



Shelby Baptist Medical Center Community Health Needs Assessment

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Shelby Baptist Medical Center at a Glance

In 2015, Baptist Health System and Brookwood Medical Center came together to form a new community of care: Brookwood Baptist Health. United in service and devotion to the people of central Alabama, Brookwood Baptist Health was founded on our mutual dedication to high-quality, compassionate care for the communities we have served since 1922.

With five hospitals, dozens of specialty centers, and the largest primary care network in the state, Brookwood Baptist Health has convenient locations all across Central Alabama, including Shelby Baptist Medical Center and Princeton Baptist Medical Center in Birmingham, Shelby Baptist Medical Center in Alabaster, Walker Baptist Medical Center in Jasper, and Citizens Baptist Medical Center in Talladega.

Across the entire statewide system, Brookwood Baptist Health has more than 1,700 patient beds, includes more than 70 primary and specialty care clinics, approximately 1,500 affiliated physicians, and more than 8,500 employees overall, with convenient locations across central Alabama.

Shelby Baptist Medical Center is located at 1000 1st St N, Alabaster, AL 35007. SBMC is a cutting edge hospital in the heart of Alabaster, equipped with 252 beds to care for the community, eliminating the need for patients to travel to downtown Birmingham to receive high-quality, compassionate care. SBMC's emergency department is one of the most depended-upon in the state, with nearly 50,000 visits each year.



Methodology

Community Health Needs Assessment Background

On June 6, 2019, Brookwood Baptist Health contracted with Carnahan Group to conduct a Community Health Needs Assessment (CHNA) for Shelby Baptist Medical Center (SBMC) as required by the Patient Protection and Affordable Care Act (PPACA). Please refer to Appendix A: Carnahan Group Qualifications for more information about Carnahan Group.

The PPACA, enacted on March 23, 2010, requires not-for-profit hospital organizations to conduct a CHNA once every three taxable years that meets the requirements the Internal Revenue Code 501(r) set forth by the PPACA. The PPACA defines a hospital organization as an organization that operates a facility required by a state to be licensed, registered, or similarly recognized as a hospital; or, a hospital organization is any other organization that the Treasury's Office of the Assistant Secretary ("Secretary") determines has the provision of hospital care as its principal function or purpose constituting the basis for its exemption under section 501(c)(3).

A CHNA is a report based on epidemiological, qualitative, and comparative methods that assess the health issues in a hospital organization's community and that community's access to services related to those issues. Based on the findings of the CHNA, an implementation strategy for SBMC that addresses the community health needs will be developed and adopted no later than five and a half months following the end of Fiscal Year 2019.

Secondary Data Collection and Analysis Methodology

A variety of data sources were utilized to gather demographic and health indicators for the community served by SBMC. Commonly used data sources include Esri, the U.S. Census Bureau, and the Centers for Disease Control and Prevention (CDC). Shelby and Chilton counties define the community served by SBMC. Demographic and health indicators are presented for these two counties.

For select indicators, county level data are compared to state and national benchmarks. Additionally, Healthy People 2020 (HP 2020) Goals are presented where applicable. The HP 2020 Goals, launched in December 2010, are science-based, ten-year national objectives for improving the health of all Americans.

Requirements

As required by the Treasury Department (“Treasury”) and the Internal Revenue Service (IRS), this CHNA includes the following:

- A description of the community served;
- A description of the process and methods used to conduct the CHNA, including:
 - A description of the sources and dates of the data and the other information used in the assessment; and,
 - The analytical methods applied to identify community health needs.
- The identification of all organizations with which SBMC collaborated, if applicable, including their qualifications;
- A description of how SBMC took into account input from persons who represented the broad interests of the community served by SBMC, including those with special knowledge of or expertise in public health, written comments regarding the hospital’s previous CHNA, and any individual providing input who was a leader or representative of the community served by SBMC; and,
- A prioritized description of all of the community health needs identified through the CHNA and a description of the process and criteria used in prioritizing those needs.

CHNA Strategy

This CHNA was conducted following the requirements outlined by the Treasury and the IRS, which included obtaining necessary information from the following sources:

- Input from persons who represented the broad interests of the community served by SBMC, which included those with special knowledge of or expertise in public health;
- Identifying federal, regional, state, or local health or other departments or agencies, with current data or other information relevant to the health needs of the community served by SBMC, leaders, representatives, or members of medically underserved, low-income, and minority populations with chronic disease needs in the community served by SBMC; and,
- Consultation or input from other persons located in and/or serving SBMC's community, such as:
 - Healthcare community advocates;
 - Nonprofit organizations;
 - Local government officials;
 - Community-based organizations, including organizations focused on one or more health issues;
 - Healthcare providers, including community health centers and other providers focusing on medically underserved populations, low-income persons, minority groups, or those with chronic disease needs.
- The sources used for SBMC's CHNA are provided in the References and Appendix B: Community Leader Interviewees. Information was gathered by conducting interviews with individuals representing community health and public service organizations, public health agencies, medical professionals, hospital administration and other hospital staff members.

Actions Taken Since 2016 CHNA

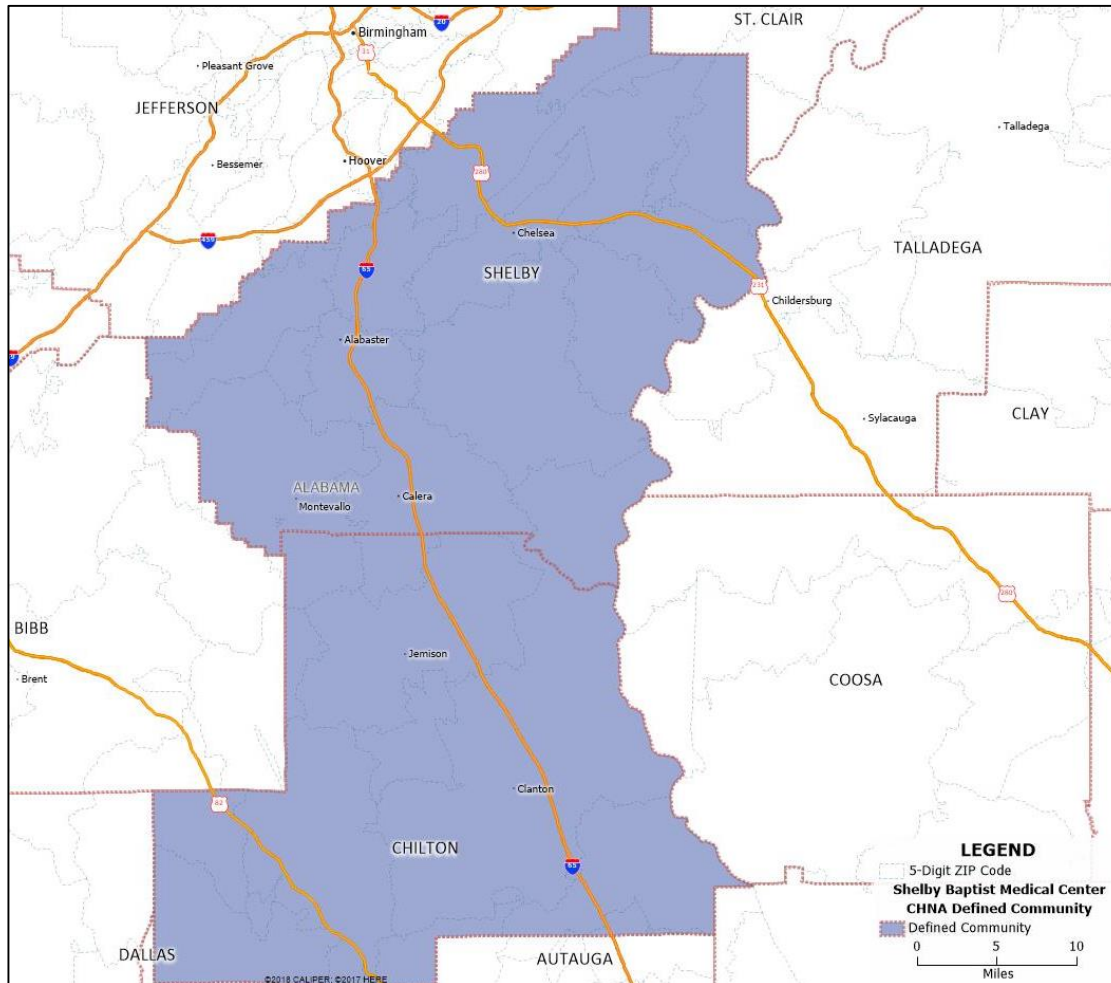
SBMC's previous Implementation Strategy outlined a plan for addressing the following priorities identified in the 2016 CHNA: *Cardiovascular Disease, Cancer, Diabetes, Mental Health, and Healthcare Access and Affordability*. The table below describes the strategies completed by SBMC.

2016 CHNA Health Priorities	2016 Implementation Strategies	Actions Completed
Cardiovascular Disease	Education	Regular community education events, quarterly health fairs, and multiple events during heart month Provider CME
Cancer	Improve early detection	Cancer education was conducted at local senior centers, civic organizations, and other community-based organizations. Specific emphasis has been placed on colorectal cancer screening education. An online scheduling tool is available for patients needing mammography Outreach team makes regular visits to physician offices to provide education on breast cancer screening Partnered with UCA to do PSA screenings Conducted outreach to physician offices to encourage lung cancer screenings. There have been significant efforts made to market lung screenings to the community.
Diabetes	Education Reduce prevalence	Hosted diabetes education classes (The Sweet Life) monthly
Mental Health	Improve awareness of treatment options	Partnered with local schools (Shelby County and the City of Alabaster) to educate staff about mental health. Host regular seminars on Hot Topics in Mental Health including Stress Management, Depression, etc.
Healthcare Access and Affordability	Provide screenings Link patients to programs or services	Participate in the Alabaster Health Fair Working with Be Well Program to partner with businesses and AFC locations as access points for Worker's Comp patients

SBMC received no written feedback on the 2016 CHNA and Implementation Strategy.

Community Overview

For the purposes of the CHNA report, SBMC chose Shelby and Chilton counties as the defined community. Because this community is based purely on geography, it includes medically underserved, low income, and minority populations.



Source: Maptitude 2018

Community Overview (continued)

Health Professional Shortage Areas

Health Professional Shortage Areas (HPSAs) are designations that indicate health care provider shortages in primary care, dental health, or mental health.

Shortages may be geographic-, population-, or facility-based:

- **Geographic Area** - A shortage of providers for the entire population within a defined geographic area.
- **Population Groups** - A shortage of providers for a specific population group(s) within a defined geographic area (e.g., low income, migrant farmworkers, and other groups)

The following geographies are characterized as Health Professional Shortage Areas (HPSA) within the service area:

County	Primary Care Designation	Dental Health Designation	Mental Health Designation	Rural Status
Shelby	N/A	N/A	Geographic HPSA	Partially Rural
Chilton	High Needs Geographic HPSA	Low Income Population HPSA	Geographic HPSA	Partially Rural

Source: HRSA

Community Overview (continued)

Medically Underserved Areas

Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs) identify geographic areas and populations with a lack of access to primary care services. MUAs have a shortage of primary care health services for residents within a geographic area while MUPs are specific sub-groups of people living in a defined geographic area with a shortage of primary care health services.

Designations are based on the Index of Medical Underservice (IMU). The IMU is calculated based on four criteria:

- the population to provider ratio;
- the percent of the population below the federal poverty level;
- the percent of the population over age 65; and
- the infant mortality rate.

IMU can range from 0 to 100, where zero represents the completely underserved. Areas or populations with IMUs of 62.0 or less qualify for designation as an MUA/P.

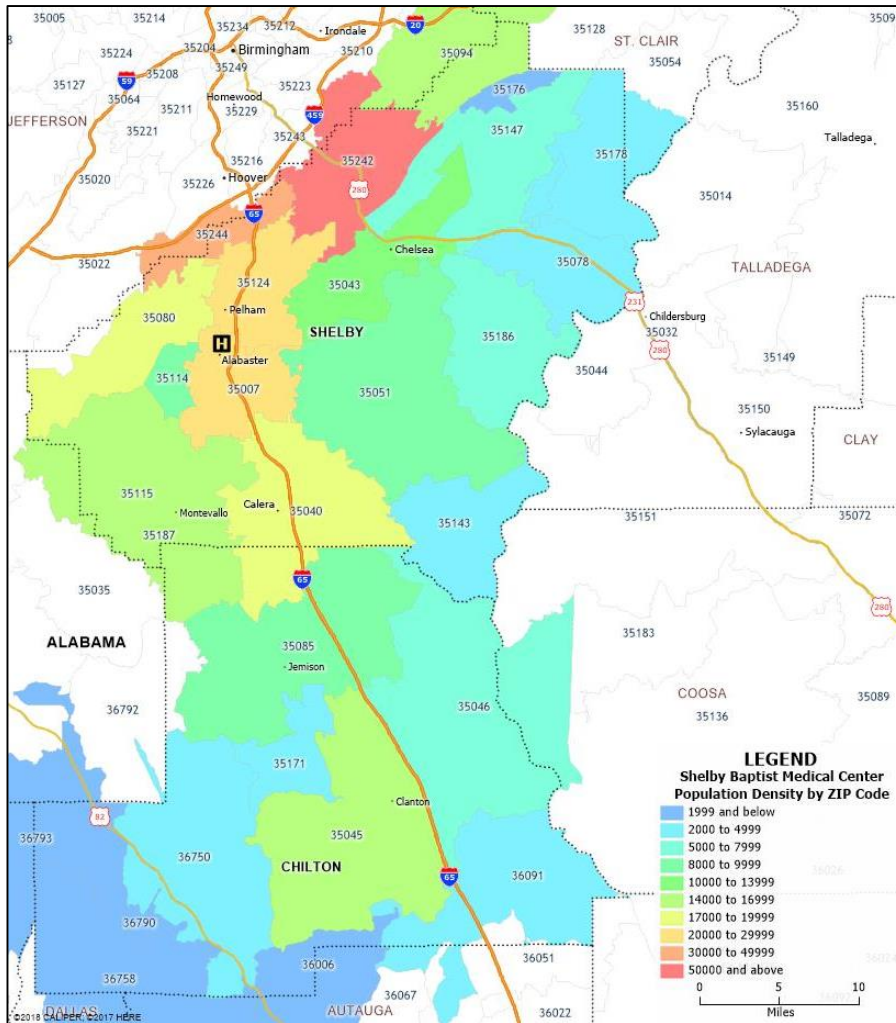
The following table describes the MUA designations within the community:

County	IMU Score	Medically Underserved Area Designation
Shelby	49.2	MUA
Chilton	57.5	MUP Low Income

Source: HRSA, Maptitude 2018

Health Profile

Demographics - Population Density by ZIP Code in SBMC's Community, 2019



Source: Esri 2018; Maptitude 2018

Population Change by ZIP Code

The overall projected population growth for the service area is 6.0% over the next five years. Slight or moderate population growth is expected for nearly all ZIP Codes, while stagnation or decline is expected for ZIP Codes 36750 in Maplesville (0.0%) and 36790 in Stanton (-0.4%).

Total Service Area Population Change by ZIP Code, 2019-2024

ZIP Code	Community	Current Population	Projected 5-year Population	Percent Change
35007	Alabaster	28,094	29,633	5.5%
35040	Calera	17,790	19,367	8.9%
35043	Chelsea	12,223	13,427	9.9%
35045	Clanton	15,161	15,398	1.6%
35046	Clanton	5,105	5,136	0.6%
35051	Columbiana	9,627	10,294	6.9%
35078	Harpersville	2,278	2,408	5.7%
35080	Helena	18,585	20,087	8.1%
35085	Jemison	9,366	9,511	1.5%
35114	Alabaster	8,475	9,130	7.7%
35115	Montevallo	14,819	15,405	4.0%
35124	Pelham	24,827	26,128	5.2%
35143	Shelby	3,549	3,750	5.7%
35147	Sterrett	6,136	6,669	8.7%
35171	Thorsby	3,737	3,827	2.4%
35176	Vandiver	952	986	3.6%
35178	Vincent	3,745	3,957	5.7%
35186	Wilsonville	5,496	5,928	7.9%
35242	Birmingham	56,029	59,962	7.0%
36091	Verbena	3,676	3,750	2.0%
36750	Maplesville	2,471	2,472	0.0%
36790	Stanton	268	267	-0.4%
Total		252,409	267,492	6.0%

Source: Esri 2018

Population Change by Age and Gender

The populations of residents aged 0-19, 30-44, and 50-54 are expected to increase over the next five years. The greatest population growth is expected for individuals aged 65 and older. However, population decline is expected for those aged 20-29, 45-49 and 55-59.

Total Service Area Population Change by Age and Gender, 2019-2024

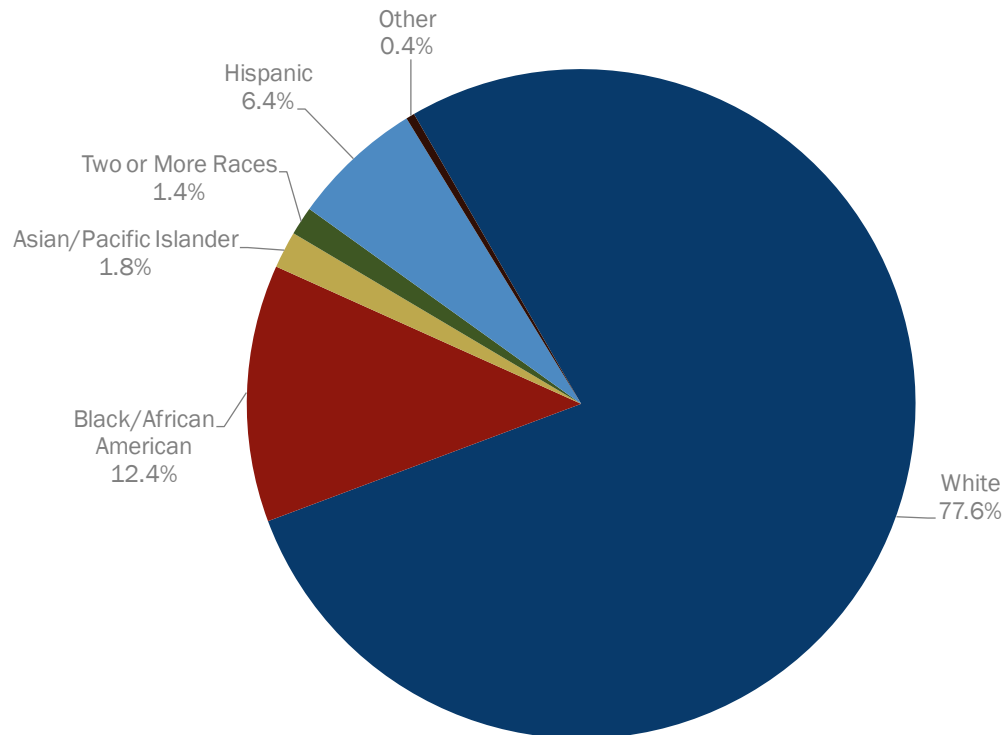
Age Group	2019			2024			Percent Change		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Age 00 through 04	7,912	7,661	15,573	8,257	7,943	16,200	4.4%	3.7%	4.0%
Age 05 through 09	8,518	8,259	16,777	8,656	8,415	17,071	1.6%	1.9%	1.8%
Age 10 through 14	9,012	8,658	17,670	9,259	8,962	18,221	2.7%	3.5%	3.1%
Age 15 through 19	8,021	7,777	15,798	8,590	8,268	16,858	7.1%	6.3%	6.7%
Age 20 through 24	6,999	6,857	13,856	6,813	6,829	13,642	-2.7%	-0.4%	-1.5%
Age 25 through 29	8,254	8,108	16,362	7,744	7,770	15,514	-6.2%	-4.2%	-5.2%
Age 30 through 34	8,698	8,599	17,297	9,566	9,370	18,936	10.0%	9.0%	9.5%
Age 35 through 39	9,095	9,475	18,570	9,626	9,574	19,200	5.8%	1.0%	3.4%
Age 40 through 44	8,759	8,971	17,730	9,462	9,742	19,204	8.0%	8.6%	8.3%
Age 45 through 49	8,940	9,039	17,979	8,835	9,015	17,850	-1.2%	-0.3%	-0.7%
Age 50 through 54	8,159	8,507	16,666	8,965	9,036	18,001	9.9%	6.2%	8.0%
Age 55 through 59	8,230	8,727	16,957	8,066	8,495	16,561	-2.0%	-2.7%	-2.3%
Age 60 through 64	7,406	8,008	15,414	8,080	8,587	16,667	9.1%	7.2%	8.1%
Age 65 through 69	6,121	6,908	13,029	7,027	7,779	14,806	14.8%	12.6%	13.6%
Age 70 through 74	4,544	5,303	9,847	5,411	6,360	11,771	19.1%	19.9%	19.5%
Age 75 through 79	2,782	3,326	6,108	3,846	4,653	8,499	38.2%	39.9%	39.1%
Age 80 through 84	1,587	2,058	3,645	2,083	2,741	4,824	31.3%	33.2%	32.3%
Age 85 and over	1,120	2,011	3,131	1,378	2,289	3,667	23.0%	13.8%	17.1%
Total	124,157	128,252	252,409	131,664	135,828	267,492	6.0%	5.9%	6.0%

Source: Esri 2018

Current Population by Race/Ethnicity

The most common race/ethnicity in SBMC's community is white (77.6%), followed by Black/African American (12.4%), Hispanic (6.4%), Asian/Pacific Islander (1.8%), individuals of two or more races (1.4%), and other races (0.4%).

Total Service Area Population by Race/Ethnicity, 2019



Source: Esri 2018; Maptitude 2018

Population Change by Race/Ethnicity

Substantial population growth is expected for Asian/Pacific Islanders (22.7%), individuals of two or more races (26.9%), Black/African Americans (18.7%), and other races (10.9%). The white and Hispanic populations are also expected to increase.

Total Service Area Population Change by Race/Ethnicity, 2019-2024

Race/Ethnicity	2019	2024	Percent Change
White	195,952	202,376	3.3%
Black/African American	31,364	37,235	18.7%
Asian/Pacific Islander	4,506	5,531	22.7%
Two or More Races	3,493	4,433	26.9%
Hispanic	16,057	16,767	4.4%
Other	1,037	1,150	10.9%

Source: Esri 2018

Socioeconomic Characteristics

According to HP2020, socioeconomic status (SES) is most often based on a person’s income, education level, occupation, social status in the community, and geographic location. Studies have found that SES, more than race or ethnicity, predicts the likelihood of an individual’s or group’s access to education, health insurance, health care services, and safe and healthy living or working conditions.

According to the U.S. Bureau of Labor Statistics, the 2018 annual unemployment averages for Shelby and Chilton counties were lower than the state and national unemployment rate of 3.9%. The U.S. Census American Community Survey (ACS) publishes median household income and poverty estimates. According to 2013–2017 estimates, the median household income in Shelby County (\$74,063) was significantly higher than the median household income in Chilton County (\$43,501), Alabama (\$46,472), and the United States (\$57,652) during the same time frame.

Poverty thresholds are determined by family size, number of children, and age of the head of the household. A family’s income before taxes is compared to the annual poverty thresholds. If the income is below the threshold, the family and each individual in it are considered to be in poverty. As of January 11, 2019, the 2019 federal poverty threshold for a family of four was \$25,750. The ACS estimates indicate that a significantly lower portion of Shelby County residents lived in poverty (8.3%) compared to estimates in Alabama (16.9%) and the United States (12.3%). The percentage of individuals below the poverty level in Chilton County (19.4%) was higher than the state and national percentages. Children in Chilton County were more likely to be living below the poverty level (27.8%) compared to all children in Alabama (26.0%) and the United States (20.3%), while children in Shelby County were far less likely to live below the poverty level (10.1%).

Socioeconomic Characteristics

	Shelby	Chilton	Alabama	United States
Unemployment Rate ¹	2.9%	3.6%	3.9%	3.9%
Median Household Income ²	\$ 74,063	\$ 43,501	\$ 46,472	\$ 57,652
Individuals Below Poverty Level ²	8.3%	19.4%	16.9%	12.3%
Children Below Poverty Level ²	10.1%	27.8%	26.0%	20.3%

¹ Source: Bureau of Labor Statistics, 2018 Annual Average

² Source: U.S. Census - ACS, 2013-2017 estimates

Educational Attainment

The U.S. Census ACS publishes estimates of the highest level of education completed for residents aged 25 years and older. The ACS 2013--2017 estimates indicate that individuals in Shelby County were more likely to have earned bachelor's, graduate, or professional degrees than those in the entire state of Alabama or the United States. However, Chilton County residents were less likely to have earned college credit or a college degree than the state and national averages. Chilton County also had greater percentages of individuals who had not graduated high school and individuals who had not completed 9th grade when compared to the Alabama and U.S. averages.

Highest Level of Education Completed by Persons 25 Years and Older, 2013-2017

	Shelby	Chilton	Alabama	United States
Less than 9th grade	2.5%	5.9%	4.7%	5.4%
9th to 12th grade, no diploma	5.5%	12.3%	10.0%	7.2%
High school degree or equivalent	20.9%	43.4%	30.9%	27.3%
Some college, no degree	21.7%	16.6%	21.7%	20.8%
Associate's degree	7.2%	6.7%	8.2%	8.3%
Bachelor's degree	27.9%	9.5%	15.4%	19.1%
Graduate or professional degree	14.4%	5.6%	9.1%	11.8%

Source: U.S. Census, ACS 2013-2017 estimates

Crime Rates

According to the Alabama Law Enforcement Agency, the rates of homicide, rape, robbery, and assault were significantly lower in Shelby County than in Alabama and the United States in 2017. Chilton County's rate of rape (40.8 per 100,000 population) was higher than the state benchmark for the same time period (39.5 per 100,000 population). The reported rate of assault in Chilton County (476.0 per 100,000 population) was higher than both the Alabama and United States rates.

Violent Crime Rates, 2017

	Shelby	Chilton	Alabama	United States*
Homicide	0.5	6.8	8.1	5.4
Rape	21.1	40.8	39.5	42.4
Robbery	11.7	18.1	79.8	101.2
Assault	116.5	476.0	364.3	252.4

Source = Alabama Law Enforcement Agency, Crime in Alabama 2017

* Source = Federal Bureau of Investigation, Crime in the United States 2017

Rates are per 100,000 population

Housing

The U.S. Census Bureau ACS 2013-2017 estimates indicated that residents of Shelby and Chilton counties had higher rates of home ownership than the Alabama and U.S. averages (68.6% and 64.0%, respectively). County Health Rankings also publishes an estimate of the percent of residents faced with a severe housing cost burden by county. Fewer individuals within Shelby and Chilton counties faced a severe housing cost burden from 2013 to 2017 when compared to the state (12.9%) and the nation (15.0%).

From 2013-2017, the segregation indices for both Black/White and non-White/White populations were lower within Shelby and Chilton counties than in Alabama and the United States.

Home Ownership and Residential Segregation, 2013-2017

	Shelby	Chilton	Alabama	United States
Homeownership	79.6%	75.3%	68.6%	64.0%
Severe housing cost burden	9.1%	12.5%	12.9%	15.0%
Residential segregation - Black/White	28.4	35.2	57.0	62.0
Residential segregation - non-White/White	24.2	28.9	51.2	47.0

Source: U.S. Census - ACS, 2013-2017 estimates, County Health Rankings

Residential segregation shown as a segregation index

Health Outcomes & Risk Factors

The Centers for Disease Control and Prevention (CDC) publish mortality and life expectancy data by county. From 2013-2017, the age-adjusted mortality from all causes in Shelby County was significantly lower than the mortality rate in Alabama during the same time frame (663.5 and 919.3 deaths per 100,000 population, respectively). Chilton County's mortality rate (993.2 deaths per 100,000 population) was higher than the state benchmark.

According to the CDC National Center for Health Statistics, from 2015-2017 the life expectancy in Shelby County was five years greater than the life expectancy within the state of Alabama (75.4 years), while the life expectancy in Chilton County (74.2 years) was lower than the state benchmark. The life expectancy for black individuals was lower than that of white individuals within Shelby and Chilton counties, which is similar to the trend observed at the national level. In the United States, the life expectancy at birth for the white population was 78.8 years in 2017 while the life expectancy for the black population was 75.3 years.

Mortality Indicators

	Shelby	Chilton	Alabama
Age-adjusted mortality from all causes ¹	663.5	993.2	919.3
Life expectancy ²	80.4	74.2	75.4
White life expectancy ²	80.1	73.9	*
Black life expectancy ²	79.0	73.4	*
Hispanic life expectancy ²	*	79.4	*

¹ Source: CDC Wonder, Multiple Cause of Death 2013-2017

² Source: National Center for Health Statistics Mortality File 2015-2017

Mortality rates are per 100,000 population and life expectancy is shown in years of age

* Insufficient data

Leading Causes of Death

According to the Centers for Disease Control and Prevention, heart disease and cancer were the first and second leading causes of death, respectively, in Shelby and Chilton counties, Alabama, and the United States. From 2013-2017, the heart disease death rate (283.9 per 100,000 population) and the cancer death rate (178.7 per 100,000 population) in Chilton County were higher than the state and national benchmarks.

In Shelby and Chilton counties, unintentional injury, stroke, and chronic lower respiratory disease (CLRD) are among the top five leading causes of death. Chilton's death rates in these areas were higher than both the state and national figures, while Shelby County's stroke death rate exceeded the national benchmark.

Suicide was the eighth leading cause of death in Shelby County, where the suicide death rate was higher than the national benchmark. The county death rates for septicemia, Alzheimer's disease, and Parkinson's disease also exceeded national rates. In Chilton County, the death rates for influenza and pneumonia, kidney disease, septicemia, and chronic liver disease and cirrhosis exceeded the state and national benchmarks.

	Shelby	Chilton	Alabama	United States
Heart disease	157.9	283.9	225.5	167.1
Cancer	132.8	178.7	175.8	158.1
Chronic lower respiratory disease	35.8	77.2	55.8	41.1
Stroke	38.8	53.9	50.1	37.1
(Unintentional injury) Accident	41.6	65.6	51.3	44.0
Alzheimer's disease	28.9	38.6	39.0	28.0
Diabetes	9.5	9.1	21.7	21.2
Influenza and pneumonia	11.2	20.8	19.0	14.8
Kidney disease	11.2	18.1	17.9	13.2
Septicemia	14.7	21.5	17.8	10.7
Suicide	14.2	13.5	15.2	13.3
Chronic liver disease and cirrhosis	9.3	13.7	12.1	10.6
Hypertension ¹	3.0	9.0	9.7	8.6
Assault (homicide)	2.4	*	10.4	5.7
Pneumonitis	4.1	*	5.7	5.2
Other Neoplasms (benign)	4.8	*	4.2	4.3
Parkinson's disease	9.7	*	8.7	7.8

Source: CDC Wonder, Multiple Cause of Death 2013-2017

Age-Adjusted Death Rates are per 100,000 population

¹Hypertension includes essential primary hypertension and hypertensive renal disease with renal failure

* Rate unavailable or unreliable

Heart Disease Mortality

According to the Centers for Disease Control and Prevention, Shelby County's age-adjusted mortality rate for heart disease per 100,000 adults aged 45 to 64 was lower than state and national benchmarks from 2014 to 2016. Chilton County's mortality rate during the same time period was higher than rates in Alabama and the United States.

Within the state of Alabama and the United States, heart disease mortality in adults aged 45 to 64 and older was higher for males than for females. The mortality rate for males in Shelby County was better than state and national rates, while the same rate in Chilton County was worse than the state and national benchmarks.

Adults aged 45 to 64 with Black (Non-Hispanic) race/ethnicity were more likely than those with White (Non-Hispanic) race/ethnicity to die of heart disease in all communities shown. The mortality rate for White (Non-Hispanic) adults age 45 to 64 in Shelby County was 114.5 per 100,000 adults, while the Black (Non-Hispanic) mortality rate was 182.8, and the Hispanic mortality rate was 132.0. The mortality rate for Hispanic individuals in Shelby County exceeded the Alabama (77.8) and United States (73.5) rates.

Age-Adjusted All Heart Disease Death Rates per 100,000 Adults Age 45 to 64 by Race and Gender, 2014-2016

	Shelby	Chilton	Alabama	United States
All Heart Disease, All Races/Ethnicities	114.2	233.6	198.6	122.6
All Heart Disease, Black (Non-Hispanic)	182.8	299.6	246.5	213.2
All Heart Disease, White (Non-Hispanic)	114.5	223.6	190.1	121.4
All Heart Disease, Hispanic	132.0	*	77.8	73.5
All Heart Disease, Male	157.2	320.7	268.2	175.1
All Heart Disease, Female	82.8	142.0	134.3	72.8

Source: Centers for Disease Control and Prevention

* Insufficient Data

Heart Attack Mortality

According to the Centers for Disease Control and Prevention, Shelby County's age-adjusted mortality rate for heart attacks per 100,000 adults aged 45 to 64 (16.8) was significantly lower than the Alabama and U.S. rates from 2014-2016. Within Shelby County, all race/ethnicity and gender-specific mortality rates were also lower than state and national benchmarks. However, all of Chilton County's heart attack mortality rates were significantly higher than the state and national benchmarks during the same time period.

In both Shelby and Chilton County, Black (Non-Hispanic) adults aged 45 to 64 were more likely to die of a heart attack than White (Non-Hispanic) adults aged 45 to 64. This trend was not observed at the state level. The death rate for Hispanic adults aged 45-64 in Shelby County (9.3) was lower than the national rate of 16.9 deaths per 100,000.

At the county, state, and national levels, the heart attack death rates for females were lower than the death rates for males. Chilton County's heart attack mortality rate for males aged 45-64 was 129.1 per 100,000, while Shelby County's rate was far lower at 27.4 deaths per 100,000.

Age-Adjusted Heart Attack Mortality Rates per 100,000 Adults Ages 45 to 64 by Race and Gender, 2014-2016

	Shelby	Chilton	Alabama	United States
Heart Attack, All Races/Ethnicities	16.8	90.9	44.3	27.9
Heart Attack, Black (Non-Hispanic)	26.9	113.5	41.6	34.8
Heart Attack, White (Non-Hispanic)	17.8	85.0	47.1	30.0
Heart Attack, Hispanic	9.3	*	*	16.9
Heart Attack, Male	27.4	129.1	63.3	41.3
Heart Attack, Female	9.2	48.8	26.8	15.2

Source: Centers for Disease Control and Prevention

* Insufficient Data

Hypertension Mortality

According to the Centers for Disease Control and Prevention, Shelby and Chilton County's age-adjusted mortality rates for hypertension per 100,000 adults aged 45 to 64 (47.8 and 31.5, respectively) were lower than the state and national rates from 2014 to 2016.

Males aged 45 to 64 were more likely to die of hypertension than females in the same age group within Shelby and Chilton counties, the state of Alabama, and the United States.

The hypertension mortality rate for Black (Non-Hispanic) adults was 97.9 in Shelby County and 97.5 in Chilton County from 2014-2016. These rates were much lower than the state and national levels of 148.4 and 189.1 per 100,000 adults, respectively.

Age-Adjusted Hypertension Death Rates per 100,000 Adults Ages 45 to 64 by Race and Gender, 2014-2016

	Shelby	Chilton	Alabama	United States
Hypertension, All Races/Ethnicities	47.8	31.5	89.7	89.7
Hypertension, Black (Non-Hispanic)	97.9	97.5	148.4	189.1
Hypertension, White (Non-Hispanic)	46.9	32.9	72.7	80.4
Hypertension, Hispanic	38.6	*	30.1	66.6
Hypertension, Male	67.8	46.8	116.9	121.8
Hypertension, Female	33.9	23.0	64.6	59.4

Source: Centers for Disease Control and Prevention

* Insufficient Data

Stroke Mortality

According to the Centers for Disease Control and Prevention, the age-adjusted stroke mortality rate per 100,000 adults aged 45 to 64 was lower in Shelby and Chilton counties than in Alabama, although these rates exceeded the national benchmark from 2014-2016.

Adults aged 45 to 64 with Black (Non-Hispanic) race/ethnicity had higher stroke mortality rates than adults with White (Non-Hispanic) race/ethnicity. Males aged 45 to 64 had higher stroke mortality rates than females aged 45 to 64 in Shelby and Chilton counties, Alabama, and the United States. Stroke rates for Shelby and Chilton counties for both males and females was higher than the national rates during the time frame.

Age-Adjusted Stroke Death Rates per 100,000 Adults Ages 45 to 64 by Race and Gender, 2014-2016

	Shelby	Chilton	Alabama	United States
All Stroke, All Races/Ethnicities	20.6	25.1	33.7	19.1
All Stroke, Black (Non-Hispanic)	53.5	40.9	54.9	41.4
All Stroke, White (Non-Hispanic)	17.7	24.6	27.4	16.0
All Stroke, Hispanic	11.9	*	*	16.6
All Stroke, Male	25.8	27.7	39.5	22.4
All Stroke, Female	21.7	22.7	28.4	16.0

Source: Centers for Disease Control and Prevention

* Insufficient Data

Cancer Screenings

The Centers for Medicare and Medicaid publish information on screenings completed by beneficiaries in the Mapping Medicare Disparities Tool. In 2017, the percentage of Shelby County Medicare beneficiaries who received mammograms (34%) was higher than the state average (31%) and the Chilton County rate (28%). Both Shelby and Chilton counties had higher percentages of beneficiary prostate cancer screening and colorectal cancer screening than the state averages. Fewer Chilton County beneficiaries had cervical cancer screenings (6%) than the Alabama and Shelby County rate of 7 percent.

Percentage of Medicare Beneficiaries Receiving Select Cancer Screenings, 2017

	Shelby	Chilton	Alabama
Mammogram	34%	28%	31%
Prostate Cancer Screening	29%	28%	24%
Colorectal Cancer Screening	7%	8%	6%
Cervical Cancer Screening (Pap Smear)	7%	6%	7%

Source: Centers for Medicare and Medicaid,
Mapping Medicare Disparities Tool, 2017

Cancer Incidence

The National Cancer Institute reports cancer incidence rates on a state and county level. Tables detailing select cancer incidence rates per 100,000 population from 2012-2016 can be found below.

- The combined incidence rates of all cancer sites in Shelby and Chilton counties were lower than state and national benchmarks.
- Shelby County's incidence rates for lung, breast, colorectal, pancreatic, ovarian, stomach, and cervical cancers were lower than both the state and national benchmarks. Chilton County's incidence rates for breast and pancreatic cancers were lower than both the state and national benchmarks.
- The lung, colorectal, and prostate cancer incidence rates in Chilton County were lower than the state incidence rate but higher than the national benchmark.
- The incidence rate for prostate cancer in Shelby County (139.9 per 100,000 males) and the incidence rate for brain cancer (7.1 per 100,000 population) were higher than both the Alabama and United States incidence rates. Within Chilton County, the incidence rates of ovarian cancer and stomach cancer exceeded both the state and national benchmarks.

Select Cancer Incidence Rates, 2012 – 2016

	Shelby	Chilton	Alabama	United States
All Cancer Sites ¹	420.1	426.6	451.9	448.0
Lung and bronchus ¹	48.3	64.7	66.4	59.2
Prostate ²	139.9	107.5	119.5	104.1
Breast ³	118.0	117.1	122.1	125.2
Colon and rectum ¹	38.6	40.6	44.0	38.7
Pancreas ¹	11.3	10.1	12.8	12.8
Ovarian ³	11.0	15.4	11.7	11.1
Brain ¹	7.1 *		6.5	6.5
Stomach ¹	6.1	7.8	6.6	6.6
Cervical ³	5.6	*	9.3	7.6

Source: National Cancer Institute - State Cancer Profiles

¹Rates are per 100,000 males

²Rates are per 100,000 females

³Rates are per 100,000 population

* Indicates rate is unstable

Cancer Mortality

The National Cancer Institute reports cancer mortality rates on a state and county level. Tables detailing select cancer mortality rates per 100,000 population from 2012-2016 can be found below.

- The combined mortality rate of all cancer sites in Shelby County was lower than the state and national benchmarks. Conversely, the combined rate in Chilton County was higher than both benchmarks.
- Shelby County's mortality rates for lung, prostate, breast, colorectal, pancreatic, ovarian, and stomach cancers were lower than both the state and national benchmarks. Chilton County's incidence rates for breast and colorectal cancers were lower than both benchmarks.
- The pancreatic cancer mortality rate in Chilton County was lower than the state rate but higher than the national benchmark.
- The mortality rate for brain cancer in Shelby County was higher than both the Alabama and United States incidence rates. Within Chilton County, the mortality rate for lung cancer was higher than both benchmarks.

Select Cancer Mortality Rates, 2012 – 2016

	Shelby	Chilton	Alabama	United States
All Cancer Sites ¹	140.8	183.3	179.0	161.0
Lung and bronchus ¹	36.8	53.9	51.9	41.9
Prostate ²	16.1	*	21.7	19.2
Breast ³	18.2	17.9	21.8	20.6
Colon and rectum ¹	12.8	18.9	16.1	14.2
Pancreas ¹	9.0	11.2	11.5	11.0
Ovarian ³	6.7	*	7.4	7.0
Brain ¹	5.9	*	5.2	4.4
Stomach ¹	2.4	*	3.4	3.1
Cervical ³	*	*	3.5	2.3

Source: National Cancer Institute - State Cancer Profiles

¹Rates are per 100,000 population

²Rates are per 100,000 males

³Rates are per 100,000 females

* Indicates rate is unstable

Diabetes Incidence

According to the CDC’s Division of Diabetes Translation, in 2016 the percentage of adults aged 20 and older who had been diagnosed with diabetes was 9.6% in Shelby County and 16.8% in Chilton County. The incidence rate in Chilton County was nearly double the national benchmark (8.5%). Shelby County’s incidence rate was significantly lower than the Alabama rate (13.2%) but did exceed the national incidence rate.

Age-Adjusted Diabetes in Adults Ages 20 and Older, 2016

	Shelby	Chilton	Alabama*	United States
Adults with diagnosed diabetes	9.6%	16.8%	13.2%	8.5%

Source: Centers for Disease Control and Prevention, Division of Diabetes Translation

*State and national data reflect adults aged 18+

Weight Status

The CDC's Behavioral Risk Factor Surveillance System (BRFSS) collects data and reports on health-related risk behaviors, chronic health conditions, and use of preventative services. The 2017 adult obesity rate in Shelby County of 36.5% was higher than both the Alabama (36.3%) and U.S. rates (30.1%). Chilton County's adult obesity rate (34.4%) was higher than the national benchmark but lower than the state rate.

Adult Obesity Rate, 2017

	Shelby	Chilton	Alabama	United States
Adult obesity rate	36.5%	34.4%	36.3%	30.1%

Source: Behavioral Risk Factor Surveillance System and Alabama Department of Public Health, 2017

Nutrition and Food Insecurity

The U.S. Department of Agriculture publishes the Food Environment Atlas which includes information on food insecurity, food deserts, and access to healthy foods. Shelby and Chilton County’s food environment index ratings were higher than the Alabama and United States ratings based on 2015-2016 data points. The percentages of county residents experiencing limited access to healthy foods in Shelby County (4.3%) and Chilton County (1.5%) were far lower than the state and national benchmarks. According to Map the Meal Gap, published by Feeding America in 2017, the percent of individuals experiencing food insecurity within Shelby County (9.3%) was lower than the state rate (16.3%) and the U.S. rate (12.5%). However, Chilton County’s food insecurity rate exceeded the national benchmark at 13.1%.

Access to Healthy Foods, 2015-2017

	Shelby	Chilton	Alabama	United States
Food environment index ¹	8.6	8.1	5.8	7.7
Limited Access to Healthy Foods ¹	4.3%	1.5%	7.9%	6.0%
Food insecurity ²	9.3%	13.1%	16.3%	12.5%
Average meal cost ²	\$ 3.42	\$ 3.09	\$ 2.98	\$ 3.02

¹ USDA Food Environment Atlas, 2015-2016

² Map the Meal Gap, 2017

Physical Activity

The Centers for Disease Control and Prevention and County Health Rankings collect data on physical inactivity and access to physical fitness venues.

In 2015, Shelby County had a lower rate of physical inactivity than the state of Alabama, although the county rate did exceed the national benchmark. Chilton County's rate of physical inactivity (31.2%) exceeded both benchmarks.

Shelby County residents had greater access to recreation and fitness facilities compared to the state of Alabama and the nation. Chilton County residents had far less access to recreation and physical fitness facilities (47.2%).

Physical Inactivity and Exercise Opportunities

	Shelby	Chilton	Alabama	United States
Physical inactivity ¹	22.3%	31.2%	28.2%	22.0%
Access to exercise opportunities ²	86.9%	47.2%	61.6%	84.0%

¹ CDC Diabetes Interactive Atlas, 2015

² County Health Rankings 2019

Sexually Transmitted Infections

The Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention reports on rates of sexually transmitted infections (STIs) by county. Shelby County had lower rates of chlamydia, gonorrhea, and primary and secondary syphilis than the state and nation. Within Chilton County, the rates of reported chlamydia and gonorrhea were lower than the state and national benchmarks, although the rate of reported primary and secondary syphilis exceeded the state rate.

In 2016, the HIV prevalence rates in Shelby and Chilton counties were significantly lower than the state and national prevalence rates. The rate of newly diagnosed HIV cases in 2017 within Shelby County was lower than the diagnosis rate in Alabama and the United States. Chilton County’s rate of new diagnoses was greater than both benchmarks.

Rate of Reported Cases of Sexually Transmitted Infections, 2017

	Shelby	Chilton	Alabama	United States
Chlamydia	254.2	354.0	614.1	524.6
Gonorrhea	86.1	152.0	245.1	170.6
Primary and Secondary Syphilis	6.6	9.1	8.7	9.4

Source: Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, 2017

Rates are per 100,000 population

HIV Prevalence and Diagnosis Rate, 2016–2017

	Shelby	Chilton	Alabama	United States
HIV prevalence, 2016	155.4	110.2	309.9	365.5
Newly Diagnosed HIV Case Rate, 2017	6.2	19.1	15.9	14.0

Source: Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, 2017

Rates are per 100,000 population

* Data suppressed or unavailable

Maternal and Child Health

The Alabama Department of Public Health and the National Center for Health Statistics publish data on maternal and child health indicators. The birth rates in Shelby and Chilton counties were lower than the state and national rates in 2016. Within Shelby County, the teen birth rate of 15.3, measured per 1,000 females aged 15-19, was significantly lower than the Alabama (30.1) and United States (22.3) rates in 2015. The teen birth rate in Chilton County (43.1) was significantly higher than the state and national benchmarks.

The infant mortality rates per 1,000 live births in Shelby and Chilton counties were higher than the United States rate (5.8) in 2017. Chilton County's infant mortality rate of 7.1 was lower than the state benchmark (7.4 per 1,000 live births) during the same time frame. Shelby and Chilton County's rates of low-birthweight births in 2016 were lower than the state and national rates. The proportion of mothers with inadequate prenatal care in Shelby County (13.9%) was lower than the Alabama benchmark (18.2%) during 2016, while the percentage in Chilton County (20.6%) was higher than the state rate.

Births and Infant Morbidity and Mortality, 2015–2017

	Shelby	Chilton	Alabama	United States
Birth rate (per 1,000 population), 2016 ¹	11.3	11.9	12.2	12.2
Teen birth rate (per 1,000 women aged 15–19 years), 2015 ²	15.3	43.1	30.1	22.3
Infant mortality rate (per 1,000 live births), 2017 ³	7.4	7.1	7.4	5.8
Low birthweight, 2016 ¹	7.3%	7.5%	10.3%	8.2%
Inadequate prenatal care, 2016 ¹	13.9%	20.6%	18.2%	N/A

¹Source: Alabama Department of Public Health, Alabama Vital Statistics 2016

²Source: National Center for Health Statistics

³Source: Alabama Department of Public Health, Center for Health Statistics

Inadequate prenatal care refers to the percentage of births for which the adequacy of prenatal care utilization index was known, comparable national data unavailable

Access to Care

According to the ACS 2013–2017 estimates, 7.4% of Shelby County residents had no health insurance coverage, compared to 14.8% of Chilton County residents, 10.7% of Alabama residents, and 10.5% of Americans. The number of children without health insurance in Shelby County (3.7%) was slightly higher than the state benchmark (3.5%), but lower than the Chilton County rate (5.7%) and national benchmark (5.7%).

A greater number of individuals received public health insurance in Chilton County (36.6%) than in Alabama (36.1%) and the United States (33.8%). However, a significantly lower percentage of individuals in Shelby County received public insurance coverage (23.3%). A lesser number of individuals had private health insurance coverage in Chilton County (62.0%) than Shelby County (80.7%), Alabama (66.9%), and the United States (67.2%).

Health Insurance Coverage, 2013-2017

	Shelby	Chilton	Alabama	United States
Private insurance coverage	80.7%	62.0%	66.9%	67.2%
Public insurance coverage	23.3%	36.6%	36.1%	33.8%
No health insurance coverage	7.4%	14.8%	10.7%	10.5%
No health insurance coverage (children)	3.7%	5.7%	3.5%	5.7%

Source: US Census, ACS 2013-2017

Substance Abuse

The CDC's National Center for Injury Prevention and Control provides estimates of the number of opioid prescriptions dispensed per person, per year. Within Shelby County the prescribing rate (89.6) was lower than the state rate, but higher than the national average of 58.7. Chilton County's prescribing rate in 2017 was nearly identical to the Alabama average.

Opioid Prescriptions Dispensed per 100 Persons per Year

	Shelby	Chilton	Alabama	United States
Opioid Prescribing Rate 2017	89.6	107.0	107.2	58.7

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control

Mental Health

County Health Rankings provides an estimate of access to mental health providers in the form of a ratio of the county population to mental health providers. The ratio represents the number of individuals served by one mental health provider in a county, if the population were equally distributed across providers. The ratio for Shelby County was 1,420:1 while the ratio in Chilton County was 2,450:1 in 2018. Both counties had worse ratios than the state of Alabama and the United States during the same time frame.

Mental Health Provider Ratio, 2018

	Shelby	Chilton	Alabama	United States
Mental health provider ratio	1,420:1	2,450:1	1,100:1	440:1

Source: County Health Rankings 2019, CMS, National Provider Identification 2018

Health Behaviors

The Behavioral Risk Factor Surveillance System collects data on adult smoking and alcohol consumption. In 2016, Shelby County's adult smoking rate (16.9%) was just under the U.S. rate of 17.0%, but well below the Chilton County and Alabama rates (19.7% and 21.5%, respectively). Shelby county had a higher rate of excessive drinking (18.8%) when compared to Alabama (14.2%) and the United States (18.0%), while Chilton county fell in between state and national rates at 15.1%.

Behavioral Risk Factors - 2016

	Shelby	Chilton	Alabama	United States
Adult smokers	16.9%	19.7%	21.5%	17.0%
Excessive drinking	18.8%	15.1%	14.2%	18.0%

Source: Behavioral Risk Factor Surveillance System, 2016

Health Behaviors

The National Center for Health Statistics provides estimates of premature death. The Chilton County premature death indicator of 10,832 years, measured as years of potential life lost per 100,000 population, was higher than the indicators for Alabama (9,917 years), the United States (6,900 years), and Shelby County (6,354 years) from 2015 to 2017.

The Behavioral Risk Factor Surveillance System collects data on self-reported physical and mental health. In 2016, a greater number of individuals in Chilton County (21.5%) reported poor or fair health when compared to Alabama (21.4%), the United States (16.0%), and Shelby County (14.6%).

Residents in Chilton County reported a greater number of poor physical health days (4.7) than Alabama (4.4 days) and U.S. resident averages (3.7 days), while Shelby County residents met the national benchmark (3.7 days). In Chilton County, the average number of reported poor mental health days matched the state benchmark of 4.6 days but exceeded the Shelby County (3.9 days) and the United States (3.8 days) averages.

Health Behaviors

	Shelby	Chilton	Alabama	United States
Premature death indicator ¹	6,354	10,832	9,917	6,900
Poor or fair health ²	14.6%	21.5%	21.4%	16.0%
Poor physical health days ²	3.7	4.7	4.4	3.7
Poor mental health days ²	3.9	4.6	4.6	3.8

Source: ¹ National Center for Health Statistics, 2015-2017, shown in years of potential life lost before age 75 per 100,000 population

² Behavioral Risk Factor Surveillance System, 2016

Community Input

The interview and survey data is qualitative in nature and should be interpreted as reflecting the values and perceptions of those interviewed. This portion of the CHNA process is designed to gather input from persons who represent the broad interest of the community serviced by SBMC, as well as individuals providing input who have special knowledge or expertise in public health. It is intended to provide depth and richness to the quantitative data collected.

Community Leader Interviews

Interview Methodology

Eleven interviews were conducted from September 10, 2019 through October 2, 2019. Interviews required approximately 30 minutes to complete. Interviewers followed the same process for each interview, which included documenting the interviewee's expertise and experience related to the community. Additionally, the following community-focused questions were used as the basis for discussion:

- Interviewee's name
- Interviewee's title
- Interviewee's organization
- Overview information about the interviewee's organization
- What are the top strengths of the community?
- What are the top health concerns of the community?
- What do you think is the single most important thing that could be done to improve the health in your community?
- What are the barriers to obtaining health services in your community?
- What health resources are available in your community?
- What health resources does your community currently need more of?
- What sub-populations are medically underserved in your community?
- Is there anything else we should know about your community that we have not already discussed?

Community Leader Interview Summary

There was a variety of subjects discussed in the community leader interviews. The most common topics included mental health, education, transportation, and substance abuse.

Concerns

Mental health and substance abuse were the most frequently mentioned concerns by community leaders. Specifically, the local impact of the ongoing opioid crisis was top of mind for interviewees. Local addiction resources were thought to be lacking, forcing many individuals to travel to Jefferson County for treatment. One leader described how stigma leads those with mental health issues to feel isolated and unsure of existing resources. Interviewees noted the lack of mental health access points across the system of care and the severe needs in the community for inpatient and outpatient services.

In addition to concerns regarding access to mental health services, general access to care issues were also discussed by community leaders. Topics included the need for additional sliding fee scale providers, primary care shortages, and the uninsured and underinsured populations.

Barriers

Those who spoke of education as a concern specifically mentioned low health literacy levels. It was mentioned that individuals with language barriers and those with low socio-economic status faced difficulties in navigating the healthcare system. These challenges were thought to have a negative impact on health outcomes.

Multiple leaders noted a lack of transportation to be of great concern to the area. One interviewee reported that those who live in more rural areas and older adults who are unable to drive long distances have less access to healthcare due to this.

Community Leader Interview Summary

Strengths and Assets

Leaders noted that Shelby County's healthcare system contains a variety of specialty and ancillary service offerings, including those offered by SBMC. Healthcare related innovation and technology were also mentioned as strengths. Although mental health was a primary concern for those interviewed, many leaders mentioned that the existing network of mental health resources was an asset. Interviewees described how initiatives like Compact 2020 and Stepping Up were positively contributing to improving mental health outcomes within the area.

The education system within the community was mentioned by multiple community leaders as an asset. Other strengths described include the plethora of recreational facilities, the amount of financial resources within the community, and cross-sector collaboration.

Resources

Leaders were also asked to share resources that they felt were missing from the community. The need for affordable and reliable transportation was a high priority. Though Compact 2020 was touted as a resource to help combat addiction, the majority of interviewees stated the need for additional funding, programming, and infrastructure dedicated to mental health and substance abuse. Leaders called for more mental health inpatient beds, crisis mental health services, opioid addiction treatment services, and additional education. One community leader also spoke about the need to communicate clearly which resources are available and how best to navigate the local healthcare system.

The local emergency response network was praised as a valuable resource. Community leaders mentioned how local first responders provide fall prevention classes to older adults and participate in mental health trainings and coalitions. A number of free clinics and supportive services were also noted by interviewees.

Community Leader Interview Summary

Interview Themes

Topic	Top Themes Discussed
Strengths & Assets	Variety of healthcare facilities available Mental health resources Substance abuse initiatives Education
Concerns	Substance abuse Mental health Access to care
Barriers	Financial barriers and high cost of care Transportation Mental health issues including stigma
Medically Underserved Populations	Geographical areas Minority populations Low-income populations

Online Health Survey

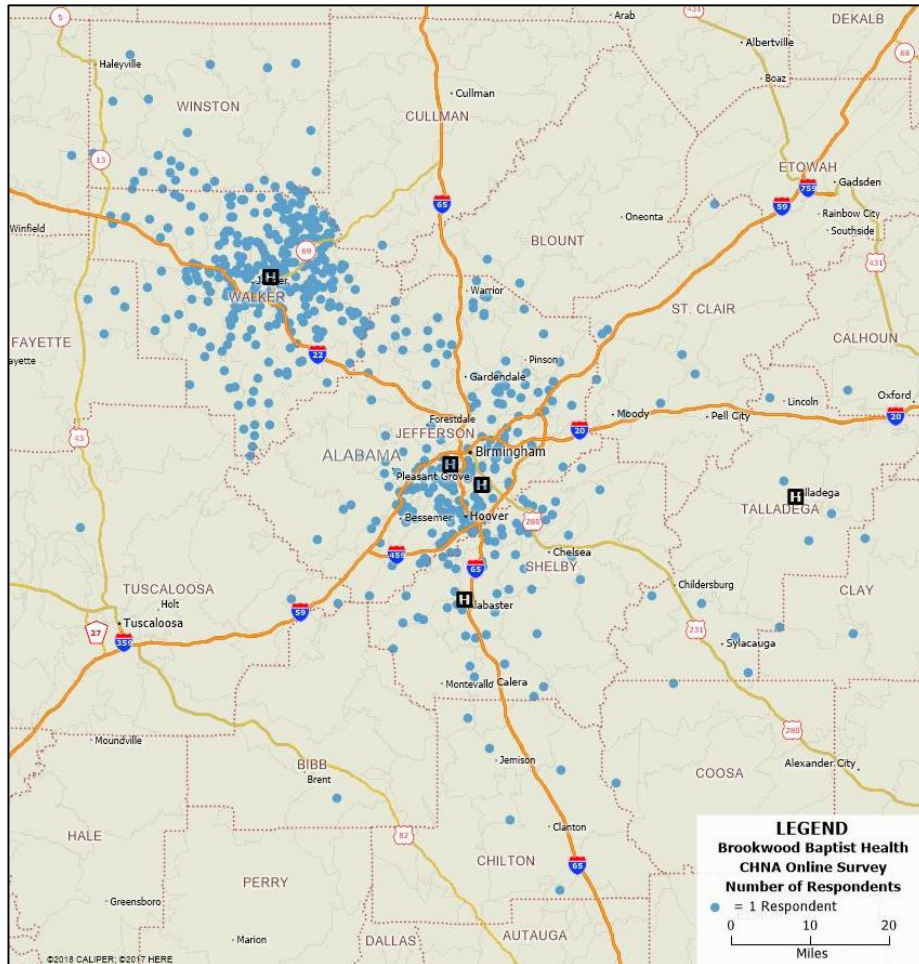
A total of 94 online health surveys were completed by community members within Shelby and Chilton Counties and those who did not provide a home ZIP Code. The full health survey questionnaire is available in Appendix C.

Online Community Health Survey Methodology

The link to the online survey was shared via multiple social media channels by Brookwood Baptist Health's Marketing Department. Email invitations to complete the survey or to share the survey via e-newsletters were sent to BBH's email subscriber list, community leaders, and health and public health stakeholders throughout the region. The survey instrument asked respondents to rate their own health and the overall health of community members, in addition to questions related to accessing preventative and sick care. Respondents were also asked to prioritize three health problems and three social problems in the community from lists of options. Lastly, optional demographic questions were also included at the end of the survey.

Online Health Survey Summary

Community Health Survey Distribution – All BBH Facility Respondents Mapped by ZIP Code



Source: Carnahan Group; Maptitude 2018

NOTE: n=30 respondents did not provide a ZIP Code and were also included within the analysis for each BBH facility.

Health Survey Summary (continued)

Community Health Survey Respondent Demographics

9.8% of n=92 survey respondents indicated that they did not own a smartphone. The majority of respondents indicated that they have private health insurance (93.6%), while 11.7% had Medicare coverage.

Age	Percentage of Respondents
18-44 years	30.9%
45-64 years	54.3%
65+ years	14.8%

n=81 respondents

Gender	Percentage of Respondents
Female	87.7%
Male	12.3%

n=81 respondents

Race/Ethnicity	Percentage of Respondents
White	84.6%
Black/African American	10.3%
Hispanic	1.3%
Asian/Pacific Islander	0.0%
American Indian & Alaska Native	0.0%
Other	3.8%

n=78 respondents

Household Income	Percentage of Respondents
\$200,000 and above	6.8%
\$150,000 to \$199,999	9.6%
\$100,000 to \$149,999	11.0%
\$75,000 to \$99,999	9.6%
\$50,000 to \$74,999	30.1%
\$35,000 to \$49,999	15.1%
\$25,000 to \$34,999	9.6%
\$15,000 to \$24,999	1.4%
Under \$15,000	1.4%
I don't know	5.5%

n=73 respondents

n=316

Online Health Survey Summary (continued)

Community Health Survey Results

When asked to select three serious health problems, n=94 respondents selected the following options*:

Rank	Serious Health Problem	Percentage of Respondents
1	Obesity	66.0%
2	Cancer	62.8%
3	Heart disease and stroke	55.3%
4	Diabetes	46.8%
5	High blood pressure	45.7%
6	Mental health issues (ex. depression)	36.2%
7	Substance abuse/addiction	35.1%
8	Alzheimer's Disease	25.5%
9	Breathing problems (ex. asthma, COPD)	20.2%
10	Child abuse or neglect	13.8%
11	Suicide	11.7%
12	Violence	11.7%
13	Tooth problems (dental health)	11.7%
14	Infectious diseases	11.7%
15	Motor vehicle injuries	5.3%
16	Sexually transmitted diseases	5.3%
17	Injuries	4.3%
18	Prenatal and infant health	4.3%

**Note that some respondents indicated fewer or greater than three selections.*

Online Health Survey Summary (continued)

Community Health Survey Results

When asked to select three serious social problems, n=94 respondents selected the following options*:

Rank	Serious Social Problems	Percentage of Respondents
1	Not enough free or affordable health screenings	40.4%
2	Poverty (low income)	36.2%
3	Public transportation	31.9%
4	Not enough healthy food	29.8%
5	No health insurance	24.5%
6	Not enough interesting activities for youth	22.3%
7	Crime	18.1%
8	Not enough education	17.0%
9	Racism and discrimination	17.0%
10	Homelessness	13.8%
11	Not enough jobs in area	11.7%
12	Not enough childcare options	10.6%
13	Overcrowded housing	2.1%

**Note that some respondents indicated fewer or greater than three selections.*

Health Survey Summary (continued)

Community Health Survey Results

When asked “Have you had any of the following health services in the past year?”, the majority of respondents (n=91) indicated that they had received blood work (82.4%), a blood pressure check (78.0%), and dental care (70.3%).

The majority of respondents indicated that they would rate their health as “good” in general (53.8%), while 36.6% selected “very good.” However, 47.9% of respondents indicated that they would rate the overall health of community members as “good” in general (n=93 and n=94, respectively).

31.9% of respondents have missed 1-5 days of work or other activities (ex. church, school) over the past 3 months because they were sick or not feeling well (n=94).

81.5% of respondents have had a physical exam (checkup, well visit) with a doctor in the past year (n=92).

When asked “When you are sick or need health care, are you able to visit the doctor?”, the majority of respondents indicated that they were always able to visit the doctor (71.3%) while 26.6% indicated that they were sometimes able to visit the doctor (n=94).

When asked “Is there anything that makes it hard for you to see a doctor when you are sick?”, n=72 respondents were more likely to indicate the following barriers:

- I cannot get time off work (20.8%)
- It is too expensive (19.4%)
- I don't think I need to see a doctor (15.3%)

Community Health Priorities

The overarching goal in conducting this Community Health Needs Assessment is to identify significant health needs of the community, prioritize those health needs, and identify potential measures and resources available to address the health needs. For the purpose of identifying health needs for SBMC, a health priority is defined as a medical condition or factor that is central to the state of health of the residents in the community. An exhaustive list of health needs was compiled based on the health profile and interviews. A modified version of Fowler and Dannenberg's Revised Decision Matrix was developed to capture priorities from the primary and secondary data. This matrix tool is used in health program planning intervention strategies, and uses a ranking system of "high," "medium," and "low" to distinguish the strongest priorities.

As the CHNA is meant to identify the community's most significant health needs, only the health needs falling under the "high" and "medium" categories are highlighted. The four health priorities identified through this process are:

1. Access to care
2. Substance abuse
3. Socioeconomic status
4. Mental health

Access to Care

Priority Definition

The Institute of Medicine previously defined access to care as “the timely use of personal health services to achieve the best health outcomes.”

Key topics within this priority include:

- Health insurance coverage
- Access to specialty care
- Self-pay individuals
- Primary care provider shortages
- Cultural and linguistic barriers

Qualitative Findings

COMMUNITY LEADER CONCERNS:

- Many leaders cited access to care as a health concern within their community
- Health care services for the uninsured and underinsured
- Self-pay sliding fee schedules
- Leaders mentioned that provider shortages may be causing access issues
- Some called for collaboration between government entities and providers to close gaps in coverage
- The limited options for health insurance were a concern

Quantitative Findings

Of n=94 respondents, 40.4% were concerned with the availability of free health screenings while 24.5% indicated that a lack of health insurance was a serious social problem in the community

Some health survey respondents mentioned that lacking a primary care physician, difficulty getting in to see a physician, and scheduling challenges sometimes prevented them from seeking care.

14.8% of Chilton County was uninsured from 2013-2017

Shelby County had a higher rate of private health insurance coverage than the Alabama and United States averages while Chilton County’s public health insurance coverage rate exceeded both the state and national rates from 2013-2017.

3.7% of Shelby County children had no health insurance coverage from 2013-2017

According to County Health Rankings, the physician-to-population ratio for primary care providers was 5,490:1 in Chilton County in 2018, compared to 1,170:1 in Shelby County and 1,530:1 across the state of Alabama.

Substance Abuse

Priority Definition

One of the HP2020 goals is to “reduce substance abuse to protect the health, safety, and quality of life for all, especially children.” Substance abuse refers to a set of related conditions associated with the consumption of mind- and behavior-altering substances that have negative behavioral and health outcomes.

Key topics within this priority include:

- Opioid misuse
- Tobacco use including e-cigarettes
- Alcohol consumption
- Illicit drug use
- Co-occurring mental health issues and substance use disorders
- Access to treatment services

Qualitative Findings

COMMUNITY LEADER CONCERNS:

- Leaders were concerned with the rate of opioid addiction within the community
- The lack of local addiction resources that forces many residents to travel to Jefferson County for treatment

Quantitative Findings

Across Alabama, the age-adjusted drug overdose death rate was 18.0 per 100,000 in 2017

35.1% Of health survey respondents (n=94) indicated substance abuse is a serious health problem in the community

According to SAMHSA, an estimated 164.8 million people aged 12 or older in the United States (60.2 percent) were past month substance users (i.e., tobacco, alcohol, or illicit drugs) in 2018. Nearly 1 in 5 people aged 12 or older (19.4 percent) used an illicit drug in the past year.

The Alabama Department of Mental Health reported 5,128 deaths from overdoses in Alabama from 2006-2014 and a total of 741 overdose deaths in 2016.

Opioid abuse claims more lives within the United States than motor vehicle crashes (SAMHSA). In 2017, the Opioid prescribing rate was 89.6 prescriptions per 100 population in Shelby County, and 107.0 in Chilton County. These prescribing rates both exceeded the national averages of 58.7 (CDC).

Within Alabama, 14.2% of adults self-reported excessive drinking in 2016 and both service area counties had higher rates of excessive drinking during the same time frame.

Socioeconomic Status

Priority Definition

According to the CDC, the social determinants of health (SDOH) are defined as “conditions in the places where people live, learn, work, and play.” The World Health Organization expands upon that definition, stating that the SDOH are “shaped by the distribution of money, power, and resources.”

Key topics within this priority include:

- Affordability of care
- Income inequality
- Poverty
- Employment
- Education

Qualitative Findings

COMMUNITY LEADER CONCERNS:

- Leaders expressed concern regarding the concentrated poverty in the southern parts of Shelby County
- There was a perceived need for additional marketing about financial assistance programs
- Community leaders were concerned about health outcomes for low-income populations

Quantitative Findings

The percentage of individuals living in poverty in Chilton County was higher than the state and national benchmarks from 2013-2017

36.2%

Of health survey respondents (n=94) indicated that poverty was a serious social problem in the community

According to County Healthy Rankings, 9.1% of Shelby County residents and 12.5% of Chilton County residents faced a severe housing cost burden from 2013-2017. During the same time frame, the income ratio between the 80th percentile and 20th percentile of household incomes in Shelby County was 4.1, while the ratio for Chilton County was 5.0.

The median household income in Shelby County exceeded the state and national averages, however in Chilton County, the median household income of \$43,501 was lower than both benchmarks from 2013-2017.

From 2013-2017 an estimated 10.1% of children in Shelby County and 27.8% of those in Chilton County were living below the federal poverty level. In Chilton County, the percentage of all individuals living below the poverty level was 19.4%.

Mental Health

Priority Definition

One of the HP2020 goals is to “improve mental health through prevention and by ensuring access to appropriate, quality mental health services.” Key topics within this priority include:

- Provider shortages
- Funding for mental health services
- System of care
- Co-occurring mental health and substance abuse disorders

Qualitative Findings

COMMUNITY LEADER CONCERNS:

- Community leaders expressed concern over the availability of treatment options
- Stigma and education for the general public were concerns
- Some leaders would like to see the state legislature increase the number of available inpatient psychiatric beds
- The affordability of mental health services was concerning for multiple leaders
- Leaders mentioned the improper use of the jail system to care for individuals with mental health conditions
- Anxiety in young children was a concern

Quantitative Findings

From 2013-2017 the suicide death rates in Shelby and Chilton counties were higher than the national average (13.3 per 100,000 population).

36.2% Of health survey respondents (n=94) indicated mental health is a serious health problem

Individuals in Shelby County reported 3.9 poor mental health days in the previous 30 days while those in Chilton County reported 4.6 (BRFSS via County Health Rankings).

In any given year, an estimated 18.1% (43.6 million) of U.S. adults aged 18 years or older suffered from any mental illness and 4.2% (9.8 million) suffered from a seriously debilitating mental illness. Neuropsychiatric disorders are the leading cause of disability in the United States, accounting for 18.7% of all years of life lost to disability and premature mortality (HP2020).

1,420:1 and 2,450:1
ratio of population to mental health providers
in Shelby and Chilton Counties in 2018

Resources

Hospital-based, community-based, and government-sponsored resources related to each of the health priorities are featured throughout the following pages.

Resources – Access to Care

Brookwood Baptist Health’s Freestanding Emergency Department located at 7131 Cahaba Valley Road, Hoover, AL 35242 provides around-the-clock care by board-certified emergency medicine physicians and specialty physicians.

Cahaba Medical Care is a Federally Qualified Health Center and is accredited as a Patient Center Medical Home with ten sites in the area. Cahaba provides comprehensive healthcare services in Jefferson and Chilton counties including treatment and management of chronic and acute diseases; preventative care and cancer screenings; pediatric care; women’s health services; prenatal care and obstetrics; dermatological services; geriatrics; sports medicine services; mental healthcare; and dental services. The center offers a discounted, sliding fee schedule based on income and family size.

Community of Hope Health Clinic is a Volunteers in Medicine clinic that provides free, non-emergent medical care to uninsured, low income adults aged 19 to 64 in Shelby County.

Clanton Family Health Center, operated by Health Services, Inc., provides primary care services to medically underserved adults in Chilton County. In addition to providing medical care to the community, Clanton Family Health Center also offers occasional free health screening events.

The Shelby County Health Department provides WIC programming, immunizations, family planning, breast and cervical cancer screening, an STD clinic, and Medicaid enrollment assistance.

Shelby County Community Health Foundation was formed to manage the proceeds that the Shelby County Healthcare Authority received from the sale of Shelby Medical Center to the Baptist Health System. These funds are to be used for the benefit of the citizens of Shelby County by providing support for organizations and programs that enhance the health and wellness of the community. The foundation currently funds programs that emphasize preventative health care, provide education, and prevent substance abuse.

ALL Kids is a statewide low-cost, comprehensive healthcare coverage program for children under age 19. Check-ups, immunizations, sick child visits, prescriptions, vision and dental care, hospitalization, and many more services are covered by the program.

KidOne Transport provides medical transportation for women and children.

Resources – Substance Abuse

The Recovery Organization of Support Specialists (ROSS) provides peer support services for individuals recovering from substance abuse. ROSS employs Certified Recovery Support Specialists to facilitate group sessions and provide mentoring, crisis support, advocacy, and navigation services.

Parents of Addicted Loved Ones (PAL) hosts local meeting groups facilitated by peers and intended for parents, family members, and friends of individuals with addiction.

The Shelby County Drug Task Force is funded by the County Commission and offers free trainings to local schools and organizations. The task force also facilitates multiple anonymous prescription drug collection units across the county.

Celebrate Recovery is a Christian recovery support program that hosts regular group meetings at local churches.

Shelby County Community Health Foundation was formed to manage the proceeds that the Shelby County Healthcare Authority received from the sale of Shelby Medical Center to the Baptist Health System. These funds are to be used for the benefit of the citizens of Shelby County by providing support for organizations and programs that enhance the health and wellness of the community. The foundation currently funds programs that emphasize preventative health care, provide education, and prevent substance abuse.

Compact 2020 is a multi-sector community initiative that seeks to identify students at risk of substance abuse and provide supportive information and resources to parents of children at risk. The initiative has brought together law enforcement, education, local government, and healthcare providers to address substance abuse challenges in the community.

Bradford Health Services delivers services to adults, adolescents, and families impacted by chemical dependency. Licensed therapists provide intensive outpatient programs, continuing care, adult outpatient detox, therapy, and a family support group. The organization's regional office is located in South Birmingham.

Resources – Socioeconomic Status

Shelby Baptist Association Ministry Center has a variety of ministries that provide food assistance, clothing, medical care, and disaster relief to individuals in need.

Shelby Emergency Assistance helps individuals in crisis by meeting basic needs and empowering them to achieve self-sufficiency. Licensed social workers complete assessments, develop service plans, and provide assistance to stabilize individuals and families. The organization also provides education and assistance completing applications.

Shelby County's Community Services Department assists individuals in securing rental housing, utility assistance, and temporary shelter.

Family Connection provides temporary shelter and counseling services as well as outreach counseling services for at-risk youth and families.

Middle Alabama Area Agency on Aging (M4A) is an Aging & Disability Resource Center that provides insurance counseling, legal services, meal delivery, prescription assistance, and a paid training program for seniors to secure employment.

Salvation Army provides emergency housing, disaster services, assistance with paying bills, career development, education, and an alcohol and drug rehabilitation program. The regional office is located in Birmingham.

Resources – Mental Health

Shelby Baptist Medical Center provides assessment and treatment plans for seniors aged 60 and older suffering from mental health issues. Patients and their family members participate in assessments to determine whether the patient would benefit from either inpatient or outpatient therapies. Some of the therapies provided include Individual Psychotherapy, Group Psychotherapy, and Art therapy. If inpatient treatment is provided, the hospital also works in conjunction with the patient's family to establish a plan of care after discharge.

The Mental Health Board of Chilton and Shelby Counties, Inc. is a non-profit providing mental health and substance abuse treatment services. The board governs the **Chilton-Shelby Mental Health Center**, a non-profit organization and a member of the Alabama Council for Community Mental Health Boards. The center provides an array of services for individuals dealing with mental illness, intellectual disabilities, and/or substance use disorders and hosts a 24-hour crisis line (205-663-1252) that allows an individual or their loved ones to speak with a therapist.

The Crisis Center is a non-profit organization located in Birmingham with an additional location in Bessemer. The center provides crisis intervention and prevention, sexual assault services, and mental health services. At the Piper Place location, the center offers a rehabilitative day program. The organization also provides education, consultation, information and referral, and prevention services to the communities in Jefferson, Blount, St. Clair, Walker, and Shelby counties.

NAMI Shelby seeks to provide support, education, and advocacy for persons with mental illness, their families, and others whose lives are affected by brain disorders. NAMI hosts local family support groups and a Connections Support Group for individuals living with mental illness.

Stepping Up is a national initiative endorsed by Shelby County law enforcement and the county government to reduce the number of individuals with mental illness in the jail system. The county has passed a resolution as part of this effort.

Wings Across Alabama has a peer support talk line for individuals experiencing mental health issues. The line is available from noon to midnight during weekdays at 1-800-639-3000.

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Appendix A

Carnahan Group Qualifications

Carnahan Group is an independent healthcare technology and consulting firm that focuses on providing innovative and cost-effective compliance solutions to healthcare systems and organizations throughout the nation. Since 2002, Carnahan Group has been trusted by healthcare organizations throughout the nation as an industry leader in providing Fair Market Valuations, Medical Staff Demand Analyses, Community Health Needs Assessments, and Strategic Planning. Our executive team has risen through the ranks of some of the world's largest healthcare systems and has firsthand knowledge of working within a hospital system undergoing federal scrutiny and under OIG Corporate Integrity Agreements. We have not spent our lives as consultants and are therefore acutely aware of the sensitivity surrounding the timeliness, the objectivity, and the correctness of strategic reports. Carnahan Group is dedicated to providing unsurpassed customer service and quality to our clients.

Appendix B

Community Leader Interview Organizations

Organization	Title	Organization Type or Population Represented
City of Alabaster	Mayor	Local government
Alabama House of Representatives	State Representative	Local government
Chilton Shelby Mental Health Center	Clinical Director / Assistant Director	Clinical provider, underserved, low-income, minority, and/or chronic disease populations
N/A	District Court Judge Candidate	Community member
Shelby Baptist Association	Staff Member	Non-profit, underserved, low-income, minority, and/or chronic disease populations
Alabaster Fire Department	Fire Officer	Emergency response
Pelham Police Department	Officer	Emergency response
Alabaster City Schools	Superintendent	Academic institution
City of Hoover	Mayor	Local government
Shelby County Chamber of Commerce	President & CEO	Local government
Alabama Department of Public Health	Assistant Area Five Administrator	Public health expert

Appendix C

Community Health Survey

1. Are you 18 years of age or older? Yes No
2. Which type of health insurance do you have?
 - Medicare
 - Medicaid
 - Private insurance (ex. through your job)
 - I do not have health insurance
 - I don't know
3. Do you have a smart phone?
 - Yes No
4. How would you rate your health in general (most days)?
 - Very good Good Fair Poor I don't know
5. Thinking about your community, how would you rate the overall health of community members?
 - Very good Good Fair Poor I don't know
6. Over the last 3 months (90 days), how many days have you missed work or other activities (ex. church, school) because you were sick or not feeling well?
 - None
 - 1-5 days
 - 6-10 days
 - 11-15 days
 - 16-20 days
 - More than 30 days
7. When you are sick or need health care, are you able to visit the doctor?
 - Always Sometimes Rarely Never
8. Is there anything that makes it hard for you to see a doctor when you are sick?
(Choose all that apply)
 - It is too expensive
 - I don't think I need to see a doctor
 - I don't have health insurance
 - I am not ready to talk about my health problem(s)
 - I do not have transportation
 - The doctor is too far away
 - My culture or religious beliefs
 - I can't find a doctor who accepts my insurance
 - I can't get time off from work
 - Other _____
9. When was your last physical exam (checkup, well visit) with a doctor?
 - In the past year
 - Less than 2 years ago
 - Between 2-5 years ago
 - More than 5 years ago
 - I have never had a checkup or physical exam visit with my doctor

Community Health Survey (continued)

10. Have you had any of the following health services in the past year?

(Choose all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Heart screening | <input type="checkbox"/> Mammogram (breast cancer screening – for females) |
| <input type="checkbox"/> Dental appointment | <input type="checkbox"/> Pap smear (cervical cancer screening – for females) |
| <input type="checkbox"/> Blood work | <input type="checkbox"/> Colon/rectal exam |
| <input type="checkbox"/> Skin cancer screening | <input type="checkbox"/> Prostate exam (for males) |
| <input type="checkbox"/> Blood sugar check | |
| <input type="checkbox"/> Blood pressure check | |

11. Which of the following do you consider serious health problems in your community?

(Choose three)

- | | |
|---|---|
| <input type="checkbox"/> Alzheimer's Disease | <input type="checkbox"/> Motor vehicle injuries |
| <input type="checkbox"/> Cancer | <input type="checkbox"/> High blood pressure |
| <input type="checkbox"/> Tooth problems (dental health) | <input type="checkbox"/> Prenatal and infant health (ex. babies born underweight) |
| <input type="checkbox"/> Obesity | <input type="checkbox"/> Breathing problems (ex. asthma, COPD) |
| <input type="checkbox"/> Heart disease and stroke | <input type="checkbox"/> Sexually transmitted diseases |
| <input type="checkbox"/> Suicide | <input type="checkbox"/> Violence |
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> Child abuse or neglect |
| <input type="checkbox"/> Injuries | <input type="checkbox"/> Substance abuse/addiction |
| <input type="checkbox"/> Infectious diseases (ex. flu virus, hepatitis, tuberculosis) | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Mental health issues (ex. depression) | |

12. Which of the following do you consider serious social problems in your community?

(Choose three)

- | | |
|--|--|
| <input type="checkbox"/> Poverty (low income) | <input type="checkbox"/> Crime |
| <input type="checkbox"/> Not enough jobs in the area | <input type="checkbox"/> Not enough healthy food |
| <input type="checkbox"/> Overcrowded housing | <input type="checkbox"/> Not enough childcare options |
| <input type="checkbox"/> Homelessness | <input type="checkbox"/> Public transportation |
| <input type="checkbox"/> Not enough education (ex. high school dropouts) | <input type="checkbox"/> Not enough free or affordable health screenings (ex. tests for cancer or infectious diseases) |
| <input type="checkbox"/> Racism and discrimination | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> No health insurance | |
| <input type="checkbox"/> Not enough interesting activities for youth | |

13. Which of the following do you consider important parts of healthy, thriving community?

(Choose all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Safe worksites | <input type="checkbox"/> Good healthcare |
| <input type="checkbox"/> Affordable housing | <input type="checkbox"/> Childcare |
| <input type="checkbox"/> Good schools | <input type="checkbox"/> Faith-based organizations (ex. churches) |
| <input type="checkbox"/> Access to healthy foods | <input type="checkbox"/> Services for the elderly |
| <input type="checkbox"/> Diversity | <input type="checkbox"/> Support organizations (ex. nonprofits) |
| <input type="checkbox"/> Parks and recreation | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Sanitation and public works | |
| <input type="checkbox"/> Good jobs | |
| <input type="checkbox"/> Low crime and violence | |

Community Health Survey (continued)

1. Your Home ZIP Code _____
2. Age:
 - Under 18 18-44 45-64 65+
3. Gender:
 - Male Female
4. Race/Ethnicity (Choose all that apply)
 - White
 - Black/African American
 - Hispanic
 - Asian/Pacific Islander
 - American Indian & Alaska Native
 - Other
5. Household income last year:
 - Under \$15,000
 - \$15,000 to \$24,999
 - \$25,000 to \$34,999
 - \$35,000 to \$49,999
 - \$50,000 to \$74,999
 - \$75,000 to \$99,999
 - \$100,000 to \$149,999
 - \$150,000 to \$199,999
 - \$200,000 and above
 - I don't know
6. Which of the following best describes your employment status?
 - Employed full-time
 - Employed part-time
 - Full-time student
 - Retired
 - Unemployed
 - Homemaker
 - Other _____
7. Where do you go for information about health and wellness? Check all that apply
 - Doctors, nurses, and pharmacists in my community
 - Family and friends
 - Newspapers or magazines
 - Television or radio
 - Books
 - Social media (Facebook, Twitter, Instagram)
 - Internet (websites)
 - Hospital
 - Church
 - School or college
 - Health fairs
 - The health department
 - Your place of work
 - Other _____

Company Overview

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*Thank you for the opportunity to serve Brookwood Baptist Health and Shelby Baptist Medical Center.
We are committed to being your innovative strategic partner.*



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