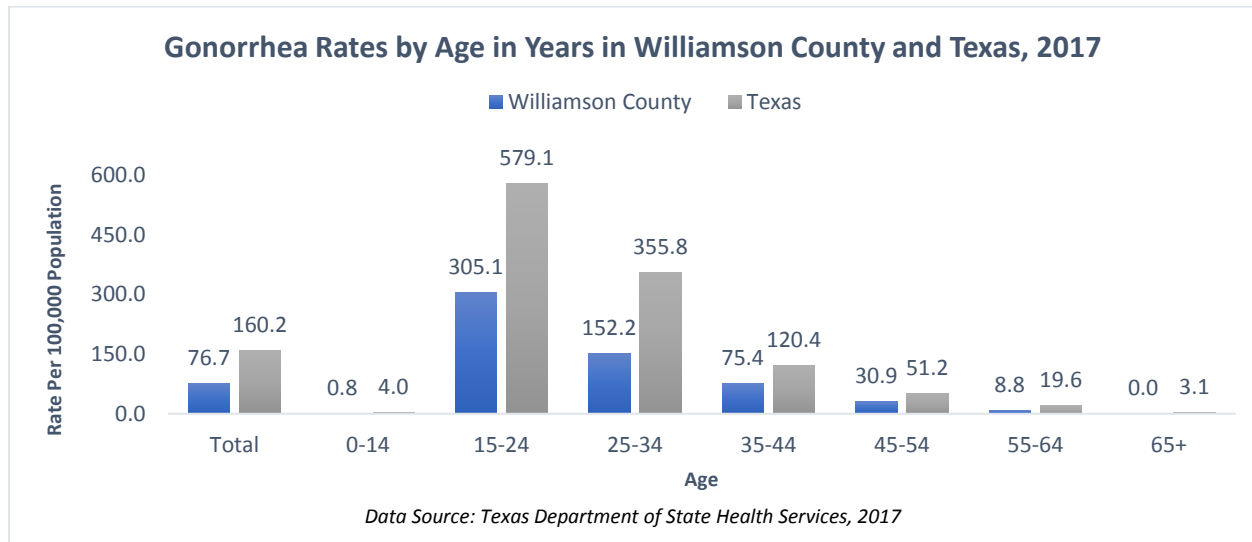
Figure 75: Gonorrhea Rates by Year in Williamson County and Texas, 2010-2017**Figure 76: Gonorrhea Rates by Gender in Williamson County and Texas, 2017****Figure 77: Gonorrhea Rates by Race/Ethnicity in Williamson County and Texas, 2017**

Figure 78: Gonorrhea Rates by Age in Years in Williamson County and Texas, 2017

HIV and AIDS Diagnosis

Why is this important?

“HIV damages the immune system, eventually leading infected individuals to develop AIDS, a chronic and potentially life-threatening condition. People infected with HIV may develop mild infections or chronic symptoms like fever, fatigue, shortness of breath, and weight loss. If left untreated, HIV typically progresses to AIDS in about 10 years, at which point the immune system is weakened to the point of being unable to fight infections. When stratified by race and ethnicity, Blacks and Hispanics are disproportionately affected by HIV.” Additionally, men who have sex with men of all races are at a higher risk than others of contracting HIV.(90)

Due to advancements in treatment, people who have contracted HIV have a lower risk of mortality and are able to live longer. Despite the increase in the total number of people living with HIV in the U.S., the number of annual new HIV infections has remained stable in recent years.(90)

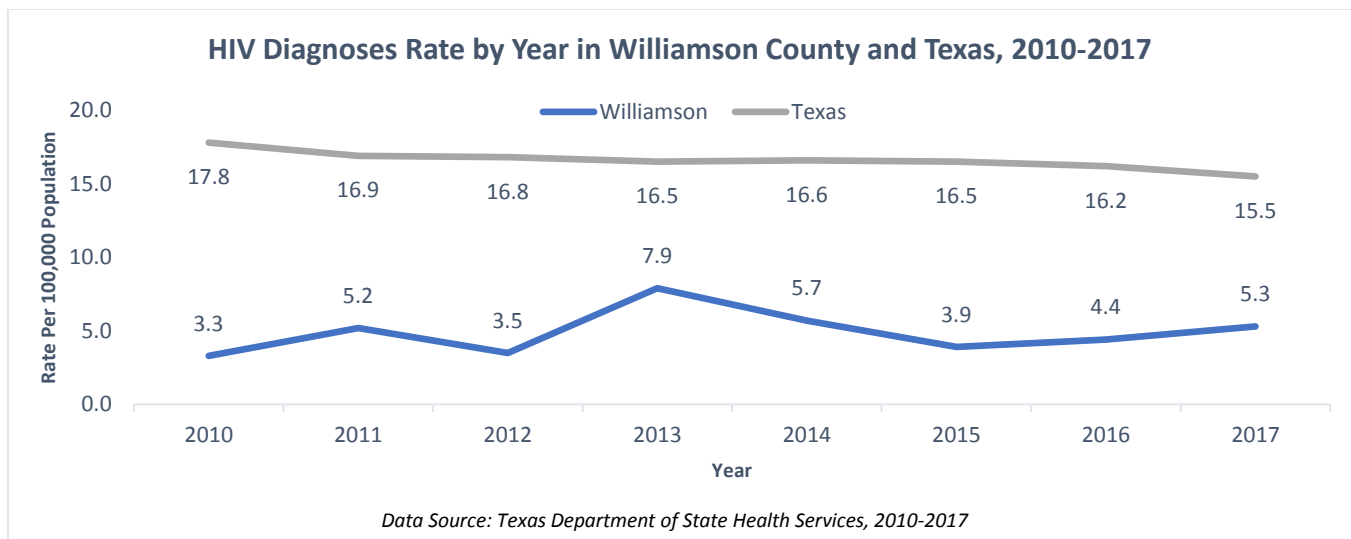
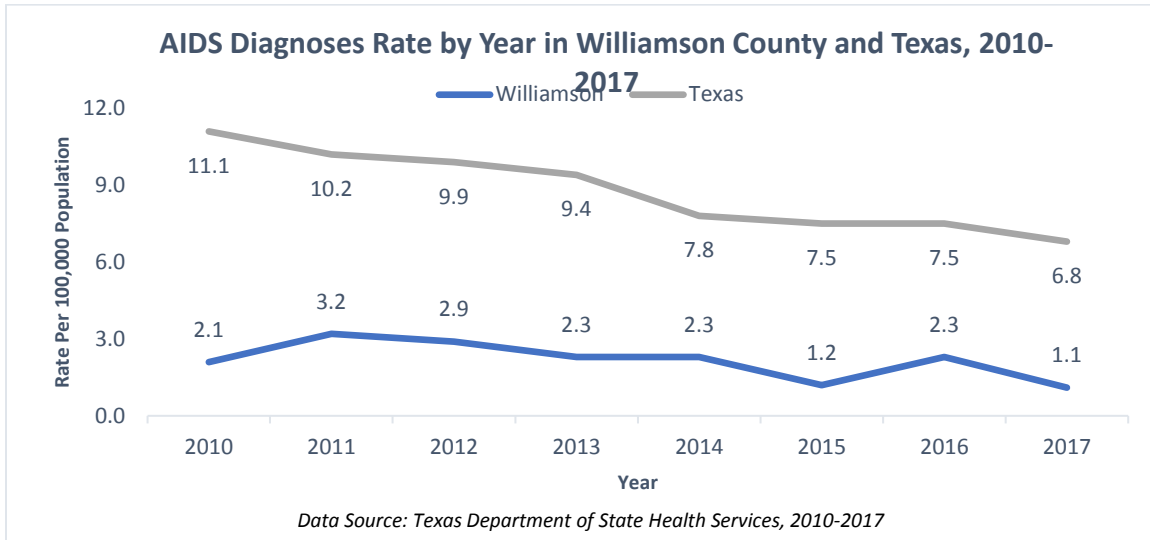
Figure 79: HIV Diagnoses Rate by Year in Williamson County and Texas, 2010-2017

Figure 80: AIDS Diagnoses Rate by Year in Williamson County and Texas, 2010-2017

From 2010 to 2017, reported rates of newly diagnosed HIV infection and AIDS were lower in Williamson County compared to Texas (Figure 79 and Figure 80). In Williamson County, the rate of HIV diagnoses peaked at 7.9 per 100,000 population in 2013 but decreased to 5.3 per 100,000 population in 2017 (Figure 79). Across the same time period, 2013 to 2017, AIDS diagnoses in Williamson County have remained stable (Figure 80).

Males and the Black population in Williamson County have the highest reported rates of both HIV and AIDS, which also aligns with state and national rates (Figure 81, Figure 82, Figure 83, and Figure 84). When examining HIV and AIDS by age, the group with the highest rates were those ages 25 to 29 with HIV rates at 31.9 per 100,000 population (Figure 85) and AIDS rates at 11.6 per 100,000 population (Figure 86).

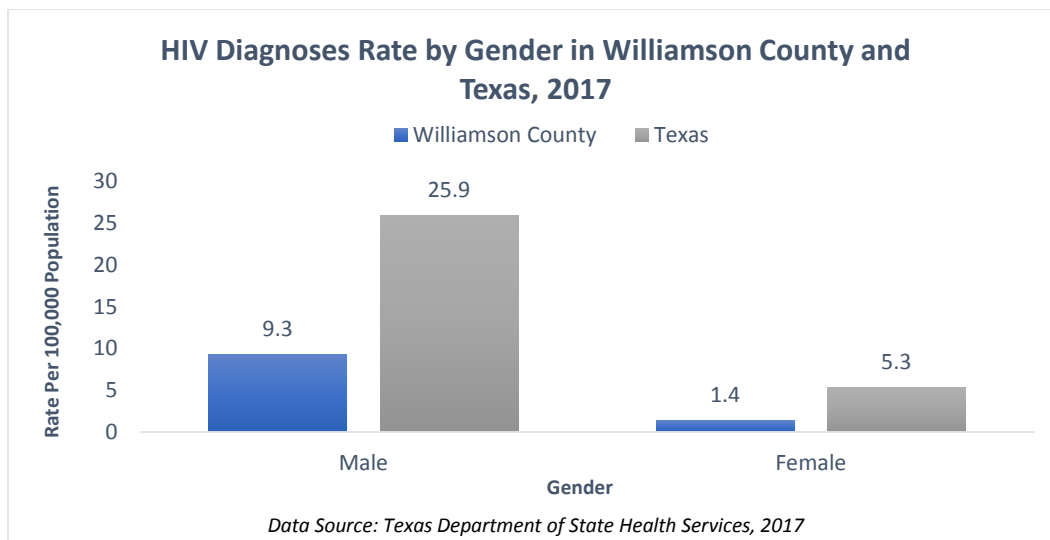
Figure 81: HIV Diagnoses Rate by Gender in Williamson County and Texas, 2017

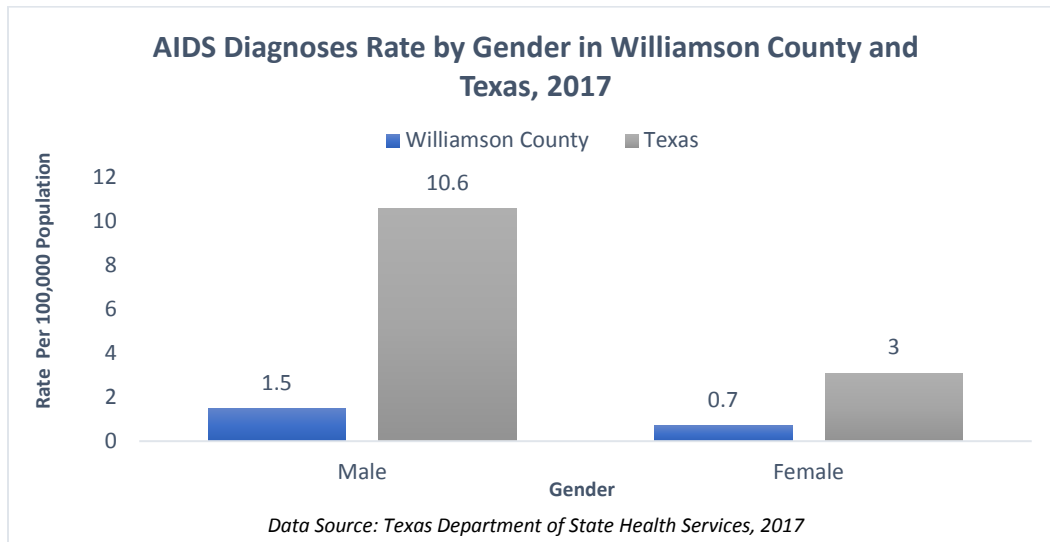
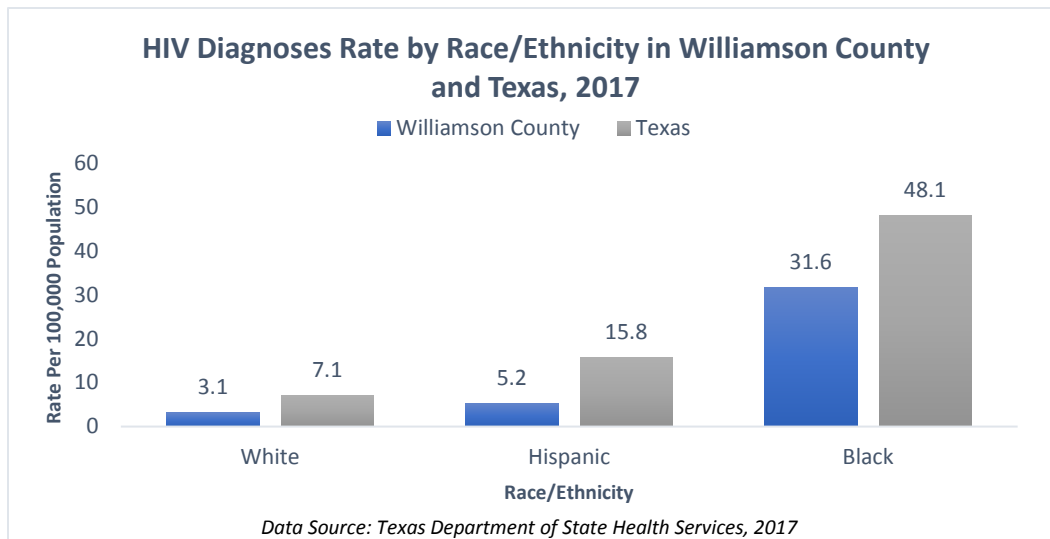
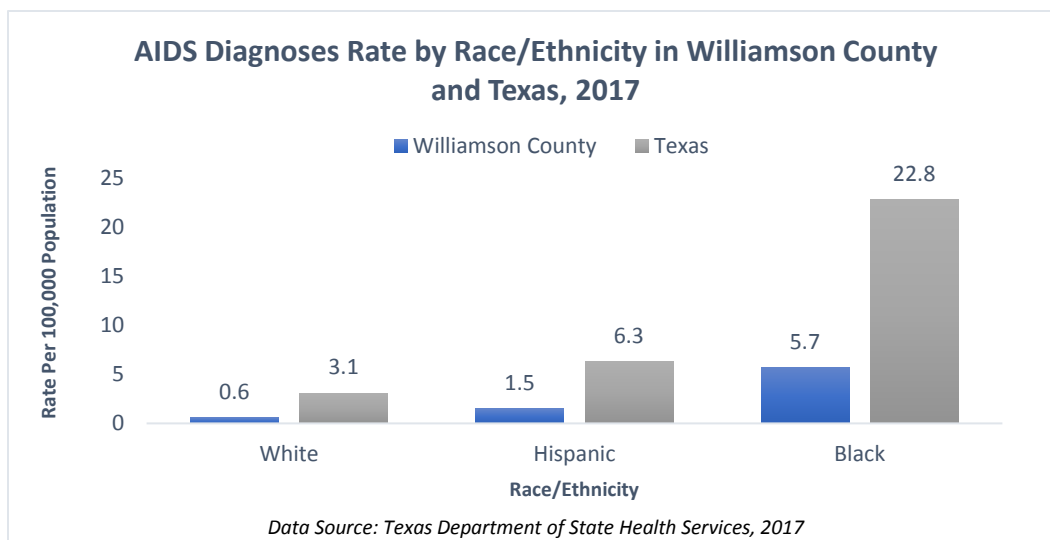
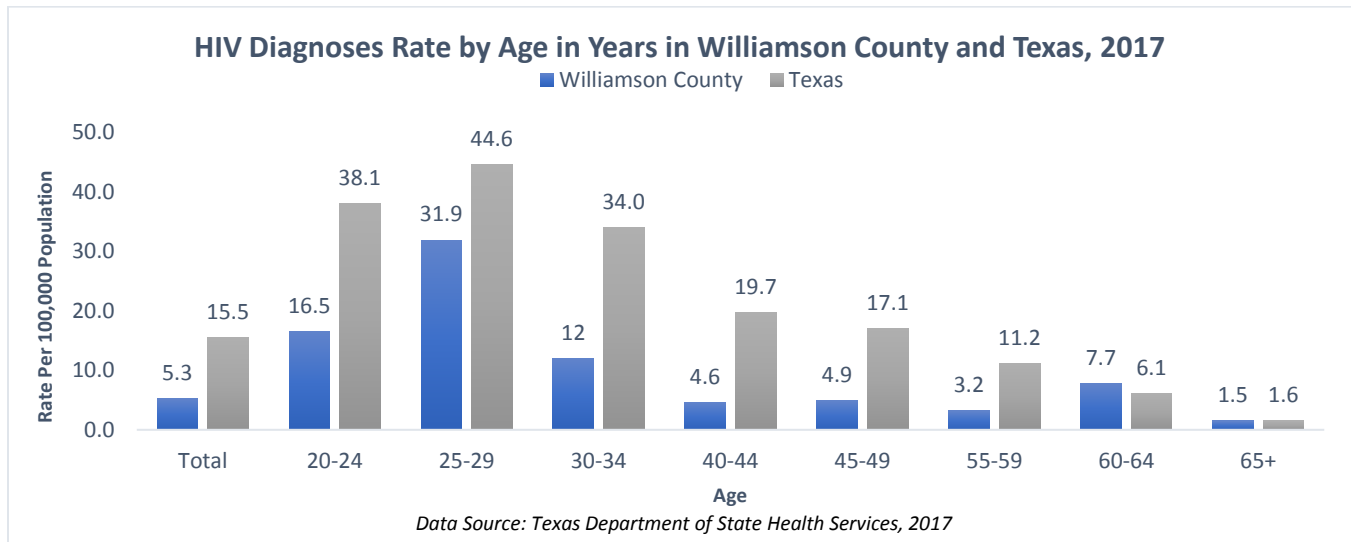
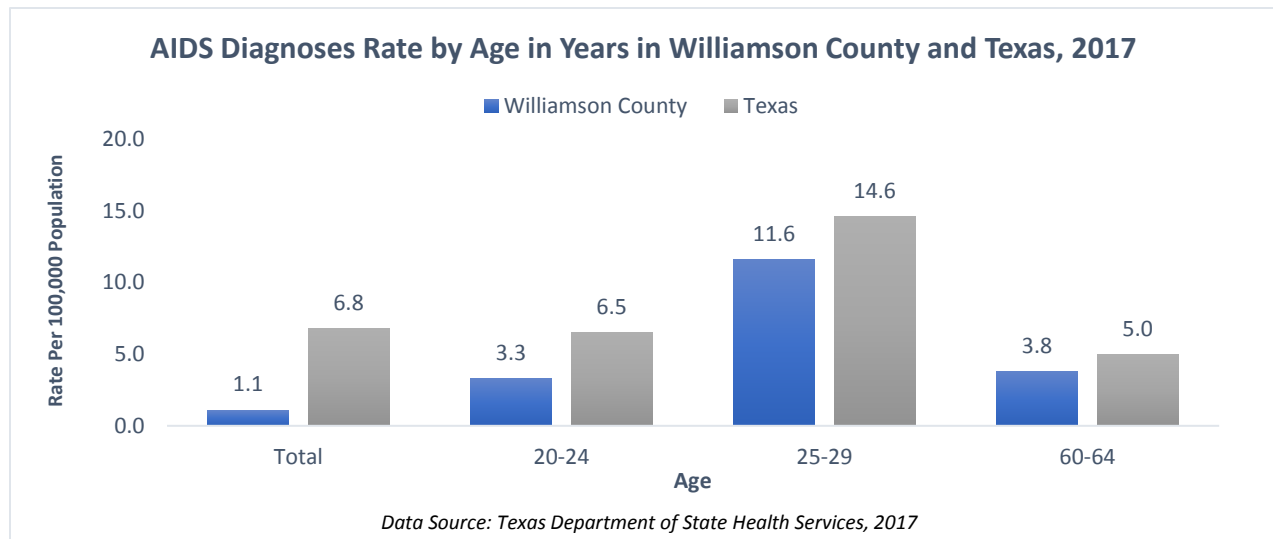
Figure 82: AIDS Diagnoses Rate by Gender in Williamson County and Texas, 2017**Figure 83: HIV Diagnoses Rate by Race/Ethnicity in Williamson County and Texas, 2017****Figure 84: AIDS Diagnoses Rate by Race/Ethnicity in Williamson County and Texas, 2017**

Figure 85: HIV Diagnoses Rate by Age in Years in Williamson County and Texas, 2017**Figure 86: AIDS Diagnoses Rate by Age in Years in Williamson County and Texas, 2017**

Tuberculosis

Why is this important?

“Tuberculosis (TB) is a bacterial disease that usually affects the lungs, although other parts of the body can also be affected. The TB bacteria are spread through the air when a person with untreated pulmonary TB coughs or sneezes. Prolonged exposure to a person with untreated TB is usually necessary for infection to occur. In 9 out of 10 exposed people, the immune system halts the spread of the infection and the infected person does not become sick or spread disease to others. However, the bacilli remain dormant and these latent infections can be activated if the immune system becomes severely weakened by HIV, diabetes, chemotherapy cancer treatments, or other causes. A person with active TB disease is contagious until he/she has been on appropriate treatment for several days to weeks.”(91)

Compared to Texas, Williamson County had lower reported TB rates from 2010 to 2017 (Figure 87). Reported rates of TB in Williamson County peaked at 2.8 per 100,000 population in 2015 but decreased to 2.1 per 100,000 population in 2017. Williamson County males have a higher reported TB rate (2.2 per 100,000 population) compared to females (1.8 per 100,000 population) but have a reported rate that is similar to the overall county

rate (2.1 per 100,000 population) (Figure 88). In Williamson County, Blacks (2.9 per 100,000 population), Hispanics (2.2 per 100,000 population), and Other racial/ethnic groups (14.9 per 100,000 population) have TB rates that are higher than the overall county value (Figure 89). Those aged 65 to 74 in Williamson County had the highest reported rate of tuberculosis (9.9 per 100,000 population) compared to other age groups and the overall value for both the county and the state (Figure 90). Moreover, those aged 18 to 24, 35 to 44, 55 to 64, and 75+ have reported TB rates that are higher than the overall county value.

Figure 87: Tuberculosis Rate by Year in Williamson County and Texas, 2010-2017

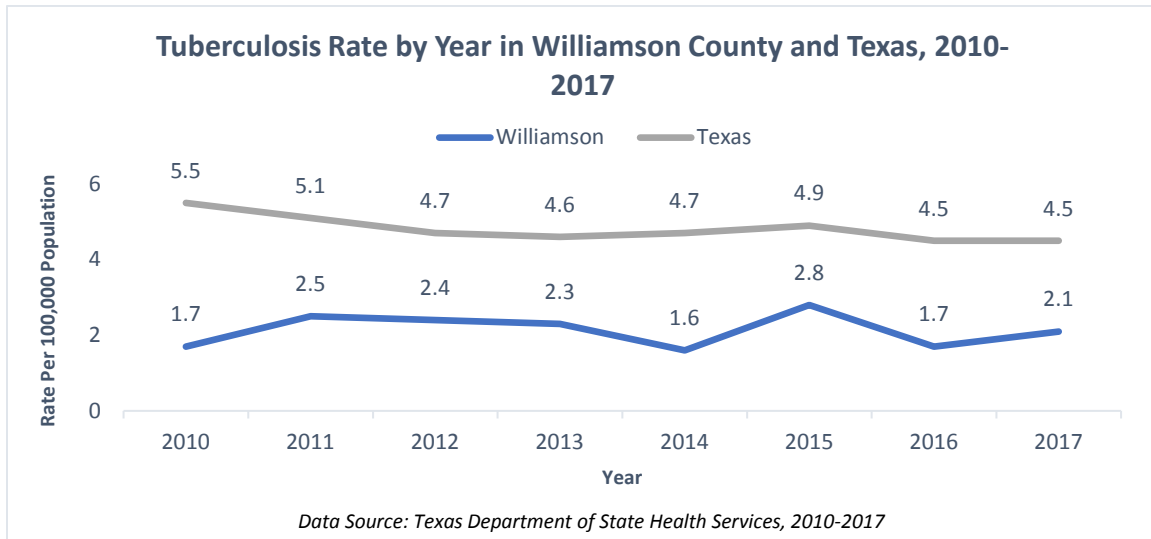


Figure 88: Tuberculosis Rate by Gender in Williamson County and Texas, 2017

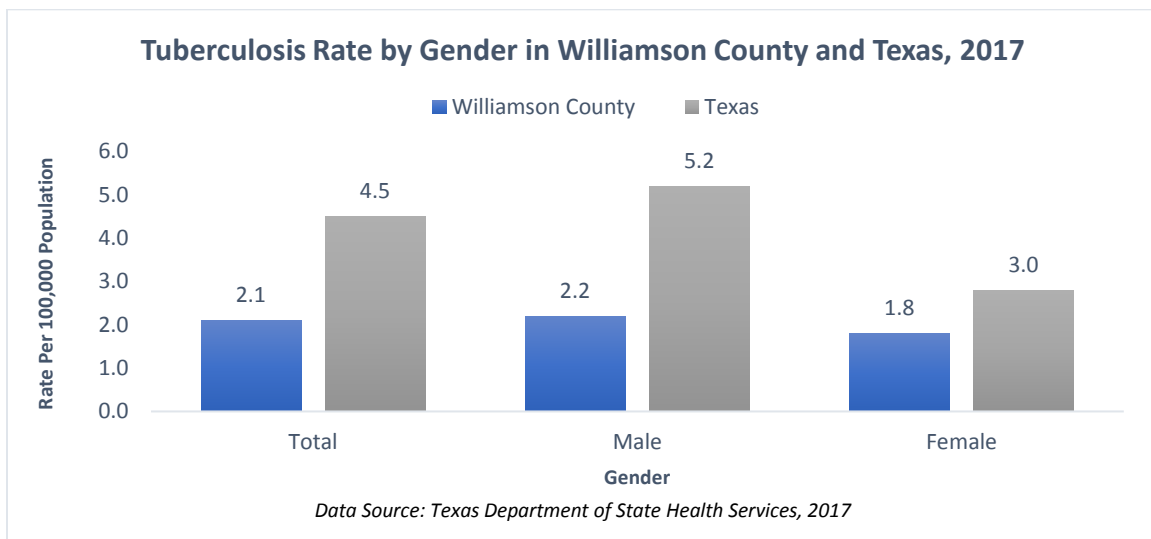
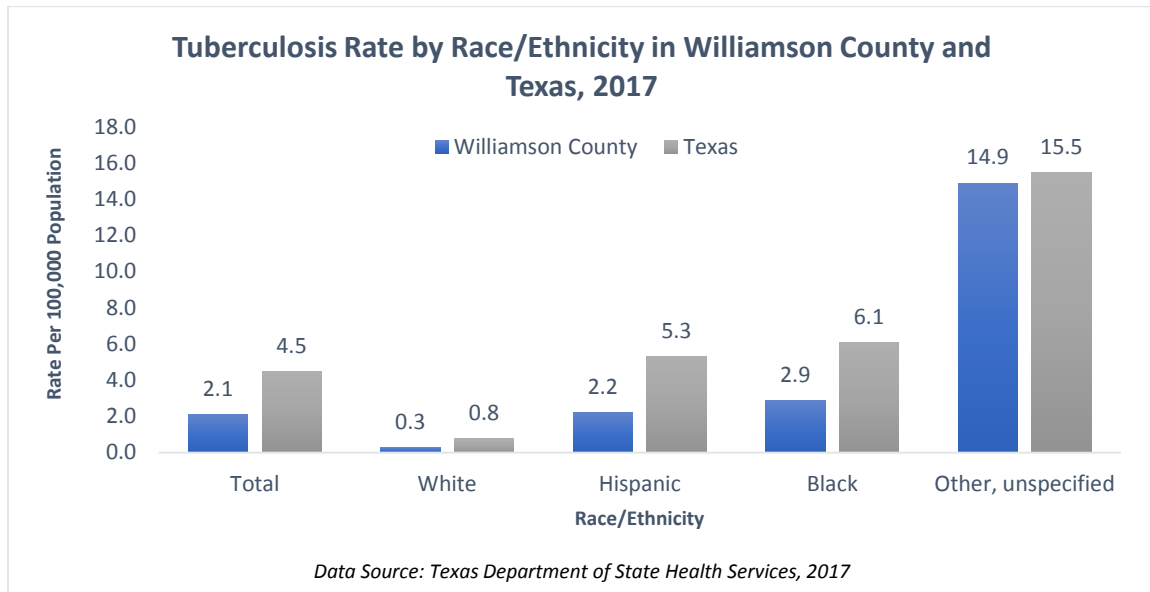
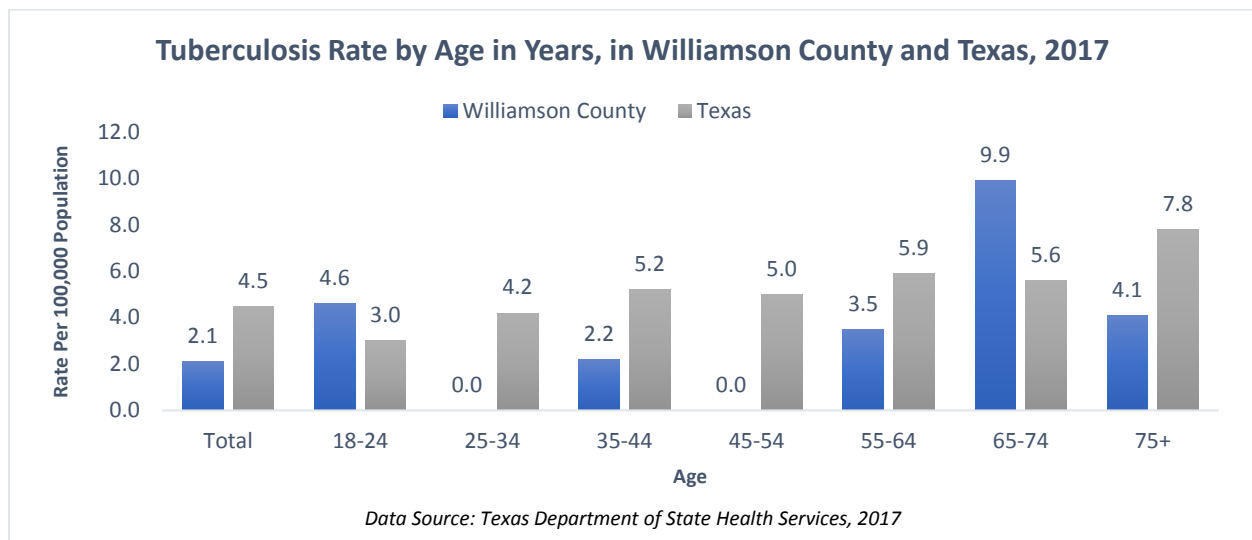


Figure 89: Tuberculosis Rate by Race/Ethnicity in Williamson County and Texas, 2017**Figure 89: Tuberculosis Rate by Age in Years Williamson County and Texas, 2017**

Key Findings

Despite stable reported rates of chlamydia, HIV, AIDS, and tuberculosis in Williamson County from 2010 to 2017, annual reported rates of total syphilis, P&S syphilis, and gonorrhea have increased. Many groups have remarkably high rates of communicable disease in Williamson County. Males have higher reported rates of gonorrhea, HIV, AIDS, and tuberculosis compared to females. Younger age groups, specifically those ages 15 to 24, have higher rates of syphilis, chlamydia, and gonorrhea compared to other age groups. Additionally, the 25 to 29-year-old cohort has the highest rate of HIV/AIDS. Tuberculosis is highest among the 65-74-year-old cohort. Across all diseases mentioned in this section (syphilis, chlamydia, gonorrhea, HIV, AIDS, and tuberculosis), Blacks have disproportionately-higher reported rates compared to other racial and ethnic groups.

C11. Sentinel Events

The data in this section highlight vaccine-preventable diseases, which include measles, mumps, rubella, tetanus, and pertussis. These diseases are classified as sentinel events, which are “cases of unnecessary disease, disability, or untimely death that could be avoided if appropriate and timely medical care or preventive services were

provided.” Additionally, this section will provide immunization data for adults and children, as well as the trend of conscientious exemptions in Williamson County and Texas.

Vaccine-Preventable Diseases

Why is this important?

The CDC recommends that people get MMR vaccine to protect against measles, mumps, and rubella. This is especially important for children, who should get one dose of MMR vaccine at 12 to 15 months of age, and the second dose at 4 to 6 years of age. Receiving both doses is 97% effective against measles and 88% effective against mumps.(92) Additionally, recommendations for pertussis and tetanus include DTaP vaccines for children younger than seven, and Tdap vaccines for older children and adults.(93)

Table 22: Cases of Vaccine-Preventable Diseases in Williamson County, 2009-2016

Cases of Vaccine-Preventable Diseases in Williamson County, 2009-2016								
	2009	2010	2011	2012	2013	2014	2015	2016
Measles	0	0	0	0	0	0	0	0
Mumps	0	0	1	0	0	0	0	3
Rubella	0	0	0	0	0	0	0	0
Tetanus	0	0	0	0	0	1	0	0
Pertussis	1,060	725	92	85	94	74	44	60

Data Source: Texas Department of State Health Services, 2009-2016

Findings based on Table 22:

- **Measles** is an extremely contagious virus, with symptoms such as fever, cough, runny nose, red eyes, and sore throat.(94) There have been no confirmed cases of measles in Williamson County since 1999, which saw 2 cases reported. In Texas, one case of measles was reported in 2016.(94)
- **Mumps** is a virus with acute onset of parotitis (swollen salivary glands).(95) In 2011, Williamson County had 1 reported case of mumps, with no new cases until 2016, which saw 3 reported cases of mumps. In Texas, four outbreaks resulted in 191 reported cases of mumps in 2016, which is the highest amount of cases since 1994.(95)
- **Rubella** is a virus that causes symptoms such as rash, swollen glands, and a slight fever.(96) Complications of rubella include encephalitis and serious birth defects.(96) From 2010 to 2016, there have been no confirmed cases of rubella in Williamson County. In Texas, two cases of rubella were reported in 2015, with both cases originating from other countries. As of 2016, Texas resumed having zero cases of rubella.(96)
- **Tetanus** is a disease of the nervous system, causing lockjaw, breathing problems, severe muscle spasms and seizures, and death if left untreated.(97) In 2014, there was one reported case of tetanus in Williamson County. From 2012 to 2016, Texas had a total of 13 reported cases.(97)
- **Pertussis**, commonly known as whooping cough, is a very contagious disease that can cause serious illness in people of all ages.(93) Pertussis usually begins with cold-like symptoms and progresses to vomiting and exhaustion from frequent coughing fits. If not fully vaccinated, pertussis can result in hospitalization for pneumonia, convulsions, apnea, encephalopathy, and death.(93) Rates of pertussis in Williamson County have been stable until 2009 when WCCHD detected 1,060 cases. Since then, pertussis rates have decreased to 60 cases as of 2016. Texas saw a decrease in pertussis cases between 2013 to 2015, from 3,985 cases to 1,504 cases respectively.(93)

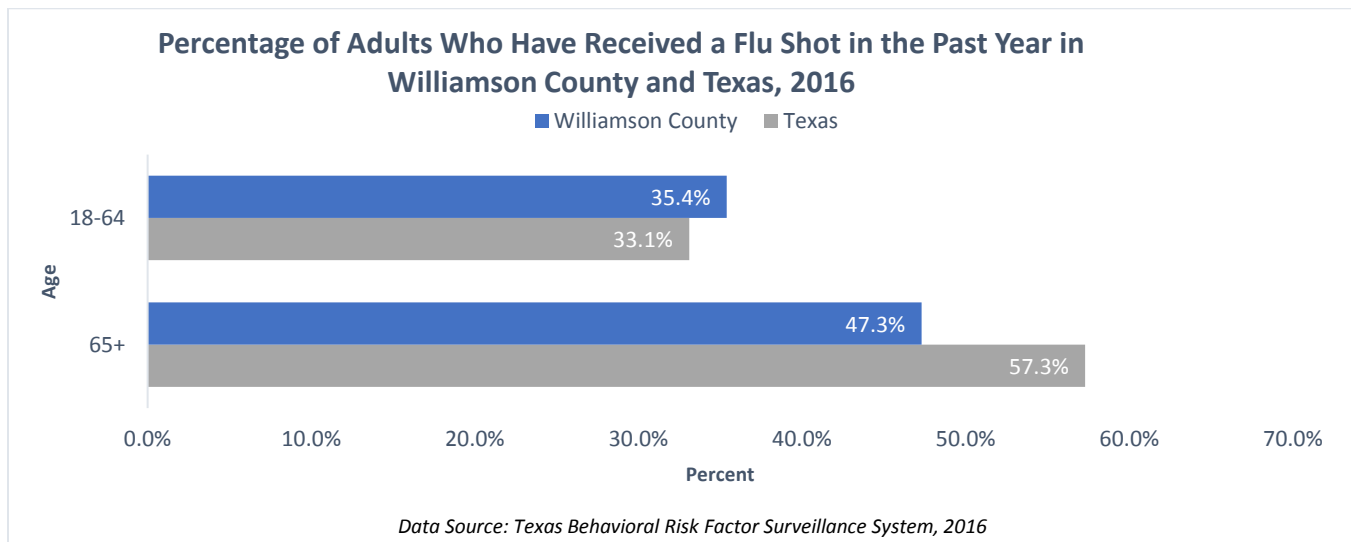
Adult Immunizations

Why is this important?

Influenza—also known as “flu”—is a “contagious disease caused by the influenza virus. The flu can cause severe illness and life-threatening complications particularly in older people, young children, pregnant women, and people with certain health conditions. It can lead to pneumonia and can be dangerous for people with heart or breathing conditions. The CDC estimates that in the United States, 5% to 20% of the population on average gets the flu and more than 200,000 people are hospitalized each year. The seasonal influenza vaccine can prevent serious illness and death. The CDC recommends annual vaccinations to prevent the spread of influenza.”(98)

In 2016, 35.4% of adults ages 18 to 64 reported that they had received a flu shot in the past year, which is comparable to Texas (33.1%) (Figure 91). However, the percentage of adults ages 65 and older who received a flu shot in the past year was lower in Williamson County (47.3%) compared to Texas (57.3%).

Figure 90: Percentage of Adults Who Have Received a Flu Shot in the Past Year in Williamson County and Texas, 2016

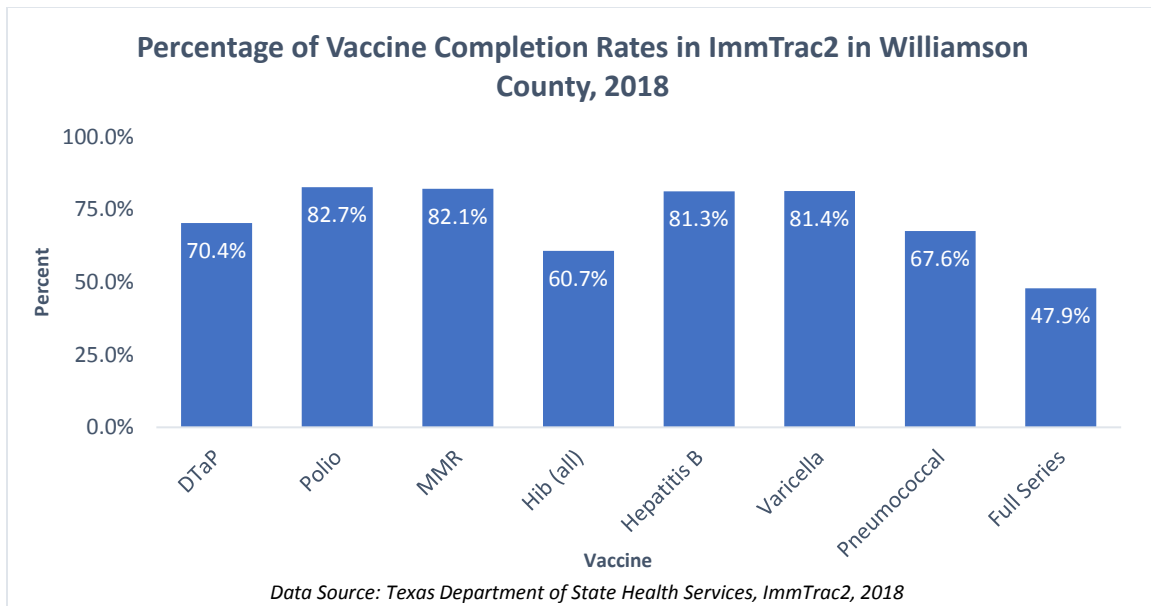


Child Immunizations

Why is this important?

The Advisory Committee on Immunization Practices (ACIP) recommends that all children receive routine vaccination prior to their second birthday, to protect against contracting fourteen vaccine-preventable diseases.(99) Completion of all doses of a vaccine on the recommended vaccine schedule provides the best protection for young children against harmful disease outbreaks.(99)

The data in Figure 92 are reported from ImmTrac2, which is the Texas immunization registry maintained by DSHS. ImmTrac2 is an opt-in registry that is free to use and provides a secure and confidential way to store vaccine information electronically for Texans of all ages.(100) Although healthcare providers are required to report childhood immunizations to ImmTrac2, they must also obtain parental consent, and registration of children is often missing from the system until the child’s admittance to kindergarten, where school requirements demand verification of a complete vaccination history. Due to this delay in entry and the incompleteness of vaccine records for children in ImmTrac2, the CHA team retrospectively examined vaccination rates of five-year old children to assess their status at two years of age. Although most children with data in ImmTrac2 who reside in Williamson County have received individual vaccines, such as Polio and MMR, less than half (47.9%) of five-year old children have received the full series of vaccines.

Figure 91: Percentage of Vaccine Completion Rates in ImmTrac2 in Williamson County, 2018

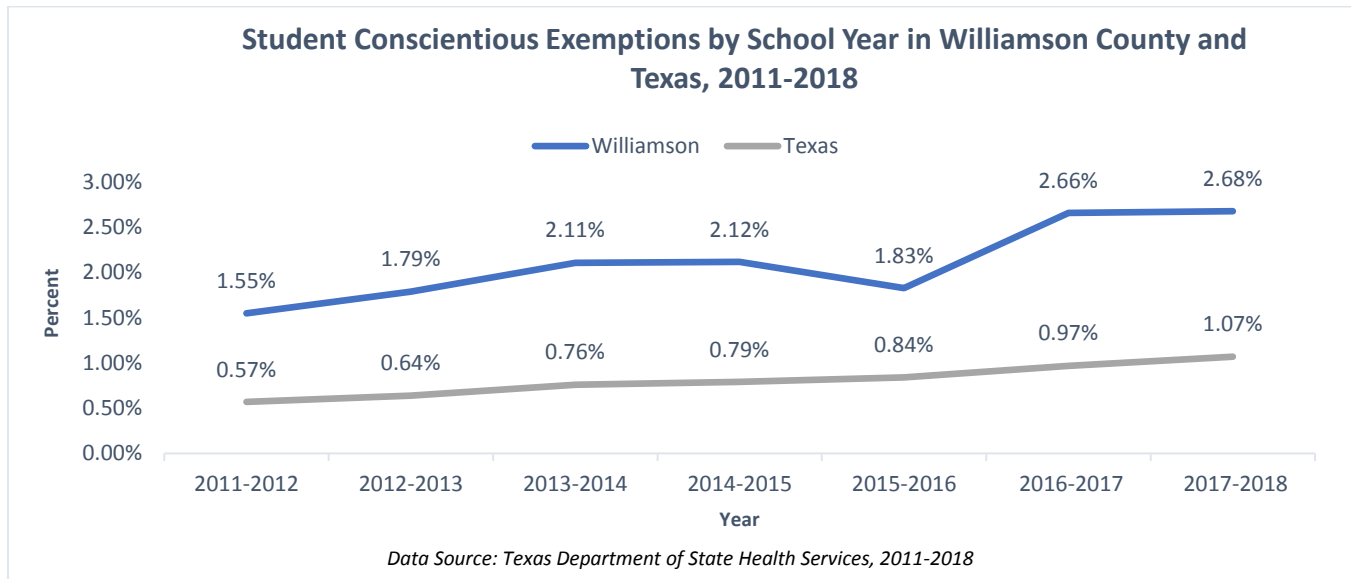
Conscientious Exemptions

Why is this important?

Texas law stipulates that individuals can be exempt from vaccinations for reasons of conscience, which include religious beliefs.(101) As the percentage of conscientious exemptions increases, the percentage of individuals at risk for disease also increases. When a large percentage of the population is vaccinated, this indirectly offers a protective effect (“herd immunity”) to individuals who cannot be vaccinated for medical reasons or because vaccination was not successful.(102)

From 2011 to 2018, the percentages of conscientious exemptions among K-12 students has been higher in Williamson County compared to Texas (Figure 93). As of School Year 2017-18, the percentage of conscientious exemptions in Williamson County rose to 2.68%, which is the highest it’s been in the last eight years.

Figure 92: Student Conscientious Exemptions by School Year in Williamson County and Texas, 2011-2018



Key Findings

Although many vaccine-preventable diseases have been contained in Williamson County, it is crucial that immunization efforts focus on the key findings below to maintain progress and reduce the risk of future disease transmission. Additional data is needed to examine the perceptions and barriers surrounding vaccinations, specifically amongst parents and the senior population in Williamson County.

- **Increase the number of adults who receive an annual flu shot, especially for adults ages 65 and older.** This population has the highest flu-related mortality compared to other age groups, since the human immune system becomes weaker with age.(103)
- **Increase the vaccine full series completion rate for children under 2 years old.** Children this age are especially vulnerable to serious infectious diseases.(99)
- **Decrease the number of conscientious exemptions among K-12 students.** Children of all ages should receive vaccinations to help ensure their own long-term health, as well as the health of their classmates, teachers, and others in the community.(104)



Community Themes and Strengths Assessment

THIS ASSESSMENT AIMED TO
ANSWER THE FOLLOWING
QUESTIONS:

What community barriers affect
quality of life?

How is quality of life perceived in the
community?

What assets are available to improve
community health?

Introduction


The Community Themes and Strengths Assessment (CTSA) focuses on identification of current community issues, perceptions about quality of life, and community assets through feedback from community stakeholders and the general public. The questions posed in the sidebar are valuable for several reasons. First, community members become vested in the community health improvement process when they have a sense of ownership and responsibility for the outcomes. This occurs when their concerns are genuinely considered and visibly affect the process. Additionally, the themes and issues identified by asking these questions offer insight into the information and statistics identified in the other assessments. Furthermore, communities must leverage the strengths and assets of a community to improve health.

The CHA Task Force identified perceptions of quality of life, community barriers, and themes and strengths through a variety of data collection methods: the Community Health Survey, facilitated activities at community meetings, community focus groups, stakeholder focus groups, key

informant interviews, Mom’s Community Listening Forum, and the CASPER. In total, the CHA Task Force engaged over 2,681 community members and stakeholders and 182 households.

Community Strengths and Assets

Through the CTSA process, residents and stakeholders identified the following strengths and assets.

STRENGTHS AND ASSETS	REPRESENTATIVE QUOTE
<p>Access to healthcare</p> <p>Williamson County consists of a network of hospitals (e.g. St. David’s Georgetown, St. David’s Round Rock, Cedar Park Regional, Ascension Seton Medical Center Williamson, and BSWH Round Rock), community clinics (e.g. Samaritan Health Ministries, Sacred Heart Community Clinic, WCCHD), federally qualified health center (LSCC), and local mental health authority (BTCS). Texas A&M Health Science Center College of Medicine and Nursing trains future doctors and nurses in Round Rock. Texas State University has committed to moving their entire college of Health Professions to Round Rock. In 2017, BSWH opened the first cancer center in the county. The county consists of two behavioral health treatment centers: Rock Springs and Georgetown Behavioral Health Institute. Survey respondents identified access to healthcare as the #1 factor that constituted a healthy Williamson County and the #3 strength of the county. Stakeholders cited access to healthcare as the third most important protective factor that helps people to be healthy. As the population grows, healthcare services will need to increase to meet the needs of its residents (especially for low-income underserved populations).</p>	<div></div> <p><i>“The cancer center, which I spend a lot of time there, which is right behind the hospital, and they’re associated with MD Anderson in Houston... the doctors over there are great...The nurses in the chemo lab are great.”</i></p>

Clean environment

Survey respondents identified having a clean environment as the #4 factor that constituted a healthy Williamson County and the #5 strength of the county. A clean environment that includes air, water, land, and energy is essential to the health and well-being of residents. Williamson County is overall clean; however, residents in the East noted environmental factors that affected the health and well-being of its residents.



"Yeah, and actually all the parks are well maintained. They're clean. We have that walking trail from North Taylor all the way to South Taylor. And they keep adding new stuff."

Community partnerships and collaborations

Williamson County has formed many community partnerships and collaborations over the years. Current health and wellness collaboratives include: Hutto Resource Center (formerly known as Hutto Has Heart), Round Rock Non-Profit Meeting, The Georgetown Project, Interagency Support Council of Eastern Williamson County, Inc., EWCC, West WilCo Community Resources, and the WWA. Through facilitated activities at community meetings, stakeholders identified partnerships as the #1 solution to improving health. Stakeholders noted the importance of involving residents directly affected by the issues in all aspects of decision-making. Moreover, stakeholders suggested leveraging coalitions to improve health by: 1) consolidating and providing wrap-around services at one stop shop facilities and community centers, 2) improving regional and local coordination and communication of resources and delivery of services, 3) coordinating data collection and data sharing, 4) reaching underserved and vulnerable populations, 5) breaking down silos within and outside of agencies, 6) focusing on social determinants of health, and 7) improving continuity of care for clients.



"They had a lot of information to share with us as far as resources to help us and better our minds and stuff like that. But there's still a disconnect I think from the community where we just didn't get enough information out to help people know that these resources are available."

Community resources

Many organizations provide community resources and services in the county. Aunt Bertha is the largest closed-loop referral network platform for social services in the United States. Service providers and individuals can search for free or reduced cost services such as medical care, food, job training, and more. As of November 6, 2018, 149 organizations have claimed 329 programs in the county. Through facilitated activities at community meetings, stakeholders identified community resources as the #1 protective factor in the county. Over half of responses answering the question "What are the things in this community that help people to be healthy?" were community resources. In addition, all community focus groups mentioned some level of satisfaction with community resources in their area. Over 50 resources related to physical activity, food pantries, behavioral health services, and afterschool programs were mentioned. For example, five out of eight focus groups mentioned access and knowledge about resources for the aging population.



"The services here at the BACA Center has been the most blessed thing to seniors. Well, just the fact that the building is here, and it can be utilized by us seniors. We can come and socialize. You can do whatever you want to. You can play games..."

Community support

During community focus groups, residents frequently mentioned the community gathering together to meet the needs of its residents. During the Mom's Community Listening Forum, the panel of moms mentioned that a strong support system from church, Facebook support groups, mother and child support groups, family and friends, and inpatient support was most important to the success of their family's well-being. According to the Prevention Institute, "a resilient community is a community that can thrive in spite of adverse events or experiences" and a shift from community trauma to community well-being."(105) To become more



"Community support, feeling like they can call someone up any day and ask for help, ask for something. I think that to me from my perspective, the community support is strong."

resilient, the county will need to work to unite new populations as the county grows and demographics shift.

Good education system

The county consists of 15 independent school districts fully or partially located in the county and many higher education campuses like Austin Community College, Southwestern University, Texas State University, and Texas A&M Health Science Center. Through the Community Health Survey, 1,012 respondents ranked good schools as the #1 strength. Five out of eight community focus groups mentioned the importance of school resources and the benefits of leveraging schools to deliver services to improve health of families. Focus group participants also mentioned the need to increase funding to support school activities. Stakeholders identified schools as a safe space to collocate healthcare, food, health education, afterschool, out of school, and mental health services.



"So education opportunities I think are pretty good here in town."

Low crime and safe neighborhoods

Through the Community Health Survey, residents identified low crime and safe neighborhoods as the #2 factor that constituted a healthy Williamson County and 920 respondents ranked low crime and safe neighborhoods as the #2 strength. However, focus group participants noted higher crime areas and unsafe neighborhoods in rural communities such as Bartlett and Granger.



"Our kids can ride bikes and run around town with the other kids all day long and they're perfectly safe."

Parks, trails, and recreation facilities

The county consists of many parks, trails, and recreation facilities. According to the 2018 Comprehensive Parks Master Plan, "79% of survey respondents strongly agreed or agreed that parks, trails, and open space are a significant reason to live in Williamson County." (106) The county consists of 208.6 miles of trails and 672.6 miles of proposed trails. Through the Community Health Survey, 737 respondents ranked use of parks and recreation as the #4 strength. Through facilitated activities at community meetings, stakeholders identified parks, trails, pools, and recreation facilities as the #2 most important factor to improve health in the county. Despite the wealth of resources, disparities still exist among the different regions. Trail growth follows population growth. (107) Precinct 1 consists of 52.5 miles of trails with 44.4 miles of proposed trails, Precinct 2 consists of 116 miles with 170.7 miles of proposed trails, Precinct 3 consists of 66.9 miles with 354.9 miles of proposed trails, and Precinct 4 consists of 45.2 miles with 102.6 miles of proposed trails. Additional resources should be allocated to the East and in smaller towns such as Granger and Jarrell. Moreover, focus group participants emphasized the priority of building connectivity between trails and communities.



"Georgetown has awesome parks and recreation facilities. The hike and bike trails, the lake. It's just it's nice to be out in nature."

Religious or spiritual values




Churches are an important part of the fabric of the community especially in the East. For the community, particularly among minority populations, churches are a place of security and trust. Churches like God's Way Christian Baptist Church and Sacred Heart provide essential resources and services. Through the Community Health Survey, respondents identified religious or spiritual values as the #2 strength of the East and the #9 strength of the county. Through facilitated activities at community meetings, stakeholders identified religious or spiritual values as the #5 most important factor to improve health in the county. Focus group participants and stakeholders recommended leveraging churches to collocate and deliver services, provide programs, disseminate health information, and equip congregations to improve health of the county.



"I feel like our church community here is really strong and does a lot to support youth and so many different aspects... I really feel like that people trust their churches and that it's – sometimes in the community there's some distrust of outsiders when people come in..."

Concerns Identified and Solutions Proposed

Through the CTSA process, residents and stakeholders identified the following concerns and proposed solutions.

CONCERNS IDENTIFIED AND SOLUTIONS PROPOSED	REPRESENTATIVE QUOTE
<p style="text-align: center;">Cross-cutting themes</p> <p>Lack of cultural competency</p> <p>Cultural competency is defined, as “the ability of providers and organizations to effectively deliver health care services that meet the social, cultural, and linguistic needs of patients.”(108) Examples of cultural competence include providing interpreter services, using community health workers, and providing training to increase cultural awareness, knowledge, and skills. Stakeholders and community residents identified the need for translation and bilingual services among community and healthcare organizations, as well as information disseminated in multiple languages.(109)</p> <p>Solutions proposed by stakeholders to improve cultural competency include:</p> <ul style="list-style-type: none"> • Focus on inclusive health events, resources, and services • Hire more bilingual providers, staff, and translators • Build programming that teaches cultural competency • Educate on community need and empathy building 	 <p><i>“We do have a population here that's Spanish-speaking, and I feel like they do get sometimes – not purposefully, excluded from... knowledge. I don't know how else to put it. And they're often – if they're undocumented, if they don't have legal status, that adds another layer of not being very protected....”</i></p>
<p>Lack of health equity</p> <p>Even though the county overall has a wealth of strengths and assets, population groups have different opportunities and resources that lead to health disparities and affect health outcomes. Both stakeholders and residents frequently mentioned differences in income, wealth, employment, access, and community resources. Residents had vastly different lived experiences depending on where they resided in the county. Vulnerable and underserved populations such as low-income, individuals with disabilities, uninsured/underinsured, and individuals experiencing homelessness especially in the East, south of Taylor, and in rural areas tend to have less access to community resources and services and worse health outcomes.</p> <p>Solutions proposed by stakeholders to improve health equity include:</p> <ul style="list-style-type: none"> • Prioritize disenfranchised and minority populations • Address social determinants of health 	 <p><i>“Everything is really to the north of town, all of the health providers north of town, all of the grocery stores are north of town, all of the schools with the exception of the high school are north of town. So that makes it hard for a lot of people in the community who don't have regular transportation.”</i></p>
Social determinants of health	
<p>Lack of affordable healthcare</p> <p>Lack of access and affordability of healthcare disproportionately affect individuals without healthcare insurance. Some households (6.2%) had problems getting healthcare in the past six months with most reporting barriers in accessing dental care and primary care. Six out of eight community focus groups mentioned a lack of access to healthcare.(6) Participants listed multiple contributing factors, including rising medical bills, copays, deductibles, and cost to referral services. Individuals could no longer continue to pay for long-term services such as therapy. Many families are uninsured or underinsured. The political climate continues to threaten cuts to Medicaid and Medicare. Many providers do not accept WilCo Care (the county's indigent healthcare) or Medicaid. Focus group participants noted that not all areas have the same type of access to healthcare services and resources. Individuals living in rural areas, and in the East must travel to the West to receive</p>	 <p><i>“Mental healthcare insurance is not very fabulous... they're not getting mental health care if they don't have insurance. And if they don't have insurance... They start to isolate. And same with immigration issues and not having insurance. Like they are terrified to go</i></p>

healthcare. The East has a shortage of specialists and provider choices. Moreover, residents must spend significant time on long waiting lists to receive services at community clinics such as LSCC or BTCs. Because of such, many individuals turn to the emergency department for services, driving up the cost of uncompensated care.

anywhere or do anything... and then they pay ungodly amounts of money for a lawyer and they have no money..."

Cancer is the #1 cause of death in the county. Many residents (554) identified cancer as the #3 health problem of the county. In March 2017, uninsured residents with cancer were no longer able to seek cancer care services from an infusion center in Austin due to eligibility restrictions based on zip code of residence. The Williamson County cancer care system remains inaccessible for low income, uninsured, and those that lack transportation.

Solutions proposed by stakeholders to improve healthcare include:

- Increase after-hour availability to reduce waiting lists
- Provide access to telehealth services
- Offer services (dental, vision, and specialty care) in East Williamson County and in rural areas
- Lower cost of services for low-income and uninsured individuals
- Provide cancer care for the uninsured/underinsured

Lack of awareness of community resources

Even though community resources are abundant, access and awareness of resources differ by region and population. Five out of eight community focus groups mentioned a lack of access and awareness of resources. Focus group participants noted a lack of resources in the East and in rural areas such as Granger and Bartlett. Non-profits and community resources have eligibility requirements and varying hours and times that inadvertently prevent community members from accessing their services. For example, when community members graduate from programs, they can no longer receive the same services that have supported them in the past. Missing resources identified by stakeholders in the county included treatment centers, indigent care, senior services, green spaces, veteran services, social services, homeless shelters, resource centers, and recreational facilities.

Solutions proposed by stakeholders include:

- Increase coordination of services and resources
- Partner with local libraries to disseminate resources and services
- Improve inter-agency referral system through Aunt Bertha and 211, a Texas program committed to finding individuals local community resources
- Increase transitional services
- Focus on long-term support and follow-up
- Increase continuum of care and addition of community resources throughout the county
- Provide a recreational facility in Taylor



"Because I've been here 20 something years but we never got that information. So finally, the lady she emailed me and she said she was sharing it with us so we can post it."

Lack of (public) transportation

Since 2016, public transportation has improved in the county. Two new bus systems were established: GoGeo transit serves Georgetown and CapMetro serves Round Rock; however, problems still exist. The county is large, and resources and services are scattered across the county. About 3.9% of households had problems getting transportation in the past six months. The main barriers were "don't know how to



"If I could speak for Regarding Cancer, one of the biggest issues we have is transportation for our

use the bus system,” “not having a car,” and “no bus in my area.”(6) Lack of access to transportation and lack of transportation resources/options were mentioned by almost all community focus groups. Those most affected include the rural population, aging population, people with disabilities, individuals with healthcare problems, and persons with mental health issues. For example, focus group participants mentioned having to travel from Bartlett and Taylor to Round Rock for healthcare.

Solutions proposed by stakeholders to improve access include:

- Develop a low-income rideshare program and provide vouchers through the library
- Offer better and additional bus routes and schedules
- Offer a taxi service in Taylor
- Provide mobile resources and services for underserved and isolated areas

Lack of affordable and safe housing

Housing prices in Williamson County continue to increase. According to the September 2018 Williamson County Housing Market Report, the median home price for all residential properties increased 2.1% to \$271,000 when compared to last year.(110) Focus group participants and stakeholders noted the tremendous growth of new construction across Williamson County; however, many new homes and rental properties are not affordable for current residents. As Williamson County becomes a more “affordable version of Austin,” many residents are becoming priced-out or become “stuck in the middle.” Moreover, no homeless shelters and few transitional services for individuals facing homelessness exist in the county.

Solutions proposed by stakeholders include:

- Provide emergency, transitional, and short-term supportive housing for persons in transition, homeless, and/or living with mental health and substance use
- Support local policies that aid individuals facing homelessness
- Increase subsidized housing and prioritize affordable housing for all income levels
- Offer housing that allows people with disabilities to live independently, but with support as needed
- Offer resources and navigators at affordable housing complexes

Lack of community trust

“Community trauma is not just the aggregate of individuals in a neighborhood who have experienced trauma from exposures to violence. There are manifestations, or symptoms, of community trauma at the community level. The symptoms are present in the social-cultural environment, the physical/built environment and the economic environment.”(105) Focus group participants noted the changing community as new populations move into the county. Especially in the East, stakeholders and community members mentioned that minority groups mistrust government due to political, historical, and cultural issues. Barriers between cultures are still divisive for some areas; not everybody felt included.

Solutions proposed by stakeholders to improve trust include:

- Promote the community resiliency framework

clients trying to get in for infusion therapy or even just a doctor's appointment. If they don't have a family member, friend, or car, we don't have really any transportation at all. And I think that's really lacking in Williamson County for people in need.”



“...every year I'm a piggy bank for the government. Then they say, 'Your house has increased. Then you are going to pay so much property tax.' I'm not working. So, I would be forced to sell the house.”

“That's the reason why we had to move here and then now they're changing housing a lot more... We used to pay \$900.00. Now it's \$1500.00.”



“What is Bartlett looking for now? Because those things felt really good and we would like to have some of those things back, but people are different. We've had different people move in. Some of their wants and needs may be a lot different. But the community piece is really

- Increase family, peer, and social support
- Develop a culture of health and wellness

missing. People are operating in silos."

Behavioral Health

Mental health, stress, and wellbeing

Mental health and stress affect all populations. Many survey respondents (854) ranked mental health issues as the #2 health problem and 543 residents ranked stress as the #4 health problem in the county. Through facilitated activities at community meetings stakeholders identified mental health as the #1 health problem in Williamson County. About one in ten households reported that a household member had been diagnosed by a healthcare professional with mental illness. About one in six households reported that a member of their household has sought help for mental, emotional, or behavioral health in the past six months.(6)

Community focus group participants determined several mental health, stress, and wellbeing needs in the community. These needs included an increase in resources that address ongoing therapy and counseling, funding for BTCS, affordable mental health care services, and awareness of mental health resources. Additionally, focus group participants mentioned the need to decrease the disconnect between the population and the importance of mental health, and reduce the stigma of mental health.

During the Mom's Community Listening Forum, the panel identified managing mental and emotional health (such as post-partum depression, managing stress and anger) as the #1 concern for mothers. In addition, moms had concerns about providing for a child who has mental health issues or special needs.

Solutions proposed by stakeholders to improve mental health include:

- Improve the behavioral health system continuum of care
- Shift to trauma-informed care and resiliency model across systems
- Increase peer support groups
- Increase access to mental health services and providers that accept Medicaid and Medicare
- Decrease mental health stigma in the family, church, law enforcement, and in the community
- Improve awareness of mental health services and "warning" signs
- Reduce cost or consider sliding fee scale for mental health services
- Establish a formal mental health court
- Hire more diverse mental health professionals
- Offer resources after an event such as post-suicide
- Expand emergency mental health services such as Williamson County EMS Mobile Outreach Team (MOT) and Crisis Intervention Team (CIT)
- Increase local and state-funded beds for inpatient treatment for mental illness and substance use disorders, especially for low-income individuals
- Increase early intervention services and mental health care in schools
- Increase inpatient and outpatient rehabilitation services



"Another big concern I have is ongoing therapy. So, I provide therapy in the school, but if there was ever a need for someone who wasn't associated with this school, then they are going to have to drive so far. And Bluebonnet Trails and Lone Star Circle of Care are both great organizations, but they – they're limited in funding. And so, it's hard – people can usually access a consultation for medication because they're not going in as often for that. But I feel like there's a real lack of kind of consistent – when people need weekly counseling, that doesn't end up happening unless it's through the school."

Substance abuse and use

Survey respondents identified drug abuse as the #3 health problem in the East. In addition, stakeholders identified substance abuse and use as the #2 health problem in the county. Focus group participants noted increase substance abuse in rural



areas, continued stigma about substance abuse, the relationship between substance abuse with mental health, the lack of awareness for substance abuse resources, and the need for more resources in East Williamson County.

People with mental and/or substance use disorders account for 40% of all cigarettes smoked in the United States. “Research shows that quitting smoking can improve mental health and addiction recovery outcomes.”(111) Through the CASPER, one in five (21.6%) households in the county reported that a member of their household uses tobacco products, which may include vaping and e-cigarettes.(6)

Solutions proposed by stakeholders to decrease substance abuse and use include:

- Increase substance abuse programs and resources especially for rural communities
- Consider a recovery-oriented system of care
- Consider alternative recovery support systems such as sober housing, housing for people with mental illness, and family recovery groups

“My thought was about the substance use. We don't have any place for anyone to get detox, go into recovery, get any help, or even long-term help. And there does seem to be quite a bit of substance use in this town. And severe, significant substance use. And so, I think that's led to some of the theft over here...”

Chronic Disease and Risk Factors

Chronic Disease (Obesity and Diabetes)

Obesity affects a large proportion of residents living in Williamson County. A majority of survey respondents (858) identified obesity as the #1 health problem. Stakeholders identified obesity as the #4 health problem. Focus group participants identified the need for a recreation center in Taylor, more community sport leagues and activities for children and adolescents, nutritional programs and outreach education, programs to address childhood obesity and tackle poverty, and more afterschool and summer activities.

Through the CASPER, more than one in seven households in the county (14.4%) reported a family member diagnosed with diabetes.(6) Residents identified diabetes as the #5 health problem in the county. Through activities at community meetings, stakeholders identified diabetes as the #5 health problem. Focus group participants mentioned concern for diabetes management and care, and the cost of diabetes.

Solutions proposed by stakeholders to decrease prevalence and incidence of diabetes include:

- Increase wellness and diabetes management classes
- Prescribe healthy diet regimens
- Partner between medical providers and food pantries to provide healthy foods for patients with chronic health conditions



“I used to work in Taylor in the school district. And we – as school nurses we do screenings for high risk diabetes, and there were a lot of kids... from pre-K, kindergarten, first, third, and fifth she had 30 kids that were high risk for pre-diabetes and were already hypertensive.”

Lack of healthy food access

Several food deserts exist in Williamson County in Southeast Georgetown, Leander, Taylor, east of I35 in Round Rock, and in the rural areas of the North in Florence, Jarrell, Bartlett, and Granger. Stakeholders identified lack of access to healthy food as the #3 health problem and #2 risk factor in the county. Almost one in ten (9.7%) households reported having barriers that prevent them from eating healthfully. Of those households, most reported that healthy eating is “too expensive” (59.8%), followed by having “lack of interest” (24.2%), and “lack of time” (19.7%).(6) Focus group participants identified lack of access to healthy grocery stores, rotting



“One of the things is the restaurants. All of them are hamburger, pizza. You have a few Mexican restaurants, but you know, kids... we do have Subway, but I wish we had other – We have

vegetables at corner stores, unhealthy restaurants, and scarce healthy food options in the county.

Solutions proposed by stakeholders to improve healthy food access include:

- Increase access to healthy food pantries and community gardens
- Expand food pantries to offer fresh food for families
- Increase grocery store access in East Williamson County and rural areas

McDonald's, we have Whataburger, and now they're making the Burger King. All burgers."

Physical inactivity

Almost one out of three households reported that they performed physical activity 4-6 days per week during the past week, followed by 1-3 days per week (30.6%), 0 days per week (18.6%), and 7 days per week (16.7%). In addition, households reported that they are most physically active at gyms/fitness centers (29.9%), parks/trails (18.8%), and at home (18.6%). Approximately 19% of households reported having barriers or challenges that prevent physical activity. Of those households, over half (55%) reported that injury/illness/disability prevents them from being physically active, and almost a third (30%) reported that lack of time prevents them from being physically active.(6) Focus group participants identified concerns about exercising while aging, safety concerns that prevent people from going out to exercise, and the lack of recreational facilities in the East and in rural areas.



"For me, my wife, we're empty nesters. All our kids have moved out. We're both 58 years old. I guess for us, it's the concerns of finding ways to stay active as we grow older."

Solutions proposed by stakeholders to improve physical activity include:

- Increase access points and parking for established trails
- Provide free, safe places to exercise
- Develop park for physically challenged individuals
- Increase sport leagues and activities for children and adolescents

Underserved and Vulnerable Populations

Through the CTSA process, residents and stakeholders identified the following underserved populations.

UNDERSERVED POPULATION

Low income population: *"I can't work... I'm getting on my feet and then I don't have child care so I'm back in a hole. And that messes me up all the time... It's hard to find child care. And even if we did, it's very expensive. For me, I have four kids, so that's really hard to even pay for. It's like you're working just to pay."*

Aging population: *"I used to take very good care of my teeth. But I cannot afford it. I don't have dental insurance. I'm paying now half of my Social Security for health insurance. And yes, it does affect your nutrition. I can't really chew some of the things... Yes, it's very hard to get dental care. Well, you can't afford it – I can't – when you're a senior."*

Individuals living with disability: *"I hear a lot of individuals talking about the fact that they're on some form of disability. You'd like to better yourself so maybe get a job... and that sounds simple. Want more money? Go get a job, right? But it affects you so negatively at least for a while unless your income was going to grow very quickly very in large amounts. There's a period of time at which one is very much financially at risk which puts everything at risk, your housing, your food, your medical, transportation. All of these areas are in jeopardy if somebody is on some form of disability and would like to better themselves."*

Uninsured/underinsured population: *"Living in a state that has no health insurance for anybody. Medicare you have to be over a certain age, and you have to be disabled or pregnant. There's no insurance here for anyone... There's no safety net in this state."*

Individuals living with homelessness: *"I got hit by 18-wheeler and had 5 blood clots... We've never been homeless in our lives... We have no help. I was paying \$300.00 to the Luxury Inn for two months. I exhausted all my money. I have nothing but our clothes on our backs. And all I dream is just to have a one bedroom. That's all I want is a house, a home, we could call it a home and I could be happy and go to work once again, do my two jobs..."*

Rural population: *"It's very challenging to navigate county services, because my students are divided between three counties: Williamson, Bell, and Milam... I'll get a kid set up and then they'll move one block and then I will have to completely get them set up again with the other county...understandably funding is very tight in these [rural areas]– mental health in particular – they are not going to keep a kid on their case load if they are not geographically in the right area..."*

Implications for Williamson County

The CTSA identified nine strengths and assets, two cross cutting themes, and ten concerns.

STRENGTHS AND ASSETS	CONCERNS IDENTIFIED
<ul style="list-style-type: none"> • Access to healthcare • Clean environment • Community partnerships and collaboration • Community resources • Community support • Good education system • Low crime and safe neighborhoods • Parks, trails, and recreation facilities • Religious or spiritual values 	Cross-cutting themes <ul style="list-style-type: none"> • Lack of cultural competency • Lack of health equity
	Social determinants of health <ul style="list-style-type: none"> • Lack of affordable healthcare • Lack of awareness of community resources • Lack of (public) transportation • Lack of affordable and safe housing • Lack of community trust
	Behavioral health <ul style="list-style-type: none"> • Mental health, stress, and wellbeing • Substance abuse and use
	Chronic disease and risk factors <ul style="list-style-type: none"> • Chronic Disease (Obesity and Diabetes) • Lack of healthy food access • Physical inactivity

Both the 2016 and 2019 CHAs identified similar strengths and assets in the county; however, the 2019 CHA identified three additional strengths (community support and resiliency, low crime and safe neighborhoods, and a clean environment) that can be leveraged to improve health. Both the 2016 and 2019 CHA identified similar concerns in the county; however, the 2019 CHA highlights two cross cutting themes and emphasizes the importance of improving social determinants of health, behavioral health, and chronic disease risk factors.

While the CTSA revealed many positive aspects and an overall good perception of quality of life in Williamson County, participants identified many areas for improvement. A major theme voiced by stakeholders and residents was that of disparity. Differences in income, wealth, access, and resources lead to highly varied lived experiences and health outcomes in the county. Vulnerable and underserved populations such as low-income, individuals with disabilities, uninsured/underinsured, aging population, and individuals experiencing homelessness tended to have less access to community resources and services. The following quotes from focus group participants highlight these differences:

Access to healthcare

"I think Georgetown Hospital is excellent... I think the personnel there are excellent. I think these two or three new facilities they've got out on Austin Avenue that have every doctor you can think of, just make the one stop, you don't have to go all over town. This is for the Georgetown area."

"Dental care. Everywhere I went they want thousands and thousands of dollars. And they're willing to finance it for you but then you can't pay for it. And I would be willing to pay a nominal amount but even with your health insurance through Medicare you only get a few things."

Clean environment

"Yeah, and actually all the parks are well maintained. They're clean. We have that walking trail from North Taylor all the way to South Taylor. And they keep adding new stuff."

"People had asthma and emphysema and all that stuff that the cotton does... It's got that gin sitting there and then it's got cotton over there... we got a black person icon, Martin Luther King, named there and then they got cotton over there... the streets are dirty and it's got cotton laying on the side of the road because it blows off and it just litters the road from Martin Luther King and Walnut."

Healthy food access

"I was going to say we've got a number of these fresh produce markets that come up three, four times a week. So you – local farmers bring in produce..."

"Finally, the parent gets to a doctor and they say, 'You need to increase more fruits and vegetables and have more activity.' In Bartlett you have one grocery store with fruits and vegetables that most of the time are rotten."

Parks, trails, and recreation facilities

"Georgetown has awesome parks and recreation facilities. The hike and bike trails, the lake."

"You've got to go way across town. They're building all the parks. They're building parks over there four miles out and nobody can get to it. The kids over on this side can't get a ride over there."

The CTSA process revealed multiple ways to leverage existing resources and provided a comprehensive understanding of the perceptions of values, concerns, and assets in the county. While most acknowledged the many challenges that lay ahead, community members, stakeholders, and leaders in this assessment anticipated improvements in the health and wellness where they live, work, worship, play, or learn in Williamson County.



Forces of Change Assessment

THIS ASSESSMENT AIMED TO
ANSWER THE FOLLOWING
QUESTIONS:

What is occurring or might occur that affects the health of our community or the local public health system?

What specific threats or opportunities are generated by these occurrences?

Introduction

The purpose of the Forces of Change Assessment (FoCA) is to identify trends, factors, or events that influence the health and quality of life of the community and the local public health system. “Forces” include dynamic factors like legislation, technology, and other impending changes that affect the context in which the community and the local public health system operate. The health of a community is affected by many factors, or determinants. Social determinants of health include the complex, integrated, and overlapping social structures and economic systems. These systems include the social, physical, and built environments, as well as the intangible systems of *access* to necessities like food, water, housing, healthcare, education, and employment.



The CHA Task Force used a “Voice of the Customer” (VOC) approach to identify forces of change through active participation with community members. Stakeholder and community member feedback was captured through a variety of methods, including community focus groups, stakeholder focus groups, and key informant interviews.

The CHA Task Force identified forces of change that affect health and quality of life in residents and developed force field

diagrams to display some of the specific threats and opportunities generated by these forces. According to the American Society for Quality, a force field diagram assumes “that any situation is the result of forces for and against the current state being in equilibrium. Countering the opposing forces and/or increasing the favorable forces will help induce a change.”(112) Force field diagrams were developed for access to affordable housing (Table 23) and access to community resources (Table 24).

Forces of Change

Through the FoCA process, the CHA Task Force identified eight forces of change.

FORCES OF CHANGE	REPRESENTATIVE QUOTE
<p>Affordability and cost of living increases</p> <p>Cost of living in the county continues to rise as more individuals (especially from Austin) move into the area and the county develops. Services and basic needs are becoming less affordable for residents that have always lived in the county. Focus group participants mentioned rising property taxes, annual taxes, and gas prices in the area.</p>	 <p><i>“My family is low income so it’s really hard for us... we have to go to the food bank every month. And they’re raising taxes... t’s been kind of hard for us to buy food because they’re raising food prices up so much that we barely get through.”</i></p>
<p>City development</p> <p>The county continues to develop as more individuals move into the county. Neighborhoods, hospitals, restaurants, and schools are being developed to keep up with growth. Resources will continue to follow as the county grows.</p>	 <p><i>“Williams Drive is going to get even worse now that they’re building all the multiple housing units. 843 units are going in on Williamson, or Williams Drive.”</i></p>

Current events

Current events such as recent suicides and school shootings in the nation continue to affect the behavioral, emotional, and physical health and wellness of residents.



"It was super rare to have a school shooting. But now that we're having so many..."

Demographic changes

The population of the county is aging. Senior specific resources and services need to increase to match the needs of new residents. Minority populations (Hispanic/ Latino and Asian/South Asian) are increasing in the county. Culturally competent services and resources that address language barriers (in addition to Spanish) need to increase to match the needs of new residents.



"I don't know if this is a change over the past few years or if it's just because I'm not used to it. It's probably because of how fast Georgetown is like growing and the demographics that tend to come in."

Political climate

Due to shifting priorities at the state and national level, there have been funding cuts for social services, access to healthcare, and access to affordable health insurance. Additionally, the political climate has led to greater fear of undocumented residents receiving resources and services. Issues such as homelessness and access to affordable services should be addressed by county officials and government leaders.



"At the national level, things are happening, I think that may impact people to not want to inquire about services and things. It'll scare people away, and that'll just make things worse for them and for the community as a whole..."

Population growth

Population is rapidly growing. Many residents (who are primarily wealthy) are moving into the county from surrounding areas. While less populous areas are in greater need of resources for basic needs, more populous areas receive more attention and resources to accommodate increased growth.



"Taylor is going to start to grow, so we have to be ready to handle that growth."

Social media and changes in technology

Social media use continues to increase in pervasiveness in the county and nationwide. Social media affects how individuals, especially children and youth, connect with one another. Many older adults are struggling to adapt to technological changes, and the impact that social media has had on individuals and the community.



"Now it's like everybody just kind of wants to keep to themselves. And how do we bring that community back, the community involvement togetherness? I think a lot of it does have to do with social media. If I had one wish, I take away Snapchat, Instagram, all that stuff."

Urbanization and gentrification of rural areas

Individuals from surrounding counties continue to move in to traditionally rural areas in the county, especially in the East and in cities like Leander. Rapid gentrification exacerbates income disparity and health inequity. While cities may have good intentions to develop new community resources for new residents, attention should also be placed on taking care of current residents and their needs.



"Well, the housing, seems like Taylor is building all these new houses around Taylor and they got all these people stuck in the middle. And they're not really just coming out trying to help them..."

Table 23: Access to Affordable Housing Force Field Diagram

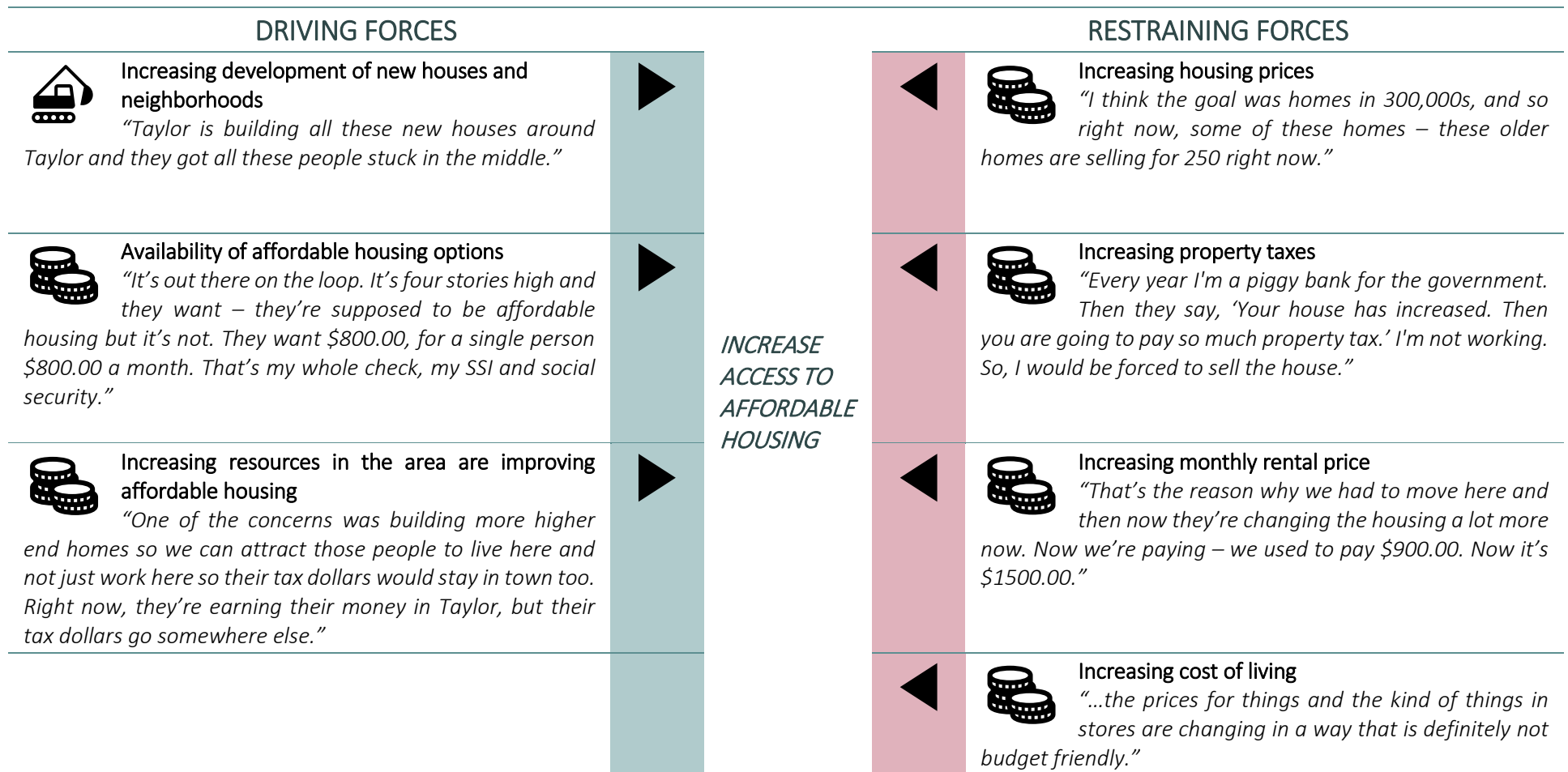
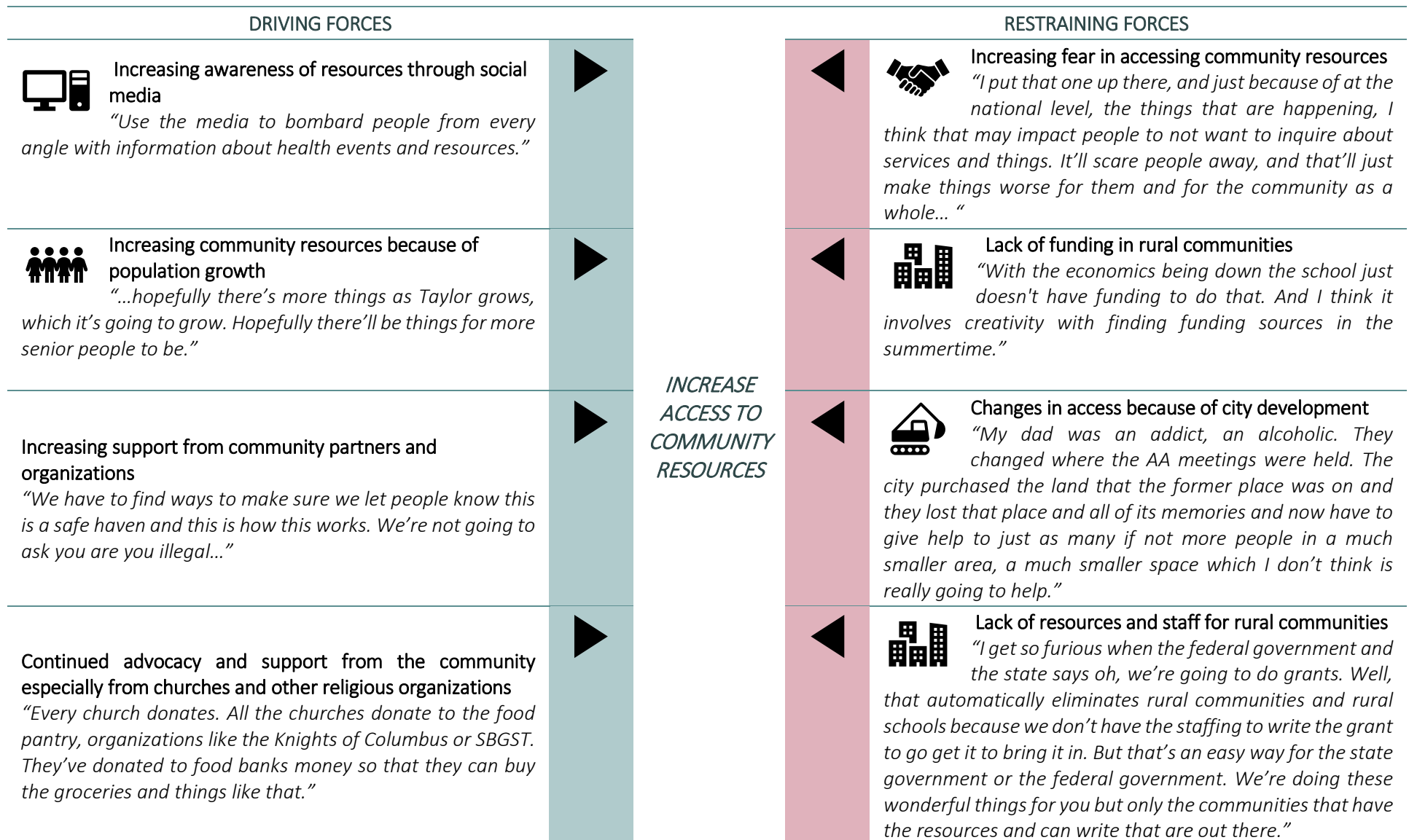


Table 24: Access to Community Resources Force Field Diagram



Implications for Williamson County

The purpose of this assessment was to identify the *external* factors that affect the environment in which the Williamson County public health system operates, as well as the challenges and opportunities created by these factors. The eight forces of change identified through this assessment were:

FORCES OF CHANGE

- Affordability and cost of living increases
 - City development
 - Current events
 - Demographic changes
 - Political climate
 - Population growth
 - Social media and changes in technology
 - Urbanization and gentrification of rural areas
-

Forces of change that were identified both in 2016 and in 2019 were growth of the county, demographic changes, technology changes, political climate, and economic changes. In 2019, the CHA Task Force identified three new forces of change: affordability and cost of living increases, city development, and urbanization and gentrification of rural areas.

The information gathered through the FoCA was an important component of the MAPP process because it provided context for many of the key issues in the community. As community partners come together to identify key strategic issues and priorities for action in Williamson County, they will use these findings in conjunction with the other three MAPP assessments for a comprehensive picture of the community's health status.



Local Public Health Systems Assessment

THIS ASSESSMENT AIMED TO ANSWER THE FOLLOWING QUESTIONS:

What are the components, activities, competencies, and capacities of our local public health system?

How are the Essential Services being provided to our community?

Introduction

The Local Public Health Systems Assessment aims to answer two primary questions on the components of the system and the provision of essential services to the community. The information obtained from this assessment will be used to improve and to better coordinate public health activities at local levels. The results gathered provide an understanding of how the Williamson County public health system is performing and can help local partners make more effective policy and resource decisions to improve public health. The local public health system is defined as “all entities that contribute to the delivery of public health services within a local area.”(14) These entities include but are not limited to organizations indicated in Figure 94.

Figure 93: Local Public Health System

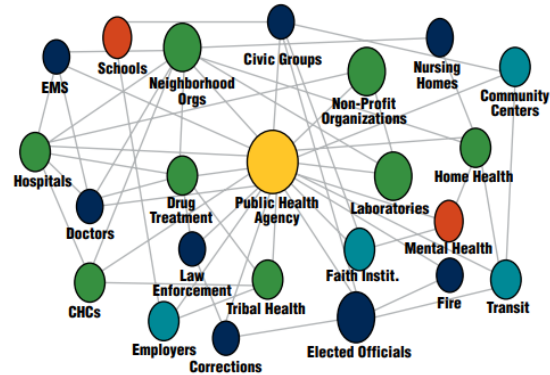


Image Source: NPHPS (Performance Standards) Local Public Health System Performance Assessment Instrument (Local Instrument)

The local public health system is responsible for delivering the Ten Essential Public Health Services (Figure 95), which describe the public health activities that all local communities should undertake:(113)

1. Monitor health status to identify and solve community health problems
2. Diagnose and investigate health problems and health hazards in the community
3. Inform, educate, and empower people about health issues
4. Mobilize community partnerships and action to identify and solve health problems
5. Develop policies and plans that support individual and community health efforts
6. Enforce laws and regulations that protect health and ensure safety
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable
8. Assure competent public and personal health care workforce
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services
10. Research for new insights and innovative solutions to health problems

Figure 94: Ten Essential Public Health Services

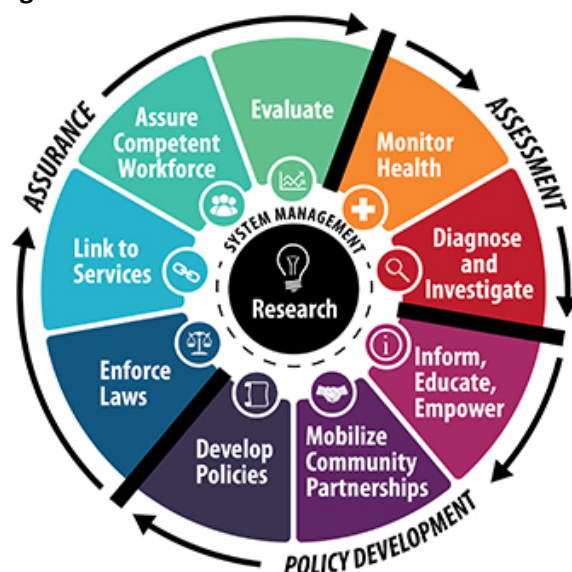


Image Source: Centers for Disease Control and Prevention



The CHA Task Force assessed the local public health system by 1) administering a survey adapted from the National Public Health Performance Standards (NPHPS) Local Assessment Instrument to organizations that represented the local public health system; and 2) conducting a facilitated activity among WCCHD leadership to understand the root cause of the lowest-ranked performance measure.

Due to limited time and resources, the CHA Task Force modified the NPHPS Local Assessment Instrument into a survey. The CHA Task Force identified 33 performance measures from the instrument to evaluate delivery of the Ten Essential Public Health Services. Survey can be found in Appendix O: Local Public Health Systems Survey. The CHA Task Force selected measures for which they had limited knowledge on performance of service or where perception of delivery of service in the community was unclear. For each performance measure, respondents were asked two questions: 1) To what extent does your organization do this? and 2) How well is this done in the local public health system? Respondents were asked to rate the activity level using a five-item scale ranging from “No Activity” to “Optimal Activity.” The question “To what extent does your organization do this?” was adapted from the Austin Public Health System Assessment.(114)

According to the Local Assessment Instrument:

- Optimal Activity is defined as “greater than 75% of the activity described within the question is met.”
- Significant Activity is defined as “greater than 50% but no more than 75% of the activity described within the question is met.”
- Moderate Activity is defined as “greater than 25% but no more than 50% of the activity described within the question is met.”
- Minimal Activity is defined as “greater than zero but no more than 25% of the activity described within the question is met.”
- No Activity is defined as “0% or absolutely no activity.”

Respondents who were asked to take the survey represented the primary organizations involved in the Williamson County public health system. From August 14, 2018 to September 12, 2018, WCCHD DLT and the organizations representing the 2019 CHA Task Force completed the survey via Survey Monkey. Results were ranked and

averaged. Each of the Ten Essential Public Health Services was given a score by averaging the relevant performance measures.

The lowest-ranked measure was addressed in detail during a subsequent facilitated activity with DLT on September 17, 2018. DLT participated in an hour-long facilitated activity using quality improvement tools such as the fishbone diagram and the 5 Whys activity to better understand the root causes of the lowest ranked performance measure.

Williamson County Public Health System

Survey

The Task Force received 16 responses from the following seven organizations:

- Bluebonnet Trails Community Services
- Georgetown Health Foundation
- Langlois Consultant Services, LLC (on behalf of EWCC)
- Lone Star Circle of Care
- Opportunities for Williamson and Burnet Counties
- St. David's Foundation
- WCCHD

WCCHD completed ten surveys. Each of the WCCHD division directors and the WWA Coalition Coordinator were asked to complete the survey because each of the divisions are highly involved in delivering the Ten Essential Public Health Services.

The Ten Essential Public Health Services were ranked by the average LPHS scores for its related performance measures. All but one of the Ten Essential Public Health Services were ranked between moderate and significant activity. Table 25 displays the aggregated average scores for how well organizations believe that the essential service is being delivered in the local public health system at large, the extent to which organizations believe that *they* deliver the service, and the number of performance measures for each service. Disparities between how organizations ranked themselves versus the health system of which they are a part might reveal a perception of internal strengths or weaknesses relative to the LPHS at large. While this assessment lacks the data to investigate their underlying cause, these differences may be used to inform future assessments tools, in order to dive deeper into organizational perceptions and leverage those disparities to make collaborative improvements at the LPHS level. A complete ranking of performance measures can be found in Appendix P: Local Public Health System Assessment Results.

Table 25: Essential Public Health Services Ranked by Average LPHS Score

RANK	ESSENTIAL PUBLIC HEALTH SERVICE	LPHS	ORGANIZATION	NUMBER OF MEASURES
1	4: Mobilize community partnerships	3.57	4.17	2
2	2: Diagnose and Investigate	3.42	2.97	4
3	6: Enforce laws	3.38	3.19	3
4	3: Inform, educate, empower	3.38	3.14	5
5	7: Link to/provide care	3.26	3.40	3
6	1: Monitor Health	3.25	3.31	2
7	5: Develop policies	3.24	3.16	5
8	10: Research	3.15	3.51	3
9	9: Evaluate	3.03	3.44	3

Table 26 highlights the five performance measures that were rated the highest for the local public health system and the corresponding score for the organization. Two out of the five highest-ranked performance measures were related to Essential Service #4: Mobilize community partnerships and action to identify and solve health problems. The highest-ranked performance measure was *Measure 6.1.2. Stay up-to-date with current laws, regulations, and ordinances that prevent health problems or that promote or protect public health on the federal, state, and local levels.*

Table 26: Top Five Highest Ranked LPHS Performance Measures











RANK	PERFORMANCE MEASURE DESCRIPTION	LPHS	ORG
1	 6.1.2. Stay up-to-date with current laws, regulations, and ordinances that prevent health problems or that promote or protect public health on the federal, state, and local levels?	3.86	3.64
2	 4.2.1. Establish community partnerships and strategic alliances to provide a comprehensive approach to improving health in the community?	3.60	4.27
3	 5.1.1. Support the work of the local health department (or other governmental local public health entity) to make sure the 10 Essential Public Health Services are provided?	3.57	3.79
4	 4.2.3. Assess how well community partnerships and strategic alliances are working to improve community health?	3.53	4.07
5	 2.1.2. Provide and collect timely and complete information on reportable diseases and potential disasters, emergencies, and emerging threats (natural and manmade)?	3.50	2.88

Table 26 highlights the five performance measures that were rated the lowest for the local public health system and the corresponding score for the organization. Three of the five lowest-ranked performance measures were related to Essential Service #8: Assure competent public and personal health care workforce. The lowest-ranked performance measure was *Measure 8.4.4. Provide opportunities for the development of leaders who represent the diversity of the community.* According to the RWJF, health equity “means that everyone has a fair and just opportunity to be healthier.”(3) To improve health equity, the Williamson County public health systems needs to improve the delivery of services in a culturally competent manner, engage the diversity of the community, and evaluate whether strategies taken improve county’s health.

Table 27: Top Five Lowest Ranked LPHS Performance Measures

RANK	PERFORMANCE MEASURE DESCRIPTION	LPHS	ORG
29	 9.1.2. Assess whether community members, including vulnerable populations, are satisfied with the approaches taken toward promoting health and preventing disease, illness, and injury?	2.92	3.23
30	 8.3.1. Identify education and training needs and encourage the public health workforce to participate in available education and training?	2.85	3.31
31	 10.3.3. Share findings with public health colleagues and the community broadly, through journals, Web sites, community meetings, etc.?	2.85	3.15

32		8.3.5. Continually train the public health workforce to deliver services in a culturally competent manner and understand the social determinants of health?	2.77	3.15
33		8.4.4. Provide opportunities for the development of leaders who represent the diversity of the community?	2.46	2.62

DLT Facilitated Activity

From the survey results, the CHA Task Force identified the problem statement: The Local Public Health System provides insufficient opportunities for development of leaders who represent the diversity of the community. Using quality improvement tools (the fishbone diagram and the 5 Whys), WCCHD DLT identified root causes related to time and resources, knowledge, policies/methods/procedures, people and staff, public health as a dynamic system, and collaboration and partnerships as main topics for discussion.

Figure 96 is the fish bone diagram of the discussion. Ongoing turnover and leadership changes, as well, as a lack of time, resources, and staff in the public health system were root issues identified as barriers to leadership development. Because staff in the local public health system is responsible for delivering services and meeting deadlines, they have little time to develop and participate in the opportunities for development. Moreover, partners in the public health system need to improve communication, networking, and sharing of training and educational resources. Organizations will need to increase staff awareness of cultural competency and leadership development resources in the county. Results obtained from the survey and the facilitated activity will guide the health department to improve opportunities for development of leaders.

Implications for Williamson County

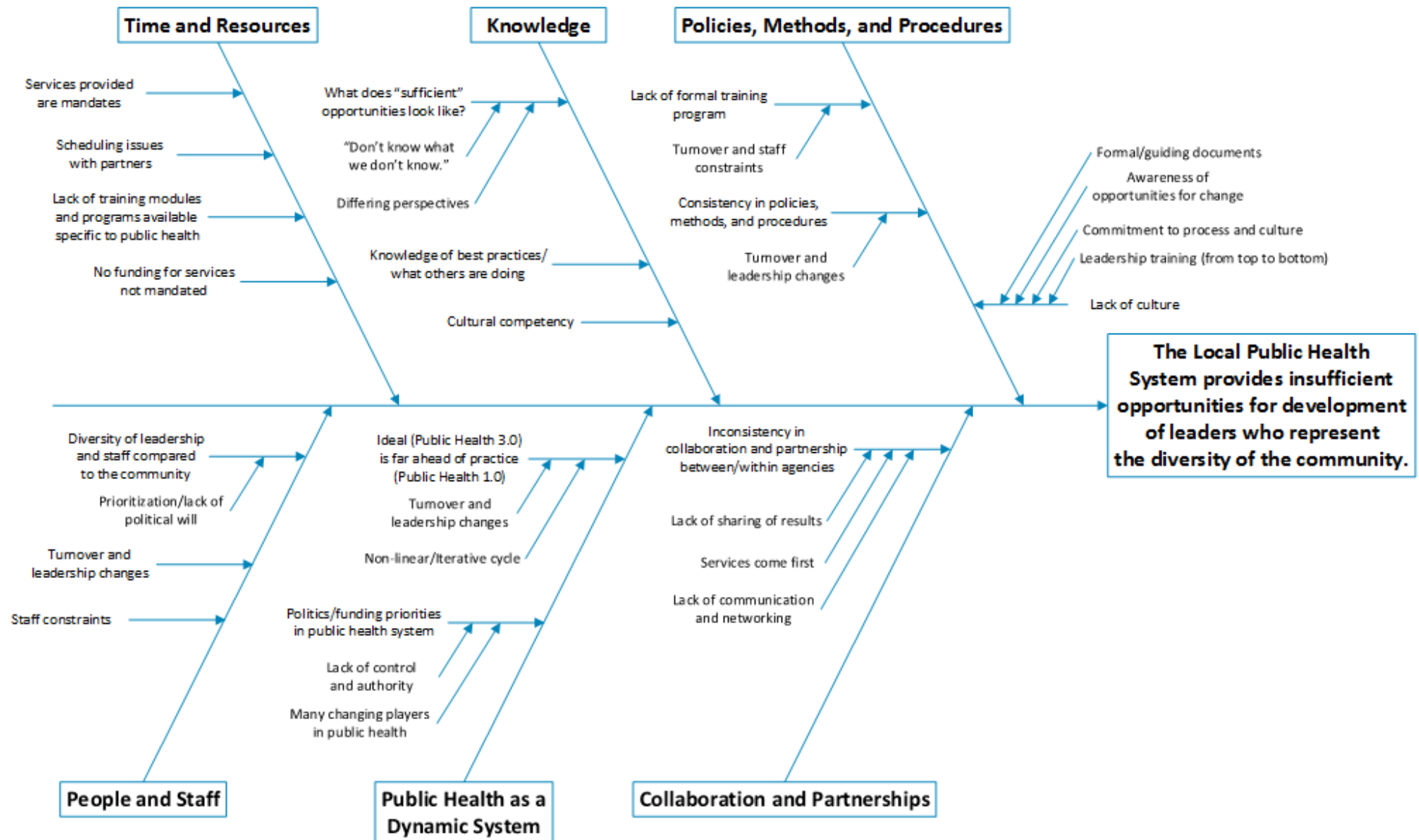
The local public health system has made significant improvements in community engagement since the 2016 CHA. Six out of eight of the recommendations identified in 2016 regarded community engagement such as identifying key partners and stakeholders in the community and improving coordination of the WWA. For the 2019 CHA, three out of the five highest-ranked performance measures were related to community partnerships and strategic alliances. Additionally, organizations ranked those performance measures higher for their own organization's efforts than the local public health system. It is unclear why there is a discrepancy in scores between the local public health system and for the organizations; however, results may mean a lack of coordination between organizations, a view that organizations do not see themselves as an integral part of the local public health system, or that the local public health system is not functioning optimally despite each organization's contributions.

The LPHSA was a useful process for both the CHA Task Force and the WCCHD DLT; however, additional follow-up is required to understand the root causes more thoroughly for each performance measure. The CHIP Task Force will use these findings to improve the local public health system's provision of the Ten Essential Public Health Services through the implementation of short- and long-term improvement recommendations from participants.

Based on the assessment results, the CHA Task Force recommends that the LPHS should:

- Continue to engage community partners and stakeholders in improving health equity
- Develop systems that provide opportunities for development of diverse leaders, despite expected leadership change and staff turnover
- Identify existing opportunities and trainings available in the community and share with the local public health system
- Improve delivery of culturally-competent services to improve health equity
- Hire leaders that represent the diversity of the community and provide opportunities to those leaders

Figure 95: Local Public Health Systems Assessment Fishbone Diagram



PRIORITY AREAS AND ISSUES

With so many competing needs in the community, determining health priorities will help direct resources and collaborative efforts to the issues that matter most to the community and that will have the greatest impact on health status.

Top Five Health Priorities

The CHA Task Force used the qualitative and quantitative data collected and analyzed by the four MAPP assessments to identify five Health Equity Zones and five health priorities.

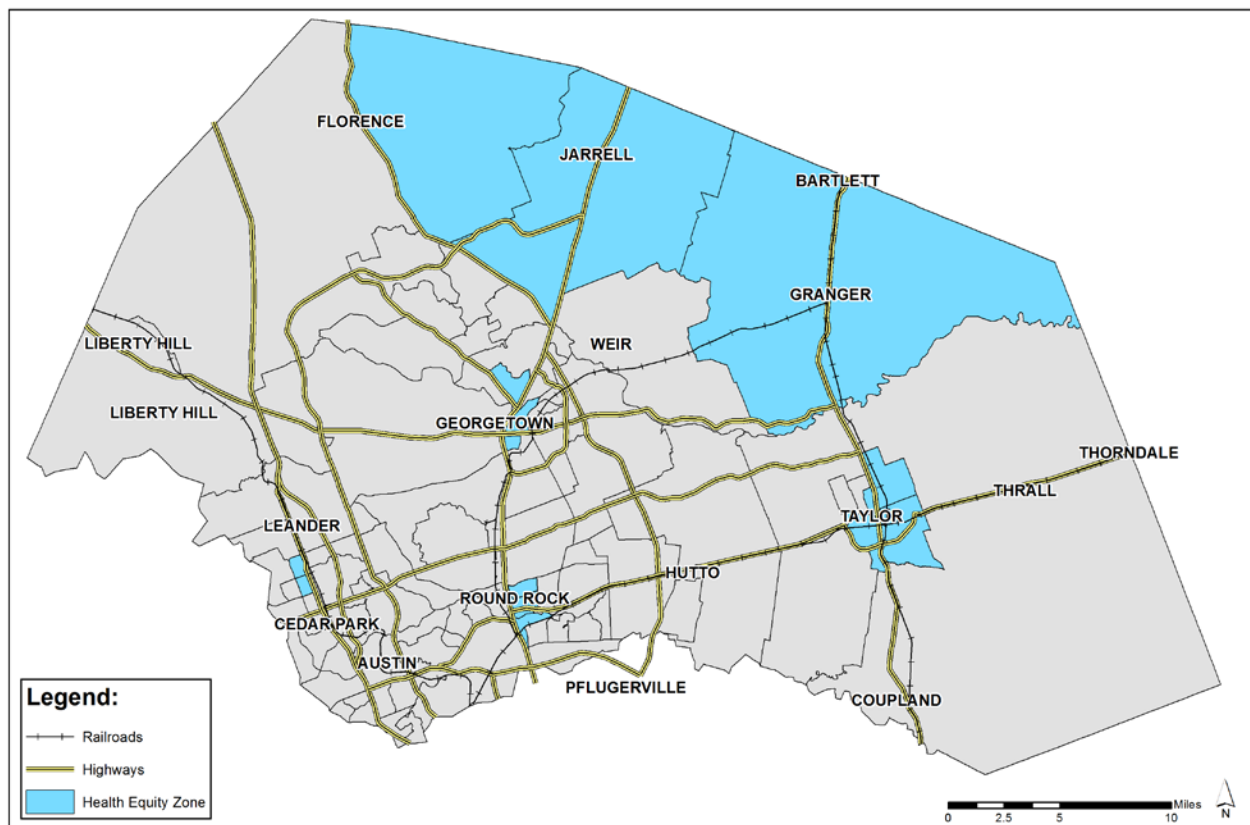
Health Equity Zones

Health Equity Zones are census tract areas in the county that tend to have higher than average health risks and burdens.⁽⁷⁾ Health equity zones were identified based off census-tract level measures that are related to health and wellness of a community and verified by stakeholders that serve these areas.

The five Health Equity Zones are in the following areas:

- Georgetown (Figure 98)
- North Rural (Figure 99)
- Round Rock (Figure 100)
- Taylor (Figure 101)
- Leander / Cedar Park (Figure 102)

Figure 96: Williamson County, Texas Health Equity Zones



Williamson County, Texas Health Equity Zones

This map identifies five health equity zones in Williamson County, Texas. Health equity zones are census tract areas in the county that tend to have higher than average health risks and burdens.

Data Source: 2019 Williamson County Community Health Assessment

Date Created: 2/6/2019



Figure 97: Georgetown Health Equity Zone

Georgetown Health Equity Zone



Figure 98: North Rural Health Equity Zone

North Rural Health Equity Zone

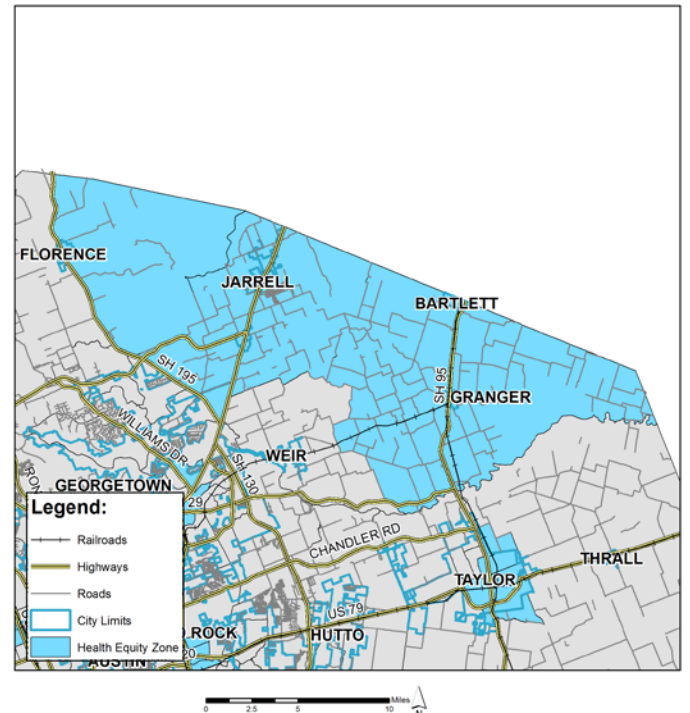


Figure 99: Round Rock Health Equity Zone

Round Rock Health Equity Zone

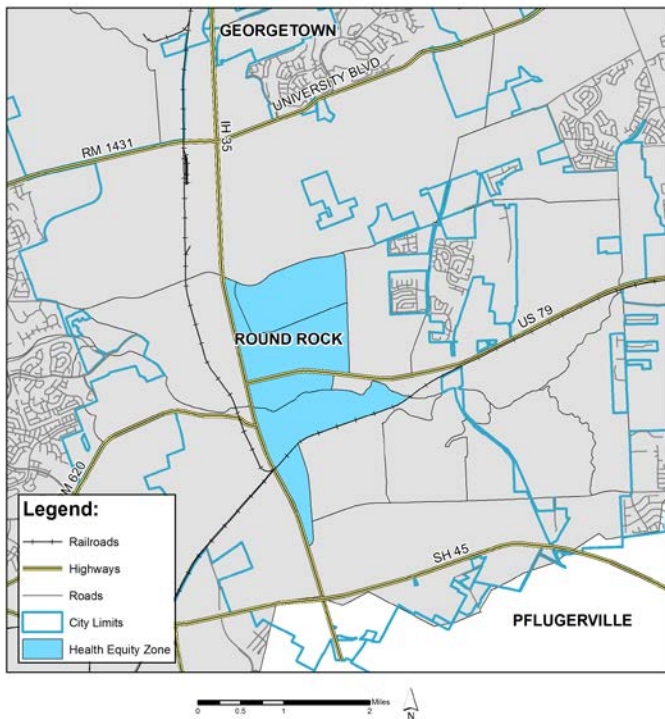


Figure 100: Taylor Health Equity Zone

Taylor Health Equity Zone

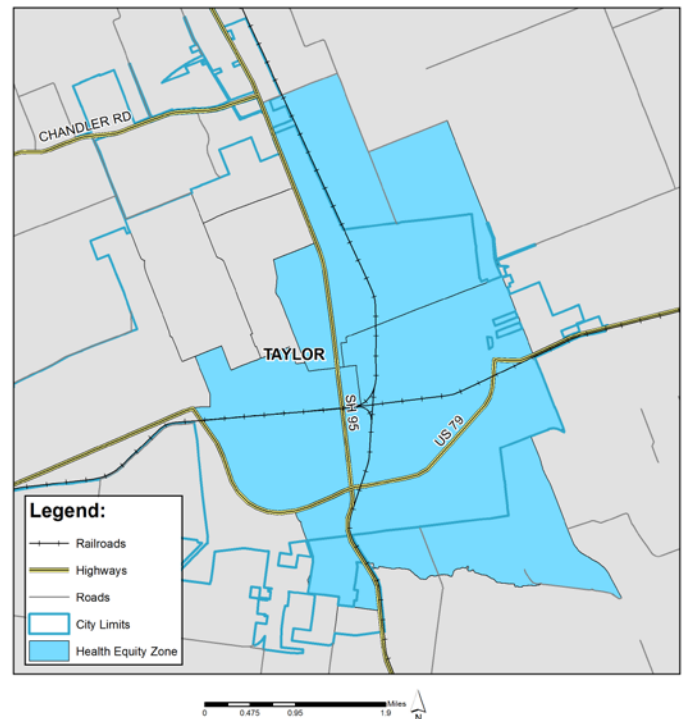
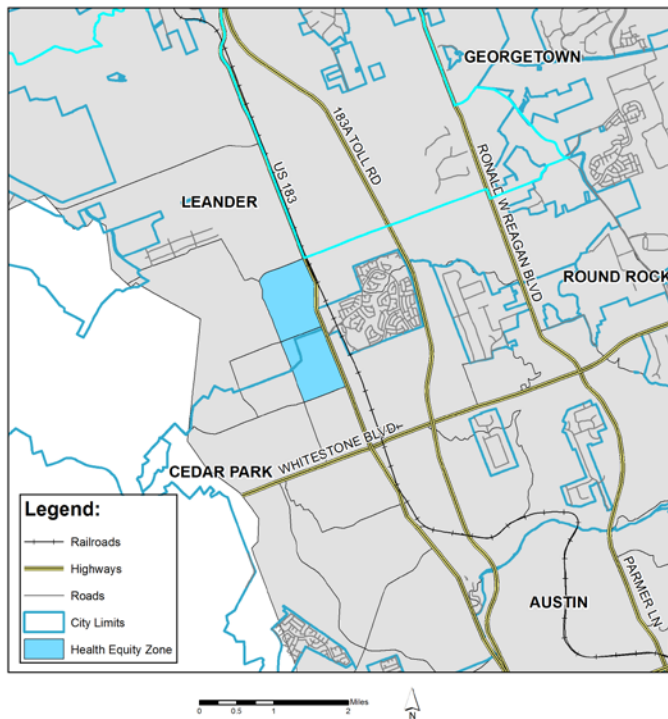


Figure 101: Leander/Cedar Park Health Equity Zone**Leander/Cedar Park Health Equity Zone**

Measures for which the zone is worse than the county are highlighted in red. Measures with census tracts that are both better *and* worse than the county value are highlighted in yellow. (Table 28).

Table 28: Census-tract Level Measures for Health Equity Zones

MEASURE	GEORGETOWN	NORTH RURAL	TAYLOR	ROUND ROCK	LEANDER / CEDAR PARK	COUNTY
Population Impacted*	10,774	11,068	8,915	13,134	5,110	--
Life Expectancy**	76 to 83.2	73.8 to 80.4	74.5 to 75.1	73.7 to 77.6	77.9 to 78.6	81.7***
People Living Below Poverty Level*	14.5% to 15.2%	6.0% to 22.4%	13.8% to 23.7%	20.7% to 23.1%	5.4% to 11.7%	7.2%
Median Household Income*	\$35,726 to \$48,259	\$40,955 to \$62,292	\$31,346 to \$48,313	\$34,100 to \$50,325	\$56,379 to \$56,552	\$75,935
Homeownership*	26.5% to 38.5%	57.9% to 70.0%	37.7% to 50.7%	28.2% to 82.6%	62% to 82.6%	64.3%
Low-Income and Low Access to a Grocery Store^	2.3% to 24.0%	1.4% to 25.2%	27.0% to 61.1%	0% to 48%	31.6% to 40.5%	8.0%
Adults with Health Insurance*	68% to 80.4%	68.4% to 82.1%	66.3% to 71.6%	68.5% to 72.0%	75.2% to 82.9%	85.5%
Households without a Vehicle*	5.6% to 8.8%	0.1% - 5.4%	7.0% to 8.4%	2.4% to 9.1%	2.5% to 2.8%	2.5%
People 25+ with a High School Degree or Higher*	79.2% to 90.3%	77.8% to 91.8%	69.2% to 83.7%	73.4% to 89.6%	80.6% to 84.1%	92.9%

Data Sources: *American Community Survey, 2012-2016, ** U.S. Small-Area Life Expectancy Estimates Project (USALEEP), 2010-2015, *** Institute for Health Metrics and Evaluation, 2014, ^ U.S. Department of Agriculture - Food Environment Atlas, 2015

Health Priorities

Through the four MAPP assessments and prioritization by residents and stakeholder, the CHA Task Force identified five health priorities to improve health and wellness in Williamson County from 2020-2022 (Table 29). Community members and stakeholders identified and ranked four out of the five health priorities through the Community Health Survey, the sticker activities at the Community Focus Groups, and facilitated activities at community meetings. During the Community Health Survey, survey respondents voted on the top health problems in the county. During the sticker activity at the Community Focus Groups, community members placed three green stickers on things that were going well in their lives and three red stickers on things that were not going well in their lives. During facilitated activities at community meetings, stakeholders identified the top health problems and risk factors through the number of responses for each topic. The Health Priority Matrix displays these rankings (Table 30).



The CHA Task Force identified the fifth health priority “Building a resilient Williamson County” based off public health evidence on the impact of community resiliency on the health and wellness of a community and the necessity of this priority to improving the other four health priorities for current and future generations. The Hogg Foundation for Mental Health identified resilience as “critical to health and mental health interventions.”(115) “Community resilience originates from buffers in communities and families to protect individuals from the accumulation of stress due to adverse childhood experiences, such as exposure to emotional and sexual abuse, maternal depression, neglect or incarceration.”(116, 117)

Table 29: Health Priorities

HEALTH PRIORITIES	
Behavioral health, stress, and well-being (focus on decreasing poor mental health, stress, and substance abuse)	
Chronic disease risk factors (focus on increasing healthy food access and physical activity)	
Social determinants of health (focus on increasing affordable and safe housing, access to transportation, and workforce development)	
Access and affordability of healthcare (focus on increasing dental care and improving access to affordable health insurance for vulnerable populations)	
Building a resilient Williamson County (focus on increasing the community’s ability to utilize available resources to respond to, withstand, and recover from adverse situations)	






Table 30: Health Priority Matrix

COMMUNITY HEALTH SURVEY	FOCUS GROUP STICKER ACTIVITY BY RESIDENTS	FACILITATED ACTIVITY AT COMMUNITY MEETINGS	
Health Problems	Health Problems	Health Problems	Risk Factors
#1: Obesity	#1: Behavioral Health	#1: Mental Health issues	#1: Lack of community resources
#2: Mental health issues	#2: Transportation	#2: Substance abuse	#2: Lack of access to healthy foods
#3: Cancers	#3: Housing	#3: Poor eating habits/choices	#2: Lack of access to healthcare
#4: Stress	#4: Healthcare	#4: Obesity	#3: Lack of access to public transportation
#5: Diabetes	#5: Jobs/Employment	#5: Disabilities	#4: Unhealthy behaviors and lifestyles

Conclusion and Implications for Williamson County

The 2019 CHA provides an updated analysis of available data to describe how the health and quality of life of Williamson County residents has changed since the last assessment in 2016. Throughout the 2019 assessment process, the CHA Task Force engaged with residents and stakeholders as active participants. Their feedback, paired with quantitative data, describes the current status and shared perceptions about the health and well-being of Williamson County, Texas. The 2019 CHA serves as the evidence-based foundational document for WCCHD, community partners, decision-makers, and most importantly residents to develop health-related policy. The document will be used to educate and mobilize community partners and residents, guide strategy, gather resources, and plan actions to improve health. Based on feedback from stakeholders across the county, the top five health priorities for future health improvement efforts are contained in Table 31 below.

Table 31: Top Five Health Priorities for 2020-2022 in Williamson County, Texas

ICON	RANK	HEALTH PRIORITY
	1	Behavioral health, stress, and well-being <i>Focus on decreasing poor mental health, stress, and substance abuse</i>
	2	Chronic disease risk factors <i>Focus on increasing healthy food access and physical activity</i>
	3	Social determinants of health <i>Focus on increasing affordable and safe housing, access to transportation, and workforce development</i>
	4	Access and affordability of healthcare <i>Focus on increasing dental care and improving access to affordable health insurance for vulnerable populations</i>
	5	Building a resilient Williamson County <i>Focus on increasing the community's ability to utilize available resources to respond to, withstand, and recover from adverse situations</i>

Identification of priorities is the first step in improving the health of the community. Future steps involve developing action plans with the community during the CHIP process to address each of these priorities. This collaborative effort provides a common agenda that the county will use to improve the health of all residents. Additionally, the 2019 CHA and recommendations can be used in the development of the following:

- Community health changes and trends
- Hospital-based community benefit and implementation strategy plans
- Organizational strategic planning
- Evidence base for grant applications

The Task Force hopes this CHA will increase engagement in supporting the health of the people of Williamson County and help further efforts to be the healthiest county in Texas. Sustained and broad community involvement is necessary to strategically address the health issues in Williamson County, and the solutions will require the combined resources and efforts of multiple partners across all sectors of the community. This shared ownership of community health among diverse stakeholders improves mobilization and utilization of resources to achieve our goals. Together, we can make Williamson County a healthy place for residents to live, work, worship, play, and learn.

Appendices

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Appendix C: List of Acronyms

BTCS: Bluebonnet Trails Community Services

BSWH: Baylor Scott & White Health

CASPER: Community Assessment for Public Health Emergency Response

CDC: Centers for Disease Control and Prevention

CHA: Community Health Assessment

CHIP: Community Health Improvement Plan

CHSA: Community Health Status Assessment

CTSA: Community Themes and Strengths Assessment

DLT: District Leadership Team

EWCC: Eastern Williamson County Collaborative

FoCA: Forces of Change Assessment

GTHF: Georgetown Health Foundation

HP2020: Healthy People 2020

HCCM: Hill Country Community Ministries

LPHSA: Local Public Health Systems Assessment

LSCC: Lone Star Circle of Care

MAPP: Mobilizing for Action through Planning and Partnerships

NACCHO: National Association of County and City Health Officials

NPHPS: National Public Health Performance Standards

OWBC: Opportunities for Williamson and Burnet Counties

RWJF: Robert Wood Johnson Foundation

SDF: St. David's Foundation

SES: Socioeconomic status

WWA: WilCo Wellness Alliance

WCCHD: Williamson County and Cities Health District

Appendix D: Community Health Survey

Please take a minute to complete the survey below. The purpose of this survey is to get your opinions about health in Williamson County. The Williamson County Community Health Assessment Task Force will use the results of this survey and other information to identify the most pressing problems which can be addressed through community action. If you have previously completed a survey, please ignore this. Remember... your opinion is important! Thank you and if you have any questions, please visit our website at <http://www.healthywilliamsoncounty.org/cha>.

1. What is your zip code? _____

2. What are the three most important things that make a "Healthy Community?" Check three only:

- | | |
|--|--|
| <input type="checkbox"/> Access to health care (e.g., family doctor) | <input type="checkbox"/> Good schools |
| <input type="checkbox"/> Access to public transportation | <input type="checkbox"/> Healthy behaviors and lifestyles |
| <input type="checkbox"/> Affordable housing | <input type="checkbox"/> Low adult death and disease rates |
| <input type="checkbox"/> Clean environment | <input type="checkbox"/> Low crime / safe neighborhoods |
| <input type="checkbox"/> Community and cultural events | <input type="checkbox"/> Low infant deaths |
| <input type="checkbox"/> Community resources | <input type="checkbox"/> Use of parks and recreation |
| <input type="checkbox"/> Excellent race relations | <input type="checkbox"/> Religious or spiritual values |
| <input type="checkbox"/> Good jobs and healthy economy | <input type="checkbox"/> Other _____ |

3. What are the three most important "health problems" in our community? Check three only:

- | | | |
|--|---|---|
| <input type="checkbox"/> Arthritis | <input type="checkbox"/> Self-harm (cutting) | <input type="checkbox"/> Rape / sexual assault |
| <input type="checkbox"/> Hearing and visioning impairments or loss | <input type="checkbox"/> Mental health issues (depression, anxiety) | <input type="checkbox"/> Sexually Transmitted Diseases (STDs) |
| <input type="checkbox"/> Cancers | <input type="checkbox"/> Alcohol abuse | <input type="checkbox"/> Worksite injuries |
| <input type="checkbox"/> Dental problems | <input type="checkbox"/> Drug abuse | <input type="checkbox"/> Motor vehicle crash injuries |
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> Senior falls (falling at home) | <input type="checkbox"/> Lack of exercise |
| <input type="checkbox"/> Heart disease and stroke | <input type="checkbox"/> HIV / AIDS | <input type="checkbox"/> Poor eating habits / choices |
| <input type="checkbox"/> High blood pressure | <input type="checkbox"/> Suicide | <input type="checkbox"/> Homelessness |
| <input type="checkbox"/> Lung disease (COPD, emphysema) | <input type="checkbox"/> Homicide | <input type="checkbox"/> Regular check-ups and shots |
| <input type="checkbox"/> Anorexia / Bulimia | <input type="checkbox"/> Assault / Violence | <input type="checkbox"/> Tobacco use |
| <input type="checkbox"/> Stress | <input type="checkbox"/> Domestic / family violence | <input type="checkbox"/> Not using seat belts |
| <input type="checkbox"/> Obesity | <input type="checkbox"/> Adult abuse / neglect | <input type="checkbox"/> Other _____ |

4. What are three "strengths" of our community? Check three only:

- | | |
|--|--|
| <input type="checkbox"/> Access to health care (e.g., family doctor) | <input type="checkbox"/> Good schools |
| <input type="checkbox"/> Access to public transportation | <input type="checkbox"/> Healthy behaviors and lifestyles |
| <input type="checkbox"/> Affordable housing | <input type="checkbox"/> Low adult death and disease rates |
| <input type="checkbox"/> Clean environment | <input type="checkbox"/> Low crime / safe neighborhoods |
| <input type="checkbox"/> Community and cultural events | <input type="checkbox"/> Low infant deaths |
| <input type="checkbox"/> Community resources | <input type="checkbox"/> Use of parks and recreation |
| <input type="checkbox"/> Excellent race relations | <input type="checkbox"/> Religious or spiritual values |
| <input type="checkbox"/> Good jobs and healthy economy | <input type="checkbox"/> Other _____ |

The survey continues on the other side.

5. Who are the people who need the most help in our community? Check three only:

- | | | |
|---|------------------------------------|--------------------------------------|
| <input type="checkbox"/> Homeless | <input type="checkbox"/> Rural | <input type="checkbox"/> Veterans |
| <input type="checkbox"/> Low income | <input type="checkbox"/> Seniors | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> People with disabilities | <input type="checkbox"/> Uninsured | |

Please answer questions #6-8 so we can see how different types of people feel about local health issues. These questions are optional.

6. What is your age? _____**7. What is your gender?**

- ☐ Female ☐ Male

8. What is the race/ethnic group you most identify with?

- ☐ African American / Black
☐ Asian / Asian American
☐ Hispanic / Latino
☐ Native American / Alaska Native
☐ Native Hawaiian / Pacific Islander
☐ White / Caucasian
☐ Other _____

Thank you very much for your response!

Appendix E: Community Health Survey Locations of Distribution

LOCATIONS OF SURVEY DISTRIBUTION	ELECTRONIC	PAPER
Allen R. Baca Center		×
Avery Ranch Owners Association, Inc Mailing List	*	
Bagdad Head Start/Early Head Start	*	•
Bartlett Head Start	*	•
Baylor Scott & White Medical Center - Taylor Mailing List	*	
Bluebonnet Trails Community Services - Cedar Park	*	•
Bluebonnet Trails Community Services - Georgetown	*	•
Bluebonnet Trails Community Services - Hutto	*	•
Bluebonnet Trails Community Services - Round Rock	*	•
Bluebonnet Trails Community Services - Taylor	*	•
Christ Fellowship Church Mailing List	*	
City of Round Rock Website	*	
Cottages at Lake Creek Homeowners Association Mailing List	*	
Davis Spring Homeowners Association Mailing List	*	
Eastern Williamson County Community Collaborative	*	□
Florence Head Start	*	•
Harris-Ross Head Start/Early Head Start	*	•
HealthyWilliamsonCounty.Org/CHA Webpage	*	
Hill Country Community Ministries		•
Hutto Has Heart Mailing List	*	□
Hutto Head Start	*	•
Indian Oaks Neighborhood Association	*	
Interagency Support Council of Eastern Williamson County, Inc. Mailing List	*	
Intervention Services	*	•
Lakeline Station, Foundation Communities Mailing List	*	
Liberty Hill Community Resource Center		×
Life Steps Mailing List	*	
Madella Hilliard Neighborhood Center	*	•
Mary Bailey Head Start	*	•
Muirfield Property Owners Association, Inc. Mailing List	*	
Neighborhood Association of Southwestern Williamson County Mailing List	*	
Next Door App	*	
Parmer Village Condominium Community Mailing List	*	
Rawleigh Elliott Head Start/Early Head Start	*	•
Round Rock Head Start	*	•
Round Rock Public Library		×
Salvation & Praise Tabernacle Ministries Mailing List	*	•
Shepherd's Heart Food Pantry & Thrift Shop Mailing List	*	•
Southeast Georgetown Community Council Mailing List	*	

Southwestern University Mailing List	*	
T.H. Johnson Head Start	*	•
Taylor Housing Authority Mailing List	*	
Taylor Senior Center	*	•
Texas State University Round Rock Mailing List	*	
United Way of Williamson County Mailing List	*	
Williamson County and Cities Health District Press Release and Social Media	*	
Williamson County and Cities Health District Board of Health	*	
Williamson County and Cities Health District Cedar Park Public Health Center		×
Williamson County and Cities Health District Georgetown Public Health Center		×
Williamson County and Cities Health District Round Rock Public Health Center		×
Williamson County and Cities Health District Taylor Public Health Center		×
WilCo Wellness Alliance Newsletter and Social Media	*	
WilCo Wellness Alliance Health Equity Summit		•
Williamson County May Newsletter	*	
Notes: • Convenience Sampling, × Dropbox, ▫ Group Administration, * Media Distribution		

Appendix F: Community Health Survey Results

Demographics

Survey respondents tended to be older than residents in Williamson County. The CHA Task Force focused on collecting surveys from individuals 18 years and older (Figure 103). Median age of survey respondents in the county was 52 compared to the median age of general population of 36.7. Median age in the North was higher than in the county at 61 years old. Median age in the East was lower than the county at 42 years old. More females than males responded to the survey (Figure 104). Seven out of ten survey respondents were female. A majority of respondents were White (Table 32).

Figure 102: Age Distribution of Community Health Survey Respondents

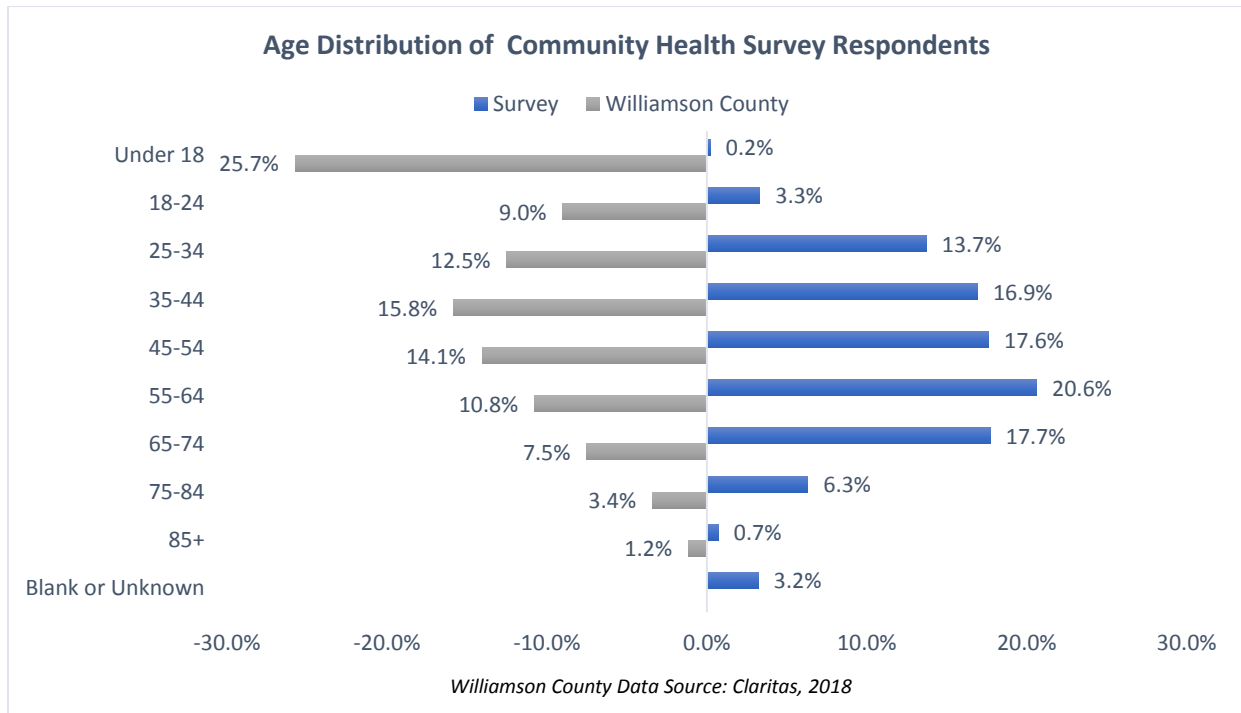


Figure 103: Gender Distribution of Community Health Survey Respondents

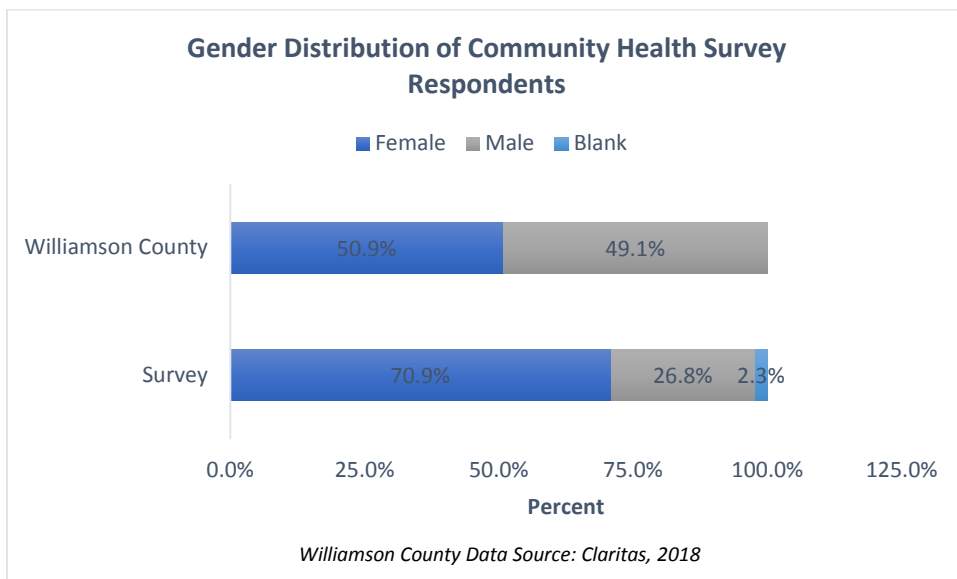


Table 32: Race/Ethnicity of Community Health Survey Respondents

RACE/ETHNICITY	SURVEY	WILLIAMSON COUNTY
White / Caucasian	73.1%	75%
African American / Black	4.8%	7%
Native American / Alaska Native	0.8%	1%
Asian / Asian American	2.2%	7%
Native Hawaiian / Pacific Islander	0.1%	0%
Other	0.2%	7%
Mixed Race	1.6%	4%
Unknown, Blank, Declined to Answer	4.5%	
Hispanic / Latino	12.8%	24.6%

Williamson County Data Source: Claritas, 2018

Responses

Factors of a Healthy Williamson County

Survey respondents were asked: “What are the three most important things that make a ‘Healthy Community?’”, and 2,247 individuals responded. More than half of all survey respondents indicated that access to healthcare was the most important thing that constitutes a “healthy community.” Two out of five voted on low crime/safe neighborhoods, and three out of ten voted on healthy behaviors and lifestyles (Table 33). Resident perceptions of what factors constituted a Healthy Williamson County are broken out by region in Figure 105.

Table 33: Perceptions of Factors that Constitute a Healthy Williamson County

RANK	HEALTHY WILLIAMSON COUNTY FACTORS	COUNT	PERCENT
1	Access to health care	1,253	55.8%
2	Low crime / safe neighborhoods	870	38.7%
3	Healthy behaviors and lifestyles	704	31.3%
4	Clean environment	680	30.3%
5	Good jobs and healthy economy	677	30.1%

Notes: N=2,247

Figure 104: Perceptions of Factors that Constitute a Healthy Williamson County by Region

North		
1. Access to health care		
2. Low crime / safe neighborhoods		
3. Healthy behaviors and lifestyles		
4. Good jobs and healthy economy		
5. Clean environment		
West	Williamson County	East
1. Access to health care	1. Access to health care	1. Access to health care
2. Low crime / safe neighborhoods	2. Low crime / safe neighborhoods	2. Good schools
3. Healthy behaviors and lifestyles	3. Healthy behaviors and lifestyles	3. Low crime / safe neighborhoods
4. Clean environment	4. Clean environment	3. Clean environment
5. Good jobs and healthy economy	5. Good jobs and healthy economy	4. Good jobs and healthy economy
South		
1. Access to health care		
2. Low crime / safe neighborhoods		
3. Clean environment		
4. Good jobs and healthy economy		
5. Healthy behaviors and lifestyles		

Strengths of Williamson County

Survey respondents were asked: “What are three ‘strengths’ of our community?”, and 2,252 individuals responded. More than two out of five survey respondents voted on good schools. About two out of five survey respondents voted on low crime/safe neighborhoods. A little less than two out five survey respondents voted on access to healthcare (Table 34). Resident perceptions of top strengths in Williamson County are broken out by region in Figure 106.

Table 34: Resident Perceptions of Strengths of Williamson County

RANK	STRENGTHS IN COMMUNITY	COUNT	PERCENT
1	Good schools	1,012	44.9%
2	Low crime / safe neighborhoods	920	40.9%
3	Access to health care	873	38.8%
4	Use of parks and recreation	737	32.7%
5	Clean environment	579	25.7%

Notes: n=2,252

Figure 105: Resident Perceptions of Strengths in Williamson County by Region

North		
1. Low crime / safe neighborhoods		
2. Access to health care		
3. Use of parks and recreation		
4. Community and cultural events		
5. Good schools		
West	Williamson County	East
1. Good schools	1. Good schools	1. Good schools
2. Access to health care	2. Low crime / safe neighborhoods	2. Religious or spiritual values
3. Low crime / safe neighborhoods	3. Access to health care	3. Access to health care
4. Use of parks and recreation	4. Use of parks and recreation	4. Use of parks and recreation
5. Clean environment	5. Clean environment	5. Low crime / safe neighborhoods
South		
1. Good schools		
2. Low crime / safe neighborhoods		
3. Access to health care		
4. Use of parks and recreation		
5. Good jobs and healthy economy		

Health Problems in Williamson County

Survey respondents were asked: “What are the three most important ‘health problems’ in our community?”, and 2,252 individuals responded. The #1 health problem identified in the community survey was obesity. Closely following by 4 votes was mental health issues (Table 35). Resident perceptions of health problems in Williamson County are broken out by region in Figure 107.

Table 35: Resident Perceptions of Health Problems in Williamson County

RANK	HEALTH PROBLEMS IN COMMUNITY	COUNT	PERCENT
1	Obesity	858	38.0%
2	Mental health issues	854	37.8%
3	Cancers	554	24.5%
4	Stress	543	24.0%
5	Diabetes	526	23.3%
<i>Note: n=2,252</i>			

Figure 106: Resident Perceptions of Health Problems in Williamson County by Region

<u>North</u>		
1. Obesity		
2. Mental health issues		
3. Cancers		
4. Heart disease and stroke		
5. Diabetes		
<u>West</u>	<u>Williamson County</u>	<u>East</u>
1. Mental health issues	1. Obesity	1. Mental health issues
2. Obesity	2. Mental health issues	2. Obesity
3. Stress	3. Cancers	2. Diabetes
4. Poor eating habits / choices	4. Stress	3. Drug abuse
5. Diabetes	5. Diabetes	4. Cancer
<u>South</u>		
1. Mental health issues		
2. Obesity		
3. Stress		
4. Diabetes		
5. Cancer		

Underserved Populations in Williamson County

Survey respondents were asked: “Who are the people who need the most help in our community?”, and 2,238 individuals responded. The #1 underserved population identified in the community survey was low-income individuals, followed by seniors and people with disabilities (Table 36).

Table 36: Resident Perceptions of Underserved Populations in Williamson County

RANK	UNDERSERVED POPULATIONS	COUNT	PERCENT
1	Low income	1,394	62.3%
2	Seniors	1,282	57.3%
3	People with disabilities	1,117	49.9%
4	Uninsured	859	38.4%
5	Veterans	785	35.1%
6	Homeless	593	26.5%
7	Rural	181	8.1%
8	Other	125	5.6%
<i>N=2,238</i>			

Appendix G: Community Meeting Facilitated Activity Guide

Introduction

Thank you very much for joining us today! I am [your name] and [your name] from [name of organization]. We are working to conduct a Community Health Assessment, which is a process completed every 3 years with a collaborative group of community partners working toward the common goal of a healthy community. The previous assessment was completed in 2015. We want to get your perspective on the health of the community you work, live, worship, and play in and the health-related needs of your community. Your opinions will inform how we research and prioritize health issues in our communities. We will gather the data and bring back the results of this facilitated activity. In addition to this activity today, we are also conducting a community survey that can be completed on www.healthywilliamsoncounty.org/ or emailed out to this group to complete. (1 minutes)

Procedure (20 minutes)

Question 1-4

- Divide into 4 groups.
- First group spend more time at first question. (5 minutes)
- Rotate. Read the question, read the responses, and add. (3 minutes, 3 minutes, 3 minutes)

Question 5

- On sticky notes, write down as many as resources you would suggest they are not currently available. Without discussion. (5 minutes)
- We will link later and provide information back to you.

Questions

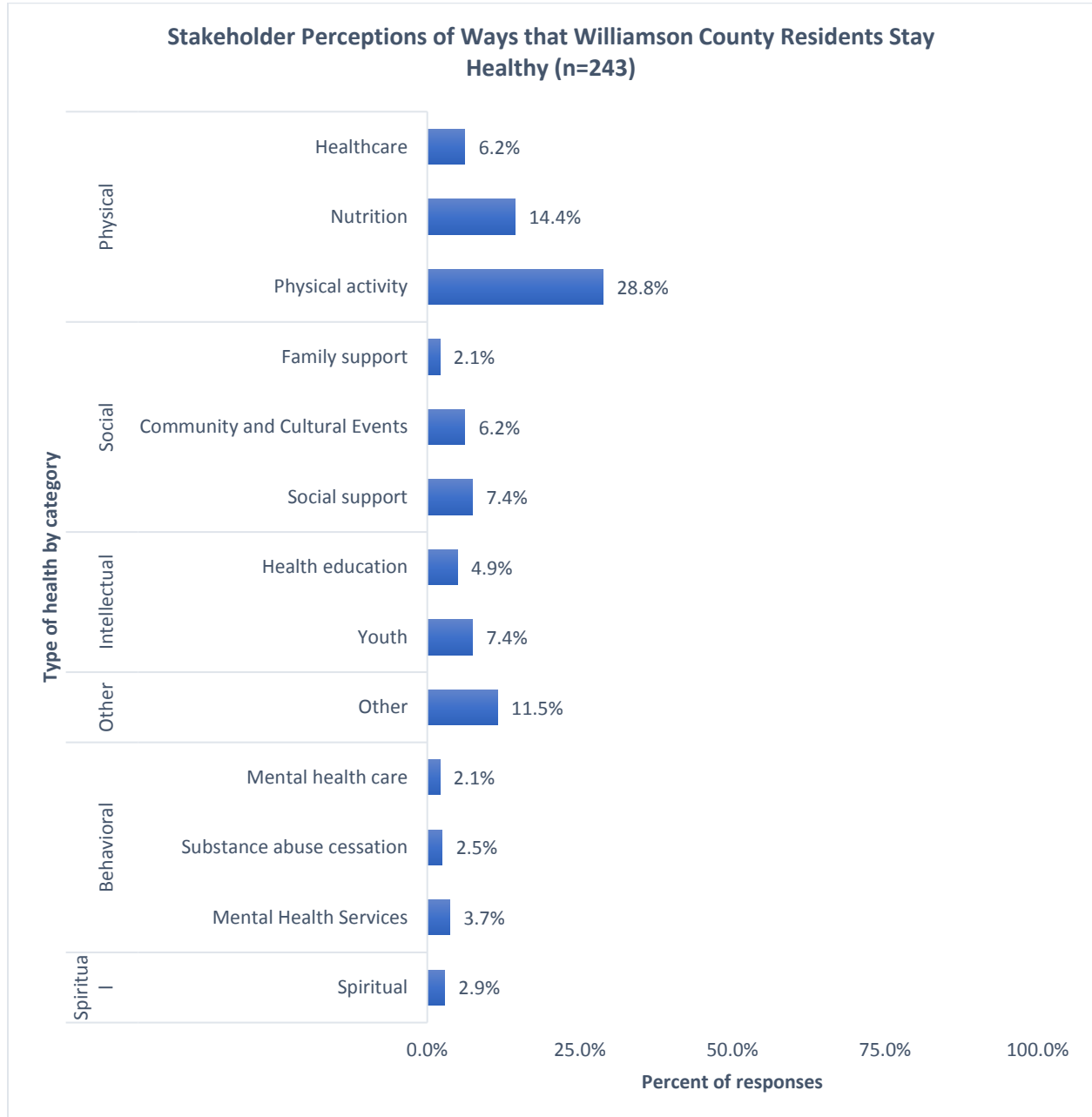
1. What are people doing to stay healthy in this community?
2. What do people see as major health related problems that impact this community?
3. Sometimes communities can help people to be healthy or prevent people from being healthy.
 - a. What are the things in this community that help people to be healthy?
 - b. What are the things in this community that make it harder for people to be healthy?
4. What are the greatest challenges to people accessing health services?
5. What other resources would you suggest that are not currently available? In other words, what are some solutions to these problems?

Appendix H: Community Meeting Facilitated Activities Results

Responses

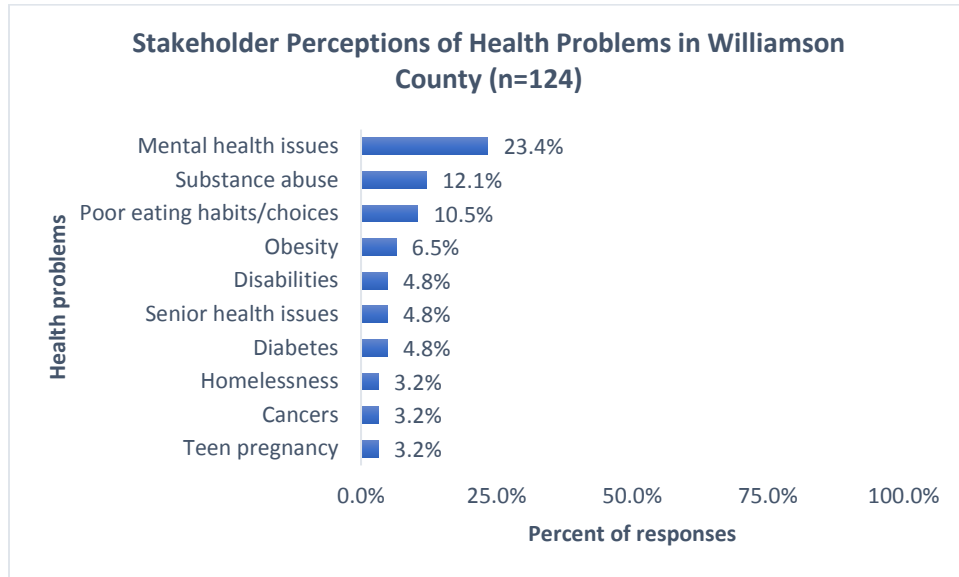
Stakeholders were asked: “What are people doing to stay healthy in this community?” Stakeholders provided 243 responses (Figure 108). Stakeholders grouped the responses according to types of health (Physical, Social, Intellectual, Mental, and Spiritual Health).

Figure 107: Stakeholder Perceptions of Ways that Williamson County Residents Stay Healthy (n=243)



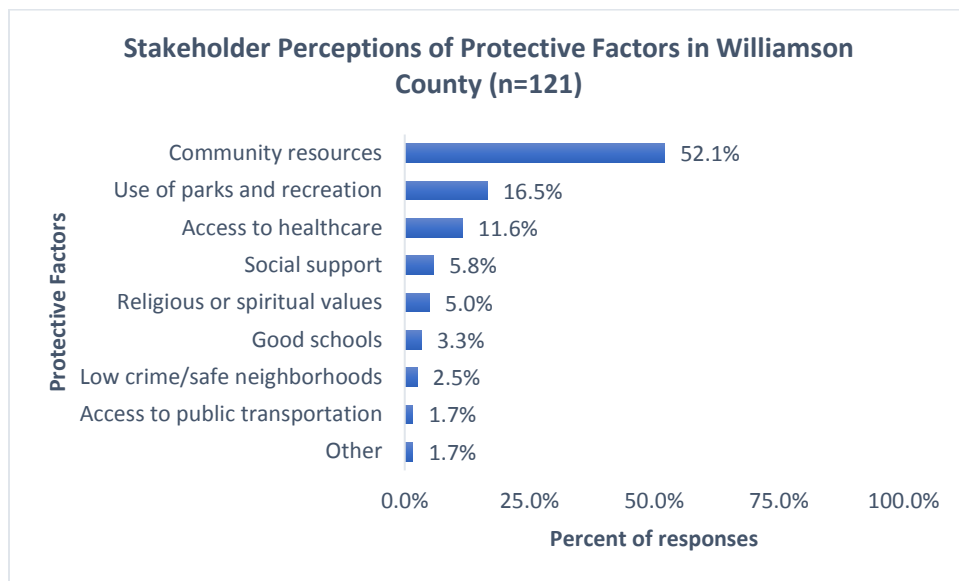
Health Problems in Williamson County

Stakeholders were asked: “What do people see as major health related problems that impact this community?” Stakeholders provided 124 responses (Figure 109).

Figure 108: Stakeholder Perceptions of Health Problems in Williamson County (n=124)

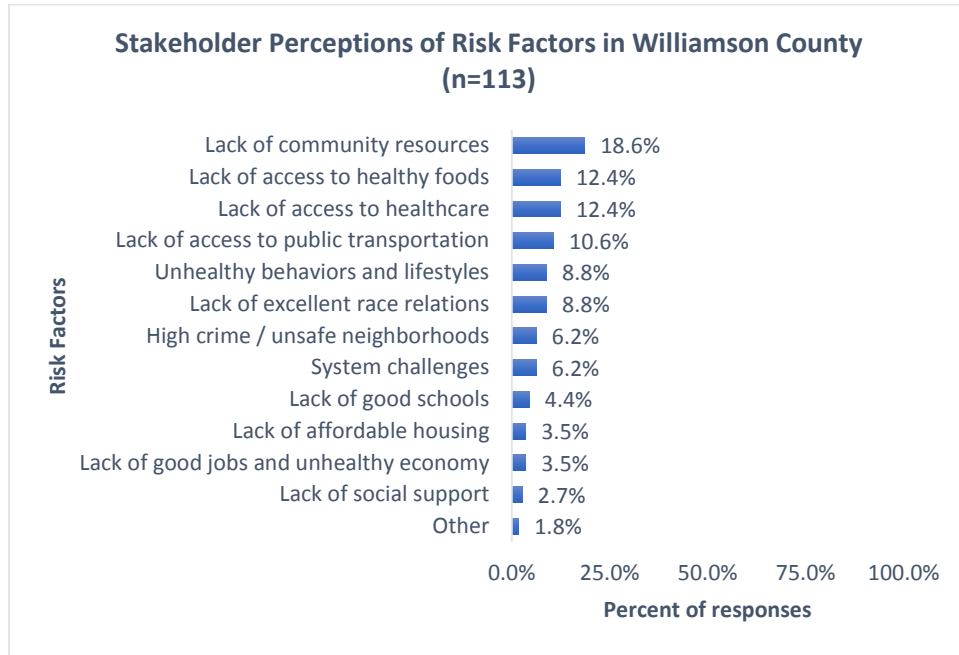
Protective Factors in Williamson County

Stakeholders were asked: “Sometimes communities can help people to be healthy or prevent people from being healthy. What are the things in this community that help people to be healthy?” Stakeholders provided 121 responses (Figure 110).

Figure 109: Stakeholder Perceptions of Protective Factors in Williamson County (n=121)

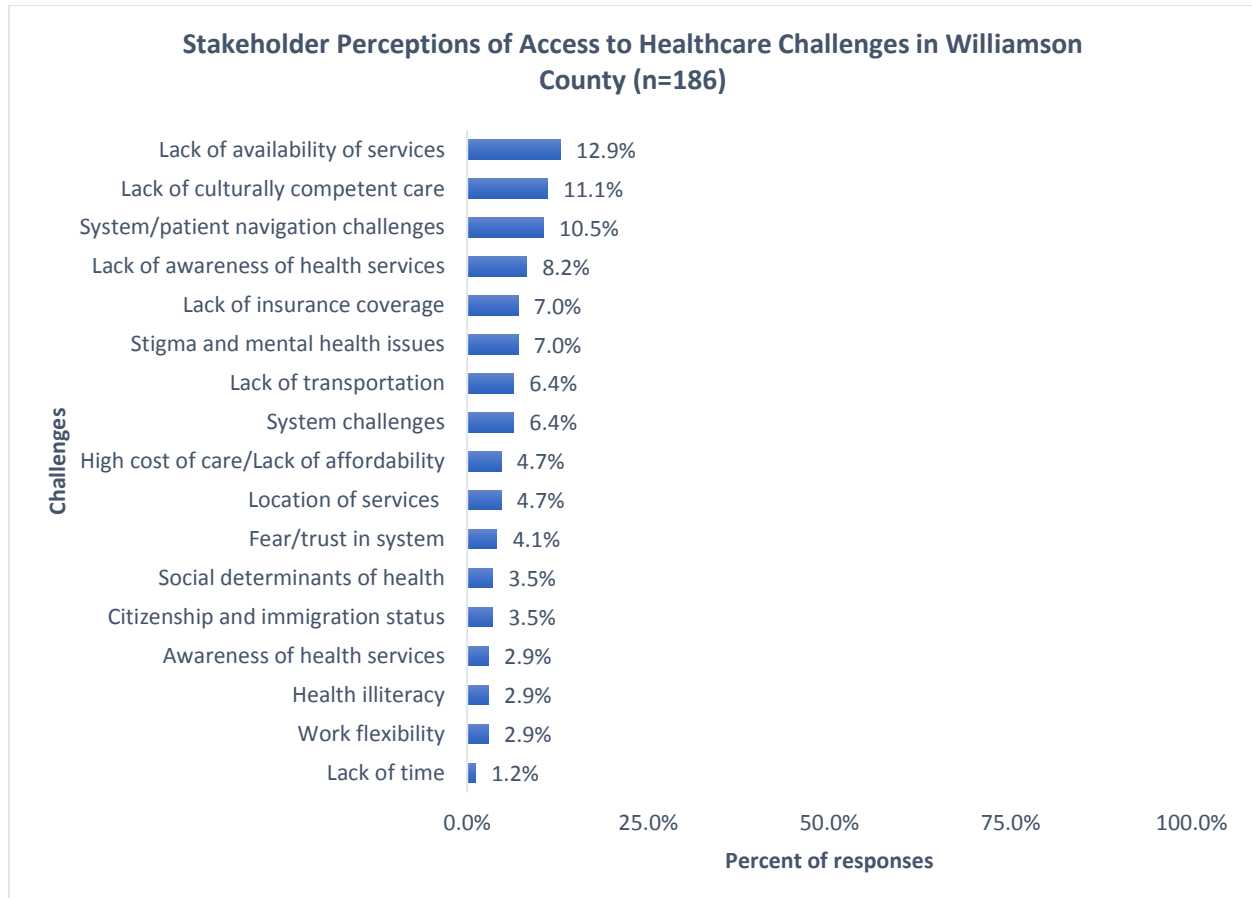
Risk Factors in Williamson County

Stakeholders were asked: “Sometimes communities can help people to be healthy or prevent people from being healthy. What are the things in this community that make it harder for people to be healthy?” Stakeholders provided 113 responses (Figure 111).

Figure 110: Stakeholder Perceptions of Risk Factors in Williamson County (n=113)

Access to Healthcare Challenges in Williamson County

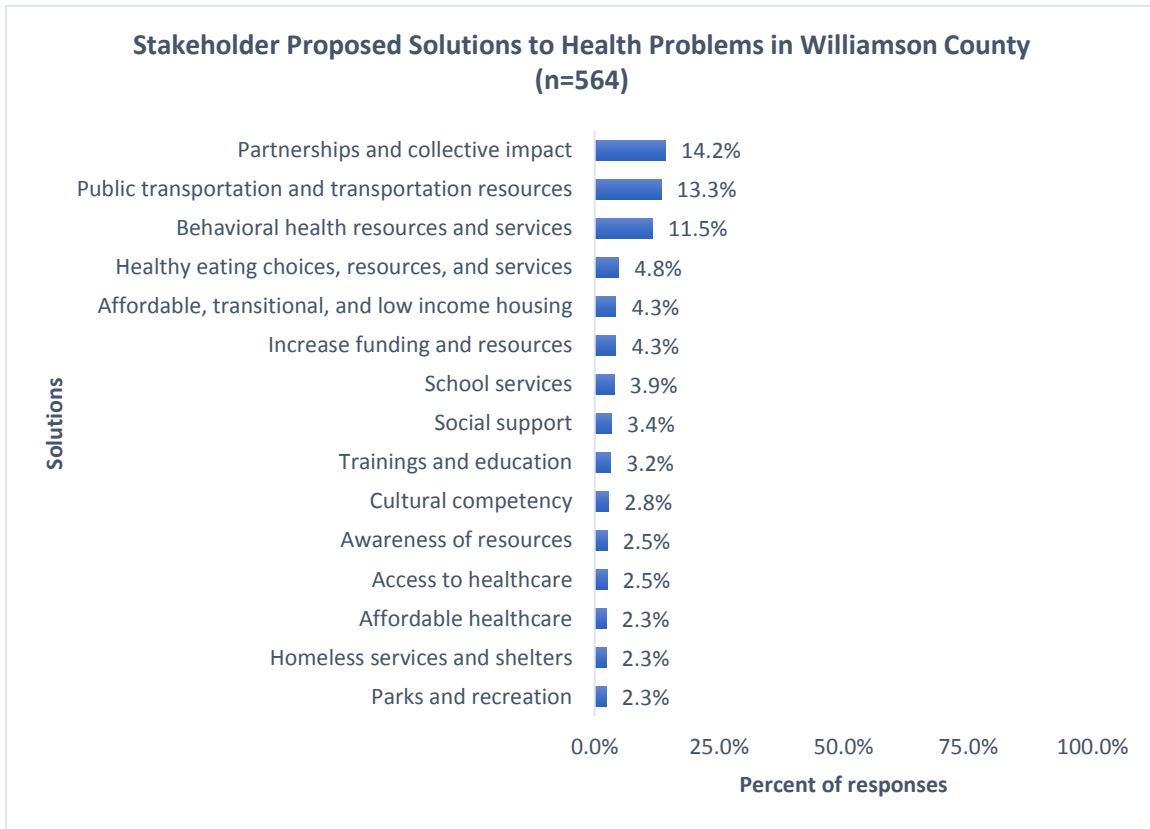
Stakeholders were asked: “What are the greatest challenges to people accessing health services?” Stakeholders provided 186 responses (Figure 112).

Figure 111: Stakeholder Perceptions of Access to Healthcare Challenges in Williamson County (n=186)

Proposed Solutions and Resources in Williamson County

Stakeholders were asked: “What other resources would you suggest that are not currently available? In other words, what are some solutions to these problems?” Stakeholders proposed 564 responses (Figure 113).

Figure 112: Stakeholder Proposed Solutions to Health Problems in Williamson County (n=564)



Appendix I: Community Focus Group Guide



Date: _____ Location: _____ Facilitator: _____

1. Arrange room in circle.
2. Set up recorder.
3. Set up posters on wall.

Suggest organizer to step out or not speak during focus group

1. Pass out consent form for review
2. Distribute demographic survey for participants to fill out.
3. Distribute red and green stickers.
4. Get name tags for participants.
5. Let participant know that they can take a seat and eat snacks.

I. Welcome – 10 minutes

Hi, my name is _____ and I am with [organization]. Thank you for taking the time to speak with me today.

In collaboration with community members and partners, Williamson County and Cities Health District and the WilCo Wellness Alliance is in the process of developing a community health assessment to understand the health of Williamson County. The purpose of the project is to explore the opportunities, challenges, wants, and needs facing residents in Williamson County. We want to get your perspective on the health of your community and the health-related needs of your community.

We would like this discussion to be pretty informal, honest, and thoughtful. We also want to hear from everyone in the room. Ideally, we will hardly talk at all. Our role is to ask questions, keep us on topic, and help keep the discussion flowing.

What is said in this room is confidential and will not be reported out except in general themes or anonymous comments. We are recording this conversation so we can listen again for context and clarity. What you tell us will be summarized into a report. However, no names will be attached to any of the experiences, opinions, or suggestions. The questions I will ask do not have right or wrong answers. They are about your experiences and opinions, so do not hesitate to speak. You are the expert of what it's like to live in [city/county/community] and we are here to learn from you. This is why we are giving you [gift card]. It is a small token of our appreciation for you sharing your experiences and time with us.

II. Ground Rules and Consent Review

Before we get started with the focus group, we need your permission. So, we will begin by reviewing this consent form that outlines why we are doing the focus group, how it will affect you, what we will do with the information, and how you can contact us after today. Please take a couple of minutes to read over the consent form and sign. If you still would like to participate today, and we hope you do, then please sign the bottom of the form.

1. Receive consent form.
2. Give gift card and sign gift card acknowledgement form.

III. Introduction Activity – 10 minutes

You should have three green and three red stickers. Around the room are posters titled with different areas of concerns or services. Please, place a green sticker under areas that you think are going well in your life and a red sticker under areas that are most difficult.

- Please state your first name, what city or town you live in, and how long you have lived here in the community.
- Tell us about one of your green stickers? Why do you see that as a positive for you and/or your community?
- Optional Follow-Up
 - There are a lot of green/red stickers on _____. Tell us more about that.
 - There is an outlier sticker on _____. Tell us more about that.

Poster headings:

Health care

Mental/behavioral health

Community resources

Food and nutrition

Physical activity

Housing

Transportation

Education

Youth

Child care/out of school programs

Senior services/Elderly concerns

Jobs/Employment

Neighborhood safety/Crime

Parks/Recreation

Immigration concerns/services

Legal concerns/services

Other

IV. Questions – 60 minutes (10-12 minutes per question)

1. What do you want for yourself and your family?
 - a. (If health is not mentioned: Thinking about you and your family, how is your health and wellbeing? What would help your health and wellbeing?)
2. Sometimes the community people live in can help them to be healthy or prevent them from being healthy. Over the last 2-3 years, have you noticed any changes or challenges in your community? (For example: demographic shifts, aging population, migration, recession etc.)
 - a. Can you describe that experience?
3. Sometimes you need to seek services for help or support to be healthy. Who or where do you go to for help or support?
 - a. Can you describe that experience?
4. What services (programs, resources) have not been helpful? Why?
 - a. Can you describe that experience?
5. What services (programs, resources) are needed to better serve the needs of this community?

V. Closing – 5 minutes

We want to thank you for the time you have taken out of your busy lives to be with us today. Thank you for participating in this focus group and for the information that you shared today.

*Adapted from [Southeast Georgetown Needs Assessment](#)

Appendix J: Community Focus Groups Results

Demographics

Focus group participants (n=62) tended to be more female than the general Williamson County Population (Figure 114). Median age of focus group participants was 53.5 years old. Participants tended to be less White and more Black/African American than the general population. No Asian, Native Hawaiian/Pacific Islander, and Other races participated in the focus group (Table 37). Percentage of Hispanic/Latino participants was like population in Williamson County (Figure 115).

Figure 113: Gender Distribution of Focus Group Participants (n=62)

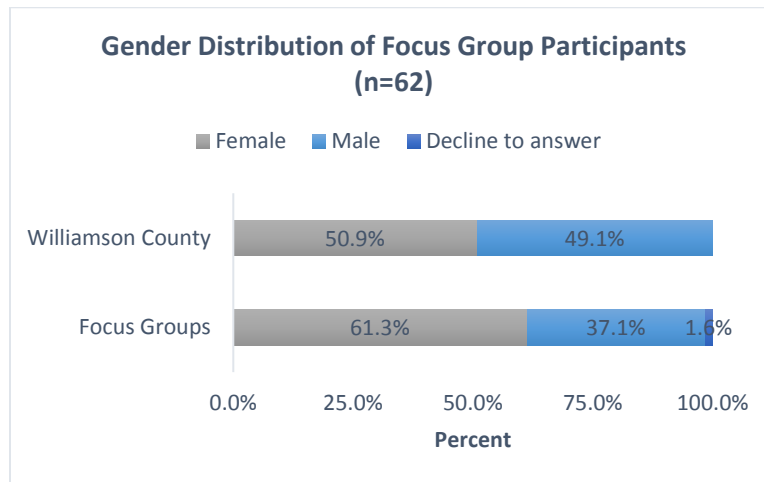


Figure 114: Ethnicity Distribution of Focus Group Participants (n=62)

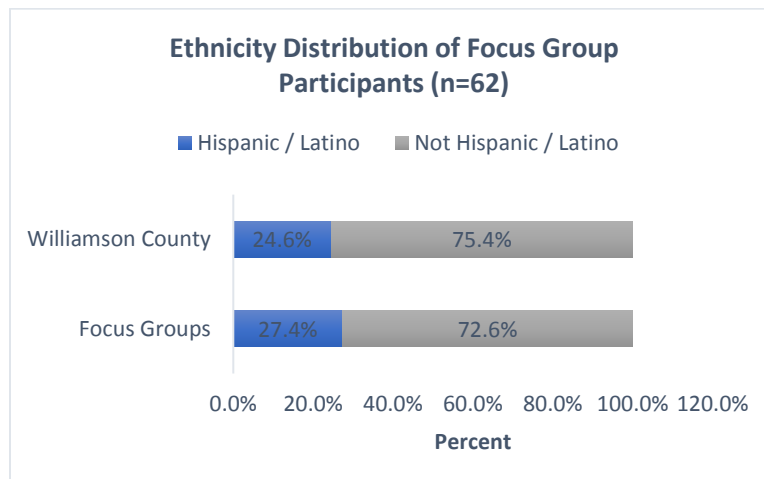
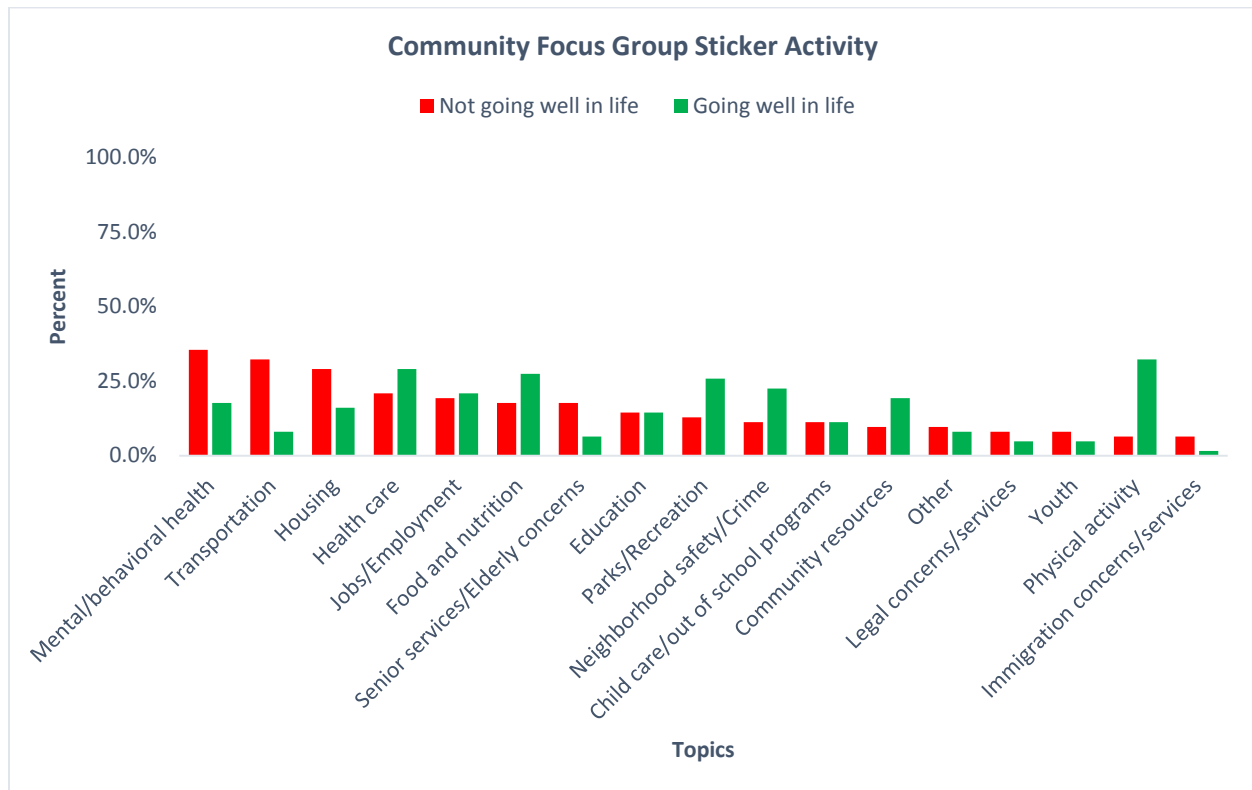


Table 37: Race Distribution of Focus Group Participants (n=62)

RACE	FOCUS GROUPS	WILLIAMSON COUNTY
White	56.5%	75%
Black/African American	14.5%	7%
American Indian/Alaskan Native	1.6%	1%
Asian	--	7%
Native Hawaiian/Pacific Islander	--	0%
Other	--	7%
Mixed Race	4.8%	4%
Blank/Decline to Answer	23%	

Sticker Activity

Focus group participants were each asked to place three red stickers on topics that weren't going well in their life and three green stickers on topics that were going well in their life (Figure 116). The top three topics that focus group participants identified as not going well in their life were 1) mental/behavioral health, 2) transportation, and 3) housing. The top three topics that focus group participants identified as going well in their life were 1) physical activity, 2) healthcare, and 3) food and nutrition.

Figure 115: Community Focus Group Sticker Activity

Appendix K: Truven Stakeholder Focus Group Results



IBM Watson Health™

BAYLOR SCOTT & WHITE HEALTH COMMUNITY HEALTH NEEDS ASSESSMENT EAST WILLIAMSON COUNTY JULY 25, 2018

Overview

Baylor Scott & White Health, Ascension Seton, Williamson County and Cities Health District, and St. David's Foundation contracted IBM Watson Health to conduct a series of focus groups to assess the perceived health needs of the Williamson County residents they serve. Community members were invited to participate based on their involvement with public health or their work with medically underserved, chronic disease, low-income, or vulnerable populations. This focus group included organizations from the rural part of Williamson County, east of Interstate 35. The focus group consisted of ten participants from various local organizations, such as community collaboratives, faith-based institutions, mental health clinics, housing authorities, and food pantries.

The focus groups were facilitated by a team from IBM Watson Health and conducted in three parts. The sessions started with the entire group providing a description of the community and determining an overall health score. During the second part, participants were divided into smaller groups for more detailed discussions. The group then came back together for a final exercise.

Discussions were oriented around the following questions:

1. Describe the community and score the current health status on a scale of 1-5 (1 worst – 5 best).
2. Identify the factors for the score and separate into strengths and weaknesses.
3. Discuss the underlying barriers to health that contribute to the weaknesses.
4. Discuss community strengths that can create opportunities for improving health.
5. Identify and rank the criteria for prioritization.

Community Health Needs and Priorities Discussion Summary

The participants described the community as very compassionate with local churches providing many of the social services the community needed. The group emphasized that the community strongly prioritizes health and wellness. However, certain barriers pose challenges to organizations that serve the community. These include lack of access to transportation, healthcare, and recreation, as well as income inequality. They shared that many working residents make below a living wage, which contributes to other challenges the community faces. There is also a shortage of affordable housing, which results in transient housing situations for some low-income families.

The discussion of top health needs in the community centered around three areas: communication and education, access to services, and services for the low-income population. Certain segments of the population lack health literacy, which contributes to underutilization of available services. Additionally, lack of public transportation options in Eastern Williamson County causes underutilization of primary care services and overutilization of the emergency department. Where services are present and accessible, they are not always available to uninsured or low-income families. Participants suggested that health needs should be prioritized based on ability to address root causes, build on the community's strengths, focus on vulnerable populations, and the community's capacity to address needs.

Communication and Education

The participants noted that available services are underutilized, sometimes due to lack of health literacy, including an understanding of long-term consequences of their health choices. The lack of health literacy impacts the community's understanding of alternatives to receiving care via the emergency department. The group also believe there is a lack of awareness regarding the services available to community members. Participants noted that a significant number of people in the community speak Spanish as their primary language and this poses a barrier to utilizing and navigating health care and services. In addition, the group said that the community consists of many undocumented residents who might fear accessing services.

Access to Services and Services for Low-Income Populations

The focus group discussed the limited public transportation in this health community. Population growth on the west side of Williamson County, specifically Round Rock and Georgetown, led to expansion of healthcare services, but the dearth of public transportation makes these services unavailable to the lower income population on the east side of the county. The closest urgent care facility is 20 miles away, so residents use the closer emergency department instead.

According to the participants, East Williamson County has insufficient healthcare services for low-income and uninsured residents, especially dental and behavioral healthcare, which contributes to over-utilization of the emergency department. Healthy food options are scarce and there are food deserts in the community. The low-income/uninsured population sometimes need to prioritize basic needs like food and housing costs over paying for healthcare services. The group also said that the size of the low-income population exceeds available affordable housing, which leads to many families living in hotels or other short-term housing options.

Opportunities

The group had several ideas for how the community could collaborate to address some of the aforementioned health needs discussed. Many of these ideas focused on using schools or churches as places for collocating services or as conduits for educating the community. There was also discussion of using food pantries or the local police department to connect vulnerable populations to assistance and resources.

Focus Group Discussion Detail

These are additional details and comments captured during the focus group participant discussions.

EXERCISE 1A: HOW WOULD YOU DESCRIBE THIS COMMUNITY?

- Many resources are faith based, and many social services come out of churches.
- The community has heart, compassion, and willingness to come together.
- There is a focus on wellness in the community.
- There is a disparity in access to health, education, transportation, and recreational activities for:
 - ◊ Children from low-income families, who have fewer options for recreational activity.
 - ◊ Working poor of all ages, especially seniors with incomes that are insufficient to meet basic needs.
- There is an absence of vocational training opportunities for jobs that pay a living wage.
- A shortage of affordable housing is a major issue, causing families to live in hotels and short-term housing.

EXERCISE 1B: HOW DO YOU DESCRIBE THE HEALTH OF THIS COMMUNITY ON A SCALE OF 1-5 (1 WORST – 5 BEST)?

Participants each gave the community a score based on their assessment of the health of the community. The average health score given by this group was 2.6. For comparison, the average score for the other Williamson County focus group was 3.2.

Score	5	4	3	2.5	2	1
Participants	0	0	5	1	4	0

IN EXERCISE 2, PARTICIPANTS WERE ASKED TO IDENTIFY THE FACTORS FOR THE SCORE THEY GAVE, AND THEN SEPARATE THE FACTORS INTO STRENGTHS AND WEAKNESSES FOR THE NEXT DISCUSSIONS.

EXERCISE 3: WHAT ARE THE BARRIERS TO GOOD HEALTH IN THIS COMMUNITY?

- Health information is available, but portions of the population cannot or do not access it.
 - ◇ Taylor Press and schools both posts notices in both English and Spanish, but there is a large illiterate Spanish-speaking population.
 - ◇ There are generational differences in how people receive health information. Taylor Press began posting information via social media to engage younger audiences, but this created a barrier for seniors, who are more likely to read a hardcopy newspaper.
 - ◇ Some residents need a more robust method of referral than “just handing someone a pamphlet”, e.g., to connect patients to resources like Bluebonnet Trails.
- Health Illiteracy examples:
 - ◇ Disconnect between behavior and consequences, e.g., diabetic man goes to food pantry and gets sweets.
 - ◇ Lack of awareness of treatment for symptoms, e.g., patients don’t seek treatment until there is a health crisis and then goes to the emergency department.
- Trust and cultural differences:
 - ◇ Undocumented population fears accessing services.
 - ◇ Patients are unwilling to admit that they do not understand discharge instructions due to language barriers or hearing impairment.
 - ◇ “There is never a lack of healthcare because people just go to the ER - that is how they get healthcare.”
- Low income population of all ages face added challenges:
 - ◇ Need to prioritize food and other necessities over healthcare, including medications.
 - ◇ Lack of local dental services for the uninsured (requires travel to Round Rock.)
 - ◇ High numbers of uninsured residents in the health community, possibly correlated to undocumented residents.
 - ◇ Large senior population.
 - ◇ Food deserts and lack of access to healthy food.
- Substance abuse and mental health challenges:
 - ◇ Stigma
 - ◇ Prevalence of alcohol and drug use, e.g., marijuana, opioids, and methamphetamines.
 - ◇ Proximity to drug trafficking routes.
- Transportation considerations:
 - ◇ Public transportation is very limited and prevents the rural population from accessing available services, including pharmacies.
 - ◇ Williamson County is no longer deemed “rural” due to growth in the western part of the county, yet services are not accessible to the rural population on the east side.
 - ◇ The closest urgent care center is 20 miles away, so patients use the ER because it is closer.

Each participant voted for what they consider to be the 3 greatest barriers, ranked according to votes.

Barriers	Number of votes
Lack of awareness of services	7
Low income	7
Cultural barriers creating underuse	6

EXERCISE 4: COMMUNITY PARTNERSHIPS AND OPPORTUNITIES

- Hospital partnerships with schools and churches:
 - ◇ Supply health services, resources, and information to churches.
 - ◇ Provide nurses and EMTs to Parish Nurse program and the 65 churches in Taylor.

- ◇ Utilize health advocate peers to help explain discharge notes and instructions when the doctor can only spend 15 minutes with each patient.
- Schools as a resource:
 - ◇ Create collaboration between schools and healthcare services because undocumented families already have established relationships and feel safe there.
 - ◇ Educate children, who will spread the information to their parents.
 - ◇ Offer school-based services that are a conduit to families, such as food programs.
 - ◇ Work on legislation to expand school health services.
 - ◇ Provide school-based mental health for the entire school population, including teachers and staff.
 - ◇ Bartlett Schools are partnering with Literacy Council of Williamson to bring in secondary education resources for the community.
- Communication and coordination:
 - ◇ Use the media to bombard people from every angle with information about health events and resources.
 - ◇ Partner with private and public organizations, including food pantries, churches, schools, and employers to publicize information.
 - ◇ Utilize senior housing organization to reach low-income seniors.
 - ◇ Connect Bluebonnet Trails with the food pantry to provide psychiatric medication to food pantry clients.
 - ◇ Taylor Police Department has a network of agencies providing services.
 - ◇ Use cultural competence and language services to reach some populations.
 - ◇ Have a central location for services.
- Recreation:
 - ◇ Use local parks for fundraising walks.
 - ◇ Promote healthy eating through community garden.

Each participant voted for what they consider to be the 3 greatest opportunities, ranked according to votes.

Opportunity	Number of votes
Health education	7
Networking/word of mouth, network of local agencies	5
Co-located services	3

EXERCISE 5: HOW TO PRIORITIZE THE NEEDS TO BE ADDRESSED

Each participant voted for the top criteria to be used for prioritization of this community's identified needs.

Top Criteria for Prioritization	Number of votes
Root Cause	7
Community Strengths	6
Community Capacity	4
Vulnerable Populations	4

EXERCISE 6: BEHAVIORAL HEALTH

Residents of Eastern Williamson County have mental and behavioral health needs which results in potentially increased opiate abuse. Participants noted gaps in the mental and behavioral health services continuum:

- Low income patients who cannot afford medications
- Lack of beds for mental health and substance abuse treatment, especially for low-income patients
- Need to educate law enforcement about handling of substance abuse cases
- Shortage of providers.

PARTICIPATING ORGANIZATIONS

Representatives from the following organizations participated in the focus group:

- Shepherd's Heart Food Pantry and Community Ministries
- Interagency of Eastern Williamson County
- East WilCo Collaborative
- Taylor Press
- Tripp Center
- United Seniors of Taylor
- Bluebonnet Trails Community Services
- LifePark Center
- Christ Fellowship Church
- Taylor Housing Authority



BAYLOR SCOTT & WHITE HEALTH
COMMUNITY HEALTH NEEDS ASSESSMENT
WILLIAMSON COUNTY
JULY 25, 2018

Overview

Baylor Scott & White Health engaged IBM Watson Health to conduct a series of focus groups to assess the perception of the health needs in the Texas communities they serve. Participants were invited to participate based on their involvement with public health or their work with medically underserved, chronic disease, low-income or minority populations. Participation was also sought from community leaders, other healthcare organizations, and other healthcare providers, including physicians.

The focus groups were facilitated by a team from IBM Watson Health and conducted in three parts. The sessions started with the entire group providing a description of the community and determining an overall health score. During the second part, participants were divided into smaller groups (if overall number of participants allowed) for more detailed discussions. The group then came back together for a final exercise. Discussions were oriented around the following questions:

1. Describe the community and score the current health status on a scale of 1-5 (1 worst – 5 best).
2. Identify the factors for the score and separate into strengths and weaknesses.
3. Discuss the underlying barriers to health that contribute to the weaknesses.
4. Discuss community strengths that can create opportunities for improving health.
5. Identify and rank the criteria for prioritization.

The Williamson County focus group was held in Georgetown and included thirteen participants. The group included service agency leaders, church representatives, providers, and representatives from various community agencies. Most of the participants worked with at-risk populations; the group at-large serve low-income populations, minorities, the medically under-served, and populations with chronic diseases.

Community Health Needs and Priorities Discussion Summary

Participants described the community as a historically conservative, rural community where law and order dominated policies in the past. The community was undergoing an identity shift as people migrated from Austin into the area and shifting to be increasingly liberal, diverse, and urban. Due to the rapid population growth, resources in the community were at capacity and unable to keep up with demand. In addition to resource issues, the community lacked a central hub or epicenter of services which created challenges in coordinating efforts to address the health needs of the community. The focus group believes the top health needs in the community centered around poor coordination of services, access to care for low-income residents, and the growing homeless population. Participants felt that health needs should be prioritized with a focus on vulnerable populations, community capacity, and political feasibility/acceptability to address the issue.

Shifts in Population Demographics

The focus group participants described the community demographics as having shifted significantly due to the rapid growth and influx of new residents. The immigrant population had increased as more people of South Asian and African descent moved into the area bringing extended family members as they established themselves. This resulted in many of the new immigrants being elderly, non-English speaking, and uninsured; which posed a unique set of challenges in addressing their health needs. Translation and bilingual healthcare services were particularly lacking, according to the group.

As Williamson became an increasingly desirable place to live, the community saw rapid gentrification and an increasing income gap, according to the focus group. The low income and homeless populations were growing, but funding and support for organizations serving these populations had not experienced a parallel growth. Local politics and policies created barriers for organizations to serve these populations whose health needs are significant.

Access and Coordination of Care

The participants noted that recent growth was affecting the identity of the community, and its organizational structure was still evolving. This created challenges for organizations that were helping patients navigate the complex healthcare ecosystem, especially those patients who lacked insurance. Small charity organizations were overwhelmed with demand and could not support the needs of the uninsured and under-insured. Additional coordination across non-profit organizations, social services, and the local hospital systems was required. The entry point into services was unclear, which led to inefficiencies across organizations. Participants suggested using community vouchers to grant low-income patients access to all local agencies, expanding partnerships between the local library and Health and Human Services, and developing an intra-agency referral system as potential means to improve coordination in the community.

The group noted there were limited resources available for the homeless, uninsured, and poor. Resources that were particularly lacking in the community included low cost or free dental clinics, homeless shelters, and behavioral health providers and substance abuse treatment facilities that served the poor and indigent population. Additionally, participants stressed the importance of expanding transitional services to help patients move successfully from federal assistance programs to autonomy. This was especially important for healthcare as many patients could not transition from receiving free services or Medicaid to paying for their own insurance and medical bills. Lack of public transportation created an additional barrier for the low-income population and prevented patients from attending appointments and accessing healthcare services.

Focus Group Discussion Detail

These are additional details and comments captured during the focus group participant discussions.

EXERCISE 1A: HOW WOULD YOU DESCRIBE THIS COMMUNITY?

- Changing identity
 - ◊ Community had become an affordable version of Austin.
 - ◊ Collection of towns lacked a centralized hub or epicenter.
- Increasingly diverse:
 - ◊ growth of uninsured elderly immigrants relocated to reunite with family members
 - ◊ increased South Asian and African immigrant population
 - ◊ income disparity increased as low-income population continued to grow
 - ◊ rapid gentrification exacerbated income disparity.
- Increased tensions around growing diversity:
 - ◊ historically rural community with a small-town mentality rapidly converting to urban
 - ◊ historically conservative with growing liberal presence
 - ◊ resistance from residents to changing social landscape and diversity
 - ◊ law and order community.
- Lack of dependable public transportation was a major issue for rural parts of the community.
- Family friendly:
 - ◊ safe
 - ◊ food schools
 - ◊ sports- football.

- Services in the community were stretched thin and cannot keep pace with growth of population.

EXERCISE 1B: HOW DO YOU DESCRIBE THE HEALTH OF THIS COMMUNITY ON A SCALE OF 1-5 (1 WORST – 5 BEST)?

Overall community health score given by the group was 3.2

Score	5	4	3.5	3	2	1
Participants	0	2	2	6	1	0

EXERCISE 3: WHAT ARE THE BARRIERS TO GOOD HEALTH IN THIS COMMUNITY?

- Citizenship status. Undocumented immigrants were hesitant to access healthcare and social services due to fear of deportation.
- Linguistic barriers were increasing (i.e. South Asian population) but translation services limited and often only available in Spanish.
- Food deserts:
 - ◊ prevalent in rural parts
 - ◊ lacked grocery stores
 - ◊ access to healthy foods limited for low income residents.
- Local politics:
 - ◊ policies hindered local organizations from addressing health needs
 - ◊ lack of funding and support for social and healthcare services to support low income populations
 - ◊ failure to acknowledge social issues that faced the community (i.e. homelessness, domestic violence)
 - ◊ history as a law and order community discouraged patients in need from accessing resources for fear of prosecution.
- Homelessness:
 - ◊ lack of affordable housing
 - ◊ no homeless shelters in the community
 - ◊ local policies promoted a punitive attitude towards the homeless population.
- Lack of public transportation
- Resources not coordinated:
 - ◊ poor communication hindered coordination between NFPs and social services
 - ◊ resources siloed
 - ◊ information often unreliable or outdated
 - ◊ mental/behavioral health services particularly impacted
 - ◊ entry point into services unclear caused inefficiencies.
 - ◊ lack of transitional services
 - ◆ no transitional support for shifting off federal assistance
 - ◆ lack of long-term support and follow-up
 - ◆ cycle back through federal assistance programs.
- Rapid population shifts/growth were outpacing growth in healthcare services:
 - ◊ especially for low income residents
 - ◊ insufficient dental clinics for area demand
 - ◊ investment in healthcare resources was focused on higher income sectors
 - ◊ low income population was growing but investment in services for this population was declining.

Each person voted for what they consider to be the 3 greatest BARRIERS, ranked according to votes.

Challenge	Score
Lack of transitional services	7
Poor coordination and communication between NFPs and social services	7
Homelessness and lack of support services for this population	7
Local politics	6
Services cannot keep pace with population shifts and growth	4

EXERCISE 4: COMMUNITY PARTNERSHIPS AND OPPORTUNITIES

- Transportation programs to assist patients in accessing healthcare. No cost ride share program potentially coordinated through the local library to as an access point and information hub in the community.
- Healthy diet prescriptions. Partnership between medical providers and food pantries to provide healthy foods for patients with chronic conditions like diabetes, COPD, heart disease.
- Medicaid expansion
- Improve regional coordination and cooperation of social and healthcare services.
 - ◇ Develop community voucher that provides access to all locally available agencies.
 - ◇ Promote partnerships between the library and Health and Human Services.
 - ◆ Library can act as a key access point in the community due to presence of a licensed social worker. One successful example is that the library staff is trained in mental health first aid and has Narcan (anti-opioid overdose medication) on hand.
 - ◆ Intra-agency referral system. Enhance 2-1-1 United Way referral system.

Each person voted for what they consider to be the 3 greatest OPPORTUNITIES, ranked according to votes.

Opportunity	Score
Transportation programs to assist patients in accessing healthcare	10
Intra-agency referral system to improve coordination	9
Improving regional coordination and cooperation	7

EXERCISE 5: HOW TO PRIORITIZE THE NEEDS TO BE ADDRESSED

In discussion about criteria for prioritizing the needs of the community, the group identified one criteria in addition to those put forth as common criteria:

- political feasibility/acceptability/readiness

Each person voted for the top 3 criteria to be used for prioritization of this communities identified needs.

Top Criteria for Prioritization	Weight
Vulnerable populations	7
Community Capacity	7
Political feasibility/readiness/acceptability	7
Severity	5

EXERCISE 6: BEHAVIORAL HEALTH

Gaps in the mental/behavioral health services continuum:

- Lack of long-term support and psychiatric services
- Opioid users required additional intervention
 - ◇ Narcan availability limited for use in life threatening crisis situations.
 - ◇ Narcan is currently available in the local library which had hired a licensed social worker.

- Groups most need of services:
 - ◊ youth
 - ◊ rural populations
 - ◊ working poor
 - ◊ patients without transportation.

PARTICIPATING ORGANIZATIONS

Representatives from the following organizations participated in the focus group:

- Pavilion
- Christ Fellowship Church and Interagency of EWC
- Sacred Heart Community Clinic
- Williamson County and Cities Health District-PESS
- Taylor Housing Authority
- United Way of Williamson County
- Georgetown Public Library
- Georgetown Health Foundation
- Baylor Scott & White - Austin/Round Rock
- Mobile Outreach Team Williamson County Emergency Services
- Lone Star Circle of Care
- The Caring Place

Appendix L: Truven Key Informant Interview Notes



IBM Watson Health™

BAYLOR SCOTT & WHITE HEALTH COMMUNITY HEALTH NEEDS ASSESSMENT EAST WILLIAMSON COUNTY KEY INFORMANT INTERVIEW NOTES

Overview

Baylor Scott & White Health, Ascension Seton, and Williamson County and Cities Health District contracted IBM Watson Health to conduct key informant interviews to assess the perception of the health needs in the Texas communities they serve. Community members were invited to participate based on their involvement with public health or their work with medically underserved, chronic disease, low-income, or minority populations. The phone interview topics included an overall health status score of the community, factors considered in the score, barriers to health, gaps in service, and opportunities for improving health. There were four interview participants for Eastern Williamson County, including representation from the Mayor's office, Boys & Girls Clubs of America, Life Park Board, East Williamson County Cooperative, and Interagency East. This is a summary of the comments and feedback collected during the key informant interviews. Similar responses by multiple respondents are indicated in parenthesis.

The discussion of top health needs in the community centered around the following themes: health education and navigation, access to services, and the need for mental health resources. These themes were like themes highlighted in the Eastern Williamson County focus group.

Interview participants repeatedly returned to the theme of health education, not just about healthy behaviors but also about understanding the resources available to the community and how to access them. This theme flowed into discussions about helping community members understand how to navigate the healthcare, especially those who face barriers to accessing care such as lack of healthcare insurance, low income, or language barriers.

Access to healthcare services was another frequent discussion point, with participants mentioning that specialty care was not readily available within the community and one needed to travel outside the community to access certain specialists (or to have a choice of providers). Low-income residents found this particularly burdensome as they may not have transportation, flexibility, or other means to access those services outside the community.

Mental health resources was another common topic that emerged from the interviews. Those who are dealing with mental health issues were recognized as a vulnerable population. There was discussion about a lack of mental health providers, especially for those without insurance. The participants acknowledged there were other types of mental health resources in the community, but they were limited and not consistently available due to lack of sustained funding.

Interview Feedback

1. How would you rate the current health status of this community (scale 1-5; 1=poor 5=excellent) and what are the factors you considered?

The scores given for this community were 3, 3, 3.5, and 4. Interview participants said these factors were considered when selecting their score:

- Investment in bike trails and amenities to encourage healthy living (2)



IBM Watson Health.

- High cost of health care and preventive medicine for low-income residents
- Threat of immigration issues
- Decent weather
- Diabetes and obesity (3)
- Health fairs
- Access to healthy eating and exercise
- Lack of access to health food for low income residents, especially Hispanic residents
- Limited access to specialists outside Taylor for those without insurance or low income
- Substance abuse
- Lack of childcare and healthcare options for the poor and elderly in Taylor
- Mental health
- Low socioeconomic groups in this area who choose not to access support for their health
- Families who don't know how to access what they need. (5)

2. What are the barriers to good health in this community?

- Culture and lack of health education
- Habits and ongoing patterns of unhealthy behavior
- Distance to see a specialist (2)
- Health education about available services
- Lack of mental health services
- Connection to people who don't seek information
- Language issues that limit information from reaching the whole community (information needs to be multiple languages)
- Lack of knowledge to navigate the health care system; barriers for lower income residents (3)
- Few exercise options, lack of sidewalks in rural areas outside Taylor
- Barriers between cultures that are divisive lead to social isolation; lack of trust among minority populations. (2)
- Transportation (3), especially in rural areas.

3. What are the largest unmet need and the gaps in healthcare services?

- Dental and vision for low income and uninsured
- Health education about available services
- Mental health (4) with family wraparound support
- Diabetes services
- Doctors that accept Medicare supplemental insurance
- Free health clinic options for drop in care instead of using emergency department
- Specialists of all types (5), including heart services, pediatrics, oncology, and obstetrics
- More choices in provider of services, especially for low income residents who can't leave the area.
- Mental health providers that take patients without insurance.

4. What are the vulnerable groups/populations we should pay special attention to that might otherwise be overlooked in this health community, including leading social factors?

- Low income or residents with cultural barriers who underutilize preventive services
- Low socio-economics groups (2), especially the working poor who don't have insurance or are underinsured
- Rural residents who are less likely to travel far for access
- People with mental health issues
- Children without access to Head Start
- Low income seniors and older people with aging care needs (2)
- Residents on the south side of Taylor, where there are a greater number of lower income residents, special needs, language issues, large Hispanic populations, transportation challenges, and poor housing conditions.
- Groups with lower resources and less flexibility.

5. Where are there gaps in the mental/behavioral health services continuum?

- Bluebonnet services and programs that are more consistent
- Behavioral health assessment appointments for students in schools faster (currently multiple weeks)
- Family wraparound services for children, someone outside the school to determine overall needs of the family
- Additional staffing and resources for Blue Bonnet Trails Community Services to serve 8 counties
- Liaison between schools and services
- Alcohol and meth services in rural areas
- Funding for program changes to make services available long term.

6. What are ways that health system organizations (e.g. health departments, community clinics, and hospitals) can engage with existing groups in the community to address behavioral health issues, including faith-based organizations?

- Bring in speakers for seniors.
- Need help on how to access services outside this market (that are not available locally).
- Determine in each community what are some of the groups that have good turnouts at events (Lions Club, Rotary) and connect with the community to help set up education sessions.
- Need navigators to help people find services.

7. How do community residents access their health information? What are the information gaps about health and healthcare services in this community?

- Churches or membership organizations
- Internet is easily accessible (3) but not available to everyone, especially seniors.
- Word of mouth in this rural community, with family members and friends is most common. (3)
- Library computers, but they're often full. Suggestion to get more computers and place them at hospitals and doctor offices.
- TV advertising
- 211 and Aunt Bertha (online resource to search by ZIP or topic)
- Newspaper
- Need to reach out to everyone in the community, especially those who can't read English.

8. What are the OPPORTUNITIES to improve health in this community?

- Have health classes in all languages; give information in multiple languages. (2)
- Teach about options in schools and involve the parents. (2)
- Be more inclusive and ensure that offerings are available to everyone, including different neighborhoods and churches.
- Everybody needs a doctor or medical professional, and check for certification and qualifications.
- People with resources don't experience any difficulty.
- Have churches sponsor events with BSWH or have hospitals reach out so people can understand the issues and spread the word.
- Improve transportation so people can access specialists and preventive care outside the community.
- The south side of Taylor has higher needs for better health, food options, and housing. Suggest that services in that community should be close by and easy to access.

9. How can the health system organizations be active partners with you and your organizations, or what system changes need to take place to make health system organizations work together?

- Be out and more visible in the community.
- Build more opportunities for activity or healthy food.
- Have health fairs in parks on the south side for the community to walk there to learn about health care options and services.
- Understand the greater need in this area and brainstorm how to get people healthier.
- Hospital providers go the senior center, students, and housing authority.
- Use more mobile clinics. St. David's has a van for dental care, which is a great model.
- Provide physicians that can visit patient homes when they can't go to the hospital.
- Welcome people and make it more accessible. Offer more health fairs and make doctors available. Get to know people.

10. What are some examples of innovative collaborative models at the local, state, and/or national levels?

- Create a centralized location for low income services and promote healthy food and lifestyle. Makes it more accessible.
- Offer counselors to help people with paperwork. Get everybody involved and familiar with the process of navigating the health care system and make it a shared experience.
- One stop shop - centralized location with nurse practitioners, different specialties, food banks, budgeting, and healthy eating classes.
- Bring people together with different perspectives to share multifaceted input, understand what services are available, build relationships, and work together better.
- The county commissioner who oversees mental health services invited school people to a forum to listen about the mental health needs; this was very useful.
- Use churches to share information about programs, build on trust in those communities, especially minority ones.

Appendix M: Mom's Community Listening Forum Report

Report can be accessed here:

http://www.healthywilliamsoncounty.org/content/sites/wcchd/maternal_and_infant/2018/FINAL_Moms_Report.pdf

Appendix N: CASPER Report

Report can be accessed here: <http://www.healthywilliamsoncounty.org/casper>

Appendix O: Local Public Health Systems Survey

This survey is part of the 2019 Williamson County Community Health Assessment (CHA) conducted by Williamson County and Cities Health District and community partners. The purpose of the survey is to measure the extent and reach of the local public health system in Williamson County. The survey is based on the 10 Essential Public Health Services, as defined by the Centers for Disease Control and Prevention (CDC), and the local public health system assessment guidelines developed by the National Association of County and City Health Officials (NACCHO). For more information about the essential services of Public Health, please see this link: <https://www.cdc.gov/nphpsp/essentialservices.html>.

Responses from this survey will be combined with other data sources and used to prioritize health needs in Williamson County. You received this survey because your organization has been identified as an important part of the local public health system in Williamson County.

The local public health system is commonly defined as all “public, private, and voluntary entities, individuals, and informal associations that contribute to the delivery of the essential health services within a jurisdiction.”

Please answer each question below about your organization’s role in the delivery of public health services and your perceptions of how well the local public health system is doing in delivering public health services.

We prefer that only one person from each organization, or each division within a larger organization, answer the survey.

NAME	
Title	
Organization	
Email	

Please select from the list below which areas your organization has a role in delivering services. Please select all that apply.

- ☐ Chronic disease prevention and control
- ☐ Communicable disease prevention and control
- ☐ Emergency preparedness, response and recovery
- ☐ Community engagement
- ☐ Mental health and substance abuse
- ☐ Preventive health services
- ☐ Primary care services
- ☐ Program eligibility and social services
- ☐ Specialty care services
- ☐ Surveillance/Epidemiology
- ☐ Other _____

Optimal Activity (76–100%)	Greater than 75% of the activity described within the question is met.
Significant Activity (51–75%)	Greater than 50% but no more than 75% of the activity described within the question is met.
Moderate Activity (26–50%)	Greater than 25% but no more than 50% of the activity described within the question is met.
Minimal Activity (1–25%)	Greater than zero but no more than 25% of the activity described within the question is met.
No Activity (0%)	0% or absolutely no activity.

ESSENTIAL SERVICE #1 – MONITOR HEALTH STATUS TO IDENTIFY COMMUNITY HEALTH PROBLEMS

1.2.1 Use the best available technology and methods to display data on the public's health?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1.2.2 Analyze health data, including geographic information, to see where health problems exist?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ESSENTIAL SERVICE #2 – DIAGNOSE AND INVESTIGATE HEALTH PROBLEMS AND HEALTH HAZARDS

2.1.1 Participate in a comprehensive surveillance system with national, state, and local partners to identify, monitor, and share information and understand emerging health problems and threats?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.1.2 Provide and collect timely and complete information on reportable diseases and potential disasters, emergencies, and emerging threats (natural and manmade)?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.2.2 Develop written rules to follow in the immediate investigation of public health threats and emergencies, including natural and intentional disasters?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.3.1 Have ready access to laboratories that can meet routine public health needs for finding out what health problems are occurring?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ESSENTIAL SERVICE #3—INFORM, EDUCATE, AND EMPOWER PEOPLE ABOUT HEALTH ISSUES

3.1.1 Provide policymakers, stakeholders, and the public with ongoing analyses of community health status and related recommendations for health promotion policies?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
--	-------------	---------	----------	-------------	---------

	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.1.2 Coordinate health promotion and health education activities at the individual, interpersonal, community, and societal levels?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.2.1 Develop health communication plans for media and public relations and for sharing information among LPHS organizations?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.3.1 Develop an emergency communications plan for each stage of an emergency to allow for the effective dissemination of information?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.3.2 Make sure resources are available for a rapid emergency communication response?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ESSENTIAL SERVICE #4—MOBILIZE COMMUNITY PARTNERSHIPS TO IDENTIFY AND SOLVE HEALTH PROBLEMS

4.2.1 Establish community partnerships and strategic alliances to provide a comprehensive approach to improving health in the community?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.2.3 Assess how well community partnerships and strategic alliances are working to improve community health?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ESSENTIAL SERVICE #5—DEVELOP POLICIES AND PLANS THAT SUPPORT INDIVIDUAL AND COMMUNITY HEALTH EFFORTS

5.1.1 Support the work of the local health department (or other governmental local public health entity) to make sure the 10 Essential Public Health Services are provided?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal

☐ ☐ ☐ ☐ ☐

5.1.3 Ensure that the local health department has enough resources to do its part in providing essential public health services?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.2.1 Contribute to public health policies by engaging in activities that inform the policy development process?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.2.2 Alert policymakers and the community of the possible public health effects (both intended and unintended) from current and/or proposed policies?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.3.3 Connect organizational strategic plans with the Community Health Improvement Plan (CHIP)?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ESSENTIAL SERVICE #6—ENFORCE LAWS AND REGULATIONS THAT PROTECT HEALTH AND ENSURE SAFETY

6.1.2 Stay up-to-date with current laws, regulations, and ordinances that prevent health problems or that promote or protect public health on the federal, state, and local levels?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6.2.1 Identify local public health issues that are inadequately addressed in existing laws, regulations, and ordinances?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6.2.2 Participate in changing existing laws, regulations, and ordinances, and/or creating new laws, regulations, and ordinances to protect and promote public health?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ESSENTIAL SERVICE #7—LINK PEOPLE TO NEEDED PERSONAL HEALTH SERVICES AND ASSURE THE PROVISION OF HEALTHCARE WHEN OTHERWISE UNAVAILABLE

7.1.2 Identify all personal health service needs and unmet needs throughout the community?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7.2.2 Help people access personal health services in a way that takes into account the unique needs of different populations?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7.2.4 Coordinate the delivery of personal health and social services so that everyone in the community has access to the care they need?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ESSENTIAL SERVICE #8—ASSURE A COMPETENT PUBLIC HEALTH AND PERSONAL HEALTHCARE WORKFORCE

8.3.1 Identify education and training needs and encourage the public health workforce to participate in available education and training?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8.3.5 Continually train the public health workforce to deliver services in a culturally competent manner and understand the social determinants of health?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8.4.4 Provide opportunities for the development of leaders who represent the diversity of the community?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ESSENTIAL SERVICE #9—EVALUATE EFFECTIVENESS, ACCESSIBILITY, AND QUALITY OF PERSONAL AND POPULATION-BASED HEALTH SERVICES

9.1.1 Evaluate how well population-based health services are working, including whether the goals that were set for programs and services were achieved?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9.1.2 Assess whether community members, including vulnerable populations, are satisfied with the approaches taken toward promoting health and preventing disease, illness, and injury?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9.1.3 Identify gaps in the provision of population-based health services?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ESSENTIAL SERVICE #10—RESEARCH FOR NEW INSIGHTS AND INNOVATIVE SOLUTIONS TO HEALTH PROBLEMS

10.1.3 Keep up with information from other agencies and organizations at the local, state, and national levels about current best practices in public health?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10.2.2 Partner with colleges, universities, or other research organizations to conduct public health research, including community-based participatory research?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10.3.3 Share findings with public health colleagues and the community broadly, through journals, Web sites, community meetings, etc.?

TO WHAT EXTENT DOES YOUR ORGANIZATION DO THIS?	NO ACTIVITY	MINIMAL	MODERATE	SIGNIFICANT	OPTIMAL
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well is this done in the local public health system?	No Activity	Minimal	Moderate	Significant	Optimal
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix P: Local Public Health System Assessment Results

MEASURE	DESCRIPTION OF PERFORMANCE MEASURE	LPHS AVERAGE SCORE	ORGANIZATION AVERAGE SCORE
6.1.2	Stay up-to-date with current laws, regulations, and ordinances that prevent health problems or that promote or protect public health on the federal, state, and local levels?	3.86	3.64
4.2.1	Establish community partnerships and strategic alliances to provide a comprehensive approach to improving health in the community?	3.60	4.27
5.1.1	Support the work of the local health department (or other governmental local public health entity) to make sure the 10 Essential Public Health Services are provided?	3.57	3.79
4.2.3	Assess how well community partnerships and strategic alliances are working to improve community health?	3.53	4.07
2.1.2	Provide and collect timely and complete information on reportable diseases and potential disasters, emergencies, and emerging threats (natural and manmade)?	3.50	2.88
2.3.1	Have ready access to laboratories that can meet routine public health needs for finding out what health problems are occurring?	3.50	2.69
5.3.3	Connect organizational strategic plans with the Community Health Improvement Plan (CHIP)?	3.50	3.86
7.1.2	Identify all personal health service needs and unmet needs throughout the community?	3.50	3.50
10.1.3	Keep up with information from other agencies and organizations at the local, state, and national levels about current best practices in public health?	3.46	3.92
3.1.1	Provide policymakers, stakeholders, and the public with ongoing analyses of community health status and related recommendations for health promotion policies?	3.44	3.69
3.1.2	Coordinate health promotion and health education activities at the individual, interpersonal, community, and societal levels?	3.44	3.44
3.3.2	Make sure resources are available for a rapid emergency communication response?	3.44	2.75
1.2.2	Analyze health data, including geographic information, to see where health problems exist?	3.38	3.38
2.2.2	Develop written rules to follow in the immediate investigation of public health threats and emergencies, including natural and intentional disasters?	3.38	2.88
2.1.1	Participate in a comprehensive surveillance system with national, state, and local partners to identify, monitor, and share information and understand emerging health problems and threats?	3.31	3.44
3.3.1	Develop an emergency communications plan for each stage of an emergency to allow for the effective dissemination of information?	3.31	2.69
3.2.1	Develop health communication plans for media and public relations and for sharing information among LPHS organizations?	3.25	3.13

10.2.2	Partner with colleges, universities, or other research organizations to conduct public health research, including community-based participatory research?	3.15	3.46
5.2.1	Contribute to public health policies by engaging in activities that inform the policy development process?	3.14	2.79
6.2.1	Identify local public health issues that are inadequately addressed in existing laws, regulations, and ordinances?	3.14	3.14
6.2.2	Participate in changing existing laws, regulations, and ordinances, and/or creating new laws, regulations, and ordinances to protect and promote public health?	3.14	2.79
7.2.2	Help people access personal health services in a way that takes into account the unique needs of different populations?	3.14	3.50
7.2.4	Coordinate the delivery of personal health and social services so that everyone in the community has access to the care they need?	3.14	3.21
1.2.1	Use the best available technology and methods to display data on the public's health?	3.13	3.25
9.1.1	Evaluate how well population-based health services are working, including whether the goals that were set for programs and services were achieved?	3.08	3.62
9.1.3	Identify gaps in the provision of population-based health services?	3.08	3.46
5.1.3	Ensure that the local health department has enough resources to do its part in providing essential public health services?	3.00	2.71
5.2.2	Alert policymakers and the community of the possible public health effects (both intended and unintended) from current and/or proposed policies?	3.00	2.64
9.1.2	Assess whether community members, including vulnerable populations, are satisfied with the approaches taken toward promoting health and preventing disease, illness, and injury?	2.92	3.23
10.3.3	Share findings with public health colleagues and the community broadly, through journals, Web sites, community meetings, etc.?	2.85	3.15
8.3.1	Identify education and training needs and encourage the public health workforce to participate in available education and training?	2.85	3.31
8.3.5	Continually train the public health workforce to deliver services in a culturally competent manner and understand the social determinants of health?	2.77	3.15
8.4.4	Provide opportunities for the development of leaders who represent the diversity of the community?	2.46	2.62

Appendix Q: Community Health Assessment Matrix

NAME OF ASSESSMENT	ORG	YEAR	DEMOGR APHICS	SOCIAL & PHYSICAL ENVIRONMENT	COMMUNITY STRENGTHS & RESOURCES	HEALTH BEHAVIORS	HEALTH OUTCOMES	HEALTH CARE ACCESS & AFFORDABILITY	EXTERNAL FACTORS	COMMUNITY'S VISION & IDENTIFIED OPPORTUNITIES	LINK
Williamson County Comprehensive Parks Master Plan	Williamson County	2018	X	X	X				X	X	http://www.willco.org/public-input-needed-on-updated-parks-master-plan
Community Coalition Partnerships, Community Needs Assessment	LifeSteps	2018	X		X	X	X		X	X	PDF Copy
Southeast Georgetown Needs Assessment	Georgetown Health Foundation	2015	X	X	X	X		X	X	X	http://gthf.org/Forms/GHF_NE EDS_ASSESSMENT_CV_Nov2015.pdf
Community Health Needs Assessment	Baylor Scott & White Medical Center – Round Rock, Taylor, Cedar Park	2016	X	X	X	X	X	X			https://www.bswhealth.com/SiteCollectionDocuments/about/community-health-needs-assessments/BSW_CHNA_Final_Report_CTX3_AustinRR.pdf
Community Assessment	Opportunities for Williamson and Burnet Counties	2017	X	X	X			X		X	http://www.opportunitiesforwbc.org/wp-content/uploads/2017/05/2017-Community-Assessment.pdf