Transylvania County 2015 Community Health Assessment

3/7/2016

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WNCHEALTHYIMPACT

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TRANSYLVANIA COUNTY 2015 CHA EXECUTIVE SUMMARY

Purpose and Process

A comprehensive picture of the health status of Transylvania County residents includes a core regional dataset of secondary (existing) and primary (newly-collected) data, as well as additional community-level data gathered from organizations throughout Transylvania County. The core dataset compiled by WNC Healthy Impact includes a comprehensive set of publically available secondary data metrics with our county compared to the sixteen-county WNC region as our "peer"; a set of maps accessed from Community Commons and NC Center for Health Statistics; a telephone survey of a random sample of adults in the county; and an email survey of community leaders and other key informants. In addition, an inventory of available community resources was conducted through reviewing a subset of existing resources currently listed in the 2-1-1 database for our county as well as working with partners to fill in additional information.

Key partners Transylvania Public Health and Transylvania Regional Hospital, worked with representatives from numerous health care, community, and government organizations throughout Transylvania County to review data on 10 health issues and select the county's top three health priorities to be the county's focus for the next three years.

Data Summary

Community

Transylvania County is located in the Appalachian Mountains of western North Carolina, with elevations reaching from 1,265 to 6,045 feet above sea level. The county has a total area of 381 square miles, and half of this area is protected forestland. Known as the "Land of Waterfalls," Transylvania County is known for its natural beauty, number of natural waterfalls, and annual rainfall.

Transylvania County was home to approximately 33,090 residents in 2010, with a median age (48.8) that is several years older than the state average (37.9). Its population growth is expected to slow through 2020, but the percent of senior adults in the county is expected to continue to rise. Transylvania County has higher a proportion of whites (92.4%) than the region or state and lower proportions of all racial and ethnic minority groups. Only 0.8% of households have limited skill in speaking English About 19% of households had children under age 18, and 69% of these were headed by a married couple. (US Census Bureau)

Transylvania County's assets include its natural environment and location, its people, its sense of community, and access to health care. Issues that need to be addressed in order to improve

quality of life include employment and the economy, housing, education, transportation, health care, community and culture, and social services.

Health Outcomes

People in Transylvania County have lower mortality than the population statewide for nine of the twelve leading causes of death for which there are stable county rates. The only causes of death for which mortality rates are higher in Transylvania County than in North Carolina are unintentional non-motor vehicle injuries, suicide, and liver disease. (NC State Center for Health Statistics) These rates are closely linked to substance abuse and mental health issues. The county's top two causes of death: heart disease and cancer are closely linked to an aging population, access to health care and screening exams, tobacco use, and nutrition, physical activity, and weight.

Populations at Risk

The populations most at risk for negative health outcomes include racial and ethnic minorities, those who do not speak English, those living in poverty, those without health insurance, young children, older adults, and those who have certain health-related behaviors (such as tobacco use or lack of physical activity).

Health Priorities

The following health issues were identified as priorities:

Substance Abuse

Substance abuse is linked to a number of poor health outcomes in Transylvania County. Key informants reported that the most problematic substances for the county were prescription drugs and alcohol. The entire WNC region sees high mortality rates due to unintentional poisoning related to medication and drug overdose. However, the most recent rates of unintentional poisoning related to drug overdose in Transylvania County were approximately 35% higher than the regional rates and 1.8 times the state rates. (Professional Research Consultants, Inc., 2015) (Centers for Disease Control and Prevention, 2013) A second cause of higher-than-expected mortality is liver disease: although the percentage of "excessive drinkers" in Transylvania County falls below the state average and the Healthy People 2020 Target, there is a strong association between alcohol abuse and chronic liver disease and cirrhosis. In addition, substance abuse is associated with suicide, which is the third cause of death in which Transylvania County rates are higher than the state rates.

Mental Health

Mental health is a new health priority for Transylvania County, related to mortality and morbidity statistics, an understanding of the relationship between substance abuse and mental health issues, and a lack of necessary mental health treatment and counseling options in the county, especially for those who have little income or no insurance. More than 16% of county residents reported having seven or more days of poor mental health in the past month and nearly 6% reported being "dissatisfied" or "very dissatisfied" with life. In addition, over 5% of residents reported being unable to get needed mental health care or counseling in the past year. Barriers to mental health care include the number and size of facilities and providers, transportation, cost and lack of health insurance, stigma, and environmental and family situations.

Nutrition, Physical Activity, and Weight

Transylvania County's top two causes of death and many of our morbidity statistics of concern are directly affected by nutrition, physical activity, and weight. Excess weight increases an individual's risk of developing type 2 diabetes, high blood pressure, heart disease, certain cancers, and stroke. Transylvania County residents reported about half of the recommended servings of fruits and vegetables in the past week, and 1/3 said it was difficult for them to access fresh produce at an affordable price. More than 58% of children enrolled in Transylvania County Schools qualify for free and reduced lunch programs in 2014-2015, and 29% of children in Transylvania County struggle with food insecurity. Despite living in an environment that promotes recreation-based tourism and offers many outdoor physical activities, only half of county residents said they got the recommended amount of daily physical activity, and about 1/3 said they were limited in activities in some way due to a physical, mental, or emotional problem. A rural county with a limited number of well-paying jobs and high cost of housing results in long commutes, less money for groceries and recreation, and limited access to stores that sell nutritious foods.

Next Steps

This document will be distributed widely to the CHA Team, those who participated in the priority-setting workshop, the Transylvania County Board of Health, other organizations, and interested community members.

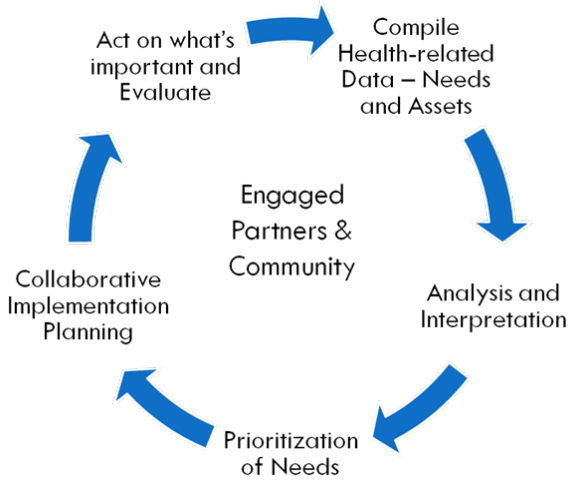
Collaborative action planning with hospitals and other community partners will result in community-wide action plans for each of these priority health issues, including evidence-based strategies intended to directly address key indicators for the selected issues, to be submitted by Transylvania Public Health to the NC Division of Public Health in September 2016.

CHAPTER 1 – COMMUNITY HEALTH ASSESSMENT PROCESS

Purpose

Community health assessment (CHA) is an important part of improving and promoting the health of county residents. **Community-health assessment is a key step in the ongoing community health improvement process**.

A community health assessment (CHA), which is both a process and a product, investigates and describes the current health indicators and status of the community, what has changed, and what still needs to change to reach a community's desired health-related results.



Definition of Community

Community is defined as "county" for the purposes of North Carolina's community health assessment process. Transylvania County is part of Transylvania Regional Hospital's community for the purposes of community health improvement, and as such, they were a key partner in this local assessment.

WNC Healthy Impact

WNC Healthy Impact is a partnership between hospitals and health departments in western North Carolina to improve community health. As part of a larger and continuous community health improvement process, these partners are collaborating to conduct community health (needs) assessments across western North Carolina (see more at www.WNCHealthyImpact.com). Participating counties include: Buncombe, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania, and Yancey.

Data Collection

The set of data reviewed for our community health assessment process is comprehensive, though not all of it is presented in this document. Within this community health assessment product we share a general overview of health and influencing factors then focus more on priority health issues identified through this collaborative process. Our assessment also highlights some of our community strengths and resources available to help address our most pressing issues.

Core Dataset Collection

The data reviewed as part of our community health assessment came from the WNC Healthy Impact regional core set of data and additional local data compiled and reviewed by our local CHA team. WNC Healthy Impact's core regional dataset includes secondary (existing) and primary (newly-collected) data compiled to reflect a comprehensive look at health. The following data set elements and collection are supported by the WNC Healthy Impact data consulting team, a survey vendor, and partner data needs and input:

- A comprehensive set of publically available secondary data metrics with our county compared to the sixteen-county WNC region as our "peer"
- Set of maps accessed from Community Commons and NC Center for Health Statistics
- Telephone survey of a random sample of adults in the county
- Email survey of community leaders and other key informants

See Appendix A for details on the regional data collection methodology.

Additional Community-Level Data

CHA team members invited the members of several organizations to share their thoughts about health concerns in Transylvania County. Feedback from these groups was used to inform data collection and analysis. In addition, reports from the local Preschool Task Force and the C.A.R.E. Coalition were used as data sources in this process.

Health Resources Inventory

An inventory of available resources of our community was conducted through reviewing a subset of existing resources currently listed in the 2-1-1 database for our county as well as working with partners to fill in additional information. Where gaps were identified, we partnered with 2-1-1 to fill in or update this information when applicable. See Chapter 7 for more details related to this process.

Community Input & Engagement

Including input from the community is an important element of the community health assessment process. Transylvania County included community input and engagement in the following ways:

- Partnership on conducting the health assessment process
- Participation in coalitions and advisory boards to learn more about their top concerns
- Primary data collection efforts (survey and key informant interviews)
- Identification and prioritization of health issues

In addition, community engagement is an ongoing focus for our community and partners as we move forward to the collaborative action planning phase of the community health improvement process. Partners and stakeholders with current efforts or interest related to priority health issues will continue to be engaged. We also plan to work together with our partners to help assure that programs and strategies in our community are developed and implemented with community members and partners.

At-Risk & Vulnerable Populations

Throughout our community health assessment process and product, our team was focused on understanding general health status and related factors for the entire population of our county as well as the groups particularly at risk for health disparities or adverse health outcomes.

In particular, for the purposes of the overall community health assessment, we aimed to understand variability in health outcomes and access of medically underserved, low-income, minority, and others experiencing health disparities.

Specific populations identified include the following:

- Underserved populations (those who do not access health care either because there is a lack of services or providers available or because of limitations of income, literacy or understanding on how to access services), including Medicaid recipients (for dental services), non-English speakers, those without reliable transportation, those without health insurance, and those who live in rural areas of the county.

- At-risk populations (members of a particular group who are likely to, or have the potential to, get a specified health condition), including people who are overweight/obese, use tobacco, take prescription drugs, drink excess alcohol, do not eat the recommended daily allowance of fruits and vegetables, are not physically active, have limitations on physical activity, have diabetes or pre-diabetes, have high blood cholesterol, have high blood pressure, and who smoke, drink alcohol, or use opiates or other drugs while pregnant.

- Vulnerable populations (who may be more susceptible than the general population to risk factors that lead to poor health outcomes), including the elderly, military veterans, those who are homeless, those living in poverty (especially children), those without health insurance, racial minorities, non-English speakers, those living with chronic stress, and those without reliable transportation.

CHAPTER 2 – TRANSYLVANIA COUNTY

Location and Geography

Transylvania County is located in the Appalachian Mountains of western North Carolina, approximately 30 miles southwest of Asheville, NC and 60 miles north of Greenville, SC. It is adjacent to Buncombe, Henderson, Jackson, and Haywood counties, as well as South Carolina. The county has a total area of 381 square miles with elevations reaching from 1,265 to 6,045 feet above sea level.

Transylvania County is known for its natural beauty. Framed by the Appalachian Mountains, it is called the "Land of Waterfalls" because of its 250 natural waterfalls (and because it receives over 90 inches of rain annually — more than any other county in the state), include Sliding Rock, Looking Glass Falls, and 411-foot-tall Whitewater Falls, recognized as the highest water cascade east of the Rocky Mountains. Over half of the county's geographical area (100,000 acres) is protected forestland in Pisgah National Forest, Gorges State Park, and Dupont State Forest.

The county is home to two municipalities: the City of Brevard (the county seat, population 7,600) and the Town of Rosman (population 576). It has eight townships with zip codes: Balsam Grove, Brevard, Cedar Mountain, Lake Toxaway, Penrose, Pisgah Forest, Rosman, and Sapphire. Other communities include Cathey's Creek, Connestee Falls, Dunn's Rock, East Fork, Estatoe, Gloucester, Little River, Quebec, Silversteen, Whitewater, and Williamson Creek.

History

The area that is now Transylvania County was first inhabited by Cherokee Indians, whose ceremonial hunting paths followed the edge of the Davidson River through present-day Brevard into upstate South Carolina. In the late 1700s, Scotch-Irish created a permanent settlement on the outer edges of the French Broad River area. It became Walton County, Georgia, in 1803, which led to a border skirmish known as the "Walton War" that was finally resolved in 1807. Transylvania County was formed from Henderson and Jackson Counties in 1861. By 1880, the county had a total population of only 5,339 of whom 4,822 were white.

The arrival of the railroad in 1895 brought greater accessibility and Transylvania County became a popular destination among tourists and nature enthusiasts. Northern investors wanting to create a series of resorts in the area built a dam to create Lake Toxaway with a hotel on its shores that attracted the nation's elite until a great flood in 1916 caused the dam to break. Summer camps also began to spring up in the county in the first half of the 20th century, including Brevard Music Center in 1936, which was located on 200 acres and continues to attract performers and gifted students from around the world. Today, outdoor activities like walking,

hiking, mountain biking and road biking, camping, rock climbing, canoeing, tubing, fishing, and hunting are popular with residents and with the many tourists who visit year-round. Tourism and summer camps continue to play an important role in the community, with Transylvania County being home to the state's second-highest concentration of summer camps.

Manufacturing first came to county in the late 1800s, based on timber and other products harvested from Pisgah Forest. One of the first industries in the county was Joseph Silverstein's Toxaway Tanning Company, located in what is now known as Rosman. Dr. Carl Schenck founded the nation's first forestry school in Transylvania County in 1898, as part of his job as manager of George Vanderbilt's Biltmore Forest. The Cradle of Forestry was established in 1968 to commemorate America's first attempt at forest conservation.

In 1939, Harry Strauss was drawn by clean mountain water and a trainable workforce to open the nation's first cigarette paper mill in Pisgah Forest, providing manufacturing jobs with good pay to hundreds of local residents and creating sense of a community for its employees. DuPont located a facility producing medical x-ray film in the county in 1959 and American Thread opened a plant in 1965, providing additional sources of employment. All three facilities closed within a year of each other in 2002-2003, resulting in the loss of 700 jobs (10% of the county's employment). The American Thread facility was purchased by a plastics packaging manufacturer that employs around 100 workers; the DuPont property is now a state park, and the Ecusta property was purchased for development as a retail park, but is currently sitting idle as a superfund site. More recent industries in the county include MB Industries, New Excelsior, Gaia Herbs, Oskar Blues microbrewery, and SylvanSport camping and gear trailer manufacturers.

Education has long been important in the county; one of the county's first actions was to provide funding for schools. Brevard College was formed in 1934 to teach mountain residents who would have otherwise received no higher education. Brevard College was formed in 1934 to teach mountain residents who would have otherwise received no higher education and now enrolls approximately 700 students on its 120-acre campus. Blue Ridge Community College, based in neighboring Henderson County, also has a campus in Brevard.

Transylvania County is also known for its cultural influences. Nine art galleries located in downtown Brevard and a dozen more art studios located throughout the county. The world-renowned Brevard Music Center presents more than 80 public concerts attended by 30,000 people every year. Other musical and performing arts influences include the Brevard Philharmonic, Brevard Little Theatre, Brevard College's Paul Porter Center for Performing Arts, Transylvania Choral Society, the Banff Outdoor Film Festival, and the Mountain Song music festival. Downtown Brevard hosts several outdoor festivals (such as the White Squirrel Festival and Halloweenfest) each year with live music and activities for all ages.

Population

Transylvania County was home to approximately 33,090 residents in 2010. About 51% are females, which is similar to regional and state percentages. However, Transylvania County has a median age (48.8) that is several years older than the state average (37.9). (US Census Bureau)

County	Total Population (2010)	% Males	% Females	Median Age*	% Under 5 Years Old	% 5-19 Years Old	% 20 - 64 Years Old	% 65 Years and Older
Transylvania	33,090	48.3	51.7	48.8	4.6	15.9	53.7	25.8
WNC (Regional) Total	759,727	48.5	51.5	44.7	n/a	n/a	n/a	n/a
State Total	9,535,483	48.7	51.3	37.4	6.6	20.2	60.2	12.9

Transylvania County has higher a proportion of whites (92.4%) than the region (89.3%) or state (68.5%) and lower proportions of all racial and ethnic minority groups. (US Census Bureau) Although minority populations everywhere may lack resources and access to health and human services and suffer disparities in quality of life as a result, these discrepancies are very difficult to accurately measure in Transylvania County because the small population results in statistically unstable numbers.

County	Total Population (2010)	White	Black or African American	American Indian, Alaskan Native	Asian	Native Hawaiian, Other Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino (of any race)
		%	%	%	%	%	%	%	%
Transylvania	33,090	92.4	3.9	0.3	0.4	0.0	1.3	1.7	2.9
WNC (Regional) Total	759,727	89.3	4.2	1.5	0.7	0.1	2.5	1.8	5.4
State Total	9,535,483	68.5	21.5	1.3	2.2	0.1	4.3	2.2	8.4

For 2009-2013, the birth rate per 1,000 people in Transylvania County for 2009-2013 was 7.9 for Whites, 7.6 for African Americans, and 22.3 for Hispanics. The birth rate among Hispanics has fallen significantly since 2006-2010, while rates for Whites have fallen slightly and rates among African Americans has been relatively stable.

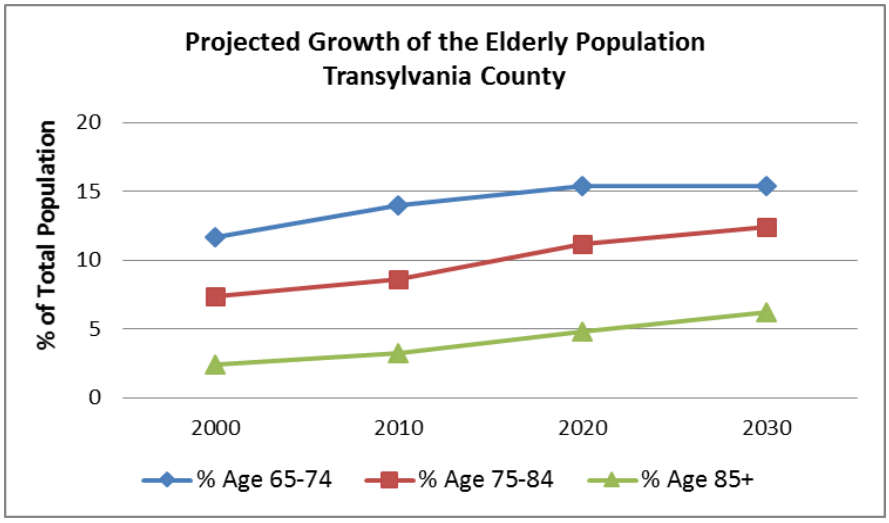
The rate of population growth in Transylvania County is expected to slow significantly through 2020, but will recover to exceed the overall WNC population growth rate by 2030.

The population in each major age group age 65 and older in Transylvania

Projected Population Growth By Decade

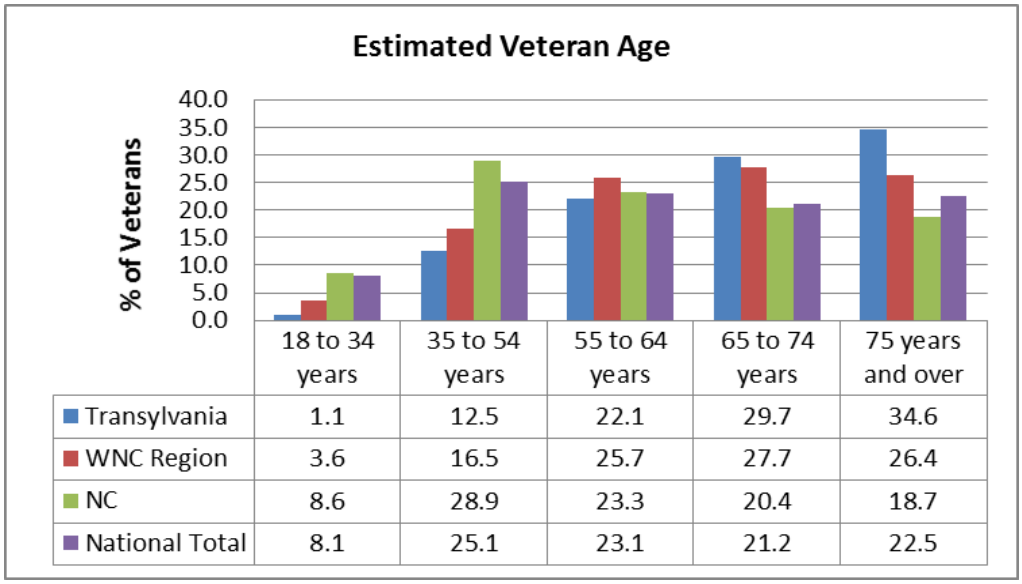
	2000-2010	2010-2020	2020-2030
Transylvania County	11.4%	4.5%	8.3%
WNC Region	13.0%	6.7%	6.1%
North Carolina	15.6%	10.7%	9.5%

County is expected to increase between 2010 and 2030. By 2030, projections estimate that there will be more than 12,700 persons ages 65 and older in Transylvania County. (NC Office of State Budget and Management) (US Census Bureau)



In 2009-2013, 2,636 of 13,981 of households in Transylvania County (19%) had children under 18 years of age. Among the households with children, 69% were headed by a married couple, 25% were headed by a female single parent, and 6% were headed by a male single parent. For the same years, 228 grandparents were living with and financially responsible for their minor-aged grandchildren. (US Census Bureau)

Transylvania County has higher proportions of veterans in the 65-74 and the 75+ age groups and lower proportions of veterans in all the younger age groups, than the regional, state or national averages. (US Census Bureau)



	18 to 34 years	35 to 54 years	55 to 64 years	65 to 74 years	75 years and over
Transylvania	1.1	12.5	22.1	29.7	34.6
WNC Region	3.6	16.5	25.7	27.7	26.4
NC	8.6	28.9	23.3	20.4	18.7
National Total	8.1	25.1	23.1	21.2	22.5

Of the estimated 1,411 foreign-born residents of Transylvania County in the 2009-2013 period, the largest proportion (27.1%) entered the US before 1999. Of those who settled in Transylvania County before 1999, 11% were not US citizens when they arrived. Of the estimated 13,981 households in Transylvania County in the 2009-2013 period, 114 (0.8%) were categorized as having limited skill in speaking English. (US Census Bureau)

CHAPTER 3 – A HEALTHY TRANSYLVANIA

Elements of a Healthy Community

Key informants described the following as elements that contribute to a healthy community:

- Health care
- Facilities for physical activity
- Social services and support
- Health-focused attitudes
- Employment/economic development
- Education
- Safe and healthy environment

During our collaborative action planning efforts and next steps, we will further explore these concepts and the results our community has in mind.

Community Assets

When asked to share some of the assets or "gems" they thought were important in our community, key informants listed:

- Natural Environment/Location
- People
- Sense of Community
- Access to Health Care
- Everything!

Issues in Need of Improvement

When key informants were asked what issues were most important to address in order to improve quality of life, they listed:

- Employment/economy
- Housing
- Education
- Transportation
- Health care
- Community and culture
- Social services

CHAPTER 4 – SOCIAL & ECONOMIC FACTORS

Over three-fourths of key informants characterized *Social Determinants of Health* as a "major contributor" to local health issues. Their reasons for rating this as a "major contributor" to health issues included:

- Access to Affordable Healthy Foods
- Access to Health Care
- Access to Medications
- Access to Public Knowledge
- Access to Exercise Facilities
- Age
- Availability of Rental Housing/ Affordable Housing
- Culture/Tradition/Peer Pressure
- Economy/Employment
- Education
- Learned Behaviors
- Poverty/Income/Financial Ability
- Nutrition Education
- Social Impact
- Transportation

Income

Income provides economic resources that shape choices about housing, education, child care, food, medical care, and more. Wealth, the accumulation of savings and assets, helps cushion and protect us in times of economic distress. As income and wealth increase or decrease, so does health.

For 2009-2013, Transylvania County's median household income was $41,781, an increase of $2,373 since 2006-2010. This is $2,894 above the WNC average but $4,553 below the state average. Also for 2009-2013, the county's median family income was $51,702, a decrease of $969 since 2006-2010. This is $3,151 above the WNC average and $5,226 below the state average. (A household is defined as people sharing housing arrangements, while family is defined as people living in household who are related by birth, marriage or adoption. All families are households, but not all households are families.) (US Census Bureau)

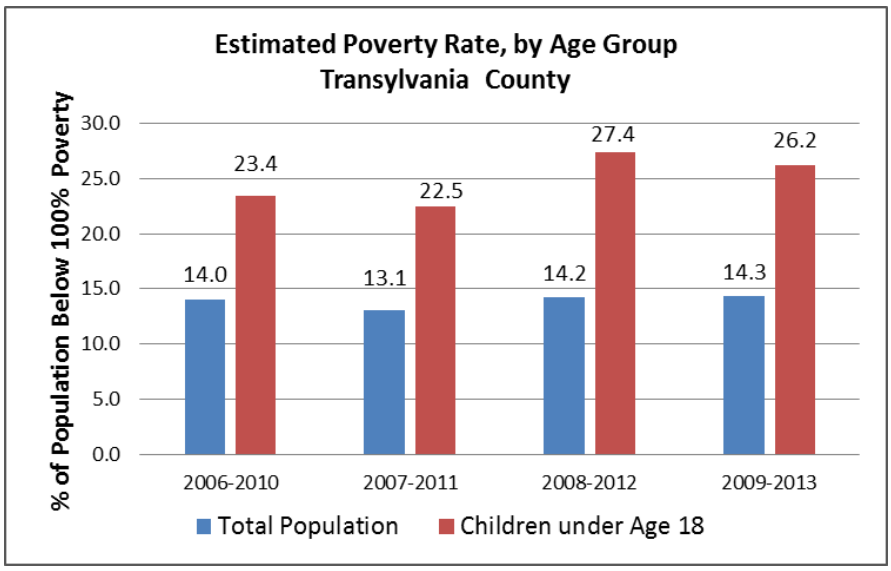
The overall poverty rate in Transylvania County is lower than the state and regional comparisons

Estimated Poverty Rates

	Percent Total Population Below 100% Poverty Level			
	2006-2010	**2007-2011**	**2008-2012**	**2009-2013**
Transylvania County	14.0	13.1	14.2	14.3
WNC Region	15.7	16.1	16.9	18.0
North Carolina	15.5	16.1	16.8	17.5

for each period from 2006 to 2013, and has remained fairly steady over time despite rising and falling unemployment rates. (US Census Bureau)

In Transylvania County, as in the state, children are more likely to live in poverty. However, the difference in poverty rate between adults and children in Transylvania County is among the highest in WNC. (US Census Bureau) For the 2014-2015 school year, 58% of children attending Transylvania County Schools qualified for free and reduced lunches. (Public Schools of North Carolina)



Employment

Employment provides income and, often, benefits that can support healthy lifestyle choices. Unemployment and under employment limit these choices, and negatively affect both quality of life and health overall. The economic condition of a community and an individual's level of educational attainment both play important roles in shaping employment opportunities.

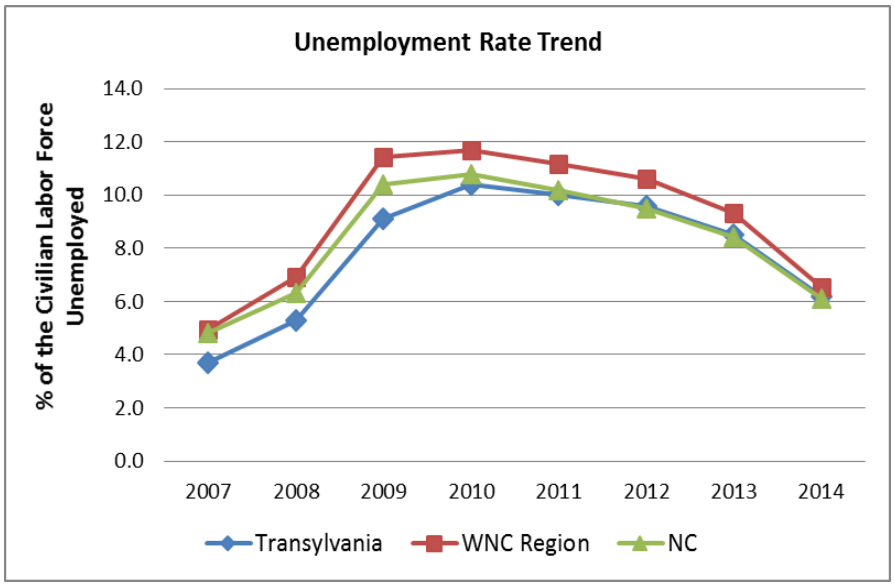
The three largest individual employers in Transylvania County in 2015 were Transylvania County Schools, Transylvania County Government, and Transylvania Regional Hospital. (NC Department of Commerce)

As of 2013, the three employment sectors with the largest proportions of workers in Transylvania County were Health Care and Social Assistance (employing 18.48% of workforce with an average weekly wage of $732), Retail Trade (employing 16.59% of workforce with an average weekly wage of $426), and Accommodation and Food Services (employing 14.72% of workforce with an average weekly wage of $326). Health Care and Social Assistance was also the largest employment sector in both the WNC region and the state, with slightly lower average wages seen in the region ($655) and slightly higher average wages in the state ($859). (NC Employment Security Commission)

It is important to note that many retail, accommodation, and food services jobs pay lower wages than those in other sectors and tend to lack employment benefits such as health insurance and

retirement programs. Many employees in this sector work part-time, sometimes at multiple jobs. This is a sector whose relative poverty leaves them vulnerable to emotional stress and poor health outcomes.

The unemployment rate in Transylvania County was the lower than state and regional from 2007 through 2010; since 2010 it has been similar to or slightly higher than the overall state rate. However, unemployment data does not include those who have given up on finding employment. (NC Department of Commerce)



Education

Better educated individuals live longer, healthier lives than those with less education, and their children are more likely to thrive. This is true even when factors like income are taken into account.

Transylvania County has one public school system, serving nearly 3,500 students with four elementary schools, two middle schools, two high schools, and one alternative school. It has one charter school and three private schools (one Montessori-based and two Christian schools). The county is also home to Brevard College, a private four-year institute, and a campus of Blue Ridge Community College, based in Henderson County.

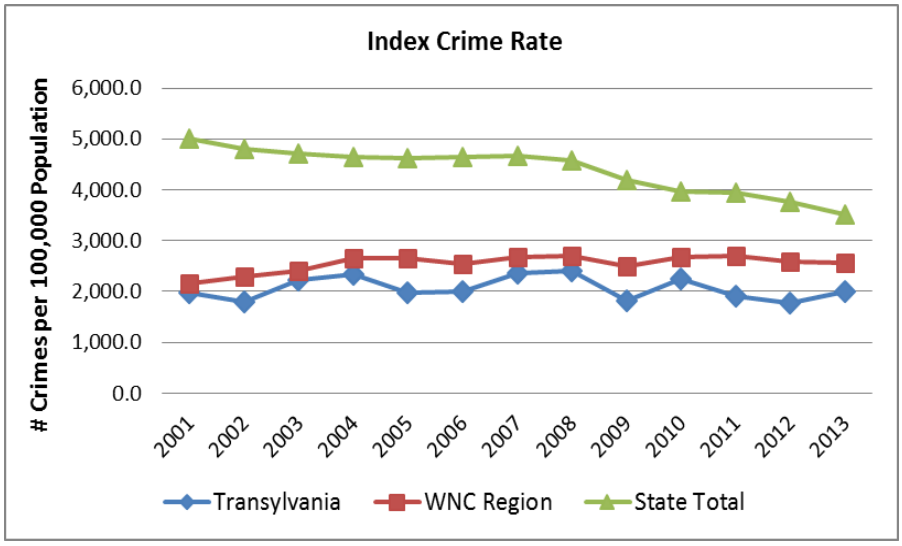
Compared to the WNC Region average, Transylvania County has:

- **8% lower** percentage of persons in the population over age 25 having only a high school diploma or equivalent (2009-2013 estimate) (US Census Bureau)
- **30% higher** percentage of persons in the population over age 25 having a bachelor's degree or higher (2009-2013 estimate) (US Census Bureau)
- **5% lower** overall high school graduation rate (for 4-year cohort of 9th graders entering school in SY 2010-2011 and graduating in SY2013-2014 or earlier) (Public Schools of North Carolina)

Community Safety

Community safety reflects not only violent acts in neighborhoods and homes, but also injuries caused unintentionally through accidents. Accidents and violence affect health and quality of life in the short and long-term, for those directly and indirectly affected.

Index crime is the sum of all violent and property crime. The index crime rate in Transylvania County was lower than both regional and state rates in every period cited. (NC Department of Justice)



In 2013-2014, 30 persons were victims of sexual assaults in the county, and the most common type of sexual assault was adult rape. Transylvania County had 36 domestic violence calls and served 270 domestic violence clients in 2013-2014. (NC Department of Administration, Council for Women)

Schools are required to report 16 offenses that occur on campus or school property. The most frequently reported acts involved illegal possession of controlled substances, alcoholic beverages, weapons (excluding firearms or powerful explosives) and assault on school personnel. High school reportable crime was higher in Transylvania County compared to the region, and higher in the region as compared to the state average. (Public Schools of North Carolina)

Housing & Transportation

Housing structures can protect us from extreme weather and provide safe environments for families and individuals to live, learn, grow, and form social bonds. However, quality housing is not affordable for everyone, and those with lower incomes are most likely to live in unhealthy, overcrowded, or unsafe housing conditions.

One measure of economic burden in a community is the percent of housing units spending more than 30% of household income on housing. Around 30% of mortgage holders and 40% of renters in Transylvania County spent more than this threshold in 2009-2013. (US Census Bureau)

Transylvania County had 105 homeless individuals counted during the 2014 point-in-time survey; about 34% of these were children. This count includes people who were residing in emergency shelter or transitional housing or who were unsheltered on the night of the count. From 2009 through 2014, 17% of the total homeless population in Transylvania County was deemed "chronically homeless" and 4% of all homeless adults were military veterans. (NC Coalition to End Homelessness)

The ways in which we move from place to place can also have an impact on health. The lower population density in rural areas results in difficultly supporting shared transit services (which can impact the ability to access needed services), while a lack of infrastructure such as sidewalks coupled with greater distances to travel discourage physically active transit by foot or bike.

The county's public transportation system provides door-to-door transit, but it must be scheduled at least one day in advance, and priority is given to medical appointments, children traveling to Head Start, and seniors traveling to group feeding sites. There is one taxi company and services such as Uber are currently not offered in the county. Some churches and social groups provide transportation for their own members as needed.

The City of Brevard continues to add to its sidewalks and has two greenway bike/walking paths located in the city limits. Although Transylvania County has miles of road and mountain bike paths and an active biking community, this is mostly used for recreation rather than transit.

When asked how often they had trouble finding transportation to places they wanted to go, 5.3% of county residents said they "always" had trouble, 1.4% said they "usually" had trouble, and 3.2% said they "sometimes" had trouble. (Professional Research Consultants, Inc., 2015)

Family & Social Support

People with greater social support, less isolation, and greater interpersonal trust live longer and healthier lives than those who are socially isolated. Neighborhoods richer in social capital provide residents with greater access to support and resources than those with less social capital.

Transylvania County has a long history of close-knit communities and strong kinship ties. While there are areas of the county where this is still the case, other parts of the county (like much of the nation) has seen families moving for various reasons, separating them from family support. Other sources of social support include churches, civic organizations, community centers, neighborhoods, schools, and participation in arts, music, and sports groups.

When surveyed, 82% of Transylvania County residents said they "always" or "usually" get needed social and emotional support. (Professional Research Consultants, Inc., 2015)

CHAPTER 5 – HEALTH DATA FINDINGS SUMMARY

Mortality

For persons born in 2011-2013, life expectancy is longer (overall and among all stratified groups except African Americans) for Transylvania County residents compared to the region or state. (NC State Center for Health Statistics)

Life Expectancy at Birth for Persons Born in in 2011-2013

County	Overall	Sex		Race	
		Male	Female	White	African-American
Transylvania	80.2	77.5	82.9	80.4	74.5
WNC (Regional) Arithmetic Mean	77.7	75.3	80.2	77.9	75.2
State Total	78.2	75.7	80.6	78.8	75.9

People in Transylvania County have lower mortality than the population statewide for nine of the twelve leading causes of death for which there are stable county rates. The only causes of death for which mortality rates are higher in Transylvania County than in North Carolina are unintentional non-motor vehicle injuries, suicide, and liver disease. (NC State Center for Health Statistics)

Leading Causes of Death, 2009-2013 (Age-Adjusted Rates)

	Transylvania # of Deaths	Transylvania Mortality Rate	Rate Difference from State
1. Diseases of the Heart	470	147.7	**-13.1%**
2. Cancer	424	137.2	**-20.8%**
3. All Other Unintentional Injuries	91	49.0	**+67.2%**
4. Chronic Lower Respiratory Disease	122	37.3	**-19.1%**
5. Cerebrovascular Disease	102	31.0	**-29.1%**
6. Alzheimer's Disease	77	22.6	**-21.8%**
7. Suicide	31	19.2	**+57.4%**
8. Nephritis, Nephrotic Syndrome, Nephrosis	40	12.1	**-31.3%**
9. Diabetes Mellitus	32	11.4	**-47.5%**
10. Chronic Liver Disease and Cirrhosis	25	11.2	**+17.9%**
11. Unintentional Motor Vehicle Injuries	22	11.2	**-18.2%**
12. Pneumonia and Influenza	37	11.0	**-38.5%**

Between the 2012 and 2015 assessment periods, there was improvement in mortality rates for nine of the twelve leading causes of death in Transylvania County for which there were stable county rates. However, mortality rates attributable to unintentional non-motor vehicle injuries, suicide, and liver disease increased in the past three years. (NC State Center for Health Statistics)

In 2012, the highest proportions of hospital discharges were for the following conditions:

- Cardiovascular and circulatory diseases: 18%
    - Heart disease: 13%
    - Cerebrovascular disease: 3%
- Musculoskeletal system diseases: 10%
    - Arthropathies and related disorders: 7%
- Digestive system diseases: 10%
    - Chronic liver disease and cirrhosis: 0.3%
- Other diagnoses (including mental disorders): 10%
- Injuries and poisonings: 9% (NC State Center for Health Statistics)

Ambulatory care sensitive hospital discharge rates in Transylvania County for 2013 were lower than the comparable state discharge rates for all ACS conditions except asthma in the 18-39 age group, pneumonia, and acute care discharges. (NC State Center for Health Statistics)

Health Status & Behaviors

Overall Health Status

America's Health Rankings for 2013 ranked North Carolina as 35th overall out of all 50 states.

The 2014 County Health Rankings ranked Transylvania County 12th overall among the 100 North Carolina counties. For health outcomes, Transylvania County was ranked 4th for quality of life and 24th for length of life. When health factors were considered, Transylvania County was ranked 12th for health behaviors, 22nd for clinical care, 38th for social and economic factors, and 44th for physical environment.

Maternal & Infant Health

When asked about maternal and infant health, most key informants said it was a "moderate problem" in Transylvania County, due to substance use during pregnancy, access to prenatal care, lack of education, poverty, and unintended pregnancies. (Professional Research Consultants, Inc., 2015)

A total of 285 babies were born to Transylvania County residents in 2014. The county's total pregnancy rate is similar to that of the region at around 63 pregnancies per 1,000 women ages 15-44 in 2013. The pregnancy rate among ages 15-19 in the county (34.4 per 1,000) is very

similar to the state (34.9 per 1,000) for 2009-2013, and repeat teen pregnancies for the county (15.3 per 1,000 teen mothers having a repeat teenage pregnancy) are much lower than the state rate (26.3 per 1,000). (NC State Center for Health Statistics)

In general, the county's birth statistics are similar to those seen across the state. The county rate of infant deaths was 7 per 1,000 live births in 2013, the same as the statewide rate. About 1 of 11 babies born to county residents in 2014 had a low or very low birth weight, which is a strong indicator of infant mortality. For 2009-2013, the county had a premature birth rate of 9.4 per 1,000 compared to the state rate of 9.5 per 1,000. (NC State Center for Health Statistics) However, it is important to recognize that the infant mortality rate in North Carolina is among the highest in the nation. According to the CDC's Vital Statistics System, the infant mortality rate in North Carolina in 2013 was 6.99 deaths per 1,000 live births, a figure exceeded only by Alabama, Arkansas, Indiana, Louisiana, Maine, Michigan, Mississippi, Ohio and West Virginia. (National Vital Statistics System, 2015)

The WNC region has very high percentages of women who smoke during pregnancy (around 20% in the region compared to around 10% statewide), and these numbers have not improved significantly between 2008 and 2013. Although higher than the statewide numbers, the percentage of pregnant women who smoked in Transylvania County in 2013 (13%) was lower than the regional percentage in 2013 (19.4%), and significantly lower than the county percentage in 2008 (17%). (NC State Center for Health Statistics)

Transylvania County had the highest percentage of women receiving early prenatal care (82%) compared to the region (76%) and state (70%) in 2013. However, the percentage of women who received early prenatal care has decreased significantly since 2009 (county: 93%, region: 84%, state: 83%). (NC State Center for Health Statistics) Prenatal care in the county is available at Transylvania Regional Hospital and Brevard Health Center, but the hospital closed its birthing center in 2015 so pregnant women must travel out of the county to give birth.

Concerns about children from birth to age 5 led the county manager to form a task force that issued a report on the "State of the Young Child in Transylvania County" in late 2015. Specific statistics cited included the number of children being treated for neonatal abstinence syndrome (a calculated rate of 4,560 per 100,000 live births for 2014, compared to the statewide reported rate of 620 per 100,000 live births in 2012), the cost of child care in the county (sixth highest in the state, despite income levels lower than the state average), and the number of kindergarteners who tested below or far below proficiency at the beginning of the school year (78%). (Transylvania County Preschool Task Force, 2015)

Chronic Disease

Key informants characterized cancer as a moderate problem, mostly due to lifestyle choices and an aging population. (Professional Research Consultants, Inc., 2015) While Transylvania County mortality rates have decreased over time or remained unchanged for lung, prostate, and breast cancers, the mortality rate for colorectal cancer increased for 2009-2013 as compared to 2002-2006. The incidence rates for lung, prostate and colorectal cancer have decreased over time, but the mortality rate for breast cancer increased for 2008-2012 as compared to 1999-2003. (NC State Center for Health Statistics) Since colorectal cancer typically has good survival rates when detected early, perhaps additional focus is needed in raising awareness of and access to screening exams. Increased awareness or availability of screening for breast cancer may contribute to the increased incidence of breast cancer. However, only 70% of women ages 50-74 reported receiving a mammogram in the past year, which is lower than the rates for the region, state, and nation and fails to meet the Healthy People 2020 Target of 81.1% or higher. (Professional Research Consultants, Inc., 2015) (Centers for Disease Control and Prevention, 2013)

Key informants characterized diabetes as a "moderate problem" to a "major problem" in Transylvania County, due to nutrition and access to healthy food, lack of physical activity, overweight/obesity, lack of education, and habits/culture. The average self-reported prevalence of Transylvania County adults with diabetes was 7.7% in 2005-2011, compared to the regional average of 9.0%. The prevalence of adult diabetes has been rising recently in WNC, while prevalence in Transylvania County has been falling for several years but has levelled off. (Centers for Disease Control and Prevention, 2013) Only 4% of county residents surveyed in 2015 reported having been diagnosed with diabetes, a rate that is much lower than the 2012 report of nearly 12% and lower than the region, state, and nation. Of those who had been diagnosed with diabetes or pre-diabetes, 74% of county residents reported that they were taking action to control it in 2012. About 62% of adults who were not already diagnosed with diabetes had been tested for high blood sugar in the past three years. (Professional Research Consultants, Inc., 2015) (Centers for Disease Control and Prevention, 2013)

Heart disease and stroke were characterized as a "major problem" to a "moderate problem" in Transylvania County by key informants, due to nutrition, lack of physical activity, overweight/obesity, an aging population, lack of education, lifestyle choices, and tobacco use. About 6% of county residents reported having been diagnosed with a heart attack, angina, or coronary heart disease, which is very similar to regional and national numbers. (Professional Research Consultants, Inc., 2015) About 6% of county residents reported having been diagnosed with a stroke, with is much higher than the region (3.9%), state (3.7%), and nation (3.9%). In 2015, 98% of Transylvania County residents reported having their blood pressure checked in the past two years, reaching the Healthy People 2020 Target of 94.9% and surpassing the region

and nation. However, 37% of county residents reported having high blood pressure (compared to the Healthy People 2020 Target of 26.9% or lower) and only 86% of those people reported taking measures to control their high blood pressure. (Professional Research Consultants, Inc., 2015) (Centers for Disease Control and Prevention, 2013) Similarly, almost 92% of county residents reported having their blood cholesterol checked in the past five years (compared to the Healthy People 2020 Target of 82.1% or higher), but 35% had been diagnosed with high blood cholesterol (compared to the Healthy People 2020 Target of 13.5% or lower) and about 87% reported taking actions to control their high blood cholesterol. (Professional Research Consultants, Inc., 2015) (Centers for Disease Control and Prevention, 2013)

Key informants characterized respiratory diseases as a "minor problem" in Transylvania County, due to environmental factors and tobacco use. Environmental factors may include the presence of indoor air pollution from radon, work in industries, and secondhand tobacco smoke. Just under 10% of county residents reported having asthma, a number that is similar to the region (10%), state (8%), and nation (9%). Almost 14% of residents in the county and region reported the prevalence of chronic obstructive pulmonary disease (COPD), compared to only 7% for the state and 9% for the nation. About 22% of county residents said they were current smokers; although that number is similar to the region (19%) and state (20%), it is somewhat higher than the nation (15%) and much higher than the Healthy People 2020 Target of 12% or lower. Almost 3% of county residents use smokeless tobacco; this is lower than the region, state, and nation (all 4%), but 10 times the Healthy People 2020 Target of 0.3% or lower. In addition, 8% of county residents said they currently use e-cigarettes, compared to 7% in the region. (Professional Research Consultants, Inc., 2015) (Centers for Disease Control and Prevention, 2013)

Injury & Violence

Key informants considered injury and violence to be a "minor problem" in Transylvania County. As noted above, index crime rates are relatively low and the county is generally perceived to be a safe place to live. However, some rates of injury are slightly higher, which are associated with the older age of our population or the influence of alcohol and substance abuse.

"Unintentional injuries" was noted as one of the leading causes of death in Transylvania County that is higher than the state rate. This category includes injuries such as falls and animal bites, as well as unintentional poisonings, which includes medication/drug overdose. As noted with more detail in the section on substance abuse below, the rates of medication/drug overdose among Transylvania County residents are much higher than both the region and the state.

Considering the average age of its residents, unintentional falls are a concern in Transylvania County. From 2011 through 2013, 18 county residents died as a result of a fall. Of the 18 fall-related deaths, 16 (89%) occurred in adults aged 65 and older and 9 (50%) occurred in adults

aged 85 and older. (NC State Center for Health Statistics) Almost 32% of adults ages 65 and older reporting falling in the past year. (Professional Research Consultants, Inc., 2015)

In 2006-2013, an annual average of 6.3% of all traffic crashes in Transylvania County were related to alcohol, which is slightly higher than the region over the same period (6.2%). There were no alcohol-related traffic crash deaths in Transylvania County in 2012. (NC Highway Safety Research Center)

Mental Health & Substance Abuse

Most key informants characterized mental health as a "major problem" in the county, due to barriers to mental health care including the number and size of facilities, transportation, cost, and stigma, as well as a lack of resources and environmental and family situations. (Professional Research Consultants, Inc., 2015)

Mental health coordination services are provided for Transylvania County residents by Smoky Mountain LME/LMO. The number of Transylvania County residents served annually by the Area Mental Health Program decreased from 1,145 in 2006 to 518 in 2009, and then increased to 1,151 in 2013. The number of Transylvania County residents served annually in State Psychiatric Hospitals decreased from 53 in 2006 to 1 in 2013. Over that same 8-year period, 210 Transylvania County residents served in State Alcohol and Drug Abuse Treatment Centers (ADATCs), averaging 26 persons annually. (NC Office of State Budget and Management, State Data Center)

In 2015, more than 16% of county residents reported having seven or more days of poor mental health in the past month, (compared to 12% in 2012), and nearly 6% reported being "dissatisfied" or "very dissatisfied" with life. In addition, over 5% of residents reported being unable to get needed mental health care or counseling in the past year. (Professional Research Consultants, Inc., 2015)

Substance abuse was identified by key informants as a "major problem" in Transylvania County, citing opioid analgesics and alcohol as the most problematic substances for reasons that include the prevalence of prescription drugs, easy access to illegal substances, poverty, self-medication, lack of treatment facilities and programs, "nothing to do" for youth, and lack of education.

The entire WNC region sees high mortality rates due to unintentional poisoning related to medication and drug overdose. However, the most recent rates of unintentional poisoning related to drug overdose in Transylvania County were approximately 35% higher than the regional rates and 1.8 times the state rates. (Professional Research Consultants, Inc., 2015) (Centers for Disease Control and Prevention, 2013)

"Other opioids" caused the highest proportion of drug overdose deaths (53.6%) in Transylvania County in 2009-2013. "Other opioids" could include: hydrocodone (e.g., Vicodin), oxycodone (e.g., OxyContin, Percocet), morphine (e.g., Kadian, Avinza), codeine, and related drugs. (North Carolina Division of Public Health, Chronic Disease and Injury Section, Injury and Violence Prevention Branch)

The percentage of Transylvania County residents who reported consuming at least one alcoholic drink in the past month (48%) was similar to the region (44%) and state (44%) and lower than the nation (57%). Although the number of "excessive drinkers" (those who consumed more than two drinks for men or more than one drink for women per day, or who consumed five or more drinks for men or four or more drinks for women on one occasion) in Transylvania County (19%) was higher than the region (15%), it was lower than the state (23%) and lower than the Healthy People 2020 Target of 25.4% or lower. An annual average of 6.3% of all traffic crashes in Transylvania County were alcohol-related from 2006 to 2013, which is similar to the region (6.2%), but higher than the state (5.2%). (Professional Research Consultants, Inc., 2015)

Less than 1% of county residents said they had taken a prescription drug that was not prescribed to them in the past month (compared to 1.3% for the region), and less than 3% of county residents said they had ever shared their prescription medication with someone else (compared to 4% for the region). However, these reported numbers may be low due to fear of admitting to illegal activity. (Professional Research Consultants, Inc., 2015)

Oral Health

Key informants most often characterized oral health as a "moderate problem" in Transylvania County, due to lack of access and cost (especially for the uninsured or underinsured), culture, lack of education, and tobacco use. (Professional Research Consultants, Inc., 2015) Nearly 72% of county residents reported visiting a dentist or dental clinic in the past year, which is higher than the region, state, and nation, and easily surpasses the Healthy People 2020 Target of 49% or higher. (Professional Research Consultants, Inc., 2015) (Centers for Disease Control and Prevention, 2013) Of those who did not visit a dentist within the past year, the most common reason was "cost/insurance" (37%), followed by "don't need it" (35%), and "didn't want to go" (16%). (Professional Research Consultants, Inc., 2015) Although the average number of decayed, missing, or filled teeth among kindergarten children in Transylvania County (1.61) remains slightly higher than the state average (1.54) and exceeds the Healthy People 2020 Target of 1.1, some progress has been made compared to the 2009 rate (1.76). Despite the obvious need for care, only 51% of children ages 1-5 who receive Medicaid use any dental services. (NC DPH Oral Health Section, 2009, 2013)

Efforts to address dental health among children continue through the local health department's Healthy Smiles Dental Program, which provides dental screening and education to preschool and elementary school children, and collaboration with Mission Health System's ToothBus traveling dental office. In addition, Brevard Health Center offers complete dental care and accept Medicaid and private pay clients with costs based on income. Wait times for a dental appointment typically average 3 months, although they are often able to accommodate emergency walk-in visits. However, they report a 40% no-show rate for their appointments, which may be a reason that other dental practices are reluctant to see Medicaid patients.

Clinical Care & Access

Key informants characterized Access to Health Care Services as a "moderate problem" in Transylvania County, reported that the most difficult types of care to access were dental care, substance abuse treatment, and mental health care, and citing reasons including lack of insurance and a limited number of providers. (Professional Research Consultants, Inc., 2015)

In 2012, Transylvania County had the highest ratio for primary care physicians but the lowest ratio for dentists and for registered nurses compared to the region, state, and nation. (Cecil G. Sheps Center for Health Services Research) (US Census Bureau) (US Bureau of Labor Statistics)

About 24% of Transylvania County adults ages 18-64 did not have health insurance in 2013, compared to 25% of adults in the region and 23% of adults in the state. Health insurance rates among children are much better for all areas, due at least partly to inclusion in NC Health Choice: only 8% of children ages 0-18 did not have insurance in 2013, compared to about 9% in the region and nearly 7% statewide. These rates are have been fairly stable since 2009. (US Census Bureau)

About 87% of county residents reported having a specific source of ongoing medical care, compared to 82% in the region and 76% in the nation. However, this falls short of the Healthy People 2020 Target of 95% or higher. (Professional Research Consultants, Inc., 2015) (US Department of Health and Human Services, December 2010)

Almost 5% of Transylvania County residents reported being unable to access needed medical care in the past year, which lower than the county's 2012 responses (9.5%) and the region 10.8% in 2012 and 9.1% in 2015). (Professional Research Consultants, Inc., 2015) This decrease may be due to the presence of an additional health care provider in Brevard Health Center.

At Risk Populations

Low-income populations are at higher risk for poor health outcomes, particularly in relation to access to care. Dental care and mental health care are especially difficult for low-income populations and Medicaid recipients to access in Transylvania County.

In addition, those who do not have reliable transportation are at risk of poor health outcomes related to a lack of access to necessary health care, healthy food, facilities for physical activity, and other resources.

The Hispanic population is growing in Transylvania County, and we know that some Hispanics may not access care due to language barriers and concerns related to immigration status.

Although our population numbers are too small to be statistically valid when stratified by race and ethnicity, we believe that known risks for these populations are applicable in Transylvania County and should be addressed accordingly. These may include infant mortality, obesity, diabetes, hypertension, heart disease, asthma, and prostate cancer mortality among African Americans and obesity, diabetes, renal disease, and cervical cancer among Hispanics.

CHAPTER 6 – PHYSICAL ENVIRONMENT

Most key informants considered *Physical Environment* to be a "minor contributor" to local health issues. Their reasons for rating this as a "major contributor" to health issues included:

- Access to Healthy Foods
- Environmental Issues in Older Homes
- Few Recreational Outlets
- Lack of Bike Paths/Sidewalks
- Water Pollution/Quality

Air Quality

Clean air and safe water are prerequisites for health. Air pollutants such as fine particulate matter, ground-level ozone, sulfur oxides, nitrogen oxides, carbon monoxide, and greenhouse gases can harm our health and the environment. In addition, indoor air pollutants such as tobacco smoke and radon can also be harmful, especially to vulnerable populations such as the very young, the elderly, and those with chronic health conditions including asthma.

County-specific Air Quality Index measurements are not available for Transylvania County, as there is no air quality monitoring station located in the county, but neighboring Jackson and Haywood counties reported no unhealthy days for the general population in 2014. (US EPA)

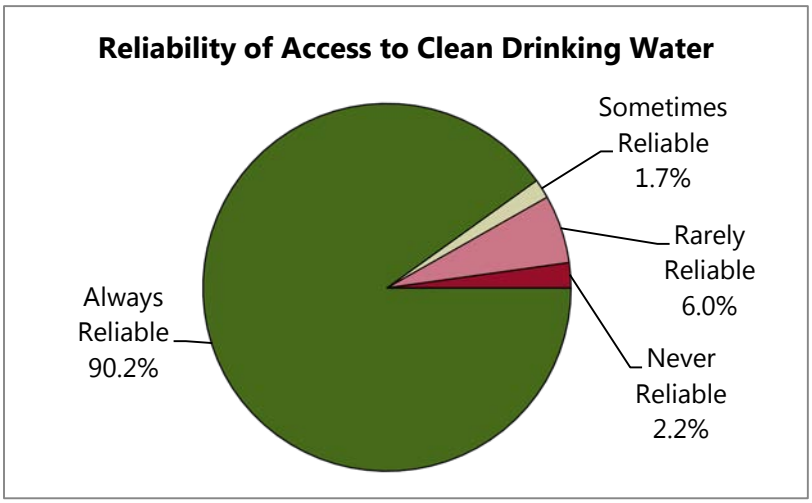
Radon is perhaps the most significant "undervalued" health problem in western North Carolina. A naturally-occurring radioactive gas, radon comes from the natural breakdown (radioactive decay) of uranium in igneous rock and soil, such as the granite that underlies much of this region. According to EPA estimates, radon is the number one cause of lung cancer among non-smokers and the second leading cause of lung cancer overall. People who smoke have an even higher risk of lung cancer from radon exposure than people who don't smoke.

Indoor radon levels in Transylvania County are among the highest in the state. The average indoor radon level in the county is 6.6 pCi/L, which is 61% higher than the regional average and 5.1 times the national average. A screening level over 4 pCi/L is the EPA's recommended action level for radon exposure. (North Carolina Radon Information)

More than 25% of Transylvania County residents reported breathing someone else's cigarette smoke at work during the past week, a similar percentage to the region (24%). (Professional Research Consultants, Inc., 2015)

Water

Water quality is important to healthy brain and body function, growth, and development. Water pollution from chemicals, pesticides, and microbiological agents, as well as construction runoff and even improper medicine disposal can spread disease, cause medical problems, contaminate food supplies, ruin recreational resources, and damage wildlife habitats.



In 2014, community water systems such as those found in municipalities, subdivisions and mobile home parks, served an estimated 15,776 people in Transylvania County, or 48% of the 2010 population, which is 13% lower than the average for the region and the state. (US Census Bureau) (US Environmental Protection Agency) Populations not connected to a community water system likely get their drinking water from a well, directly from a body of surface water, or from bottled water. Only 90% of county residents reported that their access to a source of clean drinking water was "always reliable." (Professional Research Consultants, Inc., 2015)

In 2015, 20 permits were issued in Transylvania County that allow municipal, domestic, or commercial facilities to discharge products of water/wastewater treatment and manufacturing into waterways. (NC DENR, Division of Water Resources)

Access to Healthy Food & Places

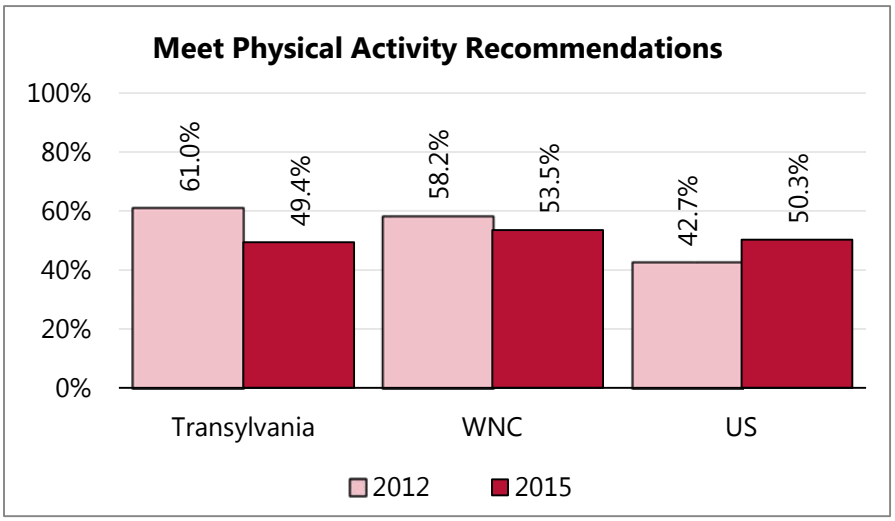
Healthy food and regular exercise are important to health. The environments where we live, learn, work, and play affect our access to healthy food and opportunities for physical activity which, along with genetic factors and personal choices, shape our health and our risk of being overweight and obese.

Many key informants said that nutrition, physical activity, and weight were a "moderate problem" in Transylvania County, due to culture and lifestyle choices, access to affordable healthy foods, access to healthy lunches and breakfasts at school, affordable and safe opportunities for physical activity, and a lack of education and knowledge.

Transylvania county residents reported eating an average of 8 servings of fruits and 10 servings of vegetables in the past week, which is higher than the regional average of 8 servings of fruits and 8 servings of vegetables in the past week, but falls far below the recommendation of 35 servings of fruits and vegetables. (Professional Research Consultants, Inc., 2015)

Almost 33% of Transylvania County residents reported that it was "somewhat difficult" or "very difficult" for them to access fresh produce at an affordable price, compared to 31% for the region and 24% for the nation. (Professional Research Consultants, Inc., 2015)

Fewer county residents said they got the recommended amount of physical activity* in 2015 compared to 2012 and compared to the region. Just over 18% of county residents said they had no leisure-time physical activity in the past month, which is lower than the region (19%), state (27%), and nation (20%), and meets the Healthy People 2020 Target of 32.6% or lower. (Professional Research Consultants, Inc., 2015)



About 35% of county residents said they were limited in activities in some way due to a physical, mental, or emotional problem. This number is lower than in 2012 (37%), but higher than the region (28%), state (21%), and nation (22%). The most common reasons for the activity limitations were back or neck problems, arthritis or rheumatism, and difficulty walking. (Professional Research Consultants, Inc., 2015) (Centers for Disease Control and Prevention, 2013)

Similar to the results in 2012 and for the region, almost 95% of county residents said it was important for organizations to make physical activity spaces available for use after hours. (Professional Research Consultants, Inc., 2015)

*Recommended physical activity recommendations: moderate physical activity (exercise that produces only light sweating or a slight to moderate increase in breathing or heart rate) at least 5 times a week for 30 minutes at a time and/or vigorous physical activity (activities that cause heavy sweating or large increases in breathing or heart rate) at least 3 times a week for 20 minutes at a time.

CHAPTER 7- HEALTH RESOURCES

Health Resources

Process

NC 2-1-1 is an information and referral service that links people to community health and human services and maintains a database of community resources to support this service. NC 2-1-1 is free, confidential and available 24/7 to speakers of all languages. Resources are available through phone, web and iPhone app.

Because the NC 2-1-1 database is available to residents in multiple ways and is promoted in Transylvania County by multiple partners, the CHA team chose to enhance existing assets while promoting efficiency and consistency by accessing and updating health resource information via this resource instead of creating and maintaining a similar inventory independent of NC 2-1-1.

WNC Healthy Impact provided a list of health resources available to residents of Transylvania county (even if they are located in another county) based on resources listed in the NC 2-1-1 database as of March 2015. This listing includes the following information about each health resource:

- Agency name, program, description, address, website and contact information
- A program point person and their contact information
- Hours, provider language, fees, eligibility
- URL for the resource link on the NC 2-1-1 website

CHA team members reviewed the listing for completeness and encouraged additional agencies to add their information to the NC 2-1-1 directory in order to keep this resource current.

The NC 2-1-1 directory listings can be found in Appendix F.

Findings

As might be expected in a rural community, many resources available to Transylvania County residents are actually located in other counties. For some, access to these resources (via transportation or phone) may be a barrier to receiving services.

Some services that do exist in the county are not listed in the directory, and others have out-of-date information or are not described in a way that makes it easy to understand the services available and how to access them. Other services exist and are listed, but there is a perception that those types of services are not available in the community. Additional education or promotion may be needed to make people more aware of existing services.

Resource Gaps

An analysis of the NC 2-1-1 directory listings and feedback from key informants identified gaps in the following areas:

- Affordable fresh food
- Affordable housing (for ownership and rental)
- Affordable, quality child care
- Assistance with job training and employment
- Case management services for at-risk populations
- Children's services
- Dental care
- Education about health and wellness
- Healthcare
- Geriatric services
- Mental health resources
- Recreation facilities and programs
- Transportation

CHAPTER 8 – IDENTIFICATION OF HEALTH PRIORITIES

Health Issue Identification

Process

To identify the significant health issues in our community, our key partners reviewed data and discussed the facts and circumstances of our community. We used the following criteria to identify significant health issues:

- County data deviates notably from the region, state or benchmark
- Significant disparities exist
- Data reflects a concerning trend related to burden, scope or severity
- Surfaced as a priority community concern

Identified Issues

The following health issues were identified as relevant to Transylvania County and to be part of the priority-setting process:

- Access to Health Care Services
- Cancer
- Diabetes
- Environment
- Heart Disease/Stroke
- Infectious Disease and Foodborne Illness
- Injury and Violence
- Maternal and Infant Health
- Mental Health
- Nutrition, Physical Activity, and Weight
- Oral Health
- Respiratory Diseases
- Sexually Transmitted Diseases
- Substance Abuse
- Tobacco Use

Priority Health Issue Identification

Process

Key informants and others with expertise on the health needs of particular populations or the community as a whole, as well as community members at large, were invited to attend a priority-setting workshop.

The group was presented with data compiled from secondary and primary sources around each of the health issue identified above. They used the following criteria to rate each health issue from low (1) to very high (4) priority:

- Relevance: How important is this issue? This includes the size of the issue (percent of population affected), the severity of the issue (cost to treat, lives lost, etc.), the urgency to solve this issue, community concern about this issue, health equity impact of this issue, and how this issue is linked to other important issues.
- Impact: What will we get out of addressing this issue? This includes the availability of solutions or proven strategies, the ability to build on or enhance current work, and any significant consequences of not addressing the issue now.
- Feasibity: Can we adequately address this issue? This includes the availability of resources to address the issue (staff, community partners, time, money, equipment, etc.), political capacity or will to address this issue, community or social acceptability and appropriateness of addressing this issue, ethical concerns related to addressing the issue, and the ability to identify easy, short-term wins.

After rating each criteria, they summed the three scores for each health issue and selected the five health issues with the highest scores. Each participant "voted" for their top-rated health issues by placing five stickers on a board at the front of the room, and then further discussed the voting outcome.

Identified Priorities

The following priority health issues were selected through the process described above.

- Substance Abuse
- Mental Health
- Nutrition, Physical Activity, and Weight

PRIORITY ISSUE #1 – SUBSTANCE ABUSE

Substance abuse had been chosen as one of the county's top priority health issues in 2012, due to the number of unintentional poisoning deaths, as well as ease of access: almost 2/3 of respondents said they did not lock up controlled substances, and 1/3 were concerned that a friend or family member could access their prescription drugs.

Since 2012, the C.A.R.E. Coalition has coordinated drug take-back events and partnered with local pharmacies to distribute more than 200 lockboxes to promote safe storage of medications thanks to funding from Project Lazarus. Local law enforcement officers were trained to administer naloxone and provided with kits for each vehicle; additional naloxone kits are available at local pharmacies for opiate users and family members. C.A.R.E. and its partners also promoted educational events at local schools and community festivals, organized awareness events such as holding candlelight vigils for Overdose Awareness Day and screening films about drug addiction, and coordinated with the local media to publicize information about substance abuse and the coalition's work in the community. Efforts to start a chronic pain support group were not successful, but Transylvania Regional Hospital opened a chronic pain clinic and encouraged its physicians to use the state's Controlled Substance Reporting System. In 2014, the C.A.R.E. Coalition received $125,000 from Drug-Free Communities to reduce youth substance abuse with a focus on underage drinking, prescription drug abuse, and emerging drugs.

Data Highlights

Health Indicators

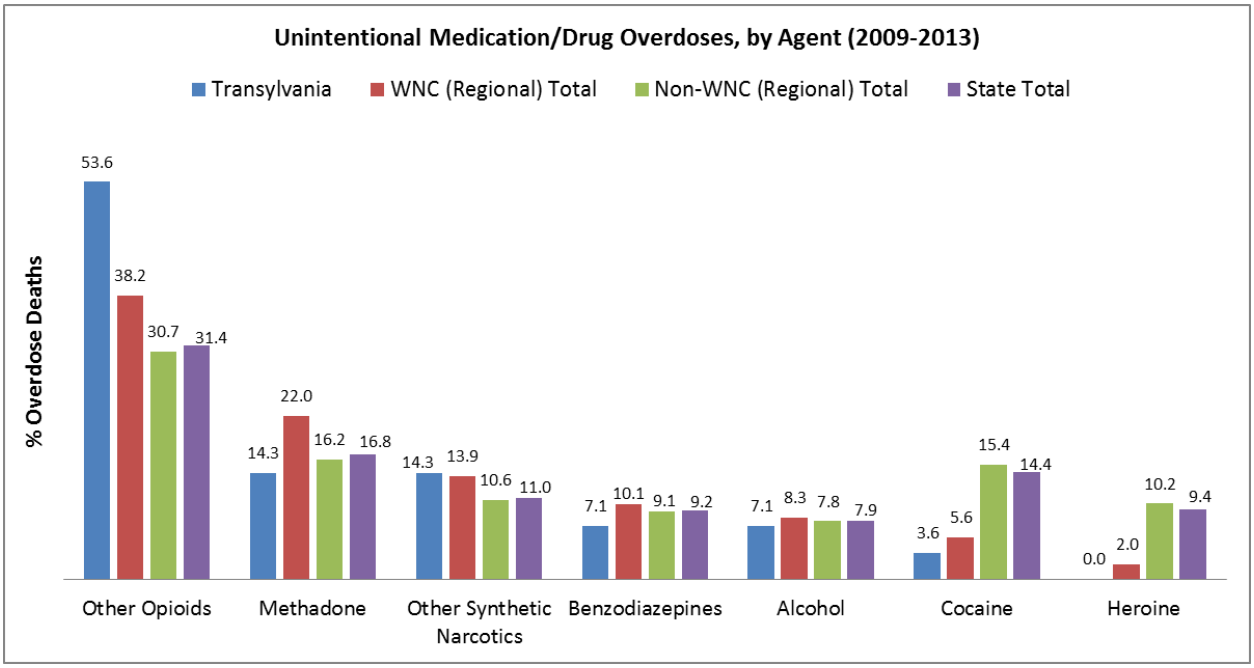
People in Transylvania County experience lower mortality rates than the population statewide for nine of the 12 leading causes of death. The only causes of death for which mortality rates are higher in Transylvania County than in the state are all other unintentional injuries, suicide, and chronic liver disease/cirrhosis.

All other unintentional injuries includes causes such as fires, falls, and drownings, but the largest proportion of this category is unintentional poisonings. The largest proportion of unintentional poisonings is medication or drug overdose.

For the period 2009-2013, 33 Transylvania County residents died as a result of unintentional poisoning, with a corresponding age-adjusted mortality rate of 20.4 deaths per 100,000 population, higher than the rates seen in the region or the state. Of the 33 unintentional poisoning deaths in the county in that period, 29 (88%) were due to medication or drug overdoses, with a corresponding mortality rate of 17.9, also the highest rate when compared to the region and the state. (NC State Center for Health Statistics)

County	Unintentional Poisoning Deaths for Select Locations and Percent that are Medication/Drug Overdoses (2009-2013)*			Rate of Unintentional Medication/Drug Overdose Deaths (2009-2013)**	
	#	Rate per 100,000 NC Residents	% that are Medication/Drug Overdoses	#	Rate per 100,000 NC Residents
Transylvania	33	20.4	87.9	29	17.9
WNC (Regional) Total	560	14.8	90.0	506	13.3
Non-WNC (Regional) Total	4,749	10.7	91.0	4320	9.7
State Total	5,309	11.0	90.9	4826	10.0

"Other Opioids" caused the highest proportion of drug overdose deaths (53.6%) in Transylvania County in 2009-2013. "Other opioids" could include hydrocodone (e.g., Vicodin), oxycodone (e.g., OxyContin, Percocet), morphine (e.g., Kadian, Avinza), codeine, and related drugs. Methadone is a synthetic opioid usually associated with treatment for drug abuse. Other synthetic narcotics could include bath salts, synthetic marijuana, incense, air fresheners, and "designer drugs." Benzodiazepines could include anti-anxiety medications, sleeping pills, anti-seizure drugs, muscle relaxers (e.g., Xanax, Klonopin, Valium, Rohypnol, Ativan). (NC State Center for Health Statistics)



The other two leading causes of death for which the Transylvania County rates are higher than the state rates could also be related to substance abuse. Overconsumption of alcohol is the leading cause of liver disease in Western nations, and 48% of cirrhosis deaths in 2011 were alcohol-related. (Yoon, Chen, & Yi, 2014)

Alcohol and drug abuse are second only to depression and other mood disorders when it comes to risk factors for suicide. Over 50% of all suicides are associated with alcohol and drug dependence and at least 25% of alcoholics and drug addicts commit suicide. Over 70% of youth suicides may be complicated by drug and alcohol use and dependence. (Miller, Mahler, & Gold, 1991)

Understanding the Issue

"We have a huge prescription drug addiction problem along with a meth problem. Our economy languished for a long time, and drug abuse became a coping mechanism for our unemployed and underemployed."

Substance abuse was identified by key informants as a "major problem" in Transylvania County, citing opioid analgesics and alcohol as the most problematic substances. Reasons for identifying substance abuse as a problem include the prevalence of prescription drugs, easy access to illegal substances, poverty, self-medication, lack of treatment facilities and programs, "nothing to do" for youth, and lack of education.

Some reasons that people begin taking drugs include feeling good ("getting high"), feeling better (self-medication), performing better in athletic or academic competitions, curiosity, fitting in with peers, and expressing independence.

Cultural factors are also at play in regard to substance abuse. Despite a large proportion of the population who adhere to the traditional "Bible Belt" teetotaler approach, public consumption of alcohol is becoming more common and culturally acceptable. In addition, beer manufacturer Oskar Blues recently opened a brewery in Brevard and plays a prominent role in the community and its events, and microbreweries are becoming popular, with several located in the county.

Specific Populations At-Risk

Substance abuse has the potential to affect any number of populations, but specific types of substance abuse patterns differ among various groups.

Risk factors for substance abuse include a family history of addiction, having another mental health disorder, unstable family relationships, poor social skills, and exposure to physical or sexual abuse. Young people who lack parental supervision or experience peer pressure are more

likely to abuse substances. Those who experience high stress, anxiety, depression, or loneliness may use substances as a coping mechanism.

The population most at risk for unintentional poisoning death related to substance abuse in Transylvania County is young adult males.

Other populations affected by this issue include pregnant women who use opiates and young women who may become pregnant and use opiates, as well as the babies born to these women, due to the risk of neonatal abstinence syndrome, neonatal alcohol syndrome, and other poor health outcomes such as low birth weight, premature labor, and fetal or infant death.

Health Resources Available/Needed

As the C.A.R.E. Coalition prepares to enter its second year of funding from Drug-Free Communities, it continues to become a stronger influence in the community. In the past year, it has hired three staff members, created an executive board, created governance documents including by-laws, and expanded its reach into a broader cross-section of the community. With more resources and a more specific focus, C.A.R.E. promises to be an important partner around the issue of substance abuse.

Transylvania County has very limited facilities and programs for substance abuse treatment or the treatment of mental health concerns that may lead to or stem from substance abuse. This very important health resource is discussed more fully in the mental health section.

PRIORITY ISSUE #2 – MENTAL HEALTH

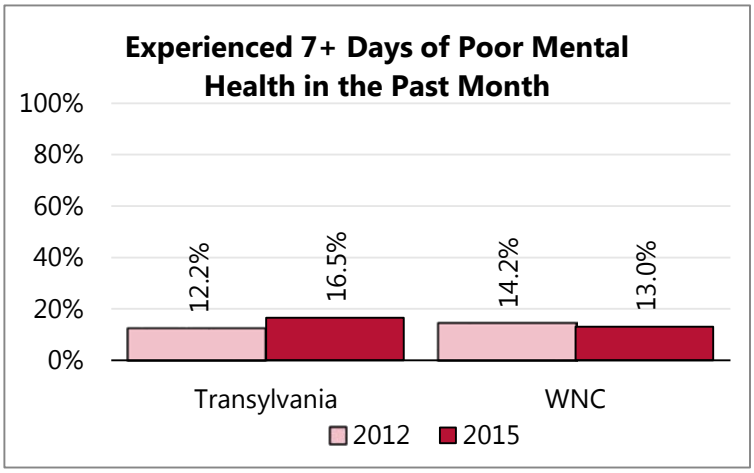
Mental health is a new health priority for Transylvania County, related to mortality and morbidity statistics, an understanding of the relationship between substance abuse and mental health issues, and a lack of necessary mental health treatment and counseling options in the county, especially for those who have little income or no insurance.

Data Highlights

Health Indicators

The number of Transylvania County residents served annually by the Area Mental Health Program decreased from 1,145 in 2006 to 518 in 2009, and then increased to 1,151 in 2013. The number of Transylvania County residents served annually in State Psychiatric Hospitals decreased from 53 in 2006 to 1 in 2013. Over that same 8-year period, 210 Transylvania County residents served in State Alcohol and Drug Abuse Treatment Centers (ADATCs), averaging 26 persons annually. (NC Office of State Budget and Management, State Data Center)

In 2015, more than 16% of county residents reported having seven or more days of poor mental health in the past month, (compared to 12% in 2012), and nearly 6% reported being "dissatisfied" or "very dissatisfied" with life. In addition, over 5% of residents reported being unable to get needed mental health care or counseling in the past year. (Professional Research Consultants, Inc., 2015)



Understanding the Issue

> *"Funding and accessibility are major hurdles. Many who need services are not in a position to pay for them. More rural areas do not have transportation or the ability to have services come to them."*

Mental health is closely tied with many other health issues. One study suggested that more than 68 percent of adults with a mental disorder had at least one medical condition. (Goodell, Druss, & Walker, 2011) Medical disorders may lead to mental disorders, mental conditions may place a person at risk for certain medical disorders, and mental and medical disorders may share common risk factors. It is also closely tied with our first priority: substance abuse, and with our three causes of death that rate higher than the state average.

Transylvania County has experienced much economic turmoil in the past decade, resulting in a lack of good-paying jobs for those without higher education. Although some sectors of the community are quite wealthy and the county attracts many tourists and retirees, many others in the community are stuck in poverty with no job prospects and no way to improve their life circumstances.

Mental health issues in Transylvania County are compounded by the lack of adequate mental health care facilities, especially for those who have additional barriers to care such as lack of health insurance, poverty, and lack of transportation. When talking to employers, social workers and law enforcement, the issues of mental health and substance abuse are often identified as problems that have not be adequately addressed in Transylvania County or North Carolina.

Specific Populations At-Risk

Individuals most at risk for mental illness include those who have a blood relative with a mental illness or have had a previous mental illness, who experience stressful life situations or traumatic experiences (including military combat or assault), have an ongoing medical condition, have had a brain injury, use alcohol or recreational drugs, were abused or neglected as a child, or have few friends or few healthy relationships.

Those living in poverty or who have no health insurance may not be able to access care, and those without reliable transportation may deal with social isolation that exacerbates the mental illness and have a barrier to receiving needed care. Even among those who have financial resources, there are few mental health facilities in the county and they are often overworked.

Health Resources Available/Needed

Mental health services for Transylvania County residents are coordinated by Smoky Mountain LME/LMO, but detailed reports on what services were delivered to county residents are not available. Transylvania County commissioners and the health director began meeting with representatives from Smoky in late 2015 and early 2016 to determine what services are being provided.

Low-cost or Medicaid care is now available at Brevard Health Center. Other services are available from Transylvania Regional Hospital, Meridian Behavioral Health Services, and private counselors. RHA Mobile Crisis Management is a regional group that serves Transylvania County for emergencies. Brevard Health Center, Hendersonville Pediatrics and Carolina Pediatric Therapy offer mental health services for children, and a recent partnership between Transylvania County Schools and Meridian places counselors in each public school at least part time.

PRIORITY ISSUE #3 – NUTRITION, PHYSICAL ACTIVITY, AND WEIGHT

Transylvania County's top two causes of death and many of our morbidity statistics of concern are directly affected by nutrition, physical activity, and weight. Excess weight increases an individual's risk of developing type 2 diabetes, high blood pressure, heart disease, certain cancers, and stroke.

Since 2012, a number of efforts in Transylvania County have attempted to address this health issue. A partnership with the City of Brevard and local bike shop Sycamore Cycles brought bike rodeos to four local schools to encourage physical activity and safety and a downtown festival for children promoting fun ways to be active. A walking school bus program encouraged parents, teachers, and children to walk to school through collaboration. The local Cooperative Extension agent worked to educate elementary school children and families about basic nutrition, making healthy food choices, food safety, and the importance of physical activity. Other educational efforts included promoting the 5-2-1-Almost None principles with young children at Transylvania County Library, high schoolers at health fairs, parents at the Family Place, and employees at the Pisgah Forest Ranger Station. Several new recreational facilities were opened: the Bracken Mountain Recreation Area with seven miles of mountain biking and hiking trails; a new playground for young children at Silvermont in Brevard; and a new county recreational facility in Rosman with sports fields, a walking trail, playground, and restrooms. Worksites and community organizations were also involved in promoting good nutrition and physical activity among their employees and clients. To address the issues of access to nutritious food, MountainWise partnered with Jarrett's store in Rosman to promote the sale of more fresh fruits and vegetables. The Hunger Coalition of Transylvania County was formed, and began working on efforts to glean fresh foods and supply them to existing food pantries and other underserved areas of the county.

Data Highlights

Health Indicators

Healthy weight is related to a number of chronic health conditions. In Transylvania County, about 37% of residents reported having a healthy weight (measured as a BMI score of 18.5-24.9

calculated from the self-reported height and weight), compared to 34% for the region and state, and exceeding the Healthy People 2020 Target of 33.9% or higher. (Professional Research Consultants, Inc., 2015) (Centers for Disease Control and Prevention, 2013)

Transylvania County residents reported about half of the recommended servings of fruits and vegetables in the past week, and 1/3 said it was difficult for them to access fresh produce at an affordable price. (Professional Research Consultants, Inc., 2015)

About 15% of Transylvania County residents are food insecure compared to the state (18%) and nation (16%). However, *children* in Transylvania County are much more likely to suffer from food insecurity, with a rate of nearly 29% compared to 22% for the state and 21% for the nation. An estimated 21% of those children who are food insecure do not qualify for federal nutrition programs. (Feeding America, 2015) More than 58% of children enrolled in Transylvania County Schools qualified for free and reduced lunch programs in 2014-2015. (Public Schools of North Carolina)

MANNA Food Bank distributes food—including fresh produce—to food pantries in 16 western North Carolina counties; Transylvania County received 1,428,783 pounds of food from MANNA in FY2012-2013, second only to Buncombe County (population 244,490). That includes 589,312 pounds of fresh produce, an 82% increase over the previous year. (MANNA FoodBank, 2015)

Only half of county residents said they got the recommended amount of daily physical activity, and about 1/3 said they were limited in activities in some way due to a physical, mental, or emotional problem. (Professional Research Consultants, Inc., 2015) Most residents said it was important for organizations to make physical activity spaces available for use after hours. (Professional Research Consultants, Inc., 2015)

Understanding the Issue

"Culture plays a role in that the typical southern diet is not always the most healthy, but I think this is also a trend tied closely to the fact that easily accessible and affordable is often also processed and lacking in nutritional value."

Nutrition, physical activity, and health are closely related to cultural norms and traditions, and well as geography and the economy. A rural county with a limited number of well-paying jobs and high cost of housing results in long commutes, less money for groceries and recreation, and limited access to stores that sell nutritious foods.

Although we have an environment conducive to outdoor activity, a large percentage of our community does not have an active lifestyle. Bike riding is a popular recreational activity and

actually draws a number of visitors to the county, and some residents are drawn to the county based on the downtown's "walkability." However, among some populations, riding a bicycle or walking as a form of transportation may be seen as evidence of being unable to afford a car.

Transylvania County has a long history of self-sustenance, and it is popular to grow a small garden for fresh herbs and vegetables and visit the thriving Farmer's Market. However, for some of the population, eating out is still a symbol of prosperity. For others, a busy lifestyle, long distances to and from work, and lack of knowledge about how to properly prepare nutritious foods contribute to a "fast-food culture." Cooking home-style foods with an emphasis on red meat and potatoes may be expected and appreciated by others. Families who are stretching their grocery budget may not see how they can afford nutritious food, or may not be able to travel to stores that sell nutritious items. Families who must rely on food pantries may not have access to much more than the shelf-stable items available from those sources.

This issue, too, is related to the other selected health priorities. Stress contributes to weight gain and a desire for foods that fill an emotional rather than nutritious need. However, physical activity can reduce stress and contribute to better mental health.

Specific Populations At-Risk

Nutrition, physical activity, and weight can affect a variety of populations. Based on national obesity rates, African American women, Hispanic men and women, and White men have a higher risk of developing obesity.

Older residents are more likely to have some sort of mobility impairment that prevents physical activity and may need assistance in accessing nutritious food.

Those with limited financial resources, time, long commutes, or lack of transportation may be unable to access many of the county's physical activity opportunities or sources of nutritious foods.

Health Resources Available/Needed

Residents often comment that the county does not have enough recreational facilities, and that young people need "something to do." Unfortunately, a privately-owned indoor soccer facility, closed in late 2015 due to lack of use. Activities for children include community-based football, soccer, volleyball, baseball, and softball leagues, dance studios, running programs, a mountain biking club, and school-sponsored sports teams.

Silvermont Senior Activity Center and the Transylvania County Parks and Recreation Senior Games programs provide a valuable source of appropriate physical activity opportunities for the county's older residents.

The county offers numerous opportunities for physical activity in its public lands, but access may be limited by finances, time, and transportation. The areas around Brevard have a growing system of interconnected sidewalks and bike paths, but outlying areas have very little infrastructure that supports physical activity.

County food pantries and the Hunger Coalition of Transylvania County are working to create additional community venues for fresh produce and nutritious foods and are coordinating gleaning efforts with local farmers and the Transylvania County Farmer's Market.

CHAPTER 9 - NEXT STEPS

Sharing Findings

This document will be available to the public on March 8, 2016. It will be distributed via email to the CHA Team, those who participated in the priority-setting workshop, the Transylvania County Board of Health, and other partners, and will be posted online at transylvaniahealth.org.

Print copies will be available community locations that include the Transylvania County Library and Transylvania Public Health, as well as to interested organizations and individual community members upon request.

Collaborative Action Planning

Collaborative action planning with hospitals and other community partners will result in the creation of a community-wide action plan that outlines what will be aligned, supported and/or implemented to address the priority health issues identified through this assessment process.

Completed action plans for each priority health issue, including evidence-based strategies intended to directly address key indicators for the selected issues, will be submitted by Transylvania Public Health to the NC Division of Public Health in September 2016.

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APPENDICES

Appendix A – Data Collection Methods & Limitations

Appendix B – Secondary Data Summary

Appendix C – County Maps of Selected Health Issues

Appendix D – Phone Survey Summary

- WNC Healthy Impact Survey Instrument
- Community Health Survey Results

Appendix E – Key-Informant Survey Summary

Appendix F – Community Health Inventory

APPENDIX A - DATA COLLECTION METHODS & LIMITATIONS

Secondary Data from Regional Core

Secondary Data Methodology

In order to learn about the specific factors affecting the health and quality of life of residents of WNC, the WNC Healthy Impact data workgroup and consulting team identified and tapped numerous secondary data sources accessible in the public domain. For data on the demographic, economic and social characteristics of the region sources included: the US Census Bureau; Log Into North Carolina (LINC); NC Office of State Budget and Management; NC Department of Commerce; Employment Security Commission of NC; NC Department of Public Instruction; NC Department of Justice; NC Division of Medical Assistance; and the Cecil B. Sheps Center for Health Services Research. The WNC Healthy Impact consultant team made every effort to obtain the most current data available at the time the report was prepared. It was not possible to continually update the data past a certain date; in most cases that end-point was August 2015.

The principal source of secondary health data for this report was the NC State Center for Health Statistics (NC SCHS), including its County Health Data Books, Behavioral Risk Factor Surveillance System, Vital Statistics unit, and Cancer Registry. Other health data sources included: NC Division of Public Health (DPH) Epidemiology Section; NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services; National Center for Health Statistics; NC DPH Nutrition Services Branch; UNC Highway Safety Research Center; and NC DETECT.

Because in any CHA, it is instructive to relate local data to similar data in other jurisdictions, throughout this report representative county data is compared to like data describing the 16-county region and the state of NC as a whole. The WNC regional comparison is used as "peer" for the purposes of this assessment. Where appropriate and available, trend data has been used to show changes in indicators over time.

Environmental data was gathered from sources including: US Environmental Protection Agency; US Department of Agriculture, and NC Radon Program.

It is important to note that this report contains data retrieved **directly** from sources in the public domain. In some cases the data is very current; in other cases, while it may be the most current available, it may be several years old. Note also that the names of organizations, facilities, geographic places, etc. presented in the tables and graphs in this report are quoted exactly as they appear in the source data. In some cases, these names may **not** be those in current or local

usage; nevertheless they are used so readers may track a particular piece of information directly back to the source.

Data Definitions

Reports of this type customarily employ a range of technical terms, some of which may be unfamiliar to many readers. Health data, which composes a large proportion of the information included in this report, employs a series of very specific terms which are important to interpreting the significance of the data. While these technical health data terms are defined in the report at the appropriate time, there are some data caveats that should be applied from the onset.

Error

First, readers should note that there is some error associated with every health data source. Surveillance systems for communicable diseases and cancer diagnoses, for instance, rely on reports submitted by health care facilities across the state and are likely to miss a small number of cases, and mortality statistics are dependent on the primary cause of death listed on death certificates without consideration of co-occurring conditions.

Age-Adjusting

Secondly, since much of the information included in this report relies on mortality data, it is important to recognize that many factors can affect the risk of death, including race, gender, occupation, education and income. The most significant factor is age, because an individual's risk of death inevitably increases with age. As a population ages, its collective risk of death increases; therefore, an older population will automatically have a higher overall death rate just because of its age distribution. At any one time some communities have higher proportions of "young" people, and other communities have a higher proportion of "old" people. In order to compare mortality data from one community with the same kind of data from another, it is necessary first to control for differences in the age composition of the communities being compared. This is accomplished by age-adjusting the data. Age-adjustment is a statistical manipulation usually performed by the professionals responsible for collecting and cataloging health data, such as the staff of the NC State Center for Health Statistics (NC SCHS). It is not necessary to understand the nuances of age-adjustment to use this report. Suffice it to know that age-adjusted data are preferred for comparing most health data from one population or community to another and have been used in this report whenever available.

Rates

Thirdly, it is most useful to use rates of occurrence to compare data. A rate converts a raw count of events (deaths, births, disease or accident occurrences, etc.) in a target population to a ratio representing the number of same events in a standard population, which removes the variability

associated with the size of the sample. Each rate has its own standard denominator that must be specified (e.g., 1,000 women, 100,000 persons, 10,000 people in a particular age group, etc.) for that rate.

While rates help make data comparable, it should be noted that small numbers of events tend to yield rates that are highly unstable, since a small change in the raw count may translate to a large change in rate. To overcome rate instability, another convention typically used in the presentation of health statistics is data aggregation, which involves combining like data gathered over a multi-year period, usually three or five years. The practice of presenting data that are aggregated avoids the instability typically associated with using highly variable year-by-year data, especially for measures consisting of relatively few cases or events. The calculation is performed by dividing the sum number of cases or deaths in a population due to a particular cause over a period of years by the sum of the population size for each of the years in the same period. Health data for multiple years or multiple aggregate periods is included in this report wherever possible. Sometimes, however, even aggregating data is not sufficient, so the NC SCHS recommends that rates based on fewer than 20 events—whether covering an aggregate period or not—be considered unstable. In fact, in some of its data sets the NC SCHS no longer calculates rates based on fewer than 20 events. To be sure that unstable data do not become the basis for local decision-making, this report will highlight and discuss primarily rates based on 20 or more events in a five-year aggregate period, or 10 or more events in a single year. Where exceptions occur, the text will highlight the potential instability of the rate being discussed.

Regional Arithmetic Mean

Fourthly, sometimes in order to develop a representative regional composite figure from 16 separate county measures the consultants calculated a regional arithmetic mean by summing the available individual county measures and dividing by the number of counties providing those measures. It must be noted that when regional arithmetic means are calculated from rates the mean is not the same as a true average rate but rather an approximation of it. This is because most rates used in this report are age adjusted, and the regional mean cannot be properly age-adjusted.

Describing Difference and Change

Fifthly, in describing differences in data of the same type from two populations or locations, or changes over time in the same kind of data from one population or location—both of which appear frequently in this report—it is useful to apply the concept of percent difference or change. While it is always possible to describe difference or change by the simple subtraction of a smaller number from a larger number, the result often is inadequate for describing and understanding the scope or significance of the difference or change. Converting the amount of difference or change to a percent takes into account the relative size of the numbers that are changing in a way that simple subtraction does not, and makes it easier to grasp the meaning of the change. For example, there may be a rate of for a type of event (e.g., death) that is one number one year and another number five years later. Suppose the earlier figure is 12.0 and the latter figure is 18.0. The simple mathematical difference between these rates is 6.0. Suppose also there is another set of rates that are 212.0 in one year and 218.0 five years later. The simple mathematical difference between these rates also is 6.0. But are these same simple numerical differences really of the same significance in both instances? In the first example, converting the 6 point difference to a percent yields a relative change factor of 50%; that is, the smaller number increased by half, a large fraction. In the second example, converting the 6 point difference to a percent yields a relative change factor of 2.8%; that is, the smaller number increased by a relatively small fraction. In these examples the application of percent makes it very clear that the difference in the first example is of far greater degree than the difference in the second example. This document uses percentage almost exclusively to describe and highlight degrees of difference and change, both positive (e.g., increase, larger than, etc.) and negative (e.g., decrease, smaller than, etc.)

Data Limitations

Some data that is used in this report may have inherent limitations, due to the sample size, its geographic focus, or its being out-of-date, for example, but it is used nevertheless because there is no better alternative. Whenever this kind of data is used, it will be accompanied by a warning about its limitations.

WNC Healthy Impact Survey (Primary Data)

Survey Methodology

Survey Instrument

To supplement the secondary core dataset, meet additional stakeholder data needs, and hear from community members about their concerns and priorities, a community survey, the 2015 WNC Healthy Impact Survey (a.k.a. 2015 PRC Community Health Survey), was developed and implemented in 16 counties across western North Carolina. The survey instrument was developed by WNC Healthy Impact's data workgroup, consulting team, and local partners, with assistance from Professional Research Consultants, Inc. (PRC).

Professional Research Consultants, Inc.

Many of the questions are derived from the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), as well as other public health surveys; other questions were developed specifically for WNC Healthy Impact to address particular issues of interest to communities in western North Carolina. Each county was given the opportunity to include three additional questions of particular interest to their county, which were asked of their county's residents.

The geographic area for the regional survey effort included 16 counties: Buncombe, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania and Yancey counties.

Sample Approach & Design

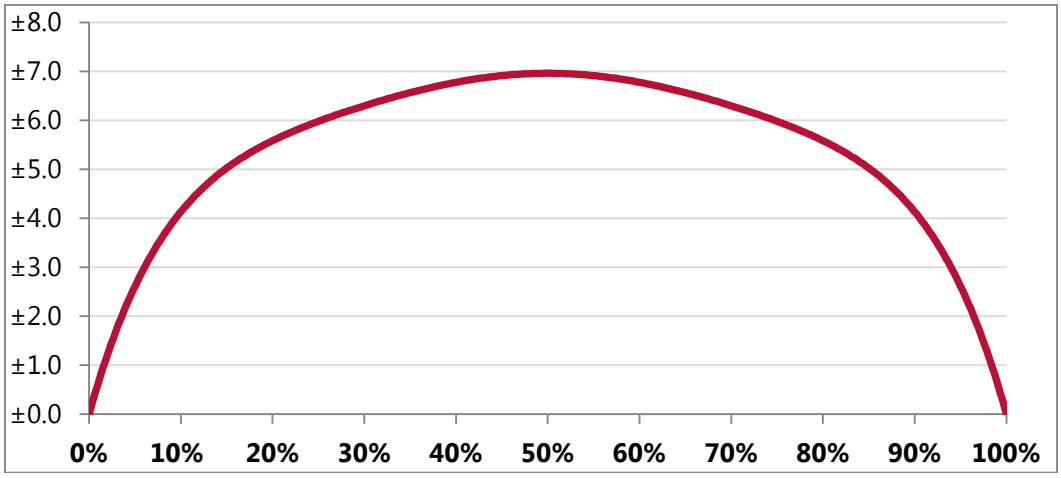
To ensure the best representation of the population surveyed, a telephone interview methodology (one that incorporates both landline and cell phone interviews) was employed. The primary advantages of telephone interviewing are timeliness, efficiency and random-selection capabilities.

The sample design used for this regional effort consisted of a stratified random sample of 3,300 individuals age 18 and older in Western North Carolina, with 200 from our county. All administration of the surveys, data collection and data analysis was conducted by Professional Research Consultants, Inc. (PRC). The interviews were conducted in either English or Spanish, as preferred by respondents.

Sampling Error

For our county-level findings, the maximum error rate at the 95% confidence level is ±6.9%).

Expected Error Ranges for a Sample of 200
Respondents at the 95 Percent Level of Confidence



Note: ● The "response rate" (the percentage of a population giving a particular response) determines the error rate associated with that response. A "95 percent level of confidence" indicates that responses would fall within the expected error range on 95 out of 100 trials.

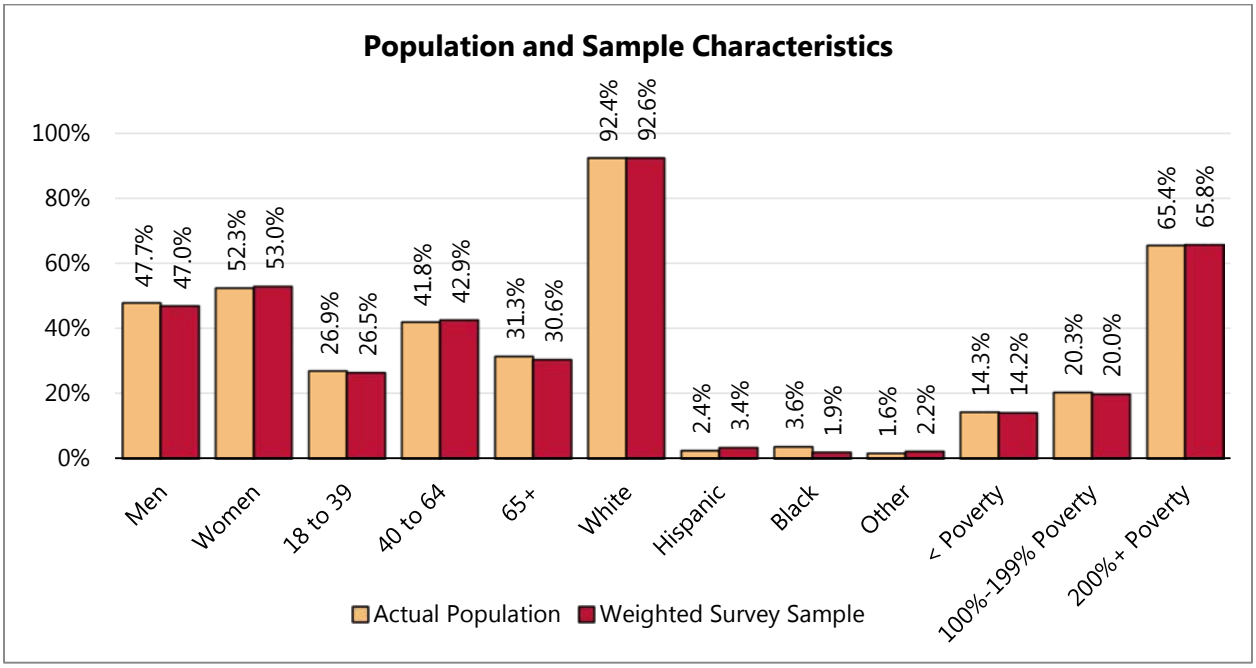
Examples:

- If 10% of the sample of 200 respondents answered a certain question with a "yes," it can be asserted that between 5.8% and 14.2% (10% ± 4.2%) of the total population would offer this response.
- If 50% of respondents said "yes," one could be certain with a 95 percent level of confidence that between 43.1% and 56.9% (50% ± 6.9%) of the total population would respond "yes" if asked this question.

Sample Characteristics

To accurately represent the population studied, PRC worked to minimize bias through application of a proven telephone methodology and random-selection techniques. And, while this random sampling of the population produces a highly representative sample, it is a common and preferred practice to apply post-stratification weights to the raw data to improve this representativeness even further. Specifically, once the raw data are gathered, respondents are examined by key demographic characteristics (namely gender, age, race, ethnicity, and poverty status) and a statistical application package applies weighting variables that produce a sample which more closely matches the population for these characteristics. Thus, while the integrity of each individual's responses is maintained, one respondent's responses may contribute to the whole the same weight as, for example, 1.1 respondents. Another respondent, whose demographic characteristics may have been slightly oversampled, may contribute the same weight as 0.9 respondents. In order to determine WNC regional estimates, county responses were weighted in proportion to the actual population distribution so as to appropriately represent Western North Carolina as a whole.

The following chart outlines the characteristics of the survey sample for our county by key demographic variables, compared to actual population characteristics revealed in census data. Note that the sample consisted solely of area residents age 18 and older.



Poverty descriptions and segmentation used in this report are based on administrative poverty thresholds determined by the US Department of Health & Human Services. These guidelines define poverty status by household income level and number of persons in the household (e.g., the 2015 guidelines place the poverty threshold for a family of four at $23,050 annual household income or lower). In sample segmentation: "very low income" refers to community members living in a household with defined poverty status; "low income" refers to households with incomes just above the poverty level, earning up to twice the poverty threshold; and "mid/high income" refers to those households living on incomes which are twice or more the federal poverty level.

The sample design and the quality control procedures used in the data collection ensure that the sample is representative. Thus, the findings may be generalized to the total population of community members in the defined area with a high degree of confidence.

Benchmark Data

North Carolina Risk Factor Data

Statewide risk factor data are provided where available as an additional benchmark against which to compare local survey findings; these data are reported in the most recent *BRFSS (Behavioral Risk Factor Surveillance System) Prevalence and Trend Data* published by the Centers for Disease Control and Prevention and the US Department of Health & Human Services.

Nationwide Risk Factor Data

Nationwide risk factor data, which are also provided in comparison charts where available, are taken from the 2013 PRC National Health Survey; the methodological approach for the national study is identical to that employed in this assessment, and these data may be generalized to the US population with a high degree of confidence.

Healthy People 2020

Healthy People provides science-based, 10-year national objectives for improving the health of all Americans. The Healthy People initiative is grounded in the principle that setting national objectives and monitoring progress can motivate action.

For three decades, Healthy People has established benchmarks and monitored progress over time in order to:

- Encourage collaborations across sectors.
- Guide individuals toward making informed health decisions.
- Measure the impact of prevention activities.

Healthy People 2020 is the product of an extensive stakeholder feedback process that is unparalleled in government and health. It integrates input from public health and prevention experts, a wide range of federal, state and local government officials, a consortium of more than 2,000 organizations, and perhaps most importantly, the public. More than 8,000 comments were considered in drafting a comprehensive set of Healthy People 2020 objectives.

Survey Administration

With more than 700 full- and part-time interviewers who work exclusively with healthcare and health assessment projects, PRC uses a state-of-the-art, automated CATI interviewing system that assures consistency in the research process. Furthermore, PRC maintains the resources to conduct all aspects of this project in-house from its headquarters in Omaha, Nebraska, assuring the highest level of quality control.

Interviewing Protocols and Quality Assurance

PRC's methods and survey administration comply with current research methods and industry standards. To maximize the reliability of research results and to minimize bias, PRC follows a number of clearly defined quality control protocols. PRC uses a telephone methodology for its community interviews, in which the respondent completes the questionnaire with a trained interviewer, not through an automated touch-tone process.

Before going into the field in the latter half of February, PRC piloted 30 interviews across the region with the finalized survey instrument. After this phase, PRC corrected any process errors

that were found, and discussed with the consulting team any substantive issues that needed to be resolved before full implementation.

PRC employs the latest CATI (computer-aided telephone interviewing) system technology in its interviewing facilities. The CATI system automatically generates the daily sample for data collection, retaining each telephone number until the Rules of Replacement are met. Replacement means that no further attempts are made to connect to a particular number, and that a replacement number is drawn from the sample. To retain the randomness of the sample, telephone numbers drawn for the sample are not discarded and replaced except under very specific conditions.

Interviewing for this study took place primarily during evening and weekend hours (Eastern Time: Monday-Friday 5pm-9pm; Saturday 10am-4pm; Sunday 2pm-9pm). Some daytime weekday attempts were also made to accommodate those for whom these times might be more convenient. Up to five call attempts were made on different days and at different times to reach telephone numbers for which there is no answer. Systematic, unobtrusive electronic monitoring is conducted regularly by supervisors throughout the data collection phase of the project.

Cell Phones

Cell phone numbers were integrated into the sampling frame developed for the interviewing system for this project. Special protocols were followed if a cell phone number was drawn for the sample to ensure that the respondent lives in the area targeted and that (s)he is in a safe place to talk (e.g., not while driving). Using this dual-mode approach yielded a sample comprised of 6% cell phone numbers and 94% landline numbers. While this proportion is lower than actual cell phone penetration, it is sufficient in supplementing demographic segments that might otherwise be undersampled in a landline-only model, without greatly increasing the cost of administration.

Minimizing Potential Error

In any survey, there exists some degree of potential error. This may be characterized as sampling error (because the survey results are not based on a complete census of all potential respondents within the population) or non-sampling error (e.g., question wording, question sequencing, or through errors in data processing). Throughout the research effort, Professional Research Consultants makes every effort to minimize both sampling and non-sampling errors in order to assure the accuracy and generalizability of the results reported.

Noncoverage Error. One way to minimize any effects of underrepresentation of persons without telephones is through poststratification. In poststratification, the survey findings are weighted to key demographic characteristics, including gender, age, race/ethnicity and income (see above for more detailed description).

Sampling Error. Sampling error occurs because estimates are based on only a sample of the population rather than on the entire population. Generating a random sample that is representative and of adequate size can help minimize sampling error. Sampling error, in this instance, is further minimized through the strict application of administration protocols. Poststratification, as mentioned above, is another means of minimizing sampling error.

Measurement Error. Measurement error occurs when responses to questions are unduly influenced by one or more factors. These may include question wording or order, or the interviewer's tone of voice or objectivity. Using a tested survey instrument minimizes errors associated with the questionnaire. Thorough and specific interviews also reduce possible errors. The automated CATI system is designed to lessen the risk of human error in the coding and data entry of responses.

Information Gaps

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

For example, certain population groups (such as the homeless, institutionalized persons, or those who only speak a language other than English or Spanish) are not represented in the survey data. Other population groups (for example, pregnant women, undocumented residents, lesbian/gay/bisexual/transgender residents, and members of certain racial/ethnic or immigrant groups) might not be identifiable or might not be represented in numbers sufficient for independent analyses.

In terms of content, this assessment was designed to provide a comprehensive and broad picture of the health of the overall community. However, there are certainly a great number of medical conditions that are not specifically addressed.

Online Key Informant Survey (Primary Data)

Online Survey Methodology

Purpose and Survey Administration

To solicit input from key informants (i.e., those individuals who have a broad interest in the health of the community) an Online Key Informant Survey was implemented. A list of recommended participants from our county was provided to PRC by WNC Healthy Impact along with those of other participating counties; this list included names and contact information for

physicians, public health representatives, other health professionals, social service providers, and a variety of other community leaders. Potential participants were chosen because of their ability to identify primary concerns of the populations with whom they work, as well as of the community overall.

Key informants were contacted by email, introducing the purpose of the survey and providing a link to take the survey online; reminder emails were sent as needed to increase participation.

Online Survey Instrument

In the online survey, respondents had the chance to explain what view as most needed to create a healthy community, and how they feel that environment and social determinants impact health. Key informants were also asked to specifically rate the degree to which various health issues are a problem in our county; follow-up questions asked them to describe why they identify problem areas as such, and how these might be better addressed.

Participation

In all, 30 community stakeholders took part in the Online Key Informant Survey for our county, as outlined below:

Local Online Key Informant Survey Participation		
Key Informant Type	**Number Invited**	**Number Participating**
Community/Business Leader	24	12
Other Health Provider	3	2
Physician	3	1
Public Health Representative	6	6
Social Service Provider	12	9

Through this process, input was gathered from several individuals whose organizations work with low-income, minority populations, or other medically underserved populations.

Online Survey Limitations

The Online Key Informant Survey was designed to gather input from participants regarding their opinions and perceptions of the health of the residents in the area. Thus, these findings are based on perceptions, not facts.

To collect this data, purposive sampling (i.e., a type of non-probability sampling which targets a specific group of people) was used. Unlike the random sampling technique employed in the

telephone survey, the purpose is not to make generalizations or statistical inferences from the sample to the entire population, but to gather in-depth insights into health issues from a group of individuals with a specific perspective.

Listening Sessions (Primary Data)

CHA team members invited the members of the following organizations to share their thoughts about health concerns in Transylvania County: C.A.R.E. Coalition (the local Drug-Free Communities grant recipient); TRAIN (Transylvania Access and Information Network: a roundtable meeting of government agencies, non-profits, and other organizations that provide health and human services within the county); the Hunger Coalition of Transylvania County, Transylvania County's Preschool Task Force, and Transylvania County's Council on Aging. Feedback from these groups was used to inform data collection and analysis.

APPENDIX B – SECONDARY DATA SUMMARY

2015 Transylvania County Community Health Assessment

Summary of Secondary Data

August 25, 2015

Purpose of the Community Health Assessment

- Describe the health status of the community.
- Create a report that will serve as a resource for the Transylvania County Health Department, local hospitals, and other community organizations.
- Provide direction for the planning of disease prevention and health promotion services and activities.

Contributing Viewpoints

Secondary Data	**Citizen and Stakeholder Opinion**
-Demographic -Socioeconomic -Health -Environmental	-Community health survey

We Take Special Notice When…

- Transylvania County statistics deviate from North Carolina or regional statistics, or some other “norm”.
- Trend data show significant changes over time.
- There are significant age, gender, or racial disparities.

Definitions and Symbols

- **Arrows**
  - Arrow up (▲) indicates an increase.
  - Arrow down (▼) indicates a decrease.
- **Color**
  - **Red** indicates a "worse than" or negative difference
  - **Green** indicates a "better than" or positive difference
  - **Blue** indicates a likely unstable rate or difference based on a small number of events; figures in blue should be used with great caution.
- **Bold** Type
  - Indicates the higher value of a pair, or the highest value among several.

Data Caveats

- Data citations presented among these slides are basic and rudimentary. Complete citations are available in the associated WNC Healthy Impact Data Workbook from which this data was derived.
- Most secondary data in this presentation originated from authoritative sources in the public domain (e.g., US Census Bureau, US EPA, NC State Center for Health Statistics).
- All secondary data was mined at a point in time in the recent past, and may not represent present conditions. Numbers, entity names, program titles, etc. that appear in the data may no longer be current.

Demographic Data

General Population Characteristics

- The Transylvania County population has a higher proportion of females than males.
- The median age of the Transylvania County population (48.8 years) is 4.1 years "older" than WNC regional average and 11.4 years "older" than the NC average.
- Transylvania County has lower proportions of "younger persons" but higher proportions of "older persons" than NC as a whole.

General Population Characteristics
2010 US Census

County	Total Population (2010)	% Males	% Females	Median Age*	% Under 5 Years Old	% 5-19 Years Old	% 20 - 64 Years Old	% 65 Years and Older
Transylvania	33,090	48.3	51.7	48.8	4.6	15.9	53.7	25.8
WNC (Regional) Total	759,727	48.5	51.5	44.7	n/a	n/a	n/a	n/a
State Total	9,535,483	48.7	51.3	37.4	6.6	20.2	60.2	12.9

Source: US Census Bureau

Minority Populations

- Transylvania County has higher a proportion of whites than the WNC region or NC as a whole. The county has lower proportions of all racial and ethnic minority groups than the WNC and NC averages.

Population Distribution by Race/Ethnicity
2010 US Census

County	Total Population (2010)	White	Black or African American	American Indian, Alaskan Native	Asian	Native Hawaiian, Other Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino (of any race)
		%	%	%	%	%	%	%	%
Transylvania	33,090	92.4	3.9	0.3	0.4	0.0	1.3	1.7	2.9
WNC (Regional) Total	759,727	89.3	4.2	1.5	0.7	0.1	2.5	1.8	5.4
State Total	9,535,483	68.5	21.5	1.3	2.2	0.1	4.3	2.2	8.4

Source: US Census Bureau

Population Growth

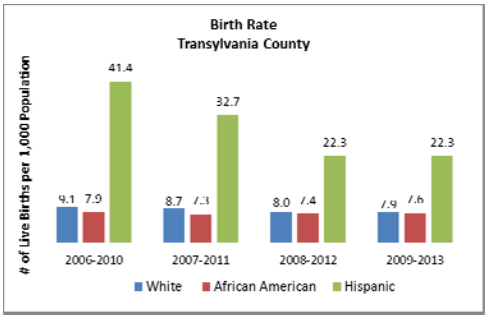
- The rate of growth in Transylvania County in the period 2000-2010 is expected to slow significantly over the following decade, but will recover to exceed the overall WNC population growth rate by 2030.

Percent Population Growth			
Decade	**Transylvania County**	**WNC Region**	**State of NC**
2000-2010	11.4	13.0	**15.6**
2010-2020	4.5	6.7	**10.7**
2020-2030	8.3	6.1	**9.5**

Sources: US Census Bureau and NC Office of State Budget and Management

Birth Rate

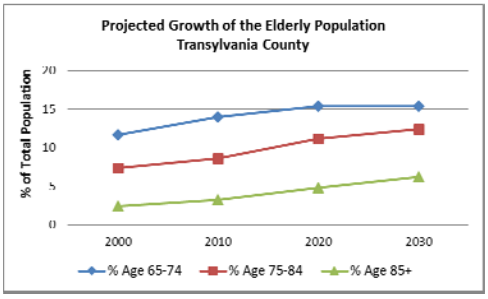
- The birth rate among Hispanics in Transylvania County has been significantly higher than the comparable rate among other racial groups. Birth rates have fallen over time among Hispanics and whites, but risen slightly among African Americans.



Source: NC State Center for Health Statistics

Growth of the Elderly Population

- The population in each major age group age 65 and older in Transylvania County will increase between 2010 and 2030.
- The proportion of the Transylvania County population age 75-84 will increase by 44% and the population age 85 and older will increase by 94% in the period 2010-2030.
- By 2030 projections estimate that there will be more than 12,700 persons age 65+ in Transylvania County.



Sources: US Census Bureau and NC State Office of Budget and Management

Family Composition

- In the 5-year period from 2009-2013, an estimated 228 Transylvania County grandparents living with their minor-aged grandchildren also were financially responsible for them.
- Over the same period there were an estimated 13,981 households in Transylvania County, 2,636 (19%) of them with children under 18 years of age.
- *Among the households with minor-age children*, 69% were headed by a married couple. An additional 25% were headed by a female single parent, and 6% were headed by a male single parent.

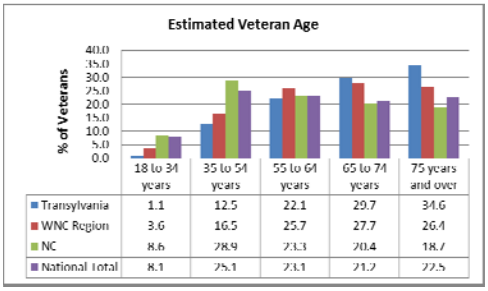
Minor-Age Children Living with Grandparents and in Single-Parent Households, 2009-2013

County	# Grandparents Living with Own Grandchildren (<18 Years)	Grandparent Responsible for Grandchildren (under 18 years)*		# Total Households	Family Household Headed by Married Couple (with children under 18 years)		Family Household Headed by Male (with children under 18 years)		Family Household Headed by Female (with children under 18 years)	
		Est. #	%		Est. #	%**	Est. #	%**	Est. #	%**
Transylvania	470	228	48.5	13,981	1,823	13.0	169	1.2	644	4.6
WNC (Regional) Total	15,007	8,142	54.3	316,799	49,395	15.6	6,133	1.9	17,711	5.6
State Total	206,632	100,422	48.6	3,715,565	706,106	19.0	84,199	2.3	293,665	7.9

Source: US Census Bureau

Military Veterans

- Transylvania County has higher proportions of veterans in the 65-74 and the 75-and-older age groups, and lower proportions of veterans in all the younger age groups, than the regional, state or national averages.



Sources: US Census Bureau

Foreign-Born Population

- Of the estimated 1,411 foreign-born residents of Transylvania County in the 2009-2013 period, the largest proportion (27.1%) entered the US before 1999.
- Of the 382 foreign-born residents settling in Transylvania County before 1999, 42 (11%) were not US citizens when they arrived.
- Of the estimated 13,981 households in Transylvania County in the 2009-2013 period, 114 (0.8%) were categorized as having limited skill in speaking English.

Sources: US Census Bureau

Urban-Rural Population

- The proportion of Transylvania County categorized as "rural" decreased by 4% between 2000 and 2010. A larger proportion of Transylvania County is "rural" than is WNC or NC as a whole.

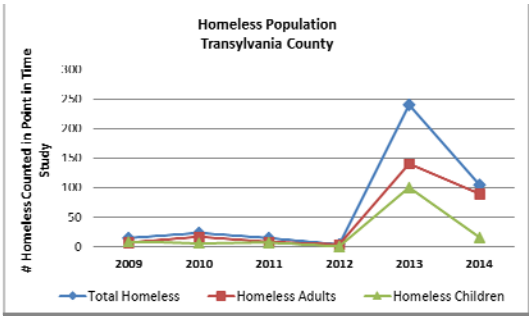
Urban/Rural Population

County	2000 Census		2010 Census	
	% Urban	% Rural	% Urban	% Rural
Transylvania County	37.6	62.4	40.4	59.6
WNC Region	41.6	58.4	46.8	53.2
NC	46.7	53.3	66.1	33.9

Source: US Census Bureau

Homeless Population

- According to an annual point-in-time census of the homeless population in Transylvania County, the total number of homeless persons peaked in 2013 and although lower subsequently, the number did not return to previous low levels. Over the period cited, 66% of the homeless were adults; 34% were children.
- From 2009 through 2014, 17% of the total homeless population in Transylvania County was deemed "chronically homeless".
- From 2010 through 2014, 4% of all homeless adults in Transylvania County were military veterans.



Sources: NC Coalition to End Homelessness

Educational Achievement

- Compared to the **WNC Region average**, Transylvania County has:
  - **8% *lower*** percentage of persons in the population over age 25 having only a high school diploma or equivalent (2009-2013 Estimate)
  - **30% *higher*** percentage of persons in the population over age 25 having a Bachelor's degree or higher (2009-2013 Estimate)
  - **5% *lower*** overall HS graduation rate (for 4-year cohort of 9th graders entering school in SY 2010-2011 and graduating in SY2013-2014 or earlier)

Sources: US Census Bureau and Public Schools of North Carolina

Socioeconomic Data

Income

In Transylvania County:

- 2009-2013 Median Household Income = $41,781
  - ▲ $2,373 since 2006-2010
  - $2,894 **above** WNC average
  - $4,553 **below** NC average
- 2009-2013 Median Family Income = $51,702
  - ▼ $969 since 2006-2010
  - $3,151 **above** WNC average
  - $5,226 **below** NC average

Household: all people in a housing unit sharing living arrangements; may or may not be related

Family: householder and people living in household related by birth, marriage or adoption.

All families are also households; not all households are families.

Source: US Census Bureau

Employment

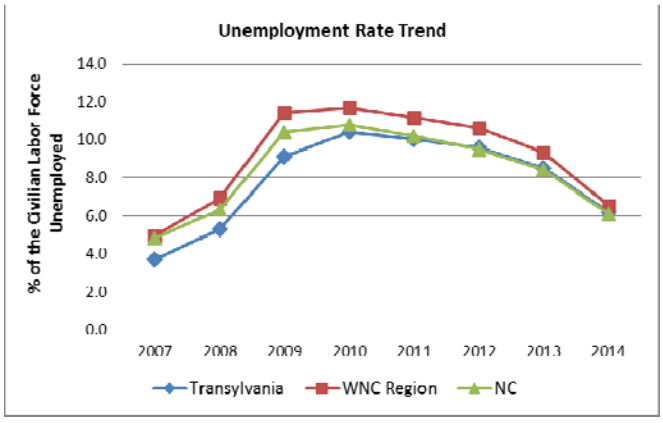
- As of 2013, the three employment sectors in Transylvania County with the largest proportions of workers (and average weekly wages) were:
  - Health Care and Social Assistance: 18.48% of workforce ($732)
  - Retail Trade: 16.59% of workforce ($426)
  - Accommodation and Food Services: 14.72% of workforce ($326).

Region-wide in 2013 the largest employment sector was Health Care and Social Assistance (18.37%) at an average weekly wage of $655 per employee. Statewide the largest employment sector also was Health Care and Social Assistance (14.48%) at an average weekly wage of $859.

Source: NC Employment Security Commission

Annual Unemployment Rate

- The unemployment rate in Transylvania County was the lowest among the comparator jurisdictions from 2007 through 2010 after which time it was similar to—or slightly higher than—the overall NC rate.



Source: NC Department of Commerce

Poverty

- In WNC and NC the total poverty rate increased in each period cited. In Transylvania County the rate fell before increasing in the last two periods.
- The total poverty rate in Transylvania County was the lowest among the comparators in every period cited.

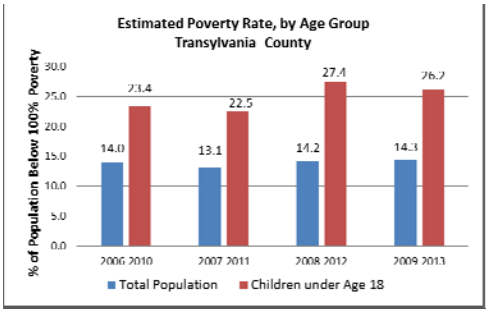
Estimated Poverty Rate

County	Percent Total Population Below 100% Poverty Level			
	2006-2010	2007-2011	2008-2012	2009-2013
Transylvania County	14.0	13.1	14.2	14.3
WNC Region	**15.7**	**16.1**	**16.9**	**18.0**
State of NC	15.5	**16.1**	16.8	17.5

Source: US Census Bureau

Poverty and Age

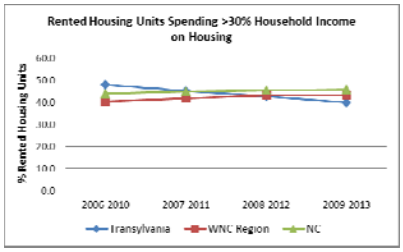
- In Transylvania County as in much of NC, children suffer significantly and disproportionately from poverty.
- In Transylvania County the estimated poverty rate among children under age 18 ranged from between 67% to 93% higher than the overall rate throughout the period cited.

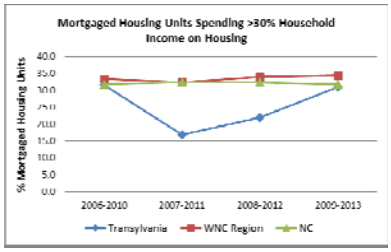


Source: US Census Bureau

Housing Costs

- One measure of economic burden in a community is the percent of housing units spending more than 30% of household income on housing.
- In Transylvania County, a lower proportion of mortgagees spent >30% of household income on housing than the WNC or NC averages. Over the period shown the proportion of county renters spending over-threshold decreased, from the highest to the lowest percentage among the comparators.





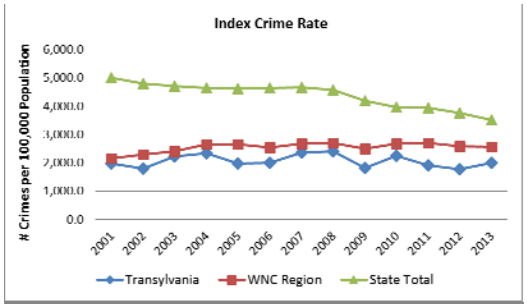
Source: US Census Bureau

Crime and Safety

Index Crime

- Index crime is the sum of all violent and property crime. The index crime rate in Transylvania County was the lowest among comparators in every period cited.

Index Crime Rate Trend

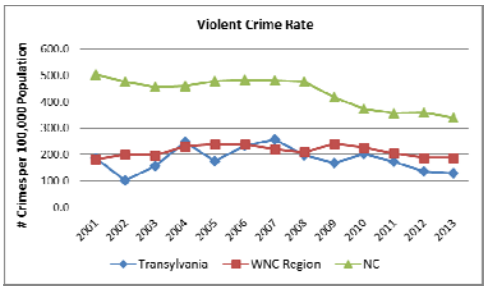


Source: NC Department of Justice

Crime and Safety
Violent Crime

- Violent crime includes murder, forcible rape, robbery, and aggravated assault. The violent crime rate in Transylvania County fluctuated around the WNC rate throughout the period cited. At the present time, the county rate is lower than both the comparable NC and WNC rates.

Violent Crime Rate Trend

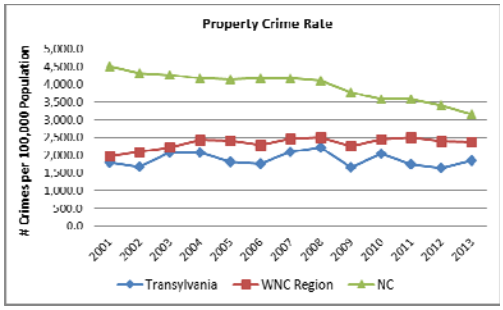


Source: NC Department of Justice

Crime and Safety
Property Crime

- Property crime includes burglary, larceny, arson, and motor vehicle theft. The property crime rate in Transylvania County was the lowest among comparators in every period cited. The current property crime rate in the county is lower than the comparable NC and WNC rates.

Property Crime Rate Trend



Source: NC Department of Justice

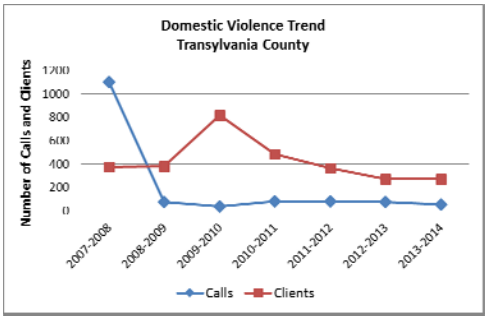
Crime and Safety
Sexual Assault

- In FY2013-2014, 30 persons in Transylvania County were identified as victims of sexual assault.
- The single most frequently reported specific type of sexual assault in Transylvania County during the period was adult rape (33%). Regionally, the most frequently reported type was adult survivor of child sexual assault (23%); statewide the most frequently reported type was child sexual offense (26%).
- State-wide and region-wide the most commonly reported offender was a relative. In Transylvania County the most common offender also was a relative.

Source: NC Department of Administration, Council for Women

Crime and Safety
Domestic Violence

- The number of calls in Transylvania County dealing with domestic violence ranged from a high of 1,102 in 2007-2008 to a low of 36 in 2009-2010. The number of Transylvania County domestic violence clients ranged from a high of 815 in 2009-2010 to a low of 270 in 2013-2014.



Source: NC Department of Administration, Council for Women

Crime and Safety

Child Abuse

- Substantiated reports of child abuse in Transylvania County increased between 2008 and 2010.
- Between 2006 and 2012 there was a total of 3 child abuse homicides in the county, representing 21% of all child abuse homicides in the WNC Region.

Substantiated Child Abuse Reports and Child Abuse Homicides

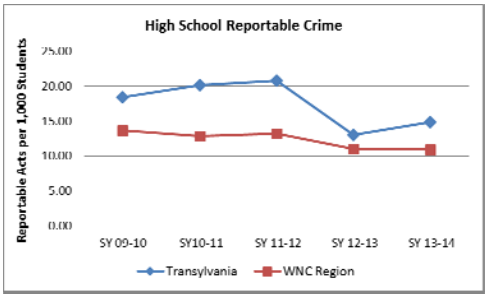
County	Reports Substantiated**					Child Abuse Homicides***						
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010	2011	2012
Transylvania	9	20	0	8	15	1	1	0	1	0	0	0
WNC (Regional) Total	2,273	1,958	1,754	1,449	1,512	4	1	2	1	0	4	2
State Total	20,340	14,966	12,429	11,252	11,300	34	25	33	17	19	24	28

Source: Annie E. Casey Foundation KIDS COUNT Data Center

Juvenile Crime

High School Reportable Crime

- While the regional high school crime rate appeared relatively stable over the period cited, the rate of reportable crimes in Transylvania County Schools was more erratic. Throughout the period cited the county rate exceeded the regional rate.



Source: Public Schools of North Carolina

Health Resources

Health Insurance

- The percent uninsured adults age 18-64 peaked in WNC and NC in 2010. The comparable peak in Transylvania County occurred in 2010-2011.
- Among comparators WNC had the highest percentage of uninsured adults every year cited; NC had the lowest proportion.

Percent of Population *Without* Health Insurance, by Age Group

County	2009		2010		2011		2012		2013	
	0-18	18-64	0-18	18-64	0-18	18-64	0-18	18-64	0-18	18-64
Transylvania County	9.7	22.0	9.3	25.0	8.5	25.0	8.9	24.8	8.0	24.1
WNC Region	**9.9**	**24.2**	**9.7**	**26.0**	**9.1**	**25.2**	**9.3**	**25.4**	**8.6**	**25.0**
State of NC	8.7	21.9	8.3	23.5	7.9	23.0	7.9	23.4	6.9	22.5

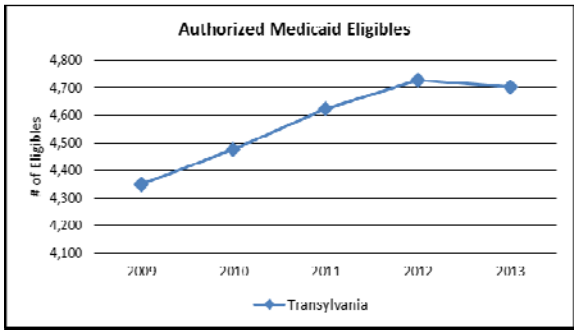
- In all comparator jurisdictions the age group 0-18 has a significantly lower percentage of uninsured than the adult age group, due at least partly to their inclusion in NC Health Choice.
- The WNC region had the highest proportion of uninsured youth among comparators in every year cited; NC had the lowest proportion.

Source: US Census Bureau

Medicaid Eligibility

- The total number of people in Transylvania County eligible for Medicaid increased annually from 2009 through 2012 but decreased slightly in 2013.

Transylvania County Medicaid-Eligibles, 2009-2013



Source: NC Division of Medical Assistance

Health Care Practitioners

- In 2012 Transylvania County had the highest ratio for primary care physicians among all the comparators. At the same time the county had the lowest ratio for dentists and for registered nurses. The national ratios were highest among comparators for physicians and dentists. The state ratios were highest among comparators for registered nurses and pharmacists.

Number of Active Health Professionals per 10,000 Population

County	2012				
	Physicians	Primary Care Physicians	Dentists	Registered Nurses	Pharmacists
Transylvania County	18.17	**8.78**	3.03	73.59	9.39
WNC (Regional) Arithmetic Mean	14.29	6.84	3.61	76.94	7.97
State Ratio	22.31	7.58	4.51	**99.56**	**10.06**
National Ratio (date)	**23.0** (2011)	8.1 (2011)	**5.3** (2012)	91.6 (2012)	9.1 (2012)

Sources: Cecil G. Sheps Center for Health Services Research, US Census Bureau, and US Bureau of Labor Statistics

Health Statistics

Health Rankings

- According to *America's Health Rankings* (2013)
  - NC ranked 35th overall out of 50 (where 1 is "best")
- According to *County Health Rankings* (2014) for NC, Transylvania County was ranked 12th overall among the 100 NC counties.
  - Transylvania County ***health outcomes*** rankings out of 100 (where 1 is best):
    - 24th in length of life
    - 4th for quality of life
  - Transylvania County ***health factors*** rankings out of 100 (where 1 is best):
    - 12th for health behaviors
    - 22nd for clinical care
    - 38th for social and economic factors
    - 44th for physical environment

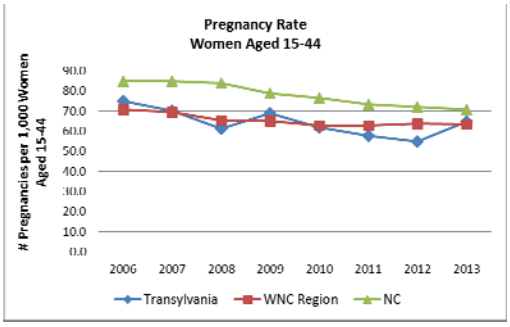
Sources: America's Health Rankings and County Health Rankings and Roadmaps websites

Maternal and Infant Health

Pregnancy Rate

Pregnancies per 1,000 Women Age 15-44

- The total pregnancy rates in WNC and NC have fallen overall since 2007, but appear to have stabilized recently. The total pregnancy rate in Transylvania County may now be rising after a period of decrease.

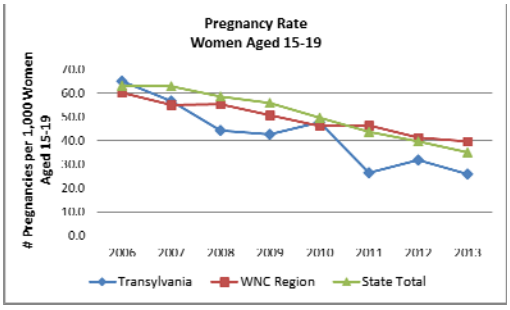


Source: NC State Center for Health Statistics

Pregnancy Rate

Pregnancies per 1,000 women Age 15-19 (Teens)

- The teen pregnancy rates in WNC and NC have fallen significantly and steadily since 2007, and appear to be falling still. The rate in Transylvania County has been more erratic, but does appear to be falling overall.

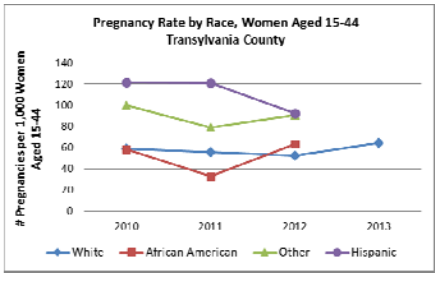


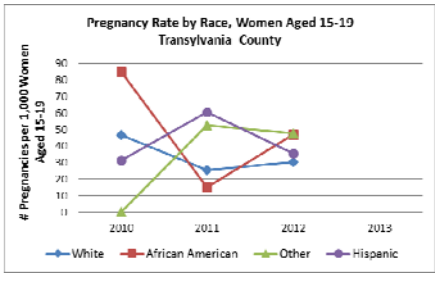
Source: NC State Center for Health Statistics

Pregnancy Rate

By Race/Ethnicity

- The highest pregnancy rates in Transylvania County women ages 15-44 appear to occur among Hispanics. Among Transylvania County teens, the racially stratified pregnancy rates for every group except whites are unstable.





Source: NC State Center for Health Statistics

Pregnancy Risk Factors
Smoking During Pregnancy

- The percentage of women who smoked during pregnancy in NC and the WNC region did not improve significantly between 2008 and 2013. The occurrence of pregnant women who smoked in Transylvania County was significantly lower in 2013 than in 2008.
- Among comparators, in every year cited except 2011 the WNC region had the highest proportion of pregnant women who smoked.

County	Percent of Births to Mothers Who Smoked While Pregnant					
	2008	2009	2010	2011	2012	2013
Transylvania County	16.9	16.8	n/a	**21.0**	18.4	13.3
WNC Region	**20.3**	**19.1**	n/a	20.1	**19.2**	**19.4**
State of NC	10.4	11.0	n/a	10.9	10.6	10.3

Source: NC State Center for Health Statistics, Vital Statistics Volume I

Pregnancy Risk Factors
Prenatal Care

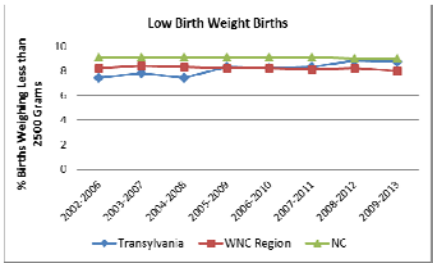
- The percentage of women in all three jurisdictions who received early prenatal care decreased significantly between after 2010.
- Among comparators, Transylvania County had the highest percentages of early prenatal care throughout the period cited.

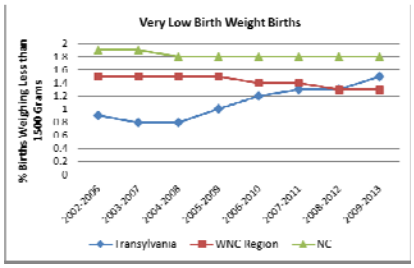
County	Percent of Pregnancies Receiving Prenatal Care in 1st Trimester					
	2008	2009	2010	2011	2012	2013
Transylvania County	**93.9**	**92.7**	n/a	**83.2**	**77.0**	**81.8**
WNC Region	84.5	84.0	n/a	75.6	76.5	75.5
State of NC	82.0	83.3	n/a	71.2	71.3	70.3

Source: NC State Center for Health Statistics, Baby Book

Pregnancy Outcomes
Low Birth Weight Births

- Throughout the period cited, the highest percentages of low birth weight (<5.5 lb.) and very low birthweight (3.3 lb.) births occurred statewide. The percentages of low birth weight and very low birth weight births in Transylvania County both appear to have risen lately. Note, however, that most of the county percentages for very low birth weight births were unstable.

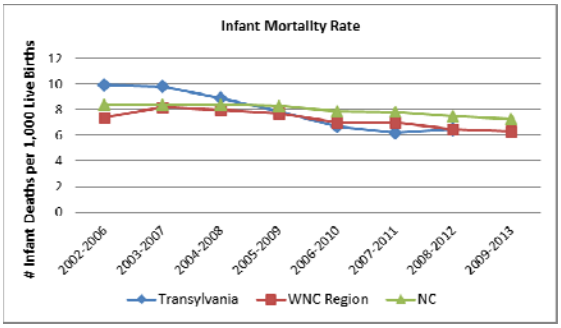




Source: NC State Center for Health Statistics

Pregnancy Outcomes
Infant Mortality

- The infant mortality rate in Transylvania County, once higher than the state or regional averages, appears to have decreased. However, all county rates are unstable or suppressed.
- The infant mortality rate region-wide and statewide appears to be maintaining a steady level.



Source: NC State Center for Health Statistics

Abortion

- **Women Age 15-44**
  - The annual number of pregnancies per 1,000 Transylvania County women in this age group that ended in abortion between 2006 and 2013 ranged from 4.1 to 10.9. The 2013 rate was 5.9.

Women Age 15-19 (Teens)

- All of the teen abortion rates in Transylvania County between 2006 and 2013 were unstable.

Source: NC State Center for Health Statistics

Mortality

Life Expectancy

- For persons born in 2011-2013, life expectancy among comparator jurisdictions is longest overall, and among all stratified groups except African Americans, in Transylvania County.

Life Expectancy at Birth for Persons Born in in 2011-2013

County	Overall	Sex		Race	
		Male	Female	White	African-American
Transylvania	80.2	77.5	82.9	80.4	74.5
WNC (Regional) Arithmetic Mean	77.7	75.3	80.2	77.9	75.2
State Total	78.2	75.7	80.6	78.8	75.9

Source: NC State Center for Health Statistics

Leading Causes of Death: Overall

Age-Adjusted Rates (2009-2013)	Transylvania No. of Deaths	Transylvania Mortality Rate	Rate Difference from NC
1. Diseases of the Heart	470	147.7	-13.1%
2. Cancer	424	137.2	-20.8%
3. All Other Unintentional Injuries	91	49.0	+67.2%
4. Chronic Lower Respiratory Disease	122	37.3	-19.1%
5. Cerebrovascular Disease	102	31.0	-29.1%
6. Alzheimer's Disease	77	22.6	-21.8%
7. Suicide	31	19.2	+57.4%
8. Nephritis, Nephrotic Syndrome, Nephrosis	40	12.1	-31.3%
9. Diabetes Mellitus	32	11.4	-47.5%
10. Chronic Liver Disease and Cirrhosis	25	11.2	+17.9%
11. Unintentional Motor Vehicle Injuries	22	11.2	-18.2%
12. Pneumonia and Influenza	37	11.0	-38.5%
13. Septicemia	13	5.1	-63.0%
14. Homicide	5	3.0	-48.3%
15. AIDS	1	0.3	-89.7%

Source: NC State Center for Health Statistics

Leading Causes of Death: Gender Comparison

Transylvania County Rank by Descending Overall Age-Adjusted Rate (2009-2013)	Rate Among Males	Rate Among Females	% Male Rate Difference from Females
1. Diseases of the Heart	183.1	118.4	+54.6%
2. Cancer	169.7	113.0	+50.2%
3. All Other Unintentional Injuries	66.2	33.2	2X
4. Chronic Lower Respiratory Disease	33.1	41.0	-19.3%
5. Cerebrovascular Disease	27.7	33.5	-17.3%
6. Alzheimer's Disease	n/a	28.0	n/a
7. Suicide	31.1	n/a	n/a
8. Nephritis, Nephrotic Syndrome, Nephrosis	n/a	10.4	n/a
9. Diabetes Mellitus	17.2	n/a	n/a
10. Chronic Liver Disease and Cirrhosis	n/a	n/a	n/a
11. Unintentional Motor Vehicle Injuries	n/a	n/a	n/a
12. Pneumonia and Influenza	n/a	n/a	n/a
13. Septicemia	n/a	n/a	n/a
14. Homicide	n/a	n/a	n/a
15. AIDS	n/a	0.0	n/a

Source: NC State Center for Health Statistics

Leading Causes of Death: Race Comparison

- Stable, racially and ethnically stratified mortality rates for Transylvania County are not available.

Source: NC State Center for Health Statistics

Leading Causes of Death: Time Comparison

Transylvania County Rank by Descending Overall Age-Adjusted Rate (2009-2013)-	Rank 2006-2010	Rank Change 2006-2010 to 2009-2013	% Rate Change 2006-2010 to 2009-2013
1. Diseases of the Heart	1	nc	-7.0%
2. Cancer	2	nc	-3.1%
3. All Other Unintentional Injuries	3	nc	+8.9%
4. Chronic Lower Respiratory Disease	5	+1	-3.4%
5. Cerebrovascular Disease	4	-1	-23.6%
6. Alzheimer's Disease	6	nc	-3.4%
7. Suicide	8	+1	+4.3%
8. Nephritis, Nephrotic Syndrome, Nephrosis	9	-1	-1.6%
9. Diabetes Mellitus	10	+1	-6.6%
10. Chronic Liver Disease and Cirrhosis	12	+2	+4.7%
11. Unintentional Motor Vehicle Injuries	7	-4	-39.5%
12. Pneumonia and Influenza	11	+1	-0.1%
13. Septicemia	13	nc	n/a
14. Homicide	14	nc	n/a
15. AIDS	15	nc	n/a

Source: Sheila Pfaender, Public Health Consultant; based on data from NC State Center for Health Statistics

Leading Causes of Death – By Age

Age Group	Rank	Cause of Death in Transylvania County (2009-2013)
00-19	1 2 3	All other unintentional injuries Conditions originating in the perinatal period; congenital anomalies Diseases of the heart
20-39	1 2 3	All other unintentional injuries Suicide Motor vehicle injuries
40-64	1 2 3	Cancer (all sites) Diseases of the heart All other unintentional injuries
65-84	1 2 3	Cancer (all sites) Diseases of the heart Chronic lower respiratory disease
85+	1 2 3	Diseases of the heart Cancer (all sites) Alzheimer's disease

Source: NC State Center for Health Statistics

Mortality Trends, 2002-2006 to 2009-2013

Leading Cause of Death in Transylvania County	Overall Trend Direction
1. Diseases of the Heart	▼
2. Cancer	▼
3. All Other Unintentional Injuries	▲
4. Chronic Lower Respiratory Disease	▼
5. Cerebrovascular Disease	▼
6. Alzheimer's Disease	▼
7. Suicide	▲
8. Nephritis, Nephrotic Syndrome, Nephrosis	▲
9. Diabetes Mellitus	▼▼
10. Chronic Liver Disease and Cirrhosis	▲
11. Unintentional Motor Vehicle Injuries	▼
12. Pneumonia and Influenza	▼
13. Septicemia	▼
14. Homicide	▼
15. AIDS	▼▼

Source: Sheila Pfaender, Public Health Consultant; based on data from NC State Center for Health Statistics

Site-Specific Cancer Trends

Transylvania County

Incidence: 1999-2003 to 2008-2012

Mortality: 2002-2006 to 2009-2013

Cancer Site	Parameter	Overall Trend Direction
Lung Cancer	Incidence Mortality	▼ ▼
Prostate Cancer	Incidence Mortality	▼ n/c
Breast Cancer	Incidence Mortality	▲ ▼▼
Colorectal Cancer	Incidence Mortality	▼ ▲

Source: Sheila Pfaender, Public Health Consultant; based on data from NC State Center for Health Statistics

Injury Mortality
Unintentional Falls

- From 2011 through 2013, 18 Transylvania County residents died as a result of an unintentional fall.
- Of the 18 fall-related deaths, 16 (89%) occurred in the population age 65 and older.
- Of the 18 fall-related deaths, 9 (50%) occurred in the population age 85 and older.

Source: NC State Center for Health Statistics

Injury Mortality
Unintentional Poisoning

- In the period 2009-2013, 33 Transylvania County residents died as a result of unintentional poisoning, with a corresponding age-adjusted mortality rate of 20.4 deaths per 100,000 population, the highest rate among the comparators.
- Of the 33 unintentional poisoning deaths in the county in that period, 29 (88%) were due to medication or drug overdoses, with a corresponding mortality rate of 17.9, the highest rate among the comparators.

County	Unintentional Poisoning Deaths for Select Locations and Percent that are Medication/Drug Overdoses (2009-2013)*			Rate of Unintentional Medication/Drug Overdose Deaths (2009-2013)**	
	#	Rate per 100,000 NC Residents	% that are Medication/Drug Overdoses	#	Rate per 100,000 NC Residents
Transylvania	33	20.4	87.9	29	17.9
WNC (Regional) Total	560	14.8	90.0	506	13.3
Non-WNC (Regional) Total	4,749	10.7	91.0	4320	9.7
State Total	5,309	11.0	90.9	4826	10.0

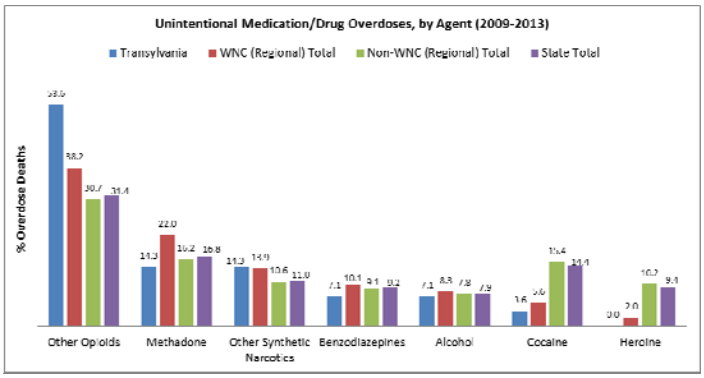
- * Codes Used: cdeath1 = X40-X49
- ** Codes Used: cdeath1 = X40-X44

Sources: NC State Center for Health Statistics and NC DPH, Chronic Disease and Injury Section, Injury and Violence Prevention Branch

Injury Mortality

Unintentional Medication/Drug Overdoses

- "Other Opioids" caused the highest proportion of drug overdose deaths (53.6%) in Transylvania County in the period 2009-2013.

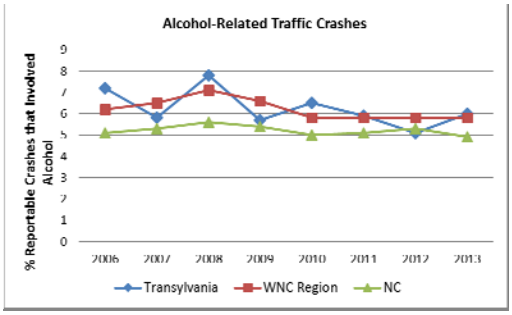


Source: NC DPH, Chronic Disease and Injury Section, Injury and Violence Prevention Branch

Vehicular Injury

Alcohol-Related Motor Vehicle Crashes

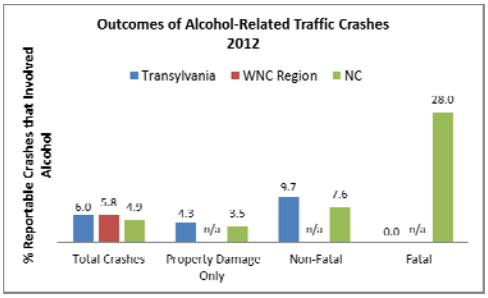
- Over the period 2006 through 2013 an annual average of 6.3% of all traffic crashes in Transylvania County were alcohol-related. This is a slightly higher average proportion of alcohol-related traffic crashes than occurred in the WNC region over the same period (6.2%).



Source: NC Highway Safety Research Center

Vehicular Injury Mortality
Alcohol-Related Motor Vehicle Crashes

- In 2012 none of the *fatal* traffic crashes in Transylvania County were alcohol-related.

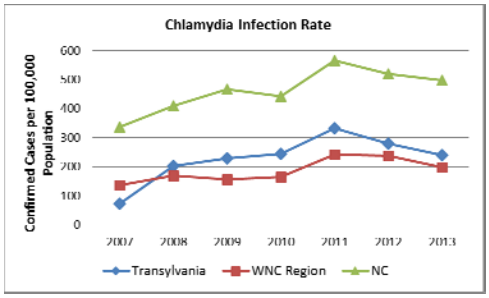


Source: NC Highway Safety Research Center

Morbidity

Sexually Transmitted Infections
Chlamydia

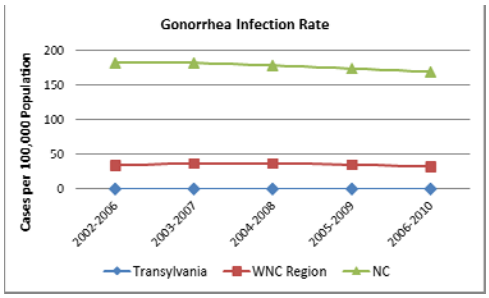
– The chlamydia infection rate in Transylvania County increased steadily between 2007 and 2011, but has decreased since. The state rate was the highest among the comparators throughout the period cited.



Source: NC DPH, Communicable Disease Branch, Epidemiology Section

Sexually Transmitted Infections
Gonorrhea

– No cases of gonorrhea were reported in Transylvania County in the entire period cited.

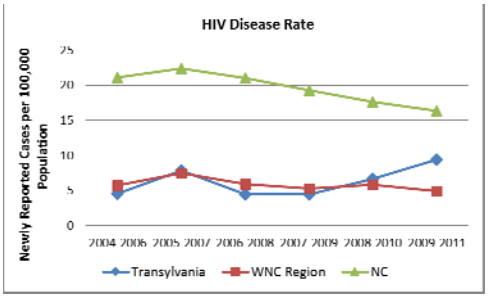


Source: NC DPH, Communicable Disease Branch, Epidemiology Section

Sexually Transmitted Infections

HIV

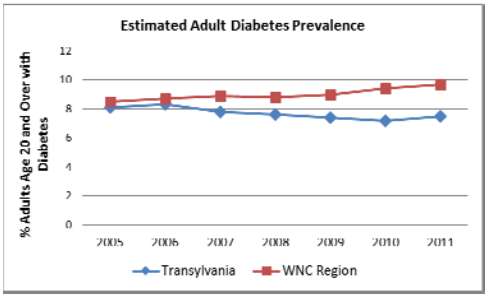
– The HIV incidence rate in Transylvania County has shown a recent increase, but the number of cases remains low.



Source: NC DPH, Communicable Disease Branch, Epidemiology Section

Adult Diabetes

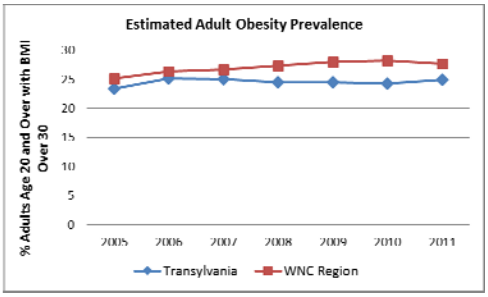
- The average self-reported prevalence of Transylvania County adults with diabetes was 7.7% in the period from 2005 - 2011.
- Over the same period the WNC average was 9.0%.
- The prevalence of self-reported adult diabetes has been rising recently in WNC. Prevalence in Transylvania County, having fallen for several years, may be on the increase.



Source: Centers for Disease Control and Prevention, via BRFSS

Adult Obesity

- The average self-reported prevalence of Transylvania County adults considered "obese" on the basis of height and weight (BMI > 30) was 24.5% in the period from 2005 - 2011.
- Over the same period the WNC average prevalence was 27.1%.
- The prevalence of adult obesity has been increasing in WNC until recently. The prevalence in Transylvania County may be increasing after a period of stability.



Source: Centers for Disease Control and Prevention, via BRFSS

Child Obesity

Ages 2-4

- There is limited data on the prevalence of childhood obesity in Transylvania County.
- The NC-NPASS data presented below covers only children seen in health department WIC and child health clinics and certain other facilities and programs.
- According to NC-NPASS data for 2010, 16.1% of the participating children in Transylvania County age 2-4 were deemed "overweight", and an additional 13.0% were deemed obese".
- There was an insufficient number of participants in other age groups (5-11 and 12-18) to yield stable percentages.

Prevalence of Underweight, Healthy Weight, Overweight and Obese Children Ages 2-4, 2010

County	Total	Underweight <5th Percentile		Healthy Weight ≥5th to <85th Percentile		Overweight ≥85th to <95th Percentile		Obese ≥95th Percentile	
	#	#	%	#	%	#	%	#	%
Transylvania	299	12	4.0	200	66.9	48	16.1	39	13.0
WNC (Regional) Total	6,814	316	-	4,410	-	1,139	-	949	-
WNC (Regional) Arithmetic Mean	426	20	*4.8*	276	64.5	71	*17.2*	59	*13.6*
State Total	105,410	4,935	4.7	66,975	63.5	17,022	16.1	16,478	15.6

Source: NC NPASS

Mental Health

- Between 2006 and 2009, the number of Transylvania County residents served annually by the **Area Mental Health Program** *decreased* from 1,145 to 518. Subsequently, the number increased from 653 in 2010 to 1,151 in 2013.
- Over the same 8-year period the number of Transylvania County residents served annually in **State Psychiatric Hospitals** *decreased* from 53 to 1.
- During the same 8-year period a total of **210** Transylvania County residents were served in **NC State Alcohol and Drug Abuse Treatment Centers (ADATCs)**, with the number varying considerably but averaging **26** persons annually.

Source: NC Office of State Budget and Management, State Data Center, Log Into North Carolina (LINC)

Inpatient Hospital Utilization

- In 2012 the highest proportions of hospital discharges in Transylvania County were for:
  - Cardiovascular and circulatory diseases : 18%
    - Heart disease: 13%
    - Cerebrovascular disease: 3%
  - Musculoskeletal system diseases: 10%
    - Arthropathies and related disorders: 7%
  - Digestive system diseases: 10%
    - Chronic liver disease and cirrhosis: 0.3%
  - Other diagnoses (including mental disorders): 10%
  - Injuries and poisonings: 9%

Source: NC State Center for Health Statistics

Ambulatory Care Sensitive Hospital Discharge Rates, 2013

(AHRQ PQI Definitions; Discharges per 100,000 Population)

Diagnosis	Transylvania	NC
All specified PQI (Prevention Quality Indicator) conditions	1,275.4	1,438.5
All chronic conditions	654.1	906.0
Diabetes: short-term complications	29.2	94.4
Diabetes: long-term complications	109.6	113.0
Diabetes: uncontrolled	0.0	13.7
Diabetes: amputations	7.3	19.1
COPD/Asthma: ages 40+	302.4	413.5
Asthma: ages 18-39	55.6	40.1
Hypertension	3.7	54.9
Heart failure	263.1	339.6
Angina	7.3	9.7
Pneumonia	376.4	267.5
Urinary tract infection	146.2	155.0
Dehydration	98.7	109.9
Appendix perforation/abscess	333.3	433.2
Acute care discharges	621.2	532.5

Source: NC State Center for Health Statistics (Special Report)

Environment

Air Quality

- **Air Quality Index (AQI) Summary, Transylvania County, 2014**
  - **AQI Measurements (238 days)**
    - This data is not available because there is no air quality monitoring station in Transylvania County.

Source: US Environmental Protection Agency Air Quality Index Reports

Air Quality

- **Toxic Release Inventory (TRI), Transylvania County, 2013**
  - **TRI Releases**
    - There were no TRI releases reported for Transylvania County in 2013.

Source: US Environmental Protection Agency TRI Explorer Release Reports

Air Quality

- **Radon**
  - Western North Carolina has the highest radon levels in the state.
  - The arithmetic mean indoor radon level for the 16 counties of the WNC region is 4.1 pCi/L, **3.2 times** the average national indoor radon level of 1.3 pCi/L.
  - In Transylvania County, the current average indoor radon level is 6.6 pCi/L, **61% higher** than the regional mean, and **5.1 times** the average national level.

Source: North Carolina Radon Information

Water Quality

- **Transylvania County Drinking Water *Systems* February, 2014**
  - **Community Water Systems**
    - Include municipalities, subdivisions and mobile home parks
    - Community water systems in Transylvania County serve an estimated 15,776 people, or 48% of the 2010 county population.
    - The fraction of the Transylvania County population served by a community water system is 13% **lower** than the average for the WNC region and NC as a whole.

Sources: US Census Bureau and US Environmental Protection Agency Safe Drinking Water Information System (SDWIS)

Water Quality

- **National Pollutant Discharge Elimination System (NPDES) Permits in Transylvania County (2015)**
  - There are at present 20 permits issued in Transylvania County that allow municipal, domestic, or commercial facilities to discharge products of water/wastewater treatment and manufacturing into waterways.
    - 1 is a large, municipal wastewater treatment facility
    - 1 is a small, municipal wastewater treatment facility
    - 2 are commercial, industrial facilities
    - 1 is a water treatment plant
    - 1 is a groundwater remediation facility
    - 14 are domestic wastewater producers

Sources: NC DENR, Division of Water Resources

Solid Waste

- **Solid Waste Disposal Rates**
  - 2013-14 Per-Capita Disposal Rate
    - Transylvania County = 0.69 tons (▼ 41% since 1991-1992)
    - NC = 0.93 tons (▼ 13% since 1991-1992)
- **Landfill Capacity**
  - In FY2013-2014 the Transylvania County Landfill has capacity sufficient to last 17.22 more years at the current fill rate.

Source: NC DENR, Division of Waste Management, Solid Waste Management Annual Reports

Rabies

- The most common animal host for rabies in the WNC region and NC as a whole is raccoons.
- There were 2 cases of animal rabies reported for Transylvania County in the period 2010 through 2014, both occurring in bats.

Animal Rabies Cases, 2010 through 2014

County	Number of Cases						Most Common Host
	2010	2011	2012	2013	2014	Total	
Transylvania	0	0	0	1	1	2	Bat (2/2)
WNC (Regional) Total	14	20	19	17	8	78	Raccoon (40/78)
State Total	397	429	431	380	352	1,989	Raccoon (1010/1989)

Source: NC Division of Public Health, Epidemiology Section, Communicable Disease Branch, Rabies Facts and Figures

APPENDIX C – COUNTY MAPS OF SELECTED HEALTH ISSUES

Transylvania County Maps

Community Health Assessment

2015

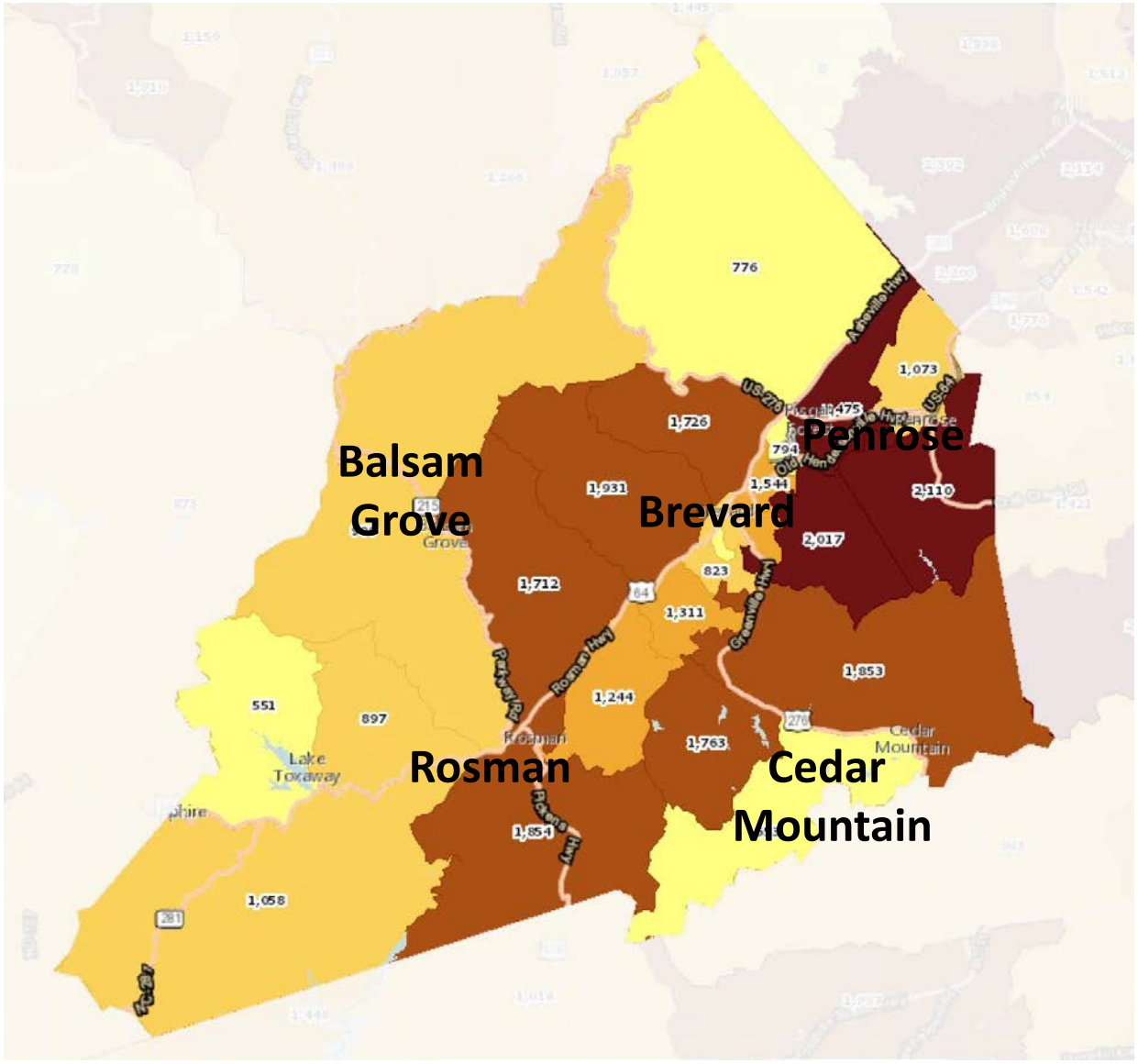
Why use maps?

- To show variation across the county (or a lack of it)
  - Using only one number or statistic to describe the entire county can hide variation across communities. Maps can show if communities are different.
- To show vulnerable populations
  - Mapping demographic information can show us where our most vulnerable populations live.
- To show masked associations
  - Maps can show where specific factors occur simultaneously.

Maps are one piece of the data puzzle

- Maps can be misleading and are best used to highlight which communities to investigate further.
  - Reliability of data decreases as it is cut into smaller and smaller pieces. Therefore, maps of census tract data have greater margins of error than county statistics.
- Maps should be supported by talking with community members or service providers specific to the community of interest to learn more about the community's needs and opportunities.

Total Population of Transylvania County



Total Population, Total by Block Group, US Census 2010

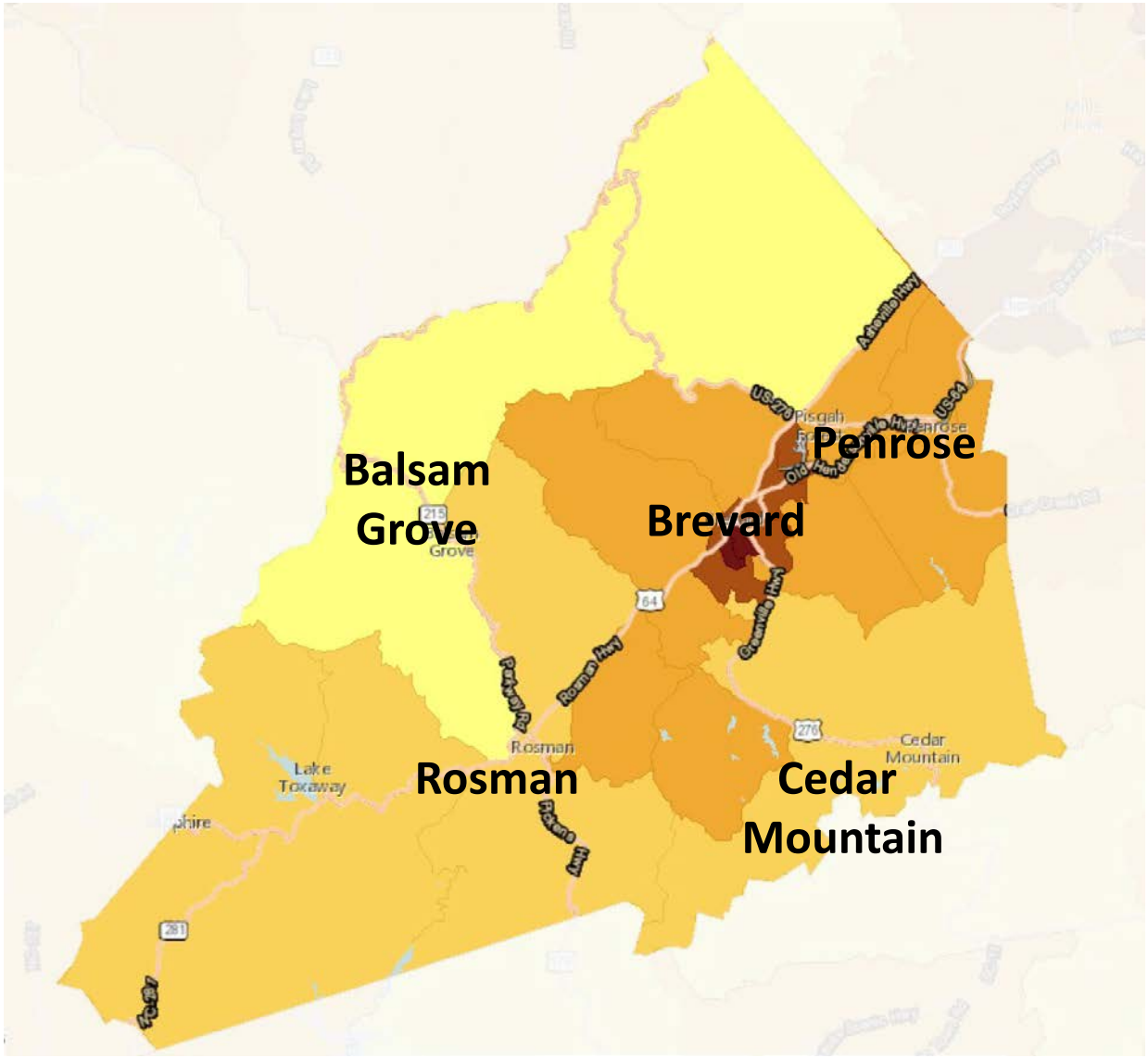
- Over 2,000
- 1,601 - 2,000
- 1,201 - 1,600
- 801 - 1,200
- Under 801

Source: US Census 2010

Geographic Unit: Block Group

Map produced with Community Commons

Population Density of Transylvania County



Total Population, Density (Persons per Sq Mile) by Block Group, US Census 2010

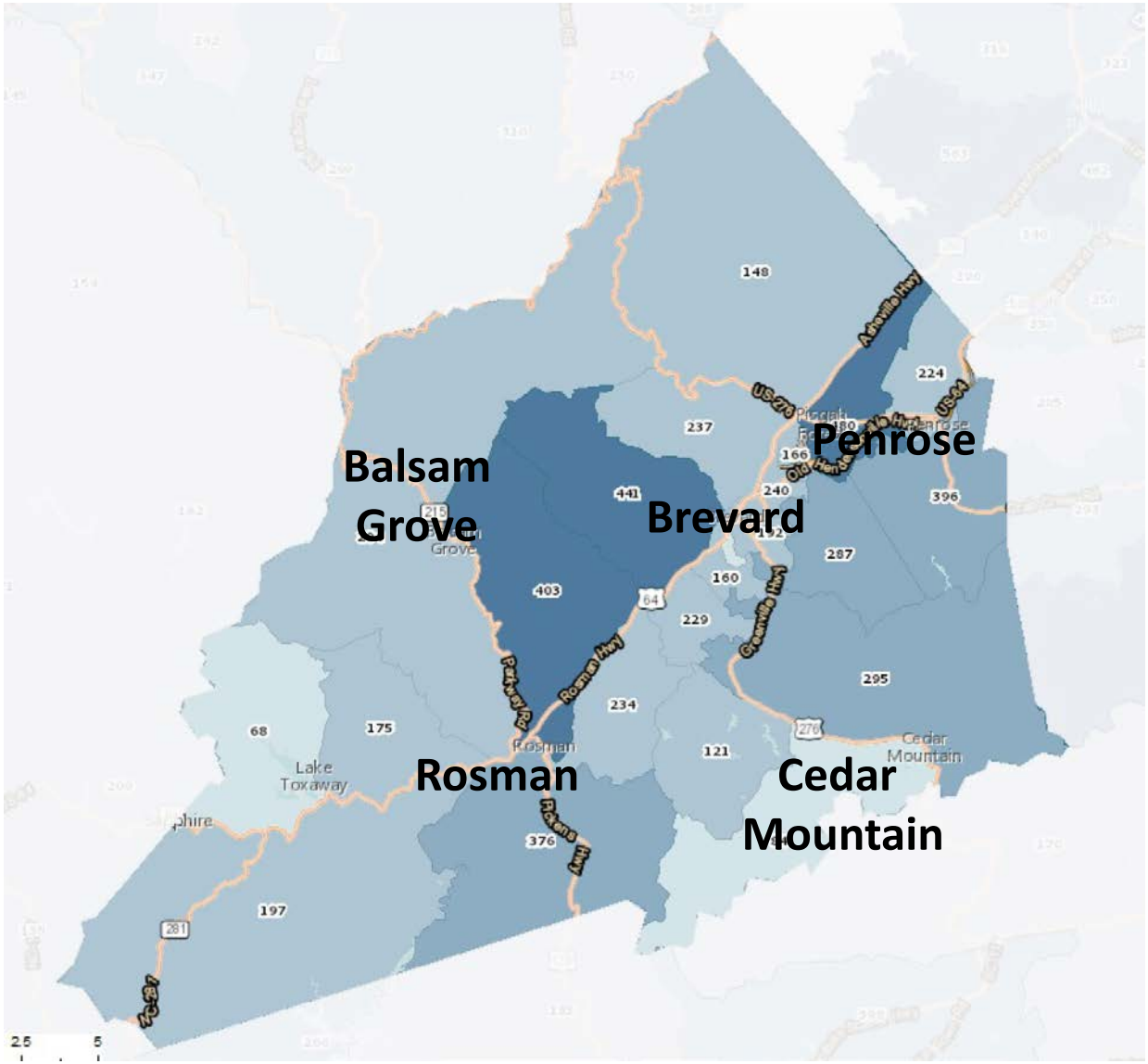
- Over 2,000
- 400.1 - 2000
- 100.1 - 400.0
- 20.1 - 100.0
- Under 20.1

Source: US Census 2010

Geographic Unit: Block Group

Map produced with Community Commons

Population of Children (Age 0-17) in Transylvania County



Population Age 0-17, Total by Block Group, US Census 2010

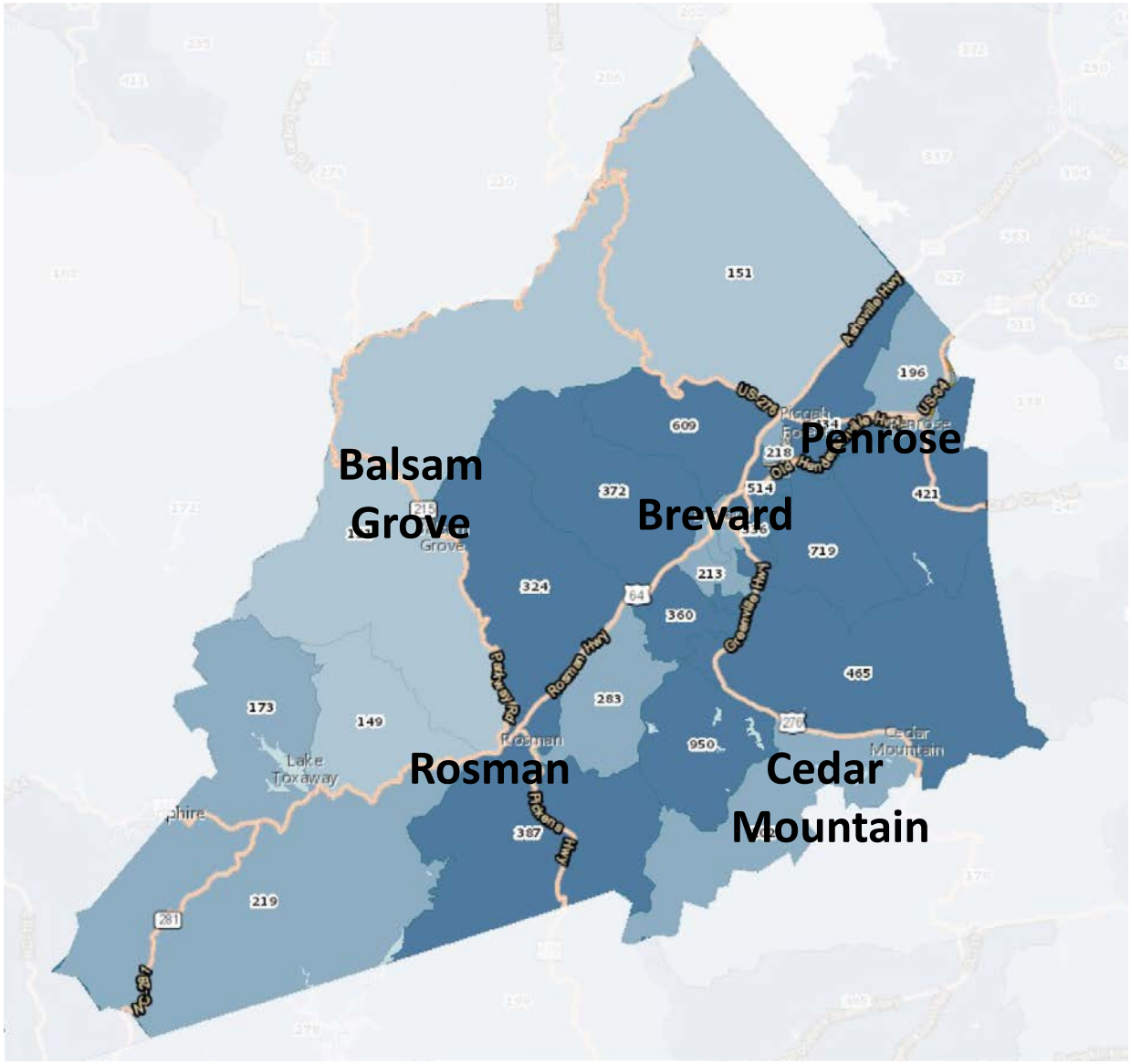
- Over 400
- 251 - 400
- 101 - 250
- Under 101
- No Population or No Data

Source: US Census 2010

Geographic Unit: Block Group

Map produced with Community Commons

Population of Older Adults (Age 65+) in Transylvania County



Population Age 65+, Total by Block Group, US Census 2010

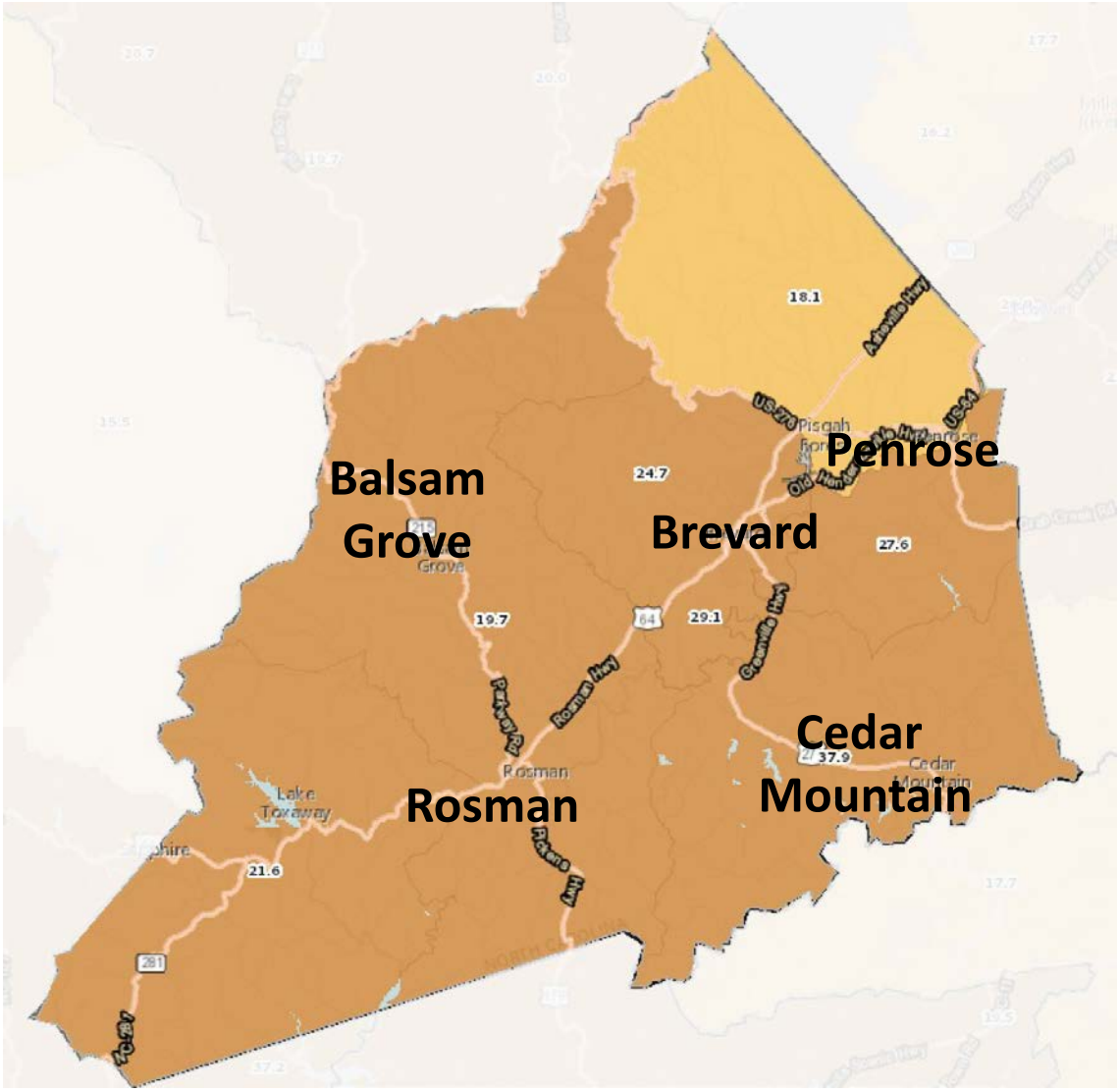
- Over 320
- 161 - 320
- 81 - 160
- Under 81
- No Population or No Data

Source: US Census 2010

Geographic Unit: Block Group

Map produced with Community Commons

Percent of the Population of Older Adults (Age 65+) in Transylvania County



Population Age 65+, Percent by Tract, US Census 2010

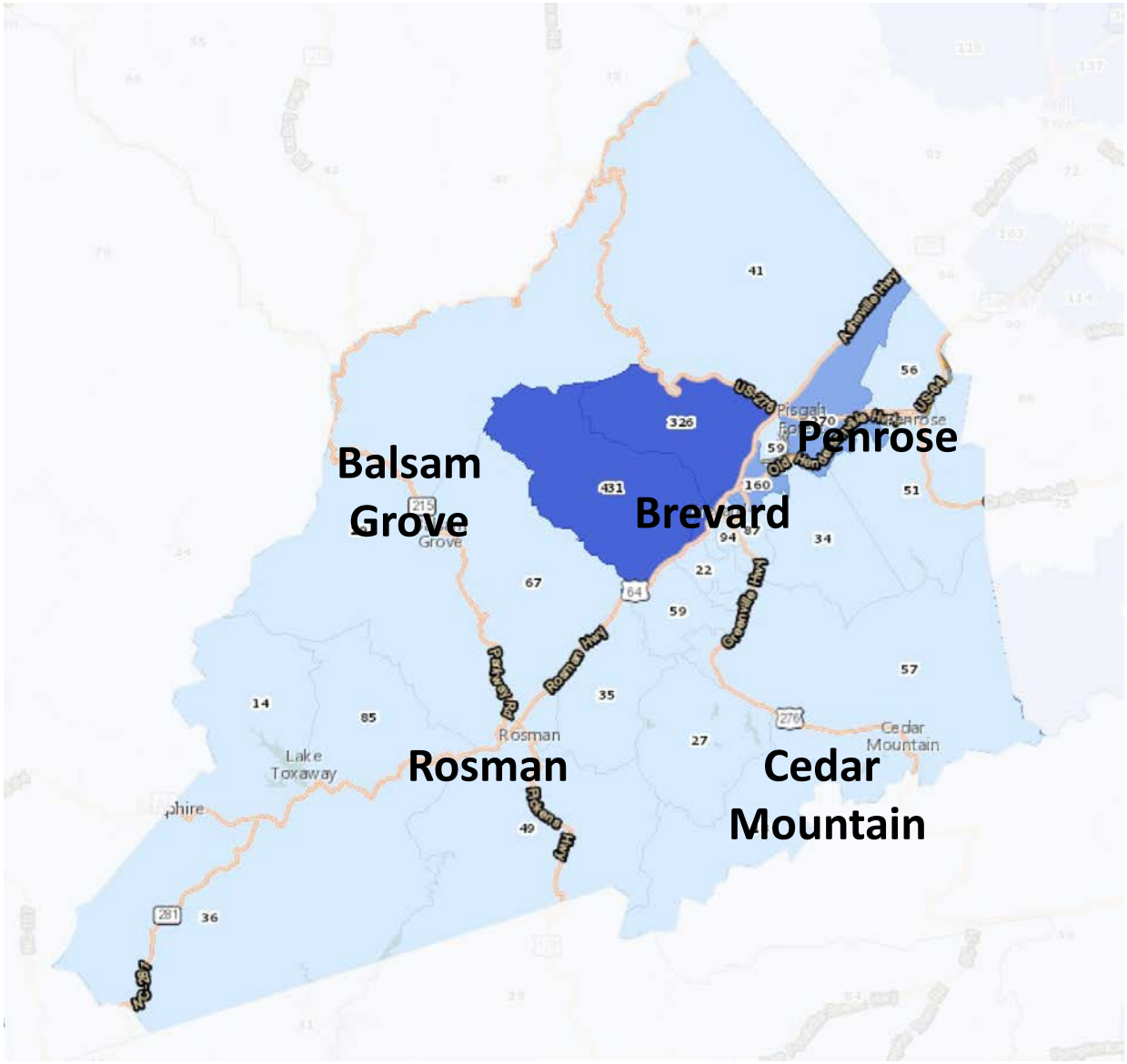
- Over 19.1%
- 16.1 - 19.0%
- 13.1 - 16.0%
- Under 13.1%
- No Data or Data Suppressed

Source: US Census 2010

Geographic Unit: Census tract

Map produced with Community Commons

Population of Ethnic and Racial Minorities in Transylvania County



Population, All Minority, Total by Block Group, US Census 2010

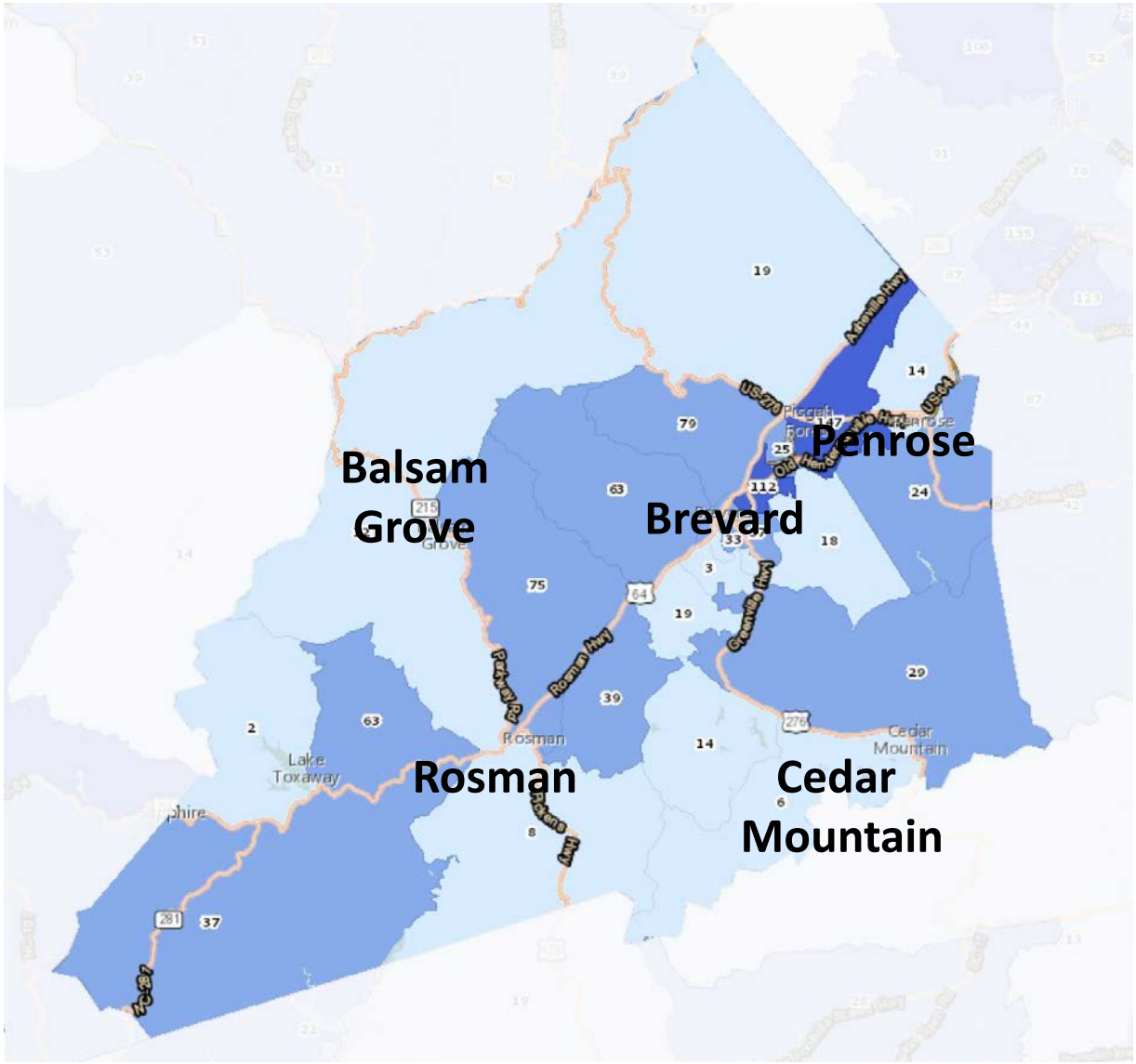
- Over 600
- 301 - 600
- 101 - 300
- Under 101
- No Population or No Data

Source: US Census 2010

Geographic Unit: Block Group

Map produced with Community Commons

Population of Hispanics and Latinos in Transylvania County



Population, Hispanic or Latino, Total by Block Group, US Census 2010

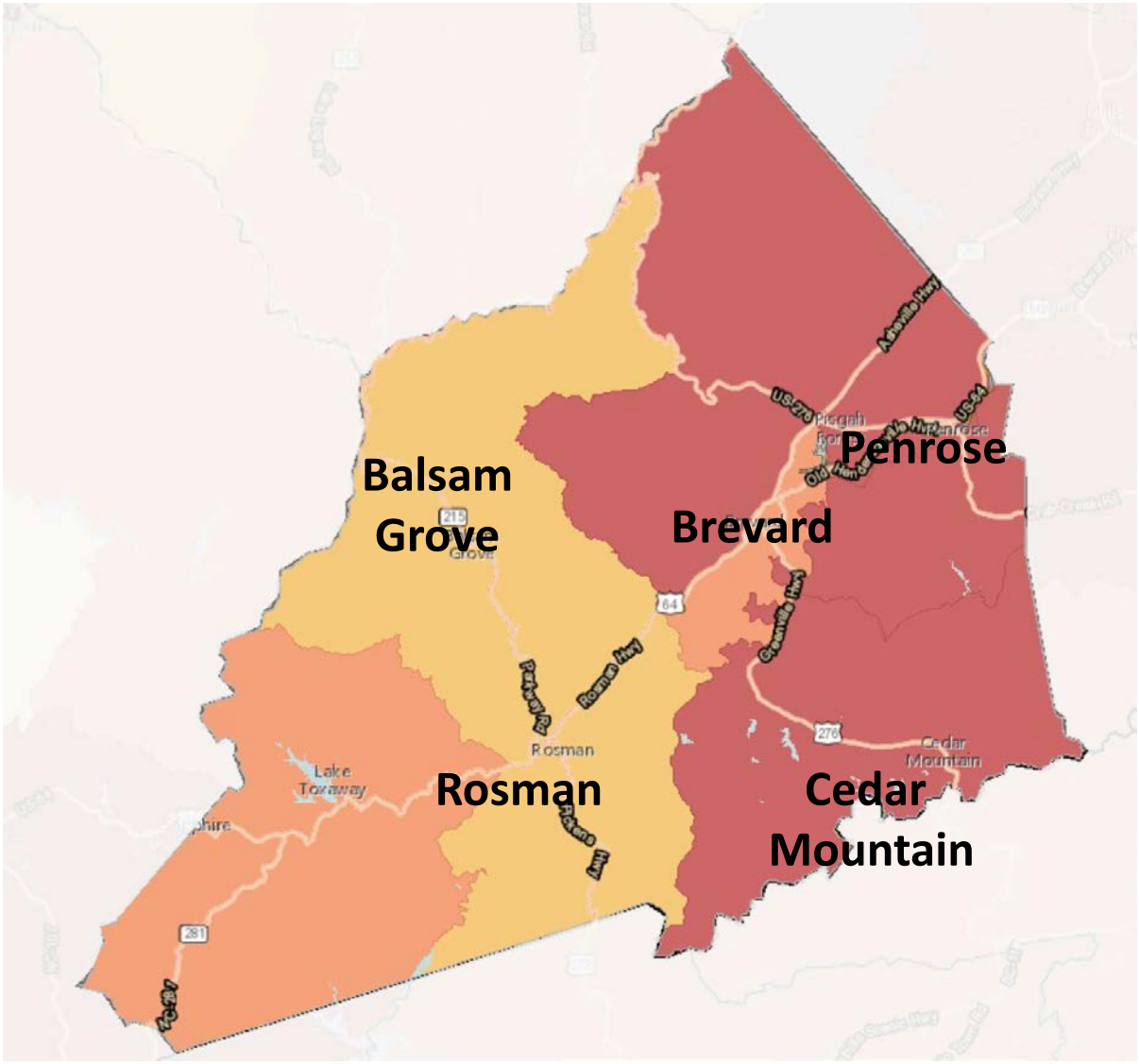
- Over 500
- 101 - 500
- 21 - 100
- Under 21
- No Population or No Data

Source: US Census 2010

Geographic Unit: Block Group

Map produced with Community Commons

Percent of the Population (25+) with a High School Diploma of Higher in Transylvania County

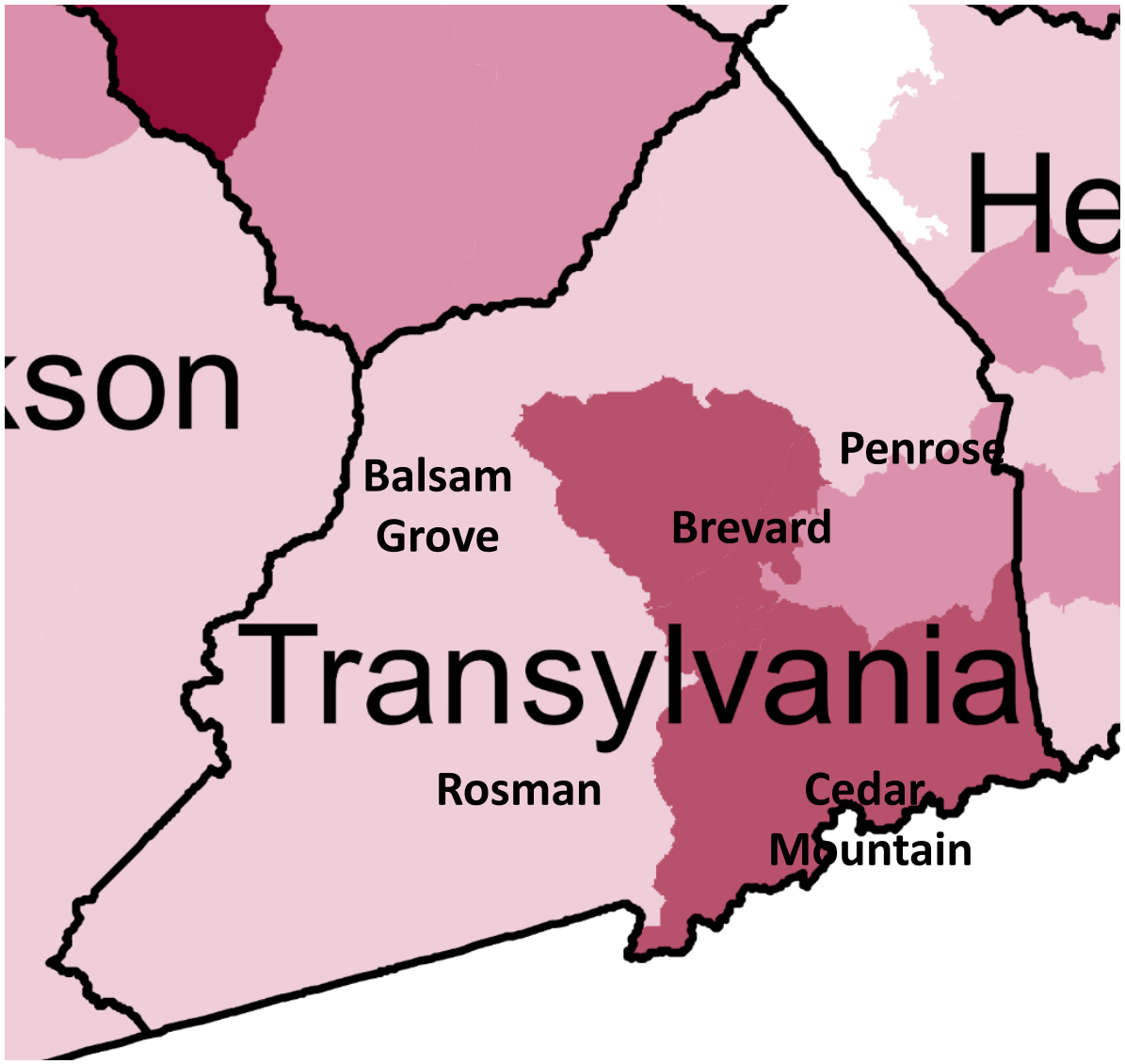


Source: American Community Survey 2009-13

Geographic Unit: Census tract

Map produced with Community Commons

Transylvania County Heart Disease Mortality Rates 2009-2013



Rate per 100,000 Population

- 60.9 - 200.6
- 200.7 - 283.2
- 283.3 - 426.1
- 426.2 - 699.8
- County Boundary

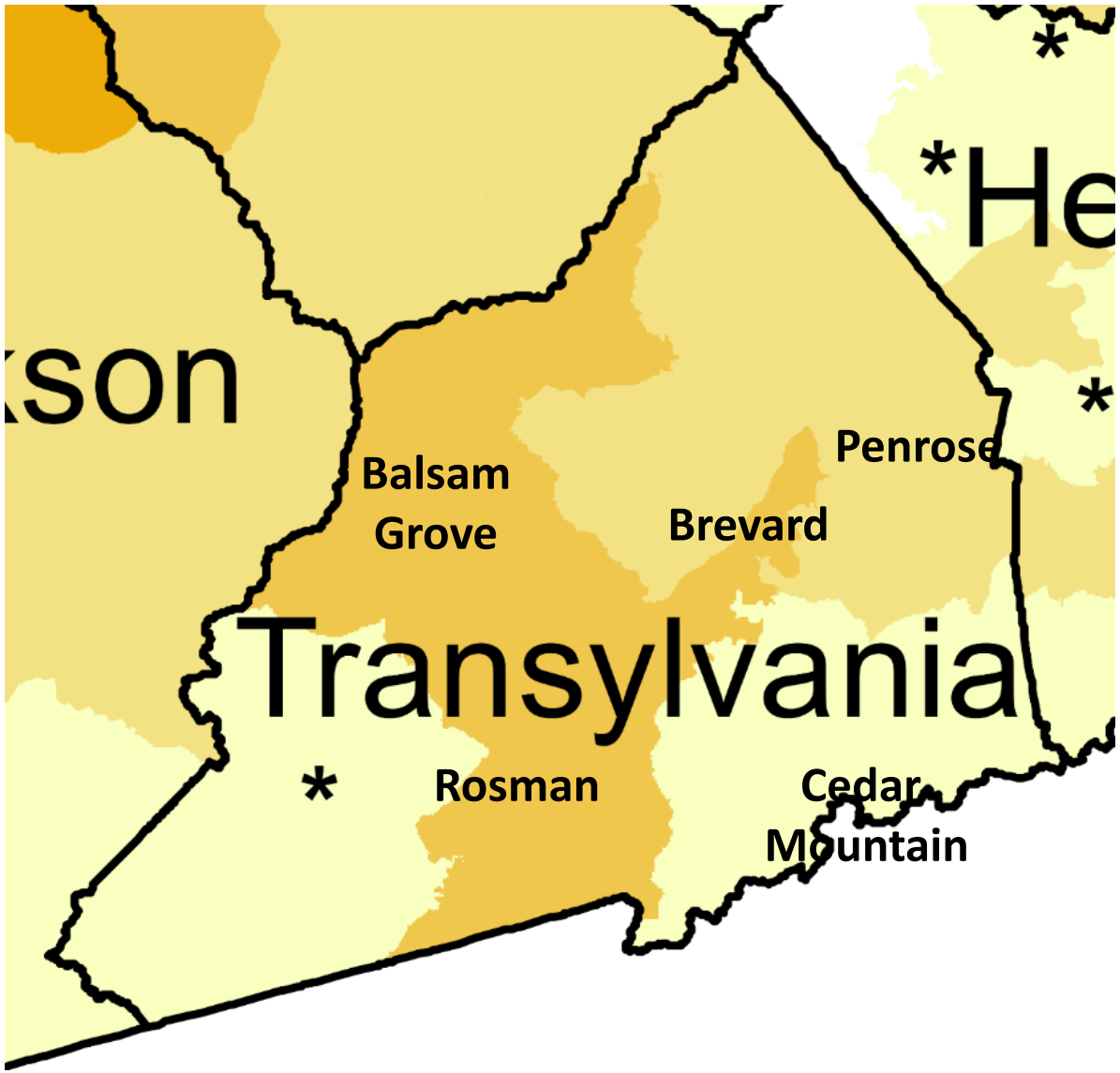
Source: NC State Center for Health Statistics 2009-13

Geographic Unit: Census tract

Map produced by the NC State Center for Health Statistics

Rates are not age adjusted.

Transylvania County Chronic Lower Respiratory Diseases Mortality Rates 2009-2013



Rate per 100,000 Population

- 9.9 - 57.5
- 57.6 - 86.7
- 86.8 - 121.1
- 121.2 - 222.9
- County Boundary

Source: NC State Center for Health Statistics 2009-13

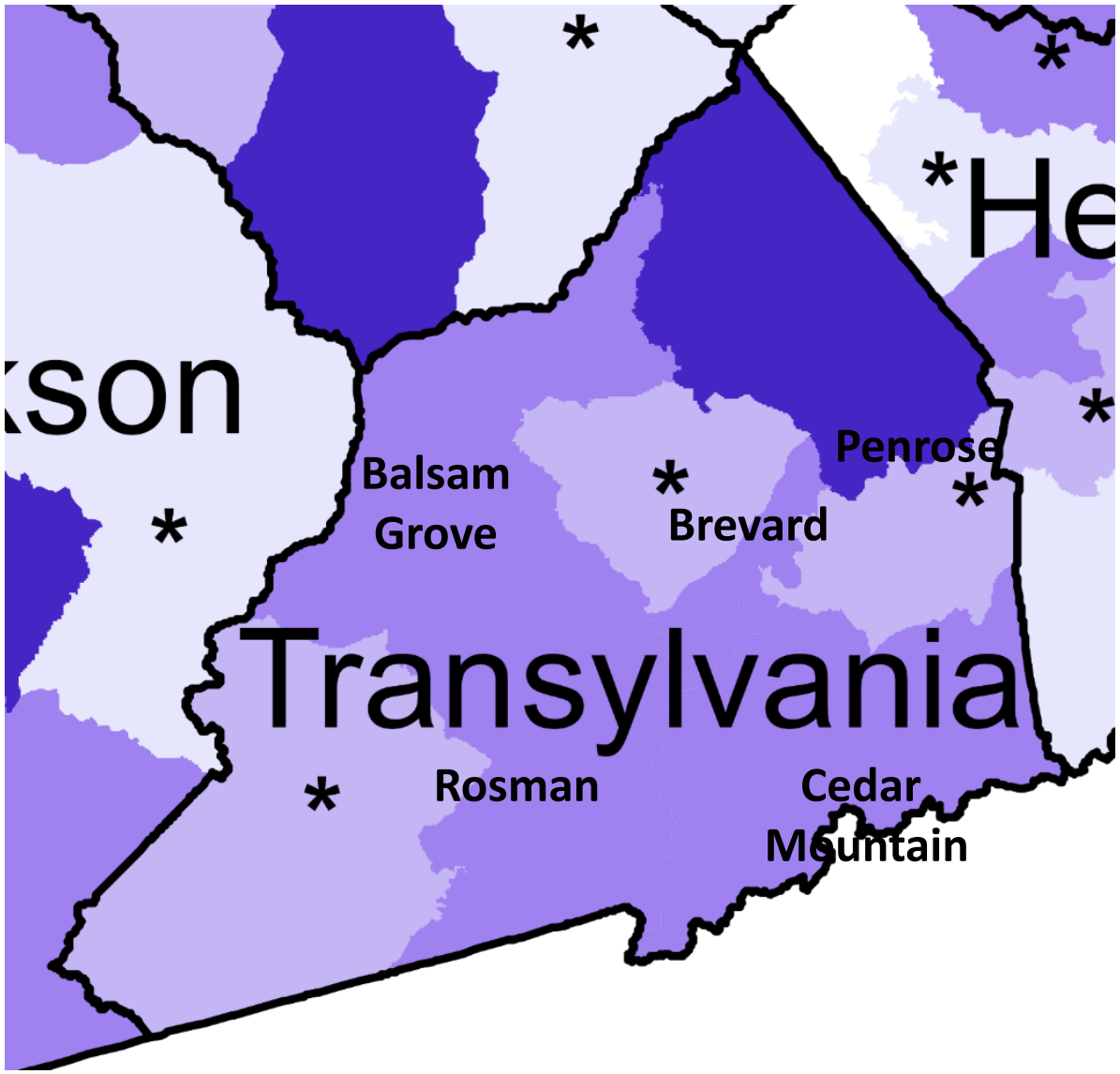
Geographic Unit: Census tract

Map produced by the NC State Center for Health Statistics

Rates are not age adjusted.

*Rates based on numbers less than 10 are unstable and should be interpreted with caution.

Transylvania County Other Unintentional Injuries Mortality Rates 2009-2013



Rates per 100,000 Population

- 5.9 - 30.1
- 30.2 - 45.9
- 46.0 - 65.9
- 66.0 - 126.9
- County Boundary

Source: NC State Center for Health Statistics 2009-13

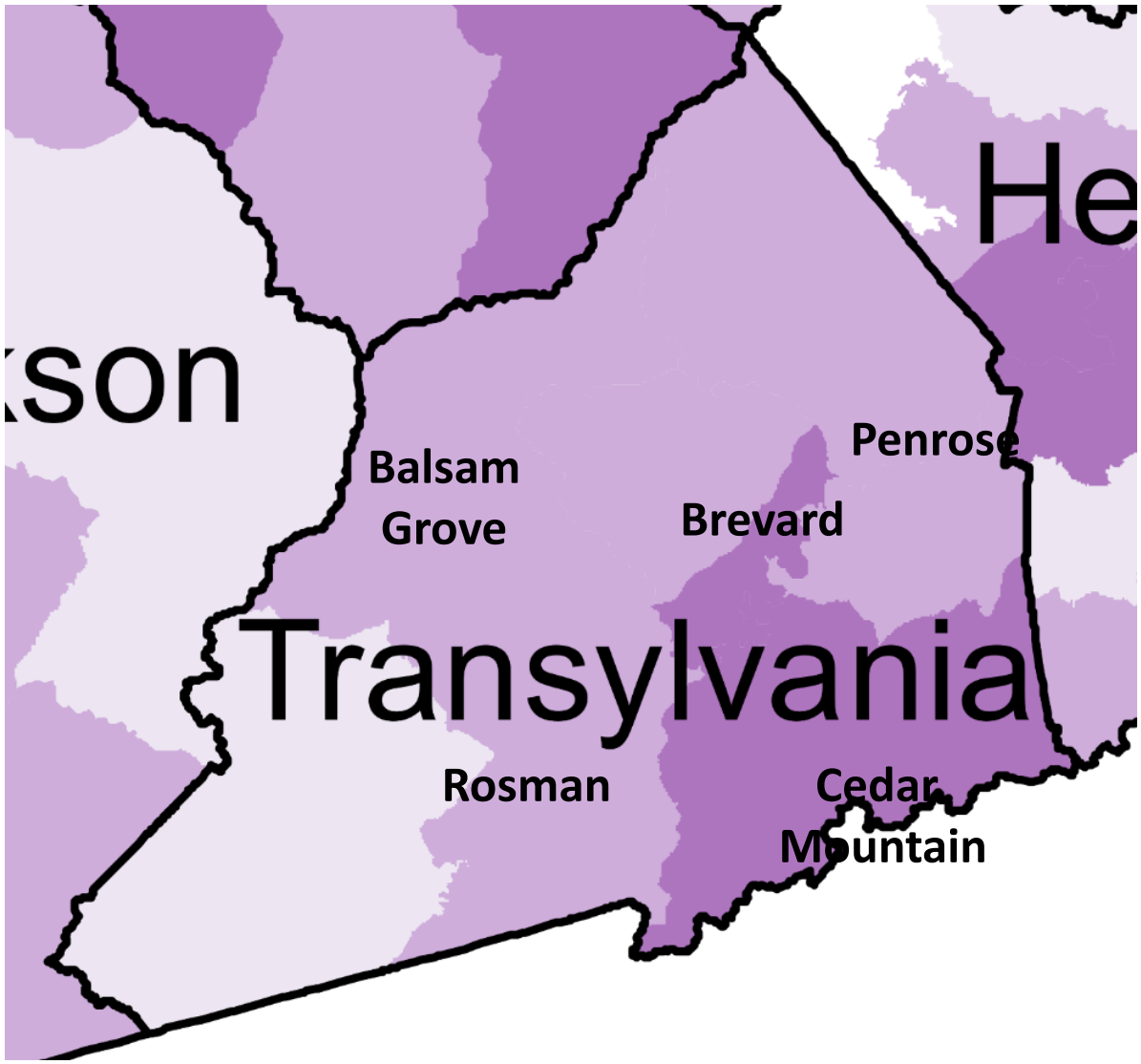
Geographic Unit: Census tract

Map produced by the NC State Center for Health Statistics

Rates are not age adjusted. Does not include motor vehicle mortality rates.

*Rates based on numbers less than 10 are unstable and should be interpreted with caution.

Transylvania County All Cancers Mortality Rates 2009-2013



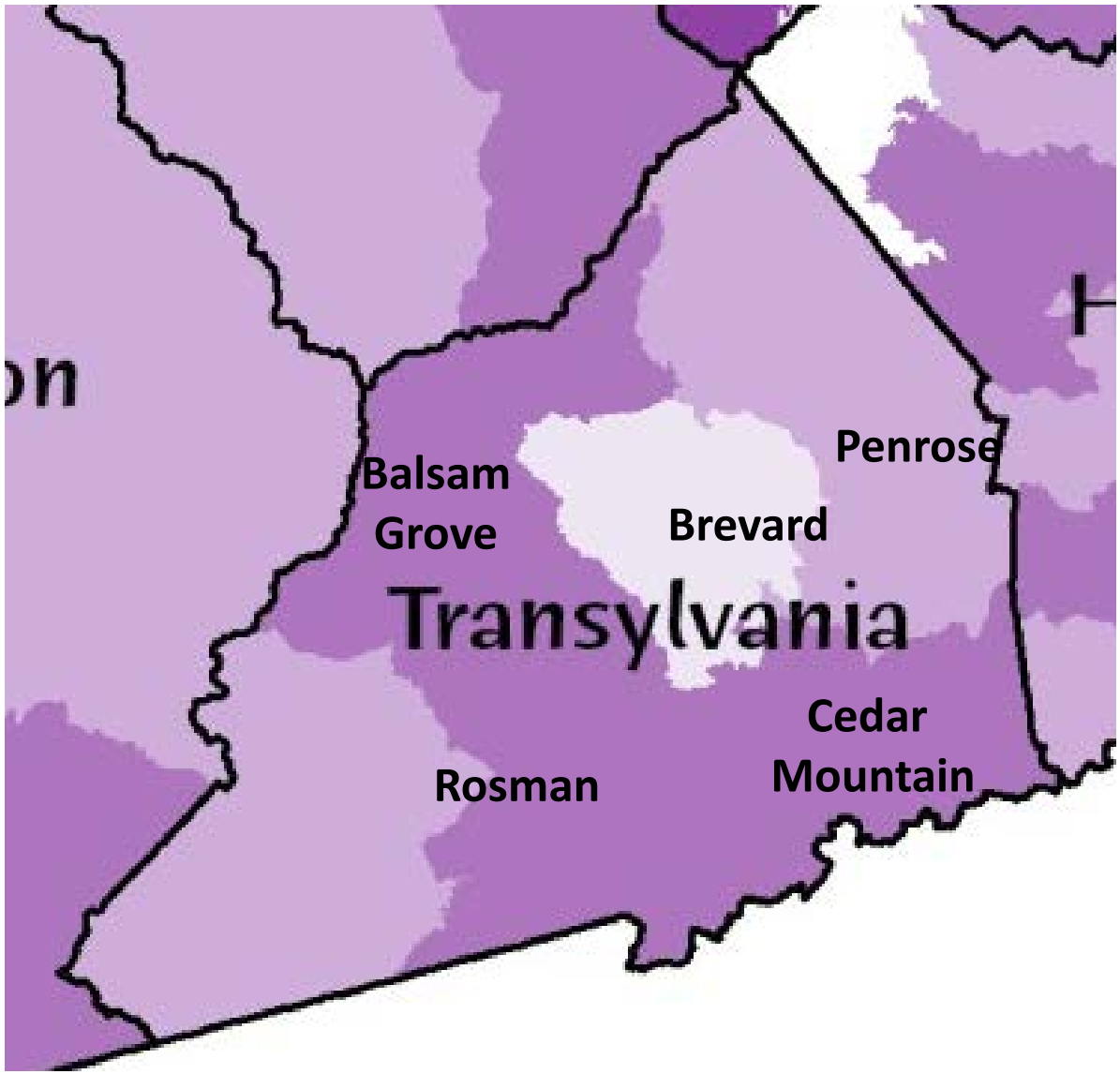
Source: NC State Center for Health Statistics 2009-13

Geographic Unit: Census tract

Map produced by the NC State Center for Health Statistics

Rates are not age adjusted.

Transylvania County All Cancer Incidence Rates 2008-2012



Rate Per 100,000 Population

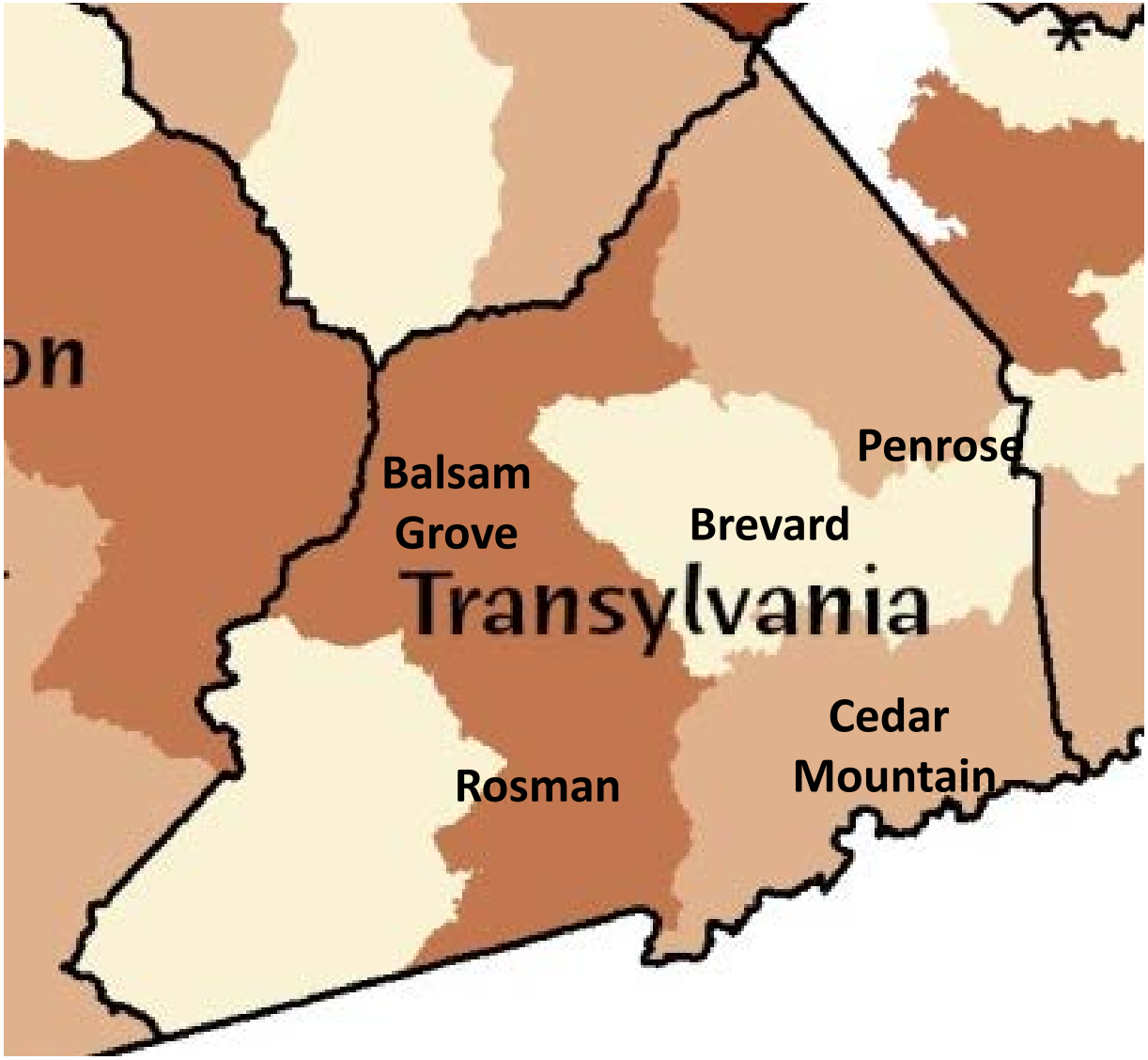
- 218.8 - 613.4
- 613.5 - 892.8
- 892.9 - 1269.2
- 1269.3 - 2277.5
- None
- County Boundary

Source: NC State Center for Health Statistics 2008-12Geographic Unit: Census tract

Map produced by the NC State Center for Health Statistics

Rates are not age adjusted. Rates may change as information is updated. Data obtained 02/2015.

Transylvania County Lung and Bronchus Cancer Incidence Rates 2008-2012



Rate per 100,000 Population

- 32.5 - 76.4
- 76.5 - 121.5
- 121.6 - 200.9
- 201.0 - 450.2
- None
- County Boundary

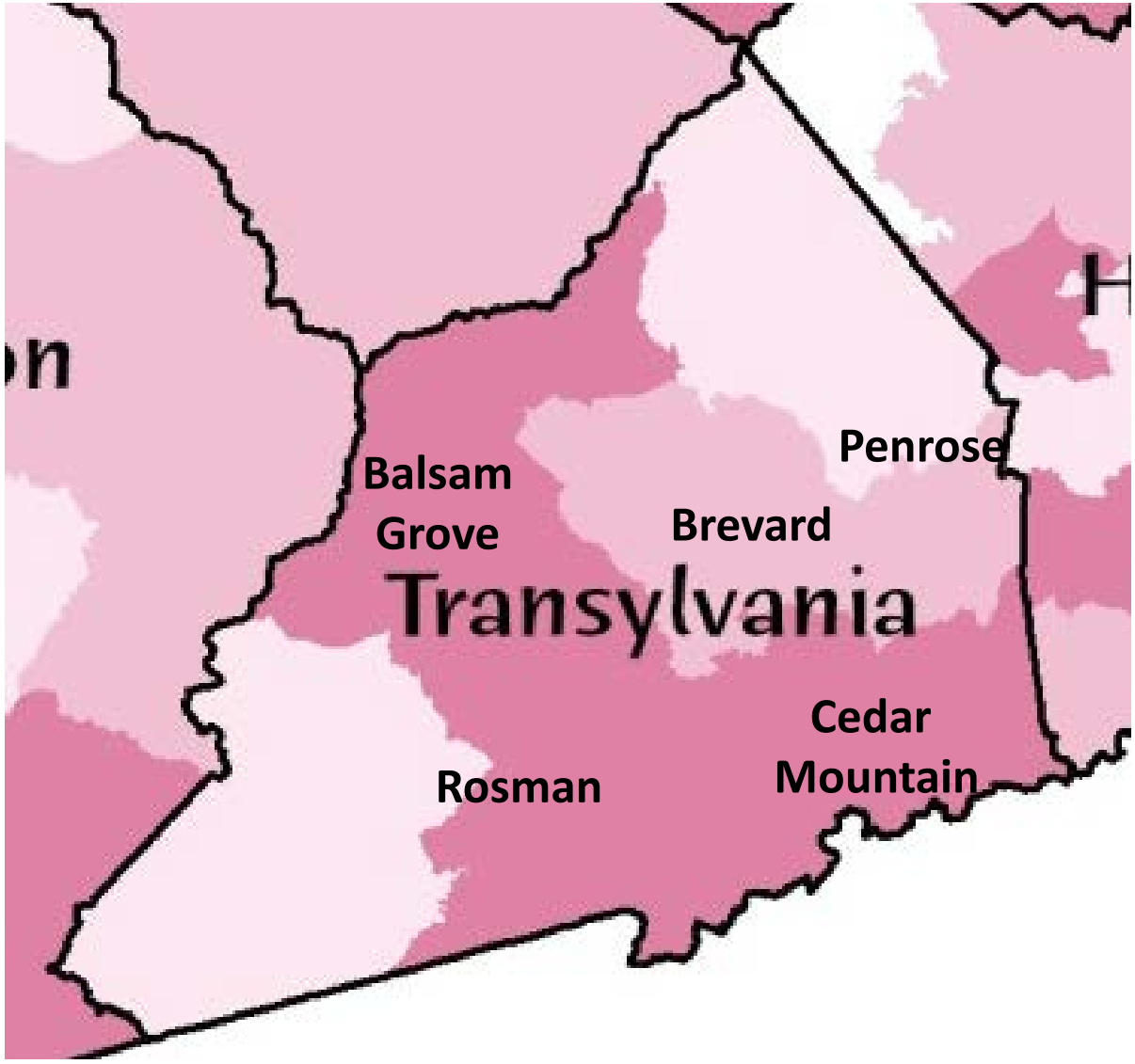
Source: NC State Center for Health Statistics 2008-12

Geographic Unit: Census tract

Map produced by the NC State Center for Health Statistics

Rates are not age adjusted. Rates may change as information is updated. Data obtained 02/2015.

Transylvania County Breast Cancer Incidence Rates 2008-2012



Rate per 100,000 Female Population

- 44.2 - 181.4
- 181.5 - 298.0
- 298.1 - 535.1
- 535.2 - 949.7
- None
- County Boundary

Source: NC State Center for Health Statistics 2008-12

Geographic Unit: Census tract

Map produced by the NC State Center for Health Statistics

Rates are not age adjusted. Rates may change as information is updated. Data obtained 02/2015.

APPENDIX D – PHONE SURVEY SUMMARY

2015 PRC Community Health Needs Assessment

A Data-Driven Approach to Identifying Community Health Needs

Transylvania County

Community Health Findings

Professional Research Consultants, Inc.

Prepared for WNC Healthy Impact

By Professional Research Consultants, Inc.

Western North Carolina Counties

Methodology

- Telephone survey methodology
  - Allows for high participation and random selection
  - These are critical to achieving a sample representative of county and regional populations by gender, age, race/ ethnicity, income
  - Landline (94%) and cell phone (6%)
  - English and Spanish

Methodology

- 3,300 telephone surveys throughout WNC
  - Adults 18+
  - Gathered data for each of 16 counties
  - Weights were added to enhance representativeness of data at county and regional levels

Methodology

- Full WNC sample allows for drill-down by:
  - County
  - Age
  - Gender
  - Race/ ethnicity (White, Black, Hispanic, Native American)
  - Income (3 levels based on poverty status)
  - Other categories, based on question responses

- Individual county samples allow for drill-down by
  - Gender
  - Income (2 levels based on poverty status
  - Other categories, based on question responses

Survey Instrument

- Based largely on national survey models
  - When possible, question wording from public surveys (e.g., CDC BRFSS)
- 75 questions asked of all counties
  - Each county added three county-specific questions
  - Approximately 15-minute interviews
  - Questions determined by WNC stakeholder input

Minimizing bias

- Potential bias
  - Noncoverage error - *Underrepresentation of people without phones*
  - Sampling error - *Estimates based on only a sample*
  - Measurement error - *Responses to questions may not be completely accurate due to question wording, interviewer's tone, etc.*
- Strategies to minimize bias
  - Random selection
  - Strict adherence to administration protocols
  - Use of a tested survey instrument
  - Automated CATI system (lessens risk of human error in data entry)

Keep in mind

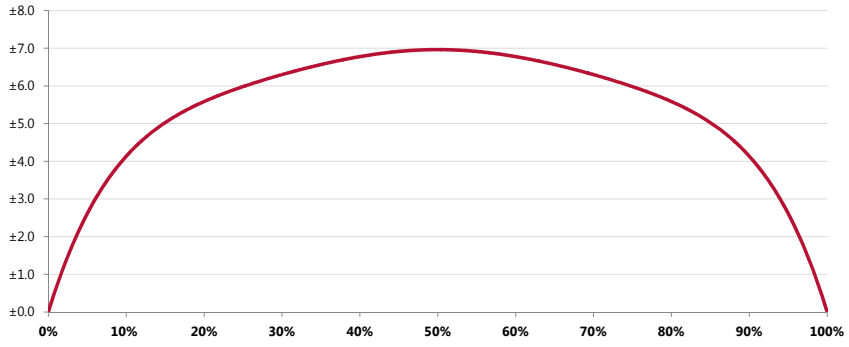
- Sampling levels allow for good local confidence intervals, but you should still keep in mind that error rates are larger at the county level than for WNC as a region
  - Results for WNC regional data have maximum error rate of ±1.7% at the 95% confidence level
  - Results for individual counties have maximum error rate of ±6.9% at the 95% confidence level
- PRC indicates in regional report when differences – between county and regional results, different demographic groups, and 2012 to 2015 – are statistically significant

Keep in mind

For more detailed information on methods, see:

- **PRC's Primary Data Collection: Research Approach & Methods document (2015)**
- **County-specific CH(N)A Templates**

Expected Error Ranges for a Sample of 200 Respondents at the 95 Percent Level of Confidence

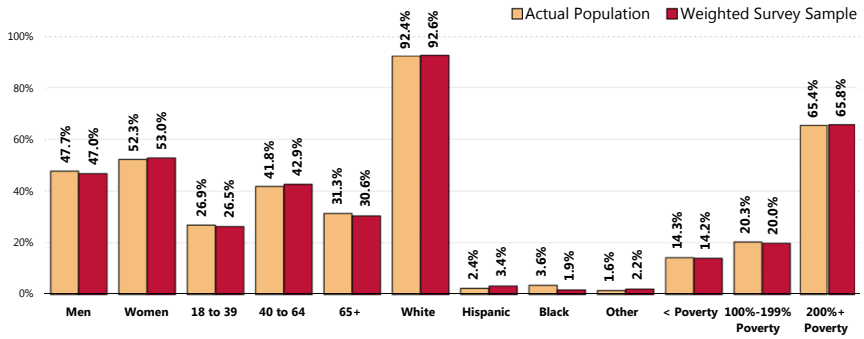


Note:
- The "response rate" (the percentage of a population giving a particular response) determines the error rate associated with that response. A "95 percent level of confidence" indicates that responses would fall within the expected error range on 95 out of 100 trials.

Examples:
- If 10% of the sample of 200 respondents answered a certain question with a "yes," it can be asserted that between 5.8% and 14.2% (10% ± 4.2%) of the total population would offer this response.
- If 50% of respondents said "yes," one could be certain with a 95 percent level of confidence that between 43.1% and 56.9% (50% ± 6.9%) of the total population would respond "yes" if asked this question.

Population & Sample Characteristics

(Transylvania County, 2015)

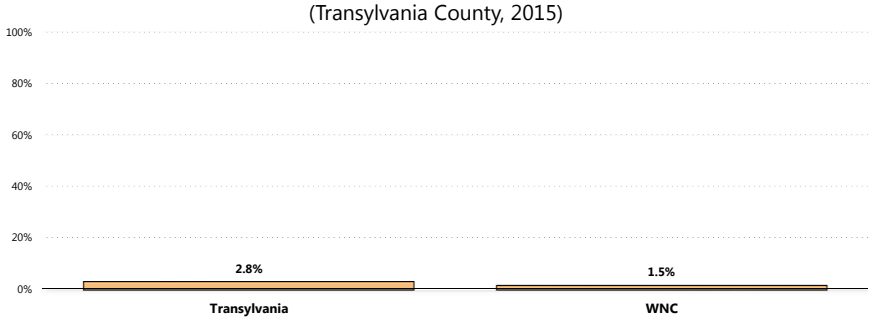


Sources:
- 2015 Census Estimates/Projections. Geolytics, Inc.
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc.

Notes:
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).

Sample of Seasonal (Part-Time) Residents

(Transylvania County, 2015)



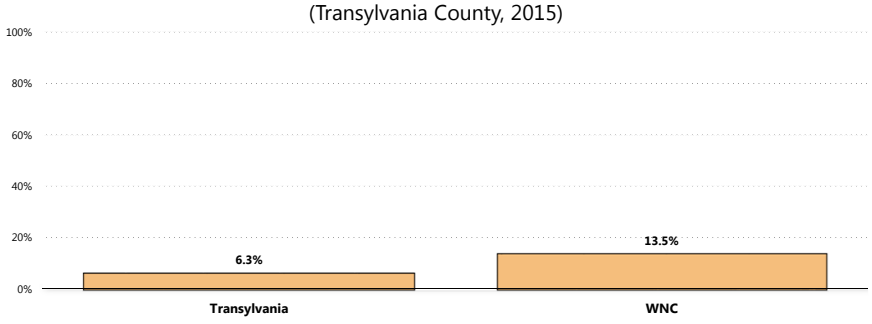
Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 102]

QUALITY OF LIFE

COMMUNITY HEALTH

County is a "Fair/Poor" Place to Live

(Transylvania County, 2015)



Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 5]
Notes: • Asked of all respondents.

Top Three County Issues Perceived as in Most Need of Improvement

(Transylvania County, 2015)

	Transylvania	WNC
Economy/Unemployment	✓	✓
Nothing	✓	✓
Road Maintenance/Safety	✓	✓

Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 6]
Notes: • Asked of all respondents.

SELF-REPORTED HEALTH STATUS

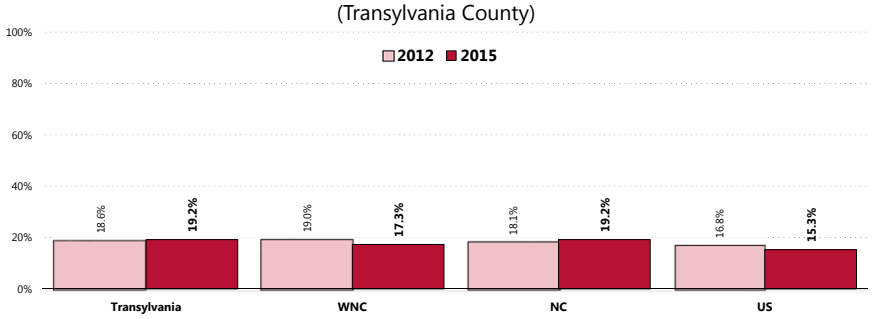
COMMUNITY HEALTH

Overall Health

COMMUNITY HEALTH

Experience "Fair" or "Poor" Overall Health

(Transylvania County)

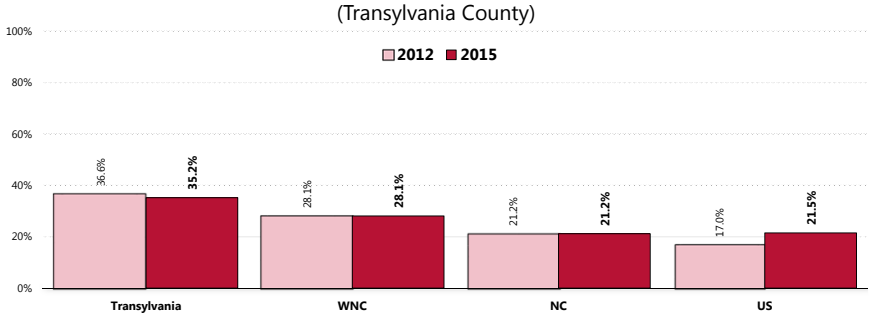


Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 7]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.
- PRC National Health Surveys, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

Limited in Activities in Some Way Due to a Physical, Mental, or Emotional Problem

(Transylvania County)

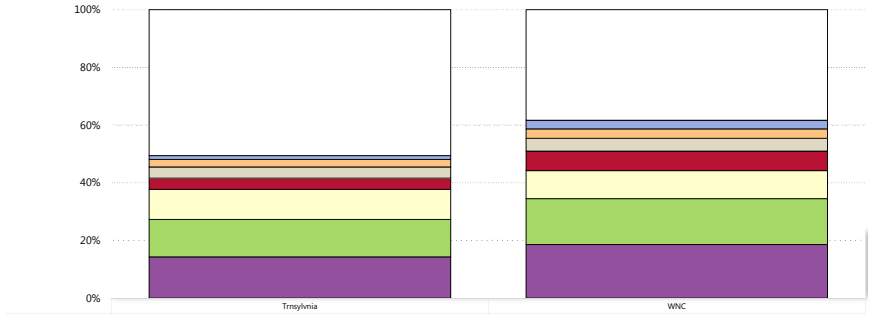


Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 86]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.
- PRC National Health Surveys, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

Type of Problem That Limits Activities

(Among Those Reporting Activity Limitations; Transylvania County, 2015)



	Trnsylvnia	WNC
Other (Each <3%)	50.6	38.3
Heart Problem	1.3	3.0
Mental/ Depression	2.6	3.3
Lung/Breathing Problem	3.9	4.4
Fracture/Bone/Joint Injury	3.9	6.8
Difficulty Walking	10.4	9.7
Arthritis/Rheumatism	13.0	15.9
Back/Neck Problem	14.3	18.6

Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 87]

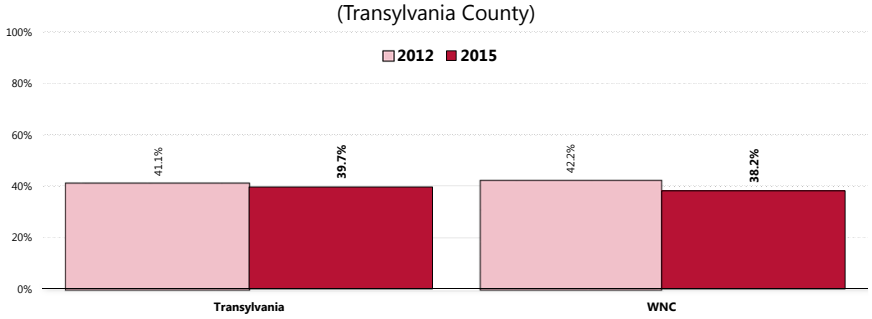
Notes:
- Asked of those respondents reporting activity limitations.

Caregiving

COMMUNITY HEALTH

Provide Regular Care or Assistance to a Friend/Family Member Who Has a Health Problem or Disability

(Transylvania County)



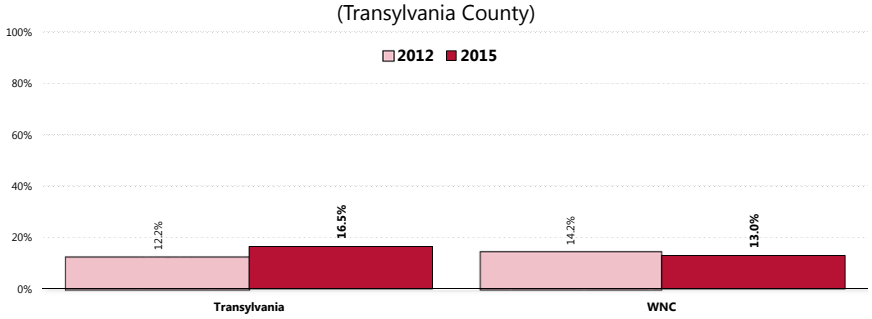
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 89]
Notes: • Asked of all respondents.

Mental Health & Mental Disorders

COMMUNITY HEALTH

>7 Days of Poor Mental Health in the Past Month

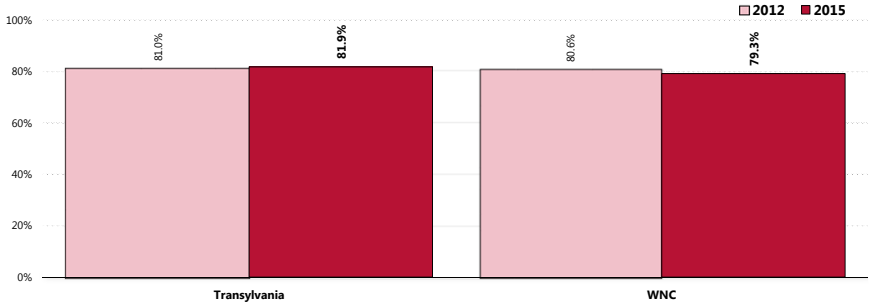
(Transylvania County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 83]
Notes: • Asked of all respondents.

"Always" or "Usually" Get Needed Social/Emotional Support

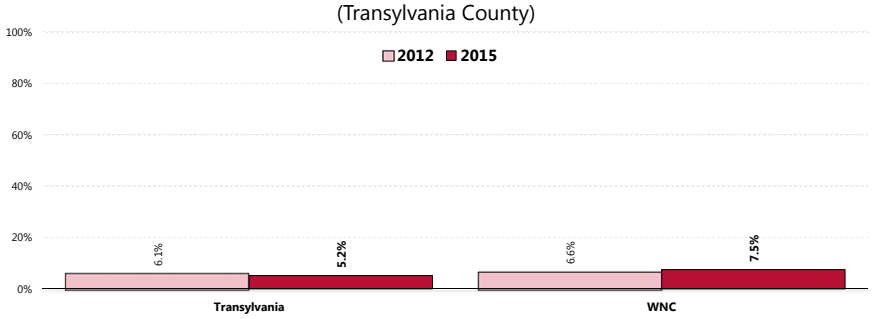
("Always" and "Usually" Responses; Transylvania County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 82]
Notes: • Asked of all respondents.

Unable to Get Needed Mental Health Care or Counseling in the Past Year

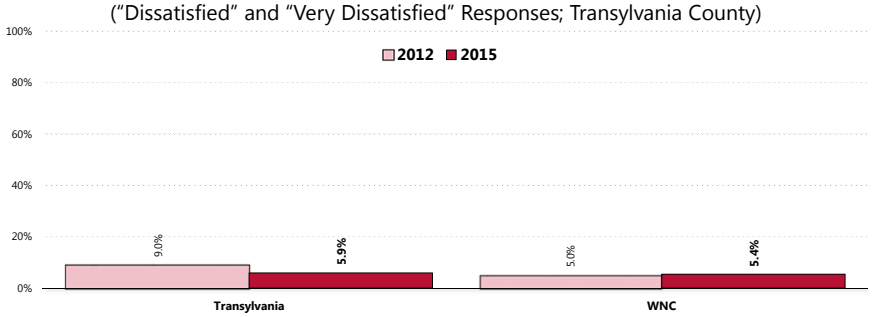
(Transylvania County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 84]
Notes: • Asked of all respondents.

Dissatisfied with Life

("Dissatisfied" and "Very Dissatisfied" Responses; Transylvania County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 81]
Notes: • Asked of all respondents.

CHRONIC CONDITIONS & INJURY

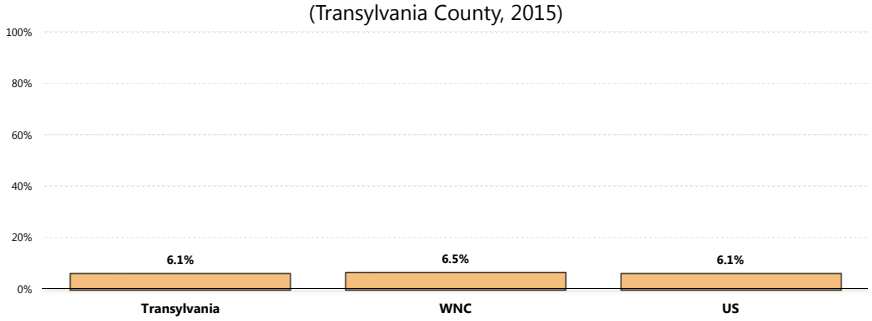
COMMUNITY HEALTH

Cardiovascular Risk

COMMUNITY HEALTH

Prevalence of Heart Disease

(Transylvania County, 2015)

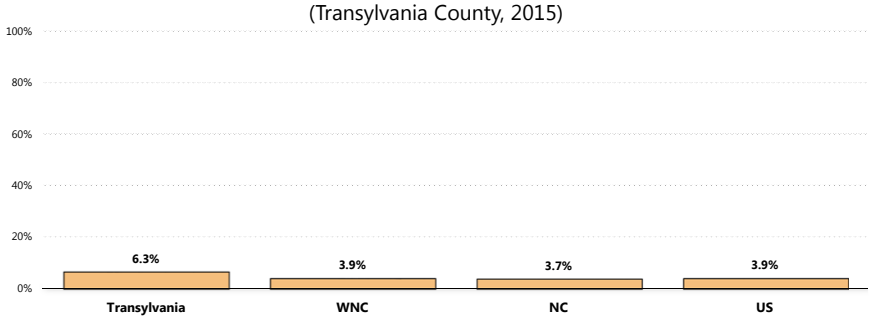


Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 24]
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Includes diagnoses of heart attack, angina or coronary heart disease.

Prevalence of Stroke

(Transylvania County, 2015)



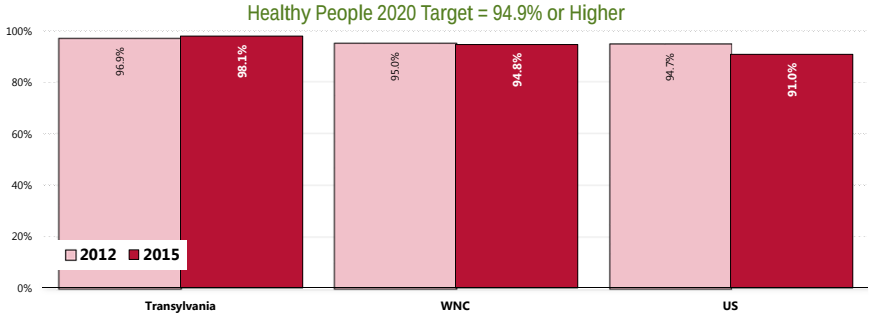
Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 25]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2013 North Carolina data.
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Includes diagnoses of heart attack, angina or coronary heart disease.

Have Had Blood Pressure Checked in the Past Two Years

(Transylvania County)

Healthy People 2020 Target = 94.9% or Higher



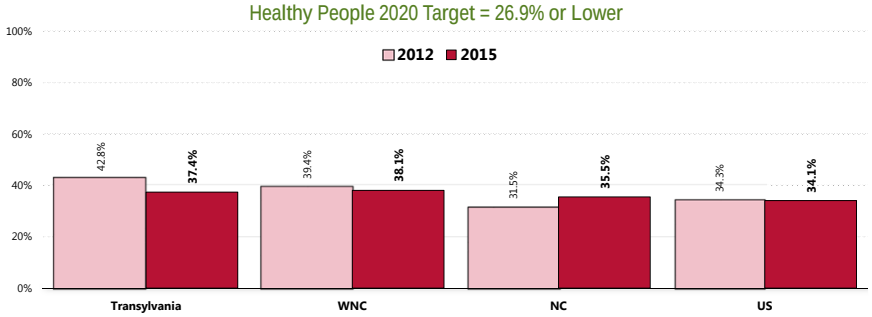
Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 34]
- PRC National Health Surveys, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective HDS-4]

Notes:
- Asked of all respondents.

Prevalence of High Blood Pressure

(Transylvania County)

Healthy People 2020 Target = 26.9% or Lower

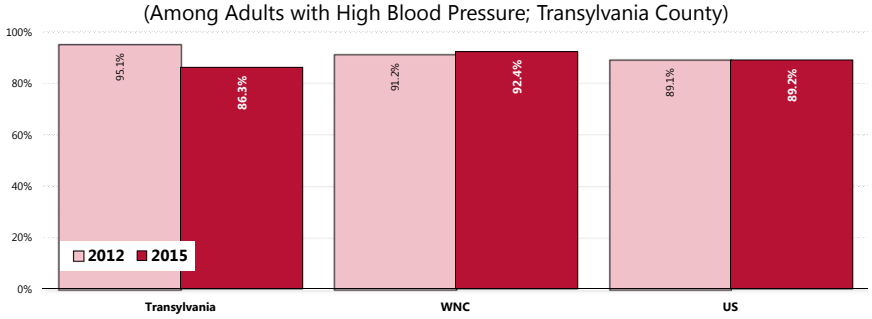


Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 111]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.
- PRC National Health Surveys, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective HDS-5.1]

Notes:
- Asked of all respondents.

Taking Action to Control Hypertension

(Among Adults with High Blood Pressure; Transylvania County)



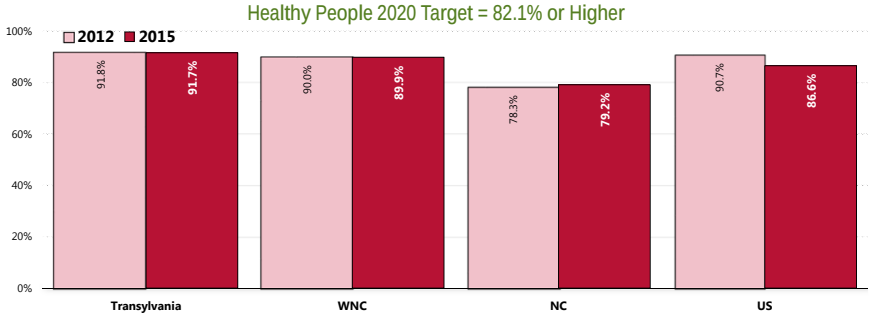
Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 33]
- PRC National Health Surveys, Professional Research Consultants, Inc.

Notes:
- Asked of respondents who have been diagnosed with high blood pressure.
- In this case, the term "action" refers to medication, change in diet, and/or exercise.

Have Had Blood Cholesterol Levels Checked in the Past Five Years

(Transylvania County)

Healthy People 2020 Target = 82.1% or Higher



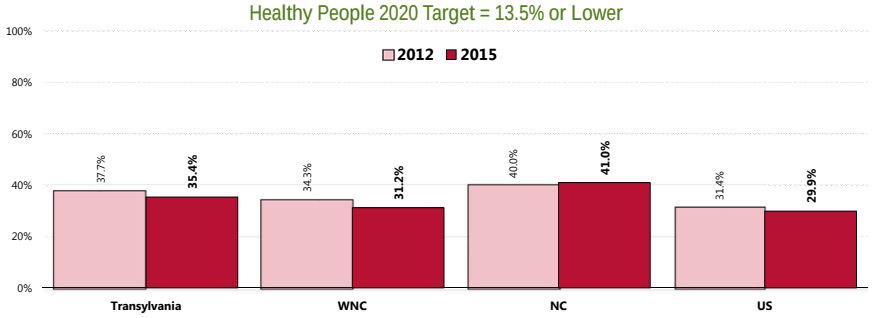
Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 37]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.
- PRC National Health Surveys, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective HDS-6]

Notes:
- Asked of all respondents.

Prevalence of High Blood Cholesterol

(Transylvania County)

Healthy People 2020 Target = 13.5% or Lower

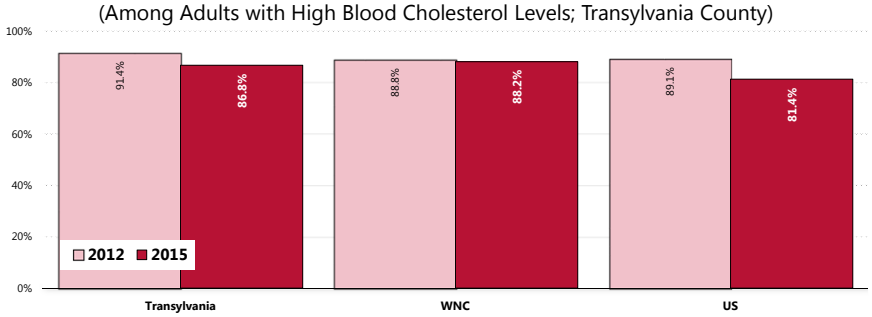


Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 112]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.
- PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective HDS-7]

Notes:
- Asked of all respondents.

Taking Action to Control High Blood Cholesterol

(Among Adults with High Blood Cholesterol Levels; Transylvania County)



Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 36]
- PRC National Health Surveys, Professional Research Consultants, Inc.

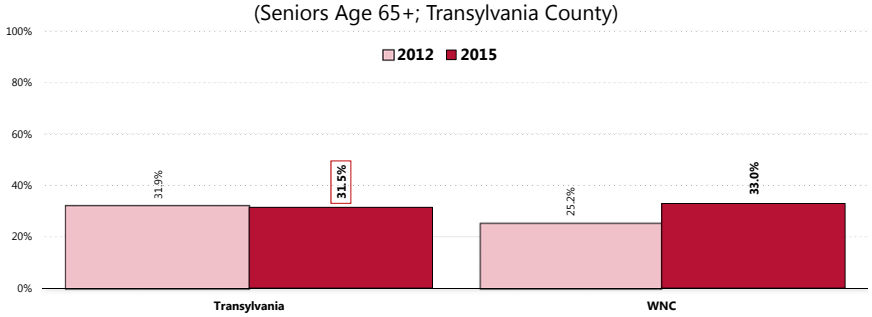
Notes:
- Asked of respondents who have been diagnosed with high blood pressure.
- In this case, the term "action" refers to medication, change in diet, and/or exercise.

Falls

COMMUNITY HEALTH

Have Fallen in the Past Year

(Seniors Age 65+; Transylvania County)



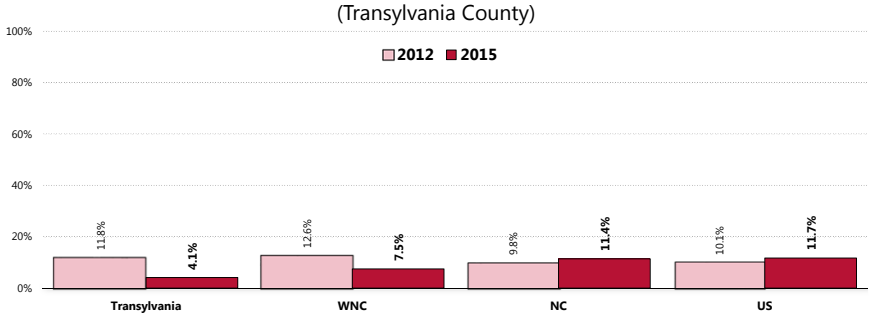
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 88]
Notes: • Asked of those respondents age 65+.
• Percentages outlined in red reflect sample sizes deemed unreliable (n<50).

Diabetes

COMMUNITY HEALTH

Prevalence of Diabetes (Ever Diagnosed)

(Transylvania County)

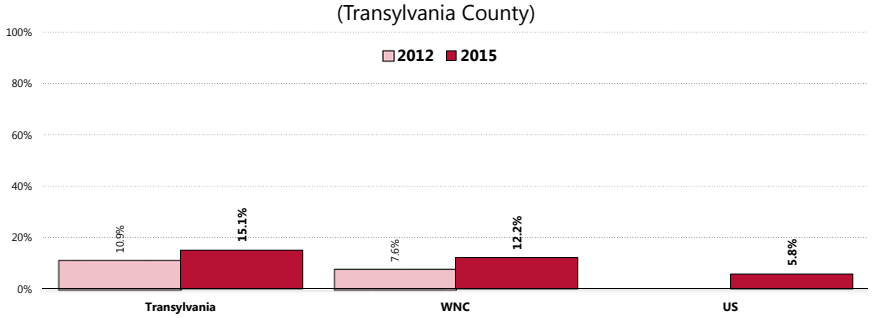


Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 28]
- PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.

Notes:
- Asked of all respondents.
- Excludes gestational diabetes (occurring only during pregnancy).

Prevalence of Borderline or Pre-Diabetes

(Transylvania County)

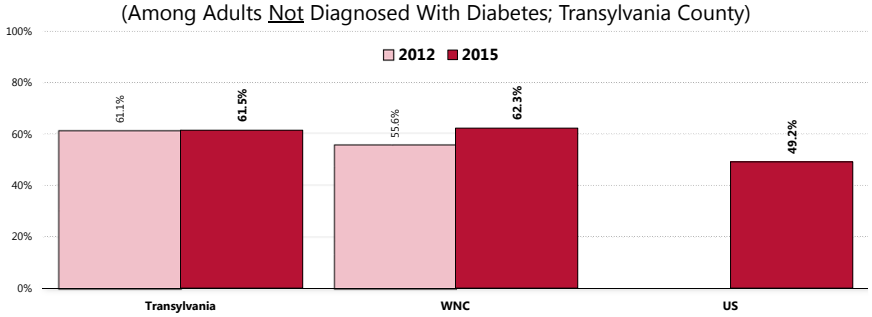


Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 28]
- PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Excludes gestational diabetes (occurring only during pregnancy).

Tested for Diabetes in the Past Three Years

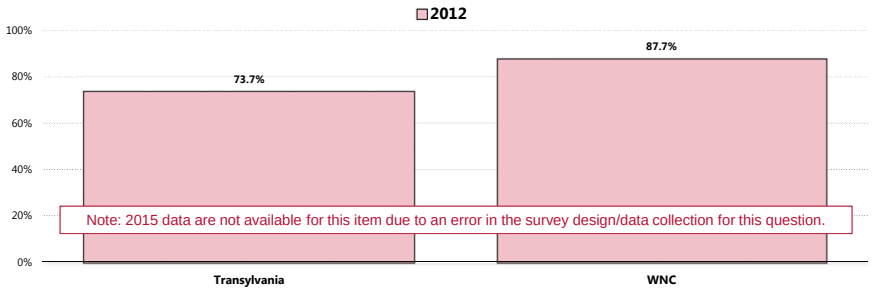
(Among Adults Not Diagnosed With Diabetes; Transylvania County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 29]
• 2013 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: • Asked of respondents who have never been diagnosed with diabetes; also includes women who have only been diagnosed when pregnant.

Taking Action to Control Diabetes or Pre-diabetes

(Among Adults Diagnosed With Diabetes or Prediabetes/Borderline Diabetes)



Sources: • 2012 PRC Community Health Survey, Professional Research Consultants, Inc.
Notes: • Asked of respondents who have been diagnosed with diabetes or pre-diabetes/borderline diabetes.
• In this case, the term "action" refers to taking natural or conventional medicines or supplements, diet modification, or exercising.

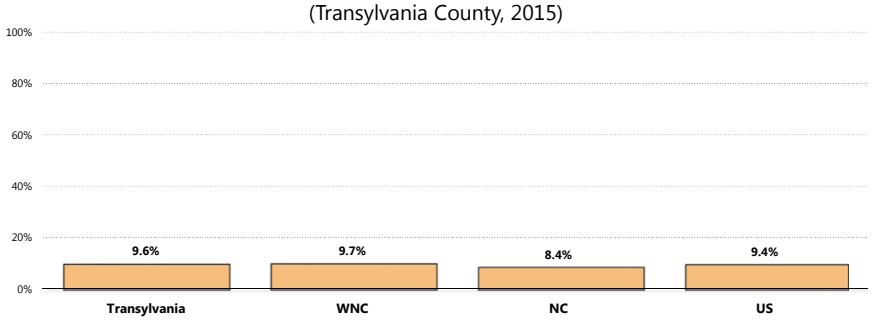
Reflects revised PRC data [10/23/2015]

Respiratory Conditions

COMMUNITY HEALTH

Current Prevalence of Asthma

(Transylvania County, 2015)

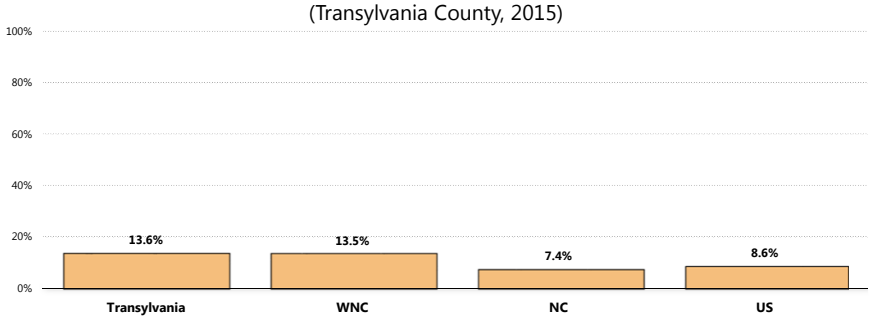


Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 120]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2013 North Carolina data.
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Includes those who have ever been diagnosed with asthma and who report that they still have asthma.

Prevalence of Chronic Obstructive Pulmonary Disease (COPD)

(Transylvania County, 2015)



Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 23]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2013 North Carolina data.
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Includes those have ever suffered from or been diagnosed with COPD or chronic obstructive pulmonary disease, including bronchitis or emphysema.

MODIFIABLE HEALTH RISKS

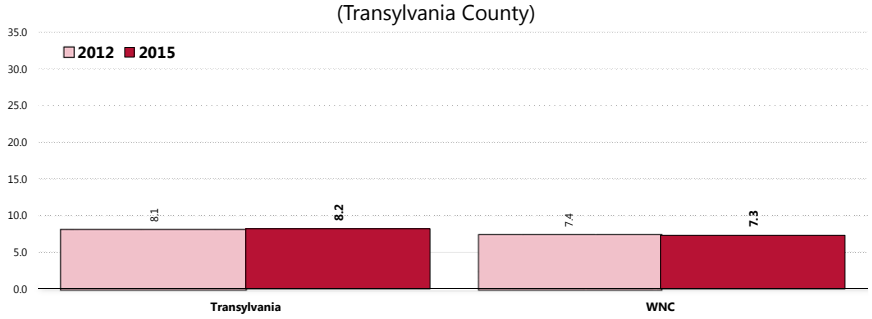
COMMUNITY HEALTH

Nutrition

COMMUNITY HEALTH

Average Servings of Fruits in the Past Week

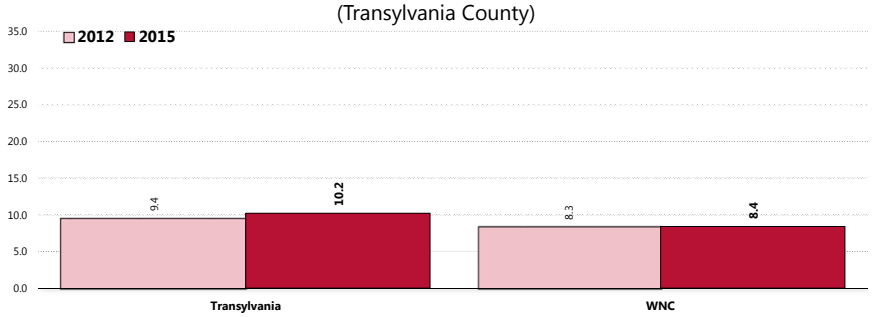
(Transylvania County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 63]
Notes: • Asked of all respondents.
• For this issue, respondents were asked to recall their food intake during the previous week. Reflects 1-cup servings of fruits in the past week.

Average Servings of Vegetables in the Past Week

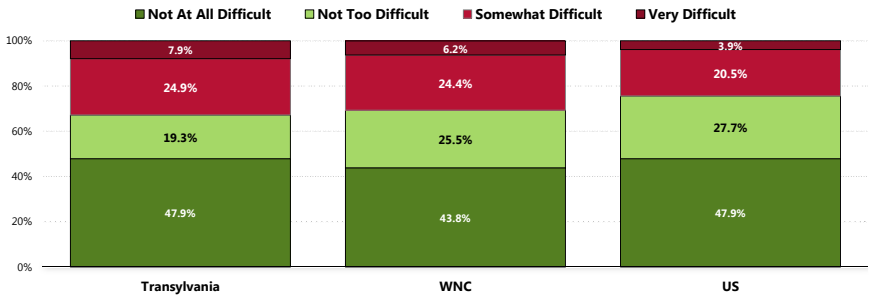
(Transylvania County)



Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 64]
Notes: • Asked of all respondents.
• For this issue, respondents were asked to recall their food intake during the previous week. Reflects 1-cup servings of vegetables in the past week, excluding lettuce salad and potatoes.

Level of Difficulty Accessing Fresh Produce at an Affordable Price

(Transylvania County, 2015)



Sources: • 2015 PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 66]
• 2013 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: • Asked of all respondents.

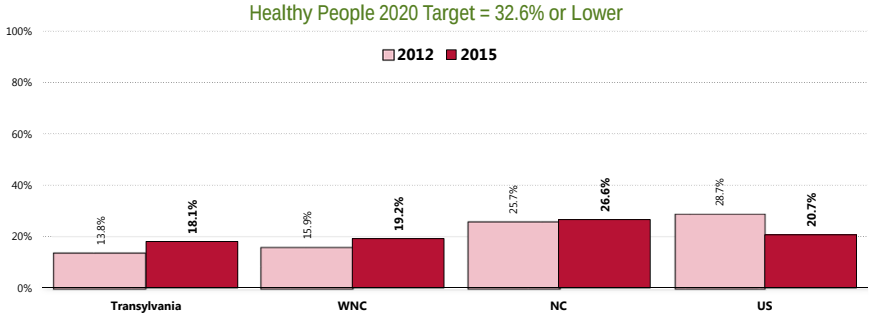
Physical Activity & Fitness

COMMUNITY HEALTH

No Leisure-Time Physical Activity in the Past Month

(Transylvania County)

Healthy People 2020 Target = 32.6% or Lower

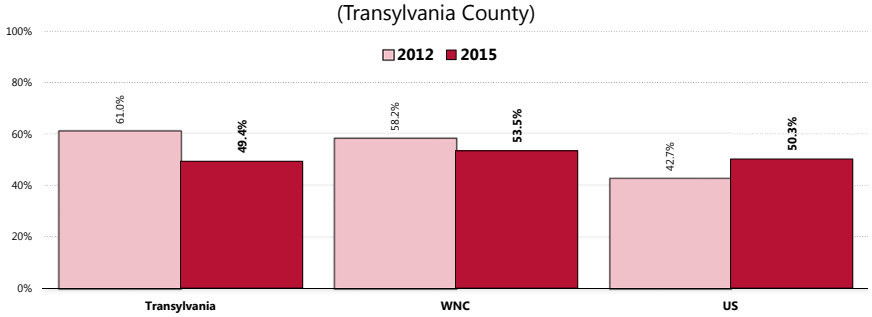


Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 73]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.
- PRC National Health Surveys, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective PA-1]

Notes:
- Asked of all respondents.

Meets Physical Activity Recommendations

(Transylvania County)

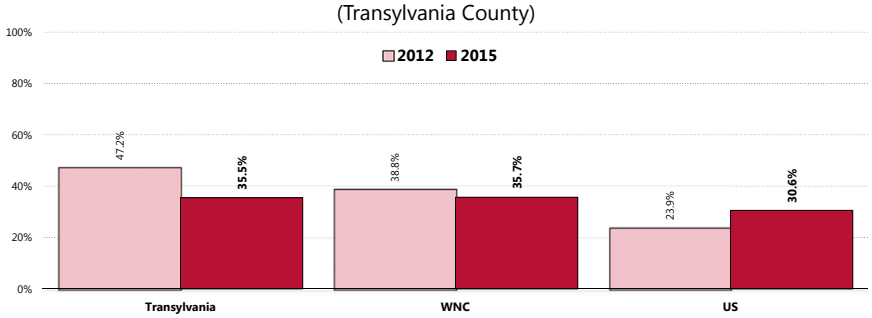


Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 133]
- PRC National Health Surveys, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- In this case the term "meets physical activity recommendations" refers to participation in moderate physical activity (exercise that produces only light sweating or a slight to moderate increase in breathing or heart rate) at least 5 times a week for 30 minutes at a time, and/or vigorous physical activity (activities that cause heavy sweating or large increases in breathing or heart rate) at least 3 times a week for 20 minutes at a time.

Moderate Physical Activity

(Transylvania County)

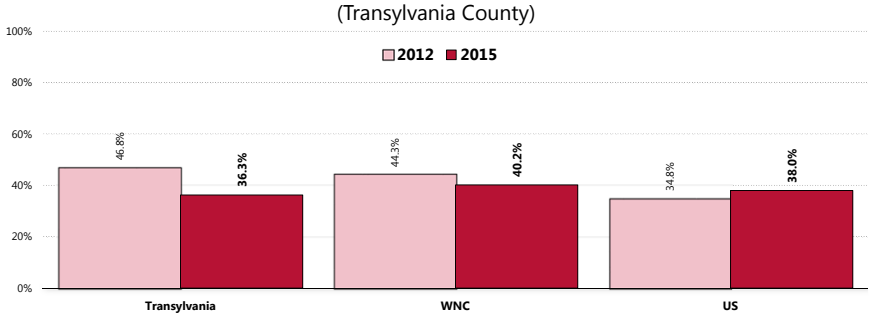


Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 134]
- PRC National Health Surveys, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Moderate Physical Activity: Takes part in exercise that produces only light sweating or a slight to moderate increase in breathing or heart rate at least 5 times per week for at least 30 minutes per time.

Vigorous Physical Activity

(Transylvania County)

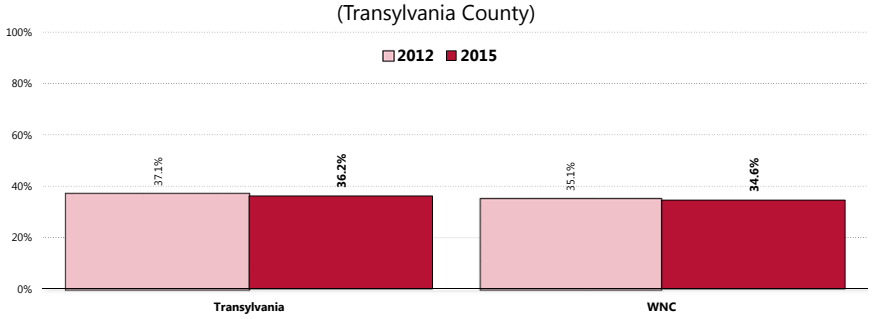


Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 135]
- PRC National Health Surveys, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Vigorous Physical Activity: Takes part in activities that cause heavy sweating or large increases in breathing or heart rate at least 3 times per week for at least 20 minutes per time.

Strengthening Physical Activity

(Transylvania County)

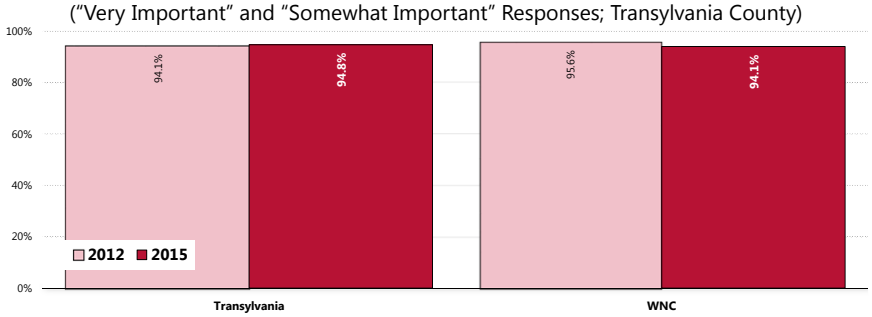


Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 164]

Notes:
- Asked of all respondents.
- Strengthening Physical Activity: Takes part in physical activities or exercises that strengthen muscles at least 2 times per week.

Believe It Is Important That Community Organizations Make Physical Activity Spaces Available for Public Use After Hours

("Very Important" and "Somewhat Important" Responses; Transylvania County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 77]
Notes: • Asked of all respondents.

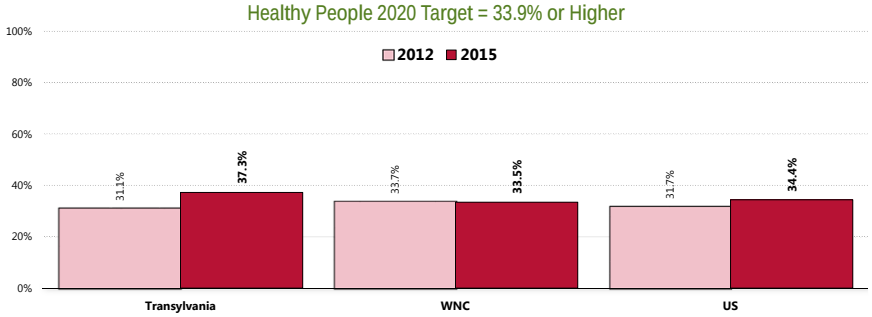
Body Weight

COMMUNITY HEALTH

Healthy Weight

(Percent of Adults With a Body Mass Index Between 18.5 and 24.9; Transylvania County)

Healthy People 2020 Target = 33.9% or Higher

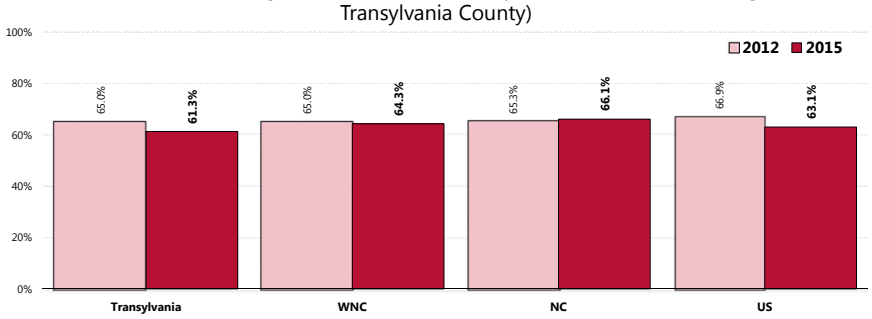


Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 137]
- PRC National Health Surveys, Professional Research Consultants, Inc.

Notes:
- Based on reported heights and weights, asked of all respondents.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective NWS-8]
- The definition of healthy weight is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), between 18.5 and 24.9.

Prevalence of Total Overweight (Overweight or Obese)

(Percent of Overweight or/Obese Adults; Body Mass Index of 25.0 or Higher
Transylvania County)



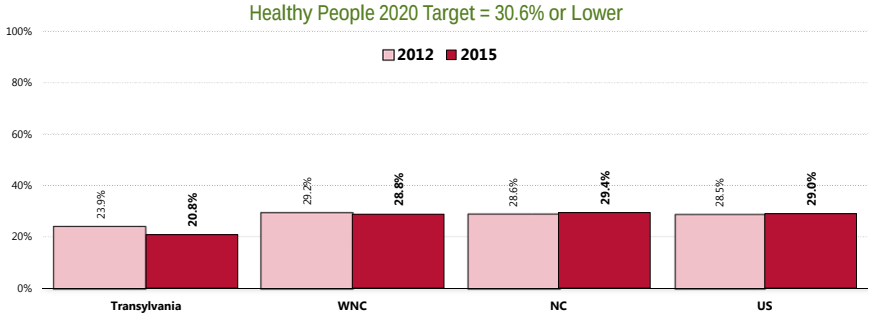
Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 137]
- PRC National Health Surveys, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.

Notes:
- Based on reported heights and weights, asked of all respondents.
- The definition of overweight is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 25.0, regardless of gender. The definition for obesity is a BMI greater than or equal to 30.0.

Prevalence of Obesity

(Percent of Obese Adults; Body Mass Index of 30.0 or Higher; Transylvania County)

Healthy People 2020 Target = 30.6% or Lower

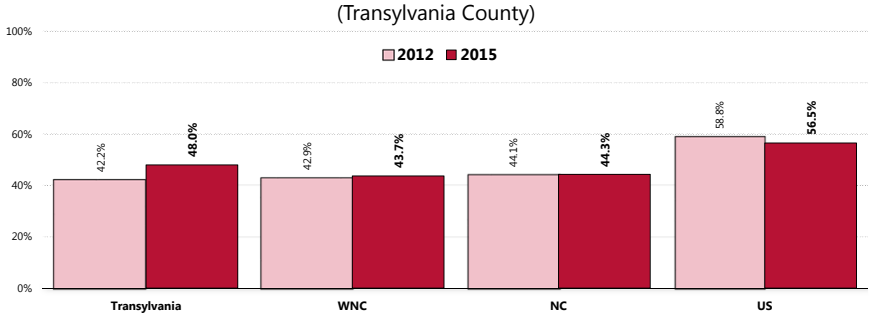


Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 137]
- PRC National Health Surveys, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective NWS-9]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.

Notes:
- Based on reported heights and weights, asked of all respondents.
- The definition of obesity is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 30.0, regardless of gender.

Substance Abuse

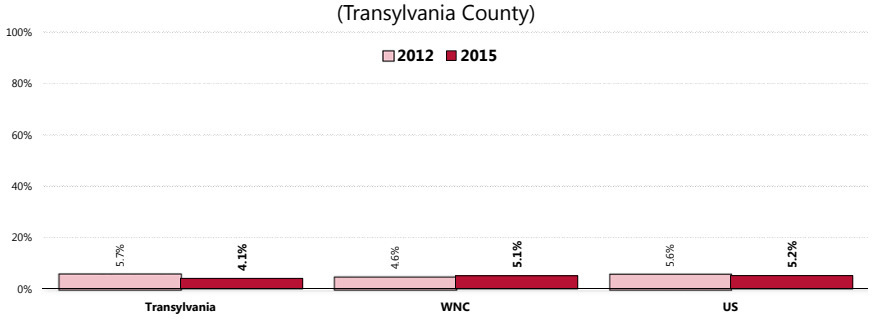
Current Drinkers
(Transylvania County)



Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 146]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.
- PRC National Health Surveys, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Current drinkers had at least one alcoholic drink in the past month.

Chronic Drinkers
(Transylvania County)



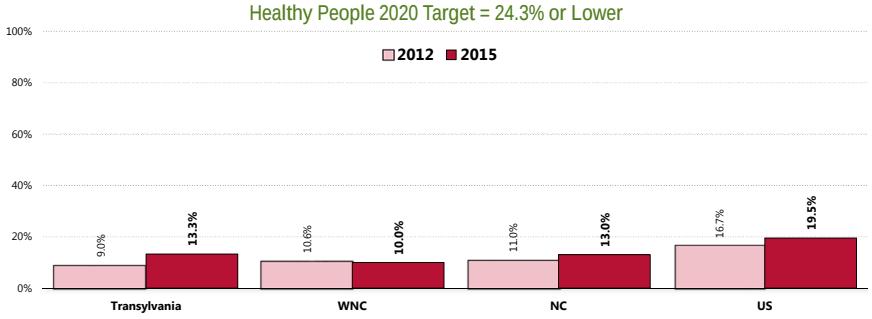
Sources:
- PRC Community Health Survey, Professional Research Consultants, Inc. [Item 147]
- PRC National Health Surveys, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Chronic drinkers are defined as having 60+ alcoholic drinks in the past month.

Binge Drinkers

(Transylvania County)

Healthy People 2020 Target = 24.3% or Lower



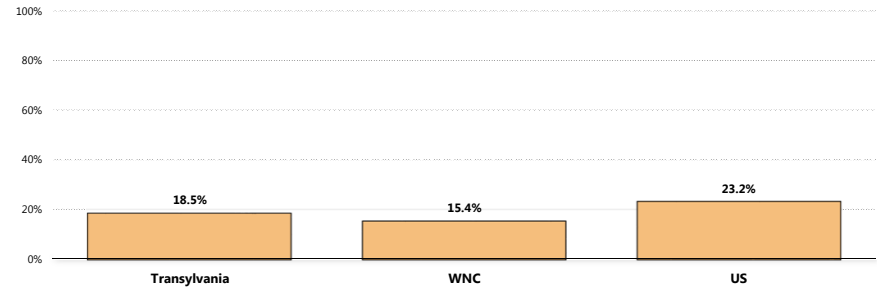
Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 148]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.
- PRC National Health Surveys, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective SA-14.3]

Notes:
- Asked of all respondents.
- Binge drinkers are defined as those consuming 5+ alcoholic drinks on any one occasion in the past 30 days; * note that state and national data reflect different thresholds for men (5+ drinks) and women (4+ drinks).

Excessive Drinkers

(Transylvania County, 2015)

Healthy People 2020 Target = 25.4% or Lower

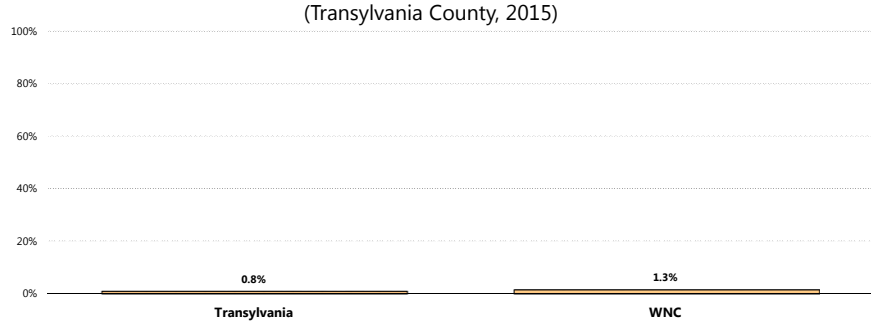


Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 150]
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective SA-15]

Notes:
- Asked of all respondents.
- Excessive drinking reflects the number of persons aged 18 years and over who drank more than two drinks per day on average (for men) or more than one drink per day on average (for women) OR who drank 5 or more drinks during a single occasion (for men) or 4 or more drinks during a single occasion (for women) during the past 30 days.

Have Taken a Prescription Drug in the Past Month That Was Not Prescribed

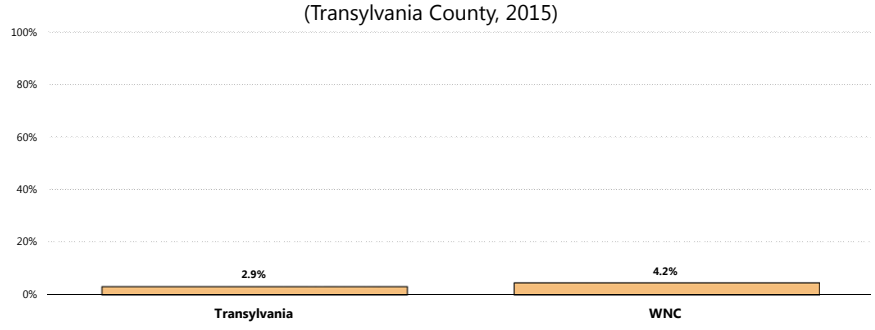
(Transylvania County, 2015)



Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 58]
Notes: • Asked of all respondents.
• Includes reported use of a prescription drug not prescribed to the respondent.

Have Ever Shared a Prescription Medication With Someone Else

(Transylvania County, 2015)



Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 59]
Notes: • Asked of all respondents.

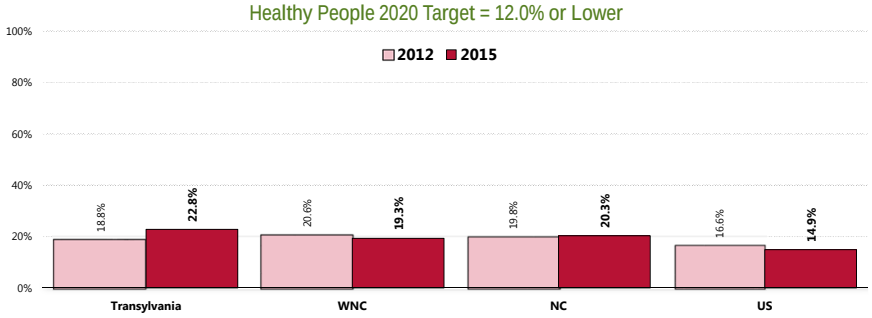
Tobacco Use

COMMUNITY HEALTH

Current Smokers

(Transylvania County)

Healthy People 2020 Target = 12.0% or Lower



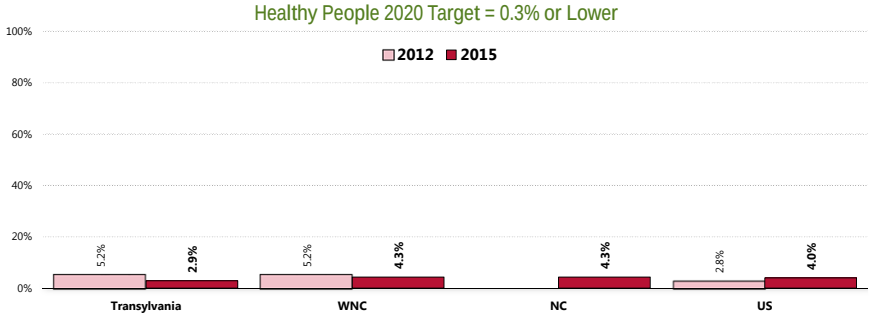
Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 45]
- PRC National Health Surveys, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective TU-1.1]

Notes:
- Asked of all respondents.
- Includes regular and occasional smokers (everyday and some days).

Currently Use Smokeless Tobacco Products

(Transylvania County)

Healthy People 2020 Target = 0.3% or Lower

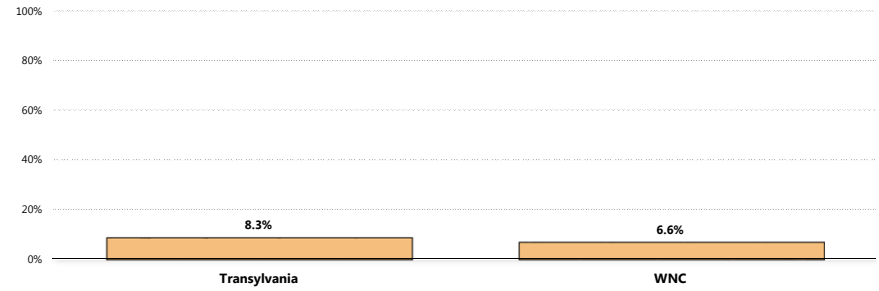


Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 46]
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2013 North Carolina data.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective TU-1.2]

Notes:
- Asked of all respondents.
- Includes regular and occasional users (everyday and some days).

Currently Use E-Cigarettes

(Transylvania County, 2015)

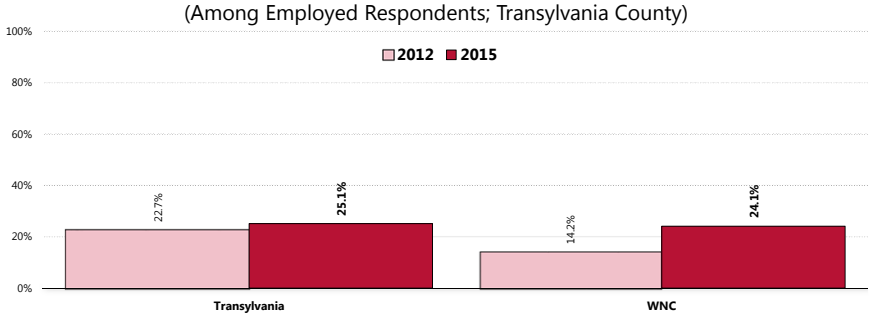


Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 47]

Notes:
- Asked of all respondents.
- Electronic cigarettes (or e-cigarettes) are battery-operated devices that simulate traditional cigarette smoking, but do not involve the burning of tobacco. The cartridge or liquid "e-juice" used in these devices produces vapor and comes in a variety of flavors.
- Includes regular and occasional use (everyday and some days).

Have Breathed Someone Else's Cigarette Smoke at Work in the Past Week

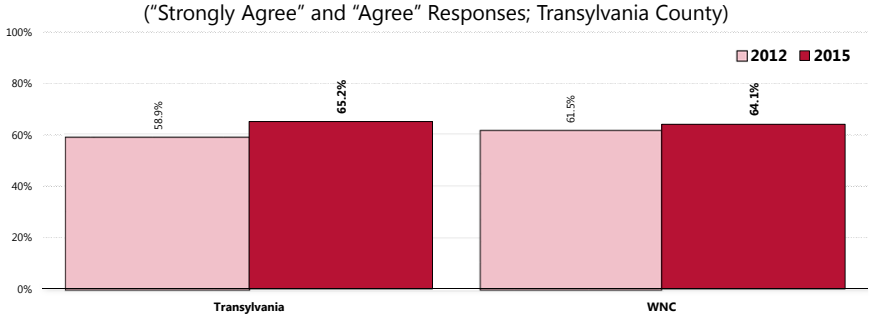
(Among Employed Respondents; Transylvania County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 49]
Notes: • Asked of employed respondents.

Believe It Is Important That Public Walking/Biking Trails Are 100% Tobacco-Free

("Strongly Agree" and "Agree" Responses; Transylvania County)



Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 50]
Notes: • Asked of all respondents.
• Includes "very important" and "somewhat important" responses.

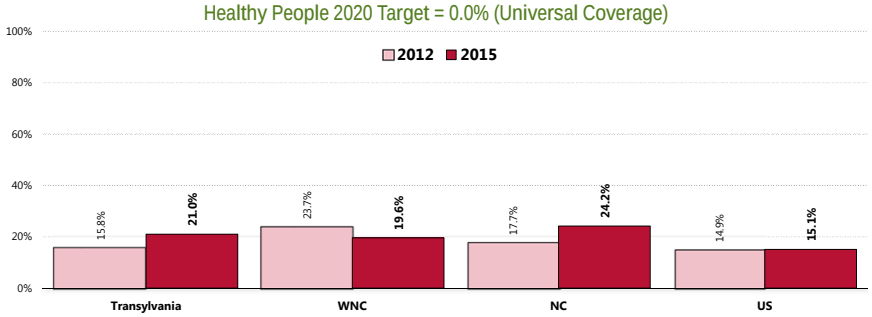
ACCESS TO HEALTHCARE SERVICES

Health Insurance Coverage

Lack of Healthcare Insurance Coverage

(Among Adults Age 18-64; Transylvania County)

Healthy People 2020 Target = 0.0% (Universal Coverage)



Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 165]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.
- PRC National Health Surveys, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective AHS-1]

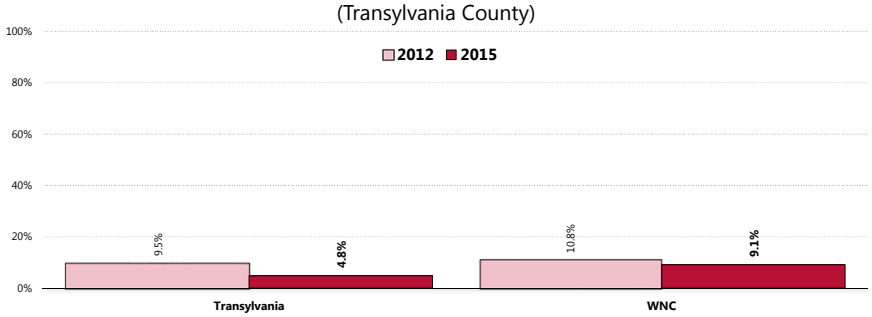
Notes:
- Reflects adults under the age of 65.
- Includes any type of insurance, such as traditional health insurance, prepaid plans such as HMOs, or government-sponsored coverage (e.g., Medicare, Medicaid, Indian Health Services, etc.).

Difficulties Accessing Healthcare Services

COMMUNITY HEALTH

Was Unable to Get Needed Medical Care at Some Point in the Past Year

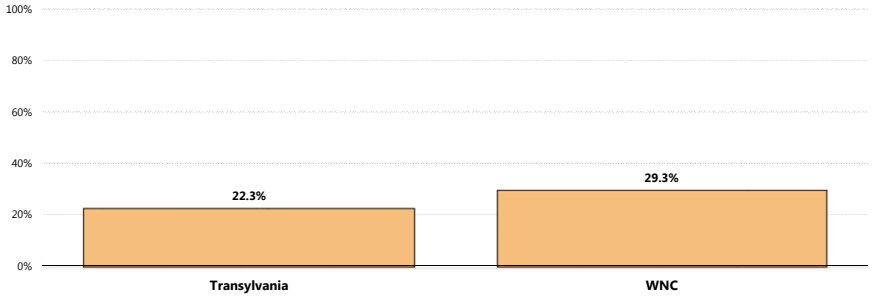
(Transylvania County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 8]
Notes: • Asked of all respondents.

Healthcare Provider Has Helped to Connect With a Community Resource (Classes, Coaching) to Educate About Condition

(Transylvania County, 2015)



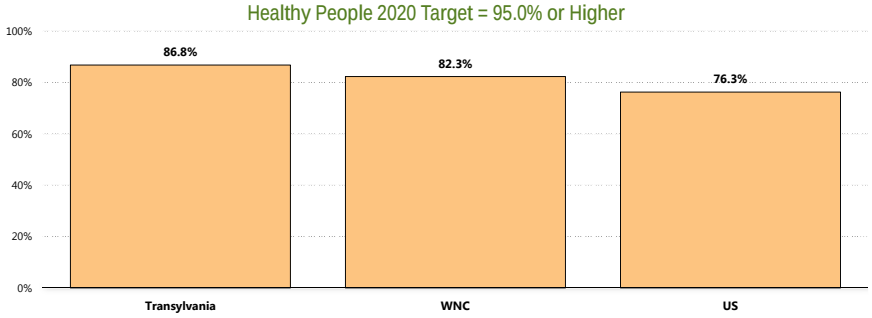
Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 39]
Notes: • Asked of those respondents who have been diagnosed with COPD, heart disease, stroke, asthma, diabetes/pre-diabetes, hypertension, and/or high blood cholesterol.

Primary Care Services

Have a Specific Source of Ongoing Medical Care

(Transylvania County, 2015)

Healthy People 2020 Target = 95.0% or Higher

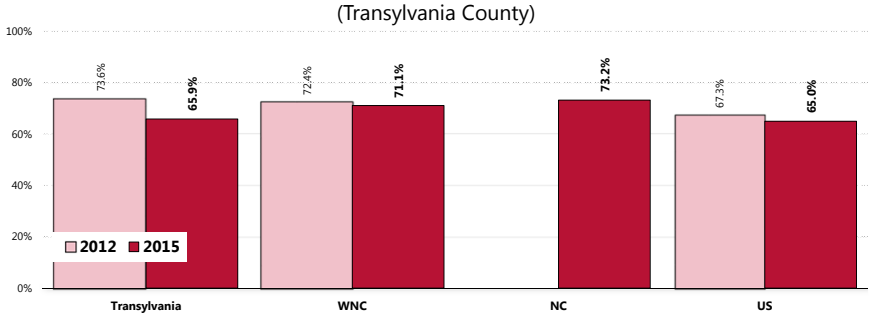


Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 152]
- PRC National Health Surveys, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective AHS-5.1]

Notes:
- Asked of all respondents.

Have Visited a Physician for a Checkup in the Past Year

(Transylvania County)



Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 19]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.
- PRC National Health Surveys, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

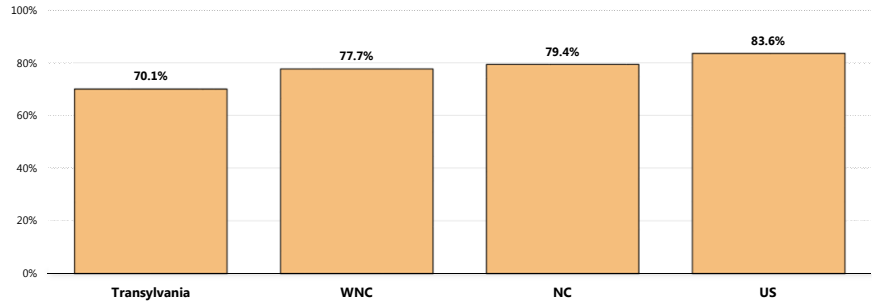
Preventive Screenings

COMMUNITY HEALTH

Have Had a Mammogram in the Past Two Years

(Among Women Age 50-74; Transylvania County, 2015)

Healthy People 2020 Target = 81.1% or Higher [All Ages]



Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 115]
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): 2013 North Carolina data.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective C-17]

Notes:
- Reflects female respondents 50-74.
- *Note that state data reflects all women 50 and older (vs. women 50-74 in local, US, and Healthy People data).

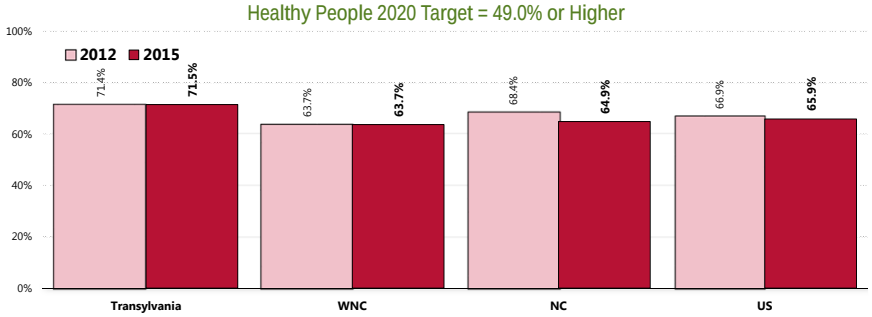
Oral Health

COMMUNITY HEALTH

Have Visited a Dentist or Dental Clinic Within the Past Year

(Transylvania County)

Healthy People 2020 Target = 49.0% or Higher



Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 21]
- PRC National Health Surveys, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov [Objective OH-7]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.

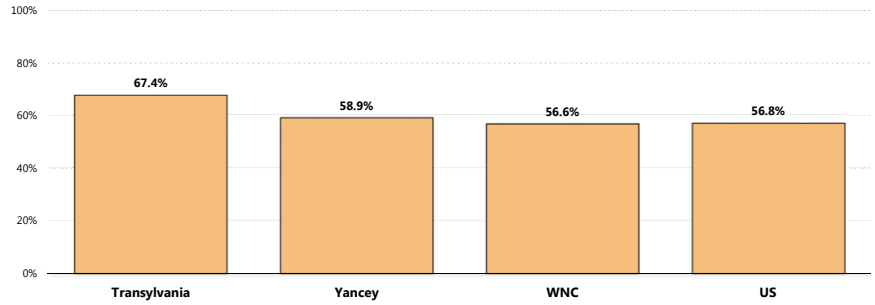
Notes:
- Asked of all respondents.

Vision Care

COMMUNITY HEALTH

Had an Eye Exam in the Past Two Years During Which the Pupils Were Dilated

(Transylvania County, 2015)



Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 20]
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

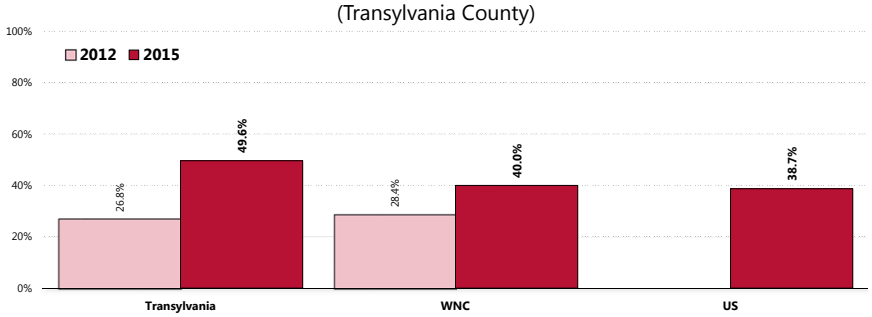
Notes:
- Asked of all respondents.

Health Education & Outreach

COMMUNITY HEALTH

Rely on Physicians for Most Healthcare Information

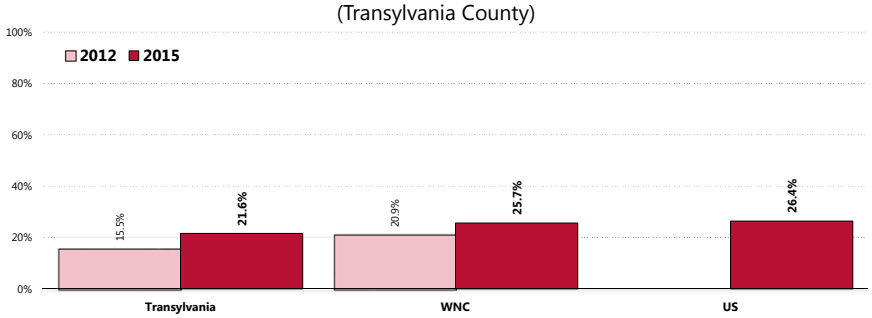
(Transylvania County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 90]
• 2013 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: • Asked of all respondents.

Rely on the Internet for Most Healthcare Information

(Transylvania County)



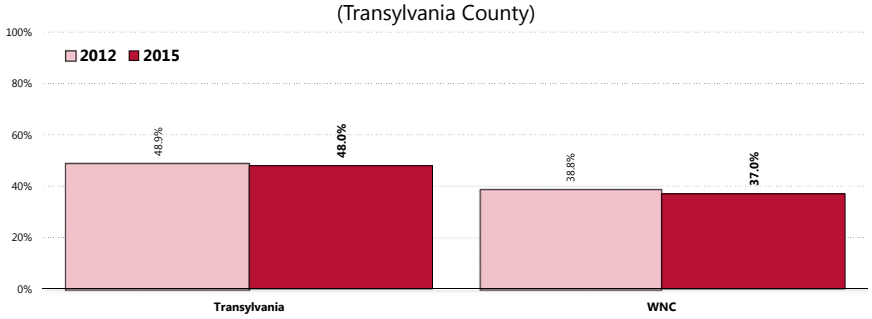
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 90]
• 2013 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: • Asked of all respondents.

Advanced Directives

COMMUNITY HEALTH

Have Completed Advance Directive Documents

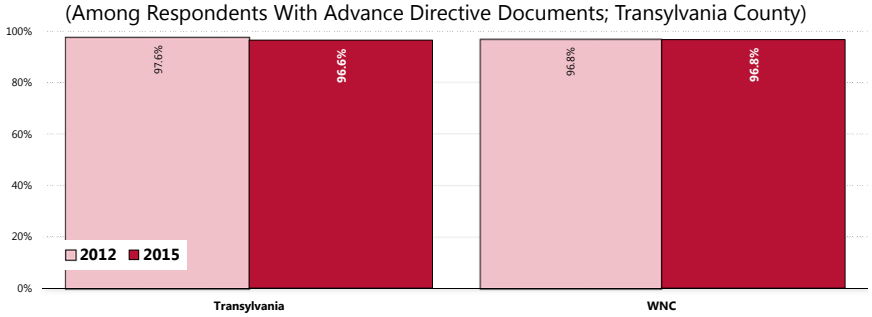
(Transylvania County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 104]
Notes: • Asked of all respondents.

Have Communicated Healthcare Decisions to Family or Doctor

(Among Respondents With Advance Directive Documents; Transylvania County)



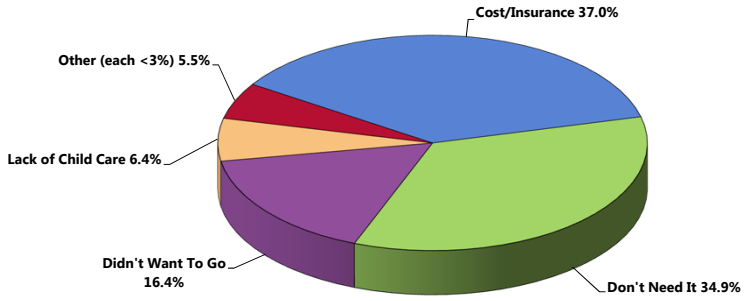
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 105]
Notes: • Asked of respondents with completed advance directive documents.

COUNTY-SPECIFIC QUESTIONS

COMMUNITY HEALTH

Reason for Lack of Dental Visit

(Transylvania County Residents Without a Dental Visit in the Past Year, 2015)

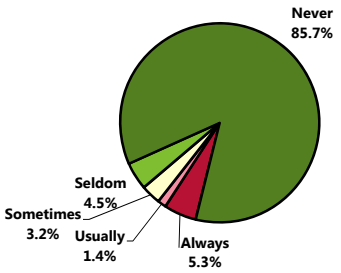


Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 22]
Notes: • Asked of all respondents.

Reflects revised PRC data [10/23/2015]

Frequency of Having Trouble Finding Transportation to Places Would Like to Go

(2015)



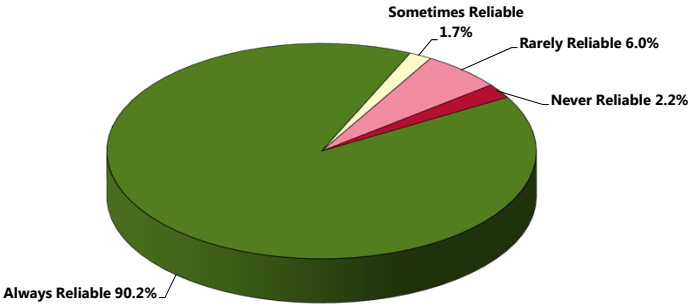
Transylvania County

Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 72]
Notes: • Asked of all respondents.

Reflects revised PRC data [10/23/2015]

Reliability of Access to Clean Drinking Water

(Transylvania County, 2015)



Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 70]
Notes: • Asked of all respondents.

Reflects revised PRC data [10/23/2015]

APPENDIX E – KEY INFORMANT SURVEY SUMMARY

Community Stakeholder Input

2015 PRC Online Key Informant Survey

Transylvania County, NC

Prepared for:
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Introduction

Professional Research Consultants, Inc.

Methodology

To solicit input from key informants, those individuals who have a broad interest in the health of the community, an Online Key Informant Survey was implemented. A list of recommended participants was provided to PRC by WNC Healthy Impact, who compiled lists submitted by 13 of the 16 WNC counties; this list included names and contact information for physicians, public health representatives, other health professionals, social service providers, and a variety of other community leaders. Potential participants were chosen because of their ability to identify primary concerns of the populations with whom they work, as well as of the community overall.

Key informants were contacted by email, introducing the purpose of the survey and providing a link to take the survey online; reminder emails were sent as needed to increase participation.

Participation

In all, 30 community stakeholders took part in the Online Key Informant Survey, as outlined below:

Transylvania County Online Key Informant Survey Participation		
Key Informant Type	**Number Invited**	**Number Participating**
Community/Business Leader	24	12
Other Health Provider	3	2
Physician	3	1
Public Health Representative	6	6
Social Service Provider	12	9

Participating Organization	Populations Served		
	Low-Income Residents	Minority Populations	Medically Underserved
Blue Ridge Community Health Services	✓	✓	✓
Board of Health	✓	✓	✓
Brevard City Council	✓	✓	
Brevard College			
Brevard Police Department	✓	✓	
Brevard/Transylvania Chamber of Commerce		✓	
Cindy Platt Boys and Girls Club of Transylvania County	✓	✓	
First Citizens Bank	✓	✓	
Girl Scouts Carolinas Peaks to Piedmont	✓	✓	✓
Member of the Board of Health/Citizen	✓	✓	✓
NAACP	✓	✓	✓
Sylvan Valley Family Dentistry	✓	✓	✓
The Haven of Transylvania County	✓	✓	✓
Transylvania County Board of Health	✓	✓	✓
Transylvania County Commissioner	✓	✓	✓
Transylvania County Department of Health	✓	✓	✓
Transylvania County EMS	✓	✓	✓
Transylvania County Fire Marshal's Office			
Transylvania County Government	✓	✓	✓
Transylvania County Parks and Recreation	✓	✓	
Transylvania County Planning and Community Development	✓	✓	
Transylvania County Schools	✓	✓	✓
Transylvania Regional Hospital	✓	✓	✓
United Way of Transylvania County	✓	✓	✓
Western Carolina Community Action	✓	✓	✓
WNC Healthy Impact	✓	✓	✓

Through this process, input was gathered from several individuals whose organizations work with low-income, minority populations, or other medically underserved populations.

Minority populations represented:

- African American
- American Indian
- Asian
- Disabled
- Elderly
- Hispanic/Latino
- Lacking Transportation
- LGBT
- Low Income
- Mentally Ill
- Minorities
- Mixed Race
- Non-White Races
- Southern Rural Appalachian
- Uninsured/Underinsured

Medically underserved populations represented:

- African American
- Behavioral Health
- Children With Special Health Needs
- Chronic Disease
- Hispanic/Latino
- Homeless
- Immigrants
- Low Income
- Medicaid
- Mentally Ill
- Sexually Transmitted Diseases
- Substance Abusers
- Those Having a Medical Need for Liquid Nutrition
- Undocumented
- Uninsured/Underinsured

In the online survey, respondents had the chance to explain what view was most needed to create a healthy community, and how they feel that the physical environment and social

determinants impact health. Key informants were also asked to specifically rate the degree to which various health issues are a problem in their own county; follow-up questions asked them to describe why they identify problem areas as such, and how these might be better addressed. Results of their ratings, as well as their verbatim comments, are included throughout this report as they relate to the various other data presented.

NOTE: These findings represent qualitative rather than quantitative data. The Online Key Informant Survey was designed to gather input from participants regarding their opinions and perceptions of the health of the residents in the area. Thus, these findings are based on perceptions, not facts.

Perceptions of Community

Professional Research Consultants, Inc.

Characteristics of a Healthy Community

"What are the MOST IMPORTANT characteristics of a healthy community?"

Key informants could list up to 3 responses.

Key informants characterized a healthy community as containing the following *(number in parenthesis identifies number of total mentions):*

- Access to Health Care (6)
- Access to Healthy Foods (4)
- Access to Preventive Health Care (4)
- Affordable Health Care (4)
- Health Education (4)
- Employment Opportunities (3)
- Clean and Safe Environment (2)
- Collaborative Giving to Support to the "Have Nots" (2)
- Culture of Healthy Living (2)
- Diversity (2)
- Residents' Basic Needs are Met (2)
- Well-Educated Population (2)
- Access to Primary Care Physicians
- Adequate-Paying Jobs and Support Services
- Adequate Recreational Facilities
- Appropriate Level of Delivery Points for Health Services
- Areas That Accommodate Exercise/Physical Activity
- Clean Water
- Comprehensive Services for Recovery or Mental Health Programs
- Council Listens to Outside Advice
- Educational Opportunities
- Effective Communication
- Encouraging Physical Activity
- Fitness Resources
- Functional Places for Individuals/Families to Meet
- Good Education
- Good Health Department
- Great Network of Health Care Providers
- Health System Able to Adapt to Changes in the Community
- Healthy Balance of Demographics and Access to Services
- Healthy Children
- Healthy Lifestyle Education
- Healthy Lifestyles
- Healthy Residents
- High Life Expectancy
- Infrastructure for Businesses Seeking Place to Locate
- Insurance
- Low Incidence of Metabolic Disorders
- Low Obesity Levels
- Neighbors Helping Neighbors
- No Cost Opportunities for Walking/Running
- Outdoor Activities
- Proper Mental Health Services
- Quality Health Care
- Rate of Disease
- Recreation and Wellness Facilities for All Ages
- Safety
- Self-Reliant People
- Strong Hospital System
- Supportive Environment for Healthy Lifestyles
- Transportation Options
- Treatment With Dignity
- Understanding the System
- Variety of Opportunities for Physical Activity
- Vibrant Downtown
- Young Families Able to Have Their Children Born Here

Community's Greatest Gem/Asset

Key informants characterized Transylvania County's greatest "gem" or asset as the following:

Natural Environment

The abundant natural resources.

Mountains and protected land.

The forests and parks, and their recreational resources.

Our mountains and waterfalls.

Its state and national parks/forests.

The greatest asset is the natural environment that surrounds us, providing us with clean water and beautiful green space to hike, run, bike, and spend time at a minimal cost to everyone.

Our natural resources, which include incredible outdoor activity options.

Our outdoor recreational public lands.

Natural resources: forest land.

The natural environment has a lot of acreage open for recreational use and it also helps protect our water quality.

Our natural resources, woods and water.

Natural environment.

Woods and Water- Parks.

Our federal and state forests. The physical environment.

Beauty of the area.

Natural beauty.

Our county has a lot of assets which are clean water, beautiful natural forest to enjoy and great schools.

Availability of clean air and water.

People

Its people

Children and young families and the public school system.

The friendly, welcoming nature of most of the people living here.

Our people.

People.

Location

Pisgah and DuPont. The natural resources are amazing.

Geographic location.

Sense of Community

There are many local nonprofits that help the community with services and overall this is a community that has a lot of people who want to help other people get on their feet. That's a great asset. Also Pisgah is our backyard!

The ability of the residents to join together to solve issues such as the hunger coalition.

Access to all Health Care

I am biased but, the fact that the county has a community health center, is often overlooked. Brevard Health Center provides family medicine, pediatric, prenatal, dental, counseling, psychiatry and nutrition to ALL who need it. TRAIN, run by United Way, is also invaluable in terms of its name recognition among the underserved and its ability to help the underserved navigate the safety net. They just need more funding!

Everything

Gem. This is a great county!

Requirements for Quality of Life

"What are the MOST IMPORTANT issues that must be addressed to improve the quality of life?"

Key informants could list up to 3 responses.

Key informants characterized the following as issues that must be addressed in order to improve the quality of life in Transylvania County *(number in parenthesis identifies number of total mentions):*

- Affordable Housing (12)
- Employment (11)
- Better-Paying Jobs (10)
- Education (10)
- Transportation (6)
- Access to Healthcare (4)
- Access to Affordable Fresh Food (2)
- Economy (2)
- Sense of Community (2)
- Affordable, Quality Child Care
- Case Management Services to Help At-Risk Populations
- Children's Services
- Clean, Sustainable Industry
- Culture
- Education About Health and Wellness
- Encourage Healthy Living Lifestyle
- Geriatric Services
- Hunger
- Mental Health
- More/Better Outdoor Recreation Areas
- Not Accepting Things the Way They Have Always Been
- Poverty
- Remove Welfare as a Lifestyle Option
- Return Physical Education to all Secondary Schools
- Tourism-Related Economy

Evaluation of Health Issues

Ranking of Health Issues

Online key informants were asked to rate each of the following health issues as a "major problem," "moderate problem," "minor problem," or "no problem at all" in Transylvania County. The table below illustrates these responses.

Evaluation of Health Issues				
Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem At All
Mental Health	69.0%	20.7%	10.3%	0.0%
Substance Abuse	63.3%	30.0%	6.7%	0.0%
Nutrition, Physical Activity, & Weight	46.7%	53.3%	0.0%	0.0%
Diabetes	44.8%	41.4%	13.8%	0.0%
Heart Disease &Stroke	40.0%	36.7%	20.0%	3.3%
Tobacco Use	30.0%	70.0%	0.0%	0.0%
Maternal & Infant Health	28.6%	42.9%	25.0%	3.6%
Oral Health	24.1%	62.1%	10.3%	3.4%
Cancer	23.3%	56.7%	16.7%	3.3%
Respiratory Diseases	15.4%	30.8%	50.0%	3.8%
Access to Health Care Services	10.3%	51.7%	31.0%	6.9%
Sexually Transmitted Disease & Unintended Pregnancy	3.7%	44.4%	51.9%	0.0%
Injury &Violence	3.3%	23.3%	53.3%	20.0%
Infectious Diseases & Foodborne Illnesses	0.0%	20.7%	58.6%	20.7%

Perceptions of Health Issues

Online Key Informant Survey participants rating any of the aforementioned health issues as "major problems" in Transylvania County were further asked to give reasons for their perceptions. These are outlined, by health issue, in the following sections.

Access to Health Care Services

The greatest share of key informants characterized *Access to Health Care Services* as a "moderate problem" in Transylvania County.

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem At All
Access to Health Care Services	**10.3%**	**51.7%**	**31.0%**	**6.9%**

Type of Care Most Difficult to Access

Key informants (who rated this as a "major problem") most often identified dental care and substance abuse treatment as the most difficult to access in Transylvania County.

	Most Difficult to Access	Second-Most Difficult to Access	Third-Most Difficult to Access	Total Mentions
Dental Care	0.0%	33.3%	66.7%	3
Substance Abuse Treatment	66.7%	0.0%	0.0%	2
Mental Health Care	33.3%	0.0%	33.3%	2
Primary Care	0.0%	66.7%	0.0%	2

Top Concerns

Among those rating this issue as a "major problem," reasons frequently related to the following:

Lack of Insurance

> *Many residents of Transylvania County lack health insurance and often people will go without proper medical treatment until their health becomes critical. Blue Ridge Health is wonderful but I hear frequently they are so booked that folks cannot get an appointment for months and therefore they highly utilize the Emergency Room.*
>
> *Limited insurance, little public transportation. Population has knowledge deficit concerning healthy living styles, poor nutrition.*

Limited Number of Providers

> *I have the perception that there is a lack of primary care physicians who are accepting new patients, specifically those on Medicare or Medicaid.*

Cancer

Most key informants characterized *Cancer* as a "moderate problem" in Transylvania County.

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem At All
Cancer	23.3%	56.7%	16.7%	3.3%

Top Concerns

Among those rating this issue as a "major problem," reasons frequently related to the following:

Prevalence/Incidence

> *I know many folks battling cancer and many who have lost their battle with cancer in the past 10 years.*
>
> *I know lots of people with cancer and it adds more every day. There are lots of ovarian and female cancers and several rare kinds that only a few people have in the states.*
>
> *I personally know many, many people of all ages who are currently battling cancer or who have lost their battle with cancer. I do not know the root cause of so much cancer, however, I do know that many of those I know used to work in one of the major industries within the area.*

Lack of Education on Prevention/Screening

> *Limited knowledge of prevention, screening, and treatment.*
>
> *Patients ignoring warning signs.*

Lifestyle Choices

> *Past industries that may have exposed worker's to toxins. Tobacco use. Lack of proper nutrition and exercise for an older population. Lack of education for early detection. Fear of hearing a negative diagnosis.*

Aging Population

> *Age of citizens. Unhealthy lifestyle.*

Diabetes

The greatest share of key informants characterized *Diabetes* as a "major problem" slightly more often than a "moderate problem" in Transylvania County.

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem At All
Diabetes	44.8%	41.4%	13.8%	0.0%

Top Concerns

Among those rating this issue as a "major problem," reasons frequently related to the following:

Nutrition, Physical Activity, and Weight

Obesity, poor diets, inability to afford fresh fruit and vegetables.

Obesity in our children is very high and far too many children and young adults develop diabetes.

By observation, the number of people who are obese, both adults and children, is too high.

Largely overweight and obese population. High sugar content diet.

Poor dietary habits and culture.

Contributing factors, poor diet and nutrition, lack of exercise, genetic tendencies.

Poor exercise, eating habits and unhealthy generational lifestyles.

Diet and exercise along with other preventive measures are needed in addition to education about prevention.

Lack of Education

Education and unhealthy lifestyle.

Minimal education and understanding of the illness. The illness causes serious changes in lifestyle that are difficult for most to adjust. Most feel a shot or medication will solve the problem. People do not feel a change in diet makes sense.

Lack of education about healthy living, healthy lifestyles, and knowledge of caring for one's self through physical activity and mental health. I also feel that for many locals (meaning born and raised here) that it is about breaking a cycle within family tradition of eating habits and fitness habits.

Nation Wide Problem

Diabetes is a major problem in the U.S. WNC is no different. At our clinics, we see people every day experiencing complications due to their diabetes. People perceive that it is too large of a problem to manage affordably. While it isn't true that the healthcare they need is cost prohibitive, (if they use our services), it is true that it will require a lifestyle change the likes of which many people we work with have never experienced. Our research indicates that incidence rates of diabetes in Transylvania County exceed the national severe benchmark.

Access to Affordable Healthy Foods

Raw food costs are high. We have a seemingly large number of people who are grossly overweight and families who consume large amounts of processed foods.

Prevalence/Incidence

High incidence.

Heart Disease & Stroke

Key informants characterized *Heart Disease & Stroke* as a "major problem" slightly more often than a "moderate problem" in Transylvania County.

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem At All
Heart Disease &Stroke	**40.0%**	**36.7%**	**20.0%**	**3.3%**

Top Concerns

Among those rating this issue as a "major problem," reasons frequently related to the following:

Nutrition, Physical Activity and Weight

High risk factors i.e. obesity, hypertension, and noncompliance with treatment.

Overweight population. Lack of physical activity.

Again, a seemingly large number of folks who are overweight and smoke.

Poor diet, lack of exercise, lack of proactive health management routine physicals that would indicate trends.

Aging Population

Age of population, obesity, high diabetes population.

Partially this is due to the higher median age. I think this also relates to preventive education and promotion needs so that diet and exercise are emphasized for treatment.

Due to the high population of seniors age 60 and older living in Transylvania County (1 in 3) heart disease and stroke are causes or contributing causes to death.

Lack of Education

Education and unhealthy lifestyle.

Lack of continuity in health monitoring and nutritional counselling.

Lifestyle Choices

Poor health issues contributing to heart disease.

Tobacco Use

Tobacco use is much higher here than in any other state I have lived in. In other states, it is not excepted as socially okay, here it is. I am sure the history of tobacco and the cycle of passing this habit from generation to generation is a big impact. People eating poorly and not caring for themselves leads too all these problems. Lack of early education on eating and caring for themselves.

Prevalence/Incidence

Our research indicates that incidence of heart disease and stroke in Transylvania County exceed the national benchmark. Having had limited options for preventive care most of their adult lives, many people are not accustomed to annual doctors' appointments. On top of that, many people smoke and eat food that contributes to cardiac issues. It's an issue of lifestyle change across the underserved populations in the county.

Infectious Diseases & Foodborne Illnesses

Over half of key informants characterized *Infectious Diseases & Foodborne Illnesses* as a "minor problem" in Transylvania County.

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem At All
Infectious Diseases & Foodborne Illnesses	**0.0%**	**20.7%**	**58.6%**	**20.7%**

Injury & Violence

Over half of key informants characterized *Injury & Violence* as a "minor problem" in Transylvania County.

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem At All
Injury & Violence	3.3%	23.3%	53.3%	20.0%

Top Concerns

Among those rating this issue as a "major problem," reasons frequently related to the following:

Prevalence of Substance Abuse

> *Because of substance abuse issues, domestic violence is a concern in our county.*

Maternal & Infant Health

Key informants generally characterized *Maternal & Infant Health* as a "moderate problem" in Transylvania County.

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem At All
Maternal & Infant Health	28.6%	42.9%	25.0%	3.6%

Top Concerns

Among those rating this issue as a "major problem," reasons frequently related to the following:

Substance Use During Pregnancy

> *We had 40% of the infants born in our hospital born to mothers with substance abuse issues.*
>
> *40% of newborns last year had mothers who demonstrated substance abuse. This puts those children way behind in their potential to succeed in life. We already have a 61% rate of children not ready for kindergarten and the above statistic would imply those numbers will get worse.*
>
> *Lack of identification of all of the population in need. Relatively large number of single parent and teenage parent. Substance abuse among at risk parents.*

Access to Prenatal Care

> *Closing of Maternity Center at hospital.*
>
> *There is a lack of services available for pregnant mothers experiencing barriers (cost or otherwise) to care. There is no longer a place to deliver a child in Transylvania County and the perception is that options are limited for prenatal care, in general. Combine that with the incidence of women smoking during pregnancy, along with drinking and other substance abuse, and it's a recipe for poor maternal/infant health. Education is needed among the rural populations of Transylvania County along with assistance with mitigating the symptoms associated with nicotine, alcohol or other dependencies.*

Lack of Education

> *Education and lack of facilities.*

Poverty

> *Lack of well-paying jobs and lack of investment into young people and families including recreation and public schools. We hear all the time about how the recreational tourism economy brings in*

dollars. That is accurate. But it does not provide well-paying jobs. Families thus are not attracted to be here. It is made worse by the money saving measures to cut deliveries at TRH.

Prevalence of Unintended Pregnancies

High incidence of unintended pregnancies and higher incidence of pregnancies within "families" that are mentally, educationally, and financially unprepared to raise children.

Mental Health

Over two-thirds of key informants characterized *Mental Health* as a "major problem" in Transylvania County.

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem At All
Mental Health	**69.0%**	**20.7%**	**10.3%**	**0.0%**

Top Concerns

Among those rating this issue as a "major problem," reasons frequently related to the following:

Access Barriers

Confusing and difficult access in this rural county.

No local care facility.

No treatment facilities and waiting lists in surrounding county facilities. Also, transportation is a huge barrier to those needing treatment.

There is very limited access to mental health treatment, particularly for the uninsured or underinsured.

Lack of access.

Very limited access, no insurance, stigma of "Psychiatric" care.

When talking to employers, social workers and law enforcement, the issues of mental health and substance abuse are often identified as problems that have not be adequately addressed in Transylvania County or North Carolina.

With the exception of Brevard Health Center and Meridian Health, there is very limited access to mental health services for uninsured or underinsured populace. Evaluation services for those populations and in particular for children are extremely limited.

Lack of Resources

Lack of adequate and affordable services.

Changing delivery landscape, lack of facilities, costs.

There are many people suffering from mental health problems and it seems there aren't enough resources to combat this.

Mental Health is a major problem because there are severely limited outpatient treatments options and zero inpatient treatment facilities. There are also very, severely limited psychiatric services for adults and children.

Very limited resources for prevention and treatment.

Poor management of minor mental health issues have become bigger mental health issues, including the national movement away from 24 care of mental health patients.

There are so many mental health needs in this community. ACTT services are needed and more health professionals that can prescribe medications to maintain mental health. We need more group homes to serve those with disabilities, as the ones we have now stay full.

There are limited options for mental health services among the poor and middle class populations.

> *The options that do exist are stretched thin. Psychiatry, in particular, is a major need. Organizations that are doing it right, like Brevard Health Center, need support in making sure their services are available to as many people as possible across the county.*

Environment/Family

> *Possibly the breakdown of close family units.*

Prevalence/Incidence

> *High incidence. 90 percent of it could probably be traced back to substance abuse by the patient in question or by persons that have had significant influence with the patient in question.*

State Funding

> *Funding and accessibility are major hurdles. Many who need services are not in a position to pay for them. More rural areas do not have transportation or the ability to have services come to them.*

Nutrition, Physical Activity, & Weight

Slightly over half of key informants characterized *Nutrition, Physical Activity & Weight* as a "moderate problem" in Transylvania County.

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem At All
Nutrition, Physical Activity, & Weight	46.7%	53.3%	0.0%	0.0%

Top Concerns

Among those rating this issue as a "major problem," reasons frequently related to the following:

Lifestyle Choices

> *High incidence of patients who are ignorant and apathetic regarding nutrition, physical activity, and weight.*
>
> *Not a priority in the culture, incomes do not allow balanced diets.*
>
> *Lack of motivation for exercise. Concerns a certain population that may have been hard working, fell on hard times and cannot afford to pay for a gym or classes.*
>
> *Lack of proper nutrition, physical activity leads to major weight problems which lead to an increase in diabetes and other health conditions.*
>
> *Although we have an environment conducive to outdoor activity, a large percentage of our community does not have an active lifestyle.*
>
> *Even if people know it is bad to eat poor nutrition, they still choose to do it anyway. Partly I think because it is a way of life for their family or families. Educating people on easy to follow, healthy, physical activity is just not happening.*

Access to Affordable Healthy Foods

> *There are few sources for affordable healthy food options for people in the median income level of Transylvania County. Obesity is a problem as nationally, with childhood obesity.*
>
> *Again, raw food costs are higher in our county than in surrounding areas. People default to cheaper, prepared, processed foods. We have limited parks and recreation opportunities for adults. As a result of all of this, we have weight problems in our citizens.*
>
> *We have food deserts where people cannot purchase healthy foods, have access to proper nutrition training. Consequently we see a lot of evidence of obesity. Our population in poverty has children who do not even get into the fantastic forest parks we have because of lack of money and/or*

transportation.

Access to Health Lunches and Breakfasts in Schools

Lack of access to healthy lunches and breakfasts in school is a health issue for children. The free and reduced lunch program provides children with meals that are often made up of heavily processed, low nutrition food (pop tarts for breakfast.) There is always a fruit or vegetable component but often it is either highly processed (applesauce) or just not prepared in a way that is appealing to kids so they don't eat it. Many children in Transylvania County receive free or reduced lunch and I think figuring out how to make school lunches healthier, fresher and more appealing to kids would help kids get proper nourishment from these meals. I know the school lunch program has a very hard job of providing these meals and staying within a narrow budget, but I just wonder if we couldn't be more creative and health conscious in putting together these meals for kids.

Obesity

Folks in our community are overweight for the most part. I attribute this to lack of education on healthy eating, and also the high cost of nutritional food. Fast food is widely available and cheap, which is why most people eat it, as they cannot afford healthy foods. Price, the cost of a Pepsi versus a bottled water. The price of the bottled water exceeds the cost of Pepsi. I have seen young adults not knowing how to cook "real food". When given the choice of fresh vegetables, they will take frozen food or canned food over the fresh, because they do not know how to prepare it. I come from an age where in school we took Home Economics. This class taught nutrition and food preparation. Children today do not know the basic food pyramid and the proper way to eat from it.

Culture

Culture plays a role in that the typical southern diet is not always the most healthy, but I think this is also a trend tied closely to the fact that easily accessible and affordable is often also processed and lacking in nutritional value.

Affordable/Safe Opportunities for Physical Activity

Not a priority for schools, no free or low cost recreational programs for adults.

Lack of Education

Uneducated adults passing on bad habits to offspring.

Education.

Oral Health

Key informants most often characterized *Oral Health* as a "moderate problem" in Transylvania County.

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem At All
Oral Health	**24.1%**	**62.1%**	**10.3%**	**3.4%**

Top Concerns

Among those rating this issue as a "major problem," reasons frequently related to the following:

Uninsured/Underinsured

Lack of providers, especially for low income population.

There is a lack of dentists who accept indigent patients. With the poor diet of many of our citizens, oral health care is a problem.

Lack of insurance, or awareness of other programs for those without insurance.

Culture

Seems to be inherent in this area. Poor habits could be the problem, but it could be genetically seated.

Access and Cost

Cannot afford dental care.

Lack of Education

Education and tobacco use.

Respiratory Diseases

Half of key informants characterized *Respiratory Diseases* as a "minor problem" in Transylvania County.

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem At All
Respiratory Diseases	**15.4%**	**30.8%**	**50.0%**	**3.8%**

Top Concerns

Among those rating this issue as a "major problem," reasons frequently related to the following:

Environmental Factors

Poor surrounding health issues such as smoking and the former mill work.

Past industries may not have been environmentally friendly or have proper safety practices in place. Tobacco use.

Tobacco Use

Tobacco use in NC.

Long history of smoking as acceptable in society. Climate and environment predispose some to allergies and asthma.

Sexually Transmitted Disease & Unintended Pregnancy

Slightly over half of key informants characterized *Sexually Transmitted Disease & Unintended Pregnancy* as a "minor problem" in Transylvania County.

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem At All
Sexually Transmitted Disease & Unintended Pregnancy	**3.7%**	**44.4%**	**51.9%**	**0.0%**

Substance Abuse

The greatest share of key informants characterized *Substance Abuse* as a "major problem" in Transylvania County.

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem At All
Substance Abuse	**63.3%**	**30.0%**	**6.7%**	**0.0%**

TOP CONCERNS

Among those rating this issue as a "major problem," the greatest barriers to accessing substance abuse treatment are viewed as:

Prevalence/Incidence

> *It is rampant in the communities. It is affecting so much of our potential workforce and the actions of individuals in making poor choices.*
>
> *We have a huge prescription drug addiction problem along with a meth problem. Our economy languished for a long time, and drug abuse became a coping mechanism for our unemployed and underemployed.*
>
> *I believe that meth, in particular, is a problem in our county. The challenging job market leaves many feeling hopeless and non-productive. People long to have purpose and typically find that in their work in some way. When we fail to tap into helping people discover their purpose, we leave the door open for imposters like drugs to take the place of being fulfilled and happy in life.*
>
> *I have no idea, it seems the majority of the population at least flirts with substance abuse. "Working alcoholics" are everywhere.*

Prevalence of Prescription Drugs

> *I see a lot of overuse of prescription medicines. Patients expect to get a prescription anytime they go to the doctor or they do not feel that they are being properly treated. How do we convince the population that medications are not always the answer.*
>
> *Specifically youth taking and over dosing on others prescription drugs.*
>
> *There is a huge problem with prescription drug abuse as well as illegal drug use in this county. Ask any law enforcement or legal professional. I'm also unsure how to combat this, but it's a problem.*
>
> *Drugs and alcohol are a huge problem with teenagers and young adults. Perhaps the greatest problem is with prescription pain drugs.*

Easy Access to Illegal Substances

> *Drugs have been easy to get. Education is much better and will continue to be the best way to slow down the abuse.*
>
> *Easy access to substances and culture.*

Over Prescribing of Controlled Substances

> *Physicians overprescribing. They are the enemy.*
>
> *Too many unnecessary prescription medications are prescribed by doctors, and marijuana has become more acceptable in our nation, leading to illegal use here.*

Nationwide Problem

> *Substance abuse in this county is widespread and it is covered with not only illegal drugs, but also prescription drugs. As I scroll through the jail list, I can see it in each face that abuses drugs. They may not have a drug charge, but their charges are all drug related. I have called several people in*

> *that are known dealers and see no action taken, and they go on dealing. Giving them a sense of being untouchable. Those that start recovery do not succeed and many people go back to using because they have not learned the necessary coping skills to deal with life. Rather than punishing those that have drug charges, there needs to be an education to it to teach them why they use, and how not to use.*

Poverty

> *Poverty, lack of good paying jobs and a culture that supported and still supports alcohol use at a younger age. In one student survey a few years ago, 28% of 8th graders said they had been drinking an excess of alcohol at least once in the previous 6 months.*

Self-Medicating

> *Poor coping skills, drugs used to escape lifestyle, mental health issues not addressed.*

Personal Observation

> *Discussions with health care providers, law enforcement and employers have centered around substance abuse as a significant issue in Transylvania County.*

Lack of Entertainment

> *Younger populations feel that in a rural area there is nothing to do and find themselves looking for something to do, which leads to substance abuse. Boredom.*

Lack of Treatment Facilities/Programs

> *Very limited resources for treatment.*

Lack of Education

> *Education and lack of high paying jobs.*

Most Problematic Substances

Key informants (who rated this as a "major problem") most often identified opioid analgesics and alcohol as the most problematic substances abused in Transylvania County.

	Most Problematic	Second-Most Problematic	Third-Most Problematic	Total Mentions
Opioid Analgesics (e.g. Oxycodone, Hydrocodone, Percocet, Fentanyl, Methadone)	31.6%	47.4%	5.6%	16
Alcohol	47.4%	10.5%	22.2%	15
Prescription Medications (NOT including Opioid Analgesics)	5.3%	21.1%	16.7%	8
Marijuana	5.3%	5.3%	16.7%	5
Methamphetamines or Other Amphetamines	5.3%	15.8%	5.6%	5
Cocaine or Crack	0.0%	0.0%	22.2%	4
Heroin	5.3%	0.0%	0.0%	1
Over-The-Counter Medications	0.0%	0.0%	5.6%	1
Synthetic Drugs (e.g. Bath Salts, K2/Spice)	0.0%	0.0%	5.6%	1

Tobacco Use

Over two-thirds of key informants characterized *Tobacco Use* as a "moderate problem" in Transylvania County.

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem At All
Tobacco Use	**30.0%**	**70.0%**	**0.0%**	**0.0%**

Top Concerns

Among those rating this issue as a "major problem," reasons frequently related to the following:

Culture

We are in a former tobacco state. The use of tobacco products is still relatively high, and I am surprised by the number of young people who use tobacco products. Tobacco is a substance that gets abused.

This is a historical and cultural one from having a plant that made cigarette paper that wanted people to smoke. There seems to have been some improvement but generally there is too easy access, older youth or even adults purchasing cigarettes for children. This correlates well with youth surveys, TCS student surveys of past years.

Uncaring adults influencing youth. Poor people need to have some outlet. This is it.

Tradition and education.

Smoking long accepted in culture.

Prevalence/Incidence

Transylvania County industry was heavily dominated by the tobacco industry with Ecusta. That, along with a culture that embraced tobacco use and an older population that did not grow up hearing about the dangers as children, affects the trend.

Tobacco use is the single major health issue in our country and it is still too socially accepted without enough information to dissuade use.

Tobacco use has always been an issue and will continue in our community and others.

Too many people smoke, I'm not sure there is anything that can be done, it's a personal choice. However, it would be nice to see smoking while pregnant deemed illegal and punishable by law.

Contributors to Health Issues

Online key informants were asked to indicate whether they believe physical environment and social determinants of health are each a "major contributor," "moderate contributor," "minor contributor," or "not a contributor at all" to health problems in Transylvania County.

Physical environment *includes factors such as air and water quality, and pollution and hazards inside homes. It also includes elements of the built environment, such as bike paths and sidewalks.*

Social determinants of health *are economic and social conditions that influence the health of people and communities. It includes social and economic policies, education, income and poverty, racial discrimination, employment status, and more.*

Evaluation of Contributors to Health Issues				
Health Issue	**Major Contributor**	**Moderate Contributor**	**Minor Contributor**	**Not a Contributor At All**
Physical Environment	**14.3%**	**28.6%**	**39.3%**	**17.9%**
Social Determinants of Health	**82.1%**	**10.7%**	**7.1%**	**0.0%**

Physical Environment

The greatest share of key informants characterized Physical Environment as a "minor contributor" to local health issues.

Those rating this as a "major contributor" identified the following as the greatest contributors to health problems in Transylvania County:

- Access to Healthy Foods
- Environmental Issues in Older Homes
- Few Recreational Outlets
- Lack of Bike Paths/Sidewalks
- Water Pollution/Quality

Social Determinants of Health

Over three-fourths of key informants characterized Social Determinants of Health as a "major contributor" to local health issues.

Those who rated this as a "major contributor" feel that the following contribute the most to health problems in Transylvania County:

- Access to Affordable Healthy Foods
- Access to Health Care
- Access to Medications
- Access to Public Knowledge
- Age
- Availability of Rental Housing
- Culture/Tradition
- Economy
- Education
- Employment
- Employment That Pays a Living Wage
- Income/Financial Ability
- Lack of Affordable Housing
- Lack of Exercise Facilities
- Lack of Transportation
- Learned Behaviors

- Nutrition Education
- Peer Pressure
- Poverty
- Social Impact

Local Data & Resources

Professional Research Consultants, Inc.

Additional Local Data & Information

Key informants were aware of the following recent data collection efforts about the health issues, needs, or assets in Transylvania County:

- Transylvania County 2025 Comprehensive Plan and Survey
- Universal Data System - American Academy of Family Physicians

Local Resource Guides & Directories

Key informants included the following as examples of health-related resource guides or directories created or used by their agency:

- Census Data
- Community Information
- County Health Rankings and Road Maps
- Department of Social Services (DSS) Records
- Fire Safety Procedures
- Jail Statistics
- Smoke Detector Programs
- Universal Data System