Saint Thomas Stones River Hospital

Community Health Needs Assessment

Cannon County, Tennessee
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The Community Health Needs Assessment (CHNA) defines priorities for health improvement, creates a collaborative community environment to engage stakeholders, and provides an open and transparent process to listen and truly understand the health needs of Cannon County, Tennessee. Saint Thomas Stones River Hospital has not previously conducted a CHNA, as it had been an investor-owned facility and exempt from the requirement. In 2015, Saint Thomas Stones River Hospital was purchased by Saint Thomas Health, a 501(c)3 organization, and is henceforth required to conduct a CHNA. Therefore, there was no evaluation of efforts since the previous CHNA.
Saint Thomas Stones River Hospital, as the sponsor of the assessment, engaged Stratasan, a healthcare analytics and facilitation company out of Nashville, Tennessee to marshal the process and provide community health data and facilitation expertise. Stratasan provided the analysis of community health data and facilitated a focus group and the community health summit to assist the community with determining significant health needs and goals for improvement. Alexandra Norton, Saint Thomas Health’s Director of Community Health and & Benefit, solicited individual insight from community leaders through in-person interviews and a written survey.

Saint Thomas Health Regional Hospital’s Board of Directors will approve and adopt this CHNA along with the associated Implementation Strategy.

Beginning in March 2017, this report is made widely available to the community via Saint Thomas Stones River Hospital’s website, http://www.sthealth.com/about-us/mission-integration/community-health/community-health-needs-assessment, and paper copies are available free of charge at Saint Thomas Stones River Hospital.

Participants

Over forty individuals from twenty community and health care organizations collaborated to implement a comprehensive CHNA process focused on identifying and defining significant health needs, issues, and concerns of Cannon County, Tennessee. The three-month process centered on gathering and analyzing data as well as receiving input from persons who represented the broad interests of the community and had special knowledge of or expertise in public health to provide direction for the community and hospital to create a plan to improve the health of the community.

Project Goals

1. To implement a formal and comprehensive community health assessment process which will allow for the identification and prioritization of significant health needs of the community, to then inform resource allocation, decision-making and collective action that will improve health.

2. To initiate a collaborative partnership between all stakeholders in the community by seeking input from persons who represent the broad interests of the community, including medically underserved, low income and minority populations.

3. To support the existing infrastructure and utilize resources available in the community to instigate health improvement in the community.
"We initiated the Community Health Needs Assessment with the goal of identifying community health needs, and setting goals, objectives and priorities," said Andy Wachtel, President and Chief Executive Officer, Saint Thomas Stones River Hospital. "It is our goal to use our findings as a foundation for improving and promoting the health of the whole community."

“The information we gathered both from public health data and from community stakeholders provided the insight the community needed to set priorities for significant health issues and will be used by Saint Thomas Stones River Hospital to create an implementation plan. We hope other community organizations will join us." added Alexandra Norton, Director of Community Health and Benefit, Saint Thomas Health. "The Community Health Summit was the final step in the assessment process. Now the real work—improving the health of the community and implementing the ideas presented—begins."
Community

Input and Collaboration

In March 2016, Saint Thomas Health contracted with Stratasan to assist in conducting a Community Health Needs Assessment for Cannon County, Tennessee. Saint Thomas Stones River Hospital sought input from persons who represent the broad interests of the community using several methods:

• Fifteen community members participated in a focus group for their perspectives on community health needs and issues on October 25, 2016.
• Information gathering, using secondary public health sources, occurred in August and September of 2016.
• Twelve community members were interviewed regarding their perspectives on community health status and needs in October and November 2016.
• A Community Summit was conducted on November 8, 2016 with fifteen community stakeholders. The audience consisted of healthcare providers, Cannon County Health Department, government representatives, schools, social service organizations and others.

Data Collection and Timeline

Photo Credit: Arts Center of Cannon County
Participation in the focus group, interviews, surveys and at the Community Summit creating the Cannon County Community Health Needs Assessment and Improvement Plan:

<table>
<thead>
<tr>
<th>Organization</th>
<th>Population Represented (kids, low income, minorities, w/o access)</th>
<th>How Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts Center of Cannon County</td>
<td>Broad Arts Center User Population</td>
<td>Focus Group, Interviews</td>
</tr>
<tr>
<td>Cannon County Chamber of Commerce</td>
<td>All</td>
<td>Focus Group, Summit</td>
</tr>
<tr>
<td>Cannon County Health Department</td>
<td>All</td>
<td>Summit</td>
</tr>
<tr>
<td>Cannon County Schools</td>
<td>Kids</td>
<td>Summit, Interviews</td>
</tr>
<tr>
<td>Cannon County Senior Center</td>
<td>Age 60+</td>
<td>Focus Group</td>
</tr>
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<td>Cannon Courier - Newspaper</td>
<td>Cannon County</td>
<td>Focus Group</td>
</tr>
<tr>
<td>Child Advocacy Center</td>
<td>Rutherford and Cannon Counties</td>
<td>Focus Group</td>
</tr>
<tr>
<td>Community Wellness Clinic</td>
<td></td>
<td>Interviews</td>
</tr>
<tr>
<td>Coordinated School Health</td>
<td></td>
<td>Interviews</td>
</tr>
<tr>
<td>First Baptist Church</td>
<td>Community</td>
<td>Summit</td>
</tr>
<tr>
<td>First Methodist Church</td>
<td>Cannon County</td>
<td>Focus Group</td>
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<tr>
<td>General Sessions Court</td>
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<td>Interviews</td>
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<tr>
<td>Ignite Missions &amp; Ministry, Inc.</td>
<td>All</td>
<td>Focus Group, Summit</td>
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<td>Juvenile Court</td>
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<td>Interviews</td>
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<tr>
<td>Local LGBTQ Community</td>
<td>LGBTQ Community</td>
<td>Interview</td>
</tr>
<tr>
<td>Saint Thomas Stones River Hospital</td>
<td>All</td>
<td>Focus Group, Summit</td>
</tr>
<tr>
<td>Town of Auburnville</td>
<td></td>
<td>Interviews</td>
</tr>
<tr>
<td>Town of Woodbury</td>
<td></td>
<td>Interviews</td>
</tr>
<tr>
<td>Upper Cumberland Human Resource Agency</td>
<td>All</td>
<td>Focus Group, Summit, Interviews</td>
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<tr>
<td>UT Extension</td>
<td>All</td>
<td>Summit</td>
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<tr>
<td>We Care Cannon</td>
<td>Youth, students, low socioeconomic</td>
<td>Focus Group, Summit</td>
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<tr>
<td>Woodbury Health and Rehabilitation Center</td>
<td>Seniors</td>
<td>Focus Group, Summit</td>
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</table>
Input of Public Health Officials

At the Summit held on November 8, 2016 Kaitlin Patterson, Health Educator for Cannon County Health Department presented information and priorities from 2016 TN Department of Health Cannon County Community Health Status. For more information, visit http://tennessee.gov/health/section/statistics.

Ms. Patterson reviewed County Health Rankings’ recent data comparing Cannon County to the other counties in the Upper Cumberland area in areas such as mortality, % poor or fair health, low birthweight babies, tobacco use, adult obesity, physical inactivity, injury deaths, alcohol impaired driving deaths, teen birth rate, uninsured, high school graduation, and children in single parent households. She compared the Upper Cumberland results to Tennessee and a national benchmark. From these metrics, the Upper Cumberland region appeared fairly homogenous in its health needs. Some highlights of the presentation are below.

Photo Credit: Arts Center of Cannon County
Tennessee Big Four priorities as outlined in the report were:
1. Tobacco Use
2. Obesity
3. Physical Inactivity
4. Substance Abuse

She outlined what the state and local health departments are doing relative to each of these issues.

Tobacco use
- Baby and Me Tobacco Free
- Project TNT
- Tobacco Quitline
- Making public places smoke free
- T4 Peer Group

Obesity
- My Plate
- WIC
Input of Medically Underserved, Low-Income and Minority Populations - Community Engagement and Transparency

Input was received during the focus group, interviews and the summit. People representing these population groups were intentionally invited to participate in the process.

**Community Engagement and Transparency**

We are pleased to share the results of the Community Health Needs Assessment with our community in hopes of attracting more advocates and volunteers to improve the health of the community. The following pages highlight key findings of the assessment. We hope the community will take the time to review the health needs of our community, as the findings impact each and every citizen in one way or another, and join in the improvement efforts. The comprehensive data analysis may be obtained via a PowerPoint on the website or by contacting Saint Thomas Stones River Hospital.

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Photo credit: Arts Center of Cannon County
Community

Selected for Assessment

Saint Thomas Stones River Hospital’s health information provided the basis for the geographic focus of the CHNA. The map below shows where Saint Thomas Stones River Hospital received its patients in 2015; 45% of Saint Thomas Stones River Hospital’s inpatients came from Cannon County, the leading county in patient origin. The next highest county was Warren, and Saint Thomas River Park Hospital is focusing on Warren County. Therefore, Cannon County was selected as the primary focus of the CHNA.

The community included medically underserved, low-income or minority populations who live in the geographic areas from which Saint Thomas Stones River Hospital draws its patients. All patients were used to determine the service area without regard to insurance coverage or eligibility for financial assistance under Saint Thomas Stones River Hospital’s Financial Assistance Policy.

Saint Thomas Stones River Hospital Patients - 2015

Source: Saint Thomas Stones River Hospital, 2015
Key Findings

Community Health Assessment

Information Gaps

While this assessment was quite comprehensive, it cannot measure all possible aspects of health in the community, nor can it adequately represent all possible populations of interest. It must be recognized that these information gaps might in some ways limit the ability to assess all the community’s health needs.

For example, certain population groups (such as the homeless, institutionalized persons, or those who only speak a language other than English or Spanish) were not represented in the survey data.

Other population groups (for example, pregnant women, undocumented residents, and members of certain racial/ethnic or immigrant groups) might not be identifiable or might not be represented in numbers sufficient for independent analyses.

Cannon County has an active LGBTQ population and we were able to receive input through the interviews.

Process and Methods

Both primary and secondary data sources were used in the CHNA. Primary methods included:

- Community focus group
- Community individual interviews
- Community Health Summit

Secondary methods included:

- Public health data – death statistics, county health rankings
- Demographics – population, poverty, uninsured
- Psychographics - demographics with spending behaviors

Photo credit: Arts Center of Cannon County
Demographics of the Community

The table below shows the demographic summary of Cannon County compared to Tennessee and the U.S.
- Source: ESRI

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Cannon County</th>
<th>Tennessee</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (2016)</td>
<td>14,176</td>
<td>6,698,359</td>
<td>318,536,439</td>
</tr>
<tr>
<td>Median Age (2016)</td>
<td>42.8</td>
<td>39.1</td>
<td>37.9</td>
</tr>
<tr>
<td>Median Household Income (2016)</td>
<td>$38,597</td>
<td>$44,947</td>
<td>$53,217</td>
</tr>
<tr>
<td>Annual Pop. Growth (2016-21)</td>
<td>0.27%</td>
<td>0.92%</td>
<td>0.75%</td>
</tr>
<tr>
<td>Household Population (2016)</td>
<td>5,638</td>
<td>2,615,273</td>
<td>120,746,349</td>
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<tr>
<td>Dominant Tapestry (2016)</td>
<td>Southern Satellites (10A)</td>
<td>Rooted Rural (10B)</td>
<td>Green Acres (6A)</td>
</tr>
<tr>
<td>Businesses (2016)</td>
<td>432</td>
<td>263,305</td>
<td>13,340,415</td>
</tr>
<tr>
<td>Employees (2016)</td>
<td>2,764</td>
<td>3,430,812</td>
<td>158,567,719</td>
</tr>
<tr>
<td>Medical Care Index* (2016)</td>
<td>75</td>
<td>87</td>
<td>100</td>
</tr>
<tr>
<td>Average Medical Expenditures (2016)</td>
<td>$1,432</td>
<td>$1,674</td>
<td>$2,098</td>
</tr>
<tr>
<td>Total Medical Expenditures (2016)</td>
<td>$8.1 M</td>
<td>$4.4 B</td>
<td>$253.3 B</td>
</tr>
</tbody>
</table>

Racial and Ethnic Make-up
- White: 95%
- Black: 2%
- American Indian: 0%
- Asian/Pacific Islander: 0%
- Mixed Race: 1%
- Other: 2%
- Hispanic Origin: 2%

- Source: ESRI
Cannon County, Tennessee

- The population of Cannon County was projected to increase from 2016 to 2021 (.27% per year), lower than the rate of TN at .92%, but higher than the U.S. at .75%.
- Cannon County was older (42.8 median age) than TN and the U.S. and had lower median household income ($38,597) than both TN and the U.S.
- The medical care index measures how much the county spent out of pocket on medical care services. The U.S. index was 100. Cannon County (75 index) spent 25% less than the average U.S. household out of pocket on medical care (doctor's office visits, prescriptions, hospital visits).
- The racial make-up of Cannon County was 95% white, 2% black, 1% mixed race, 2% other, and 2% Hispanic origin. (The numbers will total to over 100% due to Hispanic being an ethnic group, not a race)
- The median household income distribution of Cannon County was 9% higher income (over $100,000), 59% middle income and 32% lower income (under $24,999).

2016 Population by Census Tract and Change (2016-2021)

Census tracts generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people. There are three census tracts in Cannon County, north south and mid-county. There was a higher population census tract, 5,000-6,999 in the mid-section of the county. There was one low population tracts, 1-3,499 in the southern section of the county. One 3,500 – 4,999 in the northern part of the county and the center tract had 5,000 – 6,999 population.

The population was projected to grow throughout the county, although slightly based on the county yearly growth percentage of .27%.
These maps depict median age and median income by census tract. There was homogeneous median age distribution throughout the county with median age 40-44.

There was also homogeneous median household income throughout the county with median household incomes in the range $9,700-$44,999.

The rate of poverty in Cannon County was 16.4% (2009-2013 data), which was above TN (18.2%) and the U.S. (15.5%). The poverty percentage was in the middle range of contiguous counties. DeKalb was highest at 20.1% and Wilson was lowest at 10.1%.

Cannon County’s unemployment was 4.9% compared to 4.6% for Tennessee and 4.9% for the U.S. (August 2016 Preliminary). Unemployment decreased significantly in the last few years.

Fifteen percent of Cannon County had no health insurance in 2014. For people less than 200% of poverty, the percentage of uninsured was 22.3%. Approximately 16% of Cannon County had Medicare, 22% had TennCare and 47% had other, which would most likely be insurance through an employer or individual policy.

The median is the value at the midpoint of a frequency. There is an equal probability of falling above or below the median.
Health Status Data

The major causes of death in Cannon County were heart disease, followed by cancer (the same order as TN and the U.S.), accidents, stroke are next followed by, chronic lower respiratory disease, diabetes, Alzheimer's Disease, and suicide. Source: 2012-2014 Tennessee Department of Health; CDC official final deaths 2014.

Based on the latest County Health Rankings study performed by the Robert Wood Johnson Foundation and the University of Wisconsin [2], Cannon County ranked 52nd healthiest county in Tennessee out of the 95 counties ranked (1= the healthiest; 95 = unhealthiest). County Health Rankings suggest the areas to explore for improvement in Cannon County were: adult smoking, adult obesity, physical inactivity, access to exercise opportunities, population to primary care physician, preventable hospital stays, high school graduation, adults with some college, injury deaths and long commute-driving alone. The areas of strength were identified as lower excessive drinking, lower alcohol impaired driving deaths, and no drinking water violations.

When analyzing the health status data, local results were compared to Tennessee, the U.S. (where available) and the top 10% of counties in the U.S. (the 90th percentile). Where Cannon County’s results were worse than the State and U.S., there is an opportunity for group and individual actions that will result in improved community ratings. There were several lifestyle gaps that need to be closed to move Cannon County up the ranking to be the healthiest community in Tennessee and eventually the Nation. For additional perspective, Tennessee was ranked the 43rd healthiest state out of the 50 states.

America’s Health Rankings

2The Rankings are based on a model of population health that emphasizes the many factors that, if improved, can help make communities healthier places to live, learn, work and play. Building on the work of America’s Health Rankings, the University of Wisconsin Population Health Institute has used this model to rank the health of Wisconsin’s counties every year since 2003.
Focus Group, Interview Results, Health Status Comparisons

Focus Group

Fifteen community stakeholders representing the broad interests of the community participated in a focus group for their input into the community's health. There was broad community participation in the focus group, with participants representing a range of interests and backgrounds. Below is a summary of the 90-minute discussion.

1. Generally, how would you describe the community's health?
   - Drug addiction – pain prescriptions, heroin, but more Methamphetamine in the community
   - Rural health – people aren’t always willing to go to the doctor; no specialists
   - Lack of insurance, farming community
   - Seniors – mixed depending on income. Poverty plays a role in senior health.
   - Older population seems to be living longer, very active
   - Mental health issues
   - Nutritional issues, lack of healthy food
   - Older generation has more diabetes, younger generation trying to be healthy
   - Average

2. Please identify the three top issues facing the community?
   - Lack of resources, infrastructure
   - Lack of housing – market rates and lower income housing
   - No big industries
   - 97% to 98% capacity on city sewer and water – rebuilding, enhancing and expanding. No county sewer. These issues inhibit ability for additional housing and other infrastructure to be built
   - Leadership of the county – need volunteer leadership with no private agenda
   - Child abuse – exposure to drugs and alcohol. CAC relies on grants and government funding. Lack of services for children in Cannon County due to close proximity to Murfreesboro.
   - School system isn’t great, just OK
   - Poor financial health of the county
   - Homelessness – no shelter, no resources
   - Safe Domestic abuse shelter – can only house 8 families
   - Grandparents raising grandchildren and even great grandchildren must choose between food and drugs

3. When asked about the biggest health issues for Cannon County the group mentioned:
   - Mental health – access to care and resources
   - Drug addiction
   - Dual diagnosis – drug addiction and mental health
   - Nutrition – lack of healthy foods

4. What behaviors have the most negative impact on health?
   - Smoking
   - Younger generation uses electronics in lieu of exercise
• Nutrition
• Lack of parental guidance
• No places to exercise – No Y or exercise clubs
• No place for kids to be entertained
• Drug use

5. **What environmental factors have the biggest impact on community health?**
   • Average 33 minute commutes to and from work, people traveling to Manchester, McMinnville, Murfreesboro or Lebanon for work
   • Bedroom community – lots of people leave the community for shopping, healthcare
   • Very clean air and water
   • Nice highways
   • Low crime – all the same people committing crimes

6. **What do you think are the barriers to addressing these issues?**
   • Funding
   • Not rural enough, too close to Murfreesboro to get grants and resources
   • Education system – lack of funding and resources. Teachers can get better jobs elsewhere. Some residents have relocated because they don’t want their kids in the school system.

7. **What community assets support health and wellbeing?**
   • Senior Center – advocate for senior health and legal issues
   • Churches
   • Tourism
   • Downtown antique store businesses
   • United Way
   • Many community events
   • Lion’s Club
   • American Legion
   • Horse Associations
   • Arts Center of Cannon County
   • Detox program at Saint Thomas Stones River Hospital
   • Christian Rehab Center – Renewed Life Ministries
   • Good nursing home
   • Cannon County – hub of five counties, what else could draw people here?

8. **Where do members of the community turn for basic healthcare needs?**
   • Community clinic
   • Doctors
   • Saint Thomas Stones River Emergency Room
   • Saint Thomas Rutherford Hospital; no specialists in the community
   • Health Department
   • Camelot and Youth Villages for behavioral health
9. **What does the community need to manage health conditions or stay healthy?**
   - Education – people don’t understand insurance, benefits, how to access care, won’t pay for what isn’t covered by insurance
   - The new health department will be helpful
   - Willingness to help people
   - No central clearing house for resources

10. **If you had the power you so richly deserve and a magic wand, what priority health improvement action should Cannon County focus on?**
    - Get a community mental health clinic with case management, inpatient, outpatient, programs
    - Homeless shelter and with bathing facilities for people in the county who don’t have water to bathe
    - More punishment and consequences for abuse of a child
    - Darkness into Light training to spot child sexual abuse mandatory for day cares, churches, schools and hospitals
    - Think about people in our own community instead of or as well as opportunities far away

*Photo credit: Cannon Courier*
Community Interviews

Twelve community stakeholders representing the broad interests of the community participated in either an in-person interview or a written survey, providing their input into the community's health. All interviewees offered multiple responses to each question.

The participants were asked to select their top health issues from the listed issues. The top issue selected was workforce and economic opportunity (9%) followed by mental and emotional health (9%), affordability - cost of care (8%), poverty (6%), and healthy food access (6%).

When asked about the top socioeconomic/demographic issues, the social and economic determinants that contribute to health, the group listed, poverty – working poor (24%) first, then health insurance coverage (21%), followed by income-wealth dispersion (10%), education attainment (10%), and food insecurity (7%).

The participants felt the most important natural, social and structural environmental issues that contribute to health were healthy food access (29%) followed by transportation (18%), housing - affordable & homelessness (18%), and limited sidewalks/safe recreational space (14%).

When responding to the conditions or diseases that are causing illness and death in the community, the group listed alcohol and drug abuse/addiction (23%) followed by cancer (20%), obesity (9%), emotional and mental health (9%), diabetes (9%), and cardiovascular disease – hypertension (9%).

The participants were asked how, from whom, where care was received and how it was coordinated. Affordability/cost of care (14%), access to care - mental health care, and access to care overall (14%) were the selected most, followed by emergency department use for non-emergencies (10%) then all at 7% were system not focused on health, patient or community, provider availability within the community, health education - health literacy and disease and treatment focused - not prevention focused.

When asked about the health behaviors, the choices we make that promote health or risk health, alcohol and drug abuse/addiction (29%) was mentioned most followed by texting while driving (18%), tobacco use/smoking (14%), and physical activity and nutrition-healthy eating both at 11%.
When asked what reasons or barriers exist that cause the use of emergency rooms for non-emergencies, the participants responded:

- Nowhere else to go after hours, after 4 p.m.
- Walk-in clinic not available for uninsured
- Walk-in clinic not available for those without a PCP
- Lack of urgent care
- Lack of insurance or option for inexpensive care for non-emergency situations
- Knowledge deficit
- Poor understanding of cost of care
- Can't afford other care
- Not an issue in Auburntown — too far away for unnecessary use
- TennCare
- Uninsured know they will be treated
- Treated sooner in ER
- Lack of education concerning preventative care
- Lack of available doctors and appointment times to meet community needs
- Lack of insurance or TennCare
- Go for prescriptions

When asked about what works well in the county that supports health and well-being, the responses were plentiful.

- Relationship between healthcare providers and school system
- Community Wellness Clinic
- We Care Cannon
- SAVE
- Canon County Senior Center
- Stones River Hospital
- Local providers' knowledge of when to refer to specialist
- Partnerships between Health Department and Coordinated School Health in schools
- Community partnership with We Care Cannon
- Good walking tracks
- School nurses
- Community collaboration
- Health Department promotion and outreach, dental

When asked what health initiatives the county should focus on for the next three years, the participants responded:

- Free clinics for uninsured providing medical, dental and vision care
- Clinics for the uninsured
- Affordable care for elderly
- Housing issues for elderly
- Full service Rural Health clinic
- Primary Care Model Focus
- Make system understandable/simpler
- Affordable care
- More minor surgeries available
- Health/wellness services & preventative care services
- Mental health/ for all ages
- Drug/alcohol addiction and abuse
- Prenatal care
- Coordination and awareness of social service availability
- Coordination between health department and hospital
Health Status Analysis and Comparisons

Information from County Health Rankings and America's Health Rankings was analyzed in the Community Health Needs Assessment in addition to the previously reviewed information and other public health data. Other data analyzed were causes of death, demographics, socioeconomics, consumer health spending, focus group, and interviews. When data was available for Tennessee, the U.S. or the top 10% of counties (90th percentile), they were used as comparisons. Where the data indicated a strength or an opportunity for improvement, it is called out below. Strengths are important because the community can build on those strengths and it's important to continue focus on strengths so they don't become opportunities for improvement. There were strengths and opportunities identified for measures and for the counties. Opportunities were denoted with red stars, and strengths were denoted using green stars. The years displayed on the County Health Rankings graphs show the year the data was released. The actual years of the data was contained in the source notes below the graphs. The full data analysis can be seen in the CHNA PowerPoint.

Leading Causes of Death: Age-adjusted deaths per 100,000

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Heart Disease</td>
<td>305.1</td>
<td>203.1</td>
<td>169.8</td>
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<tr>
<td>Cancer</td>
<td>239.7</td>
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<td>Chronic Lower Respiratory Disease</td>
<td>72.6</td>
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<td>Accidents</td>
<td>87.2</td>
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<td>Stroke</td>
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<td>Alzheimer's Disease</td>
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<td>Influenza and Pneumonia</td>
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<td>21.5</td>
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<td>Kidney Disease</td>
<td>***</td>
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<tr>
<td>Suicide</td>
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<td>14.5</td>
<td>12.6</td>
</tr>
<tr>
<td>Liver Disease</td>
<td>***</td>
<td>11.5</td>
<td>10.2</td>
</tr>
</tbody>
</table>

- Source: Tennessee Department of Health, National Center for Health Statistics, CDC: 2013 Final Data

Red areas had death rates higher than the state. The major causes of death in Cannon County were heart disease, followed by cancer (the same order as TN and the U.S.), accidents, stroke are next followed by, chronic lower respiratory disease, diabetes, Alzheimer's Disease, and suicide.
Health Outcomes (Length of Life and Quality of Life)

Health Outcomes are a combination of length of life and quality of life measures. Cannon County ranked 64th in Health Outcomes out of 95 Tennessee counties. Cannon County ranked 67th out of 95 Tennessee counties in length of life. Length of life was measured by years of potential life lost per 100,000 population prior to age 75.

In most of the following graphs, Cannon County will be blue, Tennessee red, U.S. green and the 90th percentile gold.

Quality of Life

Quality of life was measured by: % reporting fair or poor health, the average number of poor physical health days and poor mental health days in the past 30 days, and % of live births with birthweight less than 2500 grams 5 pounds 8 ounces. Cannon County ranked 58th out of 95 counties for quality of life.
Quality of Life OPPORTUNITIES

- Cannon County had higher years of potential life lost per 100,000 population prior to age 75 with 10,772 than TN and the U.S.

- Cannon County had the same percentage of the population with poor or fair health (21%) as TN and higher than the U.S.

- Cannon County had a similar average number of poor physical health days as TN and higher than the U.S. with 4.7 poor physical health days out of the past 30 days.

- Cannon County also had the same average number of poor mental health days as TN and higher than the U.S. with 4.5 poor mental health days out of the past 30 days.

- Cannon County had a slightly higher percentage of low birthweight babies than TN and the U.S. with 10% of babies born less than 5 lbs. 8 ounces.

*Photo credit: Arts Center of Cannon County
Health Factors or Determinants

Health factors or determinants were comprised of measures of related to health behaviors, clinical care, social & economic factors, and physical environment. Cannon County ranked 41st out of 95 Tennessee counties for health factors.

Health Behaviors

Health behaviors are made up of nine measures. Health behaviors account for 30% of the county rankings. Cannon County ranked 25th out of 95 counties in Tennessee for health behaviors.

Source: Obesity, physical inactivity - County Health Rankings; CDC Diabetes Interactive Atlas, 2012
Source: Access to exercise opportunities - County Health Rankings; ArcGIS Business Analyst, Delorme map data, ESRI and US Census Tigerline Files, 2013
Source: Smoking - County Health Rankings; Behavioral Risk Factor Surveillance System (BRFSS)
Reducing Multiple Painkiller Prescribers

**Tennessee 36%**

**2012 Action:**
Tennessee required prescribers to check the state’s prescription drug monitoring program before prescribing painkillers.

**2013 Result:**
Saw a 36% drop in patients who were seeing multiple prescribers to obtain the same drugs, which would put them at higher risk of overdose.

**Source(s):** TN Dept of Health, CDC (2014); PDMP Center of Excellence at Brandeis University (2014)

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1,263 people, at least, died from opioid overdose in 2014 in Tennessee

For every one person who dies there are 851 people in various stages of misuse, abuse and treatment, according to estimates from the U.S. Centers for Disease Control and Prevention.

There are at least 1,074,813 Tennesseans, or about 1 in 6, misusing or abusing opioids or in treatment, by the CDC’s estimate.

- 12,630 in treatment admissions for abuse
- 32,838 emergency room visits for misuse or abuse
- 136,404 people who abuse opioids or are dependent
- 925,779 non-medical users

Source: Tennessee Department of Health and U.S. Centers for Disease Control and Prevention
**Health Behaviors STRENGTHS**

- Cannon County experienced lower excessive drinking than TN and the U.S.
- The percentage of driving deaths with alcohol involved was lower at 7% than TN and the U.S.
- Cannon County had lower sexually transmitted infections measured as chlamydia rate per 100,000 population than TN and the U.S.
- The teen birth rate in Cannon County was lower than TN and the U.S. at 41 births per 1,000 females age 15-19.
- Cannon County's food environment index was higher than TN and the U.S.

**Health Behaviors OPPORTUNITIES**

- Adult obesity, although in line with Tennessee at 32%, was higher than the U.S. Obesity puts people at increased risk of chronic diseases: diabetes, kidney disease, joint problems, hypertension and heart disease. Obesity can cause complications in surgery and with anesthesia. It has been implicated in Alzheimer’s. It often leads to metabolic syndrome and type 2 diabetes. It is a factor in cancers, such as ovarian, endometrial, postmenopausal breast cancer, colorectal, prostate, and others.
- Physical inactivity in Cannon County was higher than TN and the U.S. at 36%.
- The percentage of the population with adequate access to locations for physical activity was lower in Cannon County at 32% than TN and the U.S.
- Adult smoking in Cannon County (24%), was higher than TN and the U.S. Each year approximately 443,000 premature deaths can be attributed to smoking. Cigarette smoking is identified as a cause of various cancers, cardiovascular disease, and respiratory conditions, as well as low birthweight and other adverse health outcomes.
- Cannon County had higher drug overdose mortality per 100,000 (33.9) population than TN and the U.S. (14.3)
Clinical Care

Clinical care ranking is made up of eight indicators, and they account for 20% of the county rankings. Cannon County ranked 71st out of 95 Tennessee counties in clinical care.

Source: Uninsured - County Health Rankings; Small Area Health Insurance Estimates, 2013
Source: Preventable hospital stays, mammography screening, diabetic screening - County Health Rankings; Dartmouth Atlas of Health Care, 2013
Clinical Care STRENGTHS

- The percent of the Medicare population receiving diabetic screening was higher in Cannon County, 88% than in TN and the U.S.

Clinical Care OPPORTUNITIES

- Percent uninsured was similar in Cannon County at 16% to TN and the U.S.
- Preventable hospital stays, hospitalization rate for ambulatory-sensitive conditions per 1,000 Medicare enrollees was higher than TN and the U.S., but the trend is decreasing.
- Mammography screening percentage was lower in Cannon County, 51% than TN and the U.S.
- The population per primary care physician was higher in Cannon County at 3,444 than TN and the U.S.
- The population per dentist was higher in Cannon County than TN and the U.S. at 4,586 population per dentist.
- 44.9% of the population of the Upper Cumberland was at risk due to lack of dental care.
- The population per mental health provider was higher in Cannon County than TN and the U.S. at 2,293.
- The percent of adults 20 and above with diabetes, 12% was similar to TN.

<table>
<thead>
<tr>
<th>State and Regions</th>
<th>Population at Risk</th>
<th>Weighted Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tennessee</td>
<td>1,882,014</td>
<td>38.6%</td>
</tr>
<tr>
<td>Upper Cumberland</td>
<td>116,976</td>
<td>44.9%</td>
</tr>
<tr>
<td>Mid-Cumberland</td>
<td>230,114</td>
<td>27.7%</td>
</tr>
<tr>
<td>Davidson</td>
<td>173,184</td>
<td>34.4%</td>
</tr>
</tbody>
</table>
Social & Economic Factors

Social and economic factors account for 40% of the county rankings. There are eight measures in the social and economic factors category. Cannon County ranked 40th out of 95 Tennessee counties in social and economic factors.

Source: High School graduation – County Health Rankings; States to the Federal Government via EDFacts, 2012-2013
Source: Some college - County Health Rankings; American Community Survey, 5-year estimates, 2010-2014
Source: Children in poverty - County Health Rankings; US Census, Small Area Income and Poverty Estimates, 2014
Source: Social associations - County Health Rankings; County Business Patterns, 2013

Source: Income Inequality - County Health Rankings; US Census, American Community Survey, 2013-2017
Source: Violent crime rate - County Health Rankings; Federal Bureau of Investigation, Uniform Crime Reports for Cities, 2012-2016
Social & Economic Factors STRENGTHS

• High school graduation was lower in Cannon County (83%) than TN and similar to the U.S.
• Violent crime rate per 100,000 population was lower in Cannon County than in TN and the U.S.
• The percentage of children in poverty was lower in Cannon County than Tennessee and the U.S.; 23% of Cannon County children lived in poverty.
• Income inequality ratio is lower in Cannon County than TN and the U.S.

Social & Economic OPPORTUNITIES

• There was a lower number of social associations per 10,000 population in Cannon County than TN and the U.S.
• The percent of adults with some college was much lower, 37% than TN and the U.S.
• Injury deaths were higher than TN and the U.S.
• Lower median household income in Cannon County than TN and the U.S.
• Cannon County had higher poverty than TN and the U.S.
Physical Environment

Physical environment contains five measures in the category. Physical environment accounts for 10% of the county rankings. Cannon County ranked 15th out of 95 Tennessee counties in physical environment.

**Drinking water violations** (% of pop exposed to water exceeding a violation limit during the past year)

No drinking water violations reported in 2016

**Severe housing problems** (% of hh with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities)

**Driving alone to work**

84%

**Long commute - driving alone** (among workers who commute alone, the % that commute > 30 minutes)

59%

**Air pollution - particulate matter** (avg daily measure of matter in micrograms per cubic meter)

14.1

Source: Drinking water violations – County Health Rankings; EPA, FY 2013-2014

Source: Severe housing problems – County Health Rankings; HUD Comprehensive Housing Affordability Strategy data, 2008-2012

Source: Driving alone to work and long commute – County Health Rankings: American Community Survey, 5-year estimates, 2010-2013

Source: Air pollution – County Health Rankings: CDC WONDER environmental data, 2010, Hamilton County Health Data Profile; CDC, TN Department of Health.
Physical Environment STRENGTHS

- There were no drinking water violations in Cannon County. The U.S. statistics were prior to the Flint water crisis.
- There was a lower percentage of households with at least one of four housing problems, overcrowding, high housing costs, lack of kitchen or plumbing facilities than TN and the U.S.

Physical Environment OPPORTUNITIES

- Cannon County had slightly higher percentage of workers who commuted alone and more than thirty minutes. A 2012 study in the American Journal of Preventive Medicine found that the farther people commute by vehicle, the higher their blood pressure and body mass index. Also, the farther they commute, the less physical activity the individual participated in. Source: County Health Rankings: [1] Hoehner, Christine M., et al. “Commuting distance, cardiorespiratory fitness, and metabolic risk.” American journal of preventive medicine 42.6 (2012): 571-578.
- There was slightly higher air pollution than TN and higher than the U.S.

The transportation choices that communities and individuals make have important impacts on health through active living, air quality, and traffic crashes. The choices for commuting to work can include walking, biking, taking public transit, or carpooling, the most damaging to the health of communities is individuals commuting alone. In most counties, this is the primary form of transportation to work. Source: County Health Rankings

There were Four Broad Themes that Emerged in this Process:

- Cannon County needs to create a “Culture of Health” which permeates throughout the cities, employers, churches, and community organizations to engender total commitment to health improvement.
- There is a direct relationship between health outcomes and affluence (income and education). Those with the lowest income and education generally had the poorest health outcomes.
- While any given measure may show an overall good picture of community health, there are significantly challenged subgroups.
- It will take a partnership with a wide range of organizations and citizens pooling resources to meaningfully impact the health of the community. Many assets exist in the county to improve health.
Results of the CHNA

Prioritization of Health Needs

Prioritization Criteria & Priority Health Needs

At the Community Health Summit, the attendees identified and prioritized the most significant health needs in the community for the next three-year period. The group used the criteria below to prioritize the health needs.

<table>
<thead>
<tr>
<th>Magnitude / scale of the problem</th>
<th>The health need affects a large number of people within the community.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity of the problem</td>
<td>The health need has serious consequences (morbidity, mortality, and/or economic burden) for those affected.</td>
</tr>
<tr>
<td>Health disparities</td>
<td>The health need disproportionately impacts the health status of one or more vulnerable population groups.</td>
</tr>
<tr>
<td>Community assets</td>
<td>The community can make a meaningful contribution to addressing the health need because of its relevant expertise and/or assets as a community and because of an organizational commitment to addressing the need.</td>
</tr>
<tr>
<td>Ability to leverage</td>
<td>Opportunity to collaborate with existing community partnerships working to address the health need, or to build on current programs, emerging opportunities, or other community assets.</td>
</tr>
</tbody>
</table>

The following issues were prioritized and goals and actions were brainstormed by the group at the Community Health Summit and formed the foundation of Cannon County’s health initiatives. Using a nominal group technique, each attendee received three sticky notes and selected their top three health needs and posted their ideas on paper at the front of the room. The results of the activity are below with
higher numbers indicating the number of “votes” or priority by topic. The bullets below the health need are the actual comments received on the sticky notes.

1. Substance Abuse (including tobacco) & Mental Health (12)
   • Drug/Substance Abuse – (5)
   • Mental health (2)
   • Smoking/tobacco use (4)
   • Education regarding healthy living – smoking, healthcare, drug addiction, etc.

2. Healthy Living – physical activity, good nutrition (6)
   • Physical inactivity (3)
   • Age appropriate health classes exercise and nutrition
   • Understanding healthy eating
   • Managing chronic conditions

3. Social Needs (6)
   • Health disparities – fear of cost (elderly, lower income families
   • Child hunger
   • Social groups that provide accountability and activity
   • Abuse awareness training
   • Ability to leverage and work with other organizations
   • Community resources to provide information/services, “clearing house”, not outsourcing to surrounding counties

4. Access to Care (2)
   • Access to care
   • Health screening
Community Health Summit Brainstorming

Focus Areas, Goals

Substance Abuse & Mental Health

- Education regarding the dangers of prescription drugs for pain and the thought that there's a pill for everything that ails us
- There are local support groups
- Social issues
- Addiction isn't a dirty word
  - There is a trickle down effect from parents to kids regarding addiction
- Peer pressure — how to get people to learn more about drug abuse
- The State has a focus on tobacco further focusing on youth
- TennCare population needs increased access to drug treatment to break the cycle
- Schools have Health Connect and other resources in the county
- Kids are turning to substances — why? Boredom, social media, TV, video gaming, poor parenting. What options do we have for kids? Activities, chores, education
Healthy Living – physical activity, good nutrition

- Healthier Tennessee has a local group leading the way. The group is involving schools, businesses, faith-based organizations regarding activity, nutrition and smoking to obtain a grant for Cannon County. They are already involved in the following activities:
  - Adult walking club
  - Schools walking club
  - Healthy eating classes
  - Employers – more than 35 employees for involvement
  - Faith-based organizations – First Baptist, Methodist, others involved
- This group needs more participants, volunteers and publicity
- Health classes have been cut from schools in order to focus more on testing

Social Needs

- Need one place for resources — on-line, Facebook and in print
- Health Council needs more involvement, but could spearhead a resource listing effort
- There are resources in Cannon County, but not everyone who needs to know about them knows about them
- Need to determine who needs the information, such as the Chamber of Commerce, which gets asked many questions about community resources
- Churches – could coordinate better and are educating each other on Celebrate Recovery

Access

- There is a new mammogram machine at Stones River Hospital
- The Health Department has a full-time nurse practitioner
- The Lion’s Club performs eye screenings
- The Senior Center holds health fairs
- There needs to be more dental access for adults – Interfaith Dental Clinic is a resource as well as the Saint Thomas Health Medical Missions at Home. The community could host a dental day where volunteers staff a day of dental work for the community.
- Need after-hours primary care access to avoid ER utilization
Community Assets and Resources

Community Asset Inventory

A separate document that includes list of community assets and resources that can help improve the health of the community and assist with implementation of the plan accompanies this document.

The focus group and interviews also identified community resources to improve health, which are listed on pages 16 and 17 above.

Photo credit: Boy in a Predicament, Cannon County 1952 Robert W Kelley
Community Health Needs Assessment

completed by Saint Thomas Stones River Hospital and Saint Thomas Health in partnership with:
Stratasan

Saint Thomas STONES RIVER HOSPITAL