RWJF Culture of Health
Sentinel Community Snapshot:

Tennessee
# Table of Contents

## Introduction

## Inequities Affect Health

---

## Access to Health Care

## Poverty

## Education

---

## Chronic Disease Prevention

---

## Physical Activity and Healthy Eating Initiatives

## Tobacco Use Prevention and Control

---

## Efforts to Improve Health in Grand Divisions

---

## Finding Solutions to Tennessee’s Health Challenges

---

---

## The Sentinel Communities project, conducted by RTI International in collaboration with the RAND Corporation, is sponsored by the Robert Wood Johnson Foundation. The project, which began in 2015, will monitor activities in each of 30 diverse communities around the country for at least five years. For the purpose of this report, the state of Tennessee is considered one community. This Snapshot is the first in a series of planned reports about this Sentinel Community through which we will provide insights into drivers of a Culture of Health in the state. This report is not intended to comprehensively describe every action underway in the state of Tennessee, but rather to provide an initial overview of the community’s history, challenges, and approaches to building a Culture of Health.

The information in this report was obtained by using several data collection methods, including an environmental scan of online and published community-specific materials, review of existing population surveillance and monitoring data, and initial interviews with representatives from the state department of health. For this report, the data collection team examined state-level data, as well as data specific to selected regions and cities within the state. This allowed us to build an understanding of the state’s Culture of Health, as well as possible regional differences that may exist.

We will continue our surveillance activities in Tennessee over the coming years, and report updated information on progress, challenges, and lessons learned in improving health and well-being for all residents. Visit cultureofhealth.org to see the full list of communities and links to other reports and information about the project.
Introduction

Tennessee is a southern state well known for its roots in popular American music, including blues, country, and rock and roll. Boasting Elvis Presley’s Graceland and Dolly Parton’s Dollywood, along with annual festivals, such as the Country Music Association’s Music Fest and Bonnaroo, music remains an integral part of Tennessee’s culture and contributes to the state’s $18 billion in tourism revenue.

Perhaps less well known is the state’s agricultural history. Before the Civil War, Tennessee was among the nation’s top 10 producers of tobacco, cotton, corn, wheat, and hogs. As of 2010, 70 percent of counties still grew tobacco, one of the state’s most profitable crops. In fact, Tennessee remains among the nation’s top five tobacco-producing states.

The Volunteer State, as it is commonly known, is primarily rural and has a population of 6,499,615. Tennessee has a higher proportion of white (75%) and black (17%) residents, compared with national averages (62% and 12%, respectively) and fewer Hispanics (5% compared with 17%). The Hispanic population, however, is growing. It has approximately doubled in the last 10 years. Tennessee’s two major cities, Memphis and Nashville, with populations of 657,167 and 634,512, respectively, are home to 20 percent of the state’s residents.

“Noncore” counties—those with cities or towns with populations of less than 10,000—are prevalent throughout the state. These counties (33 out of 95) are the most rural areas in the state.

The state is divided into three culturally and geographically distinct regions, called Grand Divisions: West Tennessee, Middle Tennessee, and East Tennessee (see Figure 1). West Tennessee is home to Memphis,
which is in Shelby County, situated in the southwestern corner of the state. Middle Tennessee is the state’s most urban region, containing Nashville and Davidson County (a merged government known as Metro Nashville). East Tennessee, dominated by the Appalachian Mountains, is dotted with mid-sized cities, including Chattanooga in Hamilton County, Knoxville (Knox County), and Johnson City (Washington County). However, for the most part, East Tennessee remains a rural region.

Each of Tennessee’s three Grand Divisions comprises approximately one-third of the state’s land area, and the geographic delineations and other distinctions between Grand Divisions are formally recognized in state law. Cultural, racial, and historical differences in the state’s Grand Divisions, and variations in income and education within each region, play a significant role in the health outcomes of residents. For example, a comparison of weighted county data that are aggregated by Grand Division shows that West Tennessee comprises 39 percent black residents, compared with 13 percent for Middle Tennessee and 6 percent for East Tennessee. West Tennessee’s economy was historically more dependent on cotton production, with its associated history of slavery, than the other two Grand Divisions. This report provides a snapshot of health and well-being issues and initiatives across Tennessee and in selected areas within the Grand Divisions: Memphis/Shelby County (West Tennessee), Nashville/ Davidon County (Middle Tennessee), and throughout East Tennessee.

Tennessee’s reliance on and long commitment to tobacco continues to affect the health and well-being of its residents. In 2015, slightly more than one in five Tennesseans smoked (22%), compared with fewer than one in five nationwide (18%). Tennessee also has higher rates of obesity and physical inactivity than a majority of other states and ranks 43rd out of 50 states for overall health. Compounding these health risks are low educational attainment and high poverty rates, which are even more prevalent in the state’s rural counties.

High rates of obesity and tobacco use, in particular, have spurred communities into making investments in a wide variety of cross-sector initiatives involving representatives from diverse sectors. Within the state and its three regions, leaders have formed innovative partnerships to address these and other issues and have mobilized a variety of stakeholders, including elected officials; public health departments; other government agencies, such as transportation and city planning departments; development districts; parks and recreation departments; law enforcement; departments of public works; advocates; nonprofit organizations; businesses and chambers of commerce; hospitals; universities; foundations; and schools. Those partnerships are working to address these issues at the state and local levels using a variety of strategies.

Inequities Affect Health

Across Tennessee, residents have differing levels of access to health care and varying rates of poverty and education. Understandably, these disparities are reflected in common health problems, such as obesity, chronic disease, and tobacco use. Health care is more accessible in urban than in rural areas and is also more accessible for some racial/ethnic groups than others. Racial/ethnic disparities also are evident for social and health outcomes, such as poverty, education, obesity, and chronic disease.
TENNESSEE
NOVEMBER 2017
RWJF CULTURE OF HEALTH
SENTINEL COMMUNITY SNAPSHOT

ACCESS TO HEALTH CARE
Tennessee is home to some of the nation’s best health care systems, and a high proportion of the population (87%) is covered by health insurance.9 Baptist Memorial Health Care and Methodist Healthcare in Memphis (West Tennessee); Covenant Health in Knoxville (East Tennessee); and Mountain States Health Alliance in Johnson City (East Tennessee)15, 16 are ranked among the nation’s top 100 health systems, based on factors, such as focus on the continuum of care and coordination of services.17 Moreover, Vanderbilt University’s Medical Center in Nashville (Middle Tennessee) is nationally ranked in several specialties.18 All of these celebrated systems, however, are located within Tennessee’s urban centers and counties (see Table 1), and many Tennessee residents live in medically underserved areas with limited access to care. In fact, a majority of counties are considered medically underserved—a designation based on the number of primary care physicians per 1,000 residents; infant mortality rate; percentage of the population with incomes below the federal poverty level; and the percentage of the population age 65 or over (see Figure 2).19, 20 Tennessee’s resident-to-primary-care-provider ratio is 1,377 to 1, but this ratio varies dramatically by county. For example, Stewart County, a noncore county in the Northwest of Middle Tennessee, has one primary care provider per 13,362 residents, whereas Washington County, in the state’s Northeast region, has one primary care provider for every 618 residents.13

To address a lack of care, many counties rely on mobile clinics and telemedicine. St. Mary’s Legacy Clinic offers a mobile health clinic that provides free care to East Tennessee residents. Wallace Mobile Healthcare was created to provide basic health services to the uninsured and underprivileged living in Knox and nearby counties. In addition, East Tennessee State University received a $191,000 grant from the U.S.
Department of Agriculture to establish a telemedicine system to provide care to residents in five counties in Tennessee, Kentucky, and Virginia. Although Tennessee’s uninsured rate (about 13%) is on par with the nation, the state struggles with large pockets of uninsured residents. Black and Hispanic residents are less likely to have health insurance than white residents, with more than one-third of Hispanic residents (38%) and 15 percent of black residents uninsured, compared with 11 percent of white residents. More than one-third (34%) of the state’s residents are covered by public insurance, including Medicaid and Medical Assistance; Medicare; Children’s Health Insurance Program; state-specific insurance plans for low-income populations; and, to a lesser extent, military and VA insurance. In Shelby County (West Tennessee), 33 percent of residents are covered by public insurance; in Davidson County (Middle Tennessee), 29 percent are covered by public insurance; and in noncore counties of East Tennessee, nearly half of the insured residents are covered by public insurance (estimated at 44%, using county data for each East Tennessee noncore county, weighted by the population of each of these counties).9

POVERTY
Poverty is a significant and enduring problem for many residents across Tennessee, affecting urban and rural residents alike. Statewide, 18 percent of residents live below the federal poverty level, compared with 16 percent in the United States. Tennessee’s poverty rate is similar to neighboring states (Kentucky and North Carolina) and lower than Mississippi (23%). Looking beyond the aggregate levels, however, poverty disproportionately affects Tennessee’s black and Hispanic populations. Twenty-nine percent of black residents and 33 percent of Hispanic residents live below the federal poverty level, compared with 14 percent of white residents.9 Moreover, children comprise 26 percent of Tennesseans living below the federal poverty level (above the national average of 22%). Hispanic (44%) and black children (42%) are twice as likely as white children (19%) to live in poverty.9 Poverty is not limited to any geographic region. The state’s largest urban centers experience as much, or more, poverty than some of its most rural counties9 (see Figure 3).

EDUCATION
Educational attainment in Tennessee is notably lower among racial/ethnic minorities and rural residents within the state. About 13 percent of the state’s white residents lack a high school diploma or graduate equivalent degree (GED), compared to 17 percent of black and 40 percent of Hispanic residents. Smaller metro areas in East Tennessee tend to have higher educational attainment than most other counties in the state. For example, Hamilton (13%), Knox (10%), and Washington (12%) counties have fewer residents without a high school diploma or equivalent compared to the noncore counties in the Appalachian region (East Tennessee) where nearly one in four residents (24%) lacks a high school diploma or GED.9

Looking at advanced educational attainment, only 25 percent of Tennesseans have a bachelor’s degree or higher, compared with 30 percent nationally. Approximately 26 percent of white Tennesseans have a bachelor’s degree or higher, compared with 18 percent of black residents and 13 percent of the Hispanic population. About one-third of all residents in the state’s urban counties have a bachelor’s degree or higher, with Shelby at 30 percent; Davidson at 37 percent; Hamilton at 29 percent; Knox at 35 percent; and Washington at 31 percent. However, only 11 percent of noncore eastern Tennessee county residents have a bachelor’s degree or higher.9

With sharp inequities in access to health care, poverty, and education, it is not surprising that many Tennesseans experience unfavorable health
outcomes compared to the nation. Tennessee’s overall obesity rate (31%) is comparable to the national average (30%) and its neighbors—North Carolina (30%) and Kentucky (32%)—and lower than neighboring Mississippi (36%). However, within Tennessee, black residents have higher rates of obesity and chronic disease (e.g., diabetes) compared with the white population. Likewise, smoking rates remain high among the state’s lower income and less educated residents. According to data from the 2014 Behavioral Risk Factor Surveillance System, three in four black Tennessee residents (76%) are overweight or obese, and 16 percent have been told they have diabetes. Comparatively, 67 percent of whites are obese or overweight, and 13 percent have been told they have diabetes. Although obesity prevention efforts have helped to reduce the childhood obesity rate in schools overall, rates of overweight and obesity are higher among black (34%) and Hispanic (60%) high school students compared with white students (31%) (Figure 4). In addition, rates of physical inactivity—defined as not participating in at least 60 minutes of physical activity on at least one day during the past seven days—are higher among black (23%) and Hispanic (27%) high school students compared with white students (17%) (Figure 4). Racial disparities are reflected in regional differences in health indicators. For instance, in Shelby County, where 53 percent of residents are black, more than one-third of county residents (34%) are obese and 13 percent suffer from diabetes.

Lower income residents in Tennessee are less likely to engage in physical activity and more likely to have diabetes. According to data from the 2014 Behavioral Risk Factor Surveillance System Survey, 57 percent of residents reporting a household income of less than $15,000 participated in any physical activity in the past month, compared with 87 percent of residents reporting a household income of more than $50,000. Moreover, 18 percent of residents with a household income of less than $15,000 have diabetes, compared with 10 percent making more than $50,000.

Tobacco use is associated with income and education, with those with lower incomes and education levels (see Figure 5) more likely to use tobacco products. Among individuals in households earning $15,000 or less, 38 percent smoke, compared to only 14 percent of individuals in households earning more than $50,000. In addition, 44 percent of Tennessee residents with less than a high school diploma smoke, compared with only 9 percent of college graduates. These differences reflect rural/urban differences as well. The noncore counties of East Tennessee, home to residents with generally lower incomes and educational attainment, have a slightly greater smoking prevalence (25%) than the state. Tennessee’s urban counties all report smoking prevalence figures below the state average.

**Chronic Disease Prevention**

Tennessee has embarked on a wide range of statewide initiatives to advance chronic disease prevention among its residents. In 2009, the
Tennessee Department of Health’s Division of Health Planning produced Tennessee’s first comprehensive State Health Plan. Since 2015, it has been working with the Health Department’s Office of Health Policy, the Division of Health Care Finance and Administration, the Bureau of TennCare (Tennessee’s Medicaid program), and five academic public health institutions across the state to develop a Population Health Improvement Plan, financed using approximately $700,000 of a $65 million grant from the Centers for Medicare & Medicaid Services State Innovation Model. The current planning approach favors primary prevention and includes a broad definition of health using social determinants of health. Although the plan does not specifically link priority areas to the social determinants of health, stated priority areas are perinatal health; child health; tobacco cessation; diabetes and obesity—with the idea that what is now called the “Big Four” behaviors—physical inactivity; excessive caloric intake; tobacco and nicotine addiction; plus other substance use disorders—play a large part in a variety of chronic diseases. Recognizing its low standing in many national health rankings, Tennessee’s elected and public health officials; local health departments; advocates; and nonprofit organizations have chosen to invest in a range of cross-sectoral initiatives to address these behaviors. Many of these interventions overlap with their goals of improving child health and diabetes. The Tennessee Livability Collaborative is using a Health in All Policies approach to improve health and well-being by encouraging collaboration among a variety of state agencies from various sectors, including transportation, education, and economic development sectors.

**PHYSICAL ACTIVITY AND HEALTHY EATING INITIATIVES**

Tennessee has created several statewide initiatives to increase healthy eating and physical activity among children and students, and has implemented or partnered with several national efforts. Many of these efforts have been implemented within the past five to 10 years, and some of the programs are showing promise.

Among the most prominent efforts in this regard is Tennessee’s Coordinated School Health (CSH) program, which focuses on reducing childhood overweight and obesity rates. The effort includes private and public partners from hospitals; universities; foundations; community-based organizations; and all school districts—to connect health with education through eight interrelated components (nutrition; health services; health education; physical education; healthy school environment; school counseling; student and family involvement; and school staff wellness). Developed by the Centers for Disease Control and Prevention (CDC) in 1988 and adopted by Tennessee in 2001, the program was not officially implemented until the 2007–2008 school year. Since then, the rate of overweight and obese students dropped from more than 41 percent during the 2007–2008 school year to less than 39 percent in 2014–2015, according to CSH’s annual report. Additionally, in 2013, 41 percent of students reported that they were physically active for at least 60 minutes per day during five or more of the previous seven days, up from just 25 percent in 2005.

The state has also undertaken policy change to encourage physical activity among youth. In March 2017, the Tennessee General Assembly passed an act requiring 130 minutes of physical activity each full school week for all elementary school students and 90 minutes of physical activity each full school week for middle and high school students.

Several other physical activity initiatives targeting children in specific communities also have demonstrated success. By May 2017, 98 percent of Tennessee schools had implemented GoNoodle, which helps parents and teachers motivate children in kindergarten through 5th grade to move throughout the school day. Since 2012, Tennessee State Parks Department has partnered with the NFL’s Play 60 Campaign to encourage physical activity and healthy eating in 25 schools, reaching 73,000 students.

Tennessee also initiated several statewide efforts to combat adult obesity. The Governor’s Foundation for Health and Wellness, a Nashville-based nonprofit, leads the Healthier Tennessee initiative, which is committed to producing positive, measurable change in diet, physical activity, and tobacco use. Funded through public and private sources, the statewide coalition is made up of health insurers; hospital systems; employers; local governments; schools; community organizations; health care organizations; and foundations. Healthier Tennessee recognizes communities that name a wellness champion to promote change and that establish at least three physical activity, three healthy eating, and one tobacco prevention/control programs. So far, 92 communities have participated in the “Healthier Tennessee Community” and 25 have received the designation.

Approximately 70 organizations spanning West, Middle, and East Tennessee have earned the “Healthier Tennessee Workplace” designation by implementing a wellness program that encourages physical activity; ensures that healthy foods are available at work; provides a tobacco-free environment and help with tobacco cessation. Through Project Diabetes, the Tennessee Department of Health also funds primary prevention projects to decrease the prevalence of overweight/obesity and, in turn, prevent or delay the onset of Type 2 diabetes or its consequences. Grantees include schools, trail associations, towns, and parks and recreation departments. In addition, Tennessee’s three regions have initiated their own efforts to address obesity, although efforts appear to be more prominent in urban centers than in rural counties.

**TOBACCO USE PREVENTION AND CONTROL**

Tennessee’s long history as a tobacco producer and its resulting high rate of tobacco use have created roadblocks to implementing meaningful and lasting efforts to reduce smoking and tobacco use. Like many states, Tennessee has used the Tobacco Master Settlement Agreement to fund efforts to reduce smoking among vulnerable populations and reduce secondhand smoke exposure. Tennessee began receiving Settlement funding in 1998, and it expects to receive almost $5 billion over a 25-year span. The funds are distributed directly to the General Assembly, which is not required to spend it on tobacco control, but can allocate it as it sees fit. For example, although the state received $137.4 million in Settlement funds in 2014, it spent only $71 million on tobacco prevention and control programs, less than 10 percent of the $75.6 million.
million funding level for state tobacco prevention and control activities recommended by the CDC. A portion ($1.9M) of the $7.1 million came from federal (CDC) sources.\textsuperscript{43} These funds were applied to programs intended to prevent youth initiation; reduce secondhand smoke exposure; and curtail smoking among pregnant women. To protect residents from secondhand smoke, Tennessee enacted the Nonsmokers Protection Act in 2007, which prohibits smoking in enclosed public spaces.\textsuperscript{44} The ban applies to restaurants, health care facilities, sports arenas, and hotels and motels, among other places. The law's passage was not without controversy, however. It is not considered comprehensive because of its significant exceptions that allow for continued smoking in bars that only serve people ages 21 or older and non-enclosed areas of public places, such as patios, smoking rooms in hotels, and private clubs.\textsuperscript{45, 46} Tennessee prohibits localities from enacting tobacco control laws that are more stringent than state law, which includes pre-emption of local policies that restrict smoking in workplaces and public places, tobacco advertising, and youth access to tobacco products.\textsuperscript{47}

To encourage pregnant women and new mothers to quit smoking, Tennessee adopted the Baby & Me—Tobacco Free Program,\textsuperscript{TM} which pairs women with facilitators to help with cessation. Women who are enrolled in the Baby & Me program and demonstrate that they are smoke-free receive monthly $25 vouchers for diapers for up to 12 months postpartum.\textsuperscript{48} Sixty-seven counties are participating in the program with 1,244 pregnant women enrolled; A total of 145 women have completed all four prenatal counseling sessions, and 85 of those women are receiving monthly vouchers for diapers for remaining tobacco-free. A total of 137 participants have given birth. Of babies born to program participants, only two were low birthweight babies (1.5% compared to the state's 9.1% average).\textsuperscript{49}

Although Tennessee has implemented several statewide efforts to reduce smoking, the state's efforts remain underfunded and would have greater impact if evidence-based interventions were more widely employed. For example, raising tobacco prices is among the most effective ways to reduce tobacco initiation and consumption, and can serve as a source of funding for tobacco control programming.\textsuperscript{50} But Tennessee’s cigarette excise tax of $0.62 per pack ranks 42nd in the nation. It is not surprising, therefore, that the state continues to grapple with an underfunded tobacco control program and high smoking rates.\textsuperscript{31}

### Efforts to Improve Health in Grand Divisions

The demographic, cultural, and geographic features of each of Tennessee’s Grand Divisions give rise to unique challenges relating to the health and well-being of residents, and examining state data alone could mask important regional differences. Socioeconomic and health outcomes in West Tennessee are markedly poorer than in the

---

**Figure 6. Poverty and Uninsured Prevalence, by Grand Division**

<table>
<thead>
<tr>
<th>Key:</th>
<th>West Tennessee</th>
<th>Middle Tennessee</th>
<th>East Tennessee</th>
<th>Tennessee</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage of Individuals in Poverty Who Are Children</td>
<td>Percentage of Individuals in Poverty</td>
<td>Uninsured</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>30%</td>
<td>30%</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>40%</td>
<td>40%</td>
<td>40%</td>
<td>40%</td>
</tr>
</tbody>
</table>


**Figure 7. Obesity and Diabetes Prevalence Among Adults, by Grand Division**

<table>
<thead>
<tr>
<th>Key:</th>
<th>West Tennessee</th>
<th>Middle Tennessee</th>
<th>East Tennessee</th>
<th>Tennessee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obesity</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>

other two Divisions. Figure 6 highlights similarities and differences in population-weighted social indicators across Grand Divisions. Figure 7 displays population-weighted obesity and diabetes prevalence across Grand Divisions, revealing significant disparities. An analysis of child and infant health outcomes in the three Grand Divisions documents poorer outcomes for West Tennessee as well.81

Because regional differences in health and socioeconomic indicators may reflect disparities relating to both race and urban/rural composition of the Grand Divisions, future reports will examine the interaction between race/ethnicity, urban setting, and regional outcomes. For example, Haywood County, a noncore county in West Tennessee, has the worst indicators in the state for diabetes and obesity. The county is both rural and contains a large minority population (50% of its residents are black). Both of these characteristics are often associated with poorer health and socioeconomic outcomes. Williamson County, south of Nashville in Middle Tennessee, is a large fringe metropolitan county comprising 86 percent white residents and is one of the wealthiest counties in the country. Williamson County is the highest performing county in the state for a variety of health indicators.82

Although the state of Tennessee is leading many efforts to curb obesity, improve physical activity, and reduce tobacco use, there are several local efforts directed to the unique challenges within each of the state’s Grand Divisions. Below, based on a review of publicly available information, exemplar approaches and initiatives are presented for areas representing each of the Grand Divisions. For West Tennessee, activities presented in this report are centered in Shelby County, the state’s most populous county and home to Tennessee’s largest city, Memphis. For Middle Tennessee, activities presented are those that affect a large segment of the population—in Davidson County, which is Tennessee’s second most populous county and home to Nashville, the state’s capital. East Tennessee features several small metropolitan areas and many rural counties. Selected activities are presented for each of these segments of the region. With the understanding that an online review of selected segments of each region does not capture many activities occurring across the state, particularly in rural areas with a smaller Web presence, a more comprehensive examination of each region’s activities will be undertaken in future reports.

SHELBY COUNTY (MEMPHIS)—WEST TENNESSEE

Although the state overall has predominantly white residents, the majority of residents in Shelby County and Memphis is black, and the population is largely poor.8 More than half of Shelby County residents are black (53%), while 63 percent of residents in Memphis are black. One in five county residents (21%) and 28 percent of Memphis residents are living below the federal poverty level. The numbers are even worse for children, with 33 percent of children in the county and 44 percent of children in Memphis living below the federal poverty level.8 Shelby is one of the two worst performing counties in Tennessee with regard to high school graduation rates.83 As previously mentioned, Tennessee’s black and poor residents overwhelmingly suffer from a high prevalence of obesity and diabetes, and that situation is realized in Shelby County and Memphis where 34 percent are obese and 13 percent suffer from diabetes, compared with 31 percent and 12 percent in the state, respectively.84,85 In recognition of the need to address these problems, Shelby County public agencies; businesses; community-based organizations; schools; and other sectors have devised a variety of innovative strategies. Strategies include cross-sector collaboration; policy change; integration of treatment and prevention; and targeted involvement of the private sector:

- To begin to tackle its high rates of obesity and diabetes in a coordinated and collaborative fashion, the Shelby County Health Department and Common Table Health Alliance created the Let’s CHANGE (Commit to Healthy Activity and Nutrition Goals Every day) program to Promote the ABC’S of health. More than 50 organizations have signed on to the effort, which encourages Access to healthy food and physical activity, modifying Behaviors related to activity and nutrition, providing means to make better Choices, and creating Systems to erase barriers to healthy food and activity.85 The initiative takes a multipronged approach, including advocacy for policies, environments, and systems that promote healthy lifestyles.

- In Shelby County, prevention and treatment are integrated in Le Bonheur Children’s Hospital’s Pediatric Obesity program, which aims to promote healthy weight among children and adolescents. On the treatment side, the hospital’s Healthy Lifestyle Clinic creates personalized plans to improve health conditions, body composition, and fitness. However, the program is also partnering with schools; parks and recreational facilities; community centers; and local governments to create scalable wellness programs for the community.83

- In January 2013, Memphis’ mayor enacted a Complete Streets policy by executive order, which highlights a changing emphasis from car-based transportation to multimodal street design that accommodates all users, including pedestrians and bicyclists.86 Despite the city’s location on the Mississippi River and status as a hub for transporting goods, it historically has an automobile-focused transportation system. After the current mayor’s election in 2010, he created a new city/county Office of Sustainability and hired a bicycle/pedestrian coordinator. Since then, the city has become more pedestrian and bicycle friendly. By May 2012, Bicycling magazine had listed Memphis as “America’s most improved bike city.” Such work continued, as the city then partnered with neighborhood leaders and business and nonprofit partners as the Memphis and Shelby County Complete Streets Coalition.

- The CEO Culture of Health initiative—partially funded by the Robert Wood Johnson Foundation and United Health Foundation and supported by the National Business Coalition on Health—has the goal of promoting health in the workplace and improving the sense of community, morale, and retention of employees. As
of March 2016, 64 businesses in the Memphis area have joined the initiative. The Memphis Business Group on Health assists businesses with planning and implementation by providing a Worksite Health Assessment, a roadmap for establishing an evidence-based wellness program and technical assistance.76

DAVIDSON COUNTY (NASHVILLE)—MIDDLE TENNESSEE

Despite having a more educated population than the state as a whole, poverty remains a consistent problem in the Metro Nashville area.9 Although the median income in Davidson County ($48,368) is higher than that of the state ($45,219), the percentage of the population living below the federal poverty level is the same as the state at 18 percent.9 And although the region features several health care facilities and opportunities for physical activity, obesity remains a concern. Thirty-two percent of the county’s residents are obese, compared with 31 percent of the state’s residents and 30 percent of the nation’s residents.15,16

The region has taken several creative steps to address the high rate of obesity. In Shelby County, Davidson County leaders have called on the community to collaborate to encourage health-promoting policies and healthier behaviors among residents. Engagement of residents has played a prominent part in Nashville's initiatives. Stakeholders have also taken steps to prioritize changes in the built environment and capitalize on the presence of several large universities to link academic institutions with community-based efforts for reducing childhood obesity. Below are exemplar initiatives occurring in Davidson County:

- In 2010, Nashville/Davidson County received a Communities Putting Prevention to Work grant, which it has used to improve fitness and diet through a variety of efforts. Through this initiative, the county formalized a Complete Streets plan to ensure safer streets and active transportation options for pedestrians, bicyclists, and transit users.96 And it launched NashVitality, a citywide initiative to encourage physical activity and healthier eating.97

As part of NashVitality, the community created a cross-sectoral School Nutrition Advisory Committee, with members ranging from parents to local growers, to improve healthy food options for 76,000 students.94; raised awareness of childhood obesity via the Children's Health Crisis video series by Nashville Public Television95; passed new policies promoting healthy foods in Metropolitan Public Health Department meetings and vending machines; and challenged the mayor and others to walk 100 miles over six weeks. In the end, the mayor and 4,000 residents walked 106,000 miles. The Metropolitan Public Health Department also worked with 29 corner stores to offer more healthy foods and drinks in an effort to reduce the prevalence of food deserts. The leadership of this initiative reflected its cross-sectoral approach, as it included representatives from the mayor’s office to the Chamber of Commerce to the Metro Nashville Public Schools.

- Nashville Children Eating Well for Health (CHEW for Health) is a partnership between three academic institutions (Tennessee State University, Meharry Medical College, and Vanderbilt University) and several community organizations—that is working to reduce childhood obesity through research, extension, and education, with particular emphasis on Women, Infants, and Children's (WIC) programs.88 It is funded through the U.S. Department of Agriculture’s (USDA’s) National Institute of Food and Agriculture’s Agriculture and Food Research Initiative. The Community Advisory Board comprises a range of individuals and organizations in Nashville, including WIC recipients, WIC grocery stores, nonprofit organizations, and the Metro Nashville Health Department.

- NashvilleHealth, an initiative founded by William H. (“Bill”) Frist, MD, a former two-term U.S. senator representing Tennessee, aims to “serve as a convener to open dialogue, align resources and build smart strategic partnerships to forge a dynamic plan to improve the health of all Nashvillians.”84 The initiative, managed by the Community Foundation of Middle Tennessee using initial seed funding from the Robert Wood Johnson Foundation, will eventually become a 501(c)(3) nonprofit. It will initially focus its efforts on the issues of hypertension, smoking cessation, and child health, with the goal of helping the sickest and most disadvantaged residents.82

APPALACHIA—EAST TENNESSEE

The population across East Tennessee is largely white, but education and income differ greatly between the region’s cities and rural areas.8 Also, unsurprisingly, access to care is harder to come by in rural areas than the region’s cities.

Additionally, the region overall has high rates of obesity and diabetes, at 31 percent and 12 percent, respectively.89 Urban areas seem to have several initiatives to address these concerns; however, very few efforts were identified in noncore counties. Future reports will focus on identifying initiatives that may be occurring in these areas.

KNOX COUNTY

Knox County, which is home to the University of Tennessee (UT), has shown a strong commitment to reducing obesity and tobacco use. Boosted by support from the university, the presence and involvement of a private, not-for-profit children’s hospital, and from outside grant funding, the community has engaged in cross-sector collaboration and modifications to the built environment. Some of these efforts have been associated with positive changes in health outcomes.

- The East Tennessee Children’s Hospital Childhood Obesity Coalition is working to improve the health of children and reduce the incidence of child obesity. Formed in 2008, the coalition offers several programs to achieve its mission, including Health Happens!—a nutrition and physical activity program targeting preschool students, parents, and teachers; Healthy Kids Club, which promotes afterschool physical activity for elementary and middle school students; and the Grub Club, which teaches students about eating healthy foods. The coalition is funded by a variety of local...
partners, including Ronald McDonald House Charities of Knoxville, Keurig Green Mountain, and Knox County Parks and Recreation. The county also received in 2009 a four-year, $360,000 grant from the Robert Wood Johnson Foundation for the Healthy Kids, Healthy Communities partnership, to promote active living and healthy eating in three communities: Lonsdale, Inskip, and Mascot. The project included the construction of 16 new crosswalks, 12 wayfinding signs, a new sidewalk near a school, and improved playgrounds. The program also helped create two new community gardens.

UT Knoxville and UT Institute of Agriculture received a $1 million grant from USDA to create a regional center to promote nutrition education and obesity prevention.

Knox County also implemented the National League of Cities’ Let’s Move! Cities, Towns, and Counties for Healthier Kids program, which provides nutrition education programs in child-care centers and nutrition education, healthier snacks, and wellness policies in schools, and it promotes more outdoor activities. As a result of these efforts, since the 2009–2010 school year, the percentage of overweight and obese students screened fell from 38 to 33 percent; in 2012–2013, 1,560 children enrolled in healthy snack programs.

The Smoke-Free Knoxville Coalition was formed in 1994 by interested community members and representatives from area hospitals to reduce tobacco use. The coalition wrote the Tobacco Use Prevention and Reduction plan for Knox County based on CDC’s Best Practices guide.

The Knox County Health Department Tobacco Use Prevention and Control Program manages the Power to Quit Program for Expectant Moms, which is working to reduce secondhand exposure for infants and youth, prevent youth smoking, and help women quit during pregnancy. This initiative is similar to the statewide Baby & Me effort and provides gift cards to women who meet smoking cessation goals.

The Knox County Health Department Tobacco Use Prevention and Reduction plan was adopted in 2001, and it promotes smoking cessation and tobacco-free policies. The initiative is paid for with Tobacco Settlement funds.

The Smoke-Free Chattanooga is a collaboration of local health providers and hospitals working to promote efforts and policies to reduce smoking and smoke-free organizations.

Eleven Hamilton County Mayors have joined together to promote a “Smoke Free Community” initiative, which aims to encourage residents to refrain from smoking in parks and public spaces. The initiative is paid for with Tobacco Settlement funds.

In 1994, the City of Chattanooga contracted with the Trust for Public Land to establish a unified greenway system. Efforts are now underway in several parts of the community to plan and build these trails and parks. Recently, the city, in partnership with the county and several nonprofit groups, developed a loop of interconnected trails consisting of about 25 miles of trail. The loop will provide more residents with opportunities for exercise and access to parks along the Riverwalk.

WASHINGTON COUNTY
In Washington County, home to Johnson City, initiatives highlight the potential for collaboration between local partners and East Tennessee State University (ETSU), a public university in the city.

ETSU is working on multiple efforts to combat obesity. The Healthy Eating, Active Living Appalachia effort is a partnership between ETSU, Mountain States Health Alliance, and other community partners to address obesity in the area.

Team Up for Healthy Living is a program through ETSU’s College of Public Health to provide peer education to reduce obesity among adolescents.

The Tweetsie Trail, funded by donations from local governments, individuals, and businesses, will consist of 10 miles of trail when completed. It uses former East Tennessee and Western North Carolina Railroad right-of-way between Johnson City and Elizabethton to give residents opportunities for walking, hiking, running, and biking.

HAMILTON COUNTY
In Hamilton County, government officials, schools, and businesses have become involved in health promotion initiatives, but much of the activity thus far has been carried out by traditional health-related agencies, such as the health department, hospitals, and health care providers. The county also has invested heavily in a trail system that provides opportunities for exercise and connectivity between neighborhoods and natural features.

Chattanooga-Hamilton County Health Department, Regional Health Council, and the County Mayor created the Step ONE (Optimize with Nutrition and Exercise) Initiative in 2004 to offer resources on healthy eating and fitness and to help develop community gardens.

Chattanooga-Hamilton County Health Department, Regional Health Council, and the County Mayor created the Step ONE (Optimize with Nutrition and Exercise) Initiative in 2004 to offer resources on healthy eating and fitness and to help develop community gardens. Grow Healthy Together Chattanooga’s Healthy Kids, Healthy Communities Initiative is working to reduce and prevent childhood obesity. The effort, funded by public and private dollars, established a Healthy Living Fund to incentivize businesses to match support for local efforts; opened school facilities on weekends and evenings for physical activity; improved playground facilities; constructed more than 30 community gardens; and created physical activity programs at community recreation centers.

Tobacco-Free Chattanooga is a collaboration of local health providers and hospitals working to promote efforts and policies to reduce smoking and smoke-free organizations.

Eleven Hamilton County Mayors have joined together to promote a “Smoke Free Community” initiative, which aims to encourage residents to refrain from smoking in parks and public spaces. The initiative is paid for with Tobacco Settlement funds.

In 1994, the City of Chattanooga contracted with the Trust for Public Land to establish a unified greenway system. Efforts are now underway in several parts of the community to plan and build these trails and parks. Recently, the city, in partnership with the county and several nonprofit groups, developed a loop of interconnected trails consisting of about 25 miles of trail. The loop will provide more residents with opportunities for exercise and access to parks along the Riverwalk.

NONCORE COUNTIES
Beyond those efforts, there appear to be limited local programs and initiatives trying to reduce rates of obesity and tobacco use throughout the counties.

WASHINGTON COUNTY
In Washington County, home to Johnson City, initiatives highlight the potential for collaboration between local partners and East Tennessee State University (ETSU), a public university in the city.

ETSU is working on multiple efforts to combat obesity. The Healthy Eating, Active Living Appalachia effort is a partnership between ETSU, Mountain States Health Alliance, and other community partners to address obesity in the area.

Team Up for Healthy Living is a program through ETSU’s College of Public Health to provide peer education to reduce obesity among adolescents.

The Tweetsie Trail, funded by donations from local governments, individuals, and businesses, will consist of 10 miles of trail when completed. It uses former East Tennessee and Western North Carolina Railroad right-of-way between Johnson City and Elizabethton to give residents opportunities for walking, hiking, running, and biking.

HAMILTON COUNTY
In Hamilton County, government officials, schools, and businesses have become involved in health promotion initiatives, but much of the activity thus far has been carried out by traditional health-related agencies, such as the health department, hospitals, and health care providers. The county also has invested heavily in a trail system that provides opportunities for exercise and connectivity between neighborhoods and natural features.

Chattanooga-Hamilton County Health Department, Regional Health Council, and the County Mayor created the Step ONE (Optimize with Nutrition and Exercise) Initiative in 2004 to offer resources on healthy eating and fitness and to help develop community gardens.

Chattanooga-Hamilton County Health Department, Regional Health Council, and the County Mayor created the Step ONE (Optimize with Nutrition and Exercise) Initiative in 2004 to offer resources on healthy eating and fitness and to help develop community gardens. Grow Healthy Together Chattanooga’s Healthy Kids, Healthy Communities Initiative is working to reduce and prevent childhood obesity. The effort, funded by public and private dollars, established a Healthy Living Fund to incentivize businesses to match support for local efforts; opened school facilities on weekends and evenings for physical activity; improved playground facilities; constructed more than 30 community gardens; and created physical activity programs at community recreation centers.

Tobacco-Free Chattanooga is a collaboration of local health providers and hospitals working to promote efforts and policies to reduce smoking and smoke-free organizations.

Eleven Hamilton County Mayors have joined together to promote a “Smoke Free Community” initiative, which aims to encourage residents to refrain from smoking in parks and public spaces. The initiative is paid for with Tobacco Settlement funds.

In 1994, the City of Chattanooga contracted with the Trust for Public Land to establish a unified greenway system. Efforts are now underway in several parts of the community to plan and build these trails and parks. Recently, the city, in partnership with the county and several nonprofit groups, developed a loop of interconnected trails consisting of about 25 miles of trail. The loop will provide more residents with opportunities for exercise and access to parks along the Riverwalk.

NONCORE COUNTIES
Beyond those efforts, there appear to be limited local programs and initiatives trying to reduce rates of obesity and tobacco use throughout the counties.
the noncore counties. These areas appear to be more reliant on regional and statewide programs and national evidence-based programs.

- Regional Roadmap for a Healthier Appalachian Tennessee, launched by the Tennessee Institute of Public Health at ETSU in 2013, provides minigrants to support community-based approaches to address specific health issues, including obesity. The program is funded through public-private partnership, with support from Blue Cross and Blue Shield of Tennessee Health Foundation, Appalachian Regional Commission, Eastman Chemical Co., and ETSU. The Regional Roadmap program has been tapped by many agencies across the region, including nutrition outreach at the Boys and Girls Club of Dumplin Valley in Johnson County and an obesity and nutrition program though the Southeast Regional Health Office in Mieg County.76

- Johnson County Health Department provides an example of how a local health department has used state grant funds and national evidence-based programs to bolster local efforts to reduce tobacco use. The department's #Unsmokeable Campaign, funded by the Tennessee Department of Health and Tobacco Settlement Funding, encourages youth to refrain from smoking, whether by quitting or not starting.77 The department's Trash the Can program, funded through a $50,000 grant from the State Department of Health, encourages teens to not use smokeless tobacco. Johnson County also plans to implement the American Lung Association's Teens Against Tobacco Use program and the STOP program, which will use data to develop anti-smoking policies and programs for the school district.78

Finding Solutions to Tennessee’s Health Challenges

Initial analyses point to numerous health challenges facing Tennessee, many of which are directly tied to disparities by income, education, region, and race/ethnicity. State, regional, and local agencies, along with private-sector partners, have taken steps to address their priority health concerns of obesity and tobacco use. The state is making progress in tackling childhood obesity by decreasing the percentage of students who are overweight or obese and increasing the percentage of students who are engaging in physical activity. The state has implemented some tobacco reduction efforts, but these are not always evidence-based or implemented with sufficient intensity or reach. The demographic, cultural, and geographic features of each region present unique challenges relating to the health and well-being of residents, which require varied approaches to developing and implementing local initiatives. Urban counties, such as Shelby and Davidson, have developed several large-scale initiatives involving multiple sectors, which include approaches such as policy change, integration of treatment and prevention, and changes to the built environment. Leaders in many urban counties have also been able to take advantage of resources and partnerships available to them through local universities. Rural counties, on the other hand, appear to be more dependent on regional, statewide, and national programs. Additional surveillance, data and information gathering, analysis, and reporting will examine the extent to which Tennessee’s initiatives are addressing the state’s priority health concerns, particularly among racial/ethnic minorities and populations with low incomes and low educational attainment. Future reports will also delve into the interaction between race/ethnicity, urban setting, and regional outcomes. Ongoing questions for the state and each region include the following:

STATE

- What factors contribute to the rural/urban disparities in socioeconomic and health outcomes? How does urban setting and race/ethnicity affect differences in outcomes by Grand Division? To what extent do approaches to advancing community health and well-being vary across Grand Divisions, and how are these being tailored to address population characteristics within each region?

- To what extent do Tennessee stakeholders and residents share a common understanding of health inequities and how to address them, and to what extent does this differ across regions of the state? What efforts, if any, are being made to engage Tennessee’s underserved residents in the process of planning and implementing initiatives to address inequities?

- What cross-sector collaborations are in place to reduce inequities in the urban and rural regions of the state? What collaborations exist in each region and what types of cross-regional collaborations exist (e.g., partnerships among rural counties across the state)? Who is involved and how?

- How is Tennessee working to improve access to health care in underserved areas of the state?

- To what extent have the state’s health priorities been integrated into the missions, goals, and actions of nonhealth-related organizations or sectors? In what ways are organizations in nonhealth sectors working to address health inequities? Are there specific efforts that are aimed to improve the health and well-being of certain groups experiencing disparities?

- What initiatives exist across the state to improve infrastructure and modify the built environment to improve health and well-being?
• To what extent are the Tennessee Livability Collaborative and the Healthier Tennessee Workplaces initiative affecting the health and well-being of Tennessee residents?

• In what ways are the voices of the large black population of Memphis/Shelby county incorporated into local decision-making processes about health and well-being? What is the status of leadership for this traditionally marginalized group?

• What cross-sector collaborations are in place to meet the health care needs of the large proportion of uninsured residents in Memphis/Shelby County?

• In what ways is Middle Tennessee addressing the built environment as a part of its effort to build a Culture of Health and how have these efforts affected the health and well-being of residents? What changes to the built environment are planned in the near future?

• How has leadership from the mayor’s office influenced Nashville’s path toward a Culture of Health?

• In what ways has the presence of several major universities facilitated cross-sector collaboration in the Nashville area? What other influential partnerships, coalitions, or initiatives involve the universities?

• How is East Tennessee working to improve access to health care in medically underserved Appalachia? To what extent are mobile health clinics reaching the noncore counties with the greatest provider shortages in Appalachia?

• What factors contribute to the rural/urban disparities in educational attainment in East Tennessee? What is Tennessee doing to improve educational attainment in rural Appalachia?
References


42. Henry J. Kaiser Family Foundation. Actual Tobacco Settlement Payments Received by the States (in millions). http://kff.org/other/state-indicator/tobacco-settlement-payments /?currentYear=0&sortModel=%7B%22sortId%22%3A%22Location%22%2C%22sort%22 %22asc%22%7D. Published 2014. Accessed September 13, 2017.


75. Johnson S. 25 Mile Greenway Loop Through Chattanooga to be Completed This Year. Times Free Press. February 1, 2016.

