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**Hibbs Institute Health Index:
Examining Health
Conditions in the Region
(An Update)**



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Hibbs Institute Health Index: Examining Health Conditions in the Region

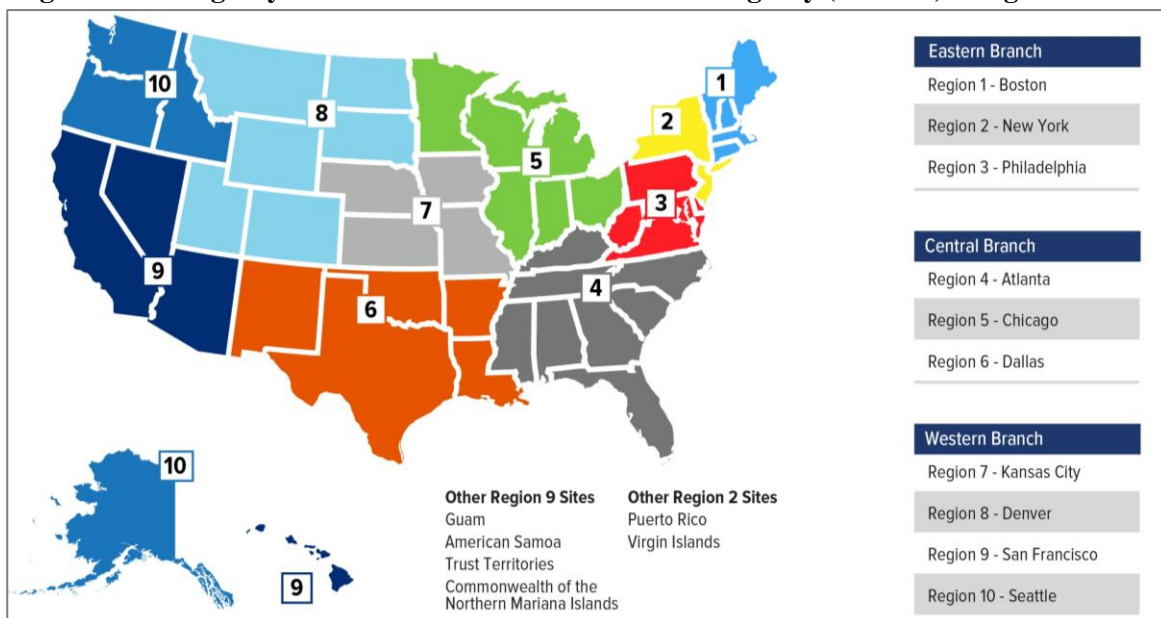
Introduction

The *Hibbs Institute for Business and Economic Research*, a unit of the Soules College of Business at the University of Texas at Tyler, has developed the *Hibbs Institute Health Index (HIHI)*. The HIHI is a tool that allows comparisons among regions, such as cities, counties, or Metropolitan Statistical Areas (MSAs)¹ via the examination of local health conditions and their health status performance. The HIHI combines various measures within five health categories to produce a weighted index. These health categories are:

- Health Outcomes
- Health Behavior
- Clinical Care
- Social and Economic Factors
- Physical Environment

The Agency for Toxic Substances and Disease Registry (ATSDR) identifies 10 Regional Offices across the country (**Figure 1**). Region 6 includes Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. This technical report describes the development of the HIHI and then presents a comparison of health conditions in 38 selected MSAs within Region 6 – Central Branch of Dallas.

Figure 1. The Agency for Toxic Substances and Disease Registry (ATSDR) - Regional Offices



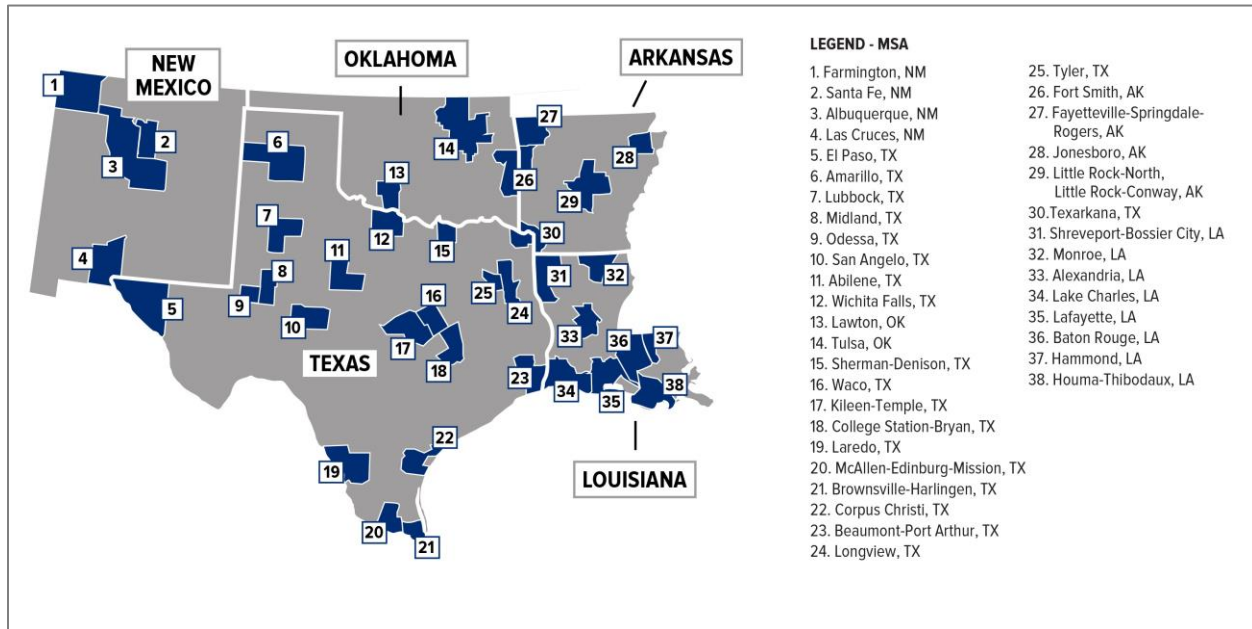
Source: Agency for Toxic Substances and Disease Registry.

¹ The Office of Management and Budget (OMB) describes a Metropolitan Statistical Area (MSA) as an area containing a large population nucleus and adjacent communities with a high degree of integration with that nucleus and an urbanized area of 50,000 or more inhabitants. <https://www.census.gov/programs-surveys/metro-micro/about.html>

Selected Metropolitan Statistical Areas

The 38 MSAs in Region 6 examined in this report were selected based on their estimated populations. To enable a better and more equitable comparison, the *Hibbs Institute* included only the MSAs with populations between 100,000 and one million inhabitants in the analysis. The 38 selected MSAs are depicted in **Figure 2**.

Figure 2. Selected Metropolitan Statistical Areas (MSAs)



Source: Hibbs Institute for Business and Economic Research.

Due to data limitations on health conditions at the MSA level, this analysis employs county level data to approximate MSA figures when necessary. The general assumption is that health conditions of an MSA with a population between 100,000 and one million can be inferred by the health conditions of the *primary county*² at each MSA. For instance, Bernalillo, NM, is considered the primary county in the Albuquerque, MSA in this study. Thus, Bernalillo's figures are used to approximate Albuquerque's indicators when they are not available. **Table 1** depicts the 2021 estimated population³ for the 38 selected MSAs with their corresponding primary counties.

² The primary county in this report is defined as the county with the main population nucleus.

³ Source: 2021 Population Estimates; American Community Survey 1-year estimates, U.S. Census Bureau.

Table 1: Population of Selected Metropolitan Statistical Areas with their Primary Counties (2021)

	Primary County	Metropolitan Statistical Area	MSA Population (2021)
1	Tulsa County, OK	Tulsa, OK	1,024,191
2	Bernalillo County, NM	Albuquerque, NM	921,311
3	Hidalgo County, TX	McAllen-Edinburg-Mission, TX	880,356
4	East Baton Rouge Parish, LA	Baton Rouge, LA	871,905
5	El Paso County, TX	El Paso, TX	871,727
6	Pulaski County, AR	Little Rock-North Little Rock-Conway, AR	749,673
7	Benton County, AR	Fayetteville-Springdale-Rogers, AR-MO	558,507
8	Bell County, TX	Killeen-Temple, TX	486,416
9	Lafayette Parish, LA	Lafayette, LA	479,212
10	Cameron County, TX	Brownsville-Harlingen, TX	423,029
11	Nueces County, TX	Corpus Christi, TX	422,778
12	Jefferson County, TX	Beaumont-Port Arthur, TX	395,419
13	Caddo Parish, LA	Shreveport-Bossier City, LA	389,155
14	Lubbock County, TX	Lubbock, TX	326,546
15	Gregg County, TX	Longview, TX	287,868
16	McLennan County, TX	Waco, TX	280,485
17	Brazos County, TX	College Station-Bryan, TX	271,026
18	Potter County, TX	Amarillo, TX	270,119
19	Webb county, TX	Laredo, TX	267,945
20	Sebastian County, AR	Fort Smith, AR-OK	247,661
21	Smith County, TX	Tyler, TX	237,186
22	Dona Ana County, NM	Las Cruces, NM	221,508
23	Calcasieu Parish, LA	Lake Charles, LA	208,680
24	Terrebonne Parish, LA	Houma-Thibodaux, LA	206,212
25	Ouachita Parish, LA	Monroe, LA	204,884
26	Taylor County, TX	Abilene, TX	178,608
27	Midland County, TX	Midland, TX	172,231
28	Ector County, TX	Odessa, TX	161,091
29	Santa Fe County, NM	Santa Fe, NM	155,201
30	Rapides Parish, LA	Alexandria, LA	150,890
31	Wichita County, TX	Wichita Falls, TX	149,013
32	Bowie County, TX	Texarkana, TX-AR	146,424
33	Grayson County, TX	Sherman-Denison, TX	139,336
34	Tangipahoa Parish, LA	Hammond, LA	135,217
35	Craighead County, AR	Jonesboro, AR	134,878
36	Comanche County, OK	Lawton, OK	127,078
37	Tom Green County, TX	San Angelo, TX	122,066
38	San Juan County, NM	Farmington, NM	120,993

Source: 2021 Population Estimates; American Community Survey 1-year estimates, U.S. Census Bureau.

Note: Population estimates for year 2021 were recently released by the U.S. Census Bureau. All tables and calculations were updated with 2021 figures; however, it was decided to keep the Tulsa MSA in the study with a population that exceeds one million inhabitants in the 2021 population estimates.

Methodology

Health measures serve as an effective means to examine health conditions and health status performance at a local level (38 MSAs are examined in this report). These measures are used by recognized health organizations and institutions, such as the County Health Rankings unit of the University of Wisconsin (CHR), the National Center for Health Statistics (NCHS), and many others. This report utilizes definitions provided by the CHR, and data gathered from the CHR and the U.S. Census Bureau. Health measures are classified in this report in five categories and are described in **Table 2**.

Table 2: Health Categories and Selected Health Measures by Category

Health Category	Health Measure	Description
Health Outcomes	<i>Premature Death Rate</i>	Includes all deaths among people under age 75 (age-adjusted rates).
	<i>Life Expectancy</i>	Average number of years a person can expect to live at birth.
Health Factors		
Health Behavior	<i>Adult Obesity</i>	Percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m ² .
	<i>Adult Smoking</i>	Percentage of adults who are current smokers.
	<i>Teen Births</i>	Number of teen births per 1,000 females ages 15-19.
Clinical Care	<i>Uninsured Individuals</i>	Percentage of population under age 65 without health insurance.
	<i>Primary Care Physicians</i>	Number of primary care physicians per 100,000 inhabitants.
	<i>Registered Nurses</i>	Number of registered nurses per 100,000 inhabitants.
Socio-Economic	<i>Educational Attainment</i>	Percentage of a population who are 25 years and over, and have completed highschool or higher.
	<i>Income Inequality</i>	Gini Coefficient: Ratio of household income at the 80th percentile to income at the 20th percentile.
	<i>Median Household Income</i>	Median household income is the amount that divides the household income distribution into two equal groups, half having household income above that amount, and half having household income below that amount.
Physical Environment	<i>Air Pollution</i>	Average number of daily micrograms per cubic meter of fine particulate matter in the air (PM 2.5).

Source: The Hibbs Institute using County Health Rankings definitions, measures, and categories.

These health measures classified into five health categories are the framework to produce a twelve-component weighed index: the ***Hibbs Institute Health Index (HIHI)***. Each component (health measure) has a determined weight represented by a percentage. The sum of the weights of all the health measures totals 100.

Given their relevance, the two health outcome measures have a larger portion of the weight in the index (50%), while the ten health factor measures were assigned with the other 50% of the weight, at 5% each.

- Health Outcome Measures – 50%
 - Premature Death Rate (25%)
 - Life Expectancy (25%)
- Health Factor Measures – 50%
 - Adult Obesity (5%)
 - Adult Smoking (5%)
 - Teen Births (5%)
 - Uninsured Individuals (5%)
 - Primary Care Physicians (5%)
 - Registered Nurses (5%)
 - Educational Attainment (5%)
 - Income Inequality (5%)
 - Median Household Income (5%)
 - Air Pollution (5%)

The values of each health measure for the 38 MSAs are converted into a normalized number between zero and 100, using their lowest and highest value, respectively. The resulting number represents the MSA score for each health measure. Once all health measure scores are calculated they are multiplied by their corresponding weight, which represents the HIHI score for each MSA. A high HIHI score (e.g. an index score of 96) implies a highly evaluated MSA, regarding its health conditions.

A more detailed description of each health category, health measures, and ranking by MSA are included in the following section.

Health Categories and Health Measures

Health Outcomes

Health outcome measures illustrate how long people live and how healthy they feel while alive. In addition to duration of life, these measures provide a reference of the quality of life. Therefore, we can further get a glimpse of whether health enhancement programs are optimum in a region. This report examines two health outcome measures *Premature Death Rates* and *Life Expectancy* for the selected MSAs.

Premature Death Rate

The Premature Death Rate measures the years of potential life lost before 75 years old (age-adjusted) per 100,000 people in the population.⁴ The Premature Death Rate help us compare data across regions with different population sizes in the same period (typically three years). The lower the number of premature deaths, the higher the Premature Death Index. Premature Death Rates and the Premature Death Index, as well as its ranking for the selected MSAs are depicted in **Table 3**.

Table 3: Premature Death Rates and Premature Death Index with Ranking (Selected MSAs)

Metropolitan Statistical Area	Premature Death Rates	Premature Death Index	Ranking
College Station-Bryan, TX	5,400	100.0	1
Fayetteville-Springdale-Rogers, AR-MO	6,200	90.0	2
Laredo, TX	6,800	82.5	3
McAllen-Edinburg-Mission, TX	6,800	82.5	4
El Paso, TX	7,200	77.5	5
Brownsville-Harlingen, TX	7,400	75.0	6
Las Cruces, NM	7,700	71.3	7
Midland, TX	7,700	71.3	8
Santa Fe, NM	7,700	71.3	9
Tyler, TX	7,900	68.8	10
Killeen-Temple, TX	8,000	67.5	11
Lafayette, LA	8,000	67.5	12
Waco, TX	8,000	67.5	13
San Angelo, TX	8,200	65.0	14
Corpus Christi, TX	8,700	58.8	15
Tulsa, OK	8,700	58.8	16
Sherman-Denison, TX	8,900	56.3	17
Jonesboro, AR	9,000	55.0	18
Albuquerque, NM	9,300	51.3	19
Lubbock, TX	9,400	50.0	20
Wichita Falls, TX	9,400	50.0	21
Lawton, OK	9,600	47.5	22
Abilene, TX	9,700	46.3	23
Fort Smith, AR-OK	9,800	45.0	24
Beaumont-Port Arthur, TX	9,900	43.8	25
Houma-Thibodaux, LA	10,100	41.3	26
Longview, TX	10,100	41.3	27
Texarkana, TX-AR	10,200	40.0	28
Little Rock-North Little Rock-Conway, AR	10,300	38.8	29
Odessa, TX	10,500	36.3	30
Lake Charles, LA	10,600	35.0	31
Hammond, LA	10,700	33.8	32
Baton Rouge, LA	10,900	31.3	33
Monroe, LA	11,400	25.0	34
Amarillo, TX	11,600	22.5	35
Alexandria, LA	12,100	16.3	36
Shreveport-Bossier City, LA	12,100	16.3	37
Farmington, NM	13,400	0.0	38

Note: The 2022 County Health Rankings used data from 2018-2020.

Source: Premature Death Rates by County Health Rankings; Premature Death Index/ranking developed by the Hibbs Institute.

⁴ County Health Rankings; www.countyhealthrankings.org

Life Expectancy

Life Expectancy is the average number of years from birth a person can expect to live given the current age-specific death rates of the population at a given location. This measure considers the number of deaths and the average number of people at risk of dying during the same period.⁵ The higher the number of years expected, the higher the Life Expectancy Index. Life Expectancy and its Index, as well as its ranking for the selected MSAs are shown in **Table 4**.

Table 4: Life Expectancy in Years and Life Expectancy Index with Ranking (Selected MSAs)

Metropolitan Statistical Area	Life Expectancy (Years)	Life Expectancy Index	Ranking
Santa Fe, NM	81.0	100.0	1
College Station-Bryan, TX	80.0	88.6	2
McAllen-Edinburg-Mission, TX	79.5	83.1	3
Fayetteville-Springdale-Rogers, AR-MO	79.5	82.3	4
Brownsville-Harlingen, TX	78.8	74.8	5
Las Cruces, NM	78.6	72.4	6
Laredo, TX	78.5	71.3	7
El Paso, TX	78.1	66.2	8
Midland, TX	77.9	64.0	9
Lafayette, LA	77.8	62.6	10
Killeen-Temple, TX	77.5	58.7	11
Albuquerque, NM	77.4	58.0	12
Corpus Christi, TX	77.4	57.7	13
Tyler, TX	77.4	57.6	14
Waco, TX	77.1	54.2	15
San Angelo, TX	76.8	50.7	16
Tulsa, OK	76.3	45.7	17
Jonesboro, AR	76.1	42.8	18
Sherman-Denison, TX	75.8	39.0	19
Little Rock-North Little Rock-Conway, AR	75.6	36.5	20
Fort Smith, AR-OK	75.6	36.4	21
Lawton, OK	75.5	35.4	22
Beaumont-Port Arthur, TX	75.4	34.6	23
Wichita Falls, TX	75.2	32.2	24
Lubbock, TX	75.1	31.4	25
Houma-Thibodaux, LA	75.1	31.3	26
Baton Rouge, LA	75.1	30.8	27
Abilene, TX	74.9	28.8	28
Longview, TX	74.6	25.8	29
Hammond, LA	74.6	25.6	30
Texarkana, TX-AR	74.5	24.5	31
Lake Charles, LA	74.4	22.6	32
Farmington, NM	74.0	18.6	33
Odessa, TX	73.8	15.9	34
Monroe, LA	73.6	13.5	35
Shreveport-Bossier City, LA	73.6	13.4	36
Alexandria, LA	73.2	8.7	37
Amarillo, TX	72.5	0.0	38

Note: The 2022 County Health Rankings used data from 2018-2022.

Source: Life Expectancy by County Health Rankings; Life Expectancy Index with ranking developed by the Hibbs Institute.

⁵ County Health Rankings; www.countyhealthrankings.org

Health Factors

Health factors are standards that a community can change to enhance the duration and quality of life for its residents. They could be anything that influences the community's overall health conditions. Also, they are predictors of how healthy the communities may be in the future. Health factors can be further classified as *Health Behavior*, *Clinical Care*, *Socio-Economic*, or *Physical Environment*.

Health Behavior

Health behavior are the activities done by individuals that may influence (positively or negatively) their health. Some examples of health behavior are diet, smoking, alcohol-drinking habits, exercising, sexual conducts, etc. This report examines three health behavior measures, *Adult Obesity*, *Adult Smoking*, and *Teen Births* for the selected MSAs.

Adult Obesity

Adult Obesity is used as a proxy metric for limited physical activity and poor diet and has proved to be highly reliable. Adult Obesity is measured as a percentage of the population age 18 and older with a body mass index (BMI) greater than or equal to 30 kg/m². Obesity raises the risk for health conditions, such as type 2 diabetes, cancer, coronary heart disease, sleep apnea and respiratory problems, osteoarthritis, stroke, hypertension, and poor health status.⁶ The lower the percentage of obese adults, the higher the Obesity Index. Adult Obesity and the Obesity Index, as well as its ranking for the selected MSAs are depicted in **Table 5**.

Adult Smoking

Adult Smoking is the percentage of the population age 18 and older in a region who report: a) they currently smoke every day or most days and b) they have smoked at least 100 cigarettes in their lifetime. Each year approximately 480,000 premature deaths can be attributed to smoking. Cigarette smoking is identified as one of the main causes of respiratory conditions and diseases, cancer, cardiovascular disease, and other several adverse health outcomes.⁶ The lower the percentage of smoking adults, the higher the Smoking Index. Adult Smoking and the Smoking Index, as well as its ranking for the selected MSAs are shown in **Table 6**.

Teen Births

Teen Births is measured as the number of births per 1,000 females between the ages 15 and 19 years old. Adverse health outcomes for the mother and children have been associated with early childbearing, particularly during teenage years. These negative outcomes can extend to partners, other family members, and the community.⁶ The lower the rate of the Teen Births, the higher the Teen Birth Index. The Teen Births rate and the Teen Birth Index, as well as its ranking for the selected MSAs are shown in **Table 7**.

⁶ County Health Rankings; www.countyhealthrankings.org

Table 5: Adult Obesity in Percentages and Obesity Index with Ranking (Selected MSAs)

Metropolitan Statistical Area	Adult Obesity (%)	Obesity Index	Ranking
Santa Fe, NM	25%	100.0	1
Albuquerque, NM	29%	82.6	2
Fayetteville-Springdale-Rogers, AR-MO	30%	78.3	3
Fort Smith, AR-OK	33%	65.2	4
Midland, TX	33%	65.2	5
College Station-Bryan, TX	34%	60.9	6
El Paso, TX	34%	60.9	7
Las Cruces, NM	35%	56.5	8
Little Rock-North Little Rock-Conway, AR	35%	56.5	9
Tulsa, OK	35%	56.5	10
Baton Rouge, LA	36%	52.2	11
Farmington, NM	36%	52.2	12
Lubbock, TX	36%	52.2	13
Sherman-Denison, TX	36%	52.2	14
Abilene, TX	37%	47.8	15
Lafayette, LA	37%	47.8	16
Monroe, LA	37%	47.8	17
San Angelo, TX	37%	47.8	18
Texarkana, TX-AR	37%	47.8	19
Hammond, LA	38%	43.5	20
Lake Charles, LA	38%	43.5	21
Odessa, TX	38%	43.5	22
Tyler, TX	38%	43.5	23
Wichita Falls, TX	38%	43.5	24
Amarillo, TX	39%	39.1	25
Killeen-Temple, TX	39%	39.1	26
Longview, TX	39%	39.1	27
Waco, TX	39%	39.1	28
Alexandria, LA	40%	34.8	29
Houma-Thibodaux, LA	40%	34.8	30
Jonesboro, AR	40%	34.8	31
Shreveport-Bossier City, LA	40%	34.8	32
Beaumont-Port Arthur, TX	41%	30.4	33
Corpus Christi, TX	41%	30.4	34
Brownsville-Harlingen, TX	42%	26.1	35
Laredo, TX	42%	26.1	36
Lawton, OK	42%	26.1	37
McAllen-Edinburg-Mission, TX	48%	0.0	38

Note: The 2022 County Health Rankings used data from 2019.

Source: Adult Obesity by County Health Rankings; Obesity Index with ranking developed by the Hibbs Institute.

Table 6: Adult Smoking in Percentages and Smoking Index with Ranking (Selected MSAs)

Metropolitan Statistical Area	Adult Smoking (%)	Smoking Index	Ranking
Santa Fe, NM	12%	100.0	1
El Paso, TX	14%	86.4	2
Midland, TX	14%	82.4	3
Albuquerque, NM	15%	76.8	4
Las Cruces, NM	15%	72.0	5
McAllen-Edinburg-Mission, TX	16%	70.4	6
Lubbock, TX	16%	68.8	7
Killeen-Temple, TX	16%	67.2	8
Odessa, TX	16%	66.4	9
Brownsville-Harlingen, TX	16%	65.6	10
College Station-Bryan, TX	16%	64.8	11
San Angelo, TX	16%	64.8	12
Fayetteville-Springdale-Rogers, AR-MO	16%	64.0	13
Abilene, TX	17%	61.6	14
Laredo, TX	17%	60.8	15
Corpus Christi, TX	17%	60.0	16
Tulsa, OK	17%	56.0	17
Tyler, TX	17%	56.0	18
Waco, TX	19%	47.2	19
Baton Rouge, LA	19%	43.2	20
Beaumont-Port Arthur, TX	19%	43.2	21
Sherman-Denison, TX	19%	43.2	22
Wichita Falls, TX	19%	43.2	23
Lawton, OK	20%	39.2	24
Longview, TX	20%	39.2	25
Little Rock-North Little Rock-Conway, AR	20%	38.4	26
Fort Smith, AR-OK	20%	36.8	27
Amarillo, TX	20%	33.6	28
Lafayette, LA	20%	32.0	29
Texarkana, TX-AR	21%	29.6	30
Jonesboro, AR	22%	22.4	31
Alexandria, LA	22%	17.6	32
Farmington, NM	22%	16.8	33
Lake Charles, LA	22%	16.8	34
Shreveport-Bossier City, LA	23%	13.6	35
Hammond, LA	23%	12.0	36
Monroe, LA	23%	8.8	37
Houma-Thibodaux, LA	24%	0.0	38

Note: The 2022 County Health Rankings used data from 2019.

Source: Adult Smoking by County Health Rankings; Smoking Index with ranking developed by the Hibbs Institute.

Table 7: Teen Births per 1,000 female age 15-19 and Teen Births Index with Ranking (Selected MSAs)

Metropolitan Statistical Area	Teen Births (per 1,000)	Teen Births Index	Ranking
College Station-Bryan, TX	16	100.0	1
Santa Fe, NM	20	90.5	2
Albuquerque, NM	21	88.1	3
Baton Rouge, LA	25	78.6	4
Fayetteville-Springdale-Rogers, AR-MO	25	78.6	5
Tulsa, OK	29	69.0	6
Tyler, TX	29	69.0	7
Waco, TX	29	69.0	8
Las Cruces, NM	30	66.7	9
Lubbock, TX	30	66.7	10
Jonesboro, AR	31	64.3	11
Little Rock-North Little Rock-Conway, AR	31	64.3	12
San Angelo, TX	31	64.3	13
Abilene, TX	33	59.5	14
Corpus Christi, TX	33	59.5	15
Farmington, NM	34	57.1	16
Hammond, LA	34	57.1	17
Houma-Thibodaux, LA	34	57.1	18
Killeen-Temple, TX	34	57.1	19
Monroe, LA	34	57.1	20
Sherman-Denison, TX	34	57.1	21
Fort Smith, AR-OK	36	52.4	22
Lawton, OK	36	52.4	23
Wichita Falls, TX	36	52.4	24
Alexandria, LA	37	50.0	25
El Paso, TX	37	50.0	26
Shreveport-Bossier City, LA	37	50.0	27
Beaumont-Port Arthur, TX	38	47.6	28
Lake Charles, LA	39	45.2	29
Longview, TX	42	38.1	30
Midland, TX	42	38.1	31
Texarkana, TX-AR	43	35.7	32
Brownsville-Harlingen, TX	44	33.3	33
McAllen-Edinburg-Mission, TX	44	33.3	34
Amarillo, TX	51	16.7	35
Laredo, TX	52	14.3	36
Odessa, TX	54	9.5	37
Lafayette, LA	58	0.0	38

Note: The 2022 County Health Rankings used data from 2014 to 2020.

Source: Teen Births by County Health Rankings; Teen Births Index with ranking developed by the Hibbs Institute.

Clinical Care

Clinical care refers to all aspects related to hospital operations. Access to clinical care may contribute to avoiding diseases, identify health problems, and solve health issues timely, allowing people to live better and healthier lives.⁷ This report examines three clinical care measures, *Uninsured Individuals*, *Primary Care Physicians*, and *Registered Nurses* for the selected MSAs.

Uninsured Individuals

Uninsured individuals measure the percentage of the civilian non-institutionalized population who does not have health insurance coverage. A person is uninsured if he or she is currently not covered by insurance through a current/former employer or union, purchased from an insurance company, Medicare, Medicaid, Medical Assistance, any kind of government-assistance plan, or any other health insurance plan. The lower the percentage of uninsured individuals, the higher the Uninsured Index. Uninsured Individuals and the Uninsured Index, as well as its ranking for the selected MSAs are shown in **Table 8**.

Primary Care Physicians

Primary Care Physicians per 100,000 population is a proxy for clinical care capacity that contrasts the total population at a locality and its potential access to medical attention. This measure is a rate calculated by adding the number of healthcare professionals who practice general medicine in each county contained in the MSA divided by its total population and multiplied by 100,000. The higher the rate of primary care physicians, the higher the Physicians Index. Primary Care Physicians and the Physicians Index, as well as its ranking for the selected MSAs are shown in **Table 9**.

Registered Nurses

Registered Nurses per 100,000 population is a proxy for clinical care capacity that contrasts the total population at a locality and its potential access to essential healthcare services. This measure is a rate calculated by adding the number of nurses who have completed all education and examination requirements, and have been licensed to practice nursing in each county contained in the MSA divided by its total population and multiplied by 100,000. The higher the rate of registered nurses, the higher the Nurses Index. Registered Nurses and the Nurses Index, as well as its ranking for the selected MSAs are shown in **Table 10**.

⁷ County Health Rankings; www.countyhealthrankings.org

Table 8: Percentage of Uninsured Individuals and Uninsured Index with Ranking (Selected MSAs)

Metropolitan Statistical Area	Uninsured Individuals (%)	Uninsured Index	Ranking
Houma-Thibodaux, LA	7.0%	100.0	1
Little Rock-North Little Rock-Conway, AR	7.7%	97.1	2
Lake Charles, LA	7.8%	96.6	3
Albuquerque, NM	8.0%	95.8	4
Baton Rouge, LA	8.1%	95.4	5
Lafayette, LA	8.1%	95.4	6
Shreveport-Bossier City, LA	8.1%	95.4	7
Monroe, LA	8.2%	95.0	8
Hammond, LA	8.5%	93.7	9
Jonesboro, AR	8.5%	93.7	10
Alexandria, LA	9.3%	90.3	11
Fayetteville-Springdale-Rogers, AR-MO	10.4%	85.7	12
Las Cruces, NM	10.6%	84.9	13
Santa Fe, NM	10.6%	84.9	14
Fort Smith, AR-OK	11.8%	79.8	15
Texarkana, TX-AR	12.4%	77.3	16
College Station-Bryan, TX	12.5%	76.9	17
Farmington, NM	13.1%	74.4	18
Lawton, OK	13.1%	74.4	19
San Angelo, TX	13.5%	72.7	20
Lubbock, TX	13.6%	72.3	21
Killeen-Temple, TX	13.7%	71.8	22
Tulsa, OK	13.7%	71.8	23
Waco, TX	14.1%	70.2	24
Amarillo, TX	14.9%	66.8	25
Wichita Falls, TX	15.0%	66.4	26
Abilene, TX	15.1%	66.0	27
Midland, TX	16.0%	62.2	28
Longview, TX	16.6%	59.7	29
Sherman-Denison, TX	16.8%	58.8	30
Tyler, TX	17.2%	57.1	31
Corpus Christi, TX	18.1%	53.4	32
Beaumont-Port Arthur, TX	19.4%	47.9	33
El Paso, TX	21.3%	39.9	34
Odessa, TX	21.6%	38.7	35
Brownsville-Harlingen, TX	28.5%	9.7	36
Laredo, TX	28.6%	9.2	37
McAllen-Edinburg-Mission, TX	30.8%	0.0	38

Source: Uninsured Individuals by 2021 American Community Survey 1-year estimates, U.S. Census Bureau; Uninsured Individuals Index with ranking developed by the Hibbs Institute.

Table 9: Primary Care Physicians per 100,000 and Physicians Index with Ranking (Selected MSAs)

Metropolitan Statistical Area	Primary Care Physicians (per 100,000)	Physicians Index	Ranking
Shreveport-Bossier City, LA	133.6	100.0	1
Santa Fe, NM	129.5	95.7	2
Lubbock, TX	119.7	85.5	3
Albuquerque, NM	118.3	84.0	4
Jonesboro, AR	117.1	82.8	5
Little Rock-North Little Rock-Conway, AR	115.1	80.6	6
Tyler, TX	112.1	77.5	7
Alexandria, LA	104.0	69.1	8
Fort Smith, AR-OK	98.9	63.7	9
Tulsa, OK	94.2	58.8	10
College Station-Bryan, TX	93.3	57.9	11
Corpus Christi, TX	89.6	54.0	12
Lake Charles, LA	89.6	53.9	13
Amarillo, TX	89.6	53.9	14
Odessa, TX	89.4	53.7	15
Lafayette, LA	88.7	53.0	16
Waco, TX	87.7	51.9	17
Killeen-Temple, TX	86.8	51.0	18
Monroe, LA	85.9	50.1	19
Lawton, OK	85.0	49.1	20
Wichita Falls, TX	84.6	48.7	21
Texarkana, TX-AR	83.3	47.4	22
San Angelo, TX	80.3	44.2	23
Fayetteville-Springdale-Rogers, AR-MO	79.7	43.5	24
Baton Rouge, LA	75.1	38.8	25
Las Cruces, NM	73.6	37.2	26
Farmington, NM	66.1	29.4	27
Abilene, TX	66.1	29.3	28
El Paso, TX	64.6	27.8	29
Brownsville-Harlingen, TX	61.5	24.5	30
Longview, TX	59.4	22.3	31
Houma-Thibodaux, LA	57.2	20.0	32
McAllen-Edinburg-Mission, TX	53.5	16.2	33
Sherman-Denison, TX	48.8	11.2	34
Beaumont-Port Arthur, TX	47.3	9.7	35
Midland, TX	44.1	6.3	36
Hammond, LA	43.6	5.8	37
Laredo, TX	38.1	0.0	38

Source: Primary Care Physicians by Health Resources & Services Administration; Physicians Index with ranking developed by the Hibbs Institute.

Table 10: Registered Nurses per 100,000 and Nurses Index with Ranking (Selected MSAs)

Metropolitan Statistical Area	Registered Nurses (per 100,000)	Nurses Index	Ranking
Jonesboro, AR	186.1	100.0	1
Alexandria, LA	158.4	80.0	2
Monroe, LA	153.3	76.3	3
Texarkana, TX-AR	150.9	74.6	4
Little Rock-North Little Rock-Conway, AR	149.9	73.9	5
Lubbock, TX	141.2	67.6	6
Tyler, TX	137.4	64.9	7
Lake Charles, LA	137.1	64.6	8
Hammond, LA	126.5	56.9	9
Amarillo, TX	121.8	53.6	10
Abilene, TX	115.3	48.9	11
Wichita Falls, TX	110.7	45.6	12
Lafayette, LA	107.1	42.9	13
Beaumont-Port Arthur, TX	106.5	42.5	14
Albuquerque, NM	105.7	42.0	15
Shreveport-Bossier City, LA	100.7	38.4	16
Corpus Christi, TX	99.3	37.4	17
Baton Rouge, LA	98.6	36.9	18
Las Cruces, NM	93.9	33.4	19
Killeen-Temple, TX	91.1	31.4	20
Sherman-Denison, TX	89.0	29.9	21
Santa Fe, NM	88.9	29.8	22
Fayetteville-Springdale-Rogers, AR-MO	88.5	29.5	23
San Angelo, TX	87.7	28.9	24
Houma-Thibodaux, LA	82.0	24.8	25
El Paso, TX	80.2	23.5	26
Longview, TX	78.9	22.6	27
Fort Smith, AR-OK	78.7	22.5	28
Odessa, TX	75.7	20.3	29
Tulsa, OK	75.5	20.1	30
Waco, TX	72.7	18.1	31
Midland, TX	72.0	17.6	32
Farmington, NM	69.4	15.8	33
Lawton, OK	60.6	9.4	34
McAllen-Edinburg-Mission, TX	59.3	8.4	35
Brownsville-Harlingen, TX	59.1	8.3	36
Laredo, TX	54.5	5.0	37
College Station-Bryan, TX	47.6	0.0	38

Source: Register Nurses by Health Resources & Services Administration;
Registered Nurses Index with ranking developed by the Hibbs Institute.

Socio-Economic

Socio-economic factors have a significant impact on how well and how long people live. Variables related to socio-economic status, such as income, schooling, employment, family conditions, or crime, are frequently used while examining the standard of living and the health conditions within a region.⁸ This report examines three socio-economic measures: *Educational Attainment*, *Income Inequality*, and *Median Household Income* for the selected MSAs.

Educational Attainment

Higher levels of education are typically associated with “healthy habits”. For instance, educated people are less likely to smoke, and more likely to exercise.⁸ This report employs the percentage of high school graduates or higher who are 25 years and over, which includes high school graduates and equivalency, some college, associate’s degree, bachelor’s degree, and graduate or professional degree. The higher the number of years of education attained, the higher the Educational Attainment Index. Educational Attainment and the Education Index, as well as its ranking for the selected MSAs are shown in **Table 11**.

Income Inequality

Income inequality can accentuate differences in social class and status. It also can cause negative health impacts, including an increased risk of mortality. Income inequality is frequently assessed using the Gini Coefficient. In essence, the Gini Coefficient measures the dispersion of income across the overall income distribution, the resulting ratio ranges between 0 and 1. While zero indicates perfect equality (everyone would receive an equal share), one implies perfect inequality (one recipient would receive all the income).⁹ The lower the coefficient, the higher the Inequality Index (the more equal the income distribution). The Gini Coefficient and the Inequality Index, as well as its ranking for the selected MSAs are shown in **Table 12**.

Median Household Income

Median Household Income is a statistical measure of income distribution that is often used as an indicator of poverty and income. It is frequently associated with physical and mental health issues.⁸ The indicator combines the income of the householder and all other individuals 15 years old and over in the household. The median is obtained by dividing the household income distribution into two identical parts.¹⁰ The higher the median household income, the higher the Income Index. Median Household Income and the Income Index, as well as its ranking for the selected MSAs are shown in **Table 13**.

⁸ County Health Rankings; www.countyhealthrankings.org

⁹ Gini Index, U.S. Census Bureau

<https://www.census.gov/topics/income-poverty/income-inequality/about/metrics/gini-index.html>

¹⁰ Median Household Income, U.S. Census Bureau

<https://www.census.gov/quickfacts/fact/note/US/INC110221>

Table 11: Educational Attainment in Percentages and Education Index with Ranking (Selected MSAs)

Metropolitan Statistical Area	Educational Attainment (%)	Education Index	Ranking
Little Rock-North Little Rock-Conway, AR	91.6%	100.0	1
Killeen-Temple, TX	90.8%	96.7	2
Lawton, OK	90.3%	94.7	3
Sherman-Denison, TX	90.3%	94.7	4
Santa Fe, NM	90.1%	93.8	5
Albuquerque, NM	90.0%	93.4	6
Tulsa, OK	90.0%	93.4	7
Texarkana, TX-AR	88.9%	88.9	8
Wichita Falls, TX	88.6%	87.7	9
Abilene, TX	88.2%	86.0	10
Fayetteville-Springdale-Rogers, AR-MO	88.2%	86.0	11
Jonesboro, AR	88.2%	86.0	12
Lake Charles, LA	88.1%	85.6	13
Baton Rouge, LA	88.0%	85.2	14
College Station-Bryan, TX	87.9%	84.8	15
Tyler, TX	87.6%	83.5	16
Lubbock, TX	87.5%	83.1	17
San Angelo, TX	87.5%	83.1	18
Shreveport-Bossier City, LA	87.5%	83.1	19
Monroe, LA	87.0%	81.1	20
Beaumont-Port Arthur, TX	86.3%	78.2	21
Amarillo, TX	86.2%	77.8	22
Alexandria, LA	86.1%	77.4	23
Longview, TX	86.1%	77.4	24
Lafayette, LA	86.0%	77.0	25
Farmington, NM	85.9%	77	26
Waco, TX	85.9%	76.5	27
Fort Smith, AR-OK	84.5%	70.8	28
Midland, TX	84.4%	70.4	29
Corpus Christi, TX	83.7%	67.5	30
Hammond, LA	82.4%	62.1	31
Houma-Thibodaux, LA	81.0%	56.4	32
Las Cruces, NM	80.7%	55.1	33
El Paso, TX	79.6%	50.6	34
Odessa, TX	76.3%	37.0	35
Brownsville-Harlingen, TX	69.5%	9.1	36
Laredo, TX	68.8%	6.2	37
McAllen-Edinburg-Mission, TX	67.3%	0.0	38

Source: Educational Attainment by 2021 American Community Survey 1-year estimates, U.S. Census Bureau; Education Index with ranking developed by the Hibbs Institute.

Table 12: Gini Coefficient and Inequality Index with Ranking (Selected MSAs)

Metropolitan Statistical Area	Gini Coefficient (0 to 1)	Inequality Index	Ranking
Abilene, TX	0.4262	100.0	1
Sherman-Denison, TX	0.4312	95.4	2
Killeen-Temple, TX	0.4416	85.8	3
Odessa, TX	0.4454	82.3	4
San Angelo, TX	0.4459	81.8	5
Fayetteville-Springdale-Rogers, AR-MO	0.4486	79.3	6
Tyler, TX	0.4550	73.4	7
Wichita Falls, TX	0.4553	73.1	8
Lawton, OK	0.4589	69.8	9
Beaumont-Port Arthur, TX	0.4647	64.5	10
Corpus Christi, TX	0.4677	61.7	11
Albuquerque, NM	0.4686	60.8	12
El Paso, TX	0.4687	60.8	13
McAllen-Edinburg-Mission, TX	0.4694	60.1	14
Amarillo, TX	0.4704	59.2	15
Tulsa, OK	0.4704	59.2	16
Midland, TX	0.4709	58.7	17
Houma-Thibodaux, LA	0.4710	58.6	18
Waco, TX	0.4712	58.4	19
Fort Smith, AR-OK	0.4753	54.7	20
Lake Charles, LA	0.4756	54.4	21
Lafayette, LA	0.4763	53.7	22
Brownsville-Harlingen, TX	0.4766	53.5	23
Longview, TX	0.4784	51.8	24
Laredo, TX	0.4785	51.7	25
Texarkana, TX-AR	0.4807	49.7	26
Lubbock, TX	0.4813	49.1	27
Alexandria, LA	0.4822	48.3	28
Little Rock-North Little Rock-Conway, AR	0.4838	46.8	29
Santa Fe, NM	0.4845	46.2	30
Hammond, LA	0.4855	45.2	31
Farmington, NM	0.4895	41.6	32
Baton Rouge, LA	0.4900	41.1	33
Shreveport-Bossier City, LA	0.4910	40.2	34
Las Cruces, NM	0.4922	39.1	35
Jonesboro, AR	0.4962	35.4	36
Monroe, LA	0.5114	21.3	37
College Station-Bryan, TX	0.5345	0.0	38

Source: Gini Coefficient by 2021 American Community Survey 1-year estimates, U.S. Census Bureau; Inequality Index with ranking developed by the Hibbs Institute.

Table 13: Median Household Income in U.S. Dollars and Income Index with Ranking (Selected MSAs)

Metropolitan Statistical Area	Median Household Income	Income Index	Ranking
Midland, TX	\$87,812	100.0	1
Fayetteville-Springdale-Rogers, AR-MO	\$66,565	52.5	2
Odessa, TX	\$64,975	49.0	3
Santa Fe, NM	\$64,423	47.7	4
Baton Rouge, LA	\$63,270	45.2	5
Tyler, TX	\$62,518	43.5	6
Sherman-Denison, TX	\$62,078	43	7
San Angelo, TX	\$61,456	41.1	8
Tulsa, OK	\$60,866	39.8	9
Lake Charles, LA	\$59,828	37.5	10
Corpus Christi, TX	\$59,483	36.7	11
Amarillo, TX	\$58,878	35.4	12
Little Rock-North Little Rock-Conway, AR	\$58,441	34.4	13
Killeen-Temple, TX	\$58,426	34.3	14
Albuquerque, NM	\$58,335	34.1	15
Houma-Thibodaux, LA	\$58,260	34.0	16
Beaumont-Port Arthur, TX	\$57,899	33.2	17
Abilene, TX	\$57,356	31.9	18
Longview, TX	\$57,111	31.4	19
Lubbock, TX	\$56,167	29.3	20
Lafayette, LA	\$55,539	27.9	21
Wichita Falls, TX	\$55,051	26.8	22
Laredo, TX	\$54,618	25.8	23
Lawton, OK	\$54,494	25.6	24
College Station-Bryan, TX	\$53,541	23.4	25
Waco, TX	\$52,836	21.9	26
Texarkana, TX-AR	\$52,262	20.6	27
El Paso, TX	\$50,849	17.4	28
Hammond, LA	\$50,659	17.0	29
Alexandria, LA	\$50,005	15.5	30
Jonesboro, AR	\$49,745	14.9	31
Fort Smith, AR-OK	\$48,903	13.1	32
Shreveport-Bossier City, LA	\$47,729	10.4	33
Farmington, NM	\$47,485	9.9	34
Las Cruces, NM	\$47,151	9.1	35
McAllen-Edinburg-Mission, TX	\$44,666	3.6	36
Monroe, LA	\$43,952	2.0	37
Brownsville-Harlingen, TX	\$43,057	0.0	38

Note: Median Household Income is expressed in 2020 inflation-adjusted dollars.

Source: Median Household Income by 2021 American Community Survey 1-year estimates, U.S. Census Bureau; Income Index with ranking developed by the Hibbs Institute.

Physical Environment

Physical environment factors may have an important role in health conditions. A poor physical environment such as low-quality water or polluted air, negatively affects residents in a specific region by elevating the risk to develop some disease. This report examines the air pollution via the concentration of some air toxins for the selected MSAs.

Air Pollution

Air pollution can be measured via the concentration of fine particles in the air, also known as particulate matter 2.5 (PM_{2.5}). These air pollutants, (PM_{2.5}), are droplets or tiny particles that are two and one-half microns width. The exposure to these fine particles is a concern for people's health when levels are relatively high because they can travel deep into the respiratory tract causing nose, throat, and lung irritation, coughing, sneezing, runny nose, and shortness of breath. Long term exposure may affect lung function, worsen medical conditions (such as heart disease and asthma), and even increase mortality from heart disease and lung cancer. The Air Pollution in this study measures the annual average of PM_{2.5} micrograms per cubic meter in the air. The lower the air pollution, the higher the Air Pollution Index. Air Pollutants, and Air Pollution Index, as well as its ranking for the selected MSAs are shown in **Table 14**.

Table 14: Air Pollution as (PM2.5) and Air Pollution Index with Ranking (Selected MSAs)

Metropolitan Statistical Area	Air Pollution (PM2.5)	Air Pollution Index	Ranking
Santa Fe, NM	3.7	100.0	1
Amarillo, TX	6.8	61.3	2
Lawton, OK	7.1	57.5	3
Houma-Thibodaux, LA	7.2	56.3	4
Hammond, LA	7.5	52.5	5
Farmington, NM	7.6	51.3	6
Lubbock, TX	7.8	48.8	7
Abilene, TX	7.9	47.5	8
Lake Charles, LA	7.9	47.5	9
Monroe, LA	7.9	47.5	10
San Angelo, TX	8.0	46.3	11
Alexandria, LA	8.2	43.8	12
Odessa, TX	8.2	43.8	13
Midland, TX	8.3	42.5	14
Albuquerque, NM	8.4	41.3	15
Lafayette, LA	8.4	41.3	16
Wichita Falls, TX	8.5	40.0	17
Las Cruces, NM	8.8	36.3	18
El Paso, TX	9.1	32.5	19
Jonesboro, AR	9.3	30.0	20
Texarkana, TX-AR	9.4	28.8	21
Waco, TX	9.6	26.3	22
College Station-Bryan, TX	9.7	25.0	23
Killeen-Temple, TX	9.7	25.0	24
Little Rock-North Little Rock-Conway, AR	9.7	25.0	25
Tyler, TX	9.8	23.8	26
Corpus Christi, TX	9.9	22.5	27
Longview, TX	9.9	22.5	28
Sherman-Denison, TX	9.9	22.5	29
Fayetteville-Springdale-Rogers, AR-MO	10.1	20.0	30
Beaumont-Port Arthur, TX	10.2	18.8	31
Fort Smith, AR-OK	10.3	17.5	32
Brownsville-Harlingen, TX	10.4	16.3	33
Laredo, TX	10.4	16.3	34
Baton Rouge, LA	10.5	15.0	35
Shreveport-Bossier City, LA	10.7	12.5	36
McAllen-Edinburg-Mission, TX	11.5	2.5	37
Tulsa, OK	11.7	0.0	38

Note: The 2022 County Health Rankings used data from 2018.

Source: Air Pollution by County Health Rankings; Air Pollution Index with ranking developed by the Hibbs Institute.

Findings

The health measure scores calculated for the MSAs examined in this study generated interesting findings. The scores vary widely for most of the MSAs. Any location may show an outstanding performance in one or more health measures, while having poor results in others (**Table 15**). Santa Fe, NM obtained the highest overall score (Total Score) out of the 38 MSAs examined in this study with 82.2 points. Santa Fe ranked first in four health measures, Life Expectancy, Adult Obesity, Adult Smoking, and Air Pollution, and second in two other measures, Teen Births and Primary Care Physicians. Remarkably, Santa Fe scored first place on the overall ranking with more than 8 points of difference from Fayetteville-Springdale-Rogers, AR, which scored second with 73.9 points. College Station-Bryan, TX ranked third on the list with 71.7 points, followed by Albuquerque, NM with 62.2 points, Tyler, TX with 61.2 points, and Midland, TX with 61.0 points, and Las Cruces, NM with 60.4 points. On the other hand, the MSA with the lowest overall score was Farmington, NM 25.9 points.

Interestingly, the health conditions of most of the MSAs in the state of Louisiana were relatively low. Only Lafayette is located on the top half of the list, ranking 11th. In fact, five out of the eight examined MSAs in Louisiana are in the last quarter on the list. Another interesting finding is related to the number of uninsured individuals. None of the examined MSAs in Texas are located within the first 15 ranking positions of the Uninsured Index. In fact, the bottom third of the list is occupied only by Texas MSAs, with McAllen-Edinburg-Mission, Laredo, TX, and Brownsville-Harlingen having the worst score; nearly 30% of the individuals in these locations do not have any kind of healthcare coverage.

Tyler made it to the top 5 of the list with 62.2 points, 21 points lower than Santa Fe, New Mexico, the highest scorer. Out of the 12 measures examined in the Hibbs Institute Health Index, Tyler obtained its highest ranking on Median Household Income (6th), followed by Income Inequality (7th), Primary Care Physicians (7th), Registered Nurses (7th) and Teen Births (7th). In contrast, the measures where Tyler got its lowest scores were Air Pollution and Uninsured Individuals, ranking 26th and 31st, respectively. On the other hand, Texarkana, and Longview (other East Texas MSAs in the group) performed considerably low. While Texarkana placed 28th on the list with 41.1 points, Longview was ranked 32nd with 37 points. Remarkably, in nine out of twelve health measures Longview's scores fell into the bottom third of the list.

One important reason for the significant differences between the Tyler MSA and the Longview MSA rankings is associated with the composition of the MSA. While Tyler MSA includes only Smith County, Longview MSA includes Gregg, Harrison, Upshur, and Rusk counties with substantial rural areas. As a cautionary note we would like to state that the notable Tyler MSA scores do not represent the health status of all counties included in East Texas. Health conditions in overall East Texas need to be studied at the county level and goes beyond the scope of this study.

This analysis, using the **Hibbs Institute Health Index**, may be helpful to stakeholders, policy makers, and decision makers to identify strengths and weaknesses at their own localities and take actions to improve the health conditions and health status of their communities.

Table 15. Health Categories, Examined Health Measure Indexes, Total Scores, and Rankings (Selected MSAs)

Metropolitan Statistical Area	Health Outcomes			Health Behavior				Clinical Care			Social & Economic Factors				Physical Envir.		Overall Totals	
	Premature Death Rate	Life Expectancy	Adult Obesity	Adult Smoking	Teen Births	Uninsured Individuals	Primary Care Physicians	Registered Nurses	Educational Attainment	Income Inequality	Median Household Income	Air Pollution	Ranking	Total Score	Ranking			
Santa Fe, NM	71.3	100.0	100.0	100	90.5	84.9	95.7	29.8	93.8	46.2	47.7	100.0	82.2	1				
Fayetteville-Springdale-Rogers, AR-MO	90.0	82.3	78.3	64	78.6	85.7	43.5	29.5	86.0	79.3	52.5	20.0	73.9	2				
College Station-Bryan, TX	100.0	88.6	60.9	64.8	100.0	76.9	57.9	0.0	84.8	0.0	23.4	22.5	71.7	3				
Albuquerque, NM	51.3	58.0	82.6	76.8	88.1	95.8	84.0	42.0	93.4	60.8	34.1	41.3	62.2	4				
Tyler, TX	68.8	57.6	43.5	56	69.0	57.1	77.5	64.9	83.5	73.4	43.5	23.8	61.2	5				
Midland, TX	71.3	64.0	65.2	82.4	38.1	62.2	6.3	17.6	70.4	58.7	100.0	42.5	61.0	6				
Las Cruces, NM	71.3	72.4	56.5	72	66.7	84.9	37.2	33.4	55.1	39.1	9.1	36.3	60.4	7				
Killeen-Temple, TX	67.5	58.7	39.1	67.2	57.1	71.8	51.0	31.4	96.7	85.8	34.3	25.0	59.5	8				
El Paso, TX	77.5	66.2	60.9	86.4	50.0	39.9	27.8	23.5	50.6	60.8	17.4	32.5	58.4	9				
San Angelo, TX	65.0	50.7	47.8	64.8	64.3	72.7	44.2	28.9	83.1	81.8	41.1	46.3	57.7	10				
Lafayette, LA	67.5	62.6	47.8	32	0.0	95.4	53.0	42.9	77.0	53.7	27.9	41.3	56.1	11				
Waco, TX	67.5	54.2	39.1	47.2	69.0	70.2	51.9	18.1	76.5	58.4	21.9	26.3	54.4	12				
Corpus Christi, TX	58.8	57.7	30.4	60	59.5	53.4	54.0	37.4	67.5	61.7	36.7	25.0	53.4	13				
Jonesboro, AR	55.0	42.8	34.8	22.4	64.3	93.7	82.8	100.0	86.0	35.4	14.9	30.0	52.7	14				
Tulsa, OK	58.8	45.7	56.5	56	69.0	71.8	58.8	20.1	93.4	59.2	39.8	0.0	52.3	15				
Lubbock, TX	50.0	31.4	52.2	68.8	66.7	72.3	85.5	67.6	83.1	49.1	29.3	48.8	51.5	16				
McAllen-Edinburg-Mission, TX	82.5	83.1	0.0	70.4	33.3	0.0	16.2	8.4	0.0	60.1	3.6	2.5	51.1	17				
Brownsville-Harlingen, TX	75.0	74.8	26.1	65.6	33.3	9.7	24.5	8.3	9.1	53.5	0.0	16.3	49.8	18				
Little Rock-North Little Rock-Conway, AR	38.8	36.5	56.5	38.4	64.3	97.1	80.6	73.9	100.0	46.8	34.4	25.0	49.7	19				
Laredo, TX	82.5	71.3	26.1	60.8	14.3	9.2	0.0	5.0	6.2	51.7	25.8	16.3	49.2	20				
Sherman-Denison, TX	56.3	39.0	52.2	43.2	57.1	58.8	11.2	29.9	94.7	95.4	42.5	22.5	49.2	21				
Ablene, TX	46.3	28.8	47.8	61.6	59.5	66.0	29.3	48.9	86.0	100.0	31.9	47.5	47.7	22				
Wichita Falls, TX	50.0	32.2	43.5	43.2	52.4	66.4	48.7	45.6	87.7	73.1	26.8	40.0	46.9	23				
Lawton, OK	47.5	35.4	26.1	39.2	52.4	74.4	49.1	9.4	94.7	69.8	25.6	57.5	45.6	24				
Fort Smith, AR-OK	45.0	36.4	65.2	36.8	52.4	79.8	63.7	22.5	70.8	54.7	13.1	17.5	44.2	25				
Baton Rouge, LA	31.3	30.8	52.2	43.2	78.6	95.4	38.8	36.9	85.2	41.1	45.2	15.0	42.1	26				
Lake Charles, LA	35.0	22.6	43.5	16.8	45.2	96.6	53.9	64.6	85.6	54.4	37.5	47.5	41.7	27				
Texarkana, TX-AR	40.0	24.5	47.8	29.6	35.7	77.3	47.4	74.6	88.9	49.7	20.6	28.8	41.1	28				
Beaumont-Port Arthur, TX	43.8	34.6	30.4	43.2	47.6	47.9	9.7	42.5	78.2	64.5	33.2	18.8	40.4	29				
Houma-Thibodaux, LA	41.3	31.3	34.8	0	57.1	100.0	20.0	24.8	56.4	58.6	34.0	56.3	40.2	30				
Hannond, LA	33.8	25.6	43.5	12	57.1	93.7	5.8	56.9	62.1	45.2	17.0	52.5	37.1	31				
Longview, TX	41.3	25.8	39.1	39.2	38.1	59.7	22.3	22.6	77.4	51.8	31.4	22.5	37.0	32				
Odessa, TX	36.3	15.9	43.5	66.4	9.5	38.7	53.7	20.3	37.0	82.3	49.0	43.8	35.2	33				
Monroe, LA	25.0	13.5	47.8	8.8	57.1	95.0	50.1	76.3	81.1	21.3	2.0	47.5	34.0	34				
Alexandria, LA	16.3	8.7	34.8	17.6	50.0	90.3	69.1	80.0	77.4	48.3	15.5	43.8	32.6	35				
Shreveport-Bossier City, LA	16.3	13.4	34.8	13.6	50.0	95.4	100.0	38.4	83.1	40.2	10.4	12.5	31.3	36				
Amarillo, TX	22.5	0.0	39.1	33.6	16.7	66.8	53.9	53.6	77.8	59.2	35.4	61.3	30.5	37				
Farmington, NM	0.0	18.6	52.2	16.8	57.1	74.4	29.4	15.8	76.5	41.6	9.9	51.3	25.9	38				

Source: Calculations, scores and ranking developed by the Hibbs Institute for Business and Economic Research.