THE UNIVERSITY OF TENNESSEE
MEDICAL CENTER

Wisdom for Your Life.

University Health System, Inc.
Community Health Needs Assessment 2016

1924 Alcoa Hwy. Knoxville, TN. 37920

THE UNIVERSITY OF TENNESSEE
MEDICAL CENTER

Table of Contents:

Organizational Profile

The University of Tennessee Medical Center UTMC is a not-for-profit health care system providing access to comprehensive health care services as an academic medical center. These services include a regional network of primary care and specialist providers, regional service centers, cancer chemotherapy centers, home infusion therapy, home health and aeromedical services. The hospital is licensed for 609 beds. With a threefold mission of healing, education and discovery, UTMC serves as the regional referral center for the East Tennessee (ET) community. Our 21 county service area comprises the eastern third of the state. The primary market is Knox County; the secondary market is the remaining 20 counties. Education and research is accomplished through our partnerships with the University of Tennessee (UT) and University of Tennessee Graduate School of Medicine (GSM).

Figure P.1-1
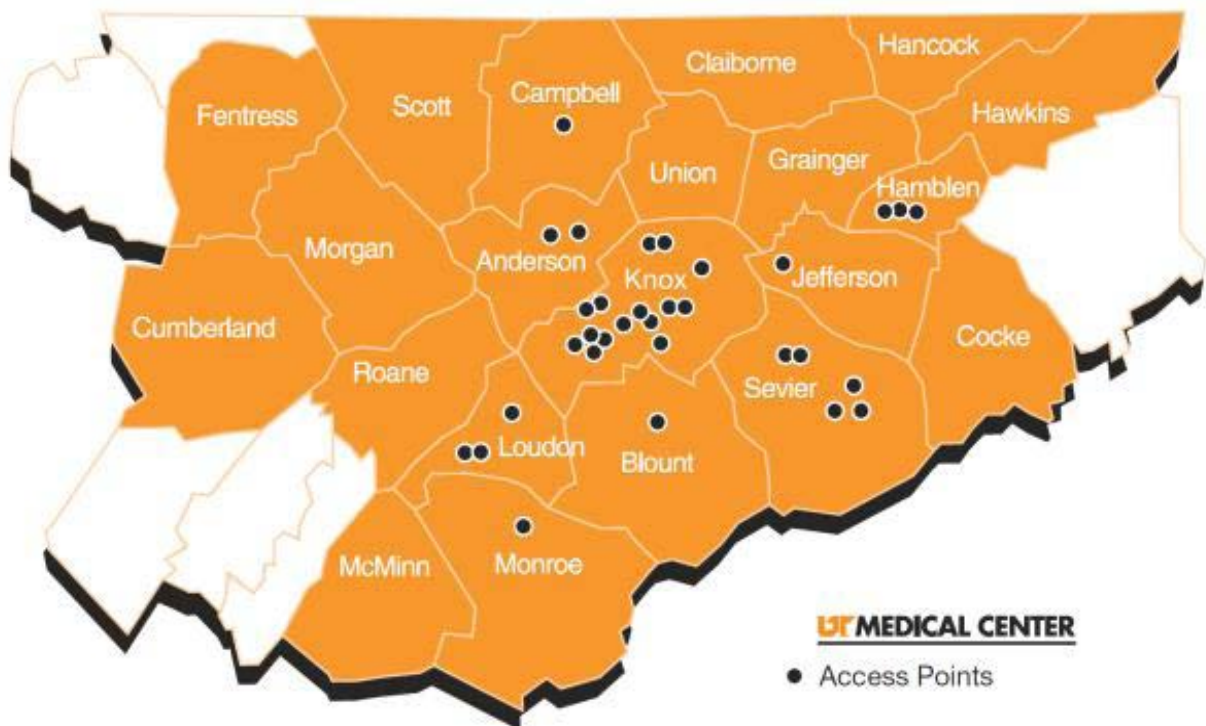
Health Care Service Offerings

UTMC's main health care service offerings are grouped into six Centers of Excellence (COE) that satisfy a major portion of the healthcare needs based on community needs identified through The Community Health Needs Assessment (CHNA) and a demographic analysis conducted during the Strategic Planning Process (SPP). The services delivered through the COEs are of high importance to our success based on the size of the service, community demographic makeup, or contribution in achieving our core competency. Additional services include general medicine and general surgical. UTMC delivers multidisciplinary care using evidence-based clinical pathways in a clinically integrated system. This care is grounded in a patient and family centered model of care. Service offerings, relative importance to our organizational success and mechanism to deliver services are shown in Figure P.1-1. In addition to IP volume shown in the figure, we had 401,243 total hospital OP visits and 67,499 total ED visits (not admitted) in 2015.

Assets

Major facilities, technologies and equipment include:

- UTMCs major facility is located on 91 acres and has over 2.68 million square feet of space. The main campus includes a dedicated heart hospital, 6 medical office buildings and the Knoxville campus for the UT College of Pharmacy and UT GSM.
- An Aeromedical Center & Regional Medical Communication Center (RMCC)
- The largest surgical facility in East Tennessee COEs and other medical and surgical practice areas are: picture archiving communication system (PACS), position emission tomography (PET/CT), magnetic resonance imaging (MRI), Simulation (SIM) Center, surgical and parenteral admixture robotics and biplane fluoroscopy for neuro-interventional radiology.
- UTMC Sevier Regional Health Center with over 38,000 square feet.

Regulatory Requirements

UTMC operates in a highly regulated health care environment governed by federal, state and local agencies. Processes are in place to assure compliance and currency with laws, regulations, and standards established by these key regulatory agencies. Specific federal and state regulatory agencies and laws include; State of TN Department of Health, Tennessee Occupational Safety and Health Administration (TOSHA), Environmental Protection Agency (EPA), Office of Inspector General (OIG), College of American Pathologists (CAP), Clinical Laboratory Improvement Amendment (CLIA), American College of Surgeons and Federalwide Assurance. In the pursuit of excellence UTMC has achieved accreditation and specific focus designations through The Joint\ Commission (TJC), TJC Disease Specific Certifications as a Comprehensive Stroke Center, Bariatric and the Gold Seal of Approval for Orthopaedic in knee and hip replacement, American College of Surgeons verified Level I Trauma Center and Magnet by the American Nurses Credentialing Center (ANCC).

The 2016-2017 U.S. News & World Report "Best Hospitals" edition, the medical center is ranked No. 2 in the state of Tennessee and best regional hospital in the Eastern Tennessee region, based on our patient care performance and several other key factors. In the report, The University of Tennessee Medical Center earned national ranking, tied for 39th, in Pulmonology, and received national recognition for being High Performing in Nephrology.

Additionally, the medical center is listed as High Performing in the following Common Adult Procedures and Condition Ratings:

- Abdominal Aortic Aneurysm Repair
- Heart Bypass Surgery
- Heart Failure
- Colon Cancer Surgery
- Chronic Obstructive Pulmonary Disease (COPD)
- Hip Replacement
- Knee Replacement
- Lung Cancer Surgery

Organizational Leadership Structure

The organizational structure and governance system consists of three groups which includes: 1) A 15 member Board of Directors consisting of UT leaders, medical staff physicians, community members and our President & CEO who serves and reports to the Board of Directors. The Board of Directors committees include Finance, Human Resources, Performance Improvement, Nominating and Graduate Medical Education. 2) Senior Leaders (SL) includes 7 Sr. Vice Presidents (SVP), Chiefs of General Counsel and Development and Vice Presidents (VP) of Government Relations and Compliance who report to the President and CEO. 3) Self-governing Medical Executive Committee (MEC) chaired by the Chief of Staff.

Our Workforce

The UTMC workforce includes full and part time team members, physicians, residents, healthcare students and volunteers. Registered nurses constitute the largest segment of team members. The workforce reflects the diversity of the service area. There are more than 900 physicians, dentists, podiatrists, physician assistants, nurse practitioners and psychologists who serve as the medical staff. Our health care workforce is comprised of:

- **Team Members: 4,383**
- **Physicians: 904**
- **Volunteers: 233**

Organizational Mission, Vision, and Values

Our core competency, "An academic medical center partnering with physicians to care for all patients, especially the medically complex". The core competency leverages our strategic advantage of being an academic medical center.

- **Mission:** To serve through healing, education and discovery.
- **Vision:** To be nationally recognized for excellence in patient care, medical education and biomedical research.
- **Values:** Integrity, Excellence, Compassion, Innovation, Collaboration, Dedication
- **Core Competency:** An academic medical center partnering with physicians to care for all patients, especially the medically complex.
- **UTMC Priorities:** Quality/Safety, Service, Efficiency/Effectiveness

Healthcare Systems and Services in Geographic Region

UTMC, as an independent single campus hospital system, serves patients in a competitive region with 17 other healthcare organizations. The UPA, an independent physician association has its own governance structure. It is comprised of over 700 physician and clinician members and is devoted to UTMC. There are approximately 215 residents and fellows training in the 22 accredited specialty and subspecialty programs in the University of Tennessee (UT) Graduate School of Medicine (GSM) and UTMC Program. Healthcare Students: On campus, UT College of Pharmacy is located at UTMC, trains approximately 190 students. In keeping with the mission of serving through education there are numerous students from many disciplines and educational institutions experiencing UTMC as a training site. In addition to medical, dental, pharmacy and clinical pastoral care residents, nursing students from area colleges receive clinical training at UTMC. The campus also includes a school of radiologic technology and a medical technologist training program.

UT Medical Center's Role

Fulfilling our Mission is through delivering compassionate, high quality, affordable health services to those in need of healing. UTMC demonstrates its commitment to service through:

- Recognized excellence
- Research and education
- Accessibility
- Advocacy
- Collaboration with others in the provision of a wide range of health, social and support services that meet community needs and improve the quality of human life.

Organizational Commitment to the Community

In the Fiscal Year 2015, the Community Board, CEO, System Management Team, Physicians, Centers of Excellence provided input for a strategic planning session which included the Director of Network Development and Community Benefit.

The 2013 Plan includes the priorities outlined in the 2013 Community Health Needs Assessment (CHNA). The 2013 Community Health Needs Assessment was presented to the leadership of the hospital, Community Health Advisory Council (CHAC) and the community.

The hospital leadership, board and CHAC identified key needs from the assessment and developed a strategy to meet those needs. They set the priorities for the hospital, established the priorities within the strategic plan to address the issues outlined by the committees. The goals and priorities outlined in the Community Benefit Plan are linked to the strategic plan of the hospital and focus on the key priorities established in the UTMC 2012-2016 Strategic Plan which include Outreach, Clinical Integration, Medical Staff Development, Centers of Excellence enhanced programs, Academic enhancement, Sustainability and Leadership.

UTMC uses multiple community stakeholder listening posts such as market data, stakeholder platforms, and Community Health Needs Assessment (CHNA). This assists with planning efforts to support operations related to health improvement and strengthen local community services through collaborative efforts. Programs are validated annually during Community Health Advisory Committee (CHAC), Senior Leaders, and Board of Directors meetings to review outcomes and market data. Reviews are conducted to evaluate success of local health improvement strategies. An action plan is created to systematically deploy these strategies through our Network Development Department which conducts daily health outreach activities.

We review opportunities to improve our impact on social, economic, and environmental systems through our operational and strategic initiatives which aligns our identified needs during the assessment of our current and future success. Many of these health care services are delivered through 6 Centers of Excellence (COE):

1) Heart Lung Vascular Institute (HLVI)
2) Emergency & Trauma Services
3) Center for Women's & Infants (CWI)
4) Cancer Institute (CI)
5) Brain & Spine Institute (BS)
6) Advanced Orthopeadic Center (AOS)

Community Health Needs Assessment Planning

Program content, design, target population, continuation and/or termination and program monitoring occurs in diverse environments throughout the hospital. The programs which are created within leadership are designed for program content, target audience, program continuation and/or termination and monitored with the assistance the Community Health

Advisory Council (CHAC), the department's staff, hospital leadership, board members, and community stakeholders.

Other programs within the hospital are created, designed, target population, continuation and/or termination by the departments and Executive Leadership. The Community Board does have input in the design, target, continuation and termination of programs. Although, the COE's, Steering Committee of COE and Senior Leadership are the main decision makers, the department VP and coordinators are responsible for monitoring the programs.

Community Board members are selected based on their broad range of skills gained through leadership roles in their companies or community service positions. They possess a wide range of business, financial and strategic planning experience. These individuals have the skills to analyze and assess programs from a business perspective. All programs address the five core principles of UTMC Community Benefit programming and are evaluated for their effectiveness. Programs address the following:

- Programs address one or more risk factors that are defined, measured, modified, and prevalent among the community that constitute a health threat in the community and/or quality of life
- Reflect a special consideration of the populations that are being served in a culturally sensitive manner and meet the needs and preferences of the targeted groups
- Clearly and effectively target the risk factors and particular settings
- Make optimum use of the available resources within the community
- Collaborate whenever possible to reduce duplication of effort and reflect well organized, planned, evaluated and organized programs which are evaluated for their effectiveness.
- The Strategic Planning Process (SPP) includes a demographic analysis which drives the community health care needs analysis. The 6 COE's satisfy a major portion of the healthcare needs identified for our community through the demographic analysis. The services delivered through the COEs are of high importance to the medical center's success as a result of the size of the service, demographic makeup of the community, or contribution to our core competencies. A patient and family-centered model of care guides multidisciplinary teams in the delivery of health care.
- CHAC will continue to use the **Process to Support Key Communities and CNI Index** where the population will be determined, problem analyzed, effective strategies are proposed, and what resources will be needed to accomplish the goals identified by the hospital's leadership and Board of Directors (BOD).

- Senior Leadership and System Management Leadership of the hospital make conscious decisions how the resources of the hospital are used, honoring the mission, vision, and values of the hospital in its work within the hospital and community. Other programs and projects which are developed in the hospital through the various departments and COE's are brought to the System Management Team (SMT) and then to Senior Leadership Team for approval and then to the Community Board for final review and approval.

Community Health Needs Assessment Planning

Definition of Community

Regional and national rankings for health factors continue to be disappointing as cancer, heart disease, and diabetes rates continue to increase each year. Obesity continues to be a major problem in the United States, leading to additional diseases. From a global perspective, the United States falls behind other developing nations in health outcomes. Clearly, there are many needs that exist and need attention. The University of Tennessee Medical Center (UTMC) and UHS exist to fulfill our mission of *"delivering compassionate, high quality, affordable health services to those in need of healing."*

In order for UTMC to serve its region most effectively, it is essential to understand each community's individual needs. UTMC has conducted a Community Health Needs Assessment to profile the health of the residents within the local region. The assessment focuses on UTMC's 9 core counties where UHS has facilities or provides service. Our commitment is to also offer services to counties without healthcare facilities and partnering with local healthcare providers to ensure access to quality and specialized services.

Activities associated with the development of this assessment have taken place during the summer and fall of 2015 and spring of 2016, including state, regional and county-specific secondary data collection and primary data obtained through 531 surveys with individuals from Knox County, TN and surrounding counties.

Throughout the assessment, high priority was given to determining the health status and available resources within each community. Community members from each county met with UTMC to discuss current health priorities and identify potential solutions. The information gathered from a local perspective, paired with regional, state and national data, helps to evaluate the region's health situation in order to begin formulating solutions for improvement.

In 2011, Tennessee ranked 39th, for overall health outcomes. Tennessee had high rates of adult obesity, cancer deaths, infant mortality, and diabetes. By examining national data, UTMC is able to identify successful measures that have been used in other states to solve similar issues.

In all sections of the UTMC CHNA, the most recent data available was utilized. After compiling the various sources of information, four top health priorities were identified by the CHNA. These priorities include:

- Cancer
- Drug/Alcohol Abuse
- Mental Health/Depression/Anxiety
- Obesity

By utilizing effective measures, available resources and community member involvement, county-specific plans have been developed and implemented which focus on preventing the growth of the four identified health outcomes. However, it is apparent that it takes more than just resources and an implementation plan to challenge these health priorities.

The following information has been collected and reviewed by the representatives from the UTMC System Management Team and Senior Leadership. Following presentation to the UTMC Community Advisory Council Committee, future initiatives will be identified, prioritized, implemented, and monitored to ensure health status progress occurs.

Community Interview Summary and Survey

Throughout January-May of 2016, the UTMC Strategic Planning Department hosted two separate meetings in order to connect with community members of each county in which UHS operates a facility. Community participants were selected based on roles within the community and workplace. The interviewees in attendance were local physicians, school board members, non-profit directors, health department officials, school nurses and coordinators, and minority group leaders. These individuals were invited to discuss and determine the health priorities and resources available in each area.

Collecting Community Input

In order to complete the community health needs assessment for UT Medical Center, UTMC met with 21 representatives from across East Tennessee. The organizations that were represented are listed in Table 1.1.

In all sections of the UTMC CHNA and Survey, the most recent data available was utilized. After compiling the various sources of information, four top health priorities were identified by the CHNA.

All 531 interviewees agreed that the most prevalent health priorities in all counties were cancer, drug/alcohol abuse, mental health/depression/anxiety, and obesity In addition to these four, data from our trauma registry showed unintentional injuries due to falls is another health priority that needs to be addressed. Tables 1.1 list the top health priorities identified by community participants.

Table 1.1 Top Identified Health Priorities by CHNA

Top Health Priorities	Responses	% of Total
Cancer	166	31%
Drug/Alcohol Abuse	192	36%
Mental Health/Depression/Anxiety	172	32%
Obesity	141	27%

By utilizing effective measures, available resources and community member involvement, county-specific plans have been developed and implemented which focus on preventing the growth of the four identified health outcomes. However, it is apparent that it takes more than just resources and an implementation plan to challenge these health priorities.

The following information has been collected and reviewed by the representatives from the UTMC System Management Team and Senior Leadership. Following presentation to the UTMC Community Advisory Council Committee, future initiatives will be identified, prioritized, implemented, and monitored to ensure health status progress occurs.

Community Interview Summary

Throughout January-May of 2016, the UTMC Strategic Planning Department hosted two separate meetings in order to connect with community members of a county in which UHS operates a facility. Community participants were selected based on roles within the community and workplace. The interviewees in attendance were local physicians, school board members, non-profit directors, health department officials, school nurses and coordinators, and minority group leaders. These individuals were invited to discuss and determine the health priorities and resources available in each area.

Collecting Community Input

In order to complete the community health needs assessment for UT Medical Center, UTMC met with several representatives from across East Tennessee. The organizations that were represented are listed in Table 1.2.

Table 1.2 – Summary Organizations Participating in

UTMC Community Health Needs Assessment

- Rural Metro Emergency Medical Services
- Cherokee Health Systems
- Corporate Health Partners of UTMC
- Coordinators of School Health
- UT Campus Agriculture Extension Service
- East Tennessee Wellness Roundtable
- CAC-Office on Aging

- Knox County Health Department
- Knox County Health Council
- UTMC Medical Center Community Health- Advisory Council
- Medic
- Senior Falls Task Force
- United Way
- Smoke Free Knoxville

- Knox Area Rescue Ministries

To begin the community health needs assessment, UTMC Community Health Advisory Council and Network Development staff presented data collected at several meetings in order to illustrate past and current health trends for Tennessee. The presentation depicted the current national health rankings, in addition to providing a snapshot of each county in UTMC's service area. Following the presentation, each participant was given a survey to determine the individual's personal assessment of their county's health priorities. Secondly, the individuals were asked to

submit ideas and suggestions as to how UTMC could use the available resources in order to improve the health priorities determined. After the surveys had been completed, each group discussed the questions and continued brainstorming ways to address obstacles and utilize resources. All of the information collected from the surveys and open discussion was evaluated and prioritized based on health needs.

In surveys obtained from 531 community representatives from January through April 2016, several community health needs and resources support to establish an action plan were identified. Appendix E references the questions and results of the UTMC CHNA Survey

Community Input

It is the intent of UT Medical Center to encourage new membership to CHAC and Community Board that will better represent the community's expertise related to Community Benefit and Community Health integration. This will remain an ongoing and evolving process. UT Medical Center's new Community Board members were added in FY 2015-2016.

- Appendix A for UHS Board of Directors
- Appendix B for Senior Leadership
- Appendix C for System Management Team
- Appendix D for Community Health Advisory Council Membership
- Appendix E for Together! Healthy Knox Membership
- Appendix F for Community Needs Assessment Survey
- Appendix G for Community Needs Index

Community Benefit Activities and Support:

In fiscal year 2015, UT Medical Center provided a total of **$ 45,857,524 in Community Benefit activities and support.**

- Uncompensated Patient Care – 26,866,866

- Healthcare Professionals Education – 17,785,183

- Community Health Improvement Services - $381,168

- Research - $157,955

- Community Building Activities - $398,267

- Donations – $248,085

Non-Quantifiable Benefits

Each year, UTMC employees provide care to our citizen's abroad and in East Tennessee. Several Stories exist how our employees and physicians live the mission of providing quality care to the community both in their professional and personal lives. Mission fulfillment is lived within the hospital where hospital employees give their time, talent and treasures to promote the health and well- being of others. Many of our staff members travel to foreign countries on their personal time to provide health services to the poor and disenfranchised in countries outside the United States. They participate in relief efforts when unexpected tragedy occurs, as well as other medical missions. Our employees contribute hundreds of hours serving on boards, committees and fundraising events in the community. Over 66,000 individuals were served by the generosity of our employees and the hospital's careful coordination of these efforts for our community.

Programs to Meet Community Need

UTMC conducts ongoing inventories regarding the assets within the hospital to meet the ongoing need within the community. In collaboration with its partners, UTMC engages others in the solution of assessing the assets within the community and engaging its partners in becoming part of the solution. We do this in synergy with one another through many initiatives We come together to identify our assets and gaps by utilizing data and information from sources such as the 2012 Community Health Needs Assessment and other state and national data repositories. We also survey our community to identify the assets and the gaps in health and human services. Some of these unique services are listed below:

- **Breast Health Outreach Program (BHOP)** where the hospital provides free education, prevention, diagnostics, and treatment for uninsured women. Nearly 15 years ago, we identified the need to provide these health services to women who were uninsured. UTMC with the assistance of our partners from the Cancer Steering Committee, Susan G. Komen Foundation, American Cancer Society, the Wellness Community, Avon Foundation, health providers, radiologists, physicians, nurses, nutritionists, community members and others who could help us meet the growing need for prevention, diagnosis, treatment, and follow up care.
- **Matter of Balance** (MOB) is an evidence-based falls management program recognized the CDC and NCOA. The program is proven to reduce the fear of falling and increase physical activity. According to the 2014-2015 UTMC Emergency Trauma Report, falls were the leading cause unintentionally injury in the older adult population and accounted

for approximately 67% of the total admissions at the hospital. Even though falls were not identified as one of the top concerns in the community health needs assessment, we felt it imperative to address the issue. In March of 2015, two UTMC staff achieved Master Trainer Certification, and UTMC became a designated, licensed provider of MOB. The first class instructors (Coaches) were trained summer 2015. Classes are offered in Knox and surrounding counties at no charge to participants.

- **Healthy Living Kitchen-** The Healthy Living Kitchen™ team provides cooking demonstrations, culinary techniques, and health information in a unique, fun learning environment. Classes are located on our hospital campus or may be requested at community or corporate locations. Our focus provides basic nutrition education relevant to chronic diseases and prevention efforts to improve choices for healthier lifestyle living. Success of our program is measured by participation increase year after year. Topics include but are not limited to:

Basic Nutrition

Dining Out	Making Healthier Choices
Grocery Shopping	Mindful Eating
Weight Management	Using Food Labels

Disease Specific

DASH Diet	Know Your Numbers
Mediterranean Diet	Nutrition and Diabetes
Going Gluten Free	Heart Healthy Eating

Healthy Lifestyle

Healthy Eating on a Budget	Workplace Eating
Recipe Substitutions	Healthy Tailgating
Super Foods	Eating Farm to Table
Holiday Eating Tips	Stress Management

Mission Service Activities

Blood Drives: UTMC partners with Medic Regional Blood Center to provide an opportunity for employees to give back to their community. UTMC is the region's largest consumer of blood products due to the complexity of service we provide to the community, including serving as the only Level I Trauma Center in our region. In 2015, the hospital donated over 400 units of blood.

Empty Stocking Fund: UTMC employees and hospital provide opportunities to volunteer within the community. As an organization, UTMC to partner with the Knoxville New Sentinel to provide food and toys to disadvantaged East Tennesseans during the holidays.

Remote Area Medical: UTMC Healthy Living Kitchen staff and employees dedicate time to serving at this medical and health event. RAM provides free dental, vision, and medical care to isolated, impoverished, or underserved communities. In less than 24 hours we turn fairgrounds, schools, arenas, and jungles into mobile medical centers.

Contributions of Volunteers: Since 1962, UT Medical Center has enjoyed the services of the Volunteers who have given over 800,000 hours. The Volunteer Department coordinates the activities of three main groups of volunteers: The Auxiliary, Independent Volunteers, and the Junior Volunteers. All volunteers who donate time and service to the Medical Center work in a variety of settings such as inpatient and outpatient facility departments, patient reception areas, gift shop, etc. There are approximately 312 currently active volunteers for UTMC. These volunteers come from various backgrounds from all ages, including seniors and students with an interest in a healthcare career. Currently there are 140 adult volunteers, 82 college students and 90 high school students. These volunteers average 35,000-40,000 hours per year of total service. Lifting the spirits of UTMC patients is what the volunteer program is all about. Volunteers are involved in such activities as delivering flowers, mail and gifts, serving refreshments and providing warm blankets for the oncology patients, reading materials, a cheerful smile and a comforting word. Volunteers also provide a valuable source of information for the patients' families and friends and are especially important when serving as a liaison during crucial times in the family waiting lounges.

UTMC Strategic Challenges and Societal Responsibilities:

In response to identified unmet health-related needs in the community needs assessment, the Fiscal Year (FY) 2016 for UTMC, our focus will be on increasing access to health care for the broader and underserved disadvantaged members of the surrounding community. Major initiatives for FY 2016-17 focused on increasing access to health services for the underserved

through partnerships; preventing injuries and treating traumatic brain injuries; improving health access for women's health; cancer screening services; early detection of disease processes and management; and community building activities.

Our focus is to create healthy connections in East Tennessee by providing and assisting in access to health care services, healthy women and children services, chronic disease management programs, cancer prevention and injury prevention programs. UTMC's response to the growing needs in the community and an invitation for community partners to come and join us in this effort of creating a Healthy Tennessee– one that is ready to be healthy, safe and well.

- State issues with obesity, smoking, heart disease, prematurity rates
- Lack of investment in health by consumers
- Increased demand for service excellence and better quality

The Together! Healthy Knox initiative was the platform to focus on the needs identified in the 2010 Community Health Needs Assessment for Knox County. Membership came together to identify the gaps in health and human services for the citizens of Knox County.

In January 2013, the THK Leadership Team officially became the Community Health Council (CHC), serving the City of Knoxville, Knox County, and the Town of Farragut. The CHC was established by an ordinance of the Knox County Commission with a supporting resolution from the Knoxville City Council and a supporting ordinance from the Town of Farragut Board of Aldermen. THK is now officially an initiative committee of the CHC.

To align our initiative with a Healthier Tennessee and the initiatives of the Knox County Community Needs Assessment 2015, UT Medical Center has chosen several health improvement initiatives to apply our expertise and focus to address. The following Health Initiatives are:

- Asthma Intervention and Smoking Cessation within the school systems
- Take Charge of Your Diabetes – focusing on vulnerable targeted health populations with disparities to improve self-management of disease process by diet and modifiable factors.
- UT Breast Health Outreach Program- (BHOP) Mobile Mammography
- Trauma Prevention and Education -through "Safe Kid's Coalition" – a collaboration of community partners working to prevent injuries in children and families.
- Fall Prevention Education – "Matter of Balance" – an evidence-based program proven

to reduce the fear of falling and increase physical activity

- Trauma Prevention and Education- "Battle of the Belt"- a statewide initiative focused on decreasing mortality rates associated with seat belt usage. Education for allied health professionals for Advanced Trauma Life Support (ATLS), Advanced Trauma Certified Nurse (ATCN), Trauma Nurse Core Curriculum (TNCC), Fundamentals of Critical Care (FCCS), and Certified Emergency Nurse (CEN) preparation course.

- Nutrition Education -partnership with Coordinated School Health and Healthy Living Kitchen™ to provide education for school faculty and students

- Stroke Awareness, Education, and Prevention through Advanced Stroke Life Support (ASLS) and community awareness events.

- Cole Neuroscience Center and Alzheimer's Research to provide access for evaluation of dementia and movement disorders

- Women's and Children's outreach efforts for prenatal care, high risk obstetrics, and care of the pre-term newborn.

- KAPA Project Access- UT Medical Center is a partner of this organization in the local healthcare community of providing free or discounted medical services and treatment to individuals who are not insured or medically underserved.

By offering evidence-based programs, UTMC will be effective in avoiding hospital admissions for three of the most prevalent ambulatory care sensitive conditions in our communities- Congestive Heart Failure (CHF), Chronic Obstructive Pulmonary Disease (COPD), Diabetes; and injuries due to falls. The goal of these programs seeks to institutionalize evidence-based chronic disease self-management and fall prevention programs as an essential component of a broader disease and unintentional injury management strategy. With focus on disproportionate unmet health-related need populations, these programs will help UTMC confront the challenges of continuing to care for the uninsured/ underinsured populations in an era of healthcare reform. An example of this commitment is evidenced by providing the Take Charge of Your Diabetes Workshops.

Take Charge of Your Diabetes Workshops – Diabetes Self-Management Program (DSMP) is a program that provides workshops given two and a half hours, once a week, for six weeks, in community settings such as senior centers, churches, libraries and hospitals. People with diabetes or pre-diabetes attend together. Workshops are facilitated by two trained leaders, one or both of whom are non- health professionals either with diabetes, or have a family member with diabetes. UTMC provides

workshops throughout East Tennessee and works closely with the UT Agriculture Extension Service Office (East Tennessee's and Knox County coordinating body for the DSMP program) to provide workshops and assistance to the community. Currently we have four certified trainers within UTMC's staff to provide workshops within the community and hospital.

Identifying Available Resources

UTMC realizes that there are numerous resources that can provide care for individuals. Our goal, in order to reduce costs and provide the best care possible for patients, is to identify these resources to prevent duplication of services. The interviewees were asked to list all of the services and resources within their community. The interviewees acknowledged that many resources currently exist to help meet health needs. Table 1.3 lists the current organizations within each county that offer health services to the community.

Table 1.3 – Identified Available Resources
Resources Available in Knox County, TN and Surrounding Region

Healthy Kids, Healthy Communities
East Tennessee Wellness Roundtable Committee
Knox County Health Department
Knoxville Area Project Access
CAC-Office on Aging
County Senior Centers
Interfaith Health Clinic
Cherokee Health Systems
Knoxville Academy Physicians Association (KAPA)
Project Access
Remote Area Medical
Second Harvest Food Bank
SCIRS
American Diabetes Association
American Heart Association
Alzheimer's Association of Tennessee
Metropolitan Drug Commission
Mental Health Association of East Tennessee
UT Language Culture Resource Center
Knox Area Rescue Ministries Helen
Ross McNabb Center
Rural/Metro Emergency Management Services
211 Information System
Coordinated School Health

Improving Health Priorities

The community members who were surveyed provided helpful insight as to how to begin formulating a plan to improve the health priorities throughout the region. To enhance existing resources, the participants stressed the significance of increasing public awareness of both addressing one's health needs and the availability of health care options within each community. Additional suggestions as to how UTMC can improve the previously identified health priorities are listed in **Table 1.4.**

Table 1.4 – Responses to Improve Health Priorities

- Focus on preventive health by providing education to promote healthy habits in school aged children. Counter obesity, drug use, and teen pregnancy.
- Require physical education activity as part of school
- Encourage employers or community to improve overall health status and address specific health issues.

- Expanded and enhanced psychiatric services
- Enhanced services for substance abuse counseling
- Increase community support for smoke-free and vape-free
- Assistance with early screening for underinsured or uninsured.
- Focus on access for lack of services available in region such as chemotherapy and mobile mammography
- Develop site for end-of-life or palliative care.
- Partner with local farmers markets for healthy produce.
- Extend partnerships with community providers.
- Share health information between physicians, pharmacies, and other health care providers.

The University of Wisconsin Population Health Institute and the Robert Wood Johnson Foundation 2011 County Health Rankings were also utilized for our assessment. The report ranks the overall health of the counties in all 50 states – more than 3,000 total – by using a standard formula to measure how healthy people are and how long they live. UTMC used this method of data analysis to compare health indicators and outcomes in the counties in which we serve in East Tennessee.

County Health Rankings and Roadmaps: *http://www.countyhealthrankings.org*

	Tennessee	Knox	Anderson	Blount	Loudon	Sevier	Union	Campbell	Claiborne	Cocke	Grainger	Hamblen	Jefferson	Hancock	Fentress	Cumberland	McMinn	Monroe	Morgan
Health Outcomes		15	41	8	13	22	80	85	89	88	78	54	51	93	84	47	65	40	67
Length of Life		11	34	16	15	22	79	72	83	87	86	39	46	91	89	73	52	49	59
Premature death	8,696	7,889	9,167	8,187	8,696	8,588	11,408	10,904	11,821	12,132	12,062	9,510	9,807	13,805	12,826	10,916	10,087	9,992	10,428
Poor or fair health	19%	17%	19%	15%	13%	21%		35%	31%	27%	20%	26%	26	29	33	21%	31%	21	26
Poor physical health days	4.3	4.1	5.6	3.3	3.7	4.5		7.6	5.7	6.4	4	6.3	4.7	8.2	7.1	3.6	6.2	4.5	5.5
Poor mental health days	3.4	3.6	3.9	2.6	3	2.9		5.7	4.4	4.7		4.7	6.4		3.1	2.4	4.7	3.5	
Low birthweight	9.20%	8.80%	9.10%	8.50%	8.80%	8.90%	11.20%	9.40%	10.60%	9.80%	9.80%	8.60%	7.60%	9.00%	8.30%	8.70%	8.20%	8.30%	9.20%
Health Factors		2	9	6	8	38	67	83	75	82	63	36	23	95	81	13	25	72	69
Health Behaviors		5	15	14	1	40	45	57	80	43	67	31	7	93	55	2	28	87	73
Adult smoking	23%	19%	21%	21%	24%	28%	24	29	33	21%	26	23%	26%	40	21%	17%	22%	36%	31
Adult obesity	32%	29%	33%	33%	28%	30%	33%	33%	35%	31%	31%	30%	28%	30%	38%	27%	34%	35%	31%
Food environment index	7%	6.9	7.4	7.4	7.5	7.5	7.9	6.6	6.7	6.2	7.8	6.70	7.50	6.80	7.60	7.60	7.20	7.40	6.80
Physical inactivity	30%	28%	32%	32%	30%	32%	36%	33%	31%	36%	39%	33%	33%	39%	39%	29%	36%	35%	35%
Access to exercise opportunities	70%	78%	76%	71%	79%	82%	32%	77%	50%	74%	38%	65%	63%	4%	61%	66%	51%	73%	48%
Excessive drinking	9%	10%	11%	8%		11%							5%			5%	5%		
Alcohol-impaired driving deaths	28	35%	24	22	39	27	24	21	26	36	55	34	19	56	30	38	32	23	26
Sexually transmitted infections	504	434	297	269	205	253	256	208	199	247	308	293	199	238	184	249	296	310	502
Teen birth rate	47	34	43	42	51	55	61	54	40	69	51	66	47	50	50	63	48	64	44
Clinical Care		2	3	10	8	65	58	63	56	71	86	37	48	93	87	15	34	64	74
Uninsured	16%	15%	14%	15%	17%	22%	18%	16%	16%	18%	17%	19%	17%	17%	18%	18%	17%	19%	17%
Primary care physicians	1388:1	877:1	1397:1	1592:1	1992:1	2372:1	4782:1	2021:1	2267:1	1694:1	7569:1	1494:1	3262:1	6720:1	1993:1	1501:1	2097:1	3224:1	7310:1
Dentists	1996:1	1744:1	1542:1	1955:1	2193:1	3227:1	6367:1	3658:1	4509:1	5068:1	7567:1	1660:1	4738:1	3340:1	8955:1	3380:1	2617:1	2829:1	7305:1
Mental Health Providers	786:1	313:1	1079:1	857:1	2018:1	1871:1	1469:1	3658:1	3945:1	3942:1	3784:0	606:1	2606:1		5970:1	4789:1	1939:1	2515:1	
Preventable hospital stays	73	49	53	75	47	53	77	124	97	114	107	87	80	181	185	48	75	84	95
Diabetic monitoring	86%	88%	88%	88%	90%	87%	88%	86%	86%	86%	83%	87%	87%	86%	90%	89%	87%	87%	82%
Mammography screening	62%	65.7%	69.3%	66.8%	75.7%	63.7%	57.1%	59.7%	53.8%	59.7%	50.6%	64%	60%	37%	55%	73%	62%	58%	62%
Social & Economic Factors		6	21	7	13	36	81	88	80	89	57	50	39	95	73	43	26	54	65
High school graduation	87%	90%	93%	92%	91%	86%	81%	82%	91%	94%	92%	87%	92%	78%	94%	93%	92%	95%	100%
Some college	58%	71%	52%	54%	49%	48%	32%	33%	42%	37%	35%	46%	46%	37%	33%	45%	44%	42%	31%
Unemployment	8.20%	6.60%	7.90%	6.90%	7.40%	8.70%	8.30%	10.80%	11.60%	10.80%	10.50%	8.90%	9.80%	12.30%	9.20%	9.60%	9.20%	10.70%	10.60%
Children in poverty	27%	20%	30%	20%	25%	28%	36%	36%	31%	41%	29%	29%	27%	45%	37%	29%	25%	30%	33%
Income inequality	5%	4.7	4.8	4.3	4.5	4.2	4.8	4.9	4.8	5.1	4.4	4.8	4.4	5	4.6	4%	4%	5%	5%
Children in single-parent households	36%	29%	33%	27%	27%	31%	34%	29%	26%	41%	20%	31%	35%	36%	38%	29%	29%	28%	26%
Social associations	12%	12.3	15.2	11.4	13.5	10.5	5.2	11.1	7.2	11.2	8.8	14.5	10.2	3	7.8	9.6	15.6	11.3	8
Violent crime	621	542	381	335	280	347	275	373	431	670	145	526	261	429	208	422	531	402	227
Injury deaths	78	76	86	73	81	77	91	106	125	104	106	85	82	118	125	100	92	98	113
Physical Environment		70	29	31	16	5	58	33	14	42	21	8	12	63	48	34	15	35	46
Air pollution-particulate matter	13.8	13.3	13.4	13.4	13.5	13.3	13.2	13.3	13.2	13.2	13.2	13.2	13.3	13.1	13.6	13.8	13.5	13.5	13.6
Drinking water violations	4%	24%	0%	3%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Severe housing problems	15	14%	13%	13%	11%	15%	16%	13%	14%	17%	12%	13%	14%	17%	15%	12%	12%	13%	14%
Driving alone to work	84	85%	87%	86%	85%	77%	84%	87%	85%	84%	84%	85%	82%	87%	85%	86%	85%	86%	83%
Long commute-driving along	32	22%	30%	35%	39%	39%	61%	37%	32%	39%	56%	21%	40%	43%	34%	27%	28%	40%	55%

.

Key Findings

The health needs assessment of UT Medical Center's service area revealed we are generally meeting the acute-care needs of the populations we serve. Our region still suffers by comparison, though, when its health status is measured against other regions in Tennessee and throughout the country. The below key findings are all interrelated and ultimately stem from the same root causes. As a result, no one finding is prioritized over another, and many of our implementation plans address several of these findings simultaneously. The counties we serve rank among the lowest in our states in several categories related to health and wellness.

Based on data collected by the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, our counties rank among the worst in Tennessee in several categories, notably in tobacco use, diet and exercise and quality of care – defined in those rankings primarily as having access to regular health screenings. These results are corroborated by several additional sources. Many of these rankings are undoubtedly tied to those counties' equally low rankings in several socioeconomic categories such as education, employment and income. The patients and community leaders interviewed for this report overwhelmingly believe the access to and quality of local health care is more than adequate. And the quality of the health services provided by UTMC and other health providers in the region is generally ranked very high as validated by several third-party ratings agencies and publicly reported data. So clearly, a gap exists between the availability of health services and the disease outcomes that result primarily from modifiable or preventable diseases. Our region faces cultural and socioeconomic hurdles that influence our collective health status.

Uncompensated Care

The history of UHS and UT Medical Center demonstrates a clear and consistent charitable purpose: the provision of healthcare services to all residents of the community without regard to age, race, gender, creed, geographic location, cultural background, or ability to pay. These services should be delivered in a way that maintains individual dignity and enhances the quality of life of the persons served. One of the most tangible expressions of the UHS charitable purpose is the provision of care to those who do not have the ability to pay. UHS subsidized health services provided to patients covered by CoverTN. CoverTN is a partnership between the state, private employers and individuals to offer a limited benefit, basic health plan to employees of Tennessee's small business and self-employed. The services provided to the CoverTN patients were provided below cost.

Focus on Access

One way UTMC and Cancer Institute are improving access to healthcare services is by creating new touch points for infusion and clinical services in our communities. Outpatient chemotherapy and specialty provider clinics provide convenient, local access to the cancer population.

UTMC is providing access to preventive screenings in the workplace and through various locations in our region wide range of primary and specialty services.

Another important aspect of improving the health of our region is ensuring a true partnership between our patients and their primary care physicians – so doctors have a clear understanding of patients' circumstances and preferences, while patients have a clear understanding of what they can do to better their health.

As is the case throughout the country, the uninsured and underinsured populations we serve are at increased health risk in part due to a lack of primary and preventive care. In turn, those populations can become significant financial concerns for a hospital and health system when they seek care in high-cost settings like emergency departments with little, if any, ability to pay for those services.

Our region has an overwhelming need for expanded and enhanced psychiatric services. This finding also mirrors a national gap in the availability of psychiatric services. The data suggests a need for increased recruitment of psychiatric caregivers and access to services. Local healthcare organizations are coming together to develop action plans to address the needs for intake centers and expanded services to assist with overcrowding jails and emergency departments.

Focus on Population Health Management

Many of our efforts to improve the health status of our service area involve empowering our community members to make healthier choices. To that end, we will be partnering with businesses, churches and community organizations to help create a foundation and momentum for change in our region. UTMC continues to establish relationships with post-acute care facilities to ensure a full continuum of services to our patients. Access to individual healthcare providers will continue to be a priority in an ever changing environment to ensure efficient and timeliness of acute and chronic care conditions.

Implementation Strategy
Measurable Objectives and Timeframes

UT Medical Center's major initiatives to address the community health needs are comprehensive and include many of the programs that are supported primarily by the hospital and its grateful donors. Programs delivered by UTMC are in response to the Community Health Needs Assessments, hospital's strategic goals and objectives, state and national initiatives to promote public health. The programs meet these five core principles:

- Disproportionate Unmet Health-Related Needs -

- Primary Prevention - Address the underlying causes of persistent health problem.

- Seamless Continuum of Care - Emphasize evidence-based approaches by establishing operational links between clinical services and community health improvement activities.

- Build Capacity - Increase inpatient and outpatient capacity upon existing assets and evaluate need to increase specific care services demanded by our customers and stakeholders.

- Collaborative Governance - Engage diverse community stakeholders in the selection, design, implementation, and evaluation of program activities.

Community Health Initiatives 2015-2017 are as follows:

Health Initiative: Take Charge of Your Diabetes (Self-Management Initiative)	
Medical Center Community Benefit Priority Areas	Health and Wellness Chronic Conditions
Program Emphasis	Disproportionate Unmet Health-Related Needs Primary Prevention Build Community Capacity Collaborative Governance
Link to Community Needs Assessment	Prevention of chronic health conditions, self management, reduction in Emergency Room utilization
Program Description	UT Medical Center offers Take Charge of Your Diabetes workshops for community members to teach them how to manage their medical condition and maintain their ability to complete simple everyday tasks most people take for granted. Based on a 5-year study conducted by Stanford University, this program is proven to help those dealing with diabetes and fulfill their greatest possible physical potential. Its simple goal is to help anyone dealing with a chronic illness to live a productive, healthy life.
FY 2016	
Goal FY 2016	Support Take Charge of Your Diabetes workshops and maintain no fewer than 3 staff who are certified instructors
2016 Objective Measure/Indicator of Success	To successfully instruct two Take Charge of Your Diabetes workshops, one of which will be in an identified at-risk communities
Baseline	UT Medical Center supports this program to improve self-management skills in diabetes.
Intervention Strategy for Achieving Goal	1. Partnered with area housing authorities to provide first workshop 2. Offered Take Charge of Your Diabetes workshop for seniors residing in government assisted housing MAUD BOOTH: Fall 2016
	Four staff maintained certification to be Take Charge of Your Diabetes Instructors One workshop was completed with 12 participants successfully completing the 6-week series
Medical Center's Contribution	The medical center supported this program by allowing 4 FTEs to maintain certification and instruct workshops within the community. The medical center also purchased the materials necessary to successfully instruct the workshops.
FY 2017	
Goal 201	Continue offering Take Charge of Your Diabetes workshops in the communities identified to be at greatest need. We will collaborate with the University of Tennessee Extension to identify areas in need, and provide instructors for these workshops
2017 Objective Measure/Indicator of Success	To successfully maintain certifications of 4 FTEs and instruct the Take Charge of Your Diabetes workshop in one of our identified at-risk communities. Increase number of participants by 50%.
Baseline	This program is a key focus for UT Medical Center and is proven to be of benefit for those dealing with chronic conditions. We will work to sustain and build this program among the medical center's service area (21 County Service-Area)
Intervention Strategy for Achieving Goal	Enhance marketing and communication tools to promote Take Charge of Your Diabetes to the community. Assist University of Tennessee Extension Office with workshops by providing staff to assist with teaching these workshops.
Priority Areas	Knoxville and the 21-County surrounding service area
Community Benefit Category	Community Health Education

Health Initiative: Healthy Living Kitchen	
Medical Center Community Benefit Priority Areas	Health and Wellness Obesity Prevention Nutrition Education
Program Emphasis	Disproportionate Unmet Health-Related Needs Primary Prevention Seamless Continuum of Care Build Community Capacity Collaborative Governance
Link to Community Needs Assessment	Prevention of chronic health conditions, reduction in obesity
Program Description	The Healthy Living Kitchen was established in 2006 as a program to teach heart healthy cooking techniques to the East Tennessee community. The multidisciplinary approach utilizing the skill sets of a chef, registered dietitian and registered nurse makes this a unique and successful endeavor. The program now includes cooking classes, healthy grocery shopping tours and interactive displays on nutrition topics in various community settings
FY 2016	
Goal FY 2016	Support Healthy Living Kitchen by offering numerous community education opportunities
2016 Objective Measure/Indicator of Success	To successfully complete quarterly cooking classes, monthly grocery shopping tours and numerous interactive displays at community health and wellness events
Baseline	UT Medical Center supports this program to improve appropriate nutrition educational opportunities within our community
Intervention Strategy for Achieving Goal	1. Partnered with local grocer to provide free monthly grocery shopping tours with a Registered Dietitian 2. Offered quarterly onsite cooking classes demonstrating healthy cooking techniques 3. Participated in monthly community health events by providing interactive nutritional displays
Result FY 2016	Monthly onsite cooking classes were held during 2012. Monthly Community Grocery Shopping Tours were conducted, Staff participated in over 26 community health events as well as 15 nutritional presentations
Medical Center's Contribution	The medical center supported this program by providing staff (including an Executive Chef, Registered Dietitian and Registered Nurse) to provide programs within the community.
FY 2017	
Goal 2017	Continue offering the Healthy Living Kitchen as a vital nutritional and educational component in our community. Continue partnerships with area grocers to increase participation and saturation of educational opportunities.
2017 Objective Measure/Indicator of Success	Provide quarterly cooking classes and demonstrations. Participate in monthly health and wellness events. Seek to increase number of new participants in nutrition education opportunities. Partner with local grocers as well as local schools to increase the number of those educated on proper nutrition. Measure and track number of participants educated.
Baseline	This program is a key focus for UT Medical Center and is a valuable benefit to those residing in the medical center's service area (21 County Service-Area)
Intervention Strategy for Achieving Goal	Enhance marketing and communication tools to promote Healthy Living Kitchen in the community. Assist staff as needed to continue to provide high-touch preventative health education that focuses on proper nutrition and the obesity epidemic.
Priority Areas	Knoxville and the 21-County surrounding service area
Community Benefit Category	Community Health Education

Health Initiative: Unintentional Injury Prevention: Matter of Balance Falls Management Program	
Medical Center Community Benefit Priority Areas	Injury and Trauma Prevention
Program Emphasis	Primary Injury Prevention
Link to Community Needs Assessment	Regional statistics showed 71% of people age 55 and older are admitted to UTMC through our ED as a result of a fall related injury.
Program Description	Matter of Balance (MOB) is an evidence-based falls management program recognized the CDC and NCOA. MOB is proven to reduce the fear of falling and increase activity levels.
FY 2016	
Goal FY 2016	Train and certify at least ten coaches to instruct classes in Knox and surrounding counties. Increase the number of classes taught in 2015 (5) by 50% in 2016. (8)
2016 Objective Measure/Indicator of Success	Certificates of successful completion of Coach Training and Participant Class Reports.
Baseline	Five MOB Programs provided in Knox County Senior Centers.
Intervention Strategy for Achieving Goal	Elicit Knox County and surrounding senior centers, and Churches to host MOB Programs. Partner with East TN Department of Health and UT Extension Services to provide coaches to teach.
Result FY 2016	25 Coaches from UTMC, UT Extension Services, East TN Department of Health, and the community were trained to teach MOB. Ten classes were taught in the first six months of 2016. We project another 8-10 will be taught before the end of the year.
Medical Center's Contribution	The Medical Center serves as the Designated Master Trainer site and maintains licensure to provide the program. Our COEs (B&S, ED/Trauma, and Ortho) provide staff to instruct classes. Serving as the lead for this initiative, we are also working with collaborative partners to implement this program.
FY 2017	
Goal 2017	Expand MOB to surrounding counties, prioritizing them according to where our patients with fall- related injuries are coming from.
2017 Objective Measure/Indicator of Success	Participant Class Program Reports.
Baseline	
Intervention Strategy for Achieving Goal	Help provide resources and partners in collaboration.
Priority Areas	Knox, Blount, Loudon, Sevier, Monroe, Jefferson and Hamblen Counties
Program Emphasis	Falls Prevention Self-Management, fear reduction and increased activity levels.
Link to Community Needs Assessment	Unintentional Injuries due to Falls
Program Description	Matter of Balance (MOB) is an evidence-based falls management program recognized the CDC and NCOA. MOB is proven to reduce the fear of falling and increase activity levels.

Health Initiative: Breast Health Outreach Screening	
Medical Center Community Benefit Priority Areas	Women's Health and Wellness
Program Emphasis	Disproportionate Unmet Health-Related Needs Primary Prevention Early Detection Seamless Continuum of Care Build Community Capacity Collaborative Governance
Link to Community Needs Assessment	Providing Access to Digital Screening Mammograms to Breakdown Barriers
Program Description	Comprehensive breast health program which is completely grant/gift funded including education, digital screening mammograms, and referrals to patient navigation for diagnostics. Education includes signs/symptoms of breast cancer, screening guidelines and instruction on technique of breast self-exam (BSE) utilizing MammaCare® breast models. Access to mobile screenings for industries, churches, community/senior centers, and rural areas to reach women where they work, worship, and live. Target area is 21 East TN Counties.
FY 2016	
Goal FY 2016	Increase outreach to women in 21 East TN Counties by providing convenient digital screening mammograms and on our mobile unit including uninsured/underinsured women.
2016 Objective Measure/Indicator of Success	Provide at least 1,900 digital screening mammograms; provide 500 digital screening mammograms free of charge to uninsured/underinsured women through grant funding; refer 100% of screening participants needing diagnostic follow-up to nurse navigators in Breast Care Service
Baseline	Data from Knoxville Affiliate of Susan G. Komen for the Cure Community Profile reflecting barriers on why women are not receiving their screening mammograms
Intervention Strategy for Achieving Goal	1. Partnered with industries, churches, senior/community centers, housing authorities, etc to increase outreach 2. Offered free education classes prior to the mobile dates to teach the signs/symptoms of breast cancer, screening guidelines, how to do a breast self-exam (BSE); funding opportunities for uninsured/underinsured women; and scheduled appointments for mobile screening. 3. Schedule the mobile unit at same location or area around the same time each year 4. Reminder letters for previous year screening participants 5. Utilize flyers, press releases, emails, etc to inform women of the screening opportunity 6. Apply for grant funding to cover program operational costs including free screenings
Result FY 2016	By the end of the 2nd quarter, 1175 total digital screening mammograms were provided on our mobile unit and 225 of those were provided free of charge to uninsured/underinsured women. Breast Care Service has received 166 diagnostic referrals from BHOP and six breast cancers have been diagnosed.
Medical Center's Contribution	Provides support services and mobile support

Health Initiative: Safe Sleep	
Medical Center Community Benefit Priority Areas	Women's and Children's Health and Wellness and Injury Prevention
Program Emphasis	Primary prevention and Building Community Capacity
Link to Community Needs Assessment	Prevent unsafe sleep-related infant deaths
Program Description	The Regional Perinatal Program at UTMC provides outreach education for healthcare professionals and community members with a goal of improving perinatal outcomes in East Tennessee. The program receives grant funding to focus specifically on reducing unsafe sleep-related infant deaths.
FY 2016	
Goal FY 2016	1) Educate healthcare providers and prospective or new parents about safe sleep practices 2) Decrease the number of unsafe sleep-related infant deaths
2012 Objective Measure/Indicator of Success	1) Educate 1,000 healthcare personnel and community members 2) Reduce the number of sudden unexpected infant deaths to less than .9 deaths per 1000 live births by 2020.
Baseline	
Intervention Strategy for Achieving Goal	1) Provide the following education for healthcare personnel and community members: a) Substance abuse/NAS b) Safe sleep c) Basic and advanced fetal monitoring d) Prospective/new parents education 2) Coordinate efforts with all agencies in the area that provide services for moms, babies, and families
Result YTD 2016	1) Educational programs for 11 medical provider offices (124 participants) 2) Eight Safe Sleep community programs (2276 participants) 3) Two conferences have been held (68 participants) 4) Safe Sleep training conducted at the Department of Children's Services (21 participants)
Medical Center's Contribution	1) Personnel expenses for the professional component provided by UTMC Regional Perinatal Program staff. 2) Funding for personnel expenses paid from UTMC Childbirth Education staff. 3) Community education provided by UTMC personnel funded by CJ Foundation for SIDS grant.

Health Initiative: Safe Sleep Initiative- Decrease Infant Mortality   FY 2017

Goal 2017	1) Educate parents, infant caregivers and healthcare providers in East Tennessee about the dangers of unsafe sleep environments and ways to prevent these deaths.
	2) Complete hospital safe sleep policy and initiate in January, 2013.
	3) Apply for grant funding for:
	   a) professional training events
	   b) community education events
	4) Pursue application and/or support ETSSI funding request for Cribs for Kids.

2017 Objective Measure/Indicator of Success	1) Provide (8) professional education training events 2) Educate 2,000 people in the community 3) Initiate Safe Sleep Hospital Initiative 4) One grant submission successful
Baseline	2011 infant mortality statistics not published yet.

Intervention Strategy for Achieving Goal	1) Offer safe sleep environment education for 4 groups:
	   a) parents and family members
	   b) daycare providers
	   c) physicians, nurses and allied health personnel
	   d) home visiting agency employees
	2) Initiate Safe Sleep Hospital Initiative

Priority Areas	
Program Emphasis	
Link to Community Needs Assessment	Infant Mortality Reduction and Safety
Program Description	

Appendix A

UHS Board of Directors		
William S. Rukeyser *Chairman* Rukeyser & Company	**Renda J. Burkhart** *Vice Chair* Burkhart & Co., CPA's	**Bernard E. Bernstein** *Secretary/Treasurer* Bernstein, Stair & McAdams Attorneys
James A. Haslam II *Assistant* *Secretary/Treasurer* Pilot Oil Corporation	**Carolyn Fairbank Biggs** *COO* Christmas Place Management LLC	**Jimmy G. Cheek, PhD** *Chancellor* The University of Tennessee
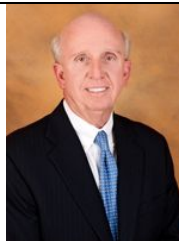
Michael T. Strickland
Chair
Bandit Lites

W. Bedford Waters, MD
Physician
The University of Tennessee
Medical Center

APPENDIX B – UT Medical Center Senior Leadership

 Joe Landsman, Chief Executive Officer

 Kathy Boyd, Chief Development Officer

 Bennet Cox, Chief General Counsel

 Janell Cecil, SVP and Chief Nursing Officer

Thomas Fisher, SVP and Chief Financial Officer

w. David Hall, SVP and Chief Operating Officer

Inga Himelright, SVP and Chief Quality Officer

Teresa Levey, SVP and Chief Administrative Officer

Jerry Epps, SVP and Chief Medical Officer

Cindy Marquart, VP and Chief Compliance Officer

Steven Ross, SVP, Strategic Development

John Sheridan, VP, Government Relations Officer

APPENDIX C – UT Medical Center System Team Leadership

Anderson, Tami VP, Quality and Safety

Ashin, Becky A. VP Advanced Orthopaedic Center

Bell, Deborah T, Administrator, UT Day Surgery

Boyd, Kathy, VP Chief Development Officer

Clinton, Toni, PhD, LabCorp General Manager

Collins, Ron L, VP, Supply Chain Management

Cox, Bennett L. Chief General Counsel

Giffin Ann, VP, Brain & Spine Institute

Gissel, Betty A, VP, Human Resources

Hawk, Renee R, VP, Cancer Institute

Hovan, Stephen, VP, Patient Accounts

Keating, Michael R. VP, Risk Management

Keel III, James F, VP & Chief Medical Information Officer

Lee, Garlena, Director Clinical and Sleep Services

Marquart, Cynthia B., VP, Compliance

Mason, Kimberly C, Pharm.D. Director, Pharmacy

Massey, Roger A, VP, Fin. & Managed Care

McAnally, Rhonda M, Director, Network Development

McGill, Megan, VP, Decision Support

Neely, W. Keith, VP, Facility Operations

Thompson, Becky, VP, Marketing & Planning

OPEN, VP Primary Care Physician Development

Reed, Susan, VP, Controller

Regan, Dee Dee, VP, Specialty Physician Practice Dev.

Saad, Mike VP & Chief Information Officer

Sheridan, John, VP, Government and Community Relations

Sillyman, Bryce T., VP Emergency, Trauma, and Critical Care

Snyder, Solon, VP, Medical-Surgical

Williams, Cynthia VP, Women and Infants

Wohlford, Jeanne, VP, Heart Lung Vascular Institute

Appendix D: Community Advisory Board Membership

Name	Title	Organization	Email
Rhonda McAnally, RN	Director- Network Development	UTMC	rmcanall@utmck.edu
Beth LaFontaine	Coordinator- Network Development	UTMC	elafontaine@utmck.edu
Shannon Reynolds	Manager- Network Development	UTMC	smreynolds@utmck.edu
Brad Hood	Pastoral Care	UTMC	bmhood@utmck.edu
Jennifer Russomanno	MPH	University of Tennessee Graduate School of Medicine	jrussomanno@utmck.edu
Ramona Dew	Coordinated School Health Specialist	Knox County Schools	ramona.dew@knoxschools.org
Melisa Fuhrmeister	Coordinator	Loudon County Schools	fuhrmeisterm@loudoncounty.org
Debi Tuggle, RN	Pediatric Trauma Coordinator	UTMC	dtuggle@utmck.edu
Aneisa McDonald	Director of Planned and Annual Giving	Pellissippi State	almcdonald1@pstcc.edu
Terri Geiser	Program Manager	Knox County Health Dept.	terri.geiser@knoxcounty.org
Kathy Brown, Ph.D.	Director Community Assessment	Knox County Health Dept	kbrown@utmck.edu
Melissa Knight	Director	InterFaith Health Clinic	melissa@interfaithhealthclinic.org
Elaine Streno	Director	Second Harvest	elaine@secondharvestetn.org
Michelle Moyers	Director- Community Development and Planning	Knox County Health Dept.	Michelle.Moyers@knoxcounty.org
Martha Buchanan, M.D.	Director	Knox County Health Dept.	Martha.Buchanan@knoxcounty.org
Ali Taylor	Manager	Metro Drug Coalition	ataylor@metrodrug.org
Julie Jeter, M.D.	University Family Practice	University Graduate School of Medicine	JWJeter@utmck.edu

Appendix D: Community Advisory Board Membership (Cont.)			
Shelly Durbin, M.D.	UT Family Physicians West	University Health System	sdurbin@utmck.edu
Karen Pershing	Executive Director	Metro Drug Coalition	kpershing@metrodrug.org
Georgette Samaras	Education Coordinator	UTMC	gsamaras@utmck.edu
Paige Huggler	Director	UTMC	phuggler@utmck.edu
Mae King	Coordinator - Breast Health Outreach	UTMC	lking@utmck.edu
Brian Smith	Coordinator	Cherokee Health Systems	brian.smith@cherokeehealth.com
Susan Long	Director	Office on Aging	susan.long@knoxseniors.org
Micheal Caudle, M.D.	OB/GYN	Cherokee Health Systems	Michael.Caudle@cherokeehealth.com
Heather Kyle- Harmon	Knox County Extension Agent	UT Ag Extension	hkyle@tennessee.edu
Bobbie Wrenchey	Community Liasion	United Healthcare	bobbie_wrenchy@uhc.com
Penny Bandy	Owner and CEO	East Tennessee Personal Care Service	info@etps.net

Appendix E: Knox County Health Advisory Board

Ellen Zavisca (chair), Knoxville Regional Transportation Planning Organization

Captain Eve Thomas (chair-elect), Knoxville Police Department

Kristy Altman (past chair), Knoxville Track Club

Kindall Aaron, Coalition on Childhood Obesity

Dr. Martha Buchanan, Knox County Health Department

Jim Dickson, YMCA of East Tennessee

Lara Fleming, The Trust Company

Gaye Fortner, HealthCare 21 Business Coalition

Pam Frye, Harmony Family Center

Melissa Knight, InterFaith Health Clinic

Viren Lalka, Lalka Tax Service, LLC

Dr. Laurie Meschke, University of Tennessee Department of Public Health

Dr. Joe Miles, University of Tennessee Department of Psychology

Mitch Olszewski, American Association of Retired Persons, Knoxville Chapter

Patricia Robledo, City of Knoxville

Rev. Jimmy Sherrod, Central United Methodist Church

Karen Tindal, Community Volunteer

Lisa Wagoner, Knox County Schools

Amanda Weber, Remote Area Medical

Carlos Yunsan, Kizer & Black, Attorneys, PLLC

Appendix F:

Q1 In your opinion, what is the biggest physical, emotional, or social health concern in your community? (You may choose up to three concerns.)

Answered: 531   Skipped: 0
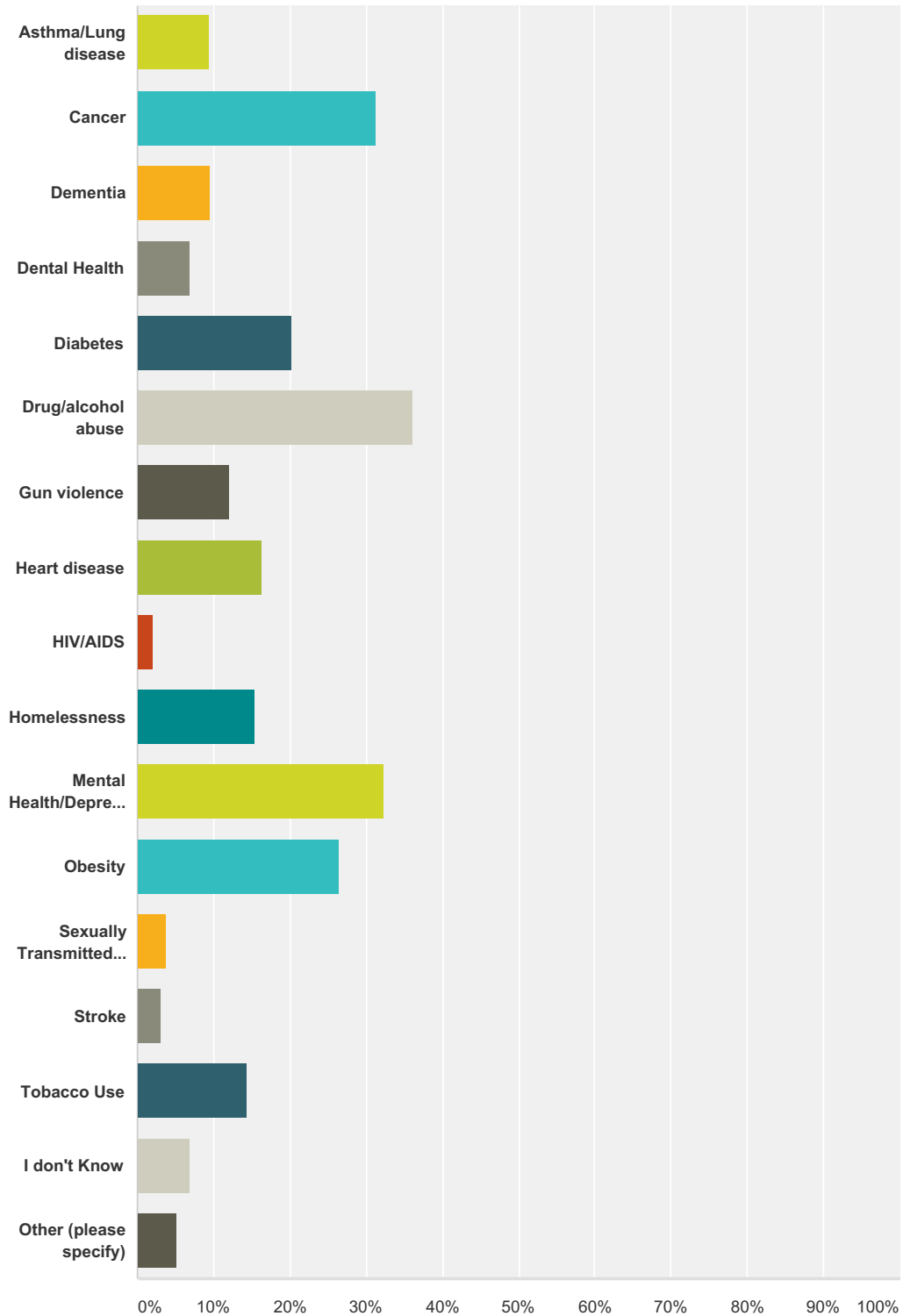
Q2 In your opinion, what main factor do you think prevents people in your community from seeking medical treatment? (Choose only one.)

Answered: 531   Skipped: 0
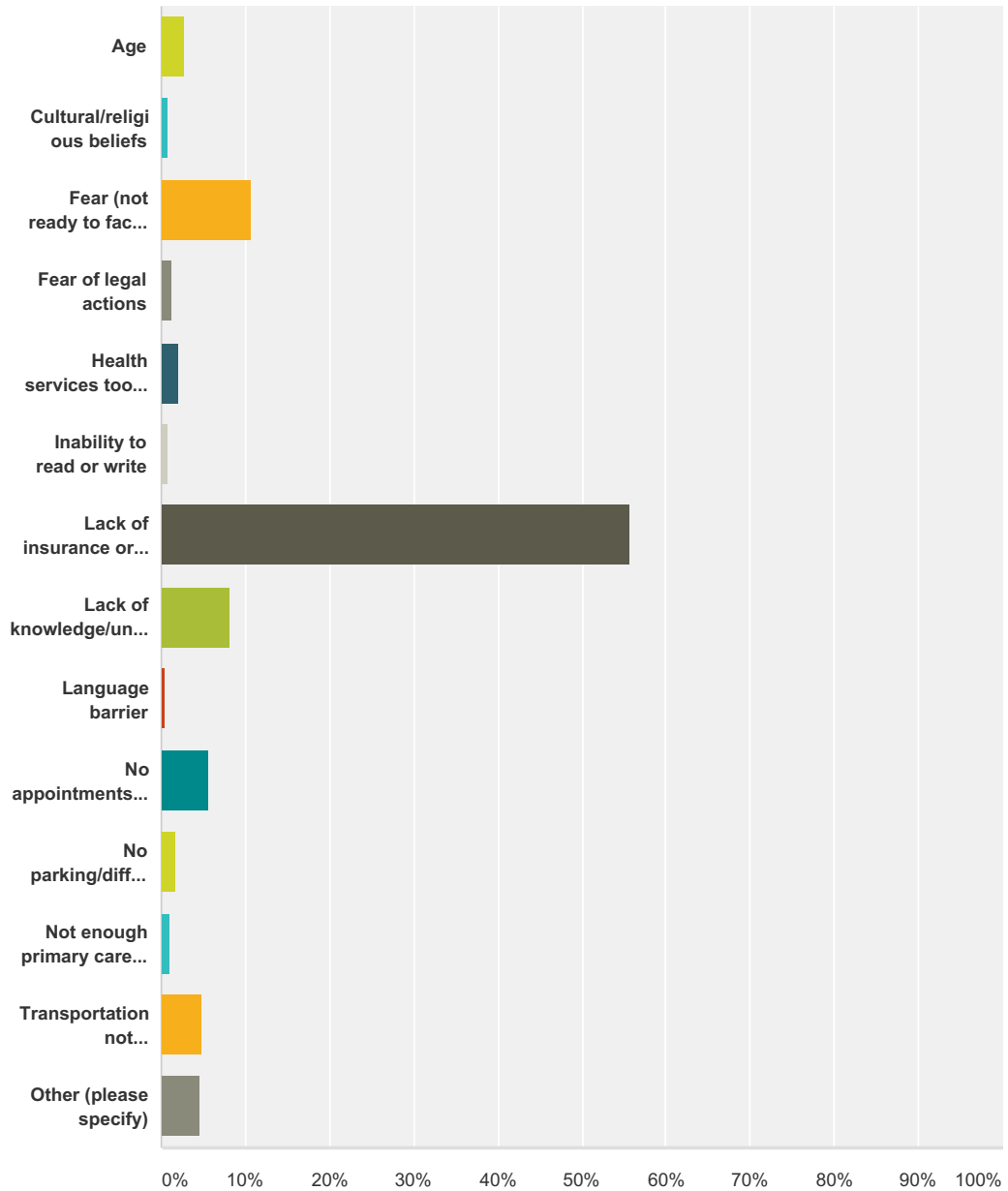
Q3 Do you smoke?

Answered: 531   Skipped: 0
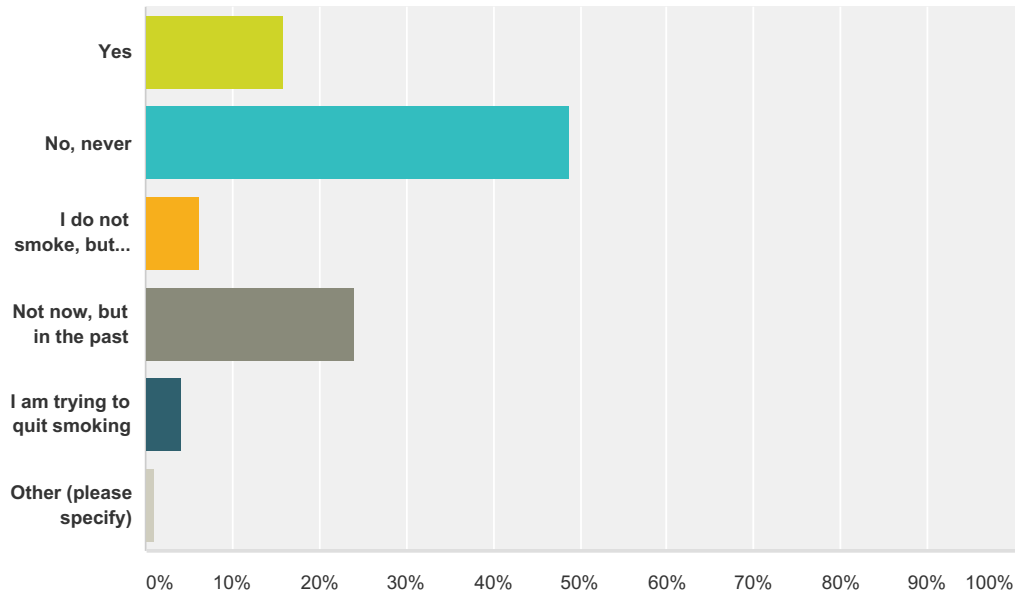
Q4 In your opinion, which of he following does your community need in order to improve the health of your family, friends and neighbors? (You may choose up to three.)

Answered: 531   Skipped: 0
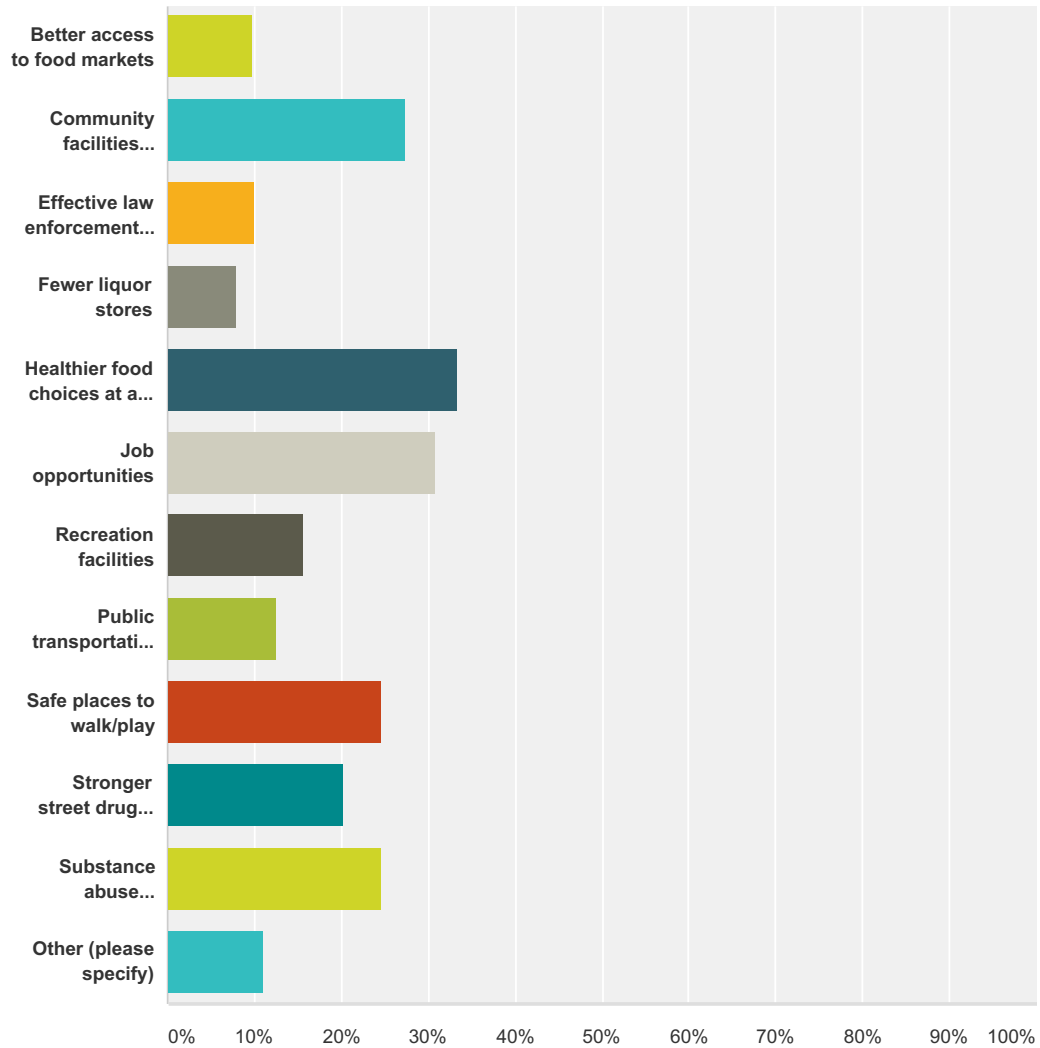
Q5 What health services or health screenings are needed in your community? (You may choose up to three.)

Answered: 531   Skipped: 0
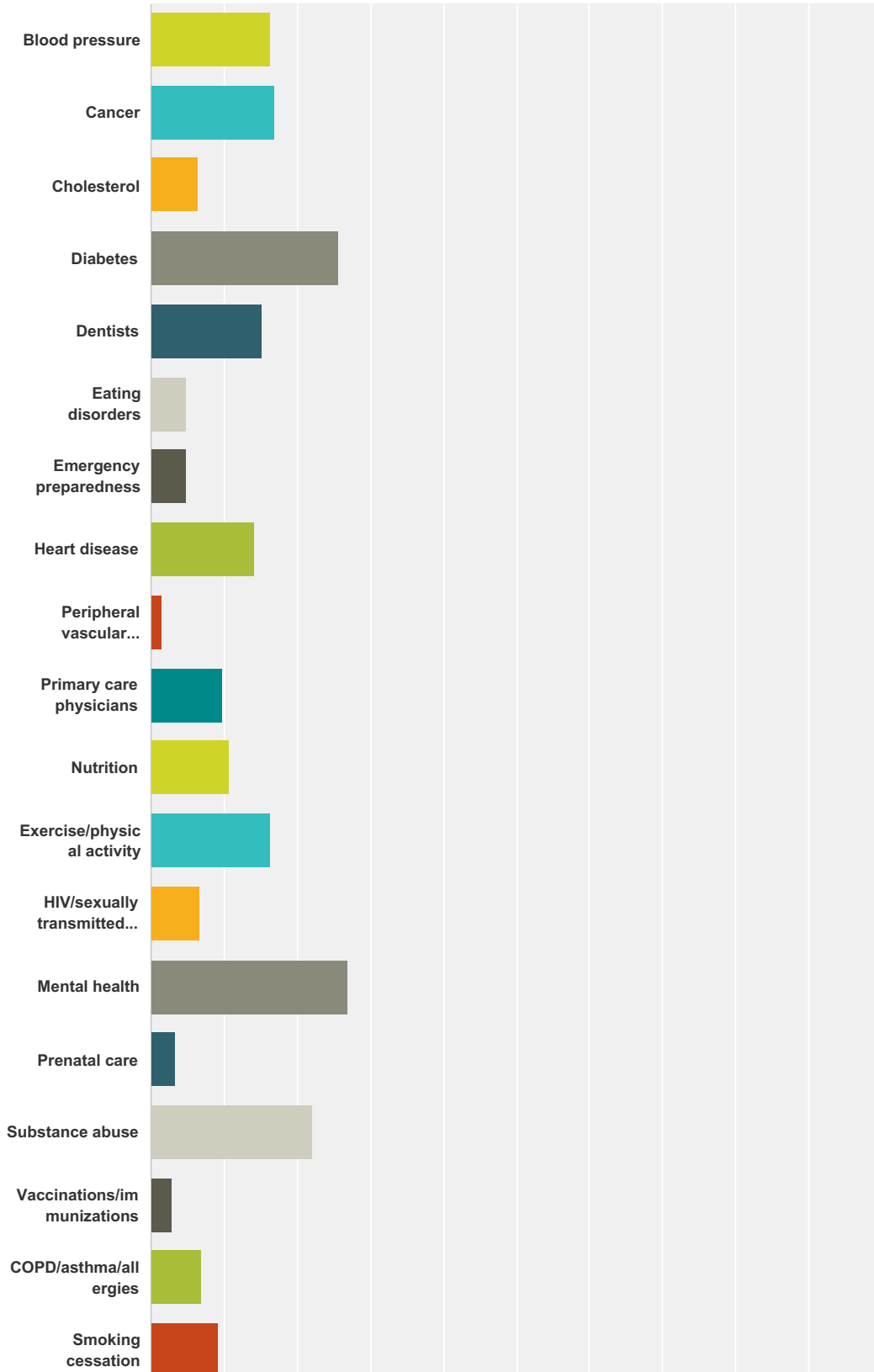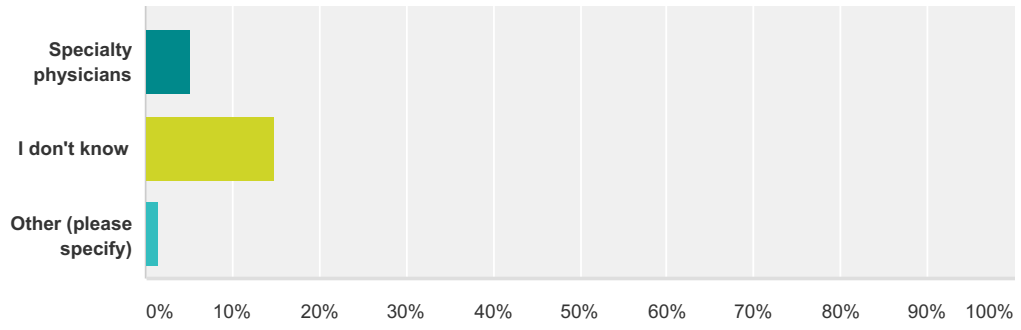
Q6 Where do you and/or your family get most of the information you use to treat your medical problems and improve your health? (You may choose up to three.)
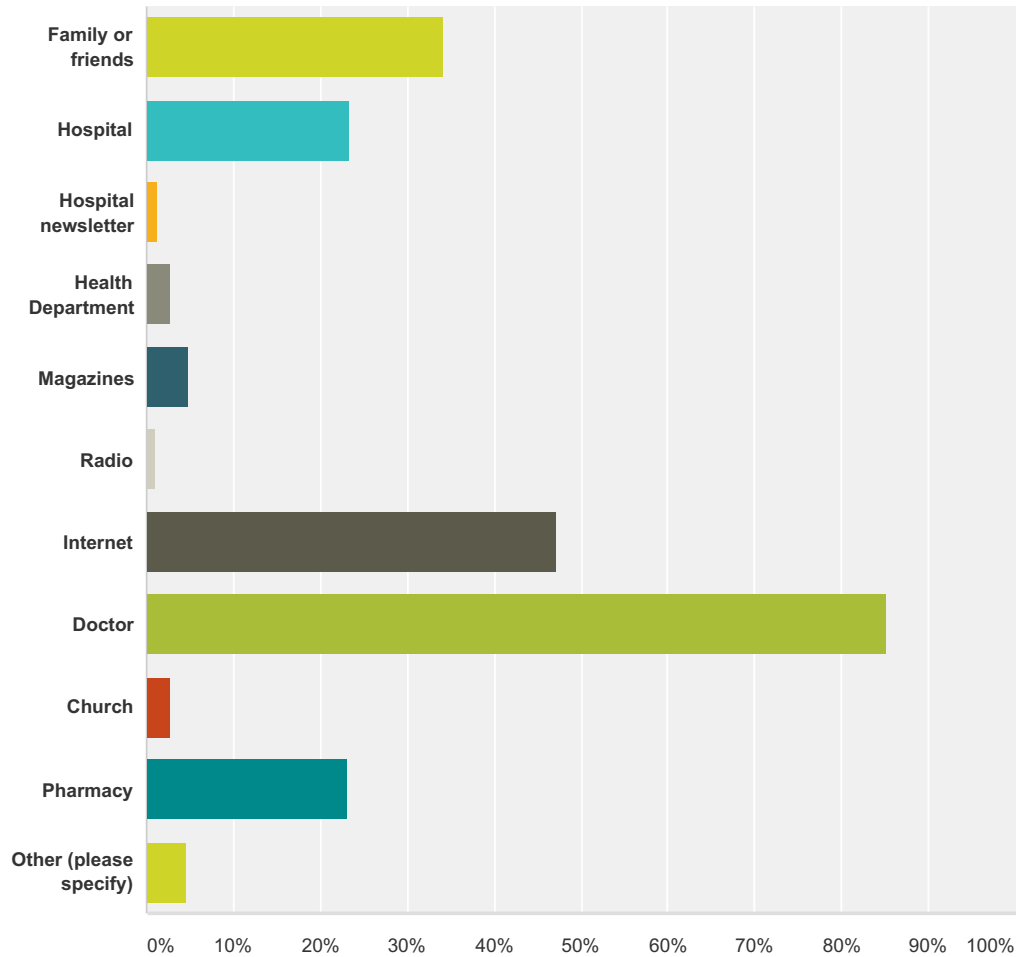
Q7 If you or someone in your family were ill and required medical care, where would you go? (Choose only one.)

Answered: 531   Skipped: 0
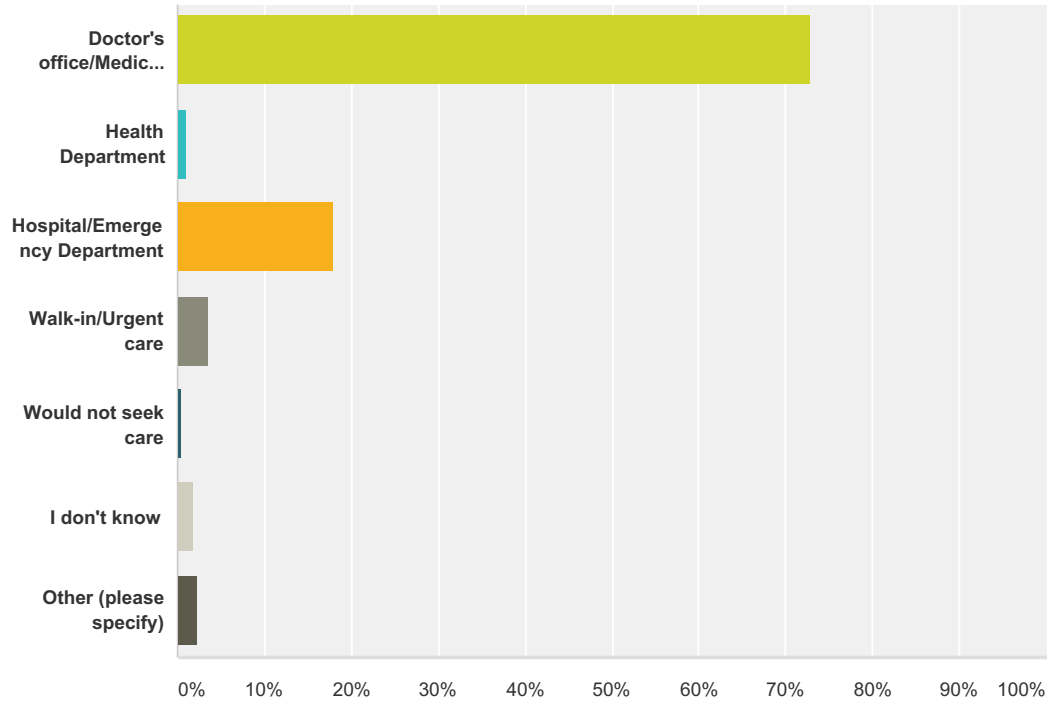
Q8 Have you had a routine physical exam in the past two years?

Answered: 531   Skipped: 0
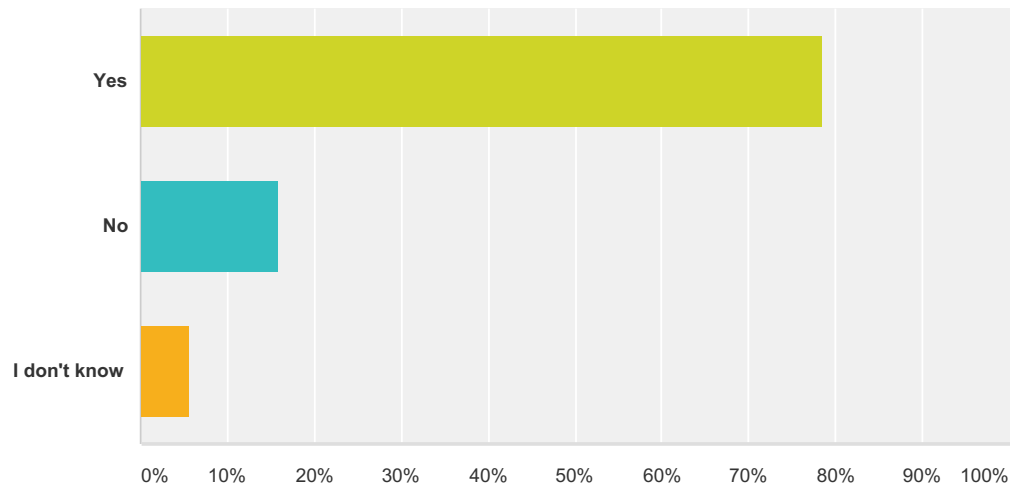
Q9 Are you male or female?

Answered: 527   Skipped: 4
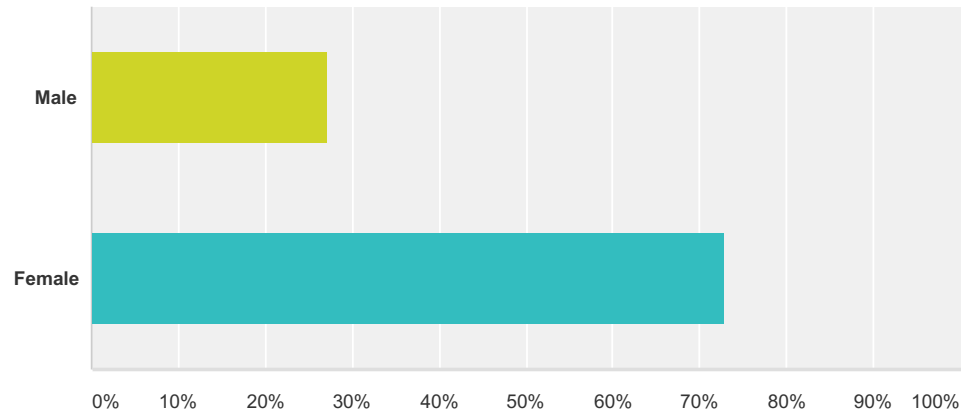
Q10 Women: Are you pregnant?

Answered: 392   Skipped: 139
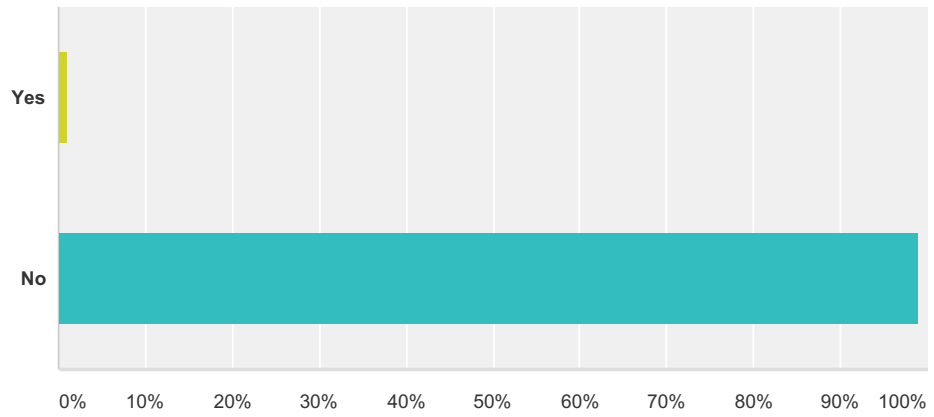
Q11 What category below includes your age?

Answered: 531   Skipped: 0
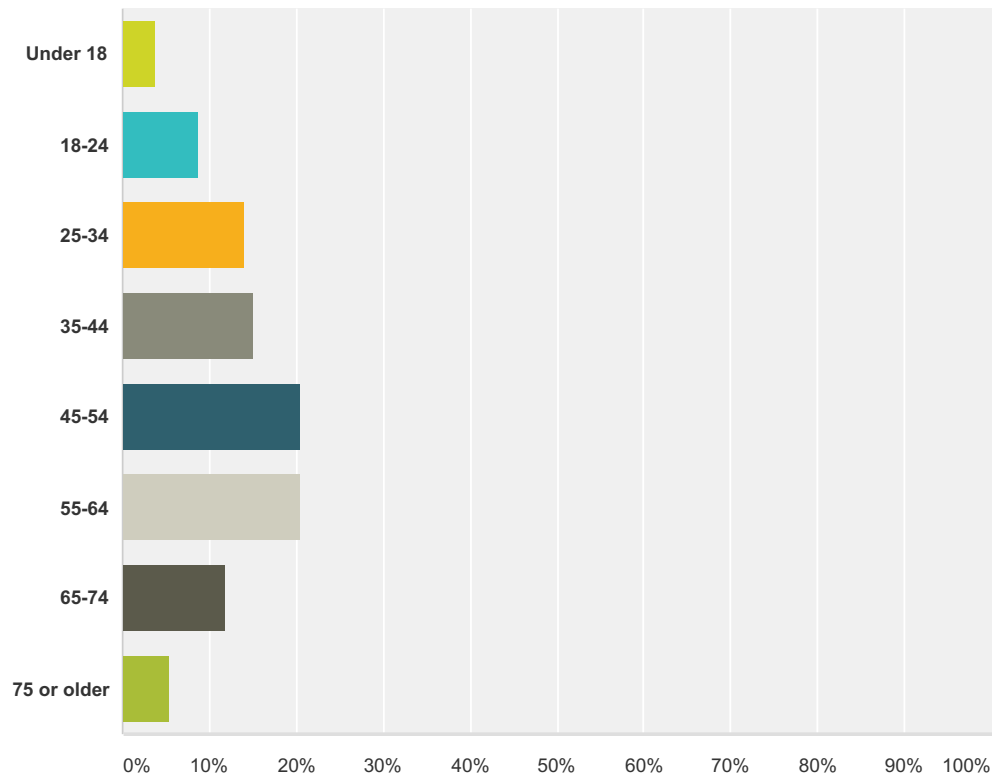
Q12 In what county is your home located in?

Answered: 531   Skipped: 0

County	Bar
Anderson	
Blount	
Campbell	
Claiborne	
Cocke	
Cumberland	
Fentress	
Grainger	
Hamblen	
Hancock	
Hawkins	
Jefferson	
Knox	
Loudon	
McMinn	
Monroe	
Morgan	
Roane	
Scott	

Sevier											
Union											
Other (please specify)											
	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
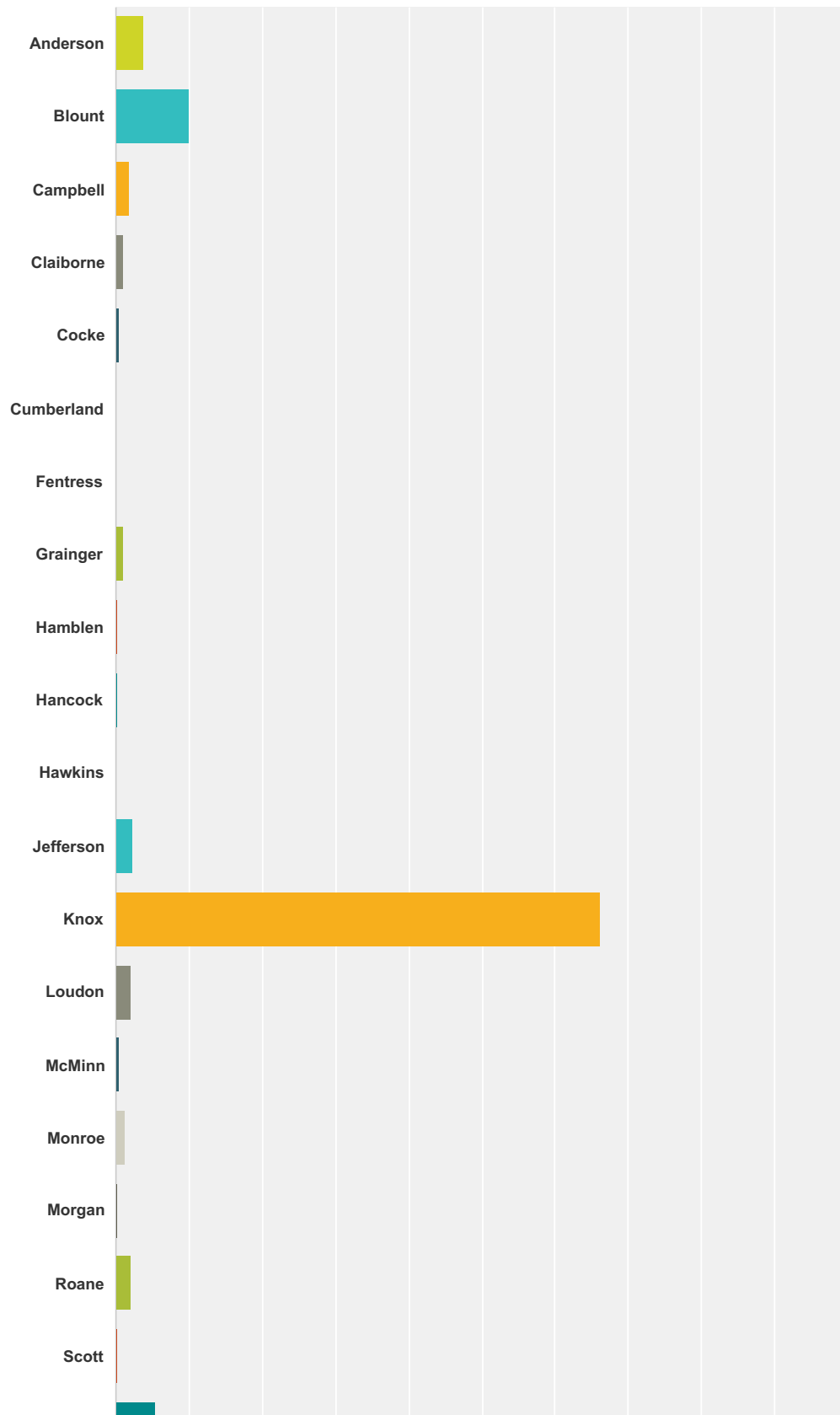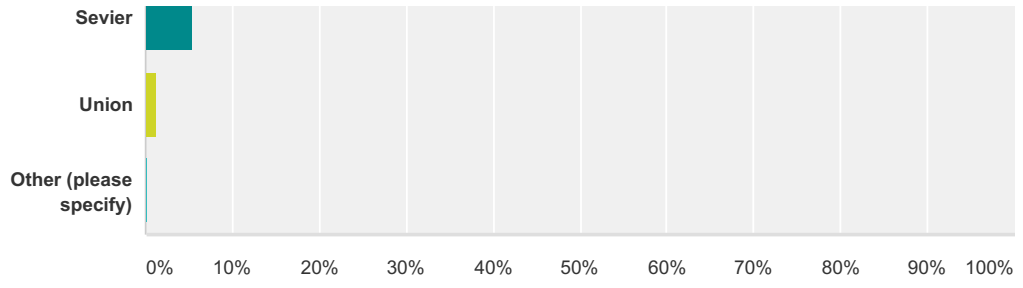
Q14 What is your racial/ethnic background?

Answered: 531   Skipped: 0
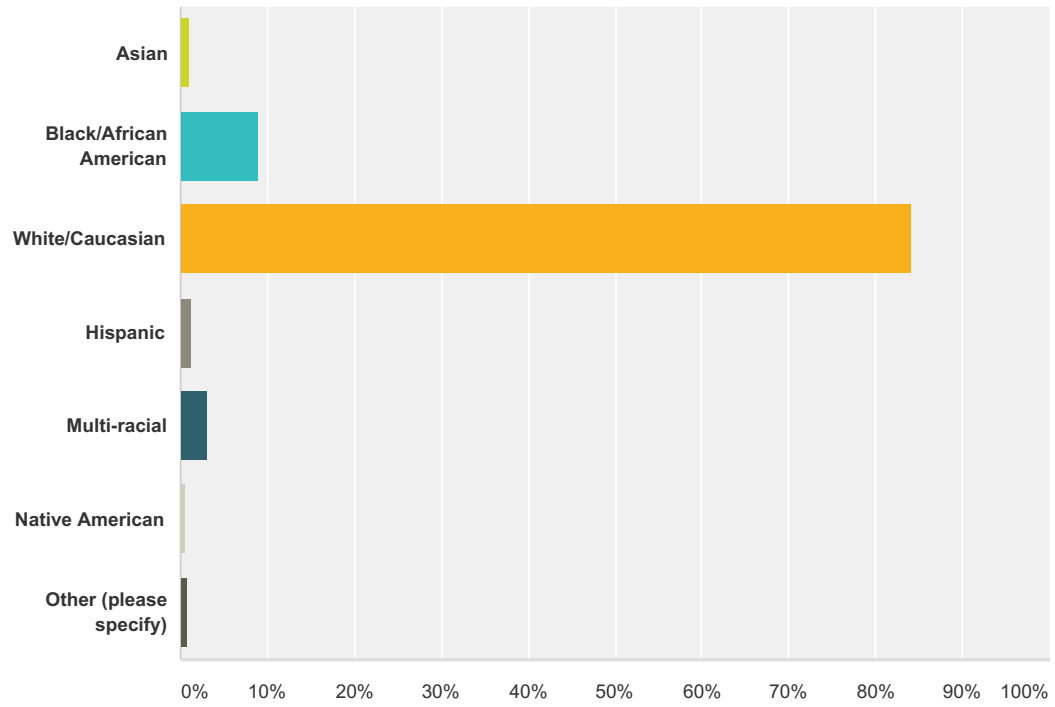
Q15 What is your highest level of education?

Answered: 531   Skipped: 0
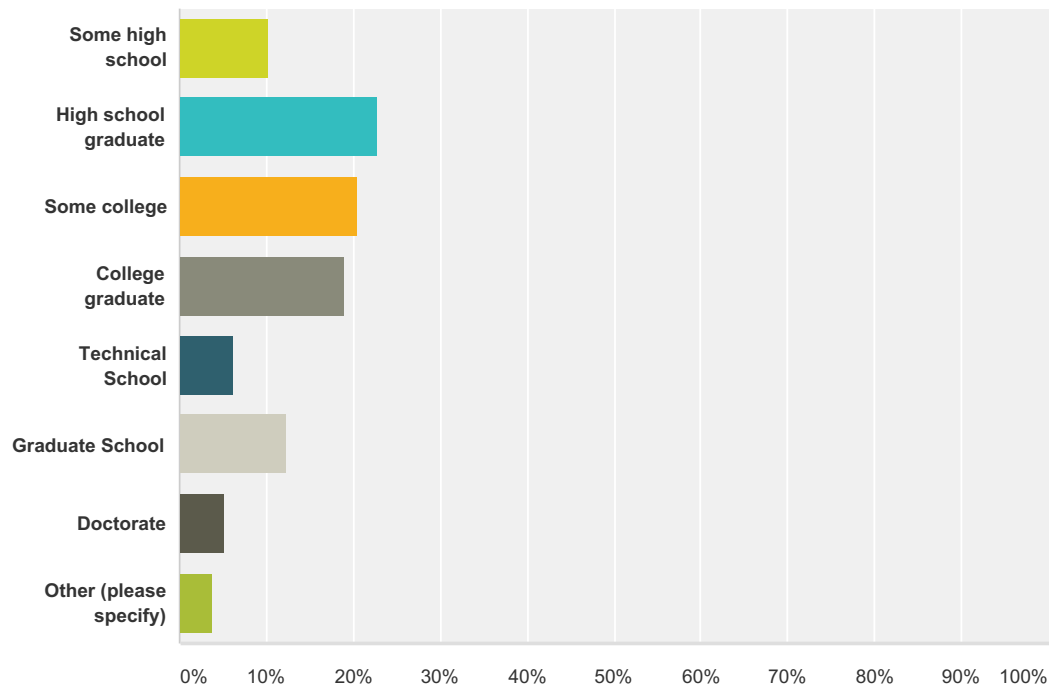
Q16 What type of health insurance do you have?

Answered: 531   Skipped: 0
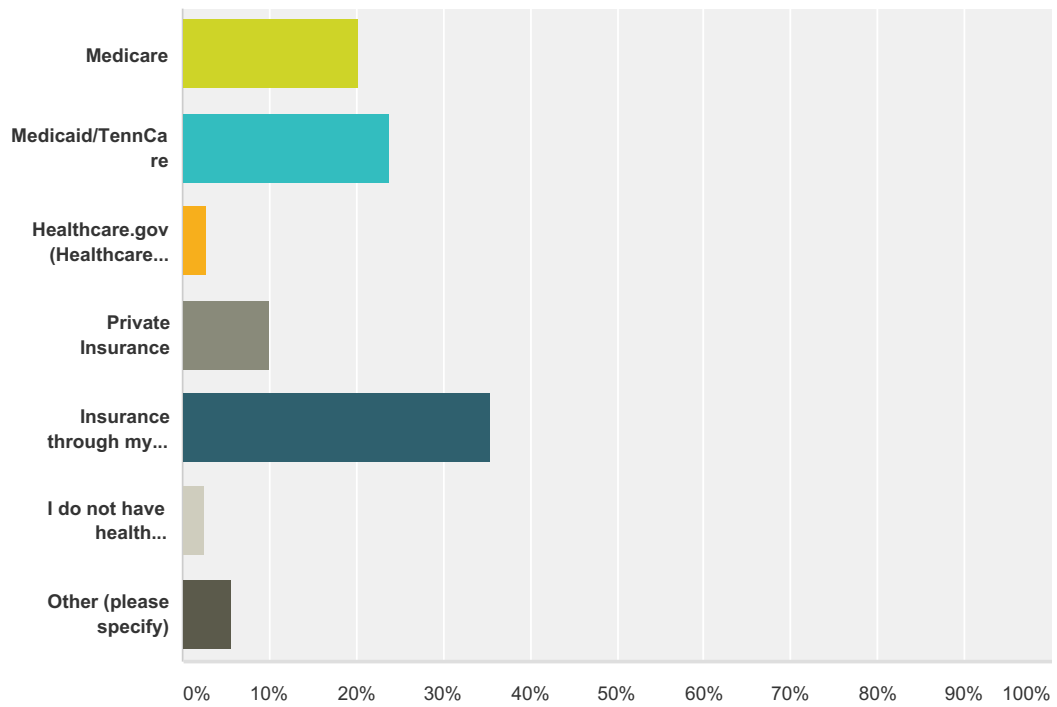
Q17 Do you receive aid from other state or federal assistance programs for the health or nutrition of you and your family? (For example, WIC, SNAP, TN Early Intervention Services, Family First, etc.)

Answered: 528   Skipped: 3
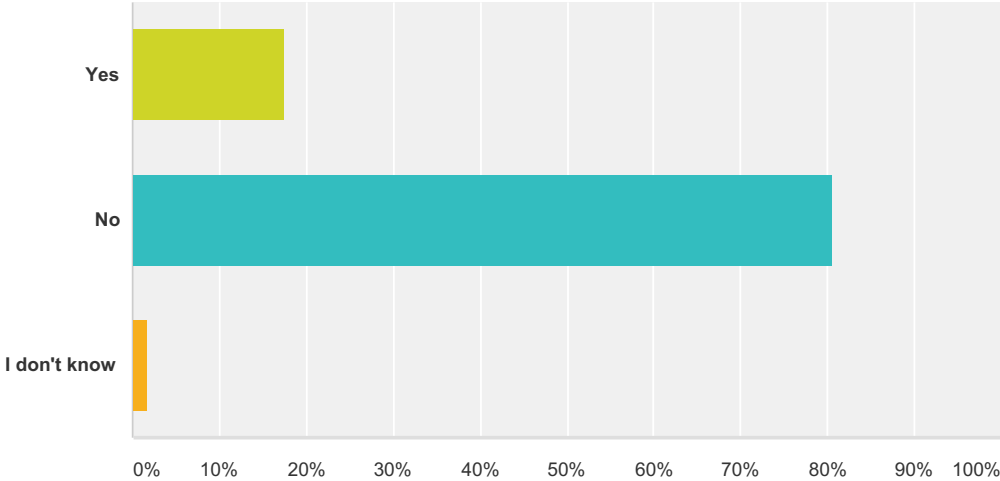
Q18 What is your current household income?

Answered: 531   Skipped: 0
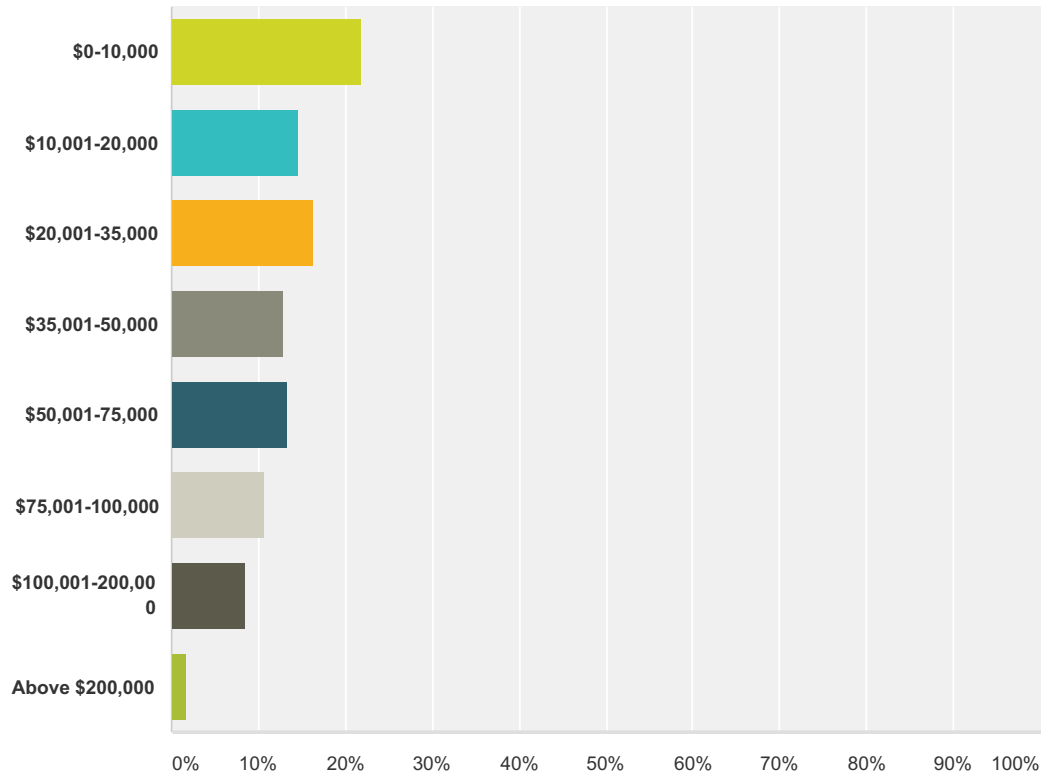
Q19 How many are there in your household?

Answered: 531   Skipped: 0
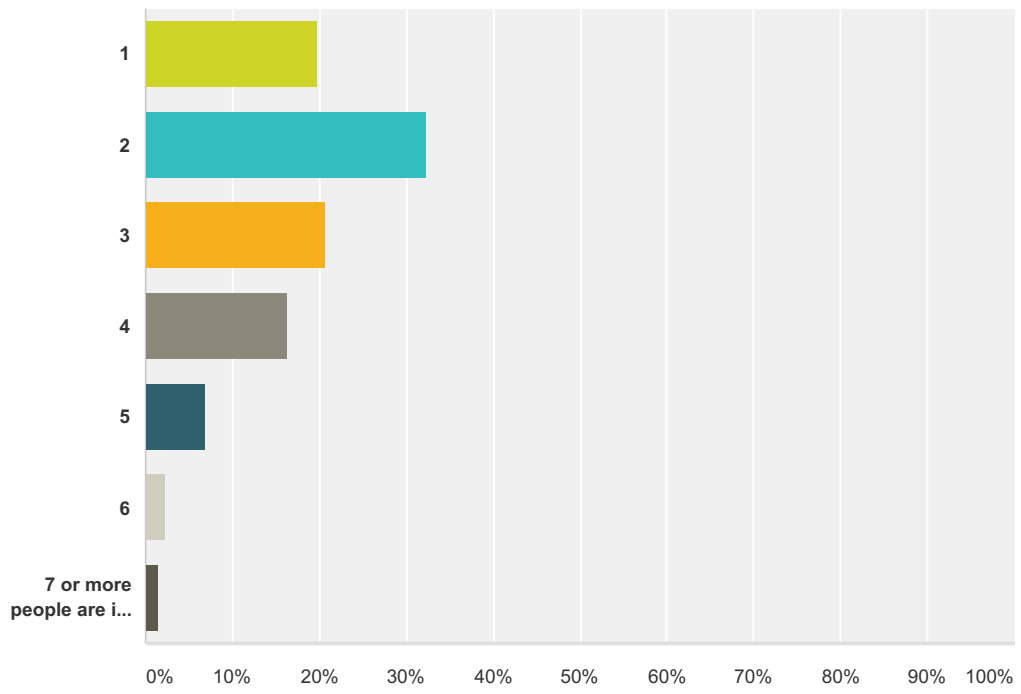
Q20 Do you receive your primary health care from a UT Medical Center affiliated practice?
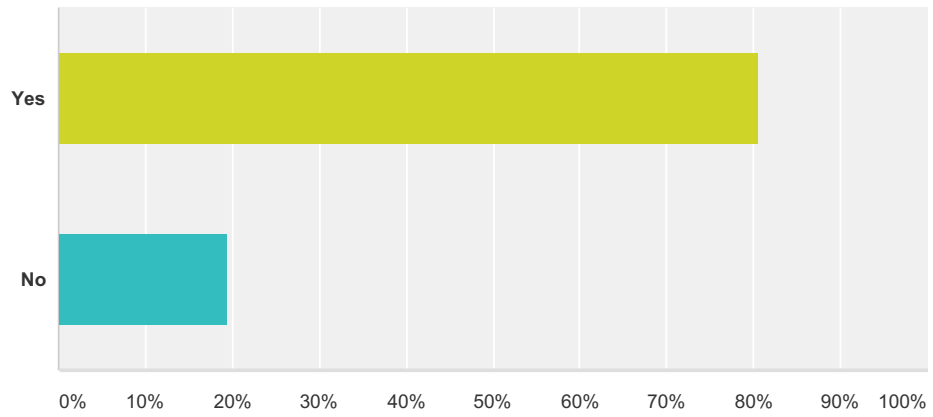
Q21 If you answered Yes to the previous question, please specify the primary care practice where you receive your health care.

Answered: 425   Skipped: 106

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Medicine...											
UT Internal Medicine at...											
UT Internal Medicine...											
UT Internal Medicine Len...											
UT Internal Medicine of...											
UT Internists 1934 Alcoa...											
Valley View Family...											
I don't know											
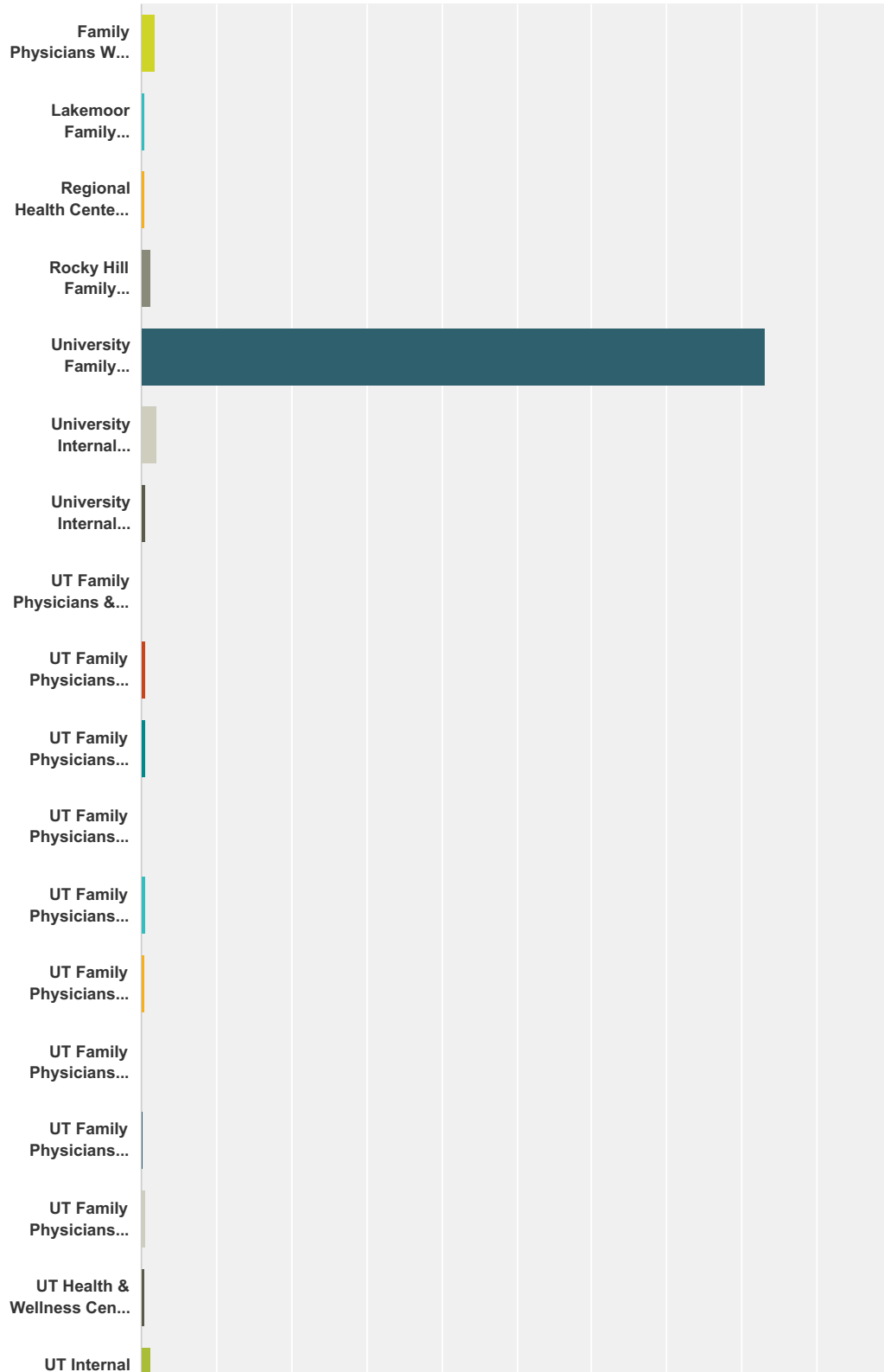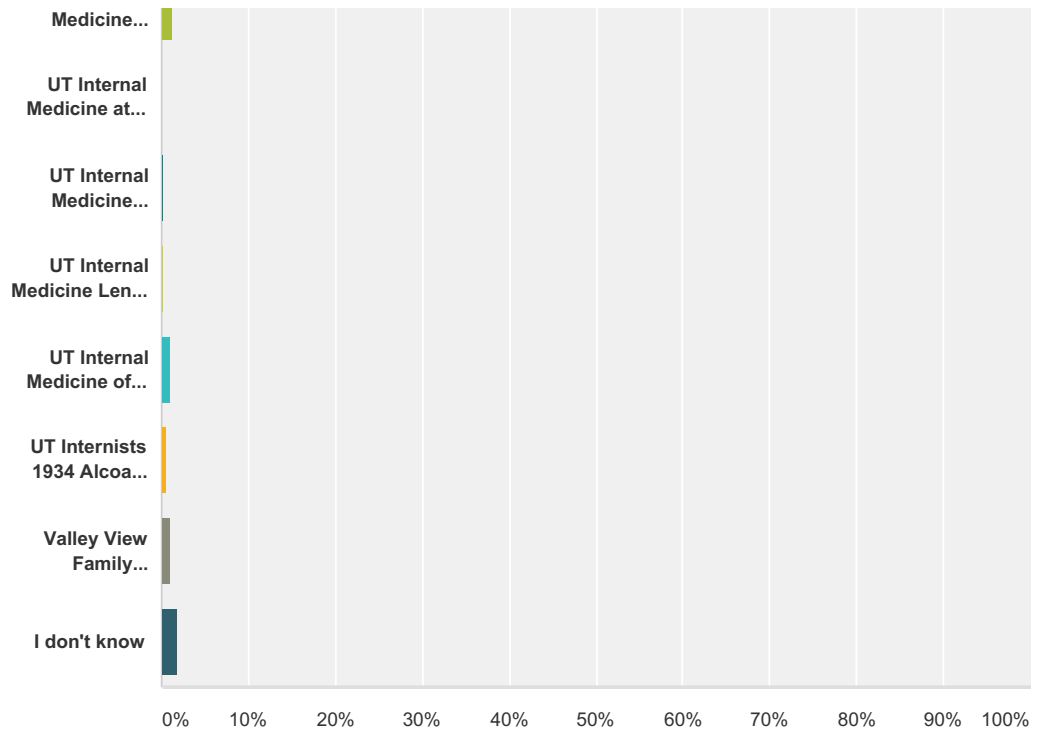
Appendix G: Community Needs Index

Community Needs Index

Improving Public Health

The CNI identifies the severity of health disparity for every zip code in the United States and demonstrates the link between community need, access to care, and preventable hospitalizations. The ability to pinpoint neighborhoods with significant barriers to health care access is an important advancement for public health advocates and care providers. Because the CNI considers multiple factors that limit health care access, the tool may be more accurate than existing needs assessment methods.

How It Works

Rather than relying solely on public health data, the CNI accounts for the underlying economic and structural barriers that affect overall health. Using a combination of research, literature, and experiential evidence, Dignity Health identified five prominent barriers that enable us to quantify health care access in communities across the nation. These barriers include those related to income, culture/language, education, insurance, and housing.

Assigning CNI Scores

To determine the severity of barriers to health care access in a given community, the CNI gathers data about that community's socio-economy. For example, what percentage of the population is elderly and living in poverty; what percentage of the population is uninsured; what percentage of the population is unemployed, etc. Using this data we assign a score to each barrier condition (with 1 representing less community need and 5 representing more community need).

The scores are then aggregated and averaged for a final CNI score (each barrier receives equal weight in the average). A score of 1.0 indicates a zip code with the lowest socio-economic barriers, while a score of 5.0 represents a zip code with the most socio-economic barriers.

Scores which describe a Community's Health

A comparison of CNI scores to hospital utilization shows a strong correlation between high need and high use. When we examine admission rates per 1,000 populations (where available), we find a high correlation (95.5%) between hospitalization rates and CNI scores. In fact, admission rates for the most highly needy communities (areas shown in red in the online maps) are over 60% higher than communities with the lowest need (areas shown in blue).

Admission rates for conditions where appropriate outpatient care could prevent or reduce the need for hospital admission have also been evaluated. These conditions include pneumonia, asthma, congestive heart failure, and cellulitis. With proper outpatient care they do not generally require an acute care admission. When admission rates for these conditions were compared to CNI scores, we find that the most highly needy communities experience admission rates almost twice as often (97%) as the lowest need communities

To determine the severity of barriers to health care access in a given community, the CNI gathers data about that community's socio-economy. For example, what percentage of the population is elderly and living in poverty; what percentage of the population is uninsured; what percentage of the population is unemployed, etc.

Using this data, a score is assigned to each barrier condition. A score of 1.0 indicates a zip code with the lowest socio-economic barriers (low need), while a score of 5.0 represents a zip code with the most socio-economic barriers (high need). The scores are then aggregated and averaged for a final CNI score (each barrier receives equal weight in the average). See Appendix G: CNI Maps

Lowest Need | Highest Need

1 - 1.7 Lowest	1.8 - 2.5 2nd Lowest	2.6 - 3.3 Mid	3.4 - 4.1 2nd Highest	4.2 - 5 Highest
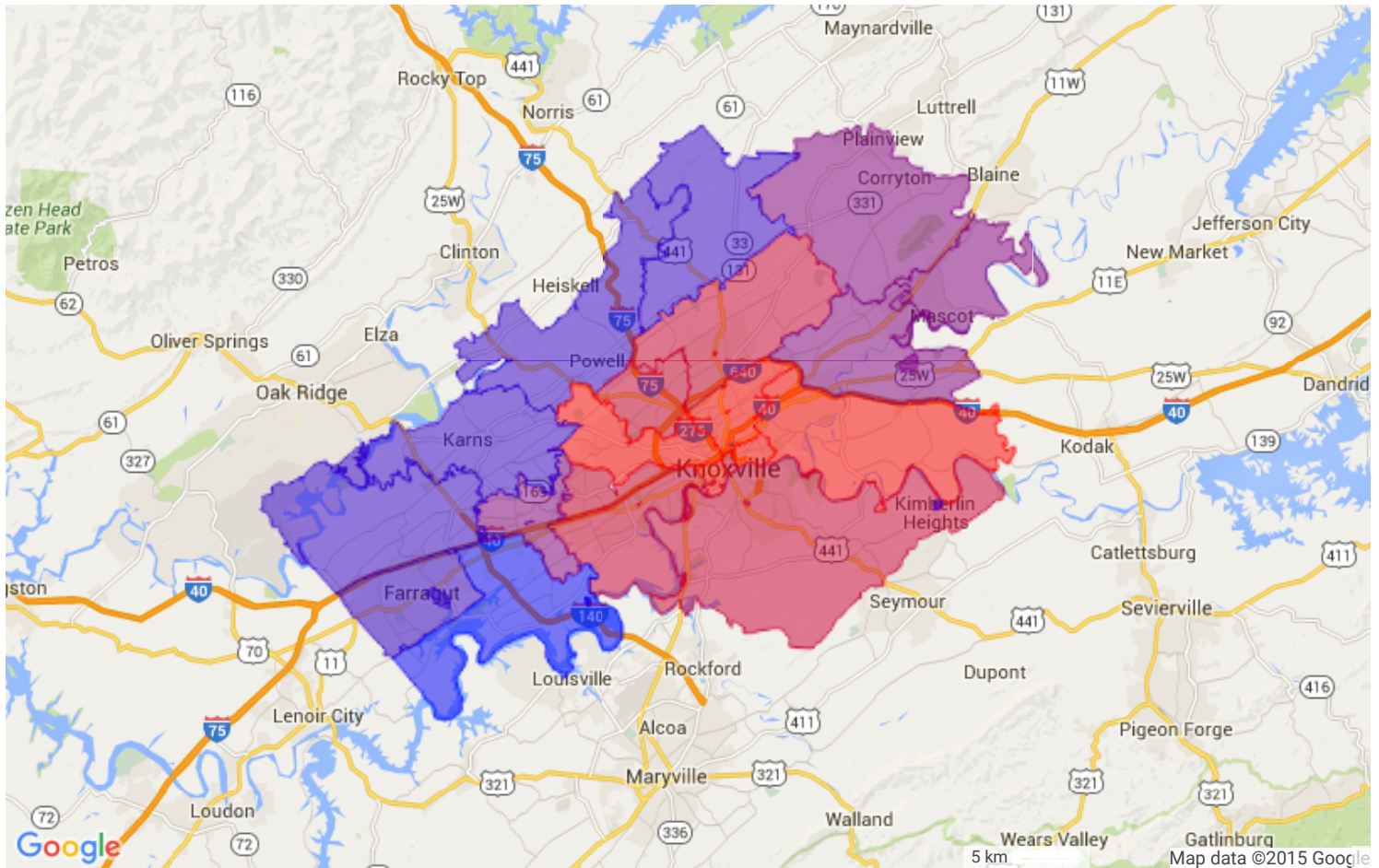
Mean(zipcode): 3.2 / Mean(person): 3.1   CNI Score Median: 3.4   CNI Score Mode: 2.4,3.4,3.8

Zip Code	CNI Score	Population	City	County	State
37721	2.8	13183	Corryton	Knox	Tennessee
37806	3.2	2998	Mascot	Knox	Tennessee
37849	2.4	26977	Powell	Knox	Tennessee
37902	4	1748	Knoxville	Knox	Tennessee
37909	3.8	15290	Knoxville	Knox	Tennessee
37912	3.8	21995	Knoxville	Knox	Tennessee
37914	4.4	19987	Knoxville	Knox	Tennessee
37915	5	5774	Knoxville	Knox	Tennessee
37916	4.2	11800	Knoxville	Knox	Tennessee
37917	4.4	24287	Knoxville	Knox	Tennessee
37918	3.4	43897	Knoxville	Knox	Tennessee
37919	3.4	28627	Knoxville	Knox	Tennessee
37920	3.8	39709	Knoxville	Knox	Tennessee
37921	4.2	28993	Knoxville	Knox	Tennessee
37922	1.4	35715	Knoxville	Knox	Tennessee
37923	3	30233	Knoxville	Knox	Tennessee
37924	3	12190	Knoxville	Knox	Tennessee
37931	2.4	27183	Knoxville	Knox	Tennessee
37932	2	15830	Knoxville	Knox	Tennessee
37934	1.8	25220	Knoxville	Knox	Tennessee
37996	3.4	997	Knoxville	Knox	Tennessee
37998	2.4	586	Knoxville	Knox	Tennessee

Lowest Need   Highest Need

| ■ 1 - 1.7 Lowest | ■ 1.8 - 2.5 2nd Lowest | ■ 2.6 - 3.3 Mid | ■ 3.4 - 4.1 2nd Highest | ■ 4.2 - 5 Highest |

Mean(zipcode): 3.5 / Mean(person): 3.5   CNI Score Median: 3.5   CNI Score Mode: 3

Zip Code	CNI Score	Population	City	County	State
■ 37705	3	6147	Andersonville	Anderson	Tennessee
■ 37710	4	1193	Briceville	Anderson	Tennessee
■ 37716	3.4	25619	Clinton	Anderson	Tennessee
■ 37754	3	4789	Heiskell	Anderson	Tennessee
■ 37769	4	5739	Lake City	Anderson	Tennessee
■ 37830	3.6	30512	Oak Ridge	Anderson	Tennessee

TRUVEN
HEALTH ANALYTICS®

THE UNIVERSITY OF TENNESSEE
MEDICAL CENTER

Wisdom for Your Life.

Lowest Need   Highest Need

| ■ 1 - 1.7 Lowest | ■ 1.8 - 2.5 2nd Lowest | ■ 2.6 - 3.3 Mid | ■ 3.4 - 4.1 2nd Highest | ■ 4.2 - 5 Highest |

Mean(zipcode): 3.2 / Mean(person): 3.2   CNI Score Median: 3.3   CNI Score Mode: 3.4

Zip Code	CNI Score	Population	City	County	State
■ 37701	4	6986	Alcoa	Blount	Tennessee
■ 37737	2	6002	Friendsville	Blount	Tennessee
■ 37777	3.6	11284	Louisville	Blount	Tennessee
■ 37801	3.4	26652	Maryville	Blount	Tennessee
■ 37803	3	32627	Maryville	Blount	Tennessee
■ 37804	3.4	24515	Maryville	Blount	Tennessee
■ 37853	3.4	3700	Rockford	Blount	Tennessee
■ 37878	3.2	862	Tallassee	Blount	Tennessee
■ 37882	2.8	2888	Townsend	Blount	Tennessee
■ 37886	2.8	4131	Walland	Blount	Tennessee

TRUVEN
HEALTH ANALYTICS®

Lowest Need   Highest Need

■ 1 - 1.7 Lowest	■ 1.8 - 2.5 2nd Lowest	■ 2.6 - 3.3 Mid	■ 3.4 - 4.1 2nd Highest	■ 4.2 - 5 Highest

Mean(zipcode): 3.7 / Mean(person): 3.9   CNI Score Median: 3.8   CNI Score Mode: 4

Zip Code	CNI Score	Population	City	County	State
■ 37714	4	4524	Caryville	Campbell	Tennessee
■ 37729	3.4	1401	Duff	Campbell	Tennessee
■ 37757	3.6	9473	Jacksboro	Campbell	Tennessee
■ 37762	4	2972	Jellico	Campbell	Tennessee
■ 37766	4	18473	La Follette	Campbell	Tennessee
■ 37819	3.2	731	Newcomb	Campbell	Tennessee

Mean(zipcode): 3.7 / Mean(person): 3.7   CNI Score Median: 3.7   CNI Score Mode: None

Zip Code	CNI Score	Population	City	County	State
37715	3.6	976	Clairfield	Claiborne	Tennessee
37724	4.2	3792	Cumberland Gap	Claiborne	Tennessee
37752	3.8	5186	Harrogate	Claiborne	Tennessee
37825	3.4	8263	New Tazewell	Claiborne	Tennessee
37870	3.2	4268	Speedwell	Claiborne	Tennessee
37879	4	10057	Tazewell	Claiborne	Tennessee

Lowest Need

				Highest Need
■ 1 - 1.7 Lowest	■ 1.8 - 2.5 2nd Lowest	■ 2.6 - 3.3 Mid	■ 3.4 - 4.1 2nd Highest	■ 4.2 - 5 Highest
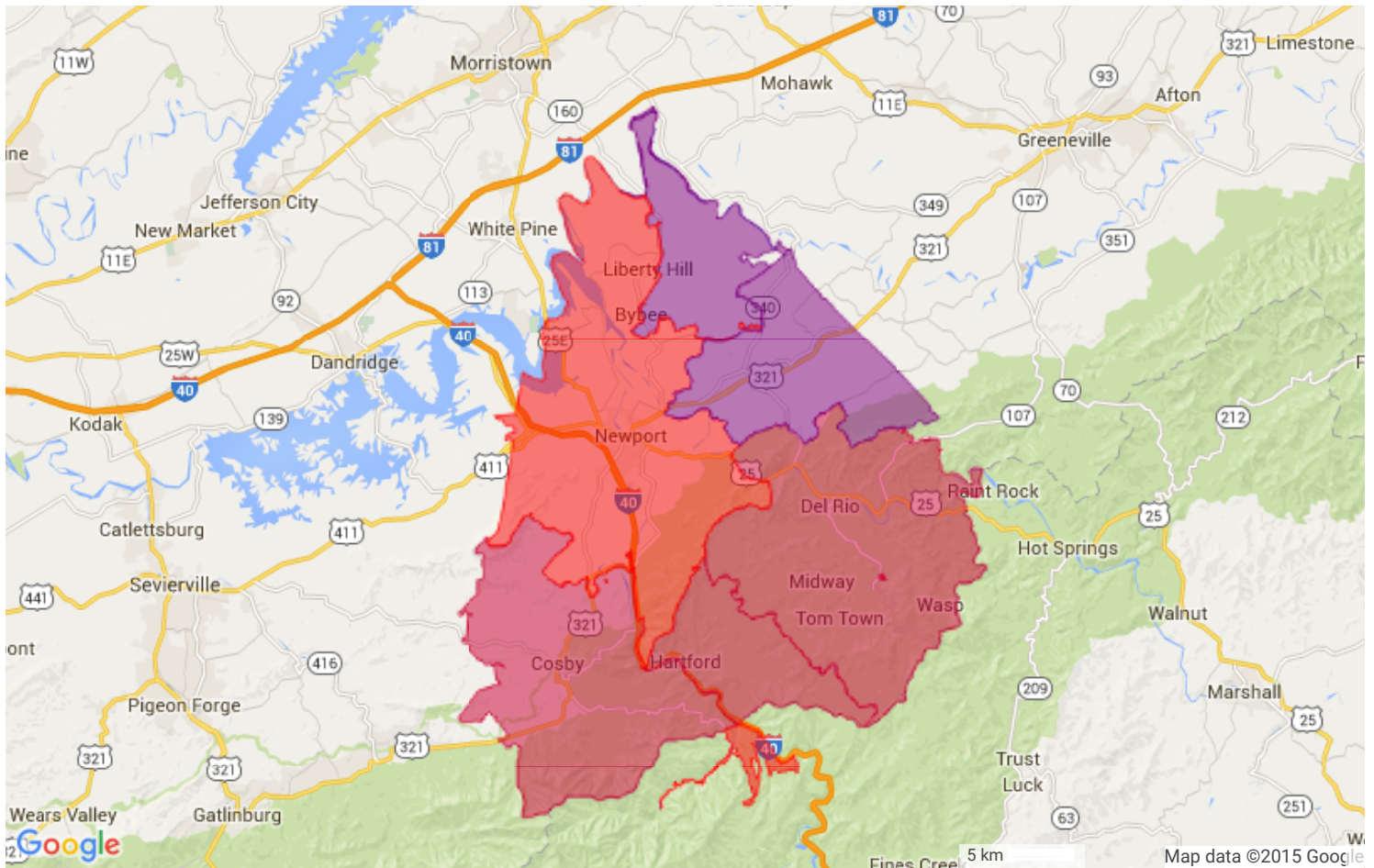
Mean(zipcode): 3.7 / Mean(person): 4   CNI Score Median: 3.8   CNI Score Mode: 3.8

Zip Code	CNI Score	Population	City	County	State
37713	3.2	1481	Bybee	Cocke	Tennessee
37722	3.8	5858	Cosby	Cocke	Tennessee
37727	3.8	2150	Del Rio	Cocke	Tennessee
37753	3.8	780	Hartford	Cocke	Tennessee
37821	4.2	22623	Newport	Cocke	Tennessee
37843	3.2	3695	Parrottsville	Cocke	Tennessee

Lowest Need

Highest Need

- 1 - 1.7 Lowest
- 1.8 - 2.5 2nd Lowest
- 2.6 - 3.3 Mid
- 3.4 - 4.1 2nd Highest
- 4.2 - 5 Highest
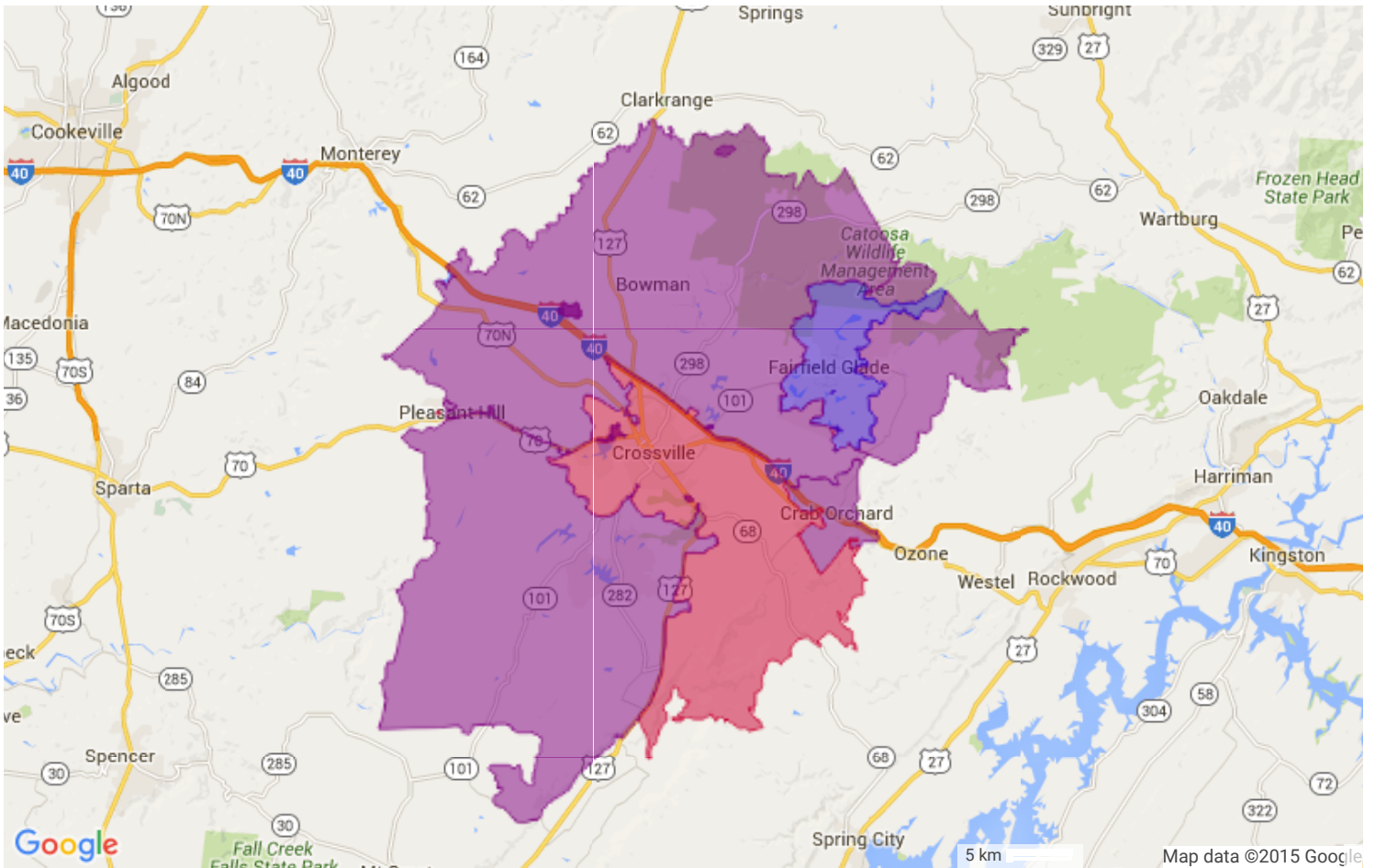
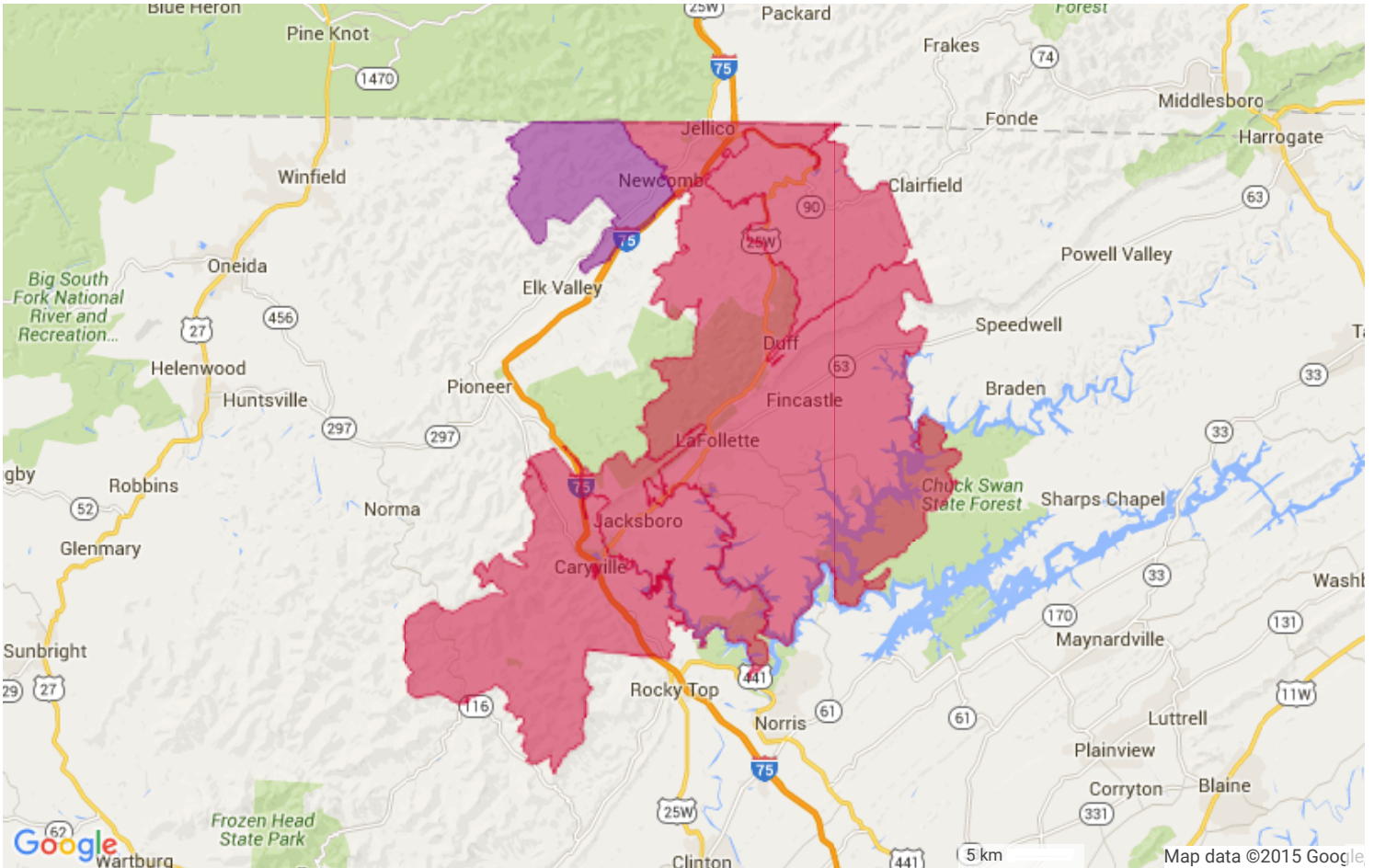Mean(zipcode): 2.9 / Mean(person): 3.1   CNI Score Median: 3.1   CNI Score Mode: 3.2

Zip Code	CNI Score	Population	City	County	State
37723	2.6	926	Crab Orchard	Cumberland	Tennessee
38555	3.8	18790	Crossville	Cumberland	Tennessee
38558	1.8	8076	Crossville	Cumberland	Tennessee
38571	3.2	13986	Crossville	Cumberland	Tennessee
38572	3	11736	Crossville	Cumberland	Tennessee
38578	3.2	45	Pleasant Hill	Cumberland	Tennessee

TRUVEN
HEALTH ANALYTICS

Lowest Need | | | | Highest Need

■	1 - 1.7 Lowest	■	1.8 - 2.5 2nd Lowest	■	2.6 - 3.3 Mid	■	3.4 - 4.1 2nd Highest	■	4.2 - 5 Highest

Mean(zipcode): 3.5 / Mean(person): 3.8   CNI Score Median: 3.4   CNI Score Mode: 3.4

Zip Code	CNI Score	Population	City	County	State
■ 38504	3	934	Allardt	Fentress	Tennessee
■ 38553	3.6	2575	Clarkrange	Fentress	Tennessee
■ 38556	4	12308	Jamestown	Fentress	Tennessee
■ 38565	3.4	817	Grimsley	Fentress	Tennessee
■ 38589	3.4	240	Wilder	Fentress	Tennessee

TRUVEN
HEALTH ANALYTICS

Lowest Need   Highest Need

■ 1 - 1.7 Lowest   ■ 1.8 - 2.5 2nd Lowest   ■ 2.6 - 3.3 Mid   ■ 3.4 - 4.1 2nd Highest   ■ 4.2 - 5 Highest
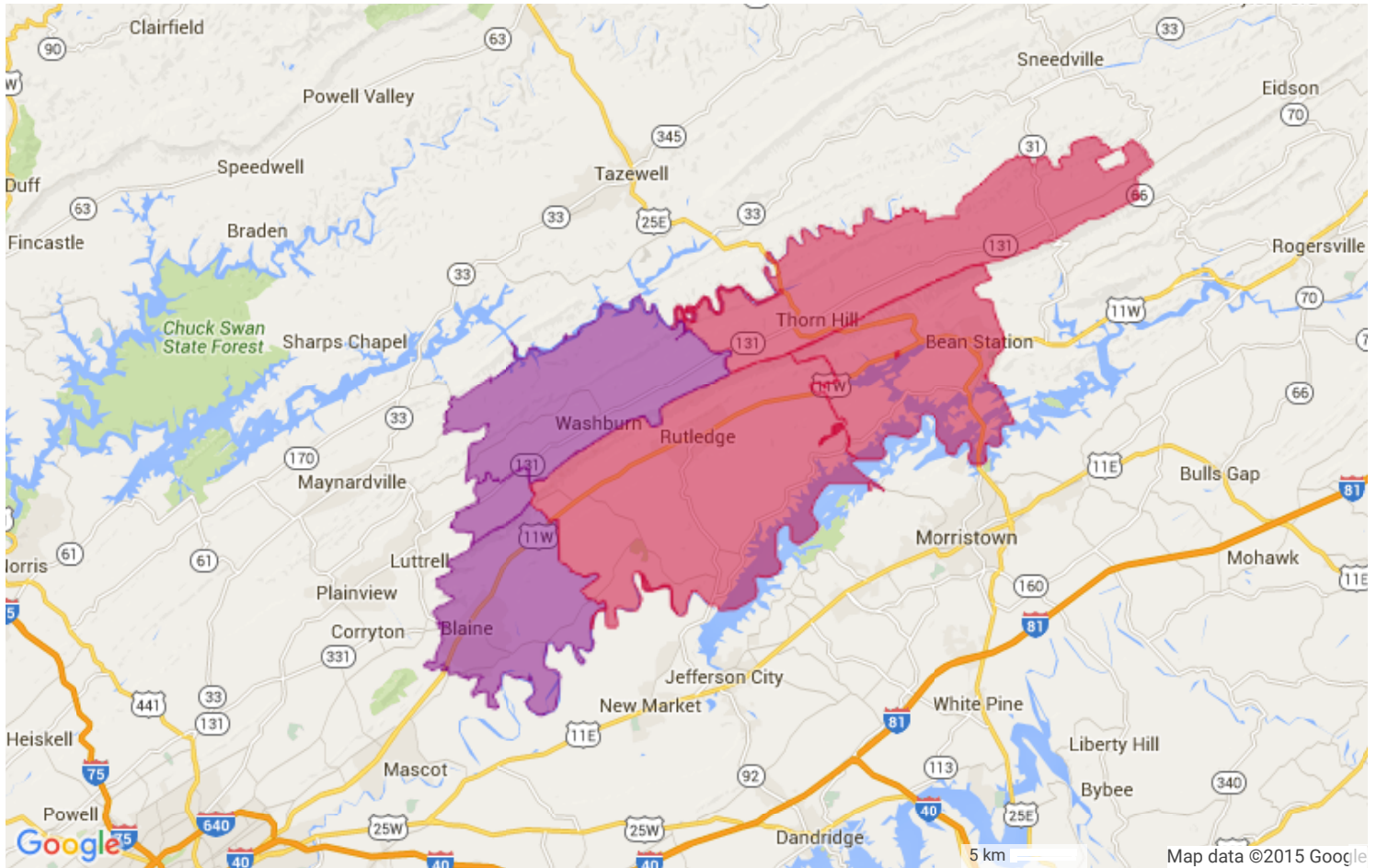
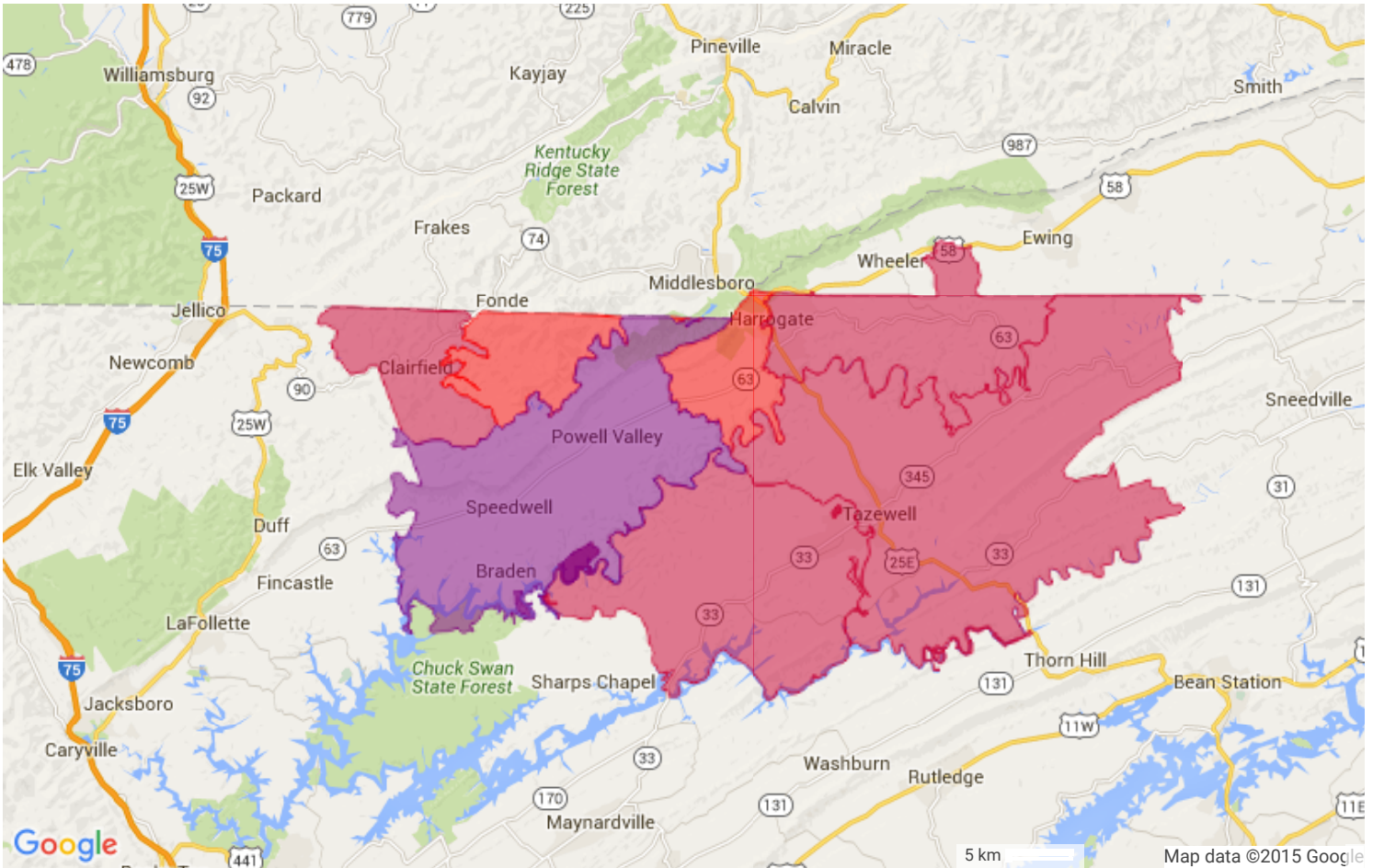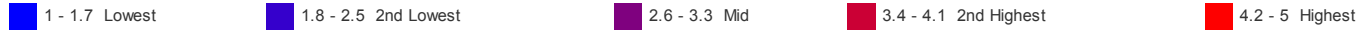Mean(zipcode): 3.2 / Mean(person): 3.4   CNI Score Median: 3.3   CNI Score Mode: 2.8

Zip Code	CNI Score	Population	City	County	State
■ 37708	3.6	6655	Bean Station	Grainger	Tennessee
■ 37709	2.8	3655	Blaine	Grainger	Tennessee
■ 37848	3.2	371	Powder Springs	Grainger	Tennessee
■ 37861	3.6	8348	Rutledge	Grainger	Tennessee
■ 37881	3.4	2204	Thorn Hill	Grainger	Tennessee
■ 37888	2.8	2743	Washburn	Grainger	Tennessee

Lowest Need   Highest Need

🟦 1 - 1.7 Lowest	🟦 1.8 - 2.5 2nd Lowest	🟪 2.6 - 3.3 Mid	🟥 3.4 - 4.1 2nd Highest	🟥 4.2 - 5 Highest
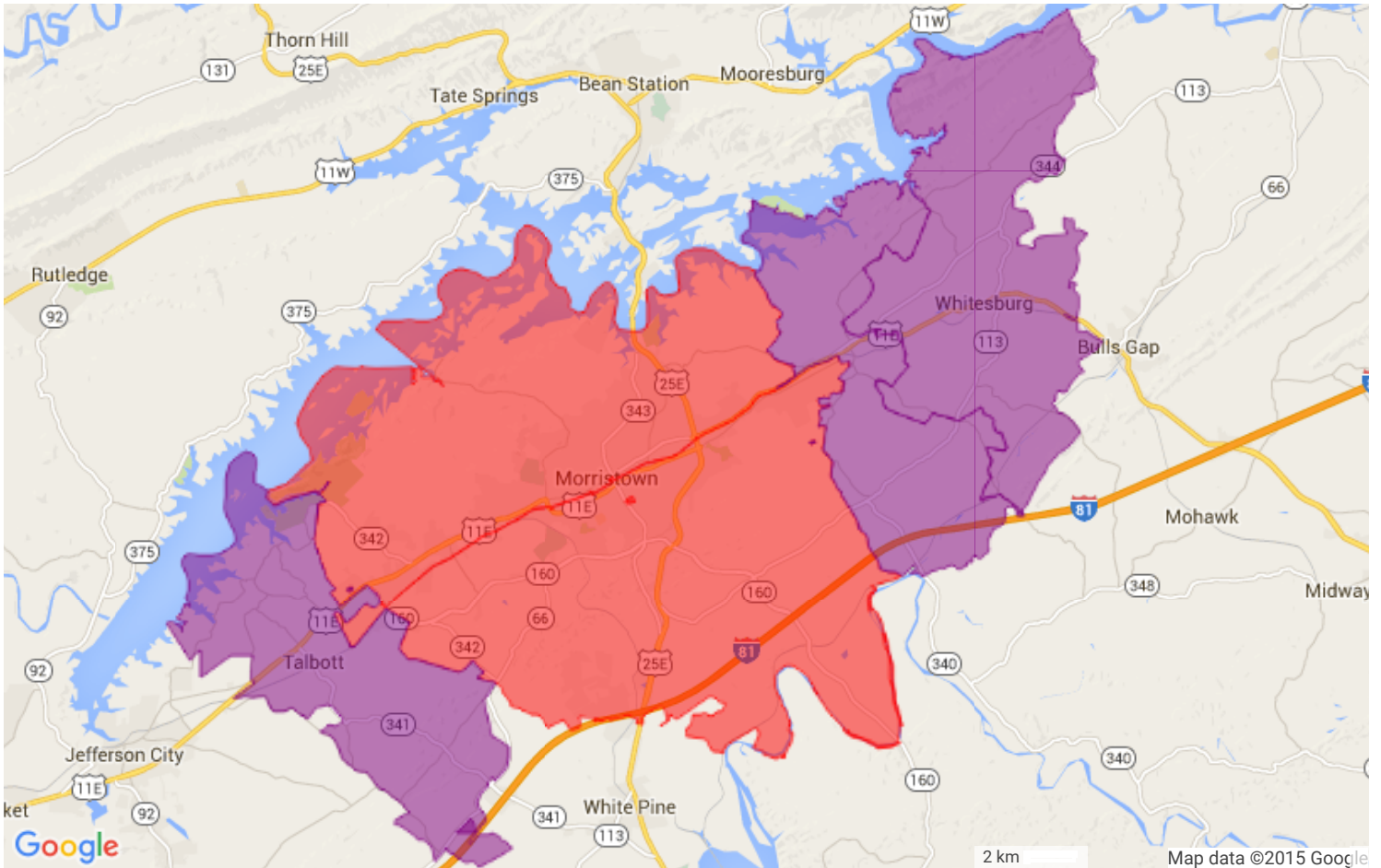
Mean(zipcode): 3.7 / Mean(person): 4.3   CNI Score Median: 3.2   CNI Score Mode: None

Zip Code	CNI Score	Population	City	County	State
🟥 37813	4.8	17493	Morristown	Hamblen	Tennessee
🟥 37814	4.6	33379	Morristown	Hamblen	Tennessee
🟪 37860	2.8	4307	Russellville	Hamblen	Tennessee
🟪 37877	3	8577	Talbott	Hamblen	Tennessee
🟪 37891	3.2	3777	Whitesburg	Hamblen	Tennessee

Lowest Need   Highest Need

| ■ 1 - 1.7 Lowest | ■ 1.8 - 2.5 2nd Lowest | ■ 2.6 - 3.3 Mid | ■ 3.4 - 4.1 2nd Highest | ■ 4.2 - 5 Highest |

Mean(zipcode): 3.6 / Mean(person): 3.9   CNI Score Median: 3.6   CNI Score Mode: None

Zip Code	CNI Score	Population	City	County	State
37765	3.2	573	Kyles Ford	Hancock	Tennessee
37869	4	5349	Sneedville	Hancock	Tennessee

TRUVEN
HEALTH ANALYTICS

Lowest Need   Highest Need

| ■ 1 - 1.7 Lowest | ■ 1.8 - 2.5 2nd Lowest | ■ 2.6 - 3.3 Mid | ■ 3.4 - 4.1 2nd Highest | ■ 4.2 - 5 Highest |

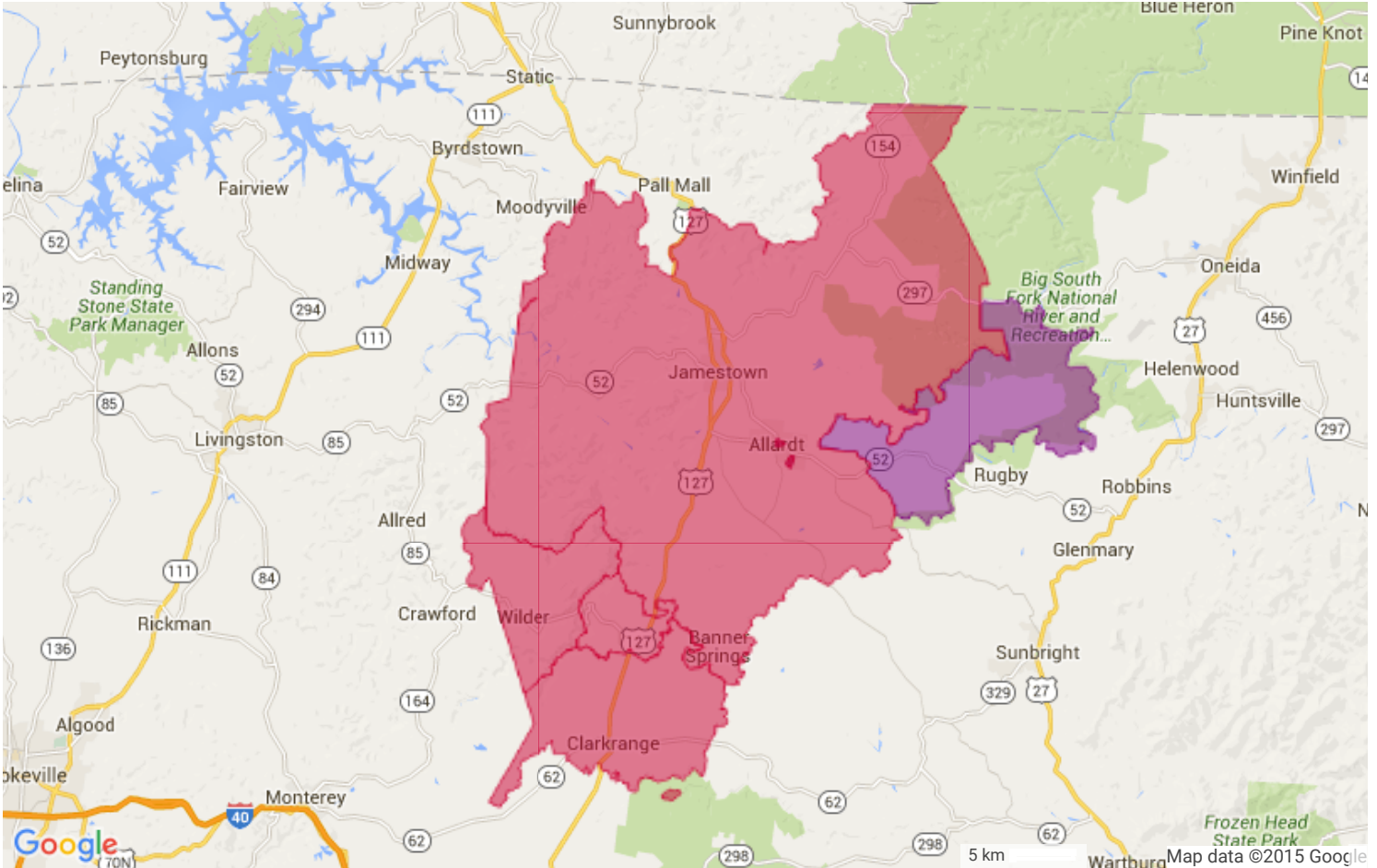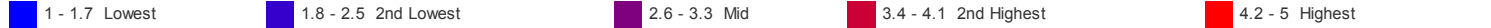Mean(zipcode): 3.2 / Mean(person): 3.4   CNI Score Median: 3.4   CNI Score Mode: 3.2

Zip Code	CNI Score	Population	City	County	State
■ 37642	3.2	14742	Church Hill	Hawkins	Tennessee
■ 37645	2.6	5940	Mount Carmel	Hawkins	Tennessee
■ 37711	3.4	5031	Bulls Gap	Hawkins	Tennessee
■ 37731	2.8	775	Eidson	Hawkins	Tennessee
■ 37811	3.2	3345	Mooresburg	Hawkins	Tennessee
■ 37857	3.8	20901	Rogersville	Hawkins	Tennessee
■ 37873	3.6	4132	Surgoinsville	Hawkins	Tennessee

Lowest Need   Highest Need

| ■ 1 - 1.7 Lowest | ■ 1.8 - 2.5 2nd Lowest | ■ 2.6 - 3.3 Mid | ■ 3.4 - 4.1 2nd Highest | ■ 4.2 - 5 Highest |

Mean(zipcode): 3.6 / Mean(person): 3.5   CNI Score Median: 3.8   CNI Score Mode: 3.8

Zip Code	CNI Score	Population	City	County	State
■ 37725	3	17450	Dandridge	Jefferson	Tennessee
■ 37760	4	13255	Jefferson City	Jefferson	Tennessee
■ 37820	3.8	7534	New Market	Jefferson	Tennessee
■ 37871	3.4	9089	Strawberry Plains	Jefferson	Tennessee
■ 37890	3.8	6711	White Pine	Jefferson	Tennessee

Lowest Need

Color	Range
🟦	1 - 1.7 Lowest
🟪	1.8 - 2.5 2nd Lowest
🟣	2.6 - 3.3 Mid
🟥	3.4 - 4.1 2nd Highest
🟥	4.2 - 5 Highest

Highest Need

Mean(zipcode): 3.1 / Mean(person): 3.1   CNI Score Median: 2.8   CNI Score Mode: None

Zip Code	CNI Score	Population	City	County	State
🟦 37742	2.2	6214	Greenback	Loudon	Tennessee
🟥 37771	4.2	15992	Lenoir City	Loudon	Tennessee
🟦 37772	2.4	11956	Lenoir City	Loudon	Tennessee
🟣 37774	2.8	19610	Loudon	Loudon	Tennessee
🟥 37846	3.8	4980	Philadelphia	Loudon	Tennessee

TRUVEN
HEALTH ANALYTICS

Lowest Need   Highest Need

| ■ 1 - 1.7 Lowest | ■ 1.8 - 2.5 2nd Lowest | ■ 2.6 - 3.3 Mid | ■ 3.4 - 4.1 2nd Highest | ■ 4.2 - 5 Highest |

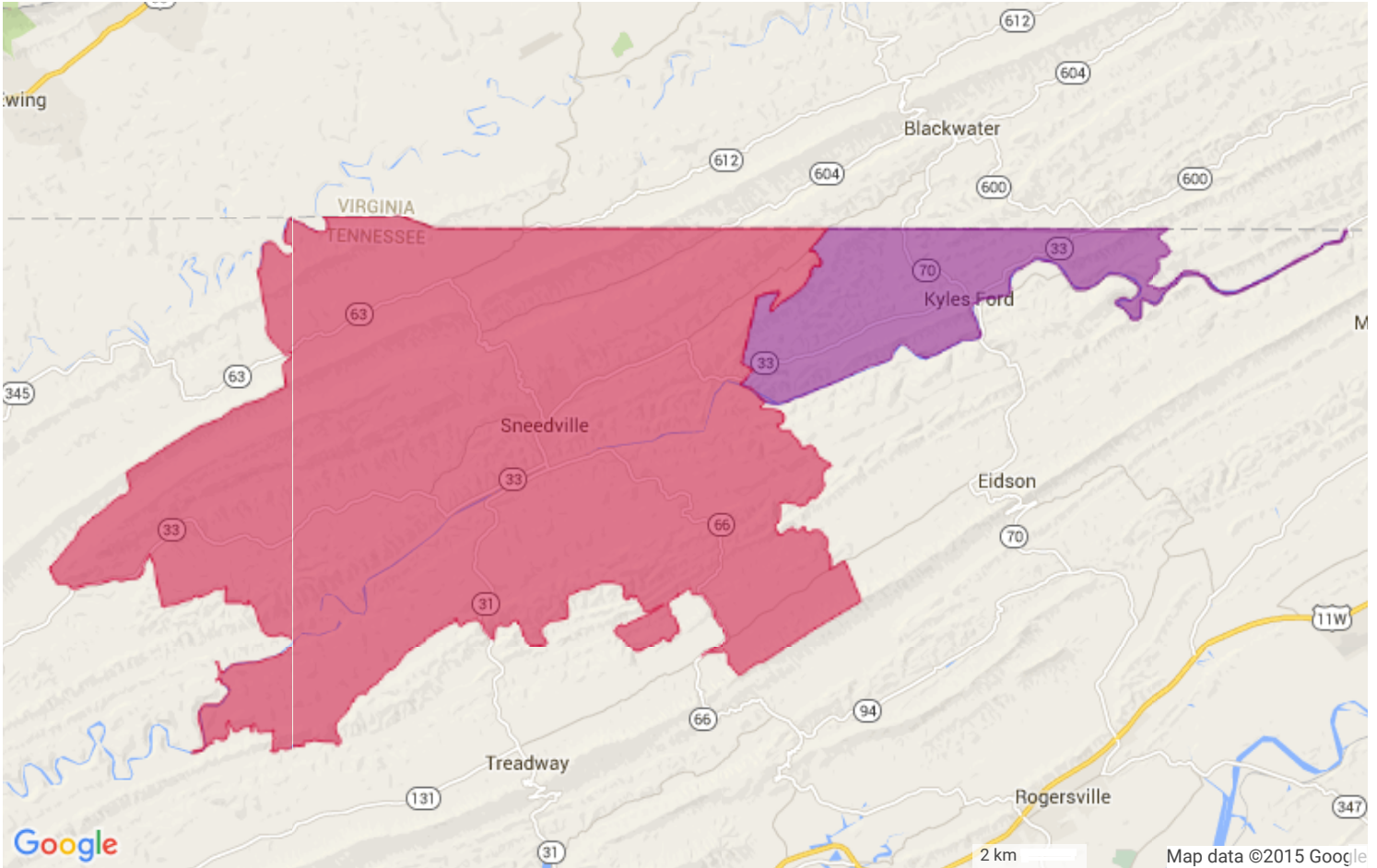Mean(zipcode): 3.7 / Mean(person): 3.9   CNI Score Median: 3.8   CNI Score Mode: 3,4

Zip Code	CNI Score	Population	City	County	State
37303	4	25839	Athens	Mcminn	Tennessee
37309	3	2047	Calhoun	Mcminn	Tennessee
37329	4	5384	Englewood	Mcminn	Tennessee
37331	4.4	7419	Etowah	Mcminn	Tennessee
37370	3	4675	Riceville	Mcminn	Tennessee
37826	3.6	4535	Niota	Mcminn	Tennessee

Lowest Need   Highest Need

■ 1 - 1.7 Lowest	■ 1.8 - 2.5 2nd Lowest	■ 2.6 - 3.3 Mid	■ 3.4 - 4.1 2nd Highest	■ 4.2 - 5 Highest

Mean(zipcode): 3.6 / Mean(person): 3.7   CNI Score Median: 3.7   CNI Score Mode: None
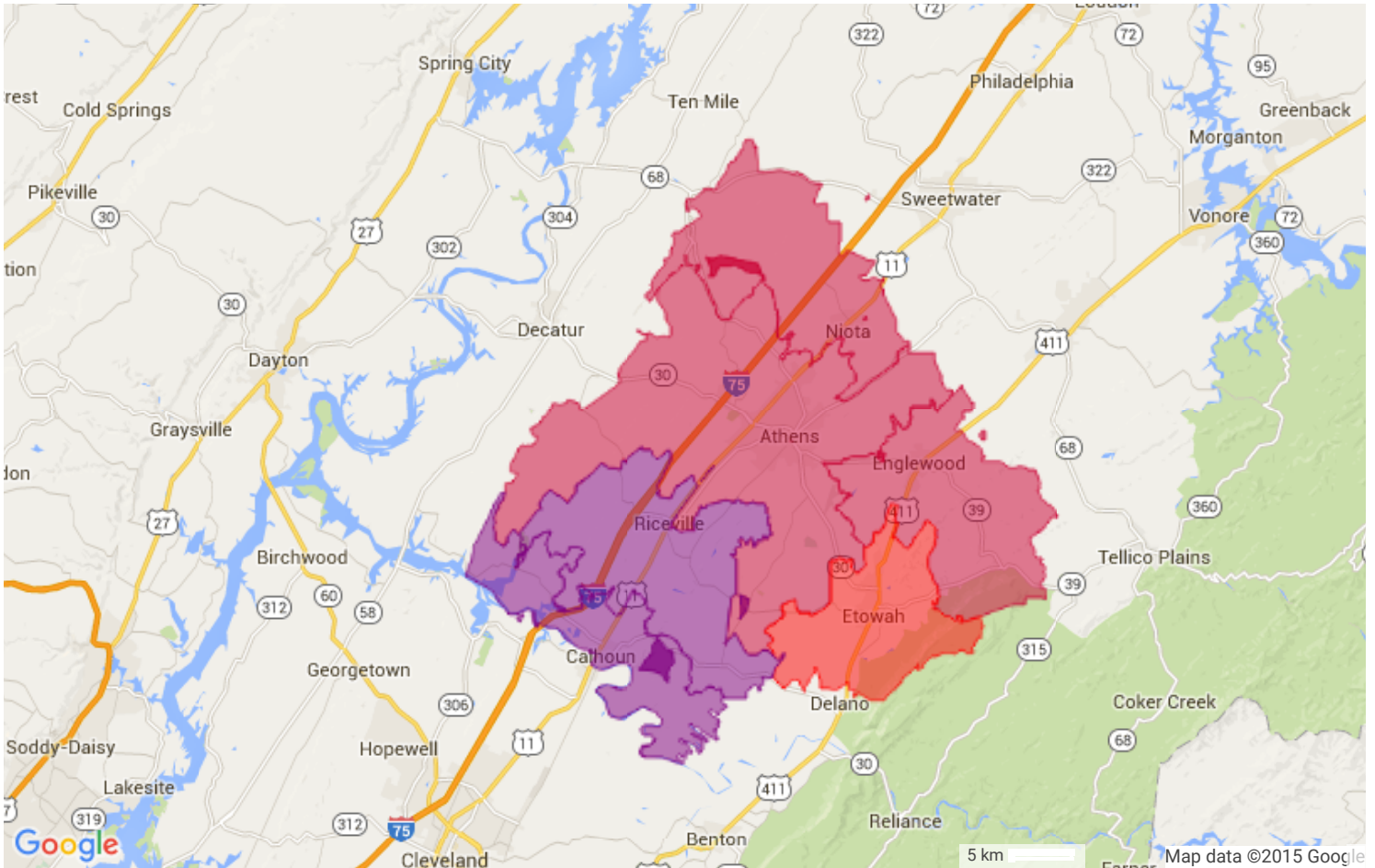
Zip Code	CNI Score	Population	City	County	State
■ 37354	4	16980	Madisonville	Monroe	Tennessee
■ 37385	3.4	8003	Tellico Plains	Monroe	Tennessee
■ 37874	4	15235	Sweetwater	Monroe	Tennessee
■ 37885	2.8	5553	Vonore	Monroe	Tennessee

TRUVEN
HEALTH ANALYTICS

Lowest Need   Highest Need

| ■ 1 - 1.7 Lowest | ■ 1.8 - 2.5 2nd Lowest | ■ 2.6 - 3.3 Mid | ■ 3.4 - 4.1 2nd Highest | ■ 4.2 - 5 Highest |

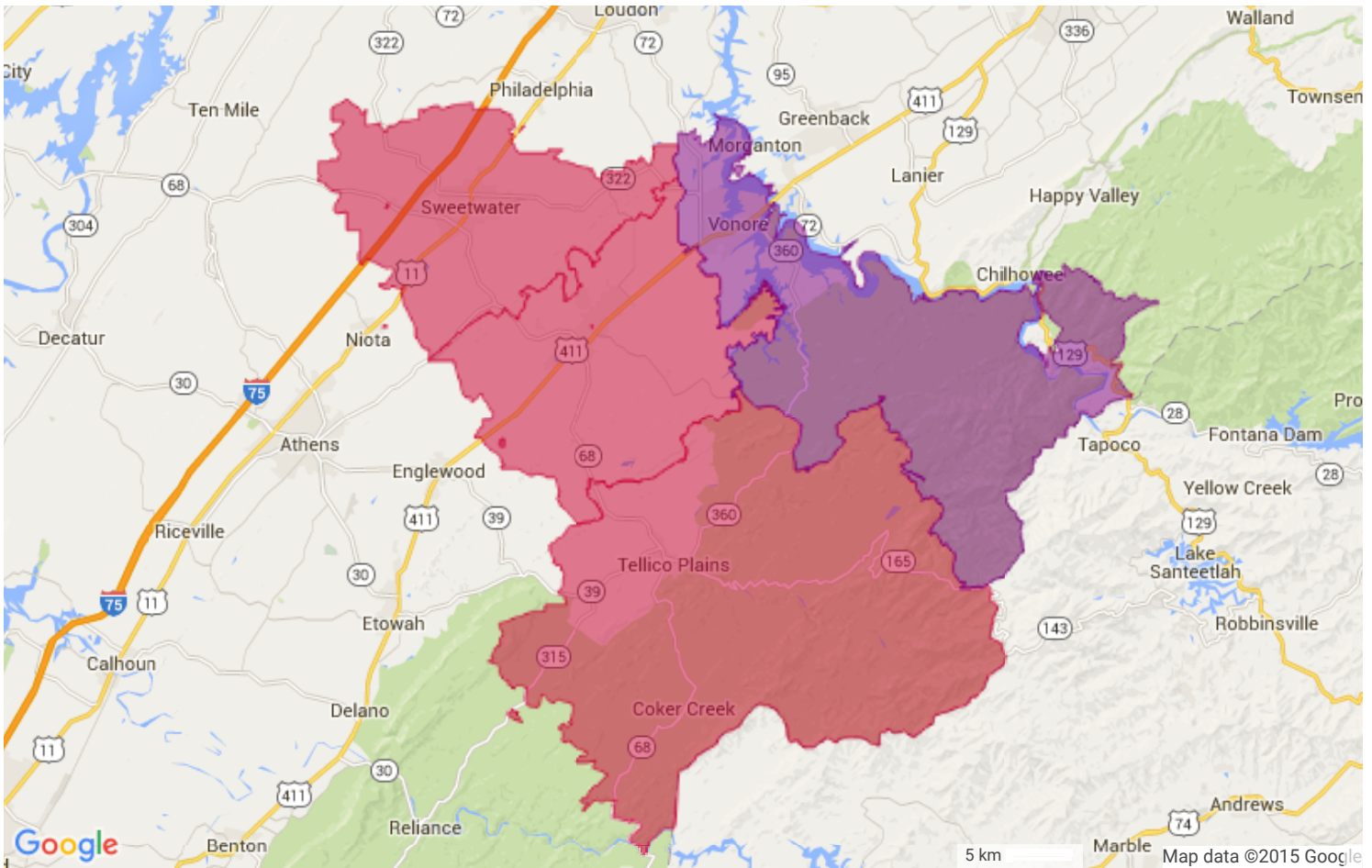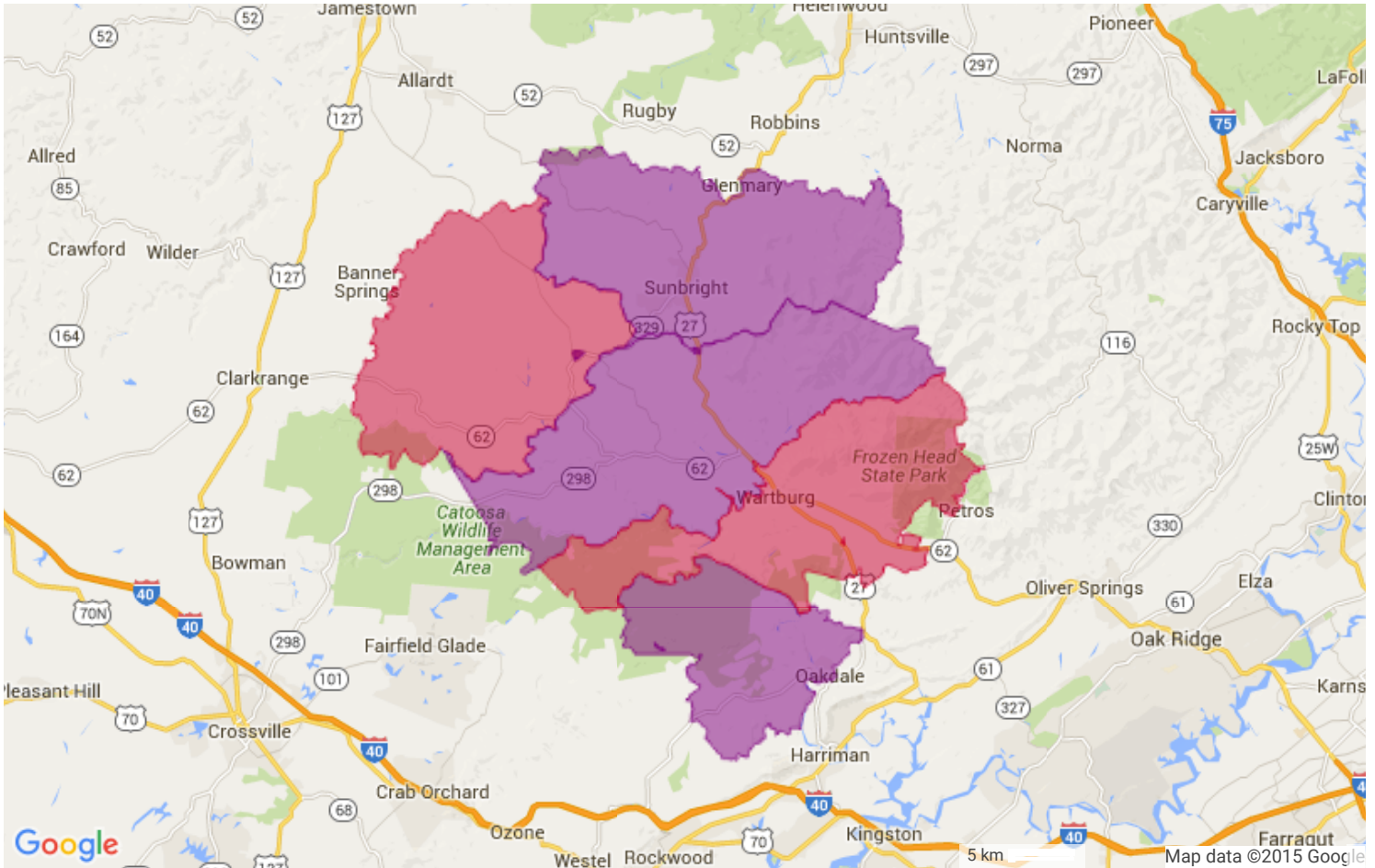Mean(zipcode): 3.1 / Mean(person): 3.3   CNI Score Median: 3.2   CNI Score Mode: None

Zip Code	CNI Score	Population	City	County	State
■ 37726	3.4	1974	Deer Lodge	Morgan	Tennessee
■ 37770	3.2	2662	Lancing	Morgan	Tennessee
■ 37829	2.6	1843	Oakdale	Morgan	Tennessee
■ 37872	2.8	2064	Sunbright	Morgan	Tennessee
■ 37887	3.6	7451	Wartburg	Morgan	Tennessee

Lowest Need

- 1 - 1.7 Lowest
- 1.8 - 2.5 2nd Lowest
- 2.6 - 3.3 Mid
- 3.4 - 4.1 2nd Highest
- 4.2 - 5 Highest

Highest Need
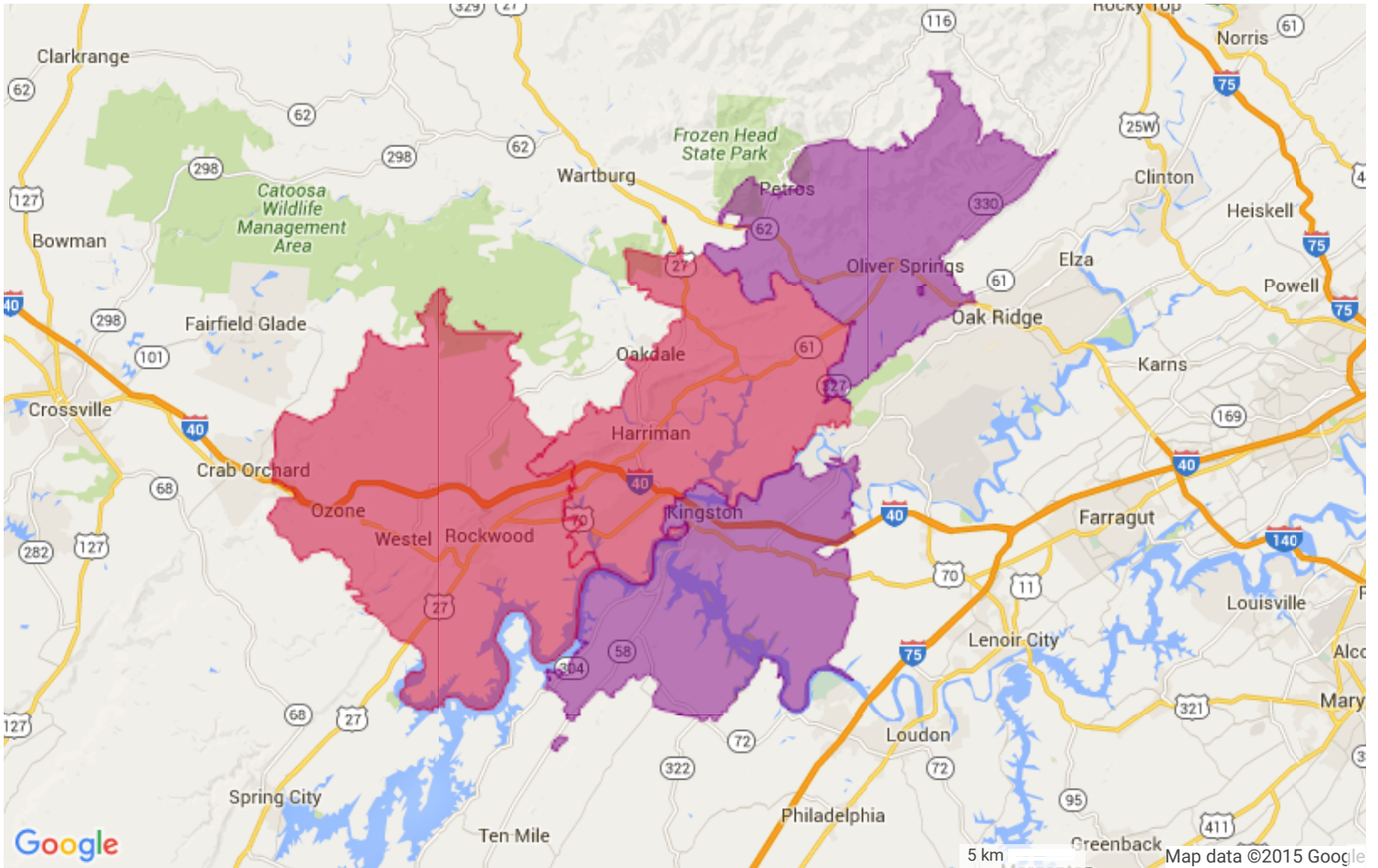
Mean(zipcode): 3.4 / Mean(person): 3.5   CNI Score Median: 3.4   CNI Score Mode: 3.2

Zip Code	CNI Score	Population	City	County	State
37748	3.8	17176	Harriman	Roane	Tennessee
37763	3.2	15197	Kingston	Roane	Tennessee
37840	3.2	10197	Oliver Springs	Roane	Tennessee
37854	3.6	12553	Rockwood	Roane	Tennessee

TRUVEN HEALTH ANALYTICS®

Lowest Need

■ 1 - 1.7 Lowest	■ 1.8 - 2.5 2nd Lowest	■ 2.6 - 3.3 Mid	■ 3.4 - 4.1 2nd Highest	■ 4.2 - 5 Highest

Highest Need

Mean(zipcode): 3.8 / Mean(person): 3.9   CNI Score Median: 3.9   CNI Score Mode: 3.6,4

Zip Code	CNI Score	Population	City	County	State
■ 37755	4	3430	Helenwood	Scott	Tennessee
■ 37756	3.8	2976	Huntsville	Scott	Tennessee
■ 37841	4	9451	Oneida	Scott	Tennessee
■ 37847	3.6	2630	Pioneer	Scott	Tennessee
■ 37852	3.6	2739	Robbins	Scott	Tennessee
■ 37892	4	1918	Winfield	Scott	Tennessee

TRUVEN
HEALTH ANALYTICS

Lowest Need   Highest Need

| ■ 1 - 1.7 Lowest | ■ 1.8 - 2.5 2nd Lowest | ■ 2.6 - 3.3 Mid | ■ 3.4 - 4.1 2nd Highest | ■ 4.2 - 5 Highest |

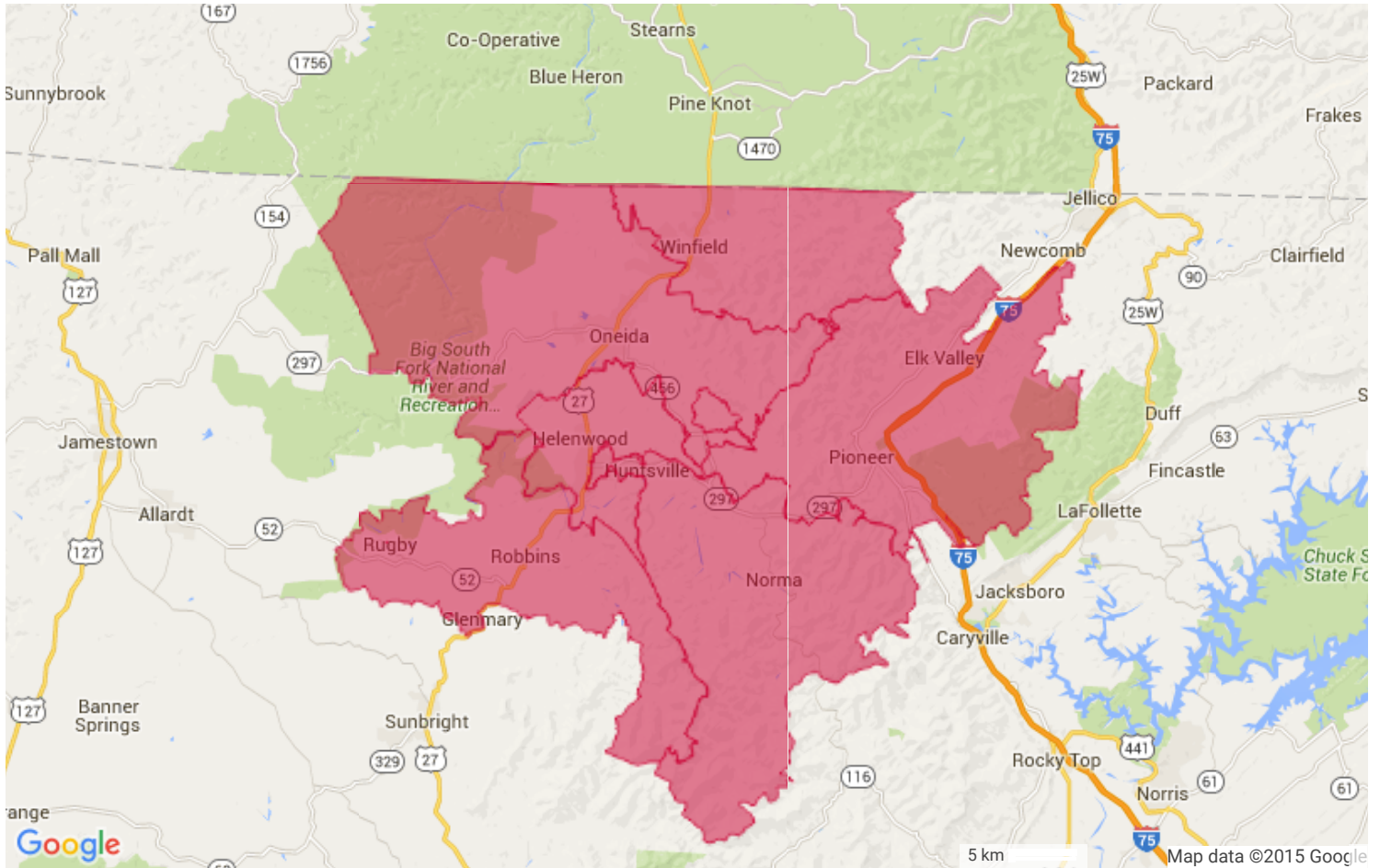Mean(zipcode): 3.6 / Mean(person): 3.4   CNI Score Median: 3.5   CNI Score Mode: None

Zip Code	CNI Score	Population	City	County	State
■ 37738	3.6	6151	Gatlinburg	Sevier	Tennessee
■ 37764	3.4	9655	Kodak	Sevier	Tennessee
■ 37862	4	21842	Sevierville	Sevier	Tennessee
■ 37863	4.8	6651	Pigeon Forge	Sevier	Tennessee
■ 37865	2.8	21818	Seymour	Sevier	Tennessee
■ 37876	3.2	31467	Sevierville	Sevier	Tennessee

TRUVEN
HEALTH ANALYTICS®

THE UNIVERSITY OF TENNESSEE
MEDICAL CENTER

Wisdom for Your Life.

Lowest Need   Highest Need

- 🟦 1 - 1.7 Lowest
- 🟦 1.8 - 2.5 2nd Lowest
- 🟪 2.6 - 3.3 Mid
- 🟥 3.4 - 4.1 2nd Highest
- 🟥 4.2 - 5 Highest

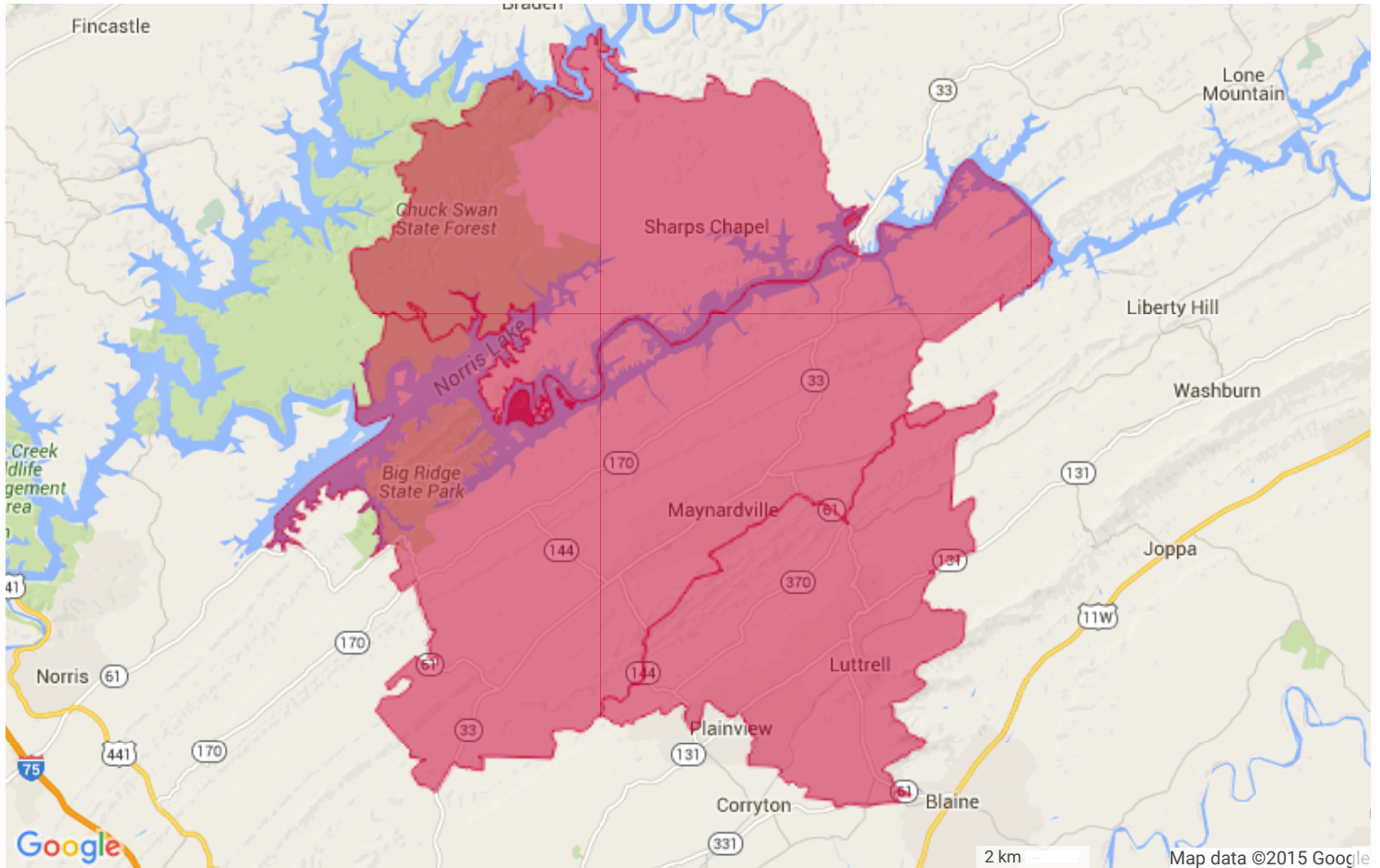Mean(zipcode): 3.7 / Mean(person): 3.8   CNI Score Median: 3.8   CNI Score Mode: None

Zip Code	CNI Score	Population	City	County	State
🟥 37779	3.8	4063	Luttrell	Union	Tennessee
🟥 37807	3.8	9506	Maynardville	Union	Tennessee
🟥 37866	3.4	1818	Sharps Chapel	Union	Tennessee

TRUVEN
HEALTH ANALYTICS