



PERSPECTIVE

All tax-exempt, not-for-profit hospitals are required to conduct a community health needs assessment on a three-year cycle and make the results publicly available.

The Affordable Care Act of 2010 created an opportunity for hospitals and public health agencies to accelerate community health improvement by conducting triennial community health needs assessments and adopting related implementation plans, including strategies that address significant health needs.

Despite the United States spending more than any other nation on healthcare, life expectancy has been declining since 2014, as noted by data from years 2014 – 2017. Declining life expectancy has been fueled by a sharp increase in deaths among the working-age population. There has been a 6% increase in death rates among people 25-64 and a mortality increase nearing 25% among young adults 25-44. This is most pronounced in the “Rust Belt” states and in Appalachia.

If spending more money on healthcare is not getting the United States the gains it needs in population health, perhaps it's time to revisit what really creates health. Evidence demonstrates that the health of an individual and that of a community is 36% influenced by individual behavior, 24% social circumstances, 22% genetics and biology, 11% medical care and 7% physical environment. Without a broader view of health and what determines it, people in the United States are likely to continue to die at younger and younger average ages.

The value of periodic community needs assessments is that they provide an opportunity to bring together the broader public health community to look not only at the most significant health challenges, but to collectively appreciate the complexity of health. This is an important affirmation that health is much more than medical care.

Although LeConte Medical Center serves patients from multiple counties, more than 50% of its inpatient and outpatient business comes from Sevier County. Thus, the assessment and its findings are limited to Sevier County.

ASSESSMENT PARTNERS

The 2020 Community Health Needs Assessment was a collaborative effort between LeConte Medical Center, the Sevier County Health Department, the Sevier County Health Council and the Tennessee Department of Public Health. These partners and numerous representatives of public health agencies convened over a period of five months to complete the community health needs assessment. The process was interrupted for several months while the assessment partners focused on COVID-19 in their communities. The role of LeConte Medical Center in the assessment process was one of facilitation.

Steering Committee Participants

The Steering Committee's purpose was to determine the scope of the assessment and research tools, assist in the design of the survey instrument, select focus group participants, gather primary and secondary health data, produce data notebooks and recruit data team members. The members of the Steering Committee consisted of representatives of the following organizations:

Cherokee Health System	Dollywood (2)
East Tennessee State University	Family Resource Center
LeConte Medical Center	Mountain Hope Good Shepard Clinic
Sevier County Health Department (2)	Sevier County Health Council
Sevier County School System	

Data Team Participants

The Data Team's purpose was to take to all the data compiled from the Steering Committee and identify local health priorities from the data. After multiple meetings, the Data Team members determined the most significant priority areas.

Sevier County Health Department (2)	LeConte Medical Center (2)
Cherokee Health Systems	East Tennessee State University
Sevier County Sheriff Office	Covenant Medical Group
Sevier County EMS	Sevier County Coordinated School Health
Gatlinburg Recreation Department	

Research Partners

The research partners' purpose was to provide expertise on survey design, focus group facilitation, data collection, data sources, and analysis.

University of Tennessee – Social Work Office of Research and Public Service (UT-SWORPS)
Sevier County Health Department
Tennessee Department of Public Health, Nashville, Tennessee

OUR PROCESS

The 2020 community health needs assessment process began with the formation of a steering committee. Steering committee members represented agencies and organizations who were conducting their own needs assessments for Sevier County with varying frequency. This assessment provided an opportunity for all to work together to avoid duplication of efforts.

The Steering Committee was the decision-making body for the assessment and was instrumental in designing both primary research components, the community household survey and the focus group moderator's guide. Committee members were also involved in the dissemination of the community survey and focus group recruitment.

The primary research for the assessment centered on a household survey and focus groups. Household survey participation was matched to the demographic profile of Sevier County for the attributes of income, education level, ethnicity and age. The survey template was provided by the research partner UT – SWORPS, but the questions were customized by the Steering Committee. For statistical significance, 225 surveys were collected through a variety of methodologies, including paper surveys, cell phone and landline calls, an on-line link to the survey and through Facebook. Once the data was analyzed by UT-SWORPS a report was provided to the Steering Committee. (See Appendix C)

The Steering Committee was very intentional about making sure the most vulnerable groups in Sevier County - the chronically ill, uninsured, seniors and minority populations - had a voice in the assessment process. The focus group design was to recruit community leaders who directly serve these populations and who are most familiar with the daily challenges these at-risk individuals face. Focus group participants were long-term residents of the county and represented the various cities within the county. Four focus groups were held using a Zoom format with 7-8 participants in each. UT – SWORPS conducted the focus groups and provided a written report once the responses were analyzed. (See Appendix D)

Organizations Participating in Focus Groups

Cherokee Health Systems

Dollywood (2)

Family Resource Center

Helen Ross McNabb

Local Law Firm

Safe Harbor CAC

Sevier County Health Department (3)

Sevier County Schools

Robert Thomas Foundation

Department of Children's Services

East Tennessee State University

First Baptist Church

LeConte Medical Center (4)

Mountain Hope Clinic

Sevier County Emergency Medical Services

Sevier County Sheriff's Office

Seymour Farmers Market

UT Extension

The Steering Committee identified a list of health indicators from which they wanted county, state and national data. When possible local, state and national data were provided for each indicator. Members of the Steering Committee were helpful in providing data because many represented agencies with access to public health data, social service data, and data related to demographics, substance abuse, mortality and mental health. The compiled data was put into notebooks.

The Steering Committee expanded its participation to involve other health-related agencies. This larger body became the Data Team. Each Data Team member was provided with a notebook of all the primary and secondary data and given a couple of weeks to review the data. A Data Team meeting followed where team members created a list of identified health concerns. Those concerns were grouped under broad headings and examined as to how strategic and feasible they would be to address. The primary findings from the assessment were access to healthcare, senior health, poverty, tobacco use, mental health, awareness of resources, substance abuse, obesity, health education, and chronic disease management. After intense discussion, the Data Team developed a consensus around the most significant issues and narrowed the initial list of health concerns to a list of the top four.



PRIORITIES FOR 2021 – 2023

In rank order as determined by the Data Team:

1. Mental Health
2. Obesity – Adult and Child
3. Health Education
4. Substance Abuse

A REVIEW OF DATA

Sevier County Data

Appendix A – Sevier County Demographics

Appendix B - Sevier County Mortality Data 2008-2018

Appendix C - Household Survey Findings

Appendix D – Focus Group Findings

Appendix E - Select Secondary Health Statistics

A SPECIAL THANK YOU TO OUR COMMUNITY ASSESSMENT PARTICIPANTS

The 2020 Sevier County Community Health Needs Assessment is the culmination of five months of work involving dozens of local community health agencies, community leaders and nearly 300 residents who participated in surveys, focus groups, and meetings. The significant findings of the assessment are all rooted in complex interrelationships of economics, education, behaviors, access, environment, and social circumstances. The solutions are just as complex. No institution or organization by itself can measurably change the trajectory of progress. These significant health challenges facing Sevier County will require a collaborative community approach of all public health organizations. We hope this information can be a catalyst for change as we seek to improve the health circumstances of all who live in and call Sevier County home.

A special thank you to Jana Chambers, retired Sevier County Health Department Director, for her assistance with each community health needs assessment beginning in 2013. Her dedication and collaboration with each assessment is greatly appreciated.

APPENDIX A – Sevier County Demographics

Sevier County Demographics

Population Estimates July 2019

Population	
Populations estimates, July 2019	98,250
Population, Census 2010	89,889
Population, percent change	9.5%
Age and Sex	
Persons under 5 years, percent	5.4%
Persons under 18 years, percent	20.6%
Persons 65 years and over, percent	19.8%
Female persons	51.1%
Race and Hispanic Origin	
White alone, percent	95.2%
Black or African American, percent	1.3%
American Indian, and Alaska native	0.6%
Asian, percent	1.3%
Two or more races, percent	1.5%
Hispanic or Latino percent	6.3%
White alone, not Hispanic or Latino	89.7%

Source: www.census.gov/quickfacts/fact/table/seviercountytennessee

APPENDIX B – Sevier County Mortality Data

Top 15 Leading Causes of Death in Sevier County 2009-2018

Average Annual Population 93,979

Cause of death	Number of deaths	Rate of death (per 100,000)
1. Diseases of the heart	2,359	251.0
2. Cancers	2,273	241.9
3. Respiratory Diseases	631	67.1
4. Accidents	603	64.2
5. Cerebrovascular disease	467	49.7
6. Alzheimer's disease	430	45.8
7. Flu and Pneumonia	199	21.2
8. Diabetes	186	19.8
9. Chronic Liver Disease	181	19.3
10. Suicide	176	18.7
11. Kidney diseases	152	16.2
12. Septicemia	104	11.1
13. Pneumonia (due to solids and liquids)	83	8.8
14. Parkinson's disease	78	8.3
15. Essential hypertension and hypertensive renal disease	52	5.5

2020 Sevier County Community Health Assessment

Community survey responses



150

Telephone



19

Paper



56

Web

**Most
Severe
Problem**

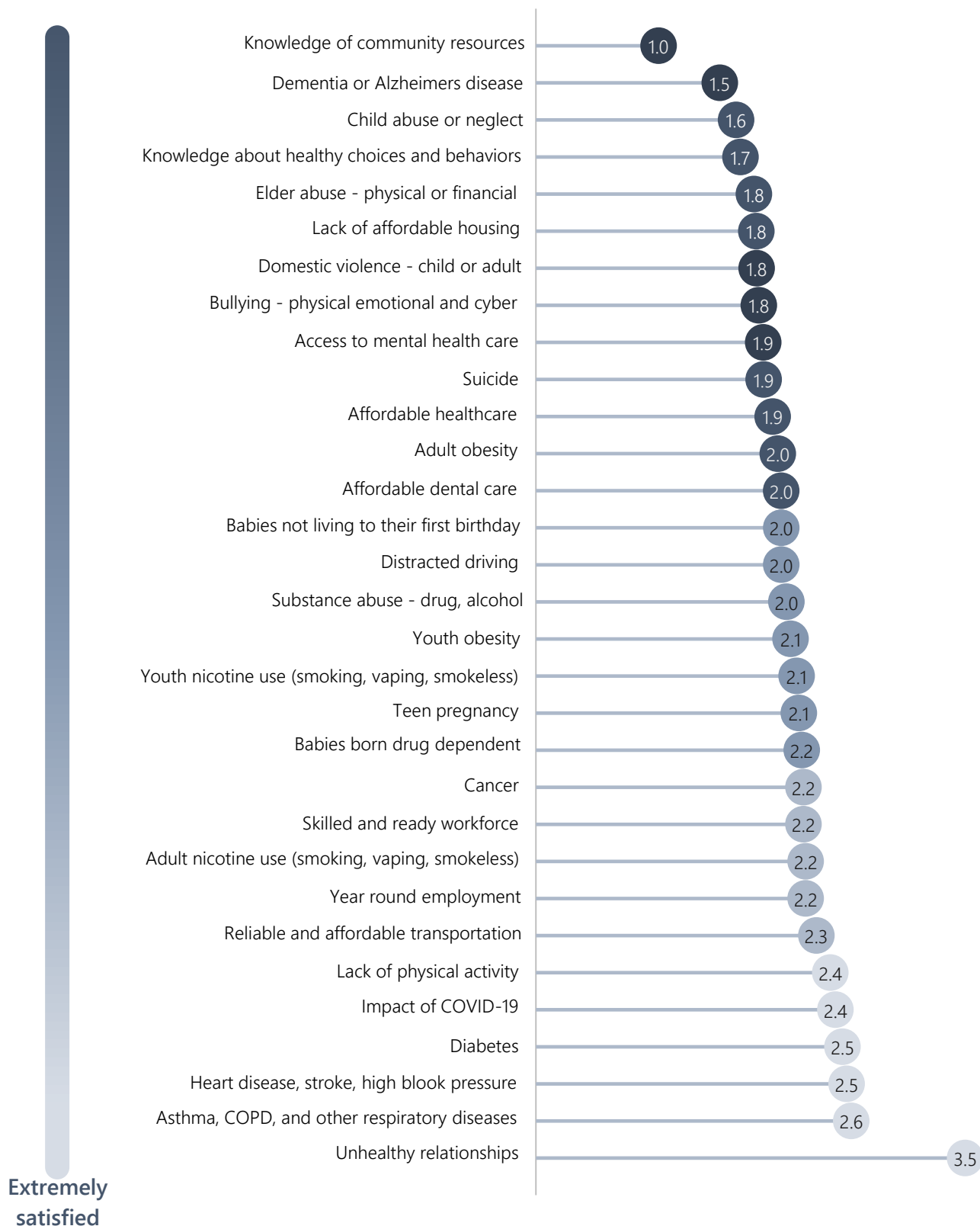


**Least
Severe
Problem**

	Identified as major problem	Identified as top 3 problems
Substance abuse – drug, alcohol	76.0%	35.6%
Adult obesity	74.6%	19.1%
Distracted driving	69.2%	16.0%
Cancer	65.2%	13.3%
Lack of affordable housing	64.4%	27.1%
Heart disease, stroke, high blood pressure	63.8%	7.6%
Affordable healthcare.	61.2%	28.0%
Diabetes	60.3%	8.0%
Adult nicotine use (smoking, vaping, smokeless)	58.0%	3.1%
Impact of COVID-19	58.0%	20.9%
Affordable dental care.	57.0%	4.9%
Youth obesity	56.1%	6.7%
Youth nicotine use (smoking, vaping, smokeless)	54.5%	5.3%
Lack of physical activity	50.9%	2.7%
Access to mental health care (anxiety and depression)	48.2%	16.9%
Babies born drug dependent	47.8%	6.2%
Child abuse or neglect	45.1%	10.7%
Domestic violence – child or adult	45.1%	6.2%
Asthma, COPD and other respiratory diseases	43.3%	4.0%
Year round employment	43.3%	5.3%
Bullying – physical, emotional and cyber	43.2%	5.8%
Dementia or Alzheimer's disease	41.5%	6.7%
Skilled and work ready workforce	40.6%	6.2%
Unhealthy relationships	37.1%	0.9%
Knowledge about healthy choices and behaviors	35.4%	1.3%
Reliable and affordable transportation	34.8%	3.6%
Knowledge of community resources	33.5%	1.3%
Suicide	32.3%	3.1%
Elder abuse – physical or financial	27.8%	5.3%
Teen pregnancy	27.2%	3.6%
Babies not living to their first birthday	13.1%	1.8%

Satisfaction with current efforts to address problem (1 - 5)

Least
satisfied



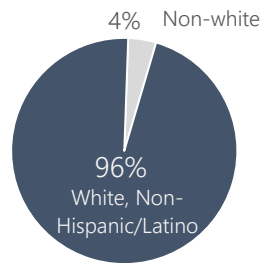
2020 Sevier County Community Health Assessment

Who responded to our community survey?

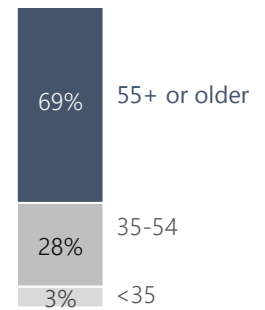
Gender



Race/Ethnicity

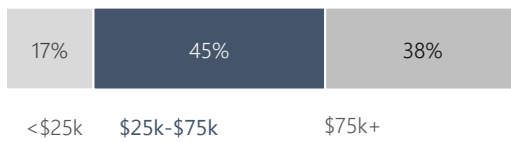


Age

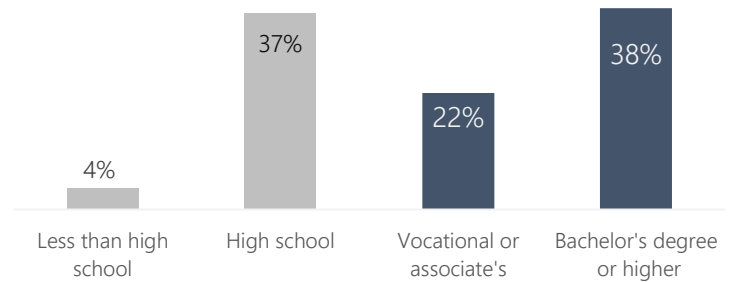


* Percentages do not sum to 100% due to rounding.

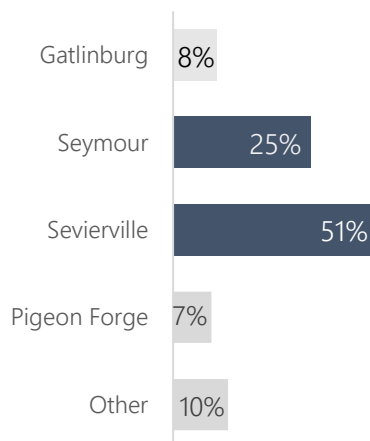
Household income*



Education



Residence



61%
Of residents have lived in Sevier Co. for 5 to 10 years.



21%
Of households had children under 18.



46%
Of households had adults 65 or older.



93%
Reported having health insurance.

Four focus groups were conducted with Sevier County community leaders for the Sevier County Community Health Assessment. The purpose of the focus groups was to identify health issues facing residents of Sevier County, especially residents from vulnerable populations; to identify what resources are currently available to address these issues; and to identify what additional resources may be needed.

In response to the coronavirus disease (COVID-19) pandemic in Tennessee, Governor Bill Lee issued Executive Order #17 recommending that Tennesseans avoid gathering in groups of 10 or more people. In order to comply with this guidance, these focus groups were conducted online through Zoom. A total of 23 unique participants participated in these focus group discussions. This report summarizes and synthesizes the content of these discussions; findings are presented using the moderator guide questions as headings.

How would you grade overall health in your county?

At the beginning of each focus group, participants were asked to mentally assign a letter grade from A to F for overall health in the county. Participants were then asked to consider how this grade had changed (positively, negatively, or no change) over the past six years. Not all participants shared their letter grade; the grades that were shared strongly clustered around a grade of “C.”

Grade	#
B	5
C	12
D	1

How has this grade changed over the past 6 years?

Varying views about the direction of change over the past 6 years were expressed.

Reasons for improvement:

- Sevier County hospitals and healthcare facilities demonstrate increased collaboration.
- Sevier County schools have nurse coverage at every school and have increased the services they are able to offer to students and their families through telemedicine, leading to improved health among Sevier County schoolchildren.
- Cherokee Health Systems offers inpatient navigation resources for mental health and substance abuse.
- More state funding is available for substance abuse treatment than previously.
- Sevier County jails’ long acting reversible contraception (LARC) program has reduced the number of neonatal abstinence syndrome (NAS) births.

Reasons for no change:

- There is increased awareness on the part of the broader community of the impact of adverse childhood experiences (ACEs) on physical and mental health in later life. However, ACEs remain highly prevalent.
- Access to mental health services and inpatient substance abuse services is severely limited.

- Chronic, lifestyle-related conditions such as obesity and chronic obstructive pulmonary disease remain highly prevalent in Sevier County.
- Sevier County's large veteran population faces difficulty with accessing needed services including health care, mental health care, and homelessness services.
- Uninsured residents and residents insured through TennCare have difficulty accessing specialist care, dental care, and mental health care.

Reasons for decline:

- Sevier County is experiencing a shortage of needed healthcare providers, while the population of uninsured residents grows, leading to burdens on the emergency departments of area hospitals.
- Substance abuse (specifically prescription opioids, heroin, and methamphetamine) remains prevalent in Sevier County, fueled in part by the lack of mental health, chronic pain, and dental care access, as well as an increase in homeless and uninsured residents who are dependent on intravenous drugs.
- Sevier County is experiencing an increase in child abuse, domestic violence, and sexual assault, with cases being backlogged before survivors are able to receive services.

Major health problems facing the community

Focus group participants were asked to identify the health problems currently facing their community. Each participant was asked to identify three of the problems discussed that they felt should be given priority. The problems discussed below are presented in the order of importance as reported during this exercise.

Substance abuse (13 votes)

Substance abuse and related health issues were once again chosen as the top priority health challenges facing Sevier County.

Mental health (10 votes)

As with many other counties, Sevier County residents struggle with access to mental health services. Some participants identified the shared community trauma of the 2016 Great Smoky Mountains wildfires as simultaneously increasing the need for mental health services while reducing social stigma around mental health treatment.

Adverse childhood experiences (8 votes)

Adverse childhood experiences, particularly physical abuse, were commonly cited as a major driver of health problems in Sevier County.

Chronic diseases (4 votes)

Lifestyle-related chronic diseases remain a primary driver of health problems in Sevier County. Obesity and tobacco use were identified as major contributors to chronic disease experienced by Sevier County residents.

Shortage of healthcare providers in area (4 votes)

Several participants reported that Sevier County has insufficient or no local options for medical specialty care, dental care, inpatient mental health care, and residential senior care.

Cost of healthcare and lack of insurance (3 votes)

Several participants indicated that the high cost of specialty medical services and substance abuse treatment prevents many Sevier County residents from accessing them, especially residents without good health insurance.

High unemployment and temporary/seasonal jobs (2 votes)

The stressful, unstable nature of the hospitality and tourism-centered job opportunities available in Sevier County was identified as a contributor to poor health. Additionally, many of these jobs offer limited or no health insurance to employees.

Health education for youth (2 votes)

Several participants prioritized educating Sevier County's school-aged children about health topics, ranging from nutrition to identifying the signs of a stroke, as a way of increasing the whole family's health.

Other problems

Problems that were discussed during the focus groups but were only identified as a top priority by one participant each included domestic violence and sexual assault and the lack of senior care resources in the area. Issues discussed in the focus groups that were not chosen as a priority health issue by any participant included asthma, elder abuse, a hepatitis A outbreak in Sevier County, homelessness, lack of sufficient childcare such as after-school and summer programs and preschool, lack of foster care placements, multigenerational poverty, poor nutrition awareness and lack of access to nutritious food, post-traumatic stress disorder and other veterans' health issues, tobacco use, lack of access to dental care, lack of transportation, and (surprisingly) the ongoing COVID-19 pandemic.

How health problems are experienced differently

Participants were asked if some groups or areas of Sevier County experienced some of these problems to a greater degree than others. Several vulnerable populations were identified who particularly suffered from problems, including African American residents (diabetes and cardiovascular disease); children and youth (access to substance abuse treatment, asthma, homelessness); elderly residents (lack of residential and outpatient geriatric care in the area); Spanish-speaking residents (access to care); rural residents (lower education levels, poverty); Sevier County's large population of temporary and seasonally employed residents (access to care, chronic diseases, human trafficking, substance abuse); uninsured and TennCare-insured residents (access to care) veterans (homelessness, access to mental health resources).

Current community resources to address health problems

Focus group participants were asked to brainstorm and discuss the resources that are currently being utilized to address the problems identified by the group. The discussion included the identification of agencies and the programs that are offered as well as community initiatives and local efforts to address community problems. Participants observed that many of these agencies and resources work well together collaboratively.

Cherokee Health Systems

Cherokee Health Systems is a non-profit provider of primary care, behavioral health, and addiction services to poor and uninsured Tennesseans.

[ETHRA TennCare CHOICES](#)

CHOICES is a TennCare long-term care program for adults ages 21 and older with a physical disability and seniors ages 65 and older which provides home- and community-based services to those who are eligible for nursing home care.

[Helen Ross McNabb](#)

The Helen Ross McNabb Center is a not-for-profit provider of behavioral health services in East Tennessee.

[LeConte Medical Center](#)

LeConte Medical Center, a member of Covenant Health, is a Sevier County hospital offering a full array of medical specialties including stroke care, radiology and medical imaging, women's health services, and cancer treatment services.

[Mountain Hope Good Shepherd Clinic](#)

Mountain Hope Good Shepherd Clinic is a faith-based healthcare clinic that exclusively treats uninsured Sevier County residents. Services offered include primary care, dental care, and pharmaceutical assistance.

[Sevier County CARES](#)

Sevier County CARES is a coalition of several agencies including East Tennessee Children's Hospital, the Sevier County Health Department, and Sevier County judges and law enforcement which works to combat substance abuse through primary prevention and education.

[Sevier County Health Department](#)

The Sevier County Health Department was singled out for its response to the developing coronavirus (COVID-19) pandemic in 2020.

[Sevier County Lions Club](#)

The Sevier County Lions Club offers vision screening and provides assistance to offset the cost of cataract surgery.

[Sevier County Minority Outreach Committee](#)

The Sevier County Minority Outreach Committee provides education and information about community services including medical assistance, food assistance, and legal assistance in English and Spanish.

[Sevier County Senior Center](#)

The Sevier County Senior Center operates the county's Meals on Wheels program.

[UT Extension](#)

UT Extension offers education programs on agricultural and natural resources, family and consumer sciences, youth development, and community development in the 95 counties of Tennessee. One UT Extension program specifically cited by focus group participants is their "Take Charge of Your Diabetes" class.

Resources needed to better address these issues

Participants identified several ways in which the health issues facing Sevier County could be better addressed and barriers that need to be overcome. Participants identified more funding for community programs serving the uninsured and more involvement from Sevier County community leaders as the most important resources needed.

Participants identified a need to increase public awareness of the availability of health services and resources in Sevier County, with more education (in multiple languages) focused on wellness and prevention of chronic disease. They also identified several workforce shortages in healthcare which need to be overcome to improve overall health in Sevier County, including nurses, psychiatrists and therapists.

Sevier County needs affordable local residential care facilities for senior residents, as well as inpatient mental health and substance abuse treatment facilities.

There is also a need for more affordable healthcare providers who are willing to accept uninsured and TennCare-insured patients.

Appendix E		Health Outcomes					Tennessee	Top US Performers
Focus Area	Measure	Description	Data Source	2017	2018	2019	2020	2020
Length of life	Premature death	Years of potential life lost before age 75 per 100,000 population (age-adjusted)	National Center for Health Statistics - Mortality Files	8,600	8,600	9,200	9,600	5,500
Quality of life	Poor or fair health	Percentage of adults reporting fair or poor health (age-adjusted)	Behavioral Risk Factor Surveillance System	21%	20%	20%	19%	12%
	Poor physical health days	Average number of physically unhealthy days reported in past 30 days (age-adjusted)	Behavioral Risk Factor Surveillance System	4.9	4.8	4.8	4.84	3.1
	Poor mental health days	Average number of mentally unhealthy days reported in past 30 days (age-adjusted)	Behavioral Risk Factor Surveillance System	4.7	4.7	4.7	4.7	3.4
	Low birthweight	Percentage of live births with low birthweight (< 2500 grams)	National Center for Health Statistics - Natality Files	9%	8%	8%	8%	6%
Length of Life	Life expectancy		National Center for Health Statistics - Mortality Files	N/A	N/A	76.3	76	81
	Premature age-adjusted mortality		National Center for Health Statistics - Mortality Files	420	440	440	450	270
	Infant mortality		National Center for Health Statistics - Mortality Files	7	6	6	6	4
	Child mortality		National Center for Health Statistics - Mortality Files	50	50	40	40	40
Quality of Life	Frequent physical distress		Behavioral Risk Factor Surveillance System	14%	14%	14%	13%	9%
	Frequent mental distress		Behavioral Risk Factor Surveillance System	14%	14%	14%	14%	11%
	Diabetes prevalence		United States Diabetes Surveillance System	12%	13%	15%	15%	7%
	HIV prevalence		National Center for HIV/AIDS, Viral Hepatitis, STD, and TB prevention	98	77	77	103	41

Appendix E													Health Outcomes				Tennessee	Top US Performers
Focus Area	Measure	Description	Data Source	2017	2018	2019	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020		
Tobacco use	Adult smoking	Percentage of adults who are current smokers	Behavioral Risk Factor Surveillance System	20%	21%	21%	21%	21%	23%	14%								
Diet and exercise	Adult obesity	Percentage of adults that report a BMI of 30 or more	United States Diabetes Surveillance System	31%	34%	39%	44%	26%										
	Food environment index	Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best)	USDA Food Environment Atlas, Map the Meal Gap from Feeding America	7.5	7.9	8.1	8	8.6										
	Physical inactivity	Percentage of adults aged 20 and over reporting no leisure-time physical activity	United States Diabetes Surveillance System	37%	40%	32%	35%	20%										
	Access to exercise opportunities	Percentage of population with adequate access to locations for physical activity	Business Analyst, Delorme map data, ESRI, & US Census Tigerline Files	82%	68%	61%	64%	91%										
Alcohol and drug use	Excessive drinking	Percentage of adults reporting binge or heavy drinking	Behavioral Risk Factor Surveillance System	12%	14%	14%	13%	13%										
	Alcohol-impaired driving deaths	Percentage of driving deaths with alcohol involvement	Fatality Analysis Reporting System	30%	27%	29%	24%	11%										
Sexual activity	Sexually transmitted infections	Number of newly diagnosed chlamydia cases per 100,000 population	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB prevention	300.3	294.4	298.1	299.1	161.4										
	Teen births	Teen birth rate per 1,000 female population, ages 15-19	National Center for Health Statistics - Natality Files	51	43	40	36	13										
Diet and exercise	Food insecurity		Map the Meal Gap	14%	13%	12%	12%	9%										
	Limited access to healthy foods		USDA Food Environment Atlas	5%	5%	5%	5%	2%										
Alcohol and drug use	Drug overdose deaths		National Center for Health Statistics - Mortality Files	15	15	29	35	10										
	Motor vehicle crash deaths		National Center for Health Statistics - Mortality Files	22	17	18	17	9										
Other Health Behaviors	Insufficient sleep		Behavioral Risk Factor Surveillance System	35%	35%	35%	35%	27%										

Clinical Care							Tennessee	Top US Performers
Focus Area	Measure	Description	Data Source	2017	2018	2019	2020	2020
Access to care	Uninsured	Percentage of population under age 65 without health insurance	Small Area Health Insurance Estimates	20%	17%	15%	17%	6%
	Primary care physicians	Ratio of population to primary care physicians	Area Health Resource File/American Medical Association	2,320:1	2,590:1	2,840:1	2,570:1	1,030:1
	Dentists	Ratio of population to dentists	Area Health Resource File/National Provider Identification file	3,000:1	2,690:1	2,640:1	2,880:1	1,240:1
	Mental health providers	Ratio of population to mental health providers	CMS, National Provider Identification file	1,780:1	1,790:1	1,680:1	1,460:1	290:01
Quality of care		Number of hospital stays for ambulatory-care sensitive conditions per 1,000 Medicare enrollees		N/A	N/A	4657	4352	2761
	Preventable hospital stays		Mapping Medicare Disparities Tool					
	Mammography screening	Percentage of female Medicare enrollees ages 65-74 that receive mammography screening	Mapping Medicare Disparities Tool	N/A	N/A	42%	44%	50%
	Flu vaccinations	% of Medicare enrollees who receive an influenza vaccination	Mapping Medicare Disparities Tool	N/A	N/A	47%	48%	53%
Access to care	Uninsured adults		Small Area Health Insurance Estimates	24%	21%	19%	21%	7%
	Uninsured children		Small Area Health Insurance Estimates	7%	6%	5%	5%	3%
	Other primary care providers		CMS, National Provider Identification file	1,032:1	967:01	896:01	802:01	665:01

Social and Economic Environment										Tennessee	Top US Performers
Focus Area	Measure	Description	Data Source	2017	2018	2019	2020				2020
Education	High school graduation	Percentage of ninth-grade cohort that graduates in four years	ED Facts	85%	85%	89%	89%				90%
	Some college	Percentage of adults ages 25-44 years with some post-secondary education	American Community Survey	49%	50%	52%	51%				73%
Employment	Unemployment	Percentage of population ages 16 and older unemployed but seeking work	Bureau of Labor Statistics	6.1%	5%	4%	3.5%				3%
Income	Children in poverty	Percentage of children under age 18 in poverty	Small Area Income and Poverty Estimates	24%	25%	20%	23%				11%
	Income inequality	Ratio of household income at the 80th percentile to income at the 20th percentile	American Community Survey, 5-year estimates	4.1	4	3.8	3.7				3.7
Family and social support	Children in single-parent households	Percentage of children that live in a household headed by single parent	American Community Survey, 5-year estimates	36%	35%	33%	34%				20%
	Social associations	Number of membership associations per 10,000 population	County Business Patterns	10.4	10	10.4	9.6				18.4
Community safety	Violent crime	Number of reported violent crime offenses per 100,000 population	Uniform Crime Reporting - FBI	307	307	311	311				63
	Injury deaths	Number of deaths due to injury per 100,000 population	National Center for Health Statistics - Mortality Files	77	83	91	96				58
Income	Median household income		Small Area Income and Poverty Estimates	\$42,000	\$45,300	\$48,500	\$47,200				\$52,400
	Children eligible for free or reduced price lunch		National Center for Education Statistics	61%	64%	N/A	N/A				N/A
Community safety	Homicides		National Center for Health Statistics-Mortality Files	0	2	N/A	N/A				7
	Firearm fatalities		National Center for Health Statistics-Mortality Files	12	12	14	14				17

Physical Environment										Tennessee	Top US Performers
Focus Area	Measure	Description	Data Source	2017	2018	2019	2020				2020
Air and water quality	Air pollution - particulate matter ¹	Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5)	Environmental Public Health Tracking Network	10.2	10.2	10.1	10.1				6.1
		Percentage of population potentially exposed to water exceeding a violation limit during the past year									
	Drinking water violations		Safe Drinking Water Information System	Yes	No	No	No				N/A
Housing and transit											
		Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities	Comprehensive Housing Affordability Strategy (CHAS) data	15%	16%	15%	15%				9%
		Percentage of the workforce that drives alone to work	American Community Survey, 5-year Estimates	77%	78%	77%	77%				72%
		Among workers who commute in their car alone, the percentage that commute more than 30 minutes	American Community Survey, 5-year estimates	39%	38%	37%	37%				16%
Housing and transit											
	Homeownership		American Community Survey, 5-year estimates	N/A	N/A	67%	68%				81%
	Severe housing cost burden		American Community Survey, 5-year estimates	N/A	N/A	12%	11%				7%



	Sevier County					Tennessee		U.S.	
	2014	2015	2016	2017	2018	Data	Year	Data	Year
Youth Obesity	37.7%	35.9%	34.3%	37.3%		39.2%	2016		
Physical Activity	60.0%	68.4%	70.3%			69.4%	2017	75.4%	2018
Youth Nicotine Use: Cigarettes						9.40%	2017	8.80%	2017
Youth Nicotine Use: Vaping						11.50%	2017	13.20%	2017
Drug Overdose: Fatal				32	46	1818	2018		
Opioid Overdose: Non-Fatal Discharges	38	58	95*	140		7,234	2017		
Infant Mortality					4.7	7.1	2014-2018	5.8	2017
Teen Births					32.5	28.6	2014-2018	18.8	2017
Community Water Fluoridation					90.0%	88.8%	2018	74.4%	2014
Frequent Mental Distress	14%	14%	14%			13.7%	2018	12.0%	2018
3rd Grade Reading Level				28.2%	33.5%	36.4%	2019		
Preventable Hospitalizations			1178.0	1516.4		1559.3	2017		
Per Capita Personal Income	\$34,402	\$36,061	\$37,074	\$38,114		\$46,895	2018	\$54,420	2018
Access to Parks and Greenways			68.0%		61.0%	71%	2019	83%	2016
Adult Obesity	34%	39%				34.1%	2018	30.1%	2017
Adult Smoking	22%	20%	21%			20.8%	2018	14.74%	2018
Neonatal Abstinence Syndrome	45.9	18.1	14.2	16.1	12.3	11.4	2018		
Suicide Rate					21.1	16.3	2014-2018	14.00	2017
Educational Attainment: Graduated High School	81.8%	82.4%	83.5%	83.5%		86.6%	2017	87.3%	2017
Educational Attainment: Some College	43.9%	44.9%	46.5%	47.0%		54.0%	2017	60.0%	2017
Rate of Opioid Prescriptions	1353.7	1282.1	1173.9	1031.5	880.9	901.14	2018	587	2017
Diabetes			12.9%			11.2%	2016	8.5%	2017
Flu Vaccine Rates: Elderly	52.9%	53.0%	53.9%	50.1%	50.0%	47.37%	2017-18	45.99%	2017-18
Flu Vaccine Rates: 24 month old	57.0%	50.4%	50.9%	40.2%	53.7%	49.0%	2018		
HPV Vaccine Rate						62.3%	2018	68.1%	2018
Adverse Childhood Experiences						23.7%	2017	19.3%	2017
Heart Disease Death Rate	279.7	240.8	242.1	248.9	257.4	242.5	2018	165.0	2017
Cancer Death Rate	234.5	261.6	242.1	249.9	276.8	208.8	2018	156	2016
Uninsured Rate	19.5%	16.7%	15.4%	16.7%		11.3%	2017	8.5%	2018

	County Source	Tennessee Source	US Source
Youth Obesity	Coordinated School Health	Coordinated School Health	
Physical Activity	CHR*	BRFSS	BRFSS
Youth Nicotine Use: Cigarettes		YRBS	YRBS
Youth Nicotine Use: Vaping		YRBS	YRBS
Drug Overdose: Fatal	Informatics & Analytics	Informatics & Analytics	
Opioid Overdose: Non-Fatal Discharges	Informatics & Analytics	Informatics & Analytics	
Infant Mortality	Death Statistics: VRS	Death Statistics: VRS	CDC
Teen Births	Birth Statistics: VRS	Birth Statistics: VRS	CDC
Community Water Fluoridation		CDC Water Fluoridation Reporting System (WFRS)	CDC Water Fluoridation Reporting System (WFRS)
Frequent Mental Distress	CHR	BRFSS	BRFSS
3rd Grade Reading Level	Tennessee Department of Education	Tennessee Department of Education	
Preventable Hospitalizations	Hospital Discharge Data System: PHA	Hospital Discharge Data System: PHA	
Per Capita Personal Income	US Bureau of Economic Analysis	US Bureau of Economic Analysis	US Bureau of Economic Analysis
Access to Parks and Greenways	CHR	County Health Rankings (CHR)	County Health Rankings (CHR)
Adult Obesity	CHR	BRFSS	BRFSS
Adult Smoking	CHR	BRFSS	BRFSS
Neonatal Abstinence Syndrome	NAS Surveillance Data	NAS Surveillance Data	
Suicide Rates	Death Statistics: VRS	Death Statistics: VRS	CDC (WISQARS)
Educational Attainment: Graduated High School	ACS	ACS	ACS
Educational Attainment: Some College	ACS	ACS	ACS
Rate of Opioid Prescriptions	Informatics & Analytics	Informatics & Analytics	CDC
Diabetes	CDC, USDSS**	CDC, USDSS**	CDC, USDSS**
Fruits and Vegetables		BRFSS	BRFSS
Flu Vaccine Rates: Elderly	US Department of Human Health Services	US Department of Human Health Services	US Department of Human Health Services
Flu Vaccine Rates: 24 month old	Immunization Status Survey of 24 Month Old Children	Immunization Status Survey of 24 Month Old Children	



Department of

Health

County Data Package

HPV Vaccine Rate			TeenVaxView	TeenVaxView*
Rate of Food Borne Disease Complaints		CEDEP	CEDEP	
Adverse Childhood Experiences			National Survey on Children's Health	National Survey on Children's Health
Heart Disease Death Rate		Death Statistics: VRS	Death Statistics: VRS	CDC
Cancer Death Rate		Death Statistics: VRS	Death Statistics: VRS	CDC
Uninsured Rate		SAHIE	SAHIE	Census

	Data Definition		Notes
Youth Obesity	Percent of public school students with a body mass index (BMI) greater than or equal to the 85th percentile for children of the same age and sex		Measured by school year, not calendar year
Physical Activity	Percent of adults who reported doing physical activity or exercise during the past 30 days other than their regular job		*CHR receives this data from the CDC diabetes interactive atlas, which uses BRFSS data
Youth Nicotine Use: Cigarettes	Percent of high school students who currently smoked cigarettes on at least one day during the 30 days before the survey		
Youth Nicotine Use: Vaping	Percent of high school students who currently used electronic vapor products (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens) on at least one day during the 30 days before the survey		
Drug Overdose: Fatal	Number of drug overdose deaths caused by acute poisonings per 100,000 persons. This indicator includes all overdose deaths, regardless of intent (e.g. unintentional, suicide, assault, or undetermined). This indicator does not include: (1) deaths related to chronic use of drugs (e.g., damage to organs from long-term drug use), 2) deaths due to alcohol and tobacco, and 3) deaths that occur under the influence of drugs, but do not involve acute poisoning (e.g., a car crash that occurred because the driver was drowsy from taking a prescription drug).		
Opioid Overdose: Non-Fatal Discharges	This indicator contains the counts for all opioid-related non-fatal overdoses identified in the hospital discharge data system (HDDS), including both inpatient and outpatient visits. The counts include non-fatal overdoses involving heroin and other opioid drugs as indicated by ICD-9/10-CM codes (depending on the year).		*Only includes overdose events that involve a hospital encounter. Please note that in October 2015, coding transitioned from ICD-9-CM to ICD-10-CM, and any trends observed across this time period should be interpreted with caution.



Department of

Health

County Data Package

Infant Mortality	5 Year Average, 2014-2018 Number of infant deaths per 1,000 live births. Infants are those less than one year old.	Health data with regards to births and deaths was analyzed from January 1st, 2014 to December 31st, 2018. This data was collected from the Tennessee Department of Health's Birth Statistical System and Death Statistical System.
Teen Births	5 Year Average, 2014-2018. Number of births per 1,000 women aged 15-19 years	The number of births to women of ages 15-19 was compiled from the 2014-2018 Birth Data Systems produced and maintained by the Tennessee Department of Health, Division of Vital Records and Statistics. The population estimates for women aged 15-19 for 2014-2018 by county were compiled from interpolated data from the U.S. Census, Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2018, made accessible and maintained by the Tennessee Department of Health, Division of Population Health Assessment.
Community Water Fluoridation	Percent of population served by community water systems that are receiving optimally fluoridated water (Access to fluoridated water/population on community water systems)	
Frequent Mental Distress	Percent of adults who reported their mental health was 'not good' 14 or more days during the past 30	
3rd Grade Reading Level	Percent of public school students in grade 3 that test "on track" and "mastered" (i.e. "on mastered") for ELA in the state base accountability file ("data_2017_state_base.csv")	
Preventable Hospitalizations	The Prevention Quality Overall Composite is an aggregate measure of Prevention Quality Indicators (PQIs) described by the Agency for Healthcare Research and Quality (AHRQ). The composite score (rate) is used to identify quality of care for "ambulatory care-sensitive conditions." These are conditions for which early intervention and good outpatient care can potentially prevent complications and severity of disease resulting in hospitalizations. For example,	



Department of

Health

County Data Package

	patients with diabetes may be hospitalized for diabetic complications if their conditions are not adequately monitored or if they do not receive the patient education needed for appropriate self-management. Rates are calculated per 100,000 adult population of residence. For more information, see Prevention Quality Indicators Technical Specifications, Version v2018.	
Per Capita Personal Income	Annual, not seasonally adjusted, per capita personal income in dollars	
Access to Parks and Greenways	Percent of population with adequate access to locations for physical activity. Individuals are considered to have access to exercise opportunities if they reside in a census block that is within a half mile of a park, or reside in an urban census block that is within one mile of a recreational facility, or reside in a rural census block that is within three miles of a recreational facility.	*2010 & 2018
Adult Obesity	Percent of adults who reported a body mass index (BMI) that is considered obese (≥ 30)	
Adult Smoking	Percent of adults who are current smokers	
Neonatal Abstinence Syndrome	Number of reported Neonatal Abstinence Syndrome (NAS) cases per 1,000 live births	Fields with a * indicate data was suppressed due to too few births to generate a reliable rate estimate (per TDH data release policy)
Suicide Rates	5 Year Average, 2014-2018. Number of deaths from suicide per 100,000 total population. We are reporting a crude rate for all statistics	TN ICD-10 codes: X60-X84, Y87.0. US ICD-10 codes: U03, X60-X84, Y87.0 Health data with regards to births and deaths was analyzed from January 1st, 2014 to December 31st, 2018. This data was collected from the Tennessee Department of Health's Birth Statistical System and Death Statistical System.
Educational Attainment: Graduated High School	Percent of population aged 25 years and older who are high school graduates (includes equivalency) or higher	2013-2017 ACS 5-year estimates
Educational Attainment: Some College	Percent of population aged 25 years and older with some post-secondary education (Some college, no degree; Associate's degree; Bachelor's degree; Graduate or professional degree)	2013-2017 ACS 5-year estimates
Rate of Opioid Prescriptions	Number of opioid prescriptions for pain per 1,000 persons	Opioid – a class of drugs that include the illegal drug heroin as well as powerful pain



Department of

Health

County Data Package

			relievers available legally by prescription.
Diabetes	Percent of adults aged 20+ who reported ever being told by a health professional that they had diabetes.		County level estimates for 2016 diabetes prevalence. percentages are age-adjusted.
Flu Vaccine Rates: Elderly	Percent of Medicare Fee-for-Service beneficiaries (includes two-thirds of Americans aged 65+, as well as disabled Americans under age 65) who reported a claim to Medicare for receipt of a flu vaccine		*2016-2017 season **2015-2016 ***2014-2015
Flu Vaccine Rates: 24 month old	Percent of 24-month-old children with 2 doses of influenza vaccine		*At a regional level, not county. Percentage of 24 month olds with at least two lifetime doses of influenza vaccine
HPV Vaccine Rate	Percent of adolescents aged 13-17 with human papillomavirus (HPV) vaccination coverage (≥ 1 dose)		*Data source is NIS-Teen
Adverse Childhood Experiences	Percent of children aged 0-17 years who have experienced 2 or more adverse childhood experiences (ACEs)		
Heart Disease Death Rate	Number of deaths from diseases of the heart per 100,000 population (I00-I09, I11, I13, I20-I51)		
Cancer Death Rate	Number of deaths from malignant neoplasms per 100,000 population (C00-C97)		
Uninsured Rate	Percent of population aged 65 years and younger who report NOT CURRENTLY being covered by any health insurance or health coverage plans		

