


Community Health Needs Assessment

Denton Health Community

2022

Baylor Scott & White HEALTH

Denton health community hospital

- Baylor Scott & White The Heart Hospital - Denton

Approved by: Baylor Scott & White Health – North Texas Operating, Policy and Procedure Board on May 31, 2022
Posted to **BSWHealth.com/CommunityNeeds** on June 30, 2022

Baylor Scott & White HEALTH

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Baylor Scott & White Health mission

Our commitment to the communities we serve

As the largest not-for-profit healthcare system in Texas and one of the largest in the United States, Baylor Scott & White Health was born from the 2013 combination of Baylor Health Care System and Scott & White Healthcare. Today, Baylor Scott & White includes 51 hospitals, 1,100 access points, more than 7,300 active physicians, and over 49,000 employees and the Baylor Scott & White Health Plan.

Baylor Scott & White Health is a leading Texas healthcare provider with a proven commitment to patient and community health. Baylor Scott & White Health demonstrates this commitment through periodic community health needs assessments, then addresses those needs with a wide range of outreach initiatives.

These Community Health Needs Assessment (CHNA) activities also satisfy federal and state community benefit requirements outlined in the Patient Protection and Affordable Care Act and the Texas Health and Safety Code.

Baylor Scott & White Health conducts a thorough periodic examination of public health indicators and a benchmark analysis comparing communities it serves to an overall state of Texas value. In this way, it can determine where deficiencies lie and the opportunities for improvement are greatest.

Through interviews, focus groups and surveys, the organization gains a clearer understanding of community needs from the perspective of the members of each community. This helps it identify the most pressing needs a community is facing and develop implementation plans to focus on those prioritized needs.

The process includes input from a wide range of knowledgeable people who represent the myriad interests of the community in compliance with 501 (r)(3) regulations. The CHNA process overview can be found in **Appendix A**.

The CHNAs serve as the foundation for community health improvement planning efforts over the next three years, while the implementation plans will be evaluated annually.

Community Health Needs Assessment (CHNA) report

Baylor Scott & White Health (BSWH) owns and operates numerous individually licensed hospital facilities serving the residents of North and Central Texas.

The Denton Health Community is home to one of these hospitals:

- Baylor Scott & White The Heart Hospital - Denton

The community served by the hospital listed above includes Cooke, Denton and Wise Counties. The community served was based on the contiguous ZIP codes within the associated counties that made up nearly 80% of the hospital facility's inpatient admissions over the 12-month period of FY20. The facility completed a CHNA report in accordance with the Internal Revenue Code Section 501 (r) (3) and the US Treasury regulations thereunder.

Denton Health Community map

BSWH engaged with IBM Watson Health, a nationally respected consulting firm, to conduct a Community Health Needs Assessment (CHNA) in accordance with the federal and state community benefit requirements for the health communities they serve.

The CHNA process included:

- Gathering and analyzing more than 59 public and 45 proprietary health data indicators to provide a comprehensive assessment of the health status of the communities. The complete list of health data indicators is included in **Appendix B**.
- Creating a benchmark analysis comparing the community to overall state of Texas and United States (US) values.
- Conducting focus groups, key informant interviews and stakeholder surveys, including input from public health experts, to gain direct input from the community for a qualitative analysis.
  - Gathering input from state, local and/or regional public health department members who have the pulse of the community's health.
  - Identifying and considering input from individuals or organizations serving and/or representing the interests of medically underserved low-income and minority populations in the community to help prioritize the community's health needs.
  - The represented organizations that participated are included in **Appendix C**.

IBM Watson Health provided current and forecasted demographic, socioeconomic and utilization estimates for the community.

Demographic and socioeconomic summary

The most important demographic and socioeconomic findings for the Denton Health Community CHNA are:

- The community population growth outpaces the rate of growth of both the US and the state of Texas.
- The median age of the population is younger than the US but older than the state of Texas.
- The median household income is significantly higher than both the state and the US.
- The community served has fewer uninsured, Medicaid and Medicare residents than Texas and the US.

Further demographic and socioeconomic information for the Denton Health Community is included in **Appendix D**.

Health community data summary

IBM Watson Health's utilization estimates and forecasts indicate the following for the Denton Health Community:

- Inpatient discharges in the community are expected to grow by over 16% by 2030 with the largest growing product lines to include:
  - Pulmonary medical
  - General medicine
  - Cardiovascular diseases
  - Orthopedics
- Outpatient procedures are expected to increase by 37.5% by 2030 with the largest areas of growth including:
  - Labs
  - General & internal medicine
  - Physical & occupational therapy
  - Psychiatry
- Emergency department visits are expected to grow by almost 19% by 2025.
- Hypertension represents over 73% of all heart disease cases.
- Cancer incidence is expected to increase by 14.7% by 2025.

Further health community information for the Denton Health Community is included in **Appendix E**.

The community includes the following health professional shortage areas and medically underserved areas as designated by the US Department of Health and Human Services Health Resources Services Administration. **Appendix D** includes the details on each of these designations.

	Health professional shortage areas (HPSA)				Medically underserved area/ population (MUA/P)
County	Dental health	Mental health	Primary care	Grand total	MUA/P
Cooke	1	2	2	5	
Denton	1	2	1	4	1
Wise		1	1	2	

Source: US Department of Health and Human Services, Health Resources and Services Administration, 2021

Total population

1,010,752

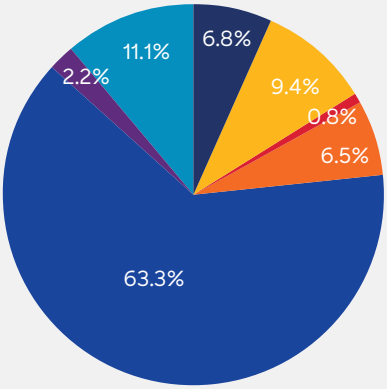
Average income

$91,283

Underserved ZIP codes

2

Insurance coverage



Priority health needs

Using the data collection and interpretation methods outlined in this report, BSWH has identified what it considers to be the community's significant health needs. The resulting prioritized health needs for this community are:

Priority	Need	Category of need
1	Diabetes	Conditions/diseases
2	Population under age 65 without health insurance	Access to care
3	Access to primary healthcare providers	Access to care
4	Access to mental healthcare (providers/resources)	Access to care/ mental health

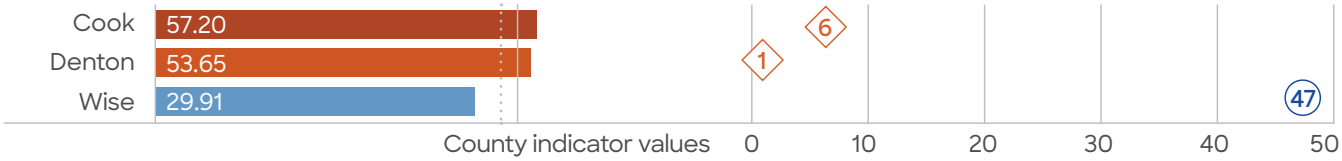
Priority 1: Diabetes

The data indicates greater need in the area of **diabetes admission and diabetes prevalence** although they were not discussed by the key informants specifically.

Category	Data shows greater need	Key informants indicate less need or not mentioned
Conditions/ diseases	• Diabetes admission • Diabetes prevalence	• Not specifically mentioned

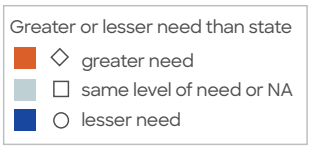
The indicator **diabetes admission** is defined as **the number observed/adult population age 18 and older**. Note that risk-adjusted rates are not calculated for counties with fewer than five admissions. The measure is based on data from Texas Health and Human Services Center for Health Statistics Preventable Hospitalizations.

Diabetes admission (number observed/adult population in county)



The **diabetes prevalence** measure is defined as **the prevalence of diagnosed diabetes in a given county**. Note that respondents were considered to have diagnosed diabetes if they responded "yes" to the question, "Has a doctor ever told you that you have diabetes?" Women who indicated that they only had diabetes during pregnancy were not considered to have diabetes. The indicator is based on data from County Health Rankings (CDC Diabetes Interactive Atlas).

Diabetes prevalence (prevalence as % of diagnosed diabetes by county)



Counties are listed in alphabetical order within NTX-Denton Health Community.
LEFT PANEL: Indicator Values horizontal bar and label shows the county score. Vertical dotted line shows the state benchmark. Solid line is US score. Orange colors indicate a greater need and potentially larger vulnerable population in the county relative to the state benchmark. Blue indicates a lesser need and potentially smaller vulnerable population. Darker intense colors indicate greater differences. **RIGHT PANEL:** Rank within county marks show how the indicator ranks compared to other indicators within the county. Indicators are ranked from 1 to 59, where low numbers show higher need and potentially larger vulnerable population relative to the state benchmark. Color and shape compare county performance to the state benchmark; orange diamonds show greater need and blue circles lesser need.

In the prioritization session, hospital leadership cited that diabetes is a top medical condition at Health Services of North Texas, the area's provider of healthcare for uninsured and underinsured residents. In addition, the prevalence of uncontrolled diabetes is high. They noted that many patients who are admitted to the hospital are not even aware that they have diabetes. The leadership team believes strongly that lifestyle and lack of access to primary care contribute to the high diabetes hospital admissions they are experiencing.

Priority 2: Population Under Age 65 Without Health Insurance

Both the data and the key informants indicated a need to address the measure of population under age 65 without health insurance in the community.

Category	Data shows greater need	Key informants indicate greater need
Access to care	• Population under age 65 without health insurance	• Many uninsured in health community

The indicator **population under age 65 without health insurance** is defined as **the percentage of population under age 65 without health insurance**. The indicator is based on data from County Health Rankings & Roadmaps; Small Area Health Insurance Estimates (SAHIE), United States Census Bureau.

Population under age 65 without health insurance (% of population under age 65 without health insurance by county)

Greater or lesser need than state
- ◇ greater need
- ☐ same level of need or NA
- ○ lesser need

Counties are listed in alphabetical order within NTX-Denton Health Community.
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The focus group participants cited that a lack of health insurance is a top barrier to good health, especially in Denton County. They added that a lack of insurance coverage prevents many from seeking needed healthcare services as preventive measures, and they land in emergency rooms instead. In addition, there is limited access to dental healthcare and substance abuse/detoxification services for the uninsured.

In the prioritization session, the hospital and community leaders also expressed concern for residents in Denton County, noting that since Denton does not have a county hospital, the uninsured are using the community hospital for their primary care.

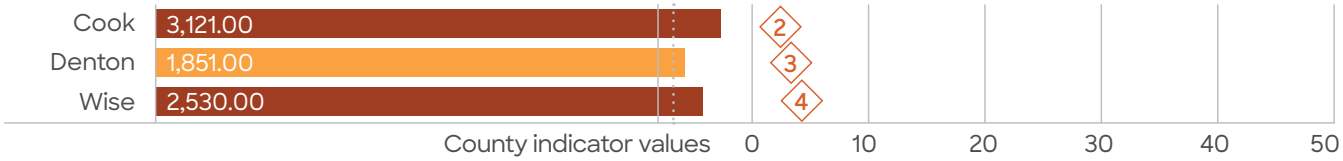
Priority 3: Access to Primary Healthcare Providers

The following indicates greater need for access for the population to one primary care provider and access for the population to one non-physician primary care provider.

Category	Data shows less need or no data	Key informants indicate greater need
Access to care	• Population to one primary care physician	• Gaps in primary care providers

The **population to one primary care physician** indicator is defined as **the number of individuals served by one physician in a county if the population was equally distributed across physicians** and is based on data from County Health Rankings & Roadmaps and Area Health Resource File/American Medical Association.

Population to one primary care physician (number of individuals served by one physician by county)



Greater or lesser need than state
- ◇ greater need
- □ same level of need or NA
- ○ lesser need

Counties are listed in alphabetical order within NTX-Denton Health Community.
LEFT PANEL: Indicator Values horizontal bar and label shows the county score. Vertical dotted line shows the state benchmark. Solid line is US score. Orange colors indicate a greater need and potentially larger vulnerable population in the county relative to the state benchmark. Blue indicates a lesser need and potentially smaller vulnerable population. Darker intense colors indicate greater differences.
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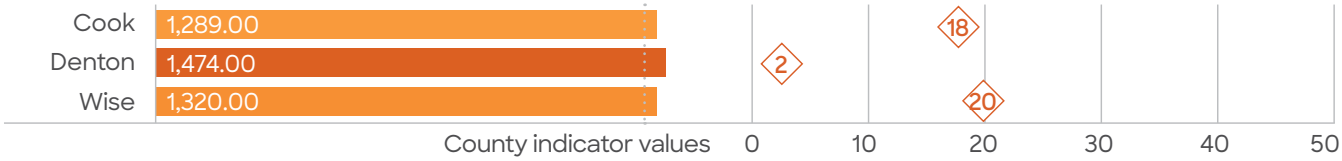
Category	Data shows less need or no data	Key informants indicate less need or not mentioned
Access to care	• Population to one non-physician primary care provider	• Not specifically mentioned

The **population to one non-physician primary care provider** indicator is defined as **the ratio of population to primary care providers other than physicians** and is based on data from County Health Rankings & Roadmaps; CMS, National Provider Identification Registry (NPPES).

Population to one non-physician primary care provider (ratio of population to primary care providers other than physicians by county)



Greater or lesser need than state
- ◇ greater need
- □ same level of need or NA
- ○ lesser need

Counties are listed in alphabetical order within NTX-Denton Health Community.
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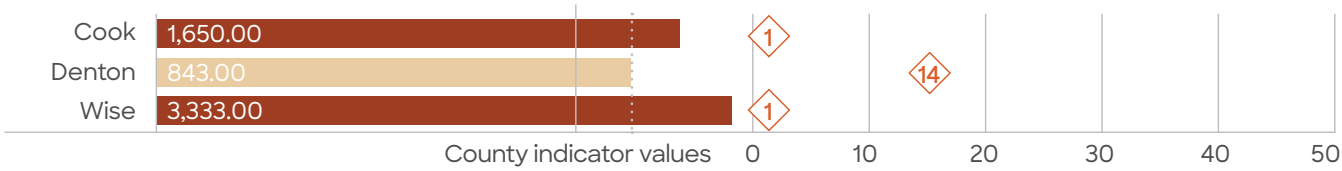
The focus group participants felt that the overall community area has limited healthcare services for the population. Participants stated there is difficulty accessing primary care for both the uninsured and underinsured especially.

In the prioritization session, the hospital leadership explained that primary care development is needed in the Denton Health Community. They cited that the demand for primary care resources is significantly higher than the current capacity. They also noted that because the volume of new patients is increasing, it makes it difficult for primary care physicians to continue to serve their established patients. In addition, it is difficult to connect emergency services patients to primary care providers after they are discharged.

Priority 4: Access to Mental Healthcare (Providers/Resources/ Crisis Intervention)

Category	Data shows greater need	Key informants indicate greater need
Access to care/ mental health	• Population to one mental health provider	• Gaps in access to mental health/ behavioral health/crisis intervention

Population to one mental health provider (ratio of population to mental health providers by county)



Greater or lesser need than state
- ◇ greater need
- □ same level of need or NA
- ○ lesser need

Counties are listed in alphabetical order within NTX-Denton Health Community.
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The focus group participants stated that the community has large gaps in access to mental/ behavioral health and crisis intervention services. Participants recognized that the need for those services increased due to the pandemic. Furthermore, COVID identified a need in the community for detoxification treatment for the uninsured and highlighted a need for mental health and suicide prevention education in the community.

In the prioritization session, the hospital leadership group agreed that mental health resources are in need. They also believed that mental health and a lack of mental health resources have always been issues for Denton County but have been exacerbated by the pandemic.

The Community Health Dashboards data referenced above can be found at **BSWHealth.com/About/Community-Involvement/Community-Health-Needs-Assessments**.

The prioritized list of significant health needs approved by the hospitals' governing body and the full assessment are available to the public at no cost. To download a copy, visit **BSWHealth.com/CommunityNeeds**.

Existing resources to address health needs

One part of the assessment process includes gathering input on potentially available community resources. The community is served by several large healthcare systems and multiple community-based health clinics. Below is a list of some of the community resources available to address identified needs in the community.

Denton health community resources

Need	Organization	Address	Phone
Diabetes	Little Elm Medical Clinic (disease management)	730 E. Eldorado Parkway Little Elm, TX 75068	972.292.3330
	Today Clinic	1318 W. Main Street Lewisville, TX 75067	214.222.0781
	Natural Grocers (in-store nutrition class)	110 W. University Drive Denton, TX 76201	940.387.1100
	Health Services of North Texas (HSNT) (primary care)	821 N. Elm Street Denton, TX 76201	940.381.1501
	Wisdom Health Care Clinic (diabetes care)	403 W. Main Street Lewisville, TX 75057	972.436.1811
Population under 65 without health insurance	First Refuge Ministries - Medical Clinic (serves uninsured)	1701 Broadway Street Denton, TX 76201	940.213.3571
	Health Services of North Texas (HSNT) (serves uninsured)	4401 Interstate 35 Denton, TX 76207	800.974.2437
	Denton County Health Department - Indigent Health Care	535 S. Loop 288 Denton, TX 76205	940.349.2940
	Interfaith Ministries of Denton, Inc. (prescription assistance, medical supplies, eye exams)	1109 N. Elm Street Denton, TX 76201	940.566.5927
	Frisco Family Services (emergency financial assistance, prescription assistance)	9125 Dogwood Street Frisco, TX 75033	972.335.9495
Access to primary healthcare providers	Little Elm Medical Clinic (disease management)	730 E. Eldorado Parkway Little Elm, TX 75068	972.292.3330
	Today Clinic	1318 W. Main Street Lewisville, TX 75067	214.222.0781
	Health Services of North Texas (HSNT) (primary care)	821 N. Elm Street Denton TX 76201	940.381.1501
	Denton County Health Department (primary care)	535 S. Loop 288 Denton, TX 76205	940.349.2900
	First Refuge Ministries	1701 Broadway Street Denton, TX 76201	940.213.3571

Need	Organization	Address	Phone
Access to mental healthcare (providers/ resources)	First Refuge Ministries (Counseling Ministries)	1701 Broadway Street Denton, TX 76201	940.484.4384
	Christian Community Action (CCA) (spiritual counseling)	200 S. Mill Street Lewisville, TX 75057	972.221.1224
	First Step Denton County Outreach Program, LLC	1406 N. Corinth Street Corinth, TX 76208	940.497.5576
	Grace Counseling, Inc.	105 Kathryn Drive Lewisville, TX 75067	844.564.0712
	Denton County MHMR Center	1001 Cross Timbers Road Flower Mound, TX 75028	940.381.5000

There are many other community resources and facilities serving the Denton region that are available to address identified needs and can be accessed through a comprehensive online resource catalog called Find Help (formerly known as Aunt Bertha). It can be accessed 24/7 at **BSWHealth.FindHelp.com**.

Next steps

BSWH started the Community Health Needs Assessment process in April 2021. Using both qualitative community feedback as well as publicly available and proprietary health indicators, BSWH was able to identify and prioritize community health needs for their healthcare system. With the goal of improving the health of the community, implementation plans with specific tactics and time frames will be developed for the health needs BSWH chooses to address for the community served.

Appendix A: CHNA requirement details

The Patient Protection and Affordable Care Act (PPACA) requires all tax-exempt organizations operating hospital facilities to assess the health needs of their community every three (3) years. The resulting Community Health Needs Assessment (CHNA) report must include descriptions of the following:

- The community served and how the community was determined;
- The process and methods used to conduct the assessment, including sources and dates of the data and other information as well as the analytical methods applied to identify significant community health needs;
- How the organization used input from persons representing the broad interests of the community served by the hospital, including a description of when and how the hospital consulted with these persons or the organizations they represent;
- The prioritized significant health needs identified through the CHNA as well as a description of the process and criteria used in prioritizing the identified significant needs;
- The existing healthcare facilities, organizations and other resources within the community available to meet the significant community health needs; and
- An evaluation of the impact of any actions that were taken since the hospital's most recent CHNA to address the significant health needs identified in that report.
    - Hospitals also must adopt an implementation strategy to address prioritized community health needs identified through the assessment.

CHNA process

BSWH began the 2022 CHNA process in April of 2021. The following is an overview of the timeline and major milestones:

Consultant qualifications

IBM Watson Health delivers analytic tools, benchmarks and strategic consulting services to the healthcare industry, combining rich data analytics in demographics, including the Community Needs Index, planning and disease prevalence estimates, with experienced strategic consultants to deliver comprehensive and actionable Community Health Needs Assessments.

Health needs assessment process overview

To identify the health needs of the community, the hospitals established a comprehensive method using all available relevant data including community input. They used the qualitative and quantitative data obtained when assessing the community to identify its community health needs. Surveyors conducted interviews and focus groups with individuals representing public health, community leaders/groups, public organizations and other providers. In addition, data collected from public sources compared to the state benchmark indicated the level of severity. The outcomes of the quantitative data analysis were compared to the qualitative data findings.

These data are available to the community via an interactive dashboard at **BSWHealth.com/CommunityNeeds**.

Data gathering: quantitative assessment of health needs – methodology and data sources

The IBM team used quantitative data collection and analysis garnered from public health indicators to assess community health needs. This included over 100 data elements grouped into over 11 categories evaluated for the counties where data was available. Recently, indicators expanded to include new categories addressing mental health, healthcare costs, opioids and social determinants of health. A table depicting the categories and indicators and a list of sources are in **Appendix B**.

A benchmark analysis of each indicator determined which public health indicators demonstrated a community health need. Benchmark health indicators included overall US values, state of Texas values and other goal-setting benchmarks, such as Healthy People 2020.

According to America's Health Rankings 2021 Annual Report, Texas ranks 22nd out of the 50 states in the area of Health Outcomes (which includes behavioral health, mortality and physical health) and 50th in the area of Clinical Care (which includes avoiding care due to cost, providers per 100,000 population and preventive services). When the health status of Texas was compared to other states, the team identified many opportunities to impact community health.

The quantitative analysis of the health community used the following methodology:

- The team set benchmarks for each health community using state value for comparison.
- They identified community indicators not meeting state benchmarks.
- From this, they determined a need differential analysis of the indicators, which helped them understand the community's relative severity of need.
- Using the need differentials, they established a standardized way to evaluate the degree that each indicator differed from its benchmark.
- This quantitative analysis showed which health community indicators were above the 25th percentile in order of severity—and which health indicators needed their focus.

The outcomes of the quantitative data analysis were compared to the qualitative data findings.

Information gaps

In some areas of Texas, the small population size has an impact on reporting and statistical significance. The team has attempted to understand the most significant health needs of the entire community. It is understood that there is variation of need within the community, and BSWH may not be able to impact all of the population who truly need the service.

Community input: qualitative health needs assessment - approach

To obtain a qualitative assessment of the health community, the team:

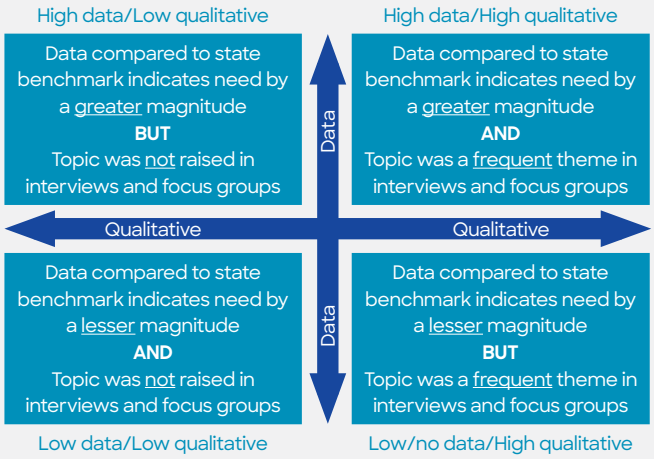
- Assembled a focus group representing the broad interests of the community served;
- Conducted interviews and surveys with key informants—leaders and representatives who serve the community and have insight into its needs; and
- Held prioritization sessions with hospital clinical leadership and community leaders to review collection results and identify the most significant healthcare needs based on information gleaned from the focus groups and key informants.

Focus groups helped identify barriers and social factors influencing the community's health needs. Key informant interviews gave the team even more understanding and insight about the general health status of the community and the various drivers that contributed to health issues.

Multiple governmental public health department individuals were asked to contribute their knowledge, information and expertise relevant to the health needs of the community. Individuals or organizations who served and/or represented the interests of medically underserved, low-income and minority populations in the community also took part in the process. NOTE: In some cases, public health officials were unavailable due to obligations concerning the COVID-19 pandemic.

The hospitals also considered written input received on their most recently conducted CHNA and subsequent implementation strategies if provided. The assessment is available for public comment or feedback on the report findings by going to the BSWH website (**BSWHealth.com/CommunityNeeds**) or by emailing **CommunityHealth@BSWHealth.org**.

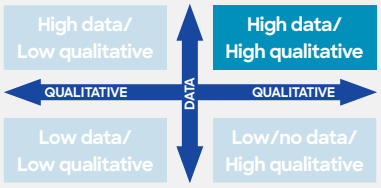
Approach to prioritizing significant health needs



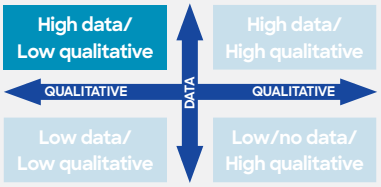
High data = Indicators worse than state benchmark by greater magnitude
High qualitative = Frequency of topic in interviews and focus groups

On January 27, 2022, a session was conducted with key leadership members from Baylor Scott & White along with community leaders to review the qualitative and quantitative data findings of the CHNA to date, discuss at length the significant needs identified, and complete prioritization exercises to rank the community needs. Prioritizing health needs was a two-step process. The two-step process allowed participants to consider the quantitative needs and qualitative needs as defined by the indicator dataset and focus group/interview/survey participant input.

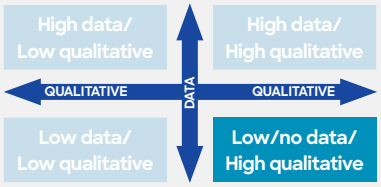
In the first step, participants reviewed the top health needs for their community using associated data-driven criteria. The criteria included health indicator value(s) for the community and how the indicator compared to the state benchmark.



High data and high qualitative: The community indicators that showed a greater need in the health community overall when compared to the state of Texas comparative benchmark and were identified as a greater need by the key informants.



High data and low qualitative: The community indicators showed a greater need in the health community overall when compared to the state of Texas comparative benchmark but were not identified as a greater need or not specifically identified by the key informants.



Low/no data and high qualitative:
The community indicators showed less need or had no data available in the health community overall when compared to the state of Texas comparative benchmark but were identified as a greater need by the key informants.

Participants held a group discussion about which needs were most significant, using the professional experience and community knowledge of the group. A virtual voting method was invoked for individuals to provide independent opinions.

This process helped the group define and identify the community's significant health needs. Participants voted individually for the needs they considered the most significant for this community. When the votes were tallied, the top identified needs emerged and were ranked based on the number of votes.

Prioritization of significant needs

In the second step, participants ranked the significant health needs based on prioritization criteria recommended by the focus group conducted for this community:

- **Community capacity or strengths:** The community may or may not have the capacity to act on the issue with regard to economic, social, cultural or political consideration. It should be considered whether current initiatives exist to help address the health issue that can be built upon to bolster existing resources.
- **Feasibility/cost:** Is the problem amenable to interventions? What technology, knowledge or resources are necessary to effect a change? Is the problem preventable? Is it too expensive for the community to tackle?
- **Root cause:** Is the issue a root cause of other problems—thereby possibly affecting multiple issues?

The group rated the four significant health needs on each of the three identified criteria, using a scale of 1 (low) to 10 (high). The criteria score sums for each need created an overall score.

They prioritized the list of significant health needs based on the overall scores. The outcome of this process was the list of prioritized health needs for this community.

The resulting prioritized health needs for this community are:

Priority	Need	Category of need
1	Diabetes	Conditions/diseases
2	Population under age 65 without health insurance	Access to care
3	Access to primary healthcare providers	Access to care
4	Access to mental healthcare (providers/resources)	Access to care/ mental health

Appendix B: key public health indicators

IBM Watson Health collected and analyzed fifty-nine (59) public health indicators to assess and evaluate community health needs. For each health indicator, a comparison between the most recently available community data and benchmarks for the same/similar indicator was made. The basis of benchmarks was available data for the US and the state of Texas.

The indicators used and the sources are listed below:

Indicator name	Indicator source	Indicator definition
Adult obesity	2021 County Health Rankings & Roadmaps; CDC Diabetes Interactive Atlas, The National Diabetes Surveillance System	2017 Percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m2
Adults reporting fair or poor health	2021 County Health Rankings & Roadmaps; The Behavioral Risk Factor Surveillance System (BRFSS)	2018 Percentage of adults reporting fair or poor health (age-adjusted)
Binge drinking	2021 County Health Rankings & Roadmaps; The Behavioral Risk Factor Surveillance System (BRFSS)	2018 Percentage of a county's adult population that reports binge or heavy drinking in the past 30 days
Cancer incidence: all causes	State Cancer Profiles National Cancer Institute (CDC)	2013 - 2017 Age-adjusted cancer (all) incidence rate cases per 100,000 (all races, includes Hispanic; both sexes; all ages. Age-adjusted to the 2000 US standard population)
Cancer incidence: colon	State Cancer Profiles National Cancer Institute (CDC)	2013 - 2017 Age-adjusted colon and rectum cancer incidence rate cases per 100,000 (all races, includes Hispanic; both sexes; all ages. Age-adjusted to the 2000 US standard population). Data has been suppressed to ensure confidentiality and stability of rate estimates. Counts are suppressed if fewer than 16 records were reported in a specific area-sex-race category. If an average count of three is shown, the total number of cases for the time period is 16 or more, which exceeds suppression threshold (but is rounded to three).
Cancer incidence: female breast	State Cancer Profiles National Cancer Institute (CDC)	2013 - 2017 Age-adjusted female breast cancer incidence rate cases per 100,000 (all races, includes Hispanic; female; all ages. Age-adjusted to the 2000 US standard population). Data has been suppressed to ensure confidentiality and stability of rate estimates. Counts are suppressed if fewer than 16 records were reported in a specific area-sex-race category. If an average count of three is shown, the total number of cases for the time period is 16 or more, which exceeds suppression threshold (but is rounded to three).

Indicator name	Indicator source	Indicator definition
Cancer incidence: lung	State Cancer Profiles, National Cancer Institute (CDC)	2013 - 2017 Age-adjusted lung and bronchus cancer incidence rate cases per 100,000 (all races, includes Hispanic; both sexes; all ages. Age-adjusted to the 2000 US standard population)
Cancer incidence: prostate	State Cancer Profiles, National Cancer Institute (CDC)	2013 - 2017 Age-adjusted prostate cancer incidence rate cases per 100,000 (all races, includes Hispanic; males; all ages. Age-adjusted to the 2000 US standard population)
Children in poverty	2021 County Health Rankings & Roadmaps; Small Area Health Insurance Estimates (SAHIE), United States Census Bureau	2019 Percentage of children under age 18 in poverty.
Children in single-parent households	2021 County Health Rankings & Roadmaps; American Community Survey (ACS), Five-Year Estimates (United States Census Bureau)	2015 - 2019 Percentage of children that live in a household headed by single parent
Children uninsured	2021 County Health Rankings & Roadmaps; Small Area Health Insurance Estimates (SAHIE), United States Census Bureau	2018 Percentage of children under age 19 without health insurance
Diabetes admission	2018 Texas Health and Human Services Center for Health Statistics Preventable Hospitalizations	Number observed/adult population age 18 and older. Risk-adjusted rates not calculated for counties with fewer than five admissions.
Diabetes diagnoses in adults	CMS.gov Chronic Conditions 2007 - 2018	Prevalence of chronic condition across all Medicare beneficiaries
Diabetes prevalence	County Health Rankings (CDC Diabetes Interactive Atlas)	2017 Prevalence of diagnosed diabetes in a given county. Respondents were considered to have diagnosed diabetes if they responded "yes" to the question, "Has a doctor ever told you that you have diabetes?" Women who indicated that they only had diabetes during pregnancy were not considered to have diabetes.
Drug poisoning deaths	2021 County Health Rankings & Roadmaps, CDC WONDER Mortality Data	2017 - 2019 Number of drug poisoning deaths (drug overdose deaths) per 100,000 population. Death rates are null when the rate is calculated with a numerator of 20 or less.
Elderly isolation	2018 American Community Survey Five-Year Estimates, US Census Bureau - American FactFinder	Percent of non-family households - householder living alone - 65 years and over
English spoken "less than very well" in household	2015 - 2019 American Community Survey Five-Year Estimates, US Census Bureau - American FactFinder	2019 Percentage of households that 'speak English less than "very well"' within all households that 'speak a language other than English'
Food environment index	2021 County Health Rankings & Roadmaps; USDA Food Environment Atlas, Map the Meal Gap from Feeding America, United States Department of Agriculture (USDA)	2015 and 2018 Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best)
Food insecure	2021 County Health Rankings & Roadmaps; Map the Meal Gap, Feeding America	2018 Percentage of population who lack adequate access to food during the past year

Indicator name	Indicator source	Indicator definition
Food: limited access to healthy foods	2021 County Health Rankings & Roadmaps; USDA Food Environment Atlas, United States Department of Agriculture (USDA)	2015 Percentage of population who are low-income and do not live close to a grocery store
High school graduation	Texas Education Agency	2019 A four-year longitudinal graduation rate is the percentage of students from a class of beginning ninth graders who graduate by their anticipated graduation date or within four years of beginning ninth grade.
Household income	2021 County Health Rankings (Small Area Income and Poverty Estimates)	2019 Median household income is the income where half of households in a county earn more and half of households earn less.
Income inequality	2021 County Health Rankings & Roadmaps; American Community Survey (ACS), Five-Year Estimates (United States Census Bureau)	2015 - 2019 Ratio of household income at the 80th percentile to income at the 20th percentile. Absolute equality = 1.0. Higher ratio is greater inequality.
Individuals below poverty level	2018 American Community Survey Five-Year Estimates, US Census Bureau - American FactFinder	Individuals below poverty level
Low birth weight rate	2019 Texas Certificate of Live Birth	Number low birth weight newborns /number of newborns. Newborn's birth weight – low or very low birth weight includes birth weights under 2,500 grams. Blanks indicate low counts or unknown values. A null value indicates unknown or low counts. The location variables (region, county, ZIP) refer to the mother's residence.
Medicare population: Alzheimer's disease/ dementia	CMS.gov Chronic Conditions 2007 - 2018	Prevalence of chronic condition across all Medicare beneficiaries. A null value indicates that the data have been suppressed because there are fewer than 11 Medicare beneficiaries in the cell or for necessary complementary cell suppression.
Medicare population: atrial fibrillation	CMS.gov Chronic Conditions 2007 - 2018	Prevalence of chronic condition across all Medicare beneficiaries. A null value indicates that the data have been suppressed because there are fewer than 11 Medicare beneficiaries in the cell or for necessary complementary cell suppression.
Medicare population: COPD	CMS.gov Chronic Conditions 2007 - 2018	Prevalence of chronic condition across all Medicare beneficiaries. A null value indicates that the data have been suppressed because there are fewer than 11 Medicare beneficiaries in the cell or for necessary complementary cell suppression.
Medicare population: depression	CMS.gov Chronic Conditions 2007 - 2018	Prevalence of chronic condition across all Medicare beneficiaries
Medicare population: emergency department use rate	CMS 2019 Outpatient 100% Standard Analytical File (SAF) and 2019 Standard Analytical Files (SAF) Denominator File	Unique patients having an emergency department visit/total beneficiaries, CY 2019

Indicator name	Indicator source	Indicator definition
Medicare population: heart failure	CMS.gov Chronic Conditions 2007 - 2018	Prevalence of chronic condition across all Medicare beneficiaries. A null value indicates that the data have been suppressed because there are fewer than 11 Medicare beneficiaries in the cell or for necessary complementary cell suppression.
Medicare population: hyperlipidemia	CMS.gov Chronic Conditions 2007 - 2018	Prevalence of chronic condition across all Medicare beneficiaries
Medicare population: hypertension	CMS.gov Chronic Conditions 2007 - 2018	Prevalence of chronic condition across all Medicare beneficiaries
Medicare population: inpatient use rate	CMS 2019 Inpatient 100% Standard Analytical File (SAF) and 2019 Standard Analytical Files (SAF) Denominator File	Unique patients being hospitalized/total beneficiaries, CY 2019
Medicare population: stroke	CMS.gov Chronic Conditions 2007 - 2018	Prevalence of chronic condition across all Medicare beneficiaries. A null value indicates that the data have been suppressed because there are fewer than 11 Medicare beneficiaries in the cell or for necessary complementary cell suppression.
Medicare spending per beneficiary (MSPB) index	CMS 2019 Medicare Spending Per Beneficiary (MSPB), Hospital Value-Based Purchasing (VBP) Program	Medicare spending per beneficiary (MSPB): for each hospital, CMS calculates the ratio of the average standardized episode spending over the average expected episode spending. This ratio is multiplied by the average episode spending level across all hospitals. Blank values indicate missing hospitals or missing score. Associated to the hospitals
Mentally unhealthy days	2021 County Health Rankings & Roadmaps; The Behavioral Risk Factor Surveillance System (BRFSS)	2018 Average number of mentally unhealthy days reported in past 30 days (age-adjusted)
Mortality rate: cancer	Texas Health Data, Center for Health Statistics, Texas Department of State Health Services	2017 Cancer (all) age-adjusted death rate (per 100,000 - all ages. Age-adjusted using the 2000 US Standard population). Death rates are null when the rate is calculated with a numerator of 20 or less.
Mortality rate: heart disease	Texas Health Data, Center for Health Statistics, Texas Department of State Health Services	2017 Heart disease age-adjusted death rate (per 100,000 - all ages. Age-adjusted using the 2000 US Standard population). Death rates are null when the rate is calculated with a numerator of 20 or less.
Mortality rate: infant	2021 County Health Rankings & Roadmaps, CDC WONDER Mortality Data	2013 - 2019 Number of all infant deaths (within one year), per 1,000 live births. Blank values reflect unreliable or missing data.
Mortality rate: stroke	Texas Health Data, Center for Health Statistics, Texas Department of State Health Services	2017 Cerebrovascular disease (stroke) age-adjusted death rate (per 100,000 - all ages. Age-adjusted using the 2000 US Standard population). Death rates are null when the rate is calculated with a numerator of 20 or less.

Indicator name	Indicator source	Indicator definition
No vehicle available	US Census Bureau, 2019 American Community Survey One-Year Estimates	2019 Households with no vehicle available (percent of households). A null value entry indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates fall in the lowest interval or upper interval of an open-ended distribution, or the margin of error associated with a median was larger than the median itself.
Opioid involved accidental poisoning death	US Census Bureau, Population Division and 2019 Texas Health and Human Services Center for Health Statistics Opioid related deaths in Texas	Annual estimates of the resident population: April 1, 2010, to July 1, 2017. 2019 Accidental poisoning deaths where opioids were involved are those deaths that include at least one of the following ICD-10 codes among the underlying causes of death: X40 - X44, and at least one of the following ICD-10 codes identifying opioids: T40.0, T40.1, T40.2, T40.3, T40.4, T40.6. Blank values reflect unreliable or missing data.
Physical inactivity	2021 County Health Rankings & Roadmaps; CDC Diabetes Interactive Atlas, The National Diabetes Surveillance System	2017 Percentage of adults ages 20 and over reporting no leisure-time physical activity in the past month
Physically unhealthy days	2021 County Health Rankings & Roadmaps; The Behavioral Risk Factor Surveillance System (BRFSS)	2018 Average number of physically unhealthy days reported in past 30 days (age-adjusted)
Population to one dentist	2021 County Health Rankings & Roadmaps; Area Health Resource File/National Provider Identification file (CMS)	2019 Ratio of population to dentists
Population to one mental health provider	2021 County Health Rankings & Roadmaps; CMS, National Provider Identification Registry (NPPES)	2020 Ratio of population to mental health providers
Population to one non-physician primary care provider	2020 County Health Rankings & Roadmaps; CMS, National Provider Identification Registry (NPPES)	2020 Ratio of population to primary care providers other than physicians
Population to one primary care physician	2021 County Health Rankings & Roadmaps; Area Health Resource File/American Medical Association	2018 Number of individuals served by one physician in a county, if the population was equally distributed across physicians
Population under age 65 without health insurance	2021 County Health Rankings & Roadmaps; Small Area Health Insurance Estimates (SAHIE), United States Census Bureau	2018 Percentage of population under age 65 without health insurance
Prenatal care: first trimester entry into prenatal care	2020 Texas Health and Human Services - Vital statistics annual report	2016 Percent of births with prenatal care onset in first trimester

Indicator name	Indicator source	Indicator definition
Renter-occupied housing	US Census Bureau, 2019 American Community Survey One-Year Estimates	2019 Renter-occupied housing (percent of households). A null value entry indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates fall in the lowest interval or upper interval of an open-ended distribution, or the margin of error associated with a median was larger than the median itself.
Severe housing problems	2021 County Health Rankings & Roadmaps; Comprehensive Housing Affordability Strategy (CHAS) data, US Department of Housing and Urban Development (HUD)	2013 - 2017 Percentage of households with at least one of four housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities
Sexually transmitted infection incidence	2021 County Health Rankings & Roadmaps; National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP)	2018 Number of newly diagnosed chlamydia cases per 100,000 population
Smoking	2021 County Health Rankings & Roadmaps; The Behavioral Risk Factor Surveillance System (BRFSS)	2018 Percentage of the adult population in a county who both report that they currently smoke every day or most days and have smoked at least 100 cigarettes in their lifetime
Suicide: intentional self-harm	Texas Health Data Center for Health Statistics	2019 Intentional self-harm (suicide) (X60 - X84, Y87.0). Death rates are null when the rate is calculated with a numerator of 20 or less.
Teen birth rate	2021 County Health Rankings & Roadmaps; National Center for Health Statistics - Natality files, National Vital Statistics System (NVSS)	2013 - 2019 Number of births to females ages 15 - 19 per 1,000 females in a county (The numerator is the number of births to mothers ages 15 - 19 in a seven-year time frame, and the denominator is the sum of the annual female populations, ages 15 - 19.)
Teens (16 - 19) not in school or work - disconnected youth	2021 County Health Rankings (Measure of America)	2015 - 2019 Disconnected youth are teenagers and young adults between the ages of 16 and 19 who are neither working nor in school. Blank values reflect unreliable or missing data.
Unemployment	2021 County Health Rankings & Roadmaps; Local Area Unemployment Statistics (LAUS), Bureau of Labor Statistics	2019 Percentage of population ages 16 and older unemployed but seeking work

Appendix C: community input participating organizations

Representatives from the following organizations participated in the focus group and a number of key informant interviews/surveys:

- Baylor Scott & White The Heart Hospital - Denton
- Callier Center for Communication Disorders
- City of Denton
- Community Services, Inc.
- Denton County MHMR Center
- First Refuge Ministries
- Metroport Meals on Wheels
- Visiting Nurse Association of Texas - Dallas/Fort Worth

Appendix D: demographic and socioeconomic summary

According to population statistics, the community served is growing faster than the state of Texas and the country. The median age is older than Texas but younger than the United States. Median income is significantly higher than both the state and the country. The community served has a significantly higher percentage of employer sponsored payers than Texas and the US.

Demographic and socioeconomic comparison: community served and state/US benchmarks

Geography		Benchmarks		Community served
		United States	Texas	Denton health community
Total current population		330,342,293	29,321,501	1,010,752
Five-year projected population change		3.3%	6.6%	8.6%
Median age		38.6	35.2	37.2
Population 0 - 17		22.4%	25.7%	24.0%
Population 65+		16.6%	13.2%	11.5%
Women age 15 - 44		19.5%	20.5%	21.4%
Hispanic population		19.0%	40.7%	20.5%
Insurance coverage	Uninsured	9.9%	18.8%	11.1%
	Medicaid	20.9%	13.0%	6.8%
	Private market	8.3%	8.4%	8.7%
	Medicare	13.8%	12.7%	10.2%
	Employer	47.2%	47.1%	63.3%
Median HH income		$65,618	$63,313	$91,283
No high school diploma		12.2%	16.7%	8.2%

Source: IBM Watson Health Demographics, Claritas, 2020, Insurance Coverage Estimates, 2020.

The community served expects to grow 8.6% by 2025, an increase of almost 86,500 people. The projected population growth is higher than the state's five-year projected growth rate (6.6%) and higher than the national projected growth rate (3.3%).

The community's population is younger with almost 77% of the population under the age of 55 years. However, the age 65-plus cohort is expected to experience the fastest growth (31%) over the next five years. Growth in the senior population will likely contribute to increased utilization of services as the population continues to age.

Population statistics are analyzed by race and by Hispanic ethnicity. The community is primarily white and non-Hispanic, but diversity in the community will increase due to the projected growth of minority populations over the next five years. The expected growth rate of the Hispanic population (all races) is almost 15% by 2025, and the black non-Hispanic population is 20%. The white non-Hispanic population is expected to have the slowest growth at 1.6%.

Population distribution

	Age distribution				
Age group	2020	% of total	2025	% of total	USA 2020 % of total
0 - 14	199,165	19.7%	202,544	18.5%	18.5%
15 - 17	43,361	4.3%	46,785	4.3%	3.9%
18 - 24	96,229	9.5%	107,805	9.8%	9.5%
25 - 34	141,786	14.0%	139,469	12.7%	13.5%
35 - 54	293,837	29.1%	309,085	28.2%	25.2%
55 - 64	119,879	11.9%	139,194	12.7%	12.9%
65+	116,495	11.5%	152,365	13.9%	16.6%
Total	**1,010,752**	**100.0%**	**1,097,247**	**100.0%**	**100.0%**

Household Income distribution

	Income distribution		
2020 Household income	HH count	% of total	USA % of total
<$15K	20,396	5.5%	10.0%
$15 - 25K	18,263	5.0%	8.6%
$25 - 50K	64,114	17.4%	20.7%
$50 - 75K	58,547	15.9%	16.7%
$75 - 100K	47,845	13.0%	12.4%
Over $100K	159,285	43.2%	31.5%
Total	**368,450**	**100.0%**	**100.0%**

Education level

	Education level distribution		
2020 Adult education level	Pop age 25+	% of total	USA % of total
Less than high school	25,002	3.7%	5.2%
Some high school	30,212	4.5%	7.0%
High school degree	128,712	19.2%	27.2%
Some college/assoc. degree	203,418	30.3%	28.9%
Bachelor's degree or greater	284,653	42.4%	31.6%
Total	**671,997**	**100.0%**	**100.0%**

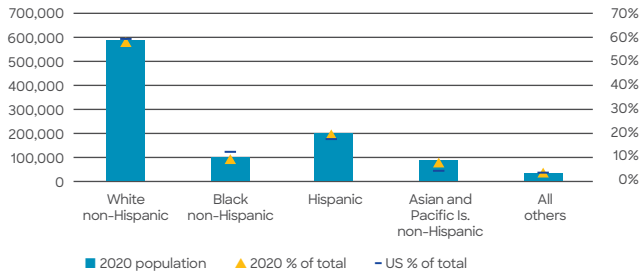
Race/ethnicity

	Race/ethnicity distribution		
Race/ethnicity	2020 pop	% of total	USA % of total
White non-Hispanic	589,484	58.3%	59.3%
Black non-Hispanic	98,654	9.8%	12.4%
Hispanic	207,251	20.5%	19.0%
Asian & Pacific is. non-Hispanic	85,868	8.5%	6.0%
All others	29,495	2.9%	3.3%
Total	**1,010,752**	**100.0%**	**100.0%**

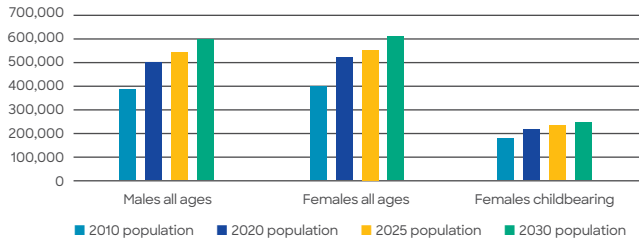
Population estimates		
Population	National	Selected area
2010 total	308,745,538	776,330
2020 total	330,342,293	1,010,752
2025 total	341,132,738	1,097,247
2030 total	353,513,931	1,207,070
% change 2020 - 2025	3.27%	8.56%
% change 2020 - 2035	7.01%	19.42%

Population	Males all ages	Females all ages	Females childbearing
2010 total	382,642	393,688	178,677
2020 total	497,985	512,767	216,527
2025 total	540,013	557,234	224,879
2030 total	593,036	614,034	240,957
10Y %	19.09%	19.75%	11.28%
National	7.02%	7.01%	4.01%

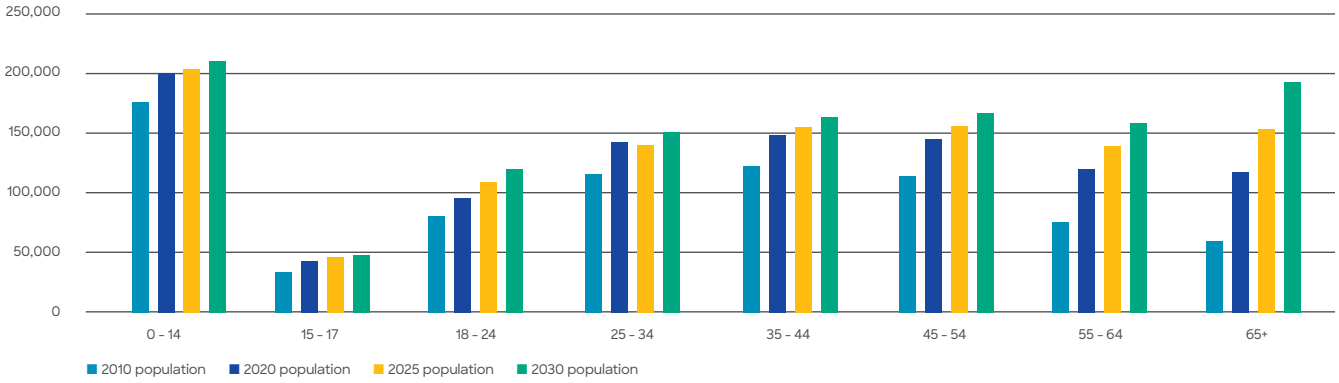
2020 race and ethnicity with total population



Population by sex 2010 - 2030



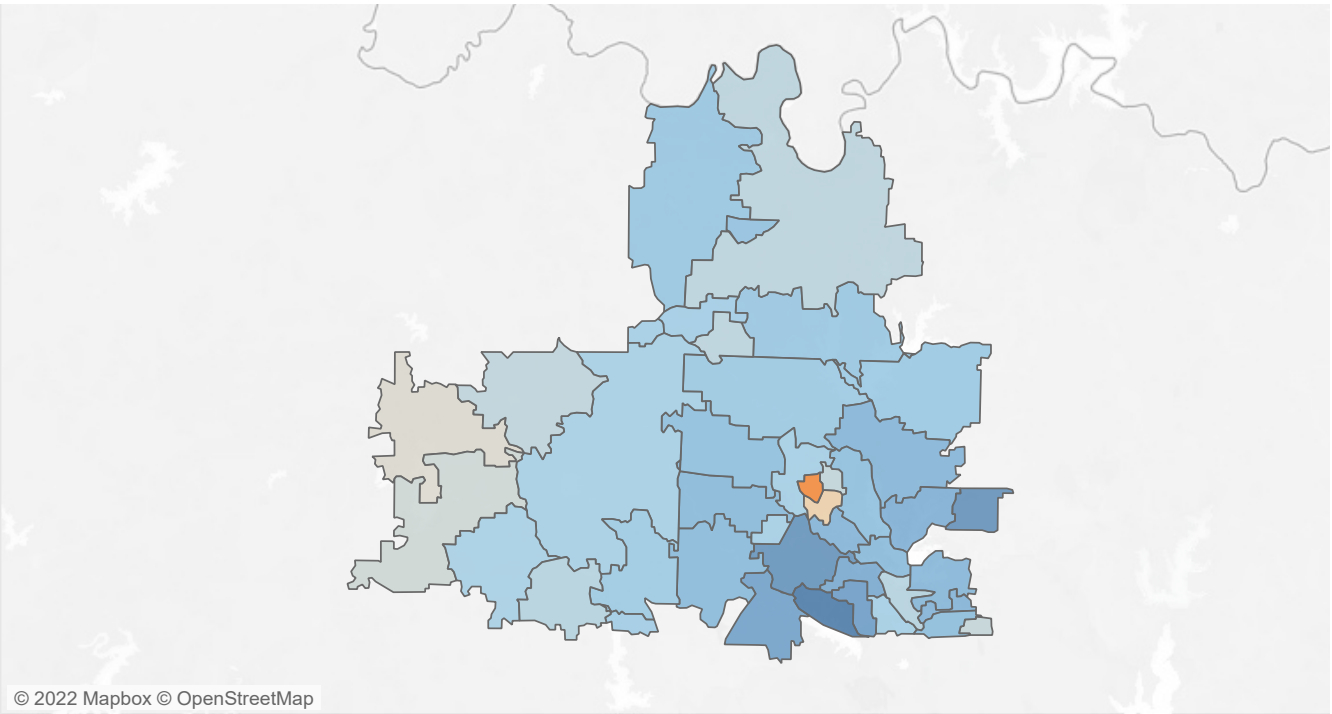
Population by age group 2010 - 2030



The 2020 median household income for the United States was $65,618 and $63,313 for the state of Texas. The median household income for the ZIP codes within this community ranged from $33,629 for 76201 – Denton to $173,555 for 75022 – Flower Mound. There were only two (2) additional ZIP codes with median household incomes less than $52,400—twice the 2020 federal poverty limit for a family of four.

- 76205 Denton – $48,554
- 76431 Chico – $50,455

The following median household income ZIP code map illustrates ZIP codes that are lower or higher than twice the federal poverty level for a family of four in 2020.



The majority of the population (63%) is insured through employer sponsored health coverage, followed by the uninsured (11%) and those with Medicare (10%). The remainder of the population was fairly equally divided between Medicaid and private market (the purchasers of coverage directly or through the health insurance marketplace).

Federally designated health professional shortage areas and medically underserved areas and populations

Health professional shortage areas (HPSA)				
County	HPSA ID	HPSA name	HPSA discipline class	Designation type
Cooke	1486984450	LI - Cooke County	Primary care	Low-income population HPSA
Cooke	7487706969	Cooke County	Mental health	Geographic HPSA
Cooke	148999485I	Cooke County Medical Center	Primary care	Rural health clinic
Cooke	7489994840	Cooke County Medical Center	Mental health	Rural health clinic
Cooke	648999480V	Cooke County Medical Center	Dental health	Rural health clinic
Denton	7487902282	LI - MHCA - Denton County	Mental health	Low-income population HPSA
Denton	14899948PA	Health Services of North Texas, Inc.	Primary care	Federally qualified health center
Denton	74899948MQ	Health Services of North Texas, Inc.	Mental health	Federally qualified health center
Denton	64899948MR	Health Services of North Texas, Inc.	Dental health	Federally qualified health center
Wise	7483179283	Wise County	Mental health	Geographic HPSA
Wise	1486679709	LI - Wise County	Primary care	Low-income population HPSA

Medically underserved areas and populations (MUA/P)				
County	MUA/P source identification number	Service area name	Designation type	Rural status
Denton	03463	Poverty population	Medically underserved area – governor's exception	Non-rural

Community Needs Index

The IBM Watson Health Community Need Index (CNI) is a statistical approach that identifies areas within a community where there are likely gaps in healthcare. The CNI takes into account vital socio-economic factors, including income, culture, education, insurance and housing, about a community to generate a CNI score for every population ZIP code in the US.

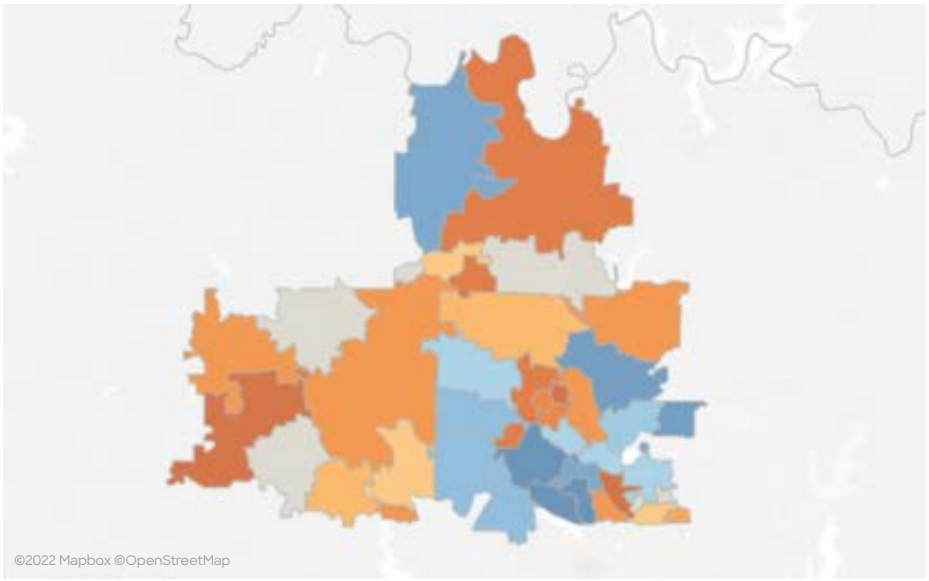
The CNI is strongly linked to variations in community healthcare needs and is a good indicator of a community's demand for a range of healthcare services. Not-for-profit and community-based hospitals, for whom community need is central to the mission of service, are often challenged to prioritize and effectively distribute hospital resources. The CNI can be used to help them identify specific initiatives best designed to address the health disparities of a given community.

The CNI score by ZIP code shows specific areas within a community where healthcare needs may be greater.

Denton Health Community

Composite CNI: high scores indicate high need.

1.000 5.000



ZIP map where color shows the 2020 Community Need Index on a scale of 1 to 5. Orange color indicates high need areas (CNI = 4 or 5); blue color indicates low need (CNI = 1 or 2). Gray colors have needs at the national average (CNI = 3).

Composite CNI score
2.93

Texas CNI score
3.85

US composite CNI score
3.00

Barrier	State	US
Income	3.0	3.0
Culture	4.7	3.0
Education	3.5	3.0
Insurance	4.3	3.0
Housing	3.9	3.0

The overall CNI score for the Denton Health Community was 2.93. The difference in the numbers indicates both a strong link to community healthcare needs and a community's demand for various healthcare services. In portions of the community, the CNI score was greater than 4.5, indicating more significant health needs among the population.

Appendix E: proprietary community data

IBM Watson Health supplemented the publicly available data with estimates of localized inpatient demand discharges, outpatient procedures, emergency department visits, heart disease, as well as cancer incidence estimates.

Social determinants of health are the structural determinants and conditions in which people are born, grow, live, work and age. All of which can greatly impact healthcare utilization and play a major role in the shifting healthcare landscape. Social determinants, such as education, income and race, are factored into inpatient demand estimates and outpatient procedure estimates utilization rate creation methodologies.

Inpatient demand estimates

Inpatient demand estimates provide the total volume of annual acute care admissions by ZIP code and DRG Product Line for every market in the United States. IBM uses all-payor state discharge data for publicly available states and Medicare (MEDPAR) data for the entire US. These rates are applied to demographic projections by ZIP code to estimate inpatient utilization for 2020 through 2030.

The following summary is reflective of the inpatient utilization trends for Denton Health Community. Total discharges in the community are expected to grow by 16.2% by 2030, with pulmonary medical, general medicine, cardiovascular diseases and orthopedics projecting the largest growth.

Product line	2020 discharges	2025 discharges	2030 discharges	2020 - 2025 discharges change	2020 - 2025 discharges % change	2020 - 2030 discharges change	2020 - 2030 discharges % change
Alcohol and Drug Abuse	865	891	1,002	26	3.0%	137	15.9%
Cardio-Vasc-Thor Surgery	2,867	3,131	3,371	264	9.2%	503	17.6%
Cardiovascular Diseases	5,256	5,887	6,935	631	12.0%	1,679	31.9%
ENT	447	432	435	(15)	-3.3%	(12)	-2.6%
General Medicine	13,481	14,506	16,072	1,024	7.6%	2,591	19.2%
General Surgery	6,288	6,421	6,873	134	2.1%	586	9.3%
Gynecology	527	258	153	(269)	-51.0%	(374)	-71.1%
Nephrology/Urology	3,512	3,856	4,331	344	9.8%	819	23.3%
Neuro Sciences	3,858	4,151	4,750	293	7.6%	893	23.1%
Obstetrics Del	10,267	9,463	9,616	(804)	-7.8%	(651)	-6.3%
Obstetrics ND	701	613	598	(88)	-12.6%	(103)	-14.7%
Oncology	1,571	1,675	1,834	104	6.6%	263	16.7%
Ophthalmology	83	81	80	(2)	-2.9%	(3)	-3.4%
Orthopedics	7,327	7,667	8,433	340	4.6%	1,107	15.1%
Psychiatry	574	602	631	29	5.0%	57	9.9%
Pulmonary Medical	6,015	7,330	8,795	1,315	21.9%	2,780	46.2%
Rehabilitation	106	122	146	16	15.4%	40	37.8%
TOTAL	**63,744**	**67,085**	**74,056**	**3,341**	**5.2%**	**10,312**	**16.2%**

Source: IBM Watson Health Inpatient Demand Estimates, 2020.

Outpatient procedures estimates

Outpatient procedure estimates predict the total annual volume of procedures performed by ZIP code for every market in the United States using proprietary and public health claims, as well as federal surveys. Procedures are defined and reported by procedure codes and are further grouped into clinical service lines. The Denton Health Community outpatient procedures are expected to increase by 37.5% by 2030 with the largest growth in the categories of labs, general & internal medicine, physical & occupational therapy and psychiatry.

Clinical service category	2020 procedures	2025 procedures	2020-2025 procedures % change	2030 procedures	2020 - 2030 procedures % change
Allergy & Immunology	310,480	351,526	13.2%	400,709	29.1%
Anesthesia	77,494	94,598	22.1%	112,370	45.0%
Cardiology	544,662	717,177	31.7%	951,539	74.7%
Cardiothoracic	581	703	21.1%	841	44.8%
Chiropractic	592,561	615,616	3.9%	630,351	6.4%
Colorectal Surgery	7,797	8,671	11.2%	9,675	24.1%
CT Scan	182,649	255,928	40.1%	355,722	94.8%
Dermatology	213,979	255,703	19.5%	304,201	42.2%
Diagnostic Radiology	1,066,640	1,215,206	13.9%	1,385,372	29.9%
Emergency Medicine	417,268	480,415	15.1%	558,073	33.7%
Gastroenterology	78,499	92,583	17.9%	108,340	38.0%
General & Internal Medicine	8,538,571	9,971,850	16.8%	11,569,092	35.5%
General Surgery	58,547	68,253	16.6%	79,979	36.6%
Hematology & Oncology	1,308,114	1,627,447	24.4%	1,961,353	49.9%
Labs	10,071,261	11,571,062	14.9%	13,378,407	32.8%
Miscellaneous	423,821	482,729	13.9%	549,648	29.7%
MRI	97,549	113,197	16.0%	131,566	34.9%
Nephrology	136,585	170,698	25.0%	209,143	53.1%
Neurology	143,924	159,050	10.5%	176,873	22.9%
Neurosurgery	4,492	6,596	46.8%	8,077	79.8%
Obstetrics/Gynecology	158,483	168,664	6.4%	187,023	18.0%
Ophthalmology	456,975	576,825	26.2%	711,908	55.8%
Oral Surgery	5,093	5,743	12.8%	6,598	29.6%
Orthopedics	155,609	180,073	15.7%	207,494	33.3%
Otolaryngology	356,714	393,420	10.3%	437,023	22.5%
Pain Management	71,289	82,284	15.4%	93,619	31.3%
Pathology	232	289	24.6%	356	53.4%
PET Scan	6,628	8,124	22.6%	9,753	47.2%
Physical & Occupational Therapy	3,524,754	4,237,487	20.2%	5,104,943	44.8%
Plastic Surgery	9,425	11,380	20.7%	13,714	45.5%
Podiatry	35,596	39,459	10.9%	43,276	21.6%
Psychiatry	1,284,041	1,614,494	25.7%	2,013,822	56.8%
Pulmonary	191,646	222,687	16.2%	260,176	35.8%
Radiation Therapy	97,818	115,531	18.1%	134,766	37.8%
Single Photon Emission CT Scan (SPECT)	11,650	13,917	19.5%	16,780	44.0%
Urology	55,965	68,778	22.9%	83,785	49.7%
Vascular Surgery	24,053	28,930	20.3%	34,374	42.9%
TOTAL	**30,721,444**	**36,027,095**	**17.3%**	**42,240,744**	**37.5%**

Source: IBM Watson Health Outpatient Procedure Estimates, 2020.

Emergency department visits

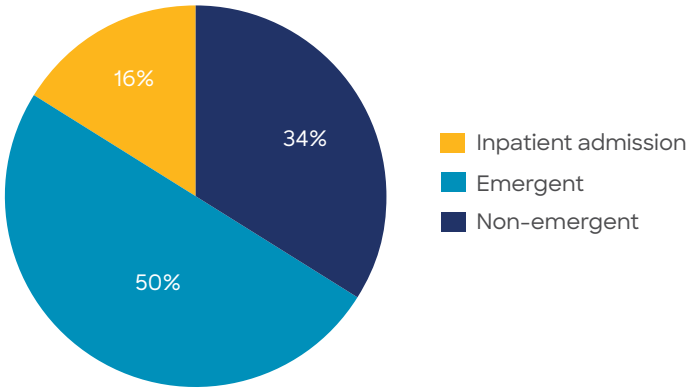
Emergency department estimates predict the total annual volume of emergency department (ED) visits by ZIP code and level of acuity for every market in the United States. IBM uses an extensive supply of proprietary claims, public claims and federal surveys to construct population-based use rates for all payors by age and sex. These use rates are then applied to demographic and insurance coverage projections by ZIP code to estimate ED utilization for 2020 through 2030.

Visits are broken out into emergent and non-emergent ambulatory visits to identify the volume of visits that could be seen in a less-acute setting, for example, a fast-track ED or an urgent care facility. In addition, visits that result in an inpatient admission are broken out into a third, separate category. In the Denton Health Community, ED visits are expected to grow by almost 19% by 2025.

Emergent status	2020 visits	2025 visits	2020 - 2025 visits change	2020 - 2025 visits % change
Emergent	183,169	231,010	47,841	26.1%
Inpatient Admission	56,684	74,020	17,336	30.6%
Non-Emergent	151,291	159,215	7,924	5.2%
TOTAL	**391,145**	**464,246**	**73,101**	**18.7%**

Source: IBM Watson Health Emergency Department Visits, 2020.

Emergency department visit estimates 2025



Heart disease estimates

The heart disease estimates dataset predicts the number of cases by heart disease type and ZIP code for every market in the United States. IBM uses public and private claims data as well as epidemiological data from the National Health and Nutritional Examination Survey (NHANES) to build local estimates of heart disease prevalence for the current population. County-level models by age and sex are applied to the underlying demographics of specific geographies to estimate the number of patients with specific types of heart disease.

Disease type	2020 prevalence	2020 % prevalence
Arrhythmia	44,000	12.3%
Heart Failure	17,567	4.9%
Hypertension	262,157	73.3%
Ischemic Heart Disease	34,039	9.5%
TOTAL	**357,763**	**100.0%**

Source: IBM Watson Heart Disease Estimates, 2020.

In Denton Health Community, the most common disease is hypertension at over 73% of all heart disease cases.

Cancer estimates

IBM Watson Health builds county-level cancer incidence models that are applied to the underlying demographics of specific geographies to estimate incidence (i.e., the number of new cancer cases annually) of all cancer patients. Cancer incidence is expected to increase by almost 15% in the Denton Health Community by 2025.

Cancer type	2020 incidence	2025 incidence	2020 - 2025 change	2020 - 2025 % change
Bladder	228	279	51	22.2%
Brain	97	110	13	13.3%
Breast	1,054	1,244	191	18.1%
Colorectal	644	636	-8	-1.2%
Kidney	198	243	45	22.8%
Leukemia	168	200	32	19.2%
Lung	487	569	82	16.9%
Melanoma	279	337	58	20.6%
Non-Hodgkin's Lymphoma	242	290	48	20.0%
Oral Cavity	162	194	33	20.2%
Other	665	801	135	20.4%
Ovarian	85	97	12	13.7%
Pancreatic	132	166	34	25.7%
Prostate	711	733	22	3.1%
Stomach	84	97	13	15.8%
Thyroid	166	194	28	17.0%
Uterine Cervical	34	36	2	6.1%
Uterine Corpus	121	146	25	20.5%
TOTAL	**5,556**	**6,372**	**816**	**14.7%**

Source: IBM Watson Health Cancer Estimates, 2020.

Appendix F: 2019 community health needs assessment evaluation

It is Baylor Scott & White Health's privilege to serve faithfully in promoting the well-being of all individuals, families and communities. Our 2019 Implementation Strategy described the various resources and initiatives we planned to direct toward addressing the adopted health needs of the 2019 CHNA.

Following is a snapshot of the impact of actions taken by Baylor Scott & White to address the below priority health issues.

Dates: Fiscal Years 2020 - March 2022

Facility: Baylor Scott & White The Heart Hospital – Denton

Community served: Cooke, Dallas, Denton and Tarrant Counties

Depression in Medicare population

Action/tactics	Anticipated outcome	Evaluation of impact
Support of area clinics Financially support area clinics providing mental health services to the Medicare population.	Increased access to care for the Medicare population.	• **Persons served: 800** • **$43,536 community benefit**
Depression screening Provide depression screening for all emergency department patients.	Increased likelihood for early diagnosis and referral for depression in the Medicare population.	• **Persons served: 616** • Social determinants of health questions with questions surrounding depression and mental health were added into the BSW electronic health record, EPIC, in July 2021.

Ratio of population to one non-physician primary care provider

Action/tactics	Anticipated outcome	Evaluation of impact
Enrollment services Provide enrollment services to qualify patients for financial assistance for healthcare.	Increased access to care through enrollment in programs that may be used with many healthcare providers.	• **Persons served: 7** • **$1,132 community benefit**
Translation services Provide translation services for a group that comprises less than a prescribed percentage of the population through InDemand Interpreting Unit.	Decrease in fearfulness of accessing quality care through cultural acceptance.	• **Persons served: 46** • **$921.25 community benefit**
Community health education Participate in area health fairs to provide blood pressure screenings and health information. Host Heart Health Education seminars to deliver relevant information on heart disease and heart-healthy lifestyle choices.	Increased access to free healthcare services. Increased awareness of signs and symptoms of heart disease and the importance of early detection.	• **Persons served: 1,310** • **$30,129 community benefit**
Provider recruitment Recruit and place primary care extenders (e.g., nurse practitioners, physician assistants and clinical nurse specialists) to help close the gap in access to primary care services.	Increased access to care from a non-physician primary care provider.	• **$401,338 community benefit**
Charity care Provide free/discounted care to financially or medically indigent patients as outlined in the financial assistance policy. Healthcare infrastructure; supplies; staff.	Increased access to primary care and/or specialty care for indigent persons regardless of their ability to pay.	• **$3,012,716 community benefit**

Total investment in adopted community needs since 2019 CHNA

BSW The Heart Hospital – Denton

$3.5 million

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