Community Health Needs Assessment

Ennis Regional
MEDICAL CENTER

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Methodist Health System

Compassionate Healthcare

The Methodist ministers and civic leaders who opened our doors in 1927 couldn't have imagined where Methodist Health System would be today. From humble beginnings, our renowned health system has become one of the leading healthcare providers in North Texas.

But all of our growth, advancements, accreditation, awards, and accomplishments have been earned under the guidance of their founding principles: life, learning, and compassion. We're still growing, learning, and improving — grounded in a proud past and looking ahead to an even brighter future.

Whatever your medical need, we are honored that you would entrust us with your health and safety. We understand that we have a solemn responsibility to you and your family, and you can trust that our team takes that commitment very seriously.

Mission, Vision, and Values of Methodist Health System

Mission

To improve and save lives through compassionate quality healthcare.

Vision for the Future

To be the trusted choice for health and wellness.

Core Values

Methodist Health System core values reflect our historic commitment to Christian concepts of life and learning:

- **S**ervant Heart – compassionately putting others first
- **H**ospitality – offering a welcoming and caring environment
- **I**nnovation – courageous creativity and commitment to quality
- **N**oble – unwavering honesty and integrity
- **E**nthusiasm – celebration of individual and team accomplishment
- **S**killful – dedicated to learning and excellence

Executive Summary

Methodist Health System (Methodist) understands the importance of serving the health needs of its communities. To do that successfully, we must first take a comprehensive look at the issues our patients, their families, and neighbors face when making healthy life choices and health care decisions.

Beginning in June 2018, the organization began the process of assessing the current health needs of the communities it serves. IBM Watson Health (Watson Health) was engaged to help collect and analyze the data for this process and to compile a final report made publicly available on September 30, 2019.

Methodist owns and operates multiple individually licensed hospital facilities serving the residents of North Texas. This assessment applies to the following Methodist hospital facility:

- Methodist Mansfield Medical Center

For the 2019 assessment, the community includes the geographic area where at least 60% of the hospital facility's admitted patients live. Methodist Mansfield Medical Center defined their community as the geographical area of Tarrant County. This hospital facility provided a Community Health Needs Assessment (CHNA) report in accordance with Treasury Regulations and 501(r) of the Internal Revenue Code.

Watson Health examined over 102 public health indicators and conducted a benchmark analysis of the data comparing the community to overall state of Texas and United States (U.S.) values. For a qualitative analysis, and in order to get input directly from the community, focus groups and key informant interviews were conducted. Interviews included input from state, local, or regional governmental public health departments (or equivalent department or agency) with knowledge, information, or expertise relevant to the health needs of the community as well as individuals or organizations serving and/or representing the interests of medically underserved, low-income, and minority populations in the community.

Needs were first identified when it was determined which indicators for the community did not meet the state benchmarks. A need differential analysis was conducted on all of the indicators not meeting benchmarks to determine relative severity by using the percent difference from benchmark. The outcome of this quantitative analysis was then aligned with the qualitative findings of the community input sessions to create a list of health needs in the community. Each health need received assignment into one of four quadrants in a health needs matrix, this clarified the assignment of severity rankings of the needs. The matrix shows the convergence of needs identified in the qualitative data (interview and focus group feedback) and quantitative data (health indicators) and identifies the top health needs for this community.

On May 2, 2019 a prioritization meeting was held with system and hospital leadership in which the health needs matrix was reviewed to establish and prioritize significant needs. The meeting was moderated by Watson Health and included an overview of the Methodist CHNA process, summary of qualitative and quantitative findings, and a review of the identified community health needs.

Participants identified the significant health needs through review of the health needs matrix, discussion, and a consensus process. Once the significant health needs were established, participants rated the needs using a set of prioritization criteria. The sum of the criteria scores for each need created an overall score that was the basis of the prioritized order of significant health needs.

The meeting participants subsequently evaluated the prioritized health needs against a set of selection criteria in order to determine which needs would be addressed by the hospital facility. A description of the selected needs is included in the body of this report. Each facility developed an individual implementation strategy with specific initiatives aimed at addressing the selected health needs. The implementation strategy will be completed and adopted by the hospital facility on or before February 15, 2020. The needs to be addressed by Methodist Mansfield Medical Center are as follows:

- Atrial Fibrillation
- Obesity
- Diabetes
- Opioid Addiction
- Cancer

As part of the assessment process, community resources were identified, including facilities/organizations, that may be available to address the significant needs in the community. These resources are in the appendix of this report.

An evaluation of the impact and effectiveness of interventions and activities outlined in the implementation strategy drafted after the prior assessment is also included in **Appendix E** of this document.

The CHNA for Methodist Mansfield Medical Center has been presented and approved by the Vice President of Strategic Planning, Methodist Health System Senior Executive Management team and Methodist Health System's Board of Directors. The full assessment is available for download at no cost to the public on Methodist's website, visit **www.methodisthealthsystem.org/about/communityinvolvement**.

This assessment and corresponding implementation strategy meet the requirements for community benefit planning and reporting as set forth in state and federal laws, including but not limited to: Texas Health and Safety Code Chapter 311 and Internal Revenue Code Section 501(r).

Community Health Needs Assessment Requirement

As a result of the Patient Protection and Affordable Care Act (PPACA), all tax-exempt organizations operating hospital facilities are required to assess the health needs of their community through a Community Health Needs Assessment (CHNA) once every three years.

The written 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 took into account 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
- An evaluation of the impact of any actions that were taken, since the hospital facility(s) most recent CHNA, to address the significant health needs identified in that last CHNA

PPACA also requires hospitals to adopt an Implementation Strategy to address prioritized community health needs identified through the assessment. An Implementation Strategy is a written plan that addresses each of the significant community health needs identified through the CHNA and is a separate but related document to the CHNA report.

The written Implementation Strategy must include the following:

- List of the prioritized needs the hospital plans to address and the rationale for not addressing other significant health needs identified
- Actions the hospital intends to take to address the chosen health needs
- The anticipated impact of these actions and the plan to evaluate such impact (e.g. identify data sources that will be used to track the plan's impact)
- Identify programs and resources the hospital plans to commit to address the health needs
- Describe any planned collaboration between the hospital and other facilities or organizations in addressing the health needs

CHNA Overview, Methodology and Approach

Methodist began the 2019 CHNA process in June of 2018 and partnered with Watson Health to complete a CHNA for Methodist Mansfield Medical Center.

Consultant Qualifications & Collaboration

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.

Community Served Definition

For the purpose of this assessment, Methodist Mansfield Medical Center defined the facility's community using the county in which at least 60% of patients reside. Using this definition, Methodist Mansfield Medical Center has defined its community to be the geographical area of Tarrant County for the 2019 CHNA.

Community Served Map

Source: Watson Health, 2019

Assessment of Health Needs

To identify the health needs of the community, the hospital facility established a comprehensive method of taking into account all available relevant data including community input. The basis of identification of community health needs was the weight of qualitative and quantitative data obtained when assessing the community. Surveyors conducted interviews and focus groups with individuals representing public health, community leaders/groups, public organizations, and other providers. In addition, data collected from several public sources compared to the state benchmark indicated the level of severity.

Quantitative Assessment of Health Needs – Methodology and Data Sources

Quantitative data collection and analysis in the form of public health indicators assessed community health needs, including collection of 102 data elements grouped into 11 categories, and evaluated for the counties where data was available. Since 2016, the identification of several new indicators included: addressing mental health, health care costs, opioids, and social determinants of health. The categories, indicators, and sources are included in **Appendix A**.

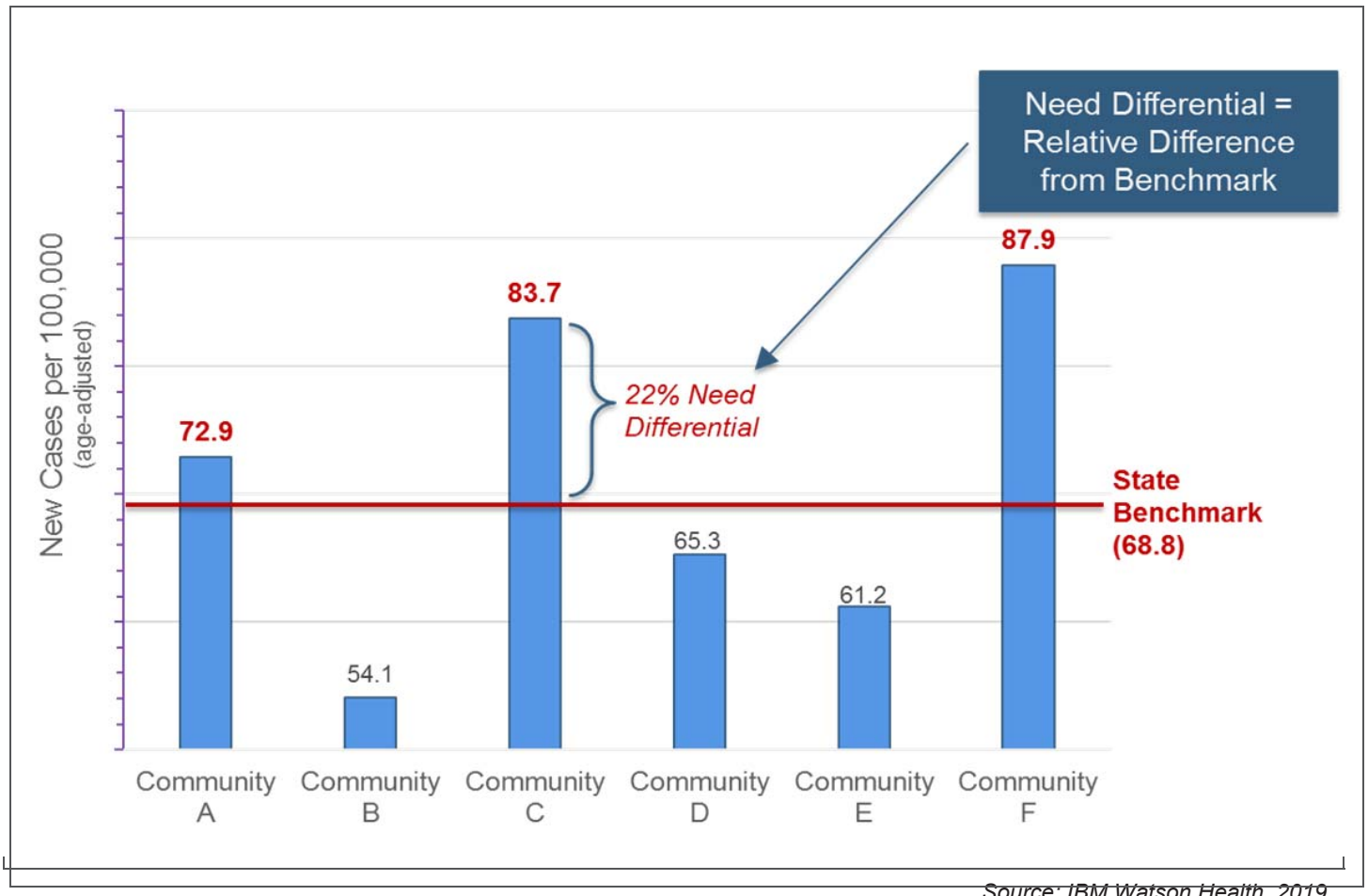
A benchmark analysis, conducted for each indicator collected for the community served, determined which public health indicators demonstrated a community health need from a quantitative perspective. Benchmark health indicators collected included (when available): overall U.S. values; state of Texas values; and goal setting benchmarks such as Healthy People 2020.

According to America's Health Rankings 2018 Annual Report, Texas ranks 37th out of the 50 states. The health status of Texas compared to other states in the nation identified many opportunities to impact health within local communities, including opportunities for those communities that ranked highly. Therefore, the benchmark for the community served was set to the state value.

Once the community benchmark was set to the state value, it was determined which indicators for the community did not meet the state benchmarks. This created a subset of indicators for further analysis. A need differential analysis was conducted to understand the relative severity of need for these indicators. The need differential established a standardized way to evaluate the degree each indicator differed from its benchmark. Health community indicators with need differentials above the 50th percentile were ordered by severity and the highest ranked indicators were the highest health needs from a quantitative perspective.

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

Health Indicator Benchmark Analysis Example



Source: IBM Watson Health, 2019
Source: IBM Watson Health, 2019

Qualitative Assessment of Health Needs and Community Input – Approach

In addition to analyzing quantitative data, two (2) focus groups with a total of 19 participants, as well as five (5) key informant interviews, were conducted to take into account the input of persons representing the broad interests of the community served. The focus groups and interviews solicited feedback from leaders and representatives who serve the community and have insight into community needs.

The focus groups familiarized participants with the CHNA process and solicited input to understand health needs from the community's perspective. Focus groups, formatted for individual as well as small group feedback, helped identify barriers and social determinants influencing the community's health needs. Barriers and social determinants were new topics added to the 2019 community input sessions.

Watson Health conducted key informant interviews for the community served by the hospital. The interviews aided in gaining understanding and insight into participants' concerns about the general health status of the community and the various drivers that contributed to health issues.

Participation in the qualitative assessment was included from at least one state, local, or regional governmental public health department (or equivalent department or agency) with knowledge, information, or expertise relevant to the health needs of the community,

as well as individuals or organizations who served and/or represented the interests of medically underserved, low-income and minority populations in the community.

Participation from community leaders/groups, public health organizations, other healthcare organizations, and other healthcare providers ensured that the input received represented the broad interests of the community served. A list of the organizations providing input is in the table below.

Community Input Participants

Participant Organization Name	Public Health	Medically Under-served	Low-income	Chronic Disease Needs	Minority Populations	Governmental Public -- Health Dept.	Public Health Knowledge -- Expertise
Area Agency on Aging/United Way of Tarrant County	X	X	X	X	X		X
Arlington Life Shelter		X	X	X			
Eastside Ministries			X		X		
Epidemiology Associates							
Fort Worth Housing Solutions			X		X		
GRACE		X	X	X	X		
JPS Health	X					X	X
Mount Olive Baptist Church					X		
My Health My Resources (MHMR) of Tarrant County	X	X	X	X	X		
North Texas Area Community Health Centers	X	X	X	X	X		X
Project Access Tarrant County		X	X		X		
Salvation Army			X				
Tarrant Area Food Bank			X				
Tarrant County Public Health	X					X	X
Texas Rehabilitation Hospital of Fort Worth		X	X	X			
Union Gospel Mission		X	X				
United Way of Tarrant County	X	X	X	X	X		
Cancer Care Services	X	X	X	X	X		X

Participant Organization Name	Public Health	Medically Under-served	Low-income	Chronic Disease Needs	Minority Populations	Governmental Public -- Health Dept.	Public Health Knowledge -- Expertise
Metrocare	X	X	X	X	X		X
Fort Worth Independent School District		X	X		X		
Tarrant County Homeless Coalition			X				X
Texas Christian University and Red Cross	X	X	X	X	X		X

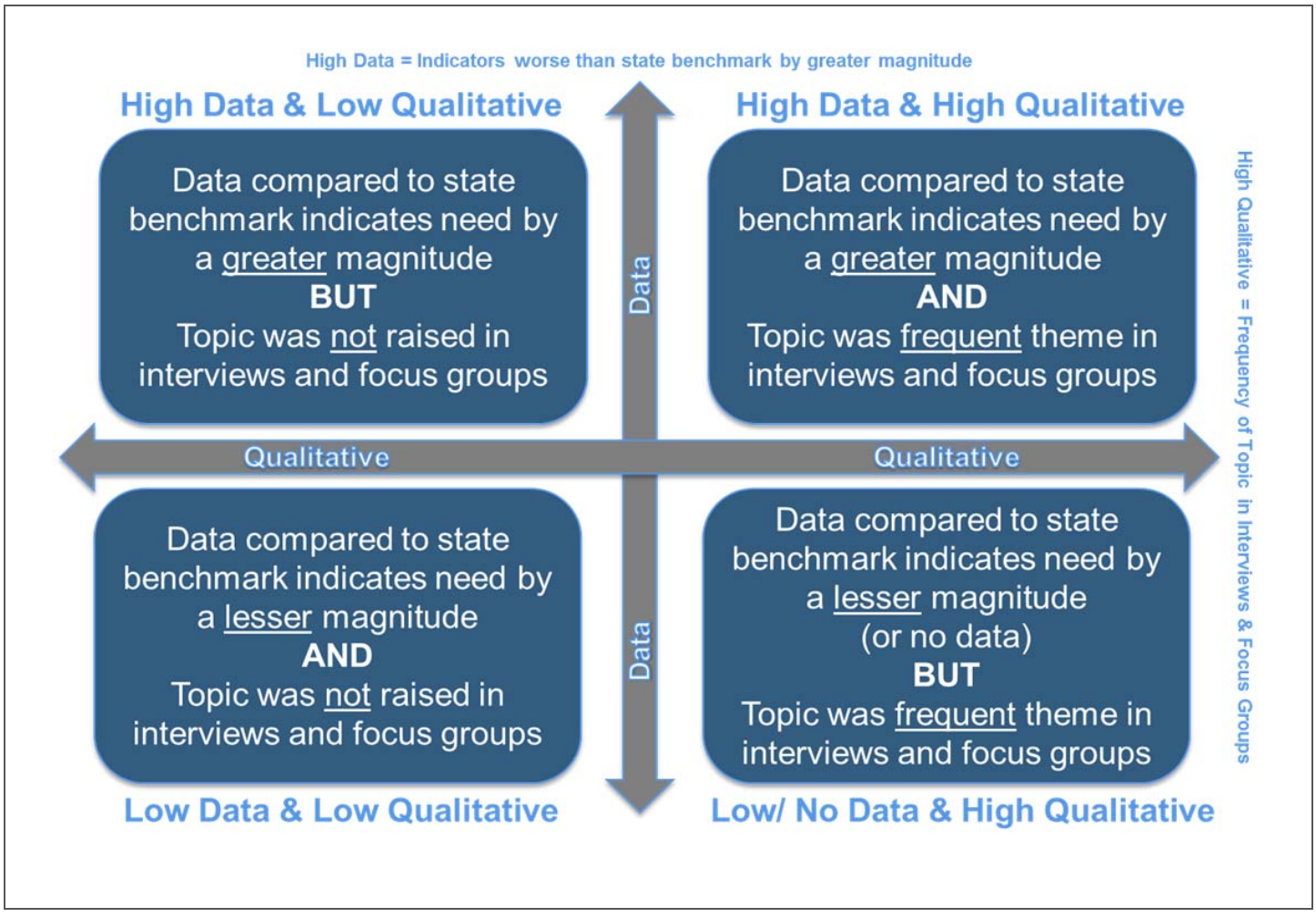
In addition to soliciting input from public health and various interests of the community, the hospital was also required to consider written input received on their most recently conducted CHNA and subsequent implementation strategies. The assessment is available to receive public comment or feedback on the report findings on the Methodist website (**www.methodisthealthsystem.org/about/communityinvolvement**) or by emailing **CHNAfeedback@mhd.com**. To date Methodist has not received written input but continues to welcome feedback from the community.

Community input from interviews and focus groups organized the themes around community needs. These themes were compared to the quantitative data findings.

Methodology for Defining Community Need

Using qualitative feedback from the interviews and focus groups, as well as the health indicator data, the issues currently affecting the community served are assembled in the Health Needs Matrix below to help identify the top health needs for the community. The upper right quadrant of the matrix is where the needs identified in the qualitative data (interview and focus group feedback) and quantitative data (health indicators) converge to identify the significant health needs for this community.

The Health Needs Matrix



Information Gaps

Most public health indicators were available only at the county level. In evaluating data for entire counties versus more localized data, it was difficult to understand the health needs for specific population pockets within a county. It could also be a challenge to tailor programs to address community health needs, as placement and access to specific programs in one part of the county may or may not actually affect the population who truly need the service. The publicly available health indicator data was supplemented with Watson Health's ZIP code estimates to assist in identifying specific populations within a community where health needs may be greater.

Approach to Identify and Prioritize Significant Health Needs

In a session held with system and hospital leadership representing Methodist Mansfield Medical Center on May 2, 2019, significant health needs were identified and prioritized. Moderated by Watson Health, the meeting included: an overview of the CHNA process for Methodist; the methodology for determining the top health needs; the Methodist prioritization approach; and discussion of the top health needs identified for the community.

Prioritization of the health needs took place in two (2) steps. In the first step, participants reviewed the top health needs for their community based on the Health Needs Matrix. The group then reviewed the significant health needs as determined by the upper right quadrant of the matrix and identified other significant needs from other matrix quadrants by leveraging the professional experience and community knowledge of the group via discussion.

In the second step, participants ranked the significant health needs based on the following prioritization criteria:

1. Magnitude: The need impacts a large number of people, actually or potentially.
2. Severity: What degree of disability or premature death occurs because of the problem? What are the potential burdens to the community, such as economic or social burdens?
3. Vulnerable Populations: There is a high need among vulnerable populations and/or vulnerable populations are adversely impacted.
4. Root Cause: The issue is a root cause of other problems, thereby possibly affecting multiple issues.

Through discussion and consensus, the group rated each of the significant health needs on each of the four identified criteria utilizing a scale of 1 (low) to 10 (high). The criteria scores summed for each need created an overall score. The list of significant health needs was then prioritized based on the overall scores. The outcome of this process, the list of prioritized health needs for this community, is located in the "**Prioritized Significant Health Needs**" section of the assessment.

The prioritized list of significant health needs was approved by the hospitals' governing body and the full assessment is available to anyone at no cost. To download a copy, visit **www.methodisthealthsystem.org/about/communityinvolvement**.

Selecting the Health Needs to be Addressed by Methodist

To choose which of the prioritized health needs Methodist would address through its corresponding implementation plans, the participants representing Methodist Mansfield Medical Center collectively as a group rated each of the prioritized significant health needs on the following selection criteria:

1. Expertise & Collaboration: Confirm health issues can build upon existing resources and strengths of the organization. Ability to leverage expertise within the organization and resources in the community for collaboration.
2. Feasibility: Ensure needs are amenable to interventions, acknowledge resources needed, and determine if need is preventable.
3. Quick Success & Impact: Ability to obtain quick success and make an impact in the community.

Through discussion and consensus, the group rated a subset of the prioritized health needs on each of the three identified criteria utilizing a scale of 1 (low) to 10 (high). The criteria scores summed for each need, created an overall score. The list of prioritized health needs was then ranked based on the overall scores. The health needs selected by participants which will be addressed via implementation strategies are located in the "**Health Needs to be Addressed by Methodist**" section of the assessment.

Existing Resources to Address Health Needs

Part of the assessment process included gathering input on community resources potentially available to address the significant health needs identified through the CHNA. Qualitative assessment participants identified community resources that may assist in addressing the health needs identified for this community. A description of these resources is in **Appendix B**.

Demographic and Socioeconomic Summary

According to population statistics, the population in this health community is expected to grow 7.3% in five years, just above the Texas growth rate of 7.1%. The median age was younger than the Texas and national benchmarks. Median income was above both the state and the country. The community served had a lower proportion of Medicaid beneficiaries than the state of Texas.

Demographic and Socioeconomic Comparison: Community Served and State/U.S. Benchmarks

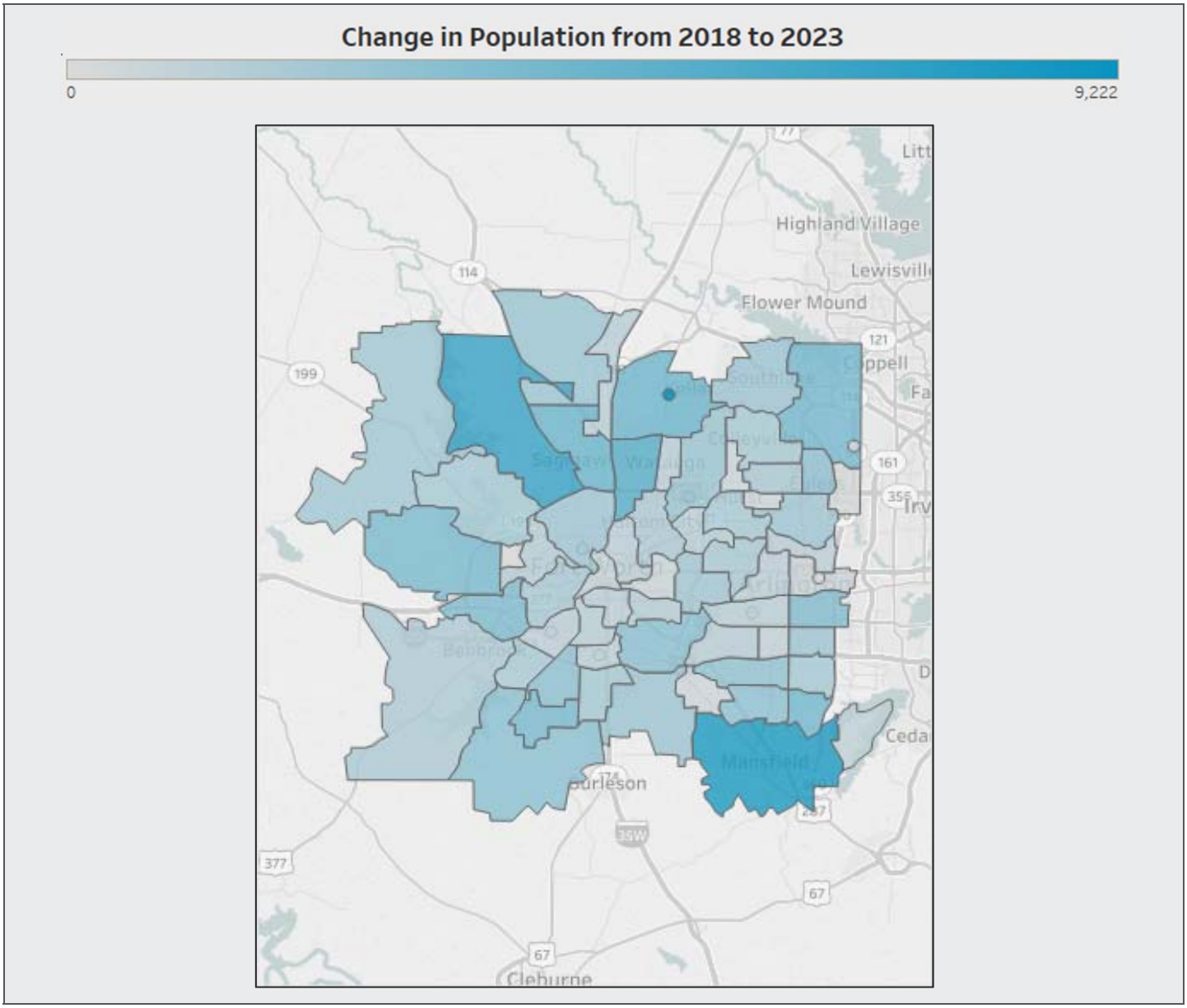
Geography		Benchmarks		Community Served
		United States	Texas	
Total Current Population		326,533,070	28,531,631	1,988,116
5 Yr Projected Population Change		3.5%	7.1%	7.3%
Median Age		42.0	38.9	34.9
Population 0-17		22.6%	25.9%	26.2%
Population 65+		15.9%	12.6%	11.6%
Women Age 15-44		19.6%	20.6%	21.1%
Non-White Population		30.0%	32.2%	36.4%
Hispanic Population		18.2%	39.4%	29.0%
Insurance Coverage	Uninsured	9.4%	19.0%	16.4%
	Medicaid	19.0%	13.4%	12.7%
	Private Market	9.6%	9.9%	9.8%
	Medicare	16.1%	12.5%	10.9%
	Employer	45.9%	45.3%	50.3%
Median HH Income		$61,372	$60,397	$70,831
Limited English		26.2%	39.9%	33.4%
No High School Diploma		7.4%	8.7%	7.8%
Unemployed		6.8%	5.9%	5.5%

Source: IBM Watson Health / Claritas, 2018; US Census Bureau 2017 (U.S. Median Income)

The population of the community served is expected to grow 7.3% by 2023, an increase of more than 144,000 people. The 7.3% projected population growth is slightly higher than the state's 5-year projected growth rate (7.1%) and much higher when compared to the national projected growth rate (3.5%). The ZIP codes expected to experience the most growth in five years are:

- 76244 Keller - 9,222 people
- 76063 Mansfield - 7,905 people
- 76179 Fort Worth - 6,648 people
- 76137 Fort Worth - 5,136 people

2018 - 2023 Total Population Projected Change by ZIP Code

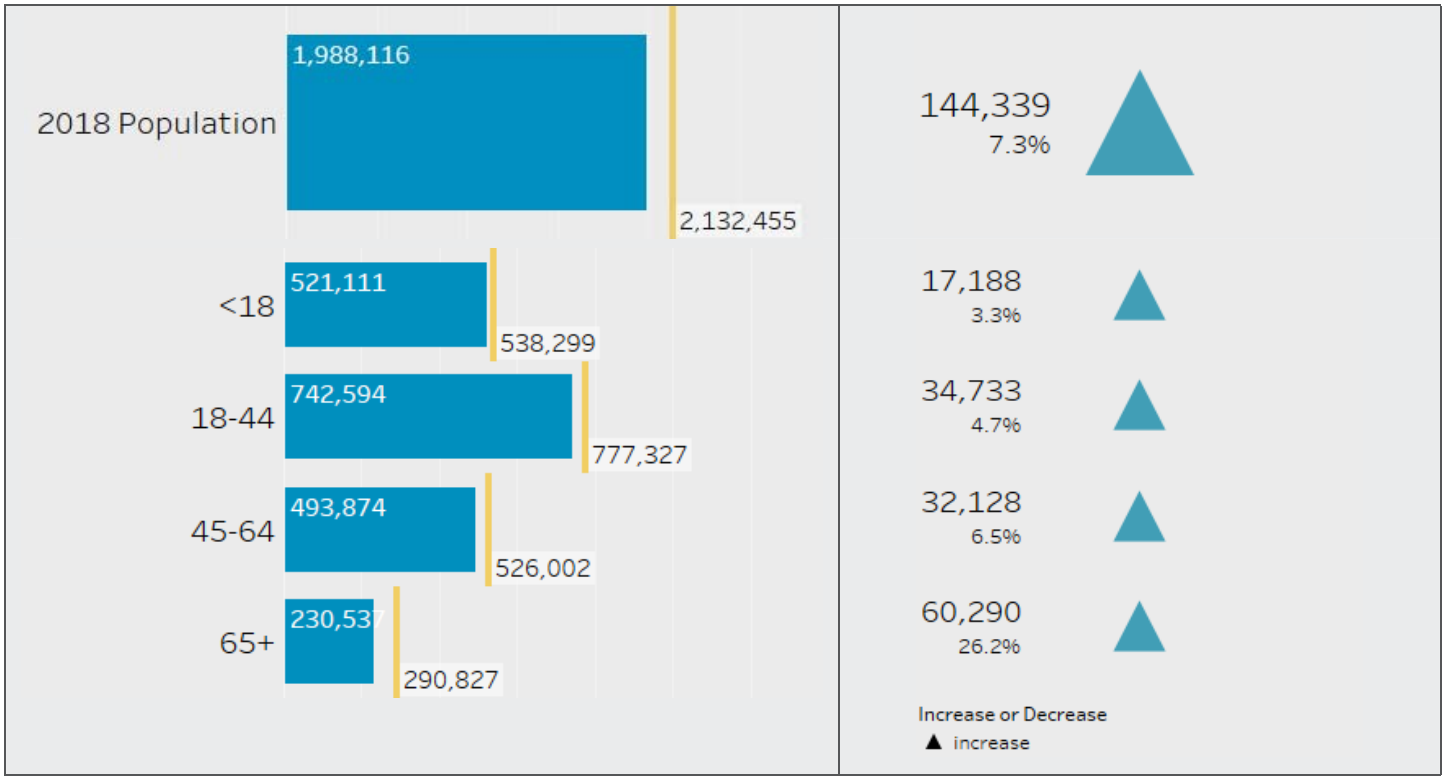


Source: IBM Watson Health / Claritas, 2018

The community's population skewed younger with 37.4% of the population ages 18-44 and 26.2% under age 18. The largest cohort (18-44) is expected to grow by 34,733 people by 2023. The age 65 plus cohort was the smallest but is expected to experience the fastest growth (26.2%) over the next five years; adding 60,290 seniors to the community. Growth in the senior population will likely contribute to increased utilization of services as the population continues to age.

Population Distribution by Age

2018 Population by Age Cohort *Change by 2023*

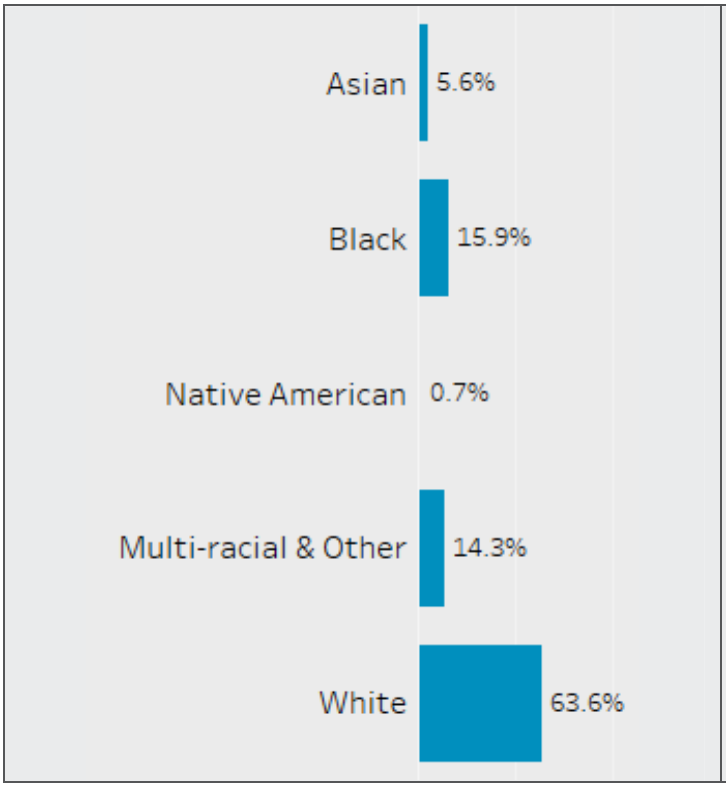


Source: IBM Watson Health / Claritas, 2018

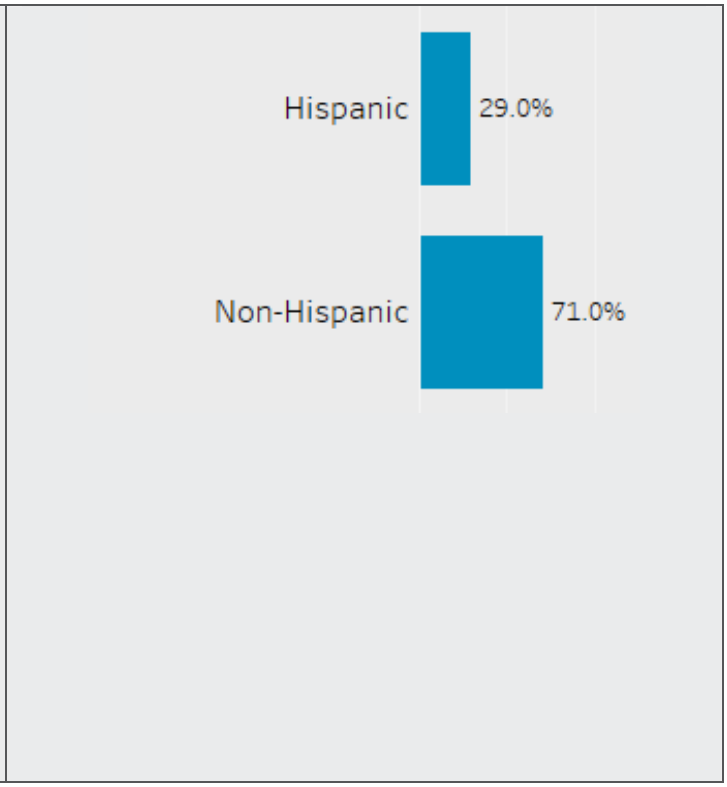
Population statistics are analyzed by race and by Hispanic ethnicity. The largest groups in the community were White Non-Hispanic (47.5%), White Hispanic (16.2%), and Black Non-Hispanic (15.5%). The expected growth rate of the Hispanic population (all races) is over 73,000 people (12.7%) by 2023, while the non-Hispanic population (all races) is expected to grow by over 70,000 people (5.0%) by 2023. The highest growth rate is projected for Asian/Pacific Islanders who currently make up less than 6% of the population.

Population Distribution by Race and Ethnicity

2018 Population by Race

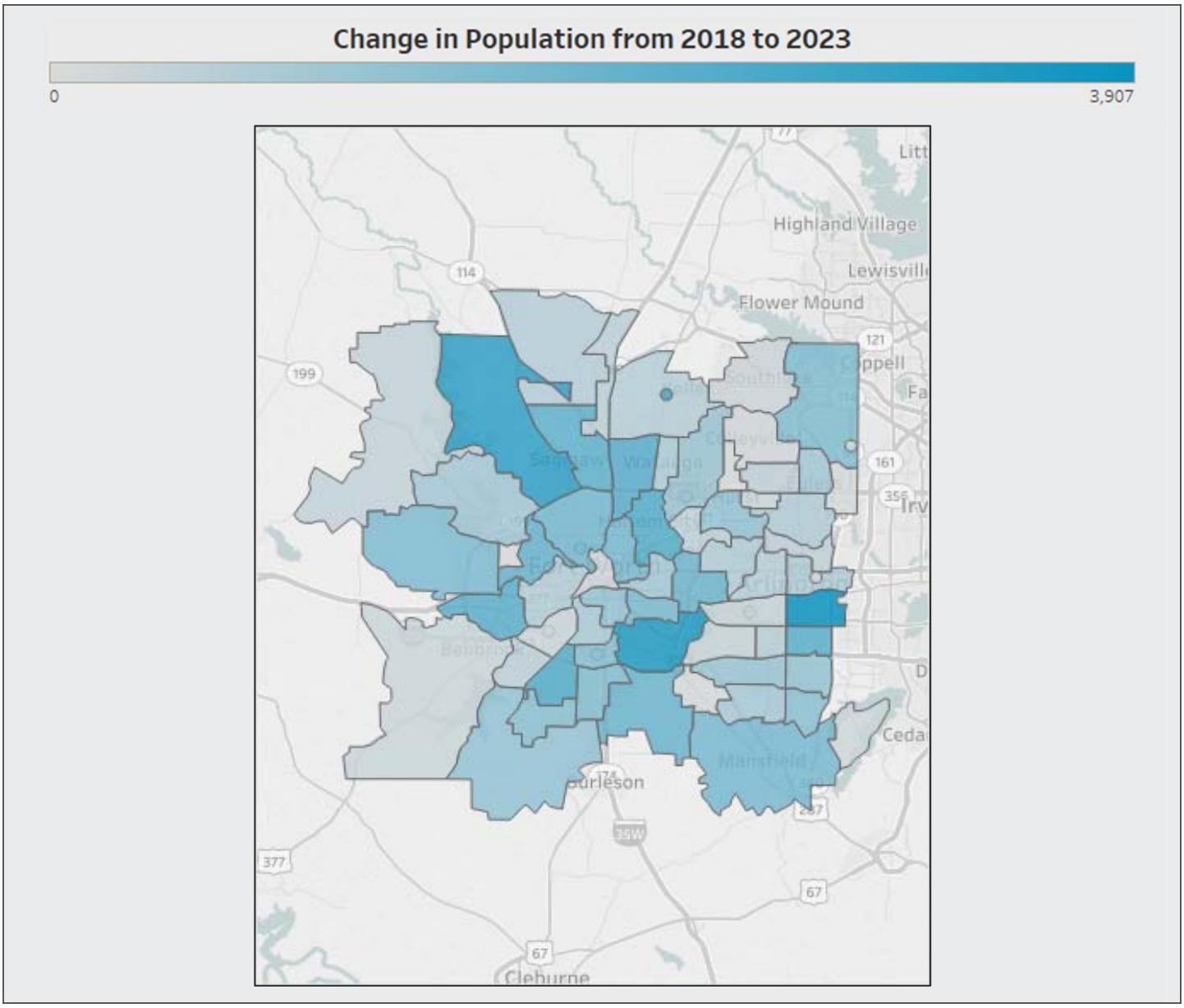


2018 Population by Ethnicity



Source: IBM Watson Health / Claritas, 2018

2018 - 2023 Hispanic Population Projected Change by ZIP Code

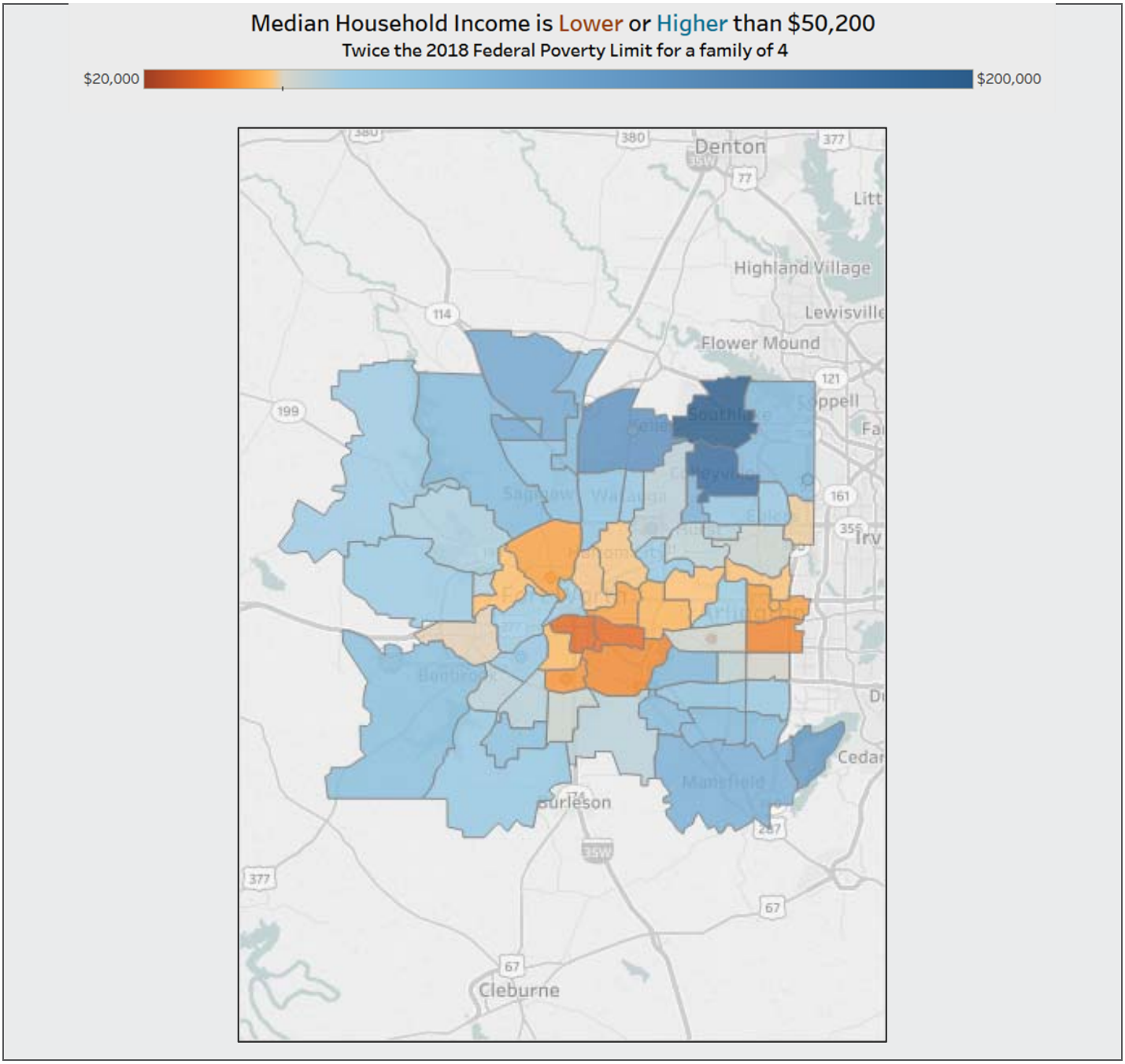


Source: IBM Watson Health / Claritas, 2018

The 2018 median household income for the United States was $61,372 and $60,397 for the state of Texas. The median household income for the ZIP codes within this community ranged from $27,977 for 76104 – Fort Worth to $216,894 for 76092 - Southlake. There were 20 ZIP Codes with median household incomes less than $50,200; twice the 2018 Federal Poverty Limit for a family of four:

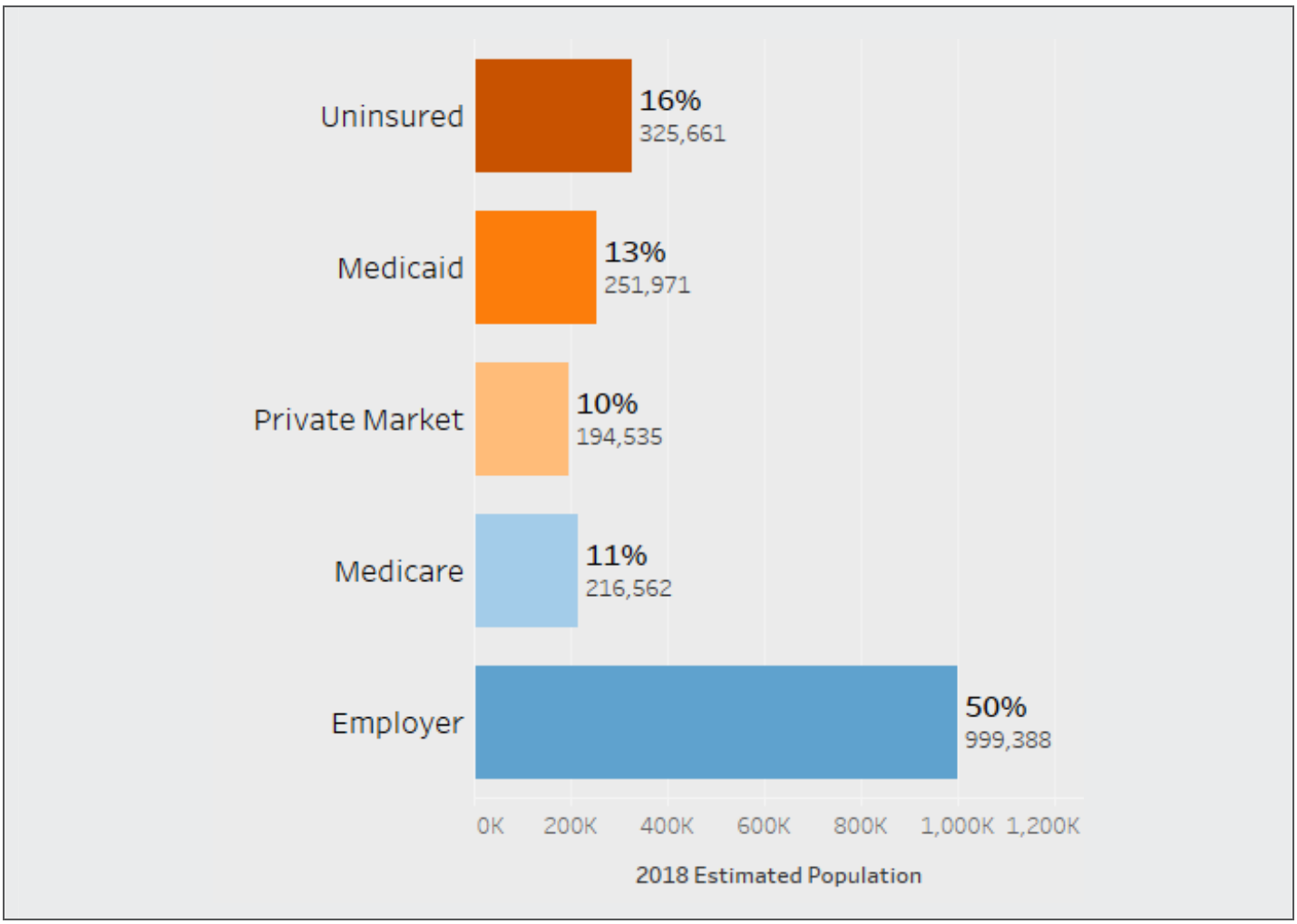
- 76116 Fort Worth - $49,400
- 76155 Fort Worth - $48,452
- 76111 Fort Worth - $47,382
- 76117 Haltom City - $47,265
- 76006 Arlington - $46,727
- 76120 Fort Worth - $46,695
- 76114 Fort Worth - $46,039
- 76110 Fort Worth - $44,841
- 76005 Arlington - $44,813
- 76112 Fort Worth - $43,799
- 76122 Fort Worth - $41,000
- 76103 Fort Worth - $39,948
- 76106 Fort Worth - $39,790
- 76011 Arlington - $39,758
- 76115 Fort Worth - $37,339
- 76164 Fort Worth - $36,716
- 76119 Fort Worth - $35,142
- 76010 Arlington - $34,718
- 76105 Fort Worth - $28,390
- 76104 Fort Worth - $27,977

2018 Median Household Income by ZIP Code



Source: IBM Watson Health / Claritas, 2018

2018 Estimated Distribution of Covered Lives by Insurance Category



Source: IBM Watson Health / Claritas, 2018

The community includes 10 Health Professional Shortage Areas and three (3) Medically Underserved Areas as designated by the U.S. Department of Health and Human Services Health Resources Services Administration.[1] **Appendix C** includes the details on each of these designations.

Health Professional Shortage Areas and Medically Underserved Areas and Populations

	Health Provessional Shortage Areas (HPSA)				Medically Underserved Area/Population (MUA/P)
4. Methodist Mansfield MC	**Dental Health**	**Mental Health**	**Primary Care**	**Grand Total**	**MUA/P**
Tarrant	3	4	3	10	3
Total	**3**	**4**	**3**	**10**	**3**

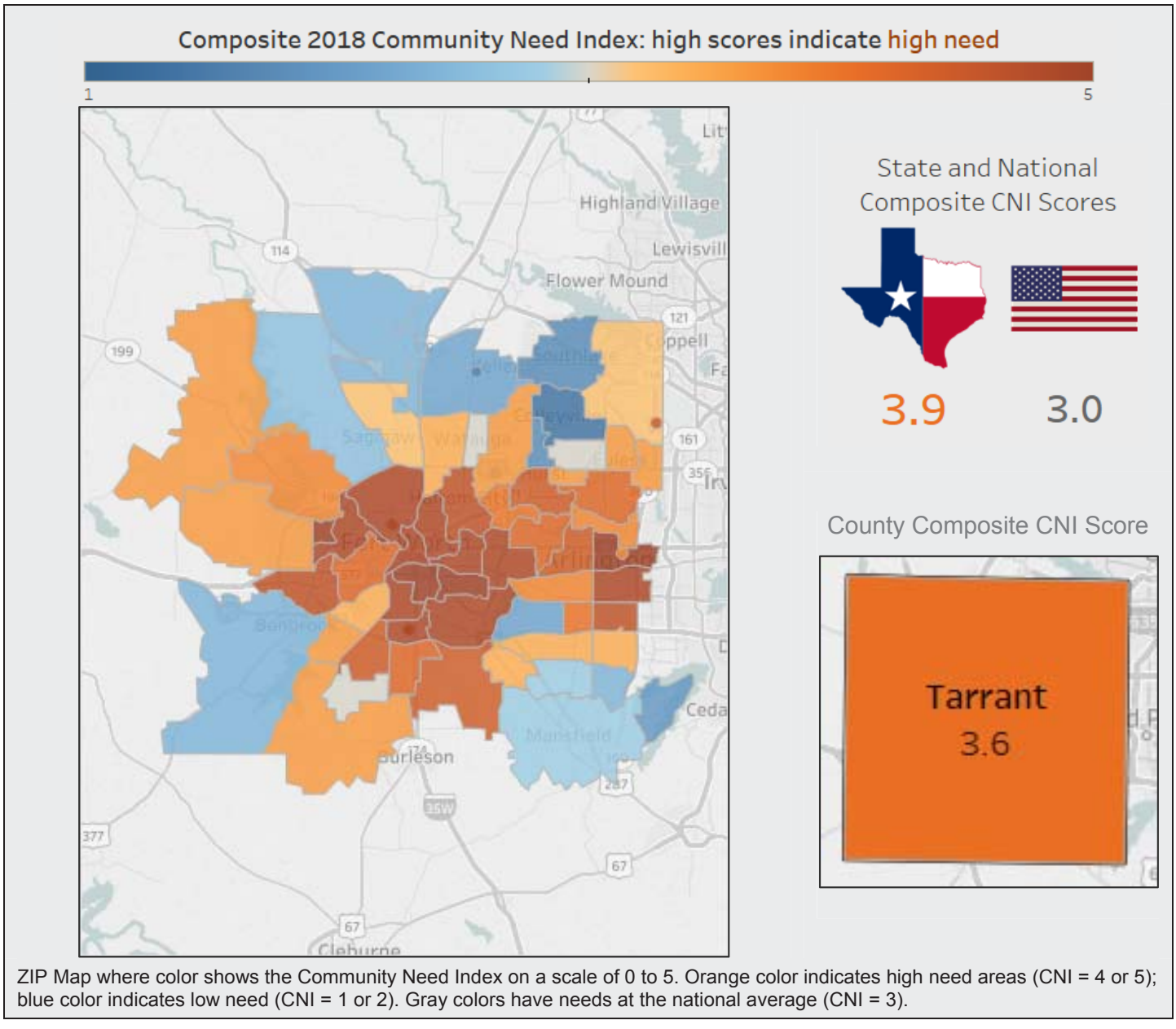
Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, 2018

[1] U.S. Department of Health and Human Services, Health Resources and Services Administration, 2018

The Watson Health Community Need Index (CNI) is a statistical approach to identifying areas within a community where health disparities may exist. The CNI takes into account vital socio-economic factors (income, cultural, education, insurance and housing) about a community to generate a CNI score for every populated ZIP code in the United States. The CNI strongly links to variations in community healthcare needs and is an indicator of a community's demand for various healthcare services. The CNI score by ZIP code identifies specific areas within a community where healthcare needs may be greater.

Overall, the CNI score for the community served was 3.6, higher than the CNI national average of 3.0, potentially indicating greater health care needs in this community. In portions of the community (76011 - Arlington, 76104 - Fort Worth, 76105 - Fort Worth and 76127 - Naval Air Station JRB) the CNI score was 5.0, pointing to potentially more significant health needs among the population.

2018 Community Need Index by ZIP Code



ZIP Map where color shows the Community Need Index on a scale of 0 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).

Public Health Indicators

Public health indicators were collected and analyzed to assess community health needs. Evaluation for the community served used 102 indicators. 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 U.S. and the state of Texas.

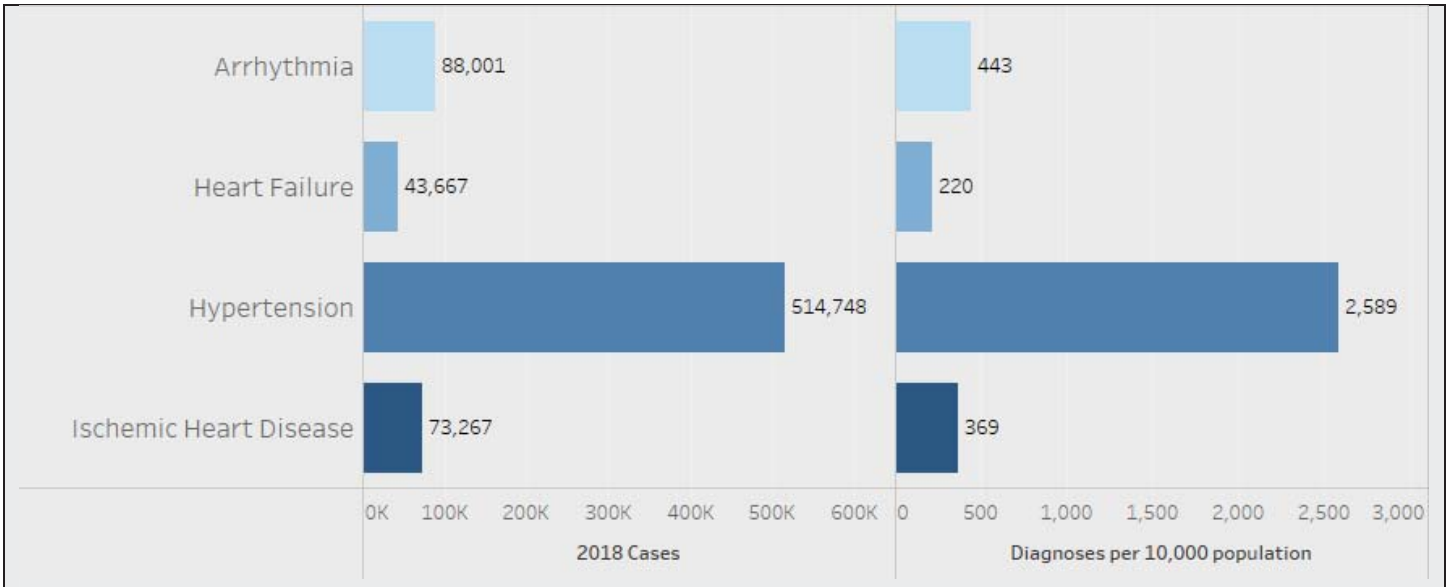
Where the community indicators showed greater need when compared to the state of Texas comparative benchmark, the difference between the community values and the state benchmark was calculated (need differential). Those highest ranked indicators with need differentials in the 50th percentile of greater severity pinpointed community health needs from a quantitative perspective. These indicators are located in **Appendix D**.

Watson Health Community Data

Watson Health supplemented the publicly available data with estimates of localized disease prevalence of heart disease and cancer as well as emergency department visit estimates.

Watson Health Heart Disease Estimates identified hypertension as the most prevalent heart disease diagnosis; there were over 514,000 estimated cases in the community overall. The 76063 ZIP code of Mansfield had the most estimated cases of each heart disease type. The 76054 ZIP code of Hurst had the highest estimated prevalence rates for Arrhythmia (706 cases per 10,000 population), Heart Failure (365 cases per 10,000 population), Hypertension (3,496 cases per 10,000 population), and Ischemic Heart Disease (648 cases per 10,000 population).

2018 Estimated Heart Disease Cases

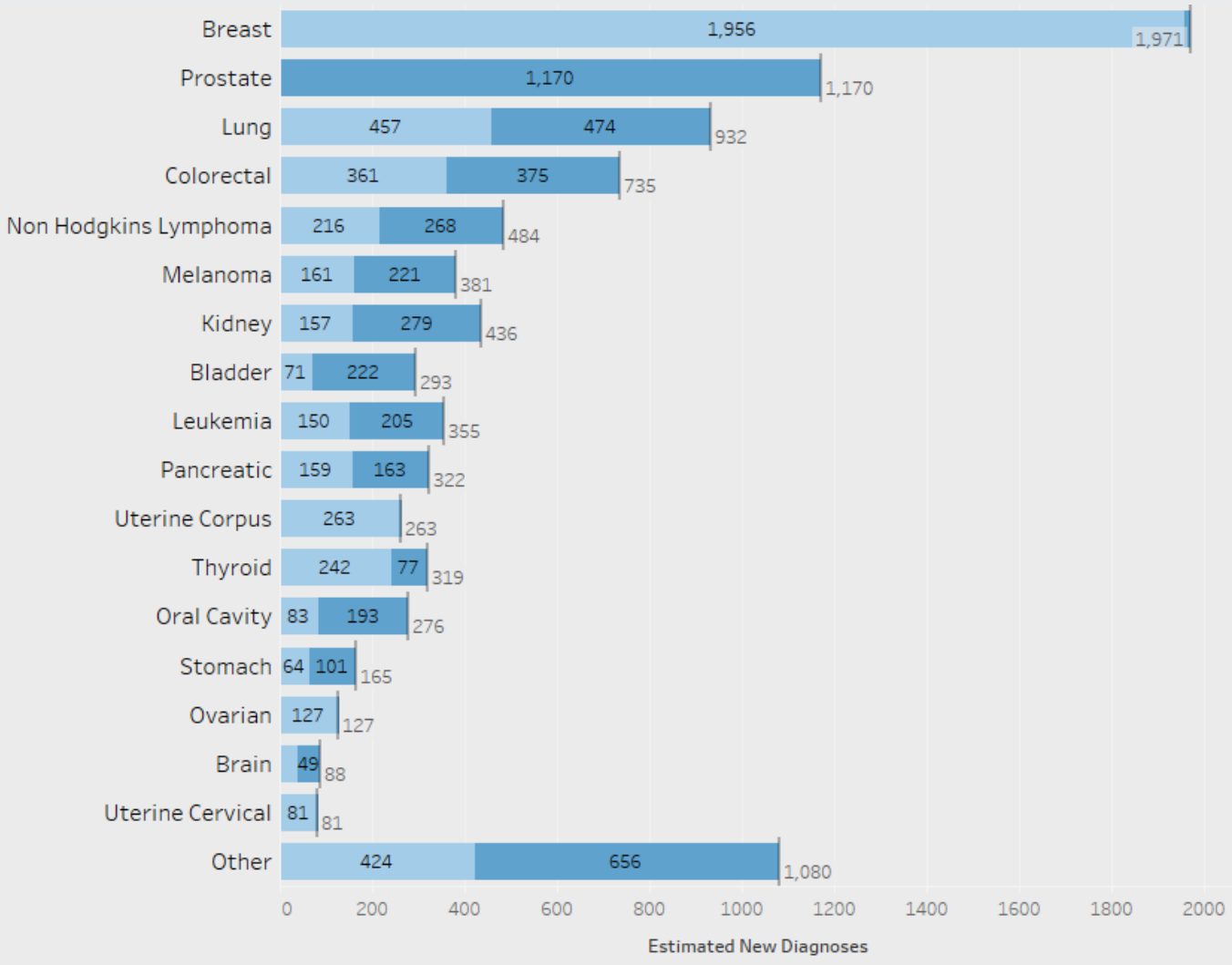


Bar chart shows total number and prevalence rate of 2018 Estimated Heart Disease cases for each of four types: arrhythmia, heart failure, hypertension, and ischemic heart disease

Note: An individual patient may have more than one type of heart disease. Therefore the sum of all four heart disease types is not

For this community, Watson Health's 2018 Cancer Estimates revealed the cancers projected to have the greatest rate of growth in the next five years were pancreatic, bladder, and kidney; based on both population changes and disease rates. The cancers estimated to have the greatest number of new cases in 2018 were breast, prostate, lung and colorectal cancers.

2018 Estimated New Cancer Cases



Bar chart shows estimated new diagnoses per year for each of the 17 types of Cancer and 1 category for all other cancers. Color shows details about sex with light blue for females and dark blue for males.

Source: IBM Watson Health, 2018

Estimated Cancer Cases and Projected 5 Year Change by Type

Cancer Type	2018 Estimated New Cases	2023 Estimated New Cases	5 Year Growth (%)
Bladder	293	350	19.5%
Brain	88	97	10.9%
Breast	1,971	2,257	14.5%
Colorectal	735	762	3.6%
Kidney	436	514	17.7%
Leukemia	355	412	16.0%
Lung	932	1,077	15.6%
Melanoma	381	445	16.6%
Non Hodgkins Lymphoma	484	563	16.3%
Oral Cavity	276	321	16.5%
Ovarian	127	143	12.4%
Pancreatic	322	390	21.1%
Prostate	1,170	1,281	9.4%
Stomach	165	190	15.2%
Thyroid	319	374	17.2%
Uterine Cervical	81	86	5.9%
Uterine Corpus	263	306	16.7%
All Other	1,080	1,265	17.1%
Grand Total	9,479	10,833	14.3%

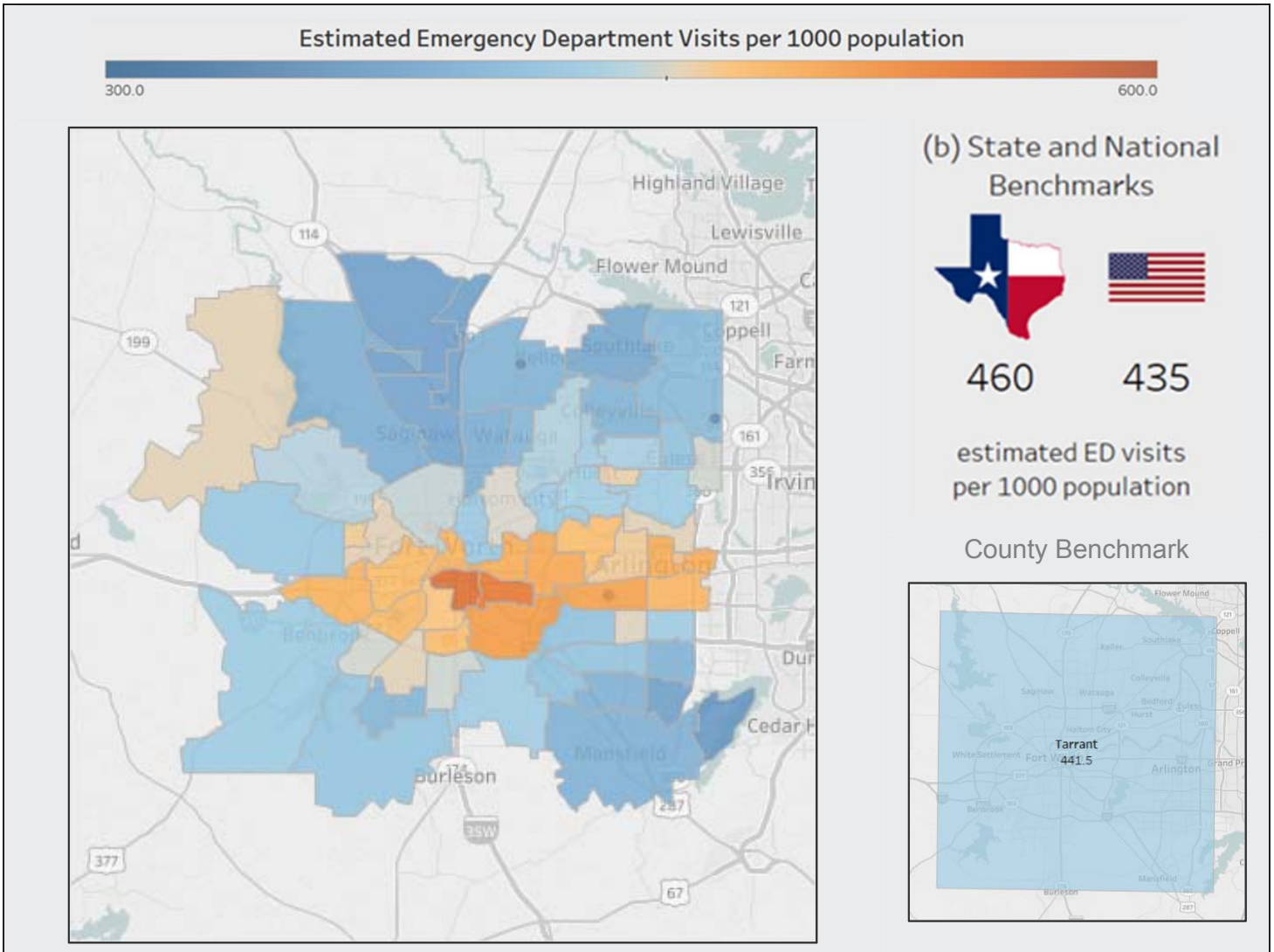
Source: IBM Watson Health, 2018

Based on population characteristics and regional utilization rates, Watson Health projected all emergency department (ED) visits in this community to increase by 8.0% over the next 5 years. The highest estimated ED use rates were in the ZIP codes of Fort Worth; 383.2 to 554.9 ED visits per 1,000 residents compared to the Texas state benchmark of 460 visits and the U.S. benchmark of 435 visits per 1,000.

These ED visits consisted of three main types: those resulting in an inpatient admission, emergent outpatient treated and released ED visits, and non-emergent outpatient ED visits that were lower acuity. Non-emergent ED visits present to the ED but can be treated in more appropriate and less intensive outpatient settings.

Non-emergent outpatient ED visits could be an indication of systematic issues within the community regarding access to primary care, managing chronic conditions, or other access to care issues such as ability to pay. Watson Health estimated non-emergent ED visits to increase by an average of 3.1% over the next five years in this community.

Estimated 2018 Emergency Department Visit Rate

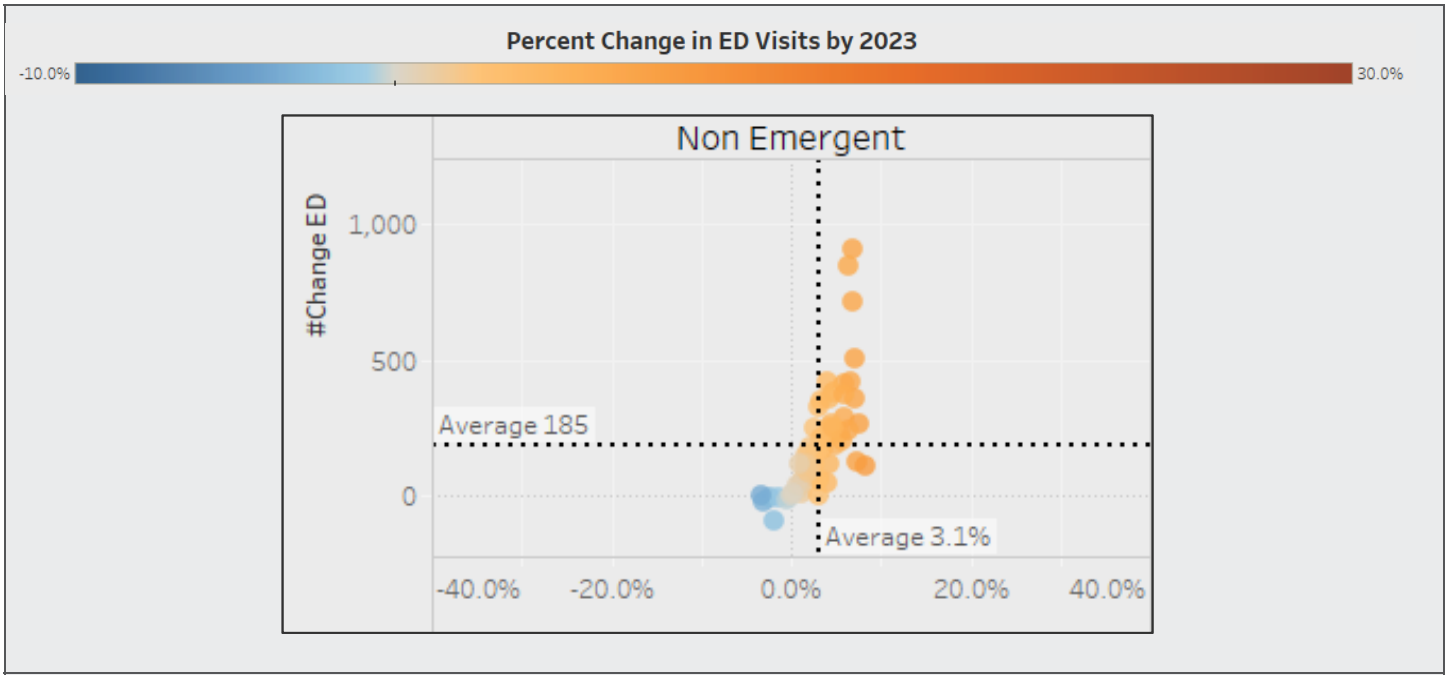


ZIP map color shows total Emergency Department visits per 1000 popultaion. Orange colors are higher than the state benchmark, blue colors are less than the state benchmark, and gray colors are similar.

Note: These are not actual Methodist ED visit rates. These are statistical estimates of ED visits for the population.

Source: IBM Watson Health, 2018

Projected 5 Year Change in Non-Emergent Emergency Department Visits by ZIP Code



This chart show sthe percent change in Emergency Department visits by 2023 at the ZIP level. The average for all ZIPs in the Health Community is labeled. ED visits are defined by the presence of specific CPT® codes in claims. Non-emergency visits to the ED do not necessarily require treatment in a hospital emergency department and can potentially be reated in a fast-track ED, an urgent care treatment center, or a clinical or a physician's private office.

Note: These are not actual Methodist ED visit rates. These are statistical estimates of ED visits for the population.

Source: IBM Watson Health, 2018

Focus Groups & Interviews

Methodist Mansfield Medical Center worked jointly with Texas Health Resources and Baylor Scott & White Health hospital facilities in collecting and sharing qualitative data (community input) on the health needs of this community.

In the focus group sessions and interviews, participants identified and discussed the factors that contribute to the current health status of the community, and then identified the greatest barriers and strengths that contribute to the overall health of the community. For this health community there were two focus group sessions with a total of 19 participants and five (5) interviews were conducted July 2018 through March 2019.

In this health community, the top health needs identified in the discussions included:

- Lack of resources for low-income and undocumented residents
- Chronic disease
- Opioid addiction
- Specialty care for the elderly and disabled population
- Access and utilization of mental/behavioral health resources

Tarrant County was a diverse community with both great wealth and significant poverty. Fort Worth was a worldwide destination with recognized arts, theatre, shopping, dining, institutions of higher learning, and designation as a “Blue Zone Community”. The Grapevine and Southlake communities were described as affluent, family friendly, and a tourist destination. Tarrant County’s population growth was outpacing the rapid growth of the greater Dallas Metroplex area. The population was also getting older and becoming increasingly diverse. There was a growing homeless and transient population, putting strain on shelters that were close to or over capacity. The community lacked resources for low income populations, and public transportation options were inadequate to meet residents’ needs.

The focus groups discussed the challenges for low income and immigrant populations to access health resources. Low income residents often needed to prioritize basic needs over health needs and lacked access to affordable health insurance. Gaps in free and low-cost services were noted as potential contributors to high rates of preventable, chronic illnesses like diabetes, heart disease, and obesity. Poor nutrition and lack of sidewalks or exercise opportunities added to high rates of chronic illness in low income areas. Additionally, the community had a high infant mortality rate, especially among low income and African American women, due to insufficient access to low cost prenatal and obstetrics care.

Focus group participants felt healthcare resources were limited for the expanding low-wage workforce that commuted into the community. Many workers were uninsured or undocumented and could not afford the prohibitive cost of care. Cancer care, dialysis facilities, and dental care were key gaps despite high need. Undocumented workers avoided using services due to fear of deportation and lack of translation services. Added

translation services were needed in Spanish, Arabic, and Vietnamese to better support the increasingly diverse community.

The lack of public transportation was another major barrier to good health in the Fort Worth area. Participants noted there was no reliable public transportation between cities and commented that “without a car you’re out of luck.” Public transportation was limited to Fort Worth, with nothing outside city central. Arlington had Handy Van/Tran for handicap transportation, but it was restricted to the city limits or certain zones. Many areas of the community lacked health care facilities, and without public transportation, it was a challenge for residents to access health services.

The lack of public transportation particularly impacted the growing elderly and disabled population who had additional need for navigation and support services. According to participants, the proportion of socially isolated seniors was increasing, so more transportation and mental health services were needed to better support this vulnerable group. Elderly and/or disabled residents without a support network often missed appointments and were at increased risk of opioid addiction. Stigma around mental health conditions prevented this population from seeking help for depression and other common conditions.

Participants discussed the high need for mental health services in the area. Funding for mental health had decreased and psychiatric care was only available as cash pay, making services unavailable even to those with insurance. Wait times for psychiatric care often exceeded six months regardless of insurance status. Some suggested that portions of the large homeless population contained individuals with untreated mental health issues. My Health My Resources (MHMR) served low income and indigent mental health patients but was at capacity, forcing residents to seek services outside the community. The focus groups discussed using telehealth to alleviate the shortage of mental health resources but were unsure whether low income, undocumented, and homeless residents would utilize telehealth services. Substance abuse support was lacking despite the need for drug and alcohol rehabilitation services. Opioid addiction was on the rise and required additional counseling and treatment services to support area residents coping with addiction.

Prioritized Significant Health Needs

The Health Needs Matrix identified through the community health needs assessment (see Methodology for Defining Community Need section) shows the convergence of needs identified in the qualitative data (interview and focus group feedback) and quantitative data (health indicators). The significant health needs for this community were identified, reviewed, and prioritized by Methodist leadership (see Approach to Identify and Prioritize Significant Health Needs section) and the resulting prioritized health needs for this community were:

Significant Community Health Needs Identified

Priority	Needs Identified	Category of Need	Public Health Indicator
1	Atrial Fibrillation	Chronic Conditions	Atrial Fibrillation in Medicare Population
1	Mental Health	Mental Health	Ratio of Population to One Mental Health Provider
2	Drug Overdose Deaths - Opioids	Health Behaviors - Substance Abuse	Accidental Poisoning Deaths where Opioids were Involved
2	Chronic Kidney Disease	Chronic Conditions	Chronic Kidney Disease in Medicare Population
2	Alzheimer's Disease/Dementia	Mental Health	Alzheimer's Disease/Dementia in Medicare Population
3	Cancer	Cancer	Cancer Incidence - All Causes
4	Obesity	Chronic Conditions	Adult Obesity (Percent)
4	Diabetes	Chronic Conditions	Uncontrolled Diabetes Admission: Adult (Risk-Adjusted Rate)
5	Diabetes	Chronic Conditions	Diabetes Prevalence
5	Transportation	Access to Care	No Vehicle Available
5	Mental Health	Mental Health	Depression in Medicare Population
6	Civilian-Veteran Population	Social Determinants of Health	Civilian Veteran Population 18+
7	Primary Care	Access to Care	Ratio of Population to One Primary Care Physician
8	Schizophrenia and Other Psychotic Disorders	Mental Health	Schizophrenia and Other Psychotic Disorders in Medicare Population
9	Mental Health	Mental Health	Intentional Self-Harm; Suicide
10	First Trimester Entry into Prenatal Care	Maternal and Child Health	First Trimester Entry into Prenatal Care
11	Perforated Appendix Admission	Preventable Hospitalizations	Perforated Appendix Admission: Pediatric (Risk-Adjusted Rate for Appendicitis)
12	Infant Mortality	Injury and Death - Children	Infant Mortality Rate
13	Social Isolation	Social Determinants of Health	Social/Membership Associations
13	Food Insecurity	Environment	Food Insecurity (Hunger)

Health Needs to be Addressed by Methodist

Using the approach outlined in the methodology section of this report (see *Selecting the Health Needs to be Addressed by Methodist* section), participants from Methodist Mansfield Medical Center collectively rated, ranked, and selected the following significant needs to be addressed by implementation strategies:

1. Atrial Fibrillation
2. Obesity
3. Diabetes
4. Opioid Addiction
5. Cancer

Description of Needs to be Addressed by Methodist

The CHNA process identified significant community health needs that can be categorized as chronic conditions, specifically atrial fibrillation, obesity, diabetes, and cancer, and opioid addiction. Regionalized health needs affect all age levels to some degree; however, it is often the most vulnerable populations that are negatively affected. Community health gaps help to define the resources and access to care within the county or region. Health and social concerns were validated through key informant interviews, focus groups and county data. The health needs selected by Methodist to be addressed are briefly described below with public health indicator and benchmark information.

Atrial Fibrillation in the Medicare Population

Atrial fibrillation is the most common type of heart arrhythmia. Arrhythmia is defined as an irregular heart rhythm or irregular heartbeat. Symptoms such as heart palpitations, shortness of breath, dizziness, fatigue, and or chest pains are common; however, some may not feel any symptoms.[2] Atrial Fibrillation increases your chances of suffering from a stroke due to the irregularity of blood flow through the heart which can form a blood clot. People who are diagnosed with hypertension, diabetes, obesity, and advancing age often experience atrial fibrillation which needs to be controlled by medication.

In 2014, 8.0% of all Medicare Fee-For-Service beneficiaries had a diagnosis of atrial fibrillation. Among the 65 and older population, 10.5% of males and 8.4% of females had a diagnosis. Atrial fibrillation varies by race and ethnicity, with the highest prevalence in Blacks at 11.7%, followed by Whites (8.0%), Hispanics (5.9%), American Indians/Alaska Natives (5.3%) and Pacific Islanders (4.7%).[3] In Tarrant County, 9% of the Medicare population has a diagnosis of atrial fibrillation, 7% higher than the Texas state benchmark.[4]

[2] https://www.cms.gov/About-CMS/Agency-Information/OMH/research-and-data/information-products/data-snapshots/atrial-fibrillation.html

Obesity

Weight that is higher than what is considered a healthy weight for a given height is described as overweight or obese, as defined by the CDC. The prevalence of obesity is increasing in the United States; in 2015-2016, 93 million people were affected. In Tarrant County, 29% of adults are considered obese, compared to 28% in Texas and the U.S.[5] The annual medical cost in 2008 of obesity and its related conditions was $147 billion U.S. dollars. The medical cost for people who have obesity was $1,429 higher than those of normal weight.[6]

Related conditions add to the complexity and morbidity of obesity. Associated conditions include heart disease, stroke, type 2 diabetes, and certain types of cancer which are attributable to preventable, premature death. Obesity and other related conditions are more prevalent among certain socio-economic groups. The association between obesity and income or educational level is complex and differs by sex and race/ethnicity. College educated persons have less incidence of obesity than those who are less educated.[7]

Education, awareness, and addressing the benefits of living a healthy lifestyle, are key to changing the course of obesity in society. Communities benefit from a targeted approach to obesity by offering healthy alternatives which encourage active lifestyles, preventative healthcare, community exercise options, and healthy food options.

Diabetes

Diabetes is the condition in which the body does not properly process food for use as energy. Most of the food we eat is turned into glucose, or sugar, for our bodies to use for energy. The pancreas makes a hormone called insulin to help glucose get into the cells of our bodies. When you have diabetes, your body either doesn't make enough insulin or can't use its own insulin as well as it should. There are several types of diabetes so treatments along with management vary by diagnosis. Diabetes can cause serious health complications including heart disease, blindness, kidney failure, and lower-extremity amputations.

Diabetes is a national crisis affecting more than 30 million Americans, another 84 million have pre-diabetes, high blood sugar levels but not high enough to cause type 2 diabetes. Diabetes was the seventh leading cause of death in the United States in 2015. In the last 20 years, the number of adults diagnosed with diabetes has more than tripled

[3] https://www.cms.gov/About-CMS/Agency-Information/OMH/research-and-data/information-products/data-snapshots/atrial-fibrillation.html
[4] CMS.gov Chronic conditions 2007-2015
[5] 2018 County Health Rankings & Roadmaps; CDC Diabetes Interactive Atlas, The National Diabetes Surveillance System
[6] https://www.cdc.gov/obesity/adult/defining.html
[7] https://www.cdc.gov/obesity/data/adult.html

as the U.S. population has aged and become more overweight.[8] In Tarrant County, the diabetes prevalence is 10.8 per 100,000 which is 8% worse than the Texas state benchmark.[9]

The Centers for Disease Control (CDC) supports national, community, and faith organizations; state and local health departments; tribes; and other partners to prevent or delay type 2 diabetes, improve diabetes care and self-management, and prevent or reduce the severity of diabetes complications. Diabetes not only has significant health risks; the economic impact of diabetes is also extraordinary.[10] The estimated cost in 2012 of diagnosed diabetes in the U.S. was $245 billion. Average medical expenditures attributed to diabetes care and management were $7,900 per year. The risk-adjusted rate for uncontrolled diabetes admissions in Tarrant County is almost 10% higher than the state (44.3 per 100,000), potentially contributing to higher costs for patients who often struggle with the high cost of diabetes medication and supplies.[11,12]

Drug Overdose Deaths and Opioid Addiction

Drug Overdose Deaths are the number of deaths due to drug poisoning per 100,000 population. Deaths cover accidental, intentional, and undetermined poisoning by a multitude of both narcotic and non-narcotic drugs and biological substances. Drug overdose deaths are a leading contributor to premature death and are largely preventable. Currently, the U.S. is experiencing an epidemic of drug overdose deaths. Since 2000, the rate of drug overdose deaths has increased by 137% nationwide; in 2017, there were 70,237 drug overdose deaths reported in the United States. In Tarrant County, the rate of drug poisoning deaths is 2% higher than in the state of Texas (10.0 per 100,000 vs 9.7 per 100,000).[13]

Since 2000, there has been a 200 percent increase in deaths involving opioids (opioid pain relievers and heroin).[14] Opioids, mainly synthetic, were involved in 68% of all drug overdose deaths in 2017 (47,600 opioid-related overdose deaths).[15] Twenty-three of the 50 states in the U.S. have seen a statistically significant increase in opioid drug deaths from 2016 to 2017. Texas was not one of the states with a statistically significant increase; however, one accidental drug-overdose death is one too many for a community. Opioid addiction and deaths remain a growing and significant concern across both Texas and the Nation. The realization that over half of the overdose deaths are opioid related is a key reason for states to address this issue in their communities.

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[8] https://www.cdc.gov/chronicdisease/resources/publications/aag/diabetes.htm
[9] 2018 County Health Rankings (CDC Diabetes Interactive Atlas)
[10] https://gis.cdc.gov/grasp/diabetes/diabetesatlas.html
[11] American Diabetes Association. Economic costs of diabetes in the U.S. in 2012. Diabetes Care. 2013;36(4):1033–1046.
[12] 2016 Texas Health and Human Services Center for Health Statistics Preventable Hospitalizations
[13] 2018 County Health Rankings & Roadmaps, CDC WONDER Mortality Data
[14] County Health Rankings and Roadmaps, **Drug overdose deaths**, 2019
[15] **U.S. Center for Disease Control and Prevention**, 2019

Cancer

Cancer is a term used for diseases in which abnormal cells divide without control and can invade other tissues, when cancer spreads to other organs through the blood and lymph systems, it is considered malignant. Cancer is not just one disease, but many diseases; there are more than one hundred types of cancer.[16] Cancer is a genetic disease and is caused by changes to genes that control the way our cells function, especially how they grow and divide.[17] Genetics play an important role in whether we are pre-ordained to develop a cancer; however, we have control over personal choices and environmental exposures that may modify risk.

In 2016, the age-adjusted rate of new cancer cases in Texas was 391.8 per 100,000 people and there were 109,083 cancer cases reported.[18] Nationally, there were 1,658,716 new cancer cases reported in 2016 and 598,031 cancer diagnoses. Cancer is the second leading cause of death in the United States, exceeded only by heart disease. One of every four deaths in the U.S. is due to cancer.[19] In Tarrant County, the incidence rate of prostate cancer, female breast cancer, and lung cancer are all higher than the Texas state benchmarks.[20,21,22] The incidence of prostate cancer has the greatest need compared to the state with 111 new cases per 100,000 compared to 95 cases per 100,000 (16% differential).

Cancer prevention, treatment and research are addressed on federal, state and local levels. Individuals can improve their odds of not receiving a cancer diagnosis by controlling their exposure to carcinogens, avoiding or quitting smoking, seeking preventative healthcare, and living a healthy lifestyle, including nutritious foods and getting regular exercise.

Summary

Methodist conducted its Community Health Needs Assessments beginning June 2018 to identify and begin addressing the health needs of the communities they serve. Using both qualitative community feedback as well as publicly available and proprietary health indicators, Methodist 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 Methodist chose to address for the community served.

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[16] https://www.cdc.gov/cancer/dcpc/prevention/index.htm
[17] https://www.cancer.gov/about-cancer/causes-prevention
[18] https://gis.cdc.gov/Cancer/USCS/DataViz.html
[19] https://gis.cdc.gov/Cancer/USCS/DataViz.html
[20] 2011-2015 Age-Adjusted Prostate Cancer Incidence Rate, National Cancer Institute (CDC)
[21] 2011-2015 Age-Adjusted Lung Cancer Incidence Rate, State Cancer Profiles, National Cancer Institute (CDC)
[22] 2011-2015 Age-Adjusted Female Breast Cancer Incidence Rate, National Cancer Institute (CDC)

Appendix A: Key Health Indicator Sources

Category	Public Health Indicator	Source
Access to Care	Hospital Stays for Ambulatory-Care Sensitive Conditions- Medicare	2018 County Health Rankings & Roadmaps; Dartmouth Atlas of Health Care, CMS
	Percentage of Population under age 65 without Health Insurance	2018 County Health Rankings & Roadmaps; Small Area Health Insurance Estimates (SAHIE), United States Census Bureau
	Price-Adjusted Medicare Reimbursements per Enrollee **NEW 2019**	2018 County Health Rankings & Roadmaps; Dartmouth Atlas of Health Care, CMS
	Ratio of Population to One Dentist	2018 County Health Rankings & Roadmaps; Area Health Resource File/National Provider Identification file (CMS)
	Ratio of Population to One Non-Physician Primary Care Provider	2018 County Health Rankings & Roadmaps; CMS, National Provider Identification Registry (NPPES)
	Ratio of Population to One Primary Care Physician	2018 County Health Rankings & Roadmaps; Area Health Resource File/American Medical Association
	Uninsured Children	2018 County Health Rankings & Roadmaps; Small Area Health Insurance Estimates (SAHIE), United States Census Bureau
Conditions/Diseases	Adult Obesity (Percent)	2018 County Health Rankings & Roadmaps; CDC Diabetes Interactive Atlas, The National Diabetes Surveillance System
	Arthritis in Medicare Population	CMS.gov Chronic conditions 2007-2015
	Atrial Fibrillation in Medicare Population	CMS.gov Chronic conditions 2007-2015
	Cancer Incidence - All Causes	2011-2015 State Cancer Profiles, National Cancer Institute (CDC)
	Cancer Incidence - Colon	2011-2015 State Cancer Profiles, National Cancer Institute (CDC)
	Cancer Incidence - Female Breast	2011-2015 State Cancer Profiles, National Cancer Institute (CDC)
	Cancer Incidence - Lung	2011-2015 State Cancer Profiles, National Cancer Institute (CDC)
	Cancer Incidence - Prostate	2011-2015 State Cancer Profiles, National Cancer Institute (CDC)
	Chronic Kidney Disease in Medicare Population	CMS.gov Chronic conditions 2007-2015
	COPD in Medicare Population	CMS.gov Chronic conditions 2007-2015
	Diabetes Diagnoses in Adults	CMS.gov Chronic conditions 2007-2015
	Diabetes prevalence	2018 County Health Rankings (CDC Diabetes Interactive Atlas)
	Frequent physical distress	2016 Behavioral Risk Factor Surveillance System (BRFSS)
	Heart Failure in Medicare Population	CMS.gov Chronic conditions 2007-2015
	HIV Prevalence	2018 County Health Rankings & Roadmaps; National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP)
	Hyperlipidemia in Medicare Population	CMS.gov Chronic conditions 2007-2015
	Hypertension in Medicare Population	CMS.gov Chronic conditions 2007-2015
	Ischemic Heart Disease in Medicare Population	CMS.gov Chronic conditions 2007-2015
	Osteoporosis in Medicare Population	CMS.gov Chronic conditions 2007-2015
	Stroke in Medicare Population	CMS.gov Chronic conditions 2007-2015

Appendix A: Key Health Indicator Sources

Category	Public Health Indicator	Source
Environment	Air Pollution - Particulate Matter daily density	2018 County Health Rankings & Roadmaps; Environmental Public Health Tracking Network (CDC)
	Drinking Water Violations (Percent of Population Exposed)	2018 County Health Rankings & Roadmaps; Safe Drinking Water Information System (SDWIS), United States Environmental Protection Agency (EPA)
	Driving Alone to Work	2018 County Health Rankings & Roadmaps; American Community Survey, 5-Year Estimates, United States Census Bureau
	Elderly isolation. 65+ Householder living alone **NEW 2019**	U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates
	Food Environment Index	2018 County Health Rankings & Roadmaps; USDA Food Environment Atlas, Map the Meal Gap from Feeding America, United States Department of Agriculture (USDA)
	Food Insecure	2018 County Health Rankings & Roadmaps; Map the Meal Gap, Feeding America
	Limited Access to Healthy Foods (Percent of Low Income)	2018 County Health Rankings & Roadmaps; USDA Food Environment Atlas, United States Department of Agriculture (USDA)
	Long Commute Alone	2018 County Health Rankings & Roadmaps; American Community Survey, 5-Year Estimates, United States Census Bureau
	No vehicle available **NEW 2019**	U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates
	Population with Adequate Access to Locations for Physical Activity	2018 County Health Rankings & Roadmaps; Business Analyst, Delorme map data, ESRI, & US Census Tigerline Files (ArcGIS)
	Renter-occupied housing **NEW 2019**	U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates
	Residential segregation - black/white **NEW 2019**	2018 County Health Rankings (American Community Survey, 5-year estimates)
	Residential segregation - non-white/white **NEW 2019**	2018.County Health Rankings (American Community Survey, 5-year estimates)
	Severe Housing Problems	2018 County Health Rankings & Roadmaps; Comprehensive Housing Affordability Strategy (CHAS) data, U.S. Department of Housing and Urban Development (HUD)
Health Behaviors	Adult Smoking	2018 County Health Rankings & Roadmaps; The Behavioral Risk Factor Surveillance System (BRFSS)
	Adults Engaging in Binge Drinking During the Past 30 Days	2018 County Health Rankings & Roadmaps; The Behavioral Risk Factor Surveillance System (BRFSS)
	Disconnected youth **NEW 2019**	2018 County Health Rankings (Measure of America)
	Drug Poisoning Deaths Rate	2018 County Health Rankings & Roadmaps, CDC WONDER Mortality Data
	Insufficient sleep **NEW 2019**	2016 Behavioral Risk Factor Surveillance System (BRFSS)
	Motor Vehicle Driving Deaths with Alcohol Involvement	2018 County Health Rankings & Roadmaps; Fatality Analysis Reporting System (FARS)
	Physical Inactivity	2018 County Health Rankings & Roadmaps; CDC Diabetes Interactive Atlas, The National Diabetes Surveillance System
	Sexually Transmitted Infection Incidence	2018 County Health Rankings & Roadmaps; National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP)
	Teen Birth Rate per 1,000 Female Population, Ages 15-19	2018 County Health Rankings & Roadmaps; National Center for Health Statistics - Natality files, National Vital Statistics System (NVSS)
Health Status	Adults Reporting Fair or Poor Health	2018 County Health Rankings & Roadmaps; The Behavioral Risk Factor Surveillance System (BRFSS)
	Average Number of Physically Unhealthy Days Reported in Past 30 days (Age-Adjusted)	2018 County Health Rankings & Roadmaps; The Behavioral Risk Factor Surveillance System (BRFSS)

Appendix A: Key Health Indicator Sources

Category	Public Health Indicator	Source
Injury & Death	Cancer Mortality Rate	2013 Texas Health Data, Center for Health Statistics, Texas Department of State Health Services
	Child Mortality Rate	2018 County Health Rankings & Roadmaps, CDC WONDER Mortality Data
	Chronic Lower Respiratory Disease (CLRD) Mortality Rate	2013 'Texas Health Data, Center for Health Statistics, Texas Department of State Health Services
	Death rate due to firearms **NEW 2019**	2018 County Health Rankings (CDC WONDER Environmental Data)
	Heart Disease Mortality Rate	2013 Texas Health Data, Center for Health Statistics, Texas Department of State Health Services
	Infant Mortality Rate	2018 County Health Rankings & Roadmaps, CDC WONDER Mortality Data
	Motor Vehicle Crash Mortality Rate	2018 County Health Rankings & Roadmaps, CDC WONDER Mortality Data
	Number of deaths due to injury **NEW 2019**	2018 County Health Rankings & Roadmaps, CDC WONDER Mortality Data
	Premature Death (Potential Years Lost)	2018 County Health Rankings & Roadmaps; National Center for Health Statistics - Mortality Files, National Vital Statistics System (NVSS)
	Stroke Mortality Rate	2013 Texas Health Data, Center for Health Statistics, Texas Department of State Health Services
Maternal & Child Health	First Trimester Entry into Prenatal Care	2016 Texas Health and Human Services - Vital statistics annual report
	Low Birth Weight Percent	2018 County Health Rankings & Roadmaps; National Center for Health Statistics - Natality files, National Vital Statistics System (NVSS)
	Low Birth Weight Rate	2016 Texas Health and Human Services - Vital statistics annual report - Preventable Hospitalizations
	Preterm Births <37 Weeks Gestation	2015 Kids Discount Data Center
	Very Low Birth Weight (VLBW)	Centers for Disease Control and Prevention WONDER
Mental Health	Accidental poisoning deaths where opioids were involved **NEW 2019**	U.S. Census Bureau, Population Division and 2015 Texas Health and Human Services Center for Health Statistics Opioid related deaths in Texas
	Alzheimer's Disease/Dementia in Medicare Population	CMS.gov Chronic conditions 2007-2015
	Average Number of Mentally Unhealthy Days Reported in Past 30 days (Age-Adjusted)	2018 County Health Rankings & Roadmaps; The Behavioral Risk Factor Surveillance System (BRFSS)
	Depression in Medicare Population	CMS.gov Chronic conditions 2007-2015
	Frequent mental distress	2016 Behavioral Risk Factor Surveillance System (BRFSS)
	Intentional Self-Harm; Suicide **NEW 2019**	2015 Texas Health Data Center for Health Statistics
	Ratio of Population to one Mental Health Provider	2018 County Health Rankings & Roadmaps; CMS, National Provider Identification Registry (NPPES)
	Schizophrenia and Other Psychotic Disorders in Medicare Population	CMS.gov Chronic conditions 2007-2015

Appendix A: Key Health Indicator Sources

Category	Public Health Indicator	Source
Population	Children Eligible for Free Lunch Enrolled in Public Schools	2018 County Health Rankings & Roadmaps, The National Center for Education Statistics (NCES)
	Children in Poverty	2018 County Health Rankings & Roadmaps; Small Area Health Insurance Estimates (SAHIE), United States Census Bureau
	Children in Single-Parent Households	2018 County Health Rankings & Roadmaps; American Community Survey (ACS), 5 Year Estimates (United States Census Bureau)
	Civilian veteran population 18+ **NEW 2019**	U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates
	Disabled population, civilian noninstitutionalized	U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates
	High School Dropout	2016 Texas Education Agency
	High School Graduation	2017 Texas Education Agency
	Homicides	2018 County Health Rankings & Roadmaps, CDC WONDER Mortality Data
	Household income, median **NEW 2019**	2018 County Health Rankings (2016 Small Area Income and Poverty Estimates)
	Income Inequality	2018 County Health Rankings & Roadmaps; American Community Survey (ACS), 5 Year Estimates (United States Census Bureau)
	Individuals Living Below Poverty Level	2012-2016 US Census Bureau - American FactFinder
	Individuals Who Report Being Disabled	2012-2016 US Census Bureau - American FactFinder
	Non-English-speaking households **NEW 2019**	U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates
	Social/Membership Associations	2018 County Health Rankings & Roadmaps; 2015 County Business Patterns, United States Census Bureau
	Some College	2018 County Health Rankings & Roadmaps; American Community Survey (ACS), 5 Year Estimates (United States Census Bureau)
	Unemployment	2018 County Health Rankings & Roadmaps; Local Area Unemployment Statistics (LAUS), Bureau of Labor Statistics
	Violent Crime Offenses	2018 County Health Rankings & Roadmaps; Uniform Crime Reporting (UCR) Program, United States Department of Justice, Federal Bureau of Investigation (FBI)
Preventable Hospitalizations	Asthma Admission: Pediatric (Risk-Adjusted-Rate)	2016 Texas Health and Human Services Center for Health Statistics Preventable Hospitalizations
	Diabetes Lower-Extremity Amputation Admission: Adult (Risk-Adjusted-Rate)	2016 Texas Health and Human Services Center for Health Statistics Preventable Hospitalizations
	Diabetes Short-term Complications Admission: Pediatric (Risk-Adjusted-Rate)	2016 Texas Health and Human Services Center for Health Statistics Preventable Hospitalizations
	Gastroenteritis Admission: Pediatric (Risk-Adjusted-Rate)	2016 Texas Health and Human Services Center for Health Statistics Preventable Hospitalizations
	Perforated Appendix Admission: Adult (Risk-Adjusted-Rate per 100 Admissions for Appendicitis)	2016 Texas Health and Human Services Center for Health Statistics Preventable Hospitalizations
	Perforated Appendix Admission: Pediatric (Risk-Adjusted-Rate for Appendicitis)	2016 Texas Health and Human Services Center for Health Statistics Preventable Hospitalizations
	Uncontrolled Diabetes Admission: Adult (Risk-Adjusted-Rate)	2016 Texas Health and Human Services Center for Health Statistics Preventable Hospitalizations
	Urinary Tract Infection Admission: Pediatric (Risk-Adjusted-Rate)	2016 Texas Health and Human Services Center for Health Statistics Preventable Hospitalizations

Appendix A: Key Health Indicator Sources

Category	Public Health Indicator	Source
Prevention	Diabetic Monitoring in Medicare Enrollees	2018 County Health Rankings & Roadmaps; Dartmouth Atlas of Health Care, CMS
	Mammography Screening in Medicare Enrollees	2018 County Health Rankings & Roadmaps; Dartmouth Atlas of Health Care, CMS

Appendix B: Community Resources Identified to Potentially Address Significant Health Needs

Below is a list of resources identified via community input:

Resource	County
Aged and Disabled Resource Center	Tarrant
Area Agency on Aging	Tarrant
Catholic Charities	Tarrant
Catholic Charities Transportation Program	Tarrant
Community Health Center	Tarrant
Cornerstone Assistance Network	Tarrant
GRACE Food Pantry	Tarrant
GRACE Free Community Clinic	Tarrant
GRACE Friends & Family Senior Isolation Program	Tarrant
JPS Clinic and Charitable Care Program	Tarrant
JPS Health Network	Tarrant
Meals on Wheels	Tarrant
Mission Arlington	Tarrant
My Health My Resources (MHMR)	Tarrant
North Texas Community Health Centers, Inc	Tarrant
Project Access Tarrant County	Tarrant
Sixty and Better	Tarrant
Tarrant Area Food Bank	Tarrant

Appendix C: Federally Designated Health Professional Shortage Areas and Medically Underserved Areas and Populations

Health Professional Shortage Areas (HPSA)[23]

County Name	HPSA ID	HPSA Name	HPSA Discipline Class	Designation Type
Tarrant	1482468046	Federal Medical Center - Fort Worth	Primary Care	Correctional Facility
Tarrant	6484046496	Federal Medical Center - Fort Worth	Dental Health	Correctional Facility
Tarrant	14899948H2	North Texas Area Community Health Center, Inc.	Primary Care	Federally Qualified Health Center
Tarrant	64899948F5	North Texas Area Community Health Center, Inc.	Dental Health	Federally Qualified Health Center
Tarrant	748999483N	North Texas Area Community Health Center, Inc.	Mental Health	Federally Qualified Health Center
Tarrant	7483350268	Federal Medical Center - Fort Worth	Mental Health	Correctional Facility
Tarrant	1485279877	Federal Medical Center-Carswell	Primary Care	Correctional Facility
Tarrant	6486448024	Federal Medical Center-Carswell	Dental Health	Correctional Facility
Tarrant	7483623264	Federal Medical Center-Carswell	Mental Health	Correctional Facility
Tarrant	7483111792	Low Income-Tarrant County	Mental Health	Low Income Population HPSA

[23] U.S. Department of Health and Human Services, Health Resources and Services Administration, 2018

Appendix C: Federally Designated Health Professional Shortage Areas and Medically Underserved Areas and Populations

Medically Underserved Areas and Populations (MUA/P)[24]

County Name	MUA/P Source Identification Number	Service Area Name	Designation Type	Rural Status
Tarrant	7393	Central Service Area	Medically Underserved Area	Non-Rural
Tarrant	3509	Diamond Hill Service Area	Medically Underserved Area	Non-Rural
Tarrant	7382	Low Inc - East Side	MUP Low Income	Non-Rural

[24] U.S. Department of Health and Human Services, Health Resources and Services Administration, 2018

Appendix D: Public Health Indicators Showing Greater Need When Compared to State Benchmark

Public Health Indicator	Category	Indicator Definition
Price-Adjusted Medicare Reimbursements per Enrollee	Access to Care	2015 Amount of Price-Adjusted Medicare Reimbursements (Part A and B) per Enrollee
Ratio of Population to One Primary Care Physician	Access to Care	2015 Number of Individuals Served by One Physician in a County
Ratio of Population to One Non-Physician Primary Care Provider	Access to Care	2017 Ratio of Population to Primary Care Providers Other than Physicians
Cancer Incidence - All Causes	Cancer	2011-2015 Age-Adjusted Cancer (All) Incidence Rate Cases per 100,000
Cancer Incidence - Female Breast	Cancer	2011-2015 Age-Adjusted Female Breast Cancer Incidence Rate Cases per 100,000
Cancer Incidence - Lung	Cancer	2011-2015 Age-Adjusted Lung & Bronchus Cancer Incidence Rate Cases per 100,000
Cancer Incidence - Prostate	Cancer	2011-2015 Age-Adjusted Prostate Cancer Incidence Rate Cases per 100,000
Cancer Mortality Rate	Cancer	2013 All Cancer Age-Adjusted Death Rate per 100,000 (Age-Adjusted using the 2000 U.S. Standard Population)
Arthritis in Medicare Population	Chronic Condition - Arthritis	2007-2015 Prevalence of Chronic Condition Across all Medicare Beneficiaries
Atrial Fibrillation in Medicare Population	Chronic Condition - Cardiovascular	2007-2015 Prevalence of Chronic Condition Across all Medicare Beneficiaries
Hyperlipidemia in Medicare Population	Chronic Condition - Cardiovascular	2007-2015 Prevalence of Chronic Condition Across all Medicare Beneficiaries
Hypertension in Medicare Population	Chronic Condition - Cardiovascular	2007-2015 Prevalence of Chronic Condition Across all Medicare Beneficiaries
Stroke Mortality Rate	Chronic Condition - Cerebrovascular	2013 Cerebrovascular Disease (Stroke) Age-Adjusted Death Rate per 100,000 (Age-adjusted using the 2000 U.S. Standard Population)
Stroke in Medicare Population	Chronic Condition - Cerebrovascular	2007-2015 Prevalence of Chronic Condition Across all Medicare Beneficiaries
Chronic Lower Respiratory Disease (CLRD) Mortality Rate	Chronic Condition - Chronic Lower Respiratory Disease	2013 Chronic Lower Respiratory Disease (CLRD) Age-Adjusted Death Rate per 100,000 (Age-Adjusted using the 2000 U.S. Standard Population)
Diabetes Prevalence	Chronic Condition - Diabetes	2014 Prevalence of Diagnosed Diabetes in a given County (Excludes Gestational Diabetes)

Appendix D: Public Health Indicators Showing Greater Need When Compared to State Benchmark

Public Health Indicator	Category	Indicator Definition
Uncontrolled Diabetes Admission: Adult (Risk-Adjusted-Rate)	Chronic Condition - Diabetes	2016 Number Observed / Adult Population Age 18 and Older
Chronic Kidney Disease in Medicare Population	Chronic Condition - Kidney Disease	2007-2015 Prevalence of Chronic Condition Across all Medicare Beneficiaries
Adult Obesity (Percent)	Chronic Condition - Obesity	2014 Percentage of the Adult Population (Age 20 and Older) that Reports a Body Mass Index (BMI) Greater than or Equal to 30 kg/m2
Osteoporosis in Medicare Population	Chronic Condition - Osteoporosis	2007-2015 Prevalence of Chronic Condition Across all Medicare Beneficiaries
High School Dropout	Education	2016 Percentage of Students from the Same Class who Drop out Before Completing their High School Education
Air Pollution - Particulate Matter Daily Density	Environment	2012 Average Daily Density of Fine Particulate Matter in Micrograms per Cubic Meter (PM2.5)
Driving Alone to Work	Environment	2012-2016 Percentage of the Workforce that Drives Alone to Work
Food Insecure	Environment - Food	2015 Percentage of Population Who Lacked Adequate Access to Food During the Past Year
Renter-Occupied Housing	Environment - Housing	2017 Percentage of Households that are Renter-Occupied
Violent Crime Offenses	Environment - Violence	2012-2014 Number of Reported Violent Crime Offenses per 100,000 Population
Insufficient Sleep	Health Behaviors - Sleep	2016 Percentage of Adults who on Average Sleep Less than 7 Hours per Day
Drug Poisoning Deaths Rate	Health Behaviors - Substance Abuse	2014-2016 Number of Drug Poisoning Deaths (Drug Overdose Deaths) per 100,000 Population
Adult Smoking	Health Behaviors - Substance Abuse	2016 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
Long Commute Alone	Health Status	2012-2016 Among Workers Who Commute in Their Car Alone, the Percentage that Commute More than 30 Minutes
Average Number of Physically Unhealthy Days Reported in Past 30 days (Age-Adjusted)	Health Status	2016 Average Number of Physically Unhealthy Days Reported in Past 30 Days (Age-Adjusted)
Infant Mortality Rate	Injury & Death - Children	2010-2016 Number of All Infant Deaths (Within 1 year), per 1,000 Live Births
Child Mortality Rate	Injury & Death - Children	2013-2016 Number of Deaths Among Children under Age 18 per 100,000

Appendix D: Public Health Indicators Showing Greater Need When Compared to State Benchmark

Public Health Indicator	Category	Indicator Definition
First Trimester Entry into Prenatal Care	Maternal and Child Health	2014 Percent of Births with Onset of Prenatal Care within the First Trimester
Intentional Self-Harm; Suicide	Mental Health	2015 Intentional Self-Harm (Suicide) (X60-X84, Y87.0)
Average Number of Mentally Unhealthy Days Reported in Past 30 days (Age-Adjusted)	Mental Health	2016 Average Number of Mentally Unhealthy Days Reported in Past 30 Days (Age-Adjusted)
Depression in Medicare Population	Mental Health	2007-2015 Prevalence of Chronic Condition Across all Medicare Beneficiaries
Alzheimer's Disease/Dementia in Medicare Population	Mental Health	2007-2015 Prevalence of Chronic Condition Across all Medicare Beneficiaries
Schizophrenia and Other Psychotic Disorders in Medicare Population	Mental Health	2007-2015 Prevalence of Chronic Condition Across all Medicare Beneficiaries
Perforated Appendix Admission: Adult (Risk-Adjusted-Rate per 100 Admissions for Appendicitis)	Preventable Hospitalizations	2016 Number Observed / Adult Population Age 18 and Older
Perforated Appendix Admission: Pediatric (Risk-Adjusted-Rate for Appendicitis)	Preventable Hospitalizations	2016 Number Observed / Adult Population Age 18 and Older
Children in Single-Parent Households	SDH	2012-2016 Percentage of Children that Live in a Household Headed by Single Parent
Social/Membership Associations	SDH - Social Isolation	2015 Number of Membership Associations per 10,000 Population
Civilian Veteran Population 18+	SDH - Veterans	2012 Percent of Population 18 Years and over - Civilian Veterans

Appendix E: Evaluation of Prior Implementation Strategy Impact

Identified Need	Implementation Strategy Response	Status
Access to care	Continue to provide care to uninsured or underinsured patients through existing programs and facilities (such as support to Mansfield Cares program and providing ECHOs to area residents through cardiovascular volunteers); recruitment of primary care providers where appropriate; adding access points throughout the service area (such as family health centers,imaging and urgent care locations); providing low-cost screenings and back to school physicals; offering streamlined care for patients through various navigator programs and virtual visits; and providing assistance with getting insurance coverage as a CMS designated Champion of Coverage provider.	• $156.0M (FY2017) in unreimbursed cost of charity care (10.5% of net patient revenue) • Approval to build Midlothian Hospital bringing acute care and outpatient services to Midlothian and surrounding communities • Opened new Convenient Care Campus in Grand Prairie (primary & specialty care, UC, imaging, and lab) • Methodist Medical Group launched MethodistNOW (virtual visits with online diagnosis & treatment, accessible 24/7) • MHS trained 88 residents in the Graduate Medical Education program in 2017-2018 academic year • Over $500K given to various community agencies and groups to further MHS mission and outreach to communities served through sponsorships and events, marketing support, and outreach • Nearly 2,400 mammograms provided through MHS' mobile mammography program in the past 2 years • 570 educational classes and events provided through Generations program in 2017 with 10,645 attendees • Monthly ongoing support groups for Breast Cancer, HPB and Diabetes • Faith Community Nursing outreach includes programs that promote health and wellness (engaged over 20,000 members through programming and gave over 600 flu shots in the past two years) • 1115 Waiver/DSRIP program leverages ED patient navigators to guide patients seeking routine medical care in the ED to Primary Care Providers at Golden Cross and MCMC Family Medicine Clinic • Over 1,480 patients received one-on-one navigation & chronic disease services FYTD 2018 • Free Diabetes education classes to the public with class size increasing from an average of 20 in 2017 to 30 in 2018 • MHS Diabetes Council works with the American Diabetes Association to raise awareness of diabetes prevention and treatment; Activities include participation in health fairs, hosting clinical education seminars and fund-raising efforts (Tour de Cure) • Secured United Way funding for Diabetes Community Health Worker • Offer free community "Lunch & Learns" featuring health-related topics such as nutrition, emotional health, and chronic disease prevention
Diabetes	Provide ongoing educational classes and support groups (such as the monthly healthy eating programs) with a focus on Diabetes; continue existing entity based chronic disease programs such as the 1115 Waiver Projects; Continue to collaborate with community agencies such as the Tarrant County Diabetes Coalition to increase access to services and improve awareness of risk factors and treatment.	
Heart Disease	Continue to provide education and treatment through existing and new area Methodist Family Health Centers; provide ongoing community education and support services; and collaborate with community agencies to improve awareness of risk factors and treatment with programs such as Run with Heart, Rowdy Runners and Jump Rope for Heart.	
Awareness and collaboration of community resources	Improve awareness and collaboration of community resources through various navigator programs such as the ACO nurse navigator program and the ED Patient Navigation 1115 Waiver project; collaborating with local municipalities and coalitions to expand outreach and awareness of community resources such as charitable contribution to community agencies.	
Cancer (Breast, Lung, Colon)	Improved awareness of risk factors and early detection by supporting community prevention efforts through the Nurse Clinical Advancement Program and providing ongoing community education and support services.	