



# Burke County Community Health Needs Assessment 2019



## Table of Contents

Executive Summary.....	3
Background and Introduction.....	7
Data Collection.....	7
Populations at Risk.....	9
Community Profile.....	14
Geography.....	14
History.....	15
Demographics.....	16
Social Determinants of Health.....	18
Poverty.....	18
Employment.....	22
Unemployment.....	24
Education .....	24
Housing.....	26
Transportation.....	27
Behavioral/Mental Health.....	31
Older Adult Profile.....	33
Sexually Transmitted Infections/Pregnancy.....	35
Tobacco.....	38
Morbidity and Mortality.....	39
Environmental.....	40
Areas of Success.....	41
Areas of Concern.....	44
Top Health Priorities.....	45
Priority One.....	45
Priority Two.....	47
Priority Three.....	50
Acknowledgements.....	51
Appendices.....	52
Appendix A: Burke Wellness Initiative Members	
Appendix B: 2019 Burke County CHNA Survey	
Appendix C: 2019 Burke County CHNA Survey Results	
Appendix D: Focus Group Results	
Appendix E: Access to the 2019 Burke County CHNA	
Appendix F: References	

# Executive Summary

## Overview

The Community Health Needs Assessment (CHNA) is completed through a collaborative process in which community members gain insight into health concerns and resources within the county. This CHNA was completed as a joint effort between the Burke County Health Department (BCHD) and Carolinas Healthcare System Blue Ridge, along with the organizations/individuals that comprise the Burke Wellness Initiative.

The assessment was developed on four pillars split into primary and secondary data. The two components of primary data resulted from both survey and focus group data from Burke County residents, regarding health and social issues that impact the health of the people living in Burke County. The primary data was collected from 1,049 completed surveys and approximately 81 focus group attendees. The two pillars of secondary data were gathered from state, national and local statistics. Information from this community health needs assessment reveals the health and quality of life in Burke County while identifying the strengths, challenges and resources in the community.

## Priority Determination

In September 2019, the Burke Wellness Initiative and additional community partners reviewed the top five health and social issues identified in the results of the community survey and focus groups. The group participated in a prioritization exercise to determine the priorities to develop into a comprehensive Community Health Improvement Plan. The top three priorities identified for the 2019 CHNA are:

- 1) Heart Disease/Stroke
- 2) Substance Use Disorder
- 3) Chronic Obstructive Pulmonary Disease (COPD)

## Data Review

### **Demographics**

- Estimated population of 88,898 residents
- Total estimated population saw a slight increase from 88,842 to 88,898 since the 2016 assessment
- Median age in Burke County stayed the same from 2016 at 43.6
- Gender distribution consists of 49.4% male and 50.6% female
- 85(+) age group has steadily increased over the last couple of years which is indicative of the trend for Burke County

### **Economic Climate**

- The poverty rate in Burke County dropped slightly from 19.9% in 2016 to 19.3% in 2017
- The largest percentage of those in poverty at 41.3% are under the age of 5
- Compared to the peer counties, Burke ranks second to highest for annual poverty rate
- Burke County's median household income is \$40,854
- Burke County's per capita income is \$6,238 less than the state average

### **Employment**

- Burke County's unemployment rate for 2017 was 4.9% which is lower than the average of 5.7% in 2015
- When compared to peer counties, Burke County has the second lowest unemployment rate
- Burke County, like NC, has experienced a decrease in the labor force
- Case Farms and Valdese Weavers are the major manufacturing employers and Burke County Public Schools and Carolinas Healthcare System Blue Ridge are the top non-manufacturing employers within Burke County

### **Education**

- Burke County has a diverse school population with attendance in public, charter, private and home school settings
- Burke County exceeds the state graduation rate of 86.5% with 89.7% of Burke County students receiving high school diplomas
- Burke County's percentage of students receiving free and reduced lunch is 53.7% compared to 59.35% in the 2016 assessment

### **Social Determinants of Health**

#### **Housing**

- Most housing structures in Burke County were built between 1939 and 2010
- Median value of an owner-occupied home is \$115,400
- The median gross rent in Burke County is \$635 per month and has stayed relatively the same since the 2016 assessment
- A diverse community collaboration has been appointed to assess and address the lack of housing and lack of affordable housing in Burke County

#### **Transportation**

- After successful acquisition of funding in 2018, Greenway Public Transportation started 4 flex routes for a two-year trial period in Burke County
- Two routes cover Morganton city proper and two routes have a service area from City of Morganton to the eastern end of Burke County
- On-call van service and para-transit van service are still available to Burke County riders as needed

## Morbidity/Mortality

- Residents born in Burke County between 2015-2017 will have an estimated life expectancy of 76.4 years
- The top five leading causes of death for Burke County changed slightly from the 2016 assessment. The top five leading causes of death in 2017 were 1) Diseases of the heart, 2) Cancer, 3) Chronic lower respiratory diseases, 4) All other unintentional injuries and 5) Alzheimer's disease
- Most chronic conditions facing the community are costly and largely preventable with some positive lifestyle behavior changes

## Areas of Success

- Both individuals and organizations in Burke County portray a strong sense of community engagement. The desire is evident in the pursuit to collectively address concerns that impact the health of residents and ensure Burke County is a healthy place for all populations.
- Since the 2016 CHNA, Burke County received several large grants to address the substance misuse epidemic within Burke County:
  1. Burke Recovery/Burke Substance Abuse Network received the Drug Free Communities grant from the Substance Abuse Mental Health Services Administration to facilitate multiple prevention efforts around underage drinking and misuse of prescription medications as well as other associated substances within Burke County.
  2. Burke County received a federal Department of Justice grant for Burke County Recovery Court (Adult Drug Court). Recovery Court serves high risk/high need adult non-violent offenders voluntarily interested in participating in treatment/recovery services.
  3. Through the Burke Substance Abuse Network, Burke County received a grant from the Kate B. Reynolds Charitable Trust to begin and complete a 3-year comprehensive community strategic gap/needs/asset analysis of the drug use/misuse challenge within Burke County.
  4. Burke County recently received another federal Department of Justice grant for the HARBOUR-LEAD project. LEAD is a pre-arrest community based and law enforcement led diversion program with the goals of improving public safety and public order. This program diverts voluntary offenders into community based, intensive case management and treatment receiving a wide array of support services to reduce recidivism. HARBOUR (Helping Achieve Recovery through Burke Opioid Use Reduction) program goals include: (1) reduce overdose incidents and deaths; (2) give low-level offenders the opportunity to access treatment with long-term recovery support instead of criminal justice system involvement, thereby reducing recidivism rates and long-term costs to the taxpayers; (3) provide treatment and long-term recovery support along with maximizing the ability of those in recovery to reintegrate into the community (aka. Re-entry).
- Burke County will open a new state-of-the-art 264 bed facility (Burke County Jail) to house all the Burke County inmates locally and reduce transporting of inmates to other jails and discontinue the need for Burke County to rent bed space from surrounding jails.

- A housing leadership team has been assembled to determine the extent of the housing/unaffordable housing shortage within the county to be able to provide more permanent and rental properties for Burke County residents and those looking to relocate to this area

### Areas of Concern

- Homelessness continues to be an important issue in Burke County. As the number of individuals that are considered homeless continues to increase, the demand for adequate resources for this population will be difficult to sustain. Accuracy of information is difficult since agencies gathering this data use various assessment instruments and cannot yield consistent county wide data.
- Substance misuse remains to be a great concern within Burke County. Burke County is seeing an increase in the use of meth and other drugs since the accessibility to opioids has been reduced so additional treatment and recovery support services remain necessary to reduce the demand from those in addiction.
- Lack of housing and lack of affordable housing remains to be an important issue within Burke County. Further studies and long-range planning continue to be developed so Burke County can attract future business for positive growth.
- Medicaid Transformation is a concern for all those who provide services for the Medicaid population. This challenge will be watched carefully as the new delivery of services begin to decrease the atmosphere of competitiveness among providers especially those in behavioral health.

### **Conclusion**

Heart disease/stroke, substance use disorder and COPD touch every member of the community in many ways and contribute to years of productive lives lost through physical impairment, financial instability, emotional devastation, disability and even death. When caring communities pool resources and work together to provide prevention education, access to care, treatment and recovery support, and adequate resources, they empower individuals/families to take responsibility for their health and well-being.



## Background and Introduction

The Burke Wellness Initiative is the driving force for the Community Health Needs Assessment (CHNA) process. The Burke Wellness Initiative is led by the Burke County Health Department and Carolinas HealthCare System Blue Ridge. The Burke Wellness Initiative maximizes community resources and input to develop the CHNA using a formal community engagement process. The committee utilizes the Mobilizing for Action through Planning and Partnerships (MAPP) framework for community engagement. There is a total of approximately 58 members representing 34 agencies and the community at large (refer to Appendix A for a full list of members and agencies).

The purpose and vision of the Burke Wellness Initiative is to ensure that Burke County embraces, educates and provides the opportunity to empower persons of all ages to make informed choices to live healthier lives. The values include, access, empowerment, engagement, capacity, education and continuity (communication). The Burke Wellness Initiative defines “wellness” as encompassing physical, emotional, mental and spiritual health and well-being. The Burke Wellness Initiative is responsible for the planning, marketing, implementation and evaluation of CHNA process.

MAPP is a community-wide strategic planning process for improving public health, as well as an action-oriented mechanism to help communities prioritize public health issues, identify resources for addressing them, and act accordingly. The MAPP framework consists of six phases: (1) Organizing for Success and Partnership Development, (2) Visioning, (3) Four MAPP Assessments, (4) Identifying Strategic Issues, (5) Formulate Goals and Strategies, and (6) The Action Cycle.

## Data Collection

The CHNA reveals the health and quality of life in Burke County while identifying the strengths, challenges and resources within the community. The CHNA process gathers, analyzes and evaluates health data from primary and secondary sources. As part of the primary data collection, a CHNA survey was distributed and focus groups were hosted to collect county residents’ opinions regarding health and social issues that impact the health of those living in Burke County. Secondary data was gathered from state and local statistics as cited in Appendix F: References.

The Burke Wellness Initiative collected primary data through the following methods:

- **Community Health Needs Assessment Survey (Survey tool and results cited in Appendix B & C)**
  - 1,049 Burke County residents completed survey responses
  - Burke Wellness Initiative members distributed paper copies and online links to CHNA survey in Survey Monkey to the following community areas and organizations, including but not limited to:
    - Burke County Chamber of Commerce
    - Burke County Government Employees

- Burke County Public Libraries
- Burke County Public School employees
- Burke County United Way-Partner Agency Network
- Burke Literacy Council
- Carolinas HealthCare System Blue Ridge employees and patients
- Community Wide Health Screening- Lady Fair
- Morganton-Burke Senior Center
- Western Piedmont Community College
- Good Samaritan Clinic Board
- Builders Association
- Burke Mission Station
- **Focus Groups**
  - Focus groups gathered additional information from citizens regarding their health concerns, behaviors and potential solutions to address the identified health concerns.
  - Participants were invited through word of mouth, personal and public invitation and through other established groups.
  - Conducted 7 focus groups with 81 participants including:
    - (Focus group results cited in Appendix D)
    - Burke Substance Abuse Network members
    - Burke County Circles Group
    - Cultural Diversity Committee – Carolinas Healthcare System Blue Ridge
    - Opportunity Threads – Spanish Speaking owned private business
    - Good Samaritan Clinic staff
    - CHS Cancer Support Group
    - Burke Senior Center

## Peer Counties

Peer counties are determined by HealthStats, North Carolina's interactive health statistics website. HealthStats provides numerical statistical data on the health status of North Carolinians and the state of the health care system in North Carolina. Peer counties are determined based on:

1. Population size
2. Number of individuals living below the poverty level
3. Population under 18 years of age
4. Population 65 years of age and older
5. Population density

Burke County's peer counties include Caldwell, Lee, Rockingham, Surry and Wilkes.



## Populations at Risk

- **Uninsured/Underinsured**

Access to affordable health care is a national concern affecting all; including the residents of Burke County. Even after the adoption of the Affordable Care Act, residents who were unable to qualify for governmental assistance (ex. Medicaid, Medicare) and who were also unable to afford the healthcare options offered through the HealthCare Marketplace fell into the "Medicaid Gap." After North Carolina voted not to expand the "Gap," these residents were left without an avenue through which to receive basic healthcare. These residents who live without health insurance seek health care at hospital emergency departments; the most expensive venue for the treatment of non-emergent conditions; local free clinics or opt not to seek any health care assistance.

Burke Health Network is a collaboration of safety net providers within Burke County tasked with coordinating resources for those uninsured/underinsured residents with securing medical, behavioral health and whole person care and increase the opportunity for improved health and quality of life. Burke Health Network assists uninsured residents between the ages of 18-64 and fall under the 200% federal poverty level status gain access to a medical home.

In 2018, Burke Health Network screened 1,413 residents for services with the following breakdown:

- Of those, 993 were enrolled in the network and placed in a medical home with coordinating services
- 1,108 of the residents were screened for assistance with the social determinants of health (housing, food, transportation, etc.)
- 200 clients were enrolled in the NC Medication Assistance program and were able to access much needed medication
- 480 clients were bridged for one-time medication assistance
- 1,081 clients completed a comprehensive health assessment
- 499 referrals were made for labs, diagnostic imaging, eyeglasses, specialty care, etc.
- The leading diagnosis was hypertension (high blood pressure)

- **Substance Misuse Population**

Burke County, NC is ranked in the top 5% of vulnerability for the rapid dissemination of HIV or HCV infections among persons who inject drugs - there is no doubt when reviewing the needs of the county as well as the rising use of opioids that the residents of the community are in need of prevention and intervention. Before the addition of the STOP Act, the local hospital system, Carolinas HealthCare System - Blue Ridge implemented an internal policy to stem the flow of opioid prescriptions and through the prescription

reduction policy made an impact on the number of pills distributed in the community.

However, the lowered rate of opioid prescribing has not impacted “supply and demand,” as individuals with the disease of addiction, or those using recreationally, still maintain the “demand” for a substance and therefore alter the “supply.” As a result, meth and heroin use is on the rise.

According to Carolinas HealthCare System - Blue Ridge Emergency Department, 4.55% of all Emergency Department visits are primarily due to substance use. Of those visits, over one-half (2.66% of the total visits) are for meth use, nearly one-fifth (0.83% of the total visits) are for opioid use and the remainder is a combination of cocaine, marijuana, benzodiazepines and other drugs. Since November 2012, the Burke County Sheriff’s Office has collected and disposed of over 3,147 pounds of prescription medication using two of the county’s seven drop boxes and multiple take-back events; this is equivalent to 2,618,295 pills made inaccessible for misuse in only seven years.

The cost of this epidemic is measurable in multiple ways, including loss of life, loss of children due to involvement of foster care, and loss of economic revenue. According to the NC Injury and Violence Prevention Branch, Burke County’s unintentional drug overdose rate in 2016 was 27.9 per 100,000 residents, which was 229% higher than the state rate of 12.2 and 174% higher than the regional rate of 16. The financial impact for Burke County, as calculated by the NC State Center for Health Statistics in 2016 was \$33,663,578; \$150,426 incurred through medical bills and the remaining \$33,513,152 due to the loss of work.

The number of children in foster care due to substance use/misuse has remained at maximum capacity due to over 90% of the children being placed outside of the home, whether in licensed foster care homes or with kinship guardians, as a result of parental misuse of substances.

The chart information below reported by Burke County Department of Social Services indicates the numbers of children who entered care due to parental substance misuse as well as the number who entered care for reasons other than substance misuse for the past several years.

<b>Year</b>	<b>Average for Year in Foster Care</b>	<b>Entry due to substance misuse</b>	<b>Entry not due to substance misuse</b>
2016	197	98	13
2017	241	98	13
2018	232	78	12
2019 YTD	237	66	8

- **Homelessness**

There is more than one “official” definition of “homelessness”. Health centers funded by the US Department of Health and Human Services (DHHS) use the following definition: A homeless individual is defined as an individual who lacks housing (without regard to whether the individual is a member of a family); including an individual whose primary residence during the night is a supervised public or private facility (e.g. shelters) that provides temporary living accommodations; and any individual who is a resident in transitional housing. A homeless person is an individual without permanent housing who may live on the streets; stay in a shelter, mission, single room occupancy facilities, abandoned building or vehicle; or in another unstable or non-permanent situation.

An individual may be homeless if that person is “doubled up,” a term that refers to a situation where individuals are unable to maintain their housing situation and are forced to stay with a series of friends and/or extended family members. In addition, previously homeless individuals who are to be released from a prison or a hospital may be considered homeless if they do not have a stable housing situation to which they can return. A recognition of the instability of an individual’s living arrangement is critical to the definition of homelessness.

The latest annual Point in Time Count of those individuals experiencing homelessness in Burke County was completed in January 2019. It is noted that Burke County falls within Region 3 of the Point in Time count. Although Region 3 data is broken down to include detailed demographics on gender, age, race, ethnicity and veteran status, any additional data is unavailable. Burke County’s data is as follows:

- Unsheltered Homeless = 29 People/28 Households
- Emergency Shelter and Transitional Housing = 40 People/32 Households

Morganton Department of Public Safety Captain Jason Whisnant and his team work on community engagement department within the Public Safety Office. Through this vital role, these officers have an opportunity to build a relationship with this population and gather this important information that can be used to determine community needs, gaps, resources, etc. Morganton Public Safety conducted their own homeless count in July 2019.

The data below is the count from this survey. Captain Whisnant indicates that the following data is a minimum estimate of the existing problem and notes there are new camps/people coming in weekly. Survey information was voluntary; meaning, they were not required to provide information to the team. There were eight individuals that did not want to disclose any information.

- Active camps-22
- Counted people-28
  - Gender: Male-20 / Female-8
  - Length of time in Morganton:
    - Life = 4
    - 20+ years = 4
    - 10 years = 1
    - 5 to 9 years = 3
    - 1 to 4 years = 3
    - 6 months to 1 year = 2
    - less than 6 months = 11

Place/State of Origin	Number of Individuals
Burke County	8
Kentucky	5
Statesville	1
Asheville	1
South Carolina	1
Florida	1
Tennessee	1
Eastern NC	3
Michigan	1
No response	6

These surveyed individuals accessed the following resources within the community: Burke United Christian Ministries (BUCM)– 24; The Outreach Center – 3; Summit Church – 1; and A Caring Alternative (Mental Health/Substance Use Services) – 4. When asked if they wanted services, there were 26 responses to “No” and two did not have a response. Below were the responses about what brought them to Morganton:

- Family or friends-20
- Services-2
- Stayed after Carnival Left-3
- Work-2
- no response- 1

Burke County Public Schools provided a brief snapshot of homeless students identified during the last academic year. The school system abides by the McKinney-Vento definition of homelessness which “means individuals who lack a fixed, regular, and adequate nighttime residence”.

- 2018-19 = 72 students
- 115 suicide risk screenings were completed by Counselors/Social Workers
- 101 students served in the Burke Alternative to suspension program
- 76 truancy charges filed

Burke United Christian Ministries which operates within the definition of homeless as, “not having a stable roof over their head”; provided the following information for their contact with the homeless population:

- **Number served:** In 2018, served 561 individuals who were homeless at some time during the year. The agency provided \$10,145.50 worth of assistance 775 times in the form of tents, sleeping bags, tarps, back packs, blankets, heaters, etc.
- **Resources and Referrals Used:** The House of Refuge, The Meeting Place, DSS, A Caring Alternative, Strategic Interventions, Partners Behavioral Health, Burke Health Network, Burke Integrated Health, Christ Centered Recovery, Vessels of Mercy, Burke Recovery, Options, etc.
- **Identified Gaps/Needs in Services/Resources** - Housing is, by far the scarcest

resource. There is very limited transitional housing and almost nothing for homeless families. Additionally, daycare and access to mental health services are also issues.

- **Older Adults 65(+)**

Healthy People 2020 sees unprecedented growth in the number of older adults. In 2014, 14.5% (46.3 million) of the US population was aged 65 or older and is projected to reach 23.5% (98 million) by 2060. Aging adults experience a higher risk of chronic disease. Burke County continues to see an increase in the older adult population and the challenges it poses. Within this assessment is a detailed section on the older population.

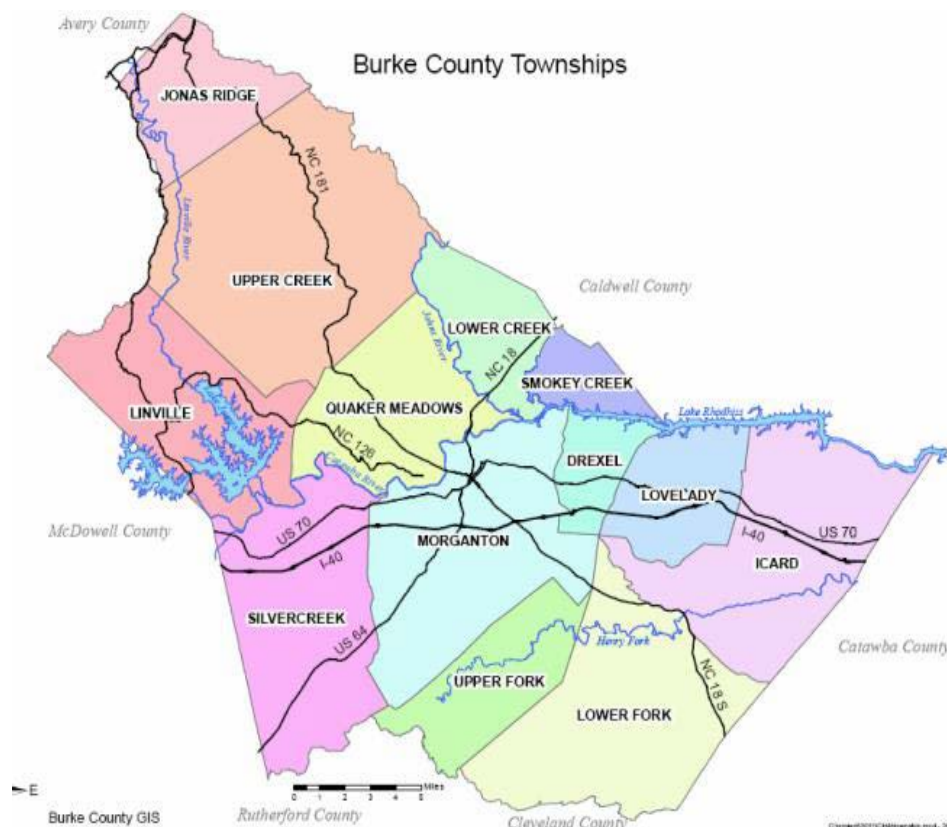
## Community Profile

### Geography

Burke County is in the western part of North Carolina located in the foothills of the Blue Ridge Mountains. Burke County is bordered to the west by McDowell County and to the south by Rutherford and Cleveland counties. Its border to the north is shared by Caldwell and Avery counties while Catawba County lies due east.

Burke County covers a land mass of approximately 514 square miles with an elevation that ranges from 900 to over 4,300 feet above sea level. Burke County consists of 13 townships and seven municipalities: Morganton being the largest as well as the county seat.

The Catawba River runs through the county and feeds Lake James, which has become one of the major attractions of Burke County and support 1.5 million recreational users a year. Lake James is one of the most pristine lakes remaining in the Southeast and is in the northwestern portion of Burke County. To preserve Burke County's environmental integrity the Lake James and South Mountain State Parks were established nearly 30 years ago. Other attractions include the wild, rugged and scenic wilderness of Linville Gorge, the age-old mystery of the Brown Mountain Lights, and panoramic vistas from the top of Table Rock, Shortoff Mountain, and the Blue Ridge Parkway.





Burke County is home to beautiful outdoor trail and park opportunities for residents and those visiting the area. Burke County has approximately 13 trails encompassing 3,055 acres and 15 miles of biking trails located at Lake James. There is a new beautifully constructed Fonta Flora trail covering 18 miles. South Mountain State Park offers 50 plus trails with approximately 8,746 acres of forest land. Linville Gorge has roughly 20 trails with a total of 48,407 acres including Brown Mountain Off Road Trail encompassing 15 trails. Closer to downtown Morganton, residents and visitors can enjoy 5 miles of Greenway Trail with 204 acres for biking and walking. Burke County also offers additional outdoor opportunities within four county parks offering walking, biking and park amenities. The parks cited are: Reep Park approximately 98 acres with 2 miles of natural surface trail; Simpson Park approximately 22 acres with 1 mile of natural and paved surface trail; Spring Park approximately 32 acres with 1 mile of paved surface trail and Parker Road Park approximately 15 acres with 1 mile of natural surface trail.

## History

In 1777, the NC General Assembly passed an act dividing Rowan County and creating a new county named in honor of Thomas Burke. Mr. Burke was a representative in the Continental Congress until he became the third governor of the state. The new county of Burke comprised such a large territory that it later became the largest part of the 16 counties including Buncombe, Catawba, Mitchell, Madison, Yancey, Caldwell, McDowell and Alexander. In 1834, Burke County was reduced to its present size of 514 square miles.

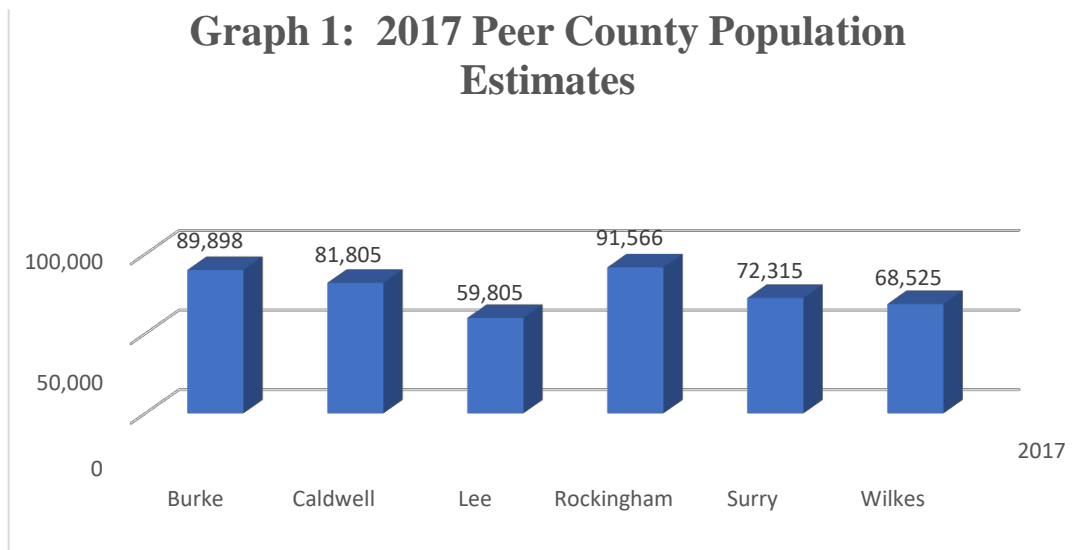
Burke County's first courthouse was built in 1785, about eight years after the county was formed. A second courthouse was constructed in 1791 and served as the county Courthouse until 1833 when a two-story building was authorized by the General Assembly. Until vacated for the new courthouse in 1976, the Old Burke County Courthouse was the oldest public structure in Western North Carolina still being used for its originally designated purpose.

To date, the largest landowners in Burke County are the US Government, Crescent Resources (Duke Energy Co.), and the State of North Carolina. Burke County also has the third largest concentration of state employees in North Carolina.

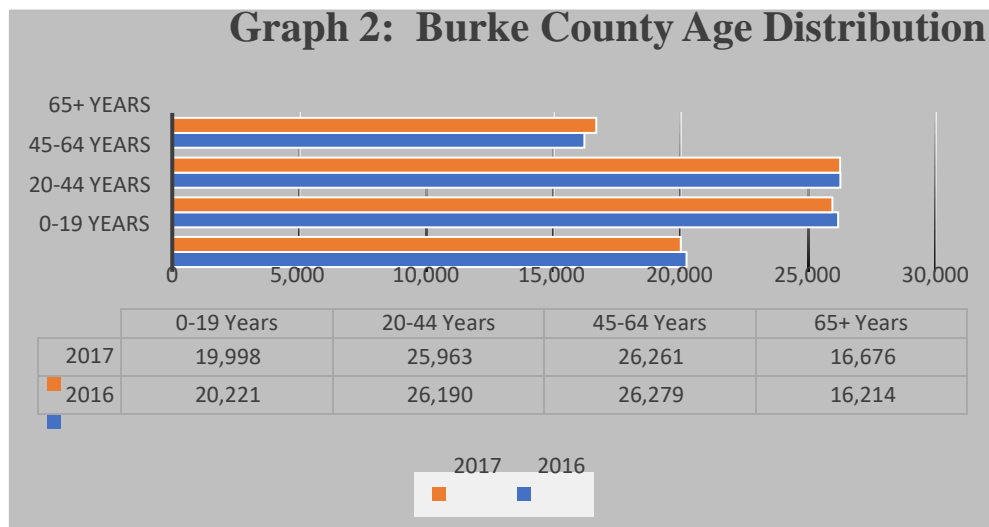
Departments include: Department of Transportation, Department of Corrections, J. Iverson Riddle Developmental Center, North Carolina School for the Deaf and Broughton Hospital.

## Demographics

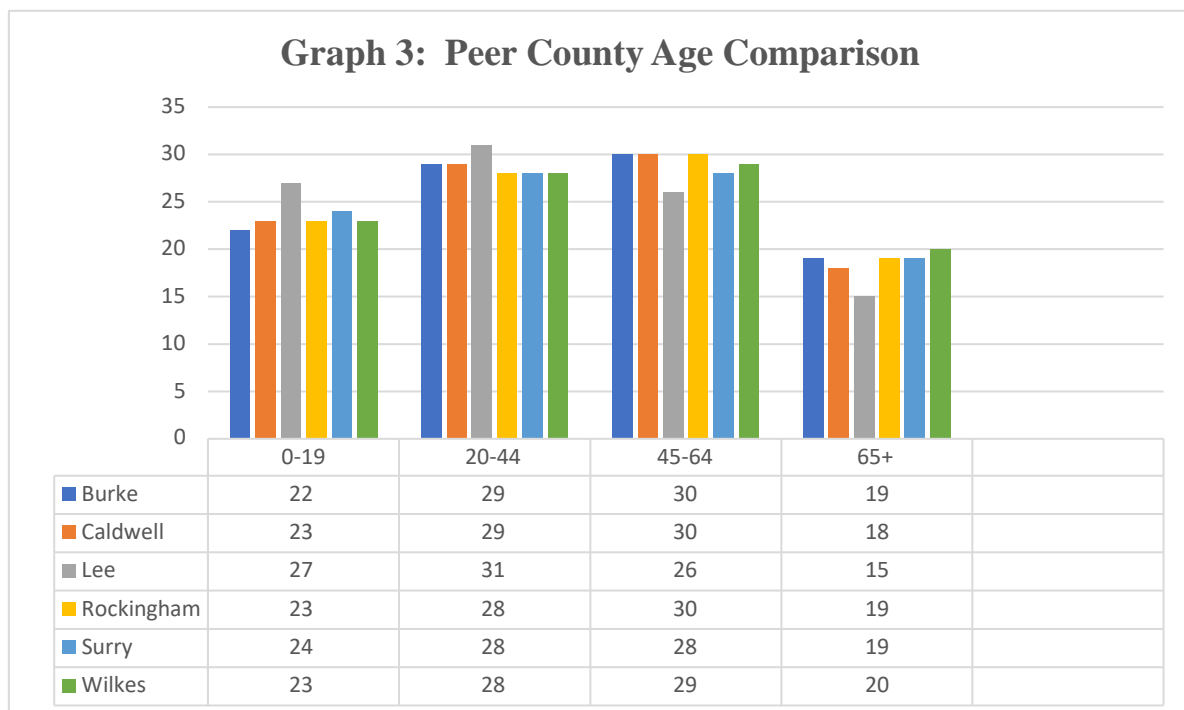
Burke County is home to an estimated total population of 88,898<sup>1</sup> which is a minute increase from 88,842 reported in the 2016 Community Health Needs Assessment. According to the NC Department of Commerce: October 2019 profile, Burke County is approximately 57% urban encompassing 50,672 residents while 38,226 residents live in the rural parts of the county which cover the remaining 43%.<sup>2</sup>



Graph 1 depicts the population size comparisons for Burke County's recognized peer counties. Burke County has the second highest estimated population base when compared to the peer counties.

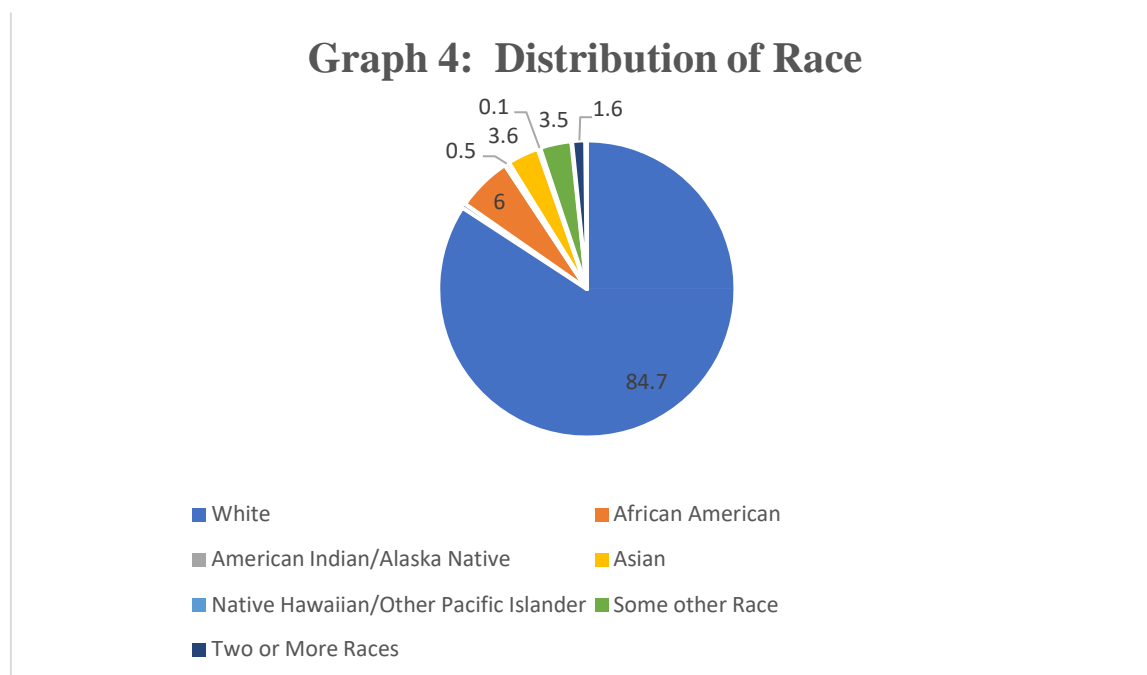


Graph 2 depicts the US Census age estimates for Burke County. Estimates from 2016 to 2017 decreased slightly in each age category except the 65 and older group which increased slightly. American Fact Finder also noted that the 85+ age group has steadily increased over the last couple of years which is indicative of the trend for Burke County.<sup>3</sup> Since the trend for the older population is projected to continue to increase, aging factors such as accessibility, mobility and disability will become issues which Burke County will need to research and develop plans to address in the future.



Graph 3 shows the age comparison for Burke’s peer counties. This comparison illustrates that Wilkes County has the highest percentage of 65 and older adults with Lee County having the lowest population base and the higher percentage of 0-44 age groups.

In 2017, the median age stayed close to the same as the last assessment at 43.6 with a gender distribution of 43,908 males (49.4%) and 44,990 females (50.6%). Children under the age of 5 has stayed the same at 4.8%.<sup>4</sup> The age distribution for Burke County hasn’t changed since the 2016 Needs Assessment.



Graph 4 is Burke County’s most recent racial distribution. The racial makeup has not changed since the 2016 assessment. 92% of residents speaks English with 8% speaking another language. According to the US Census Bureau American Fact Finder, an estimated 5,223 residents or 5.9% of the population within Burke County is of Latino origin.<sup>5</sup>

And as of December 2019, Burke County had 54,500 registered voters with a distribution as follows: 15,507 Democrats, 20,243 Republicans, 18,419 Unaffiliated, 291 Libertarian, 24 Green and 16 Constitution.

## Social Determinants of Health

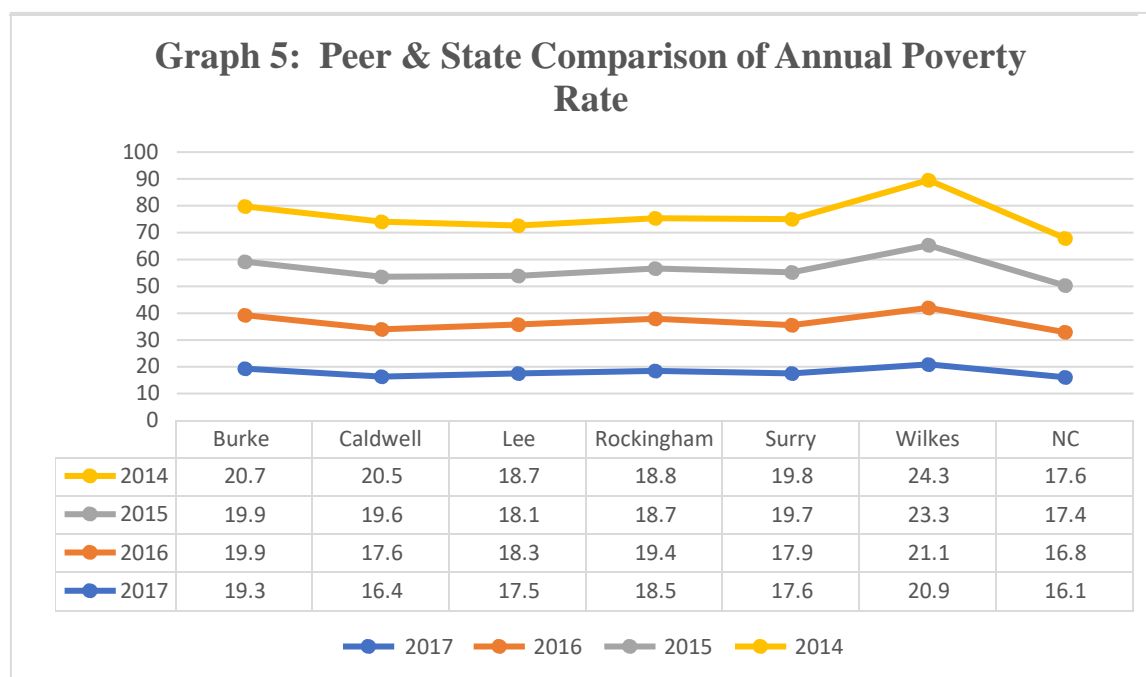
### Poverty

An imperative component of the assessment of population health is poverty; a condition defined by an inability to have one’s basic needs (food, shelter, clothing) met. The American Psychological Association sites poverty as a major leading cause for “substandard housing, homelessness, inadequate nutrition and food insecurity, inadequate childcare, lack of access to health care [and] unsafe neighborhoods.” Additionally, children are specifically affected through

“poor academic achievement, school dropout, abuse and neglect, behavioral and socioeconomic problems, physical health problems and developmental delays.” As it is inherently tied to the other identified health issues, it is necessary to consider poverty as not only a separate concern, but an origin for the trauma that leads to other concerns like substance use/misuse and mental health.

The poverty rate is the percent of the population (both individuals and families) whose monetary income (which includes job earnings, unemployment compensation, social security income, public assistance, pension/retirement, royalties, child support, etc.) is below the threshold established by the Census Bureau. In 2015 and 2016, the estimated poverty rate was 19.9% and dropped slightly to 19.3% in 2017.<sup>6</sup> Those in poverty under the age of 18 comprise 29.3%, with the largest percentage in poverty being under the age of 5 at 41.3%.<sup>7</sup> Below is the breakdown of those below the poverty level by age group and education attainment level for those over the age of 25:

		<b>Those age 25 and over:</b>	
Under the age of 5	41.3%	Less than a high school graduate	30.7%
18-34 years of age	25.6%	High school graduates	14.0%
35-64 years of age	16.1%	Some college/Associates degree	14.3%
65+ years of age	9.8%	Bachelor’s degree or higher	4.3%



Graph 5 depicts the comparison of the annual poverty rate between Burke County, the peer counties and the state since 2014.<sup>8</sup> All the counties have consistently stayed above the state rate. Burke County continues to experience a slight decrease each year in the poverty rate. Compared to its peers, Burke County has consistently ranked second to highest for rate of poverty.

The Outreach Center is a community based nonprofit relief organization serving Burke County residents through hunger relief, job training, education, and arts programs. Their mission is to empower children and their families to break the cycle of generational poverty. In 2018, the Outreach Center provided the following services:

- 10,965 assists with groceries during the mass food distributions translating to 1.5 million dollars' worth of food to individuals within the community
- The food distribution fed 4,157 individuals (1,472 children under 18; 2,213 adults and 452 seniors age 60 and older)
- 1,472 children received life-sustaining food and clothing
- 382 children received diapers
- 330 individuals received education and workforce development training
- 35 children received free art and music lessons
- 10,789 volunteer hours were provided and were valued at \$261,000
- 845 pets received food
- 516 senior food boxes were distributed to the elderly

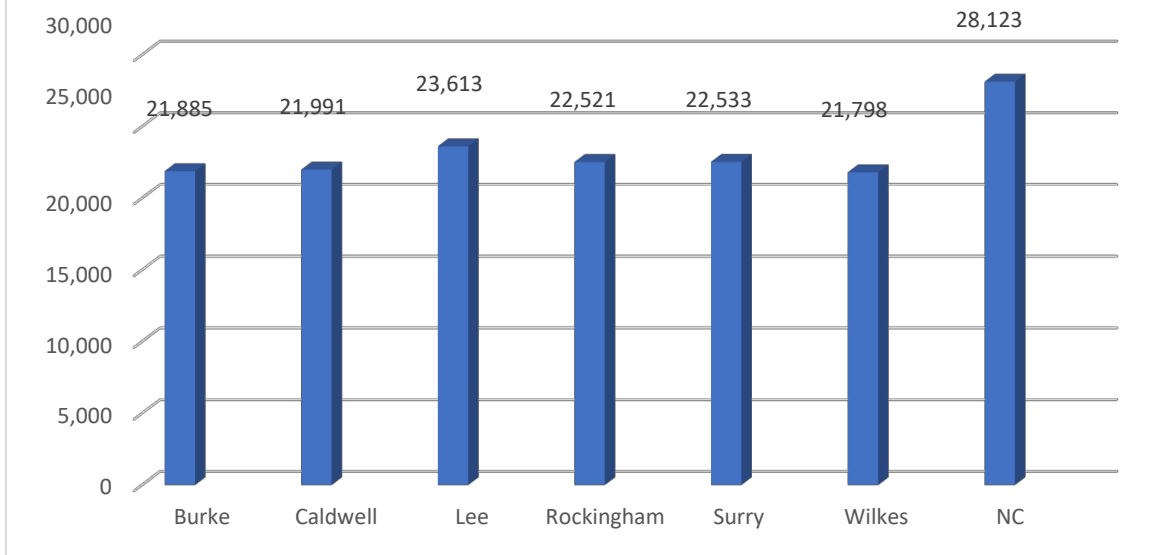
The Good Samaritan Clinic is an interdenominational faith-based ministry providing medical care, dental care, mental health counseling, farmworker outreach, confidential HIV testing and counseling, ancillary services and prescription medications to Burke County residents who are without private insurance, government assistance, or the financial resources to afford such care. Since opening its doors in 1996, Good Samaritan Clinic has provided low-cost healthcare to more than 10,000 residents valued at more than \$90 million. Through volunteer commitment and strong community partnerships, the clinic provides more than \$5 million in free medical care and prescriptions annually. Beginning April 2019, the Good Samaritan Clinic received funding and began to expand dental services offered to those in need. Below is the initial dental stats:

4,040 – Individual procedures	April – December 2019
754 – Encounters	July – December 2019
480 – Unduplicated patients	2019

Dental clinic is open 2 days per week where the dentist sees 13 patients per day, hygienist sees 6 to 7 patients per day and the clinic sees approximately 2 to 4 new patients per day to help meet the need.

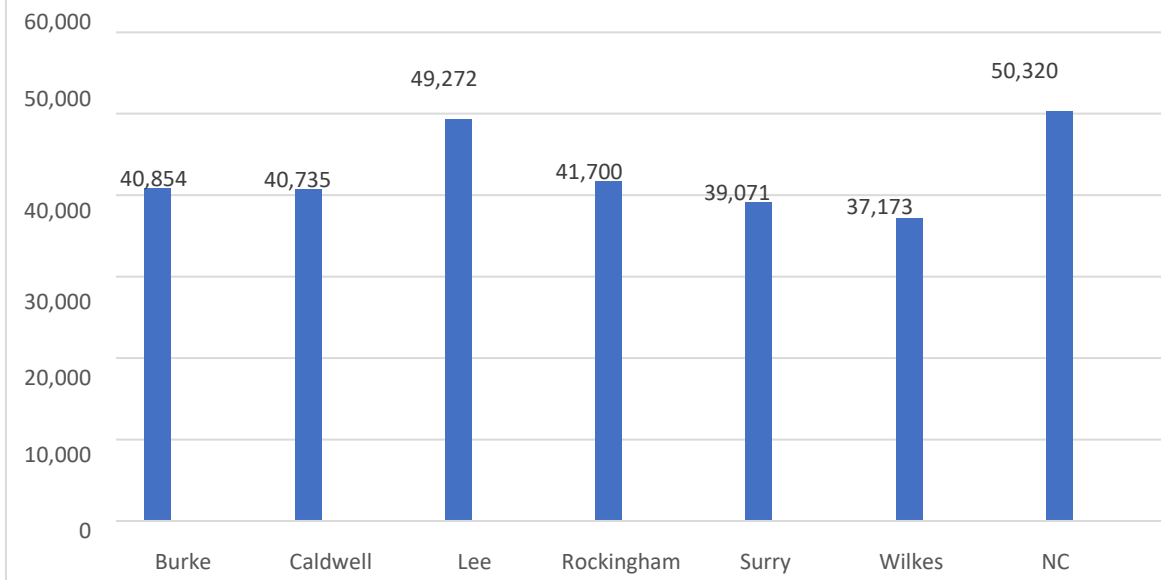


**Graph 6: Peer County Per Capita Income Comparison**



Per capita income or average income measures the average income earned per person in a given area (city, county, region, etc.) in a specified year. It is calculated by dividing the area's total income by its total population. Graph 6 shows that Burke County is second to last in per capita income when compared to its peer counties and \$6,238 less than the state average.<sup>9</sup>

**Graph 7: Peer County Median Household Comparison**



Household income is the average income of all people living in a housing unit whether related or not. Median household income is the point where half the population makes more, and half makes less. Graph 7 shows the comparison of the median household income between Burke and

peer counties. The comparison shows that Burke County ranks third from the bottom. While it is higher than the previous assessment at \$37,086, there is still room for improvement to a more competitive household income. The median household income in Burke County of \$40,854 is \$9,466 less than the NC average.<sup>10</sup>

The Burke County Department of Social Services reports that the average number of eligible served SNAP/EBT participants through the NCFAST report was as follows:

2016 – 13,107

2017 – 12,192

2018 – 12,467

## Employment

NC Works estimates that Burke County's labor force has decreased from 41,419 in July 2019 to 40,910 in August 2019 with July 2019 having the highest labor force since January 2016 when it was reported at 39,440. The state of NC has otherwise seen a recent decrease in the labor force.<sup>11</sup>

US Census, American Fact Finder estimates that 67.3% of Burke County residents work within the county, 32% work outside of Burke County and .7 work outside NC.<sup>12</sup>

According to the Burke Development Incorporated, the following companies are the major manufacturing employers in Burke County for 2018.<sup>13</sup>

Employer	Industry	Number Employed
Case Farms	Food Processing	1000
Valdese Weavers	Woven Fabric	750
Leviton	Electrical	625
Continental Automotive	Anti-Lock Brakes	525
Seiren NA	Automotive	275
Baker Furniture	Furniture	250
Molded Fiberglass	Truck & Bus Bodies	220
Bimbo Bakeries	Baked Goods	215
Gildan	Textiles	187

Kellex Seating	Furniture	178
Chaddock Furniture	Furniture	175
EJ Victor	Furniture	165
Gerresheimer Glass	Glass & Glass Product Mfg.	150
SGL Carbon	Graphite Products	125
<b>Source: Burke Development Incorporated</b>		

The following companies are the major non-manufacturing employers in Burke County for 2018.

<b>Employer</b>	<b>Industry</b>	<b>Number Employed</b>
Burke County Public Schools	Public Education	1,500
Carolinas HealthCare – Blue Ridge	Health Care	1,400
Broughton Hospital	Mental Health Care	1,225
J. Iverson Riddle Developmental Ctr.	Mental Health Care & Research Ctr.	1,000
Burke County	County Government	525
Western Piedmont Community College	College System	415
City of Morganton	City Government	270
<b>Source: Burke Development Incorporated</b>		

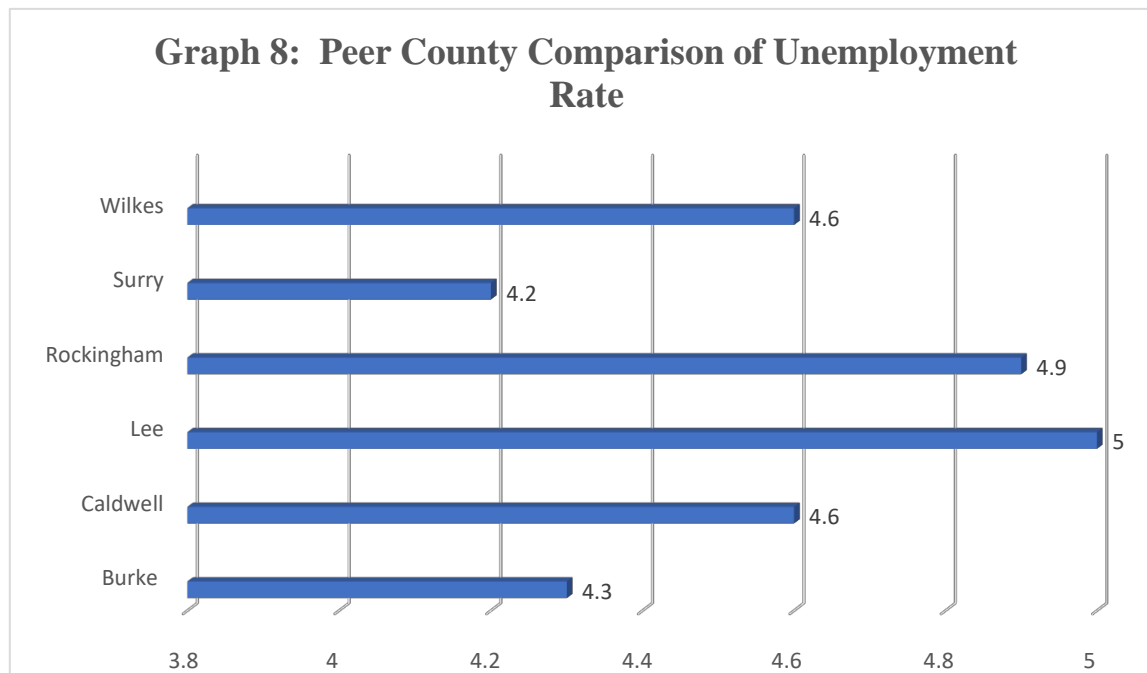
According to NC Works Online: Labor and Economic Analysis Division, occupations with the highest projected growth from 2017-2026 are as follows:

- Food preparation and serving workers including fast food
- Janitors and cleaners
- Heavy tractor-trailer truck drivers
- Nursing assistants
- Laborers and freight, stock and materials movers

The same analysis division also shows the top 10 positions with highest median (annual) wages in Burke County for 2018 were:

• Sales Managers	\$144,548
• Chief Executives	\$130,014
• Pharmacists	\$129,587
• Architectural and Engineering Managers	\$117,546
• Physicians Assistants	\$104,744
• General and Operations Managers	\$102,079
• Medical and Health Services Managers	\$98,850
• Financial Managers	\$94,121
• Industrial Production Managers	\$90,654
• Administrative Service Managers	\$88,142

## Unemployment



Graph 8 depicts the unemployment rates of peer counties compared to Burke County. In Burke County since 2016 the unemployment rate has been as low as 3.1% and as high as 4.9% in 2017.<sup>14</sup> Currently, Burke County's unemployment rate is the same as the State's rate. When compared to peer counties, Burke has the second lowest unemployment rate.

## Education

Burke County has a diverse school population with students attending public, charter, private and home schools within the community. Burke County Public Schools has an enrollment of 12,668 for the 2019-2020 school year. Over the last 4 school years, Burke County Public Schools has

seen a gradual increase in student enrollment except for a sharp decrease in 2018-2019 and a rebound for school year 2019-2020. Burke County's most current high school graduation rate for 2018-2019 is 89.7% which is higher than the state rate of 86.5%. Graduation rates in Burke County have fluctuated very little since the last assessment. In 2016, Burke County Public Schools was recognized for having the highest graduation rate in the state for medium size school district. Below Graph 9 depicts the graduation rates for Burke compared to peer counties.<sup>15</sup>

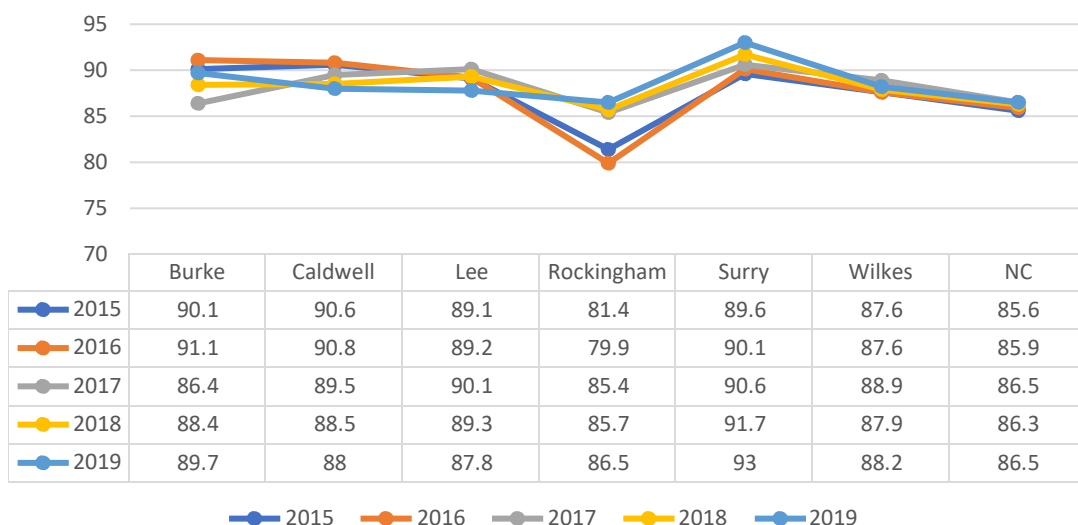
In Burke County, 100% of schools receive some percentage of free and reduced lunch compensation through the Federal Eligibility Program. This year, the public schools have seen a 3.1% increase in lunch participation and a 23% increase in breakfast participation. Burke County's percentage of students partaking in free and reduced lunch program is 53.7% compared to 59.35% in the 2016 needs assessment.

Burke County has a large home-schooled community which continues to increase. In 2016, Burke County had 1,043 homeschooled students. According to the NC Home School Statistical Summary report, an estimated 1,467 home schoolers were enrolled for school year 2017-2018 and 1,540 for 2018-2019 school year.<sup>16</sup>

Burke County has 4 private schools, Morganton Day School, Silver Creek Adventist School, Reflections of Christ Christian Academy and Christ Classical Academy with a current combined enrollment of approximately 170 students. Burke County also has one charter school, New Dimensions, where approximately 340 kindergarten through 8<sup>th</sup> grade students are enrolled.

Burke County is also home to Western Piedmont Community College with an approximate enrollment of 4,000-degree program students and more than 10,000 enrolled in continuing education courses. Several universities operate satellite programs on the Western Piedmont off campus instructional site.

**Graph 9: Peer County and State Comparison High School Graduation Rate**



**Educational Attainment:**

	<b>Ages 25 (+)</b>	<b>65(+)</b>
Less than a HS grad	19.5%	22.5%
HS grad/GED	30.2%	33.4%
Some college/Assoc degree	33.6%	26.4%
Bachelor's degree or higher	16.7%	17.6%

The 65 (+) group has a higher achievement percentage at each end of the attainment spectrum except for some college/associate degree level.

**Housing**

Burke County has a total number of 40,989 housing units; of those, 34,568 are occupied and 6,421 are vacant.<sup>17</sup> Most housing structures in Burke County were built between 1939 and 2010. The median value of an owner-occupied house in Burke County is \$115,400.<sup>18</sup> In Burke County, the number of owner-occupied housing units increased slightly from 22,914 in 2010-2014 to 24,733 from 2013 – 2017.<sup>19</sup>

Conversely, the number of renter-occupied housing units was 10,300 from 2010-2014 and dropped slightly to 9,835 from 2013 – 2017.<sup>20</sup> The median gross rent is \$635 per month with 69.7% of renters paying between \$500-\$999.<sup>21</sup> The median rent has stayed relatively the same since the last CHNA in 2016.

Available, affordable and adequate housing (rental/ownership) is often a barrier to the health and well-being of the citizens of Burke County. The security that comes from an available, affordable and adequate home or lack thereof, plays an intricate role in the physical, emotional and mental health of an individual. Burke County is facing the challenge of providing housing for its current residents and those forecasted to relocate to Burke County by 2021. There are several agencies working on the development of new housing (rental/ownership/subsidized/affordable/market value). In 2017, Burke County assembled a housing committee who in turn commissioned a housing needs assessment. The completed report evaluated demographics, economic growth and housing supply. This report will be used to develop a long-range plan to address the housing insufficiency. Renovation or sales of identified properties that have been abandoned, are substandard or are condemned will also be addressed.

Education and assistance in foreclosure and repair assistance has been offered for several years. Many policies at all levels hinder the success of agencies that are working to fill the gap of providing affordable and adequate housing at all income levels. These policies need to be reviewed in relationship to the housing challenges and addressed accordingly. The need is great to provide housing for the natural growth of the county, however, there are several projects that will be bringing more people to the area therefore housing needs will soon exponentially grow.



Housing issues cause stress which can lead to more serious illnesses, including physical illnesses due to living conditions.

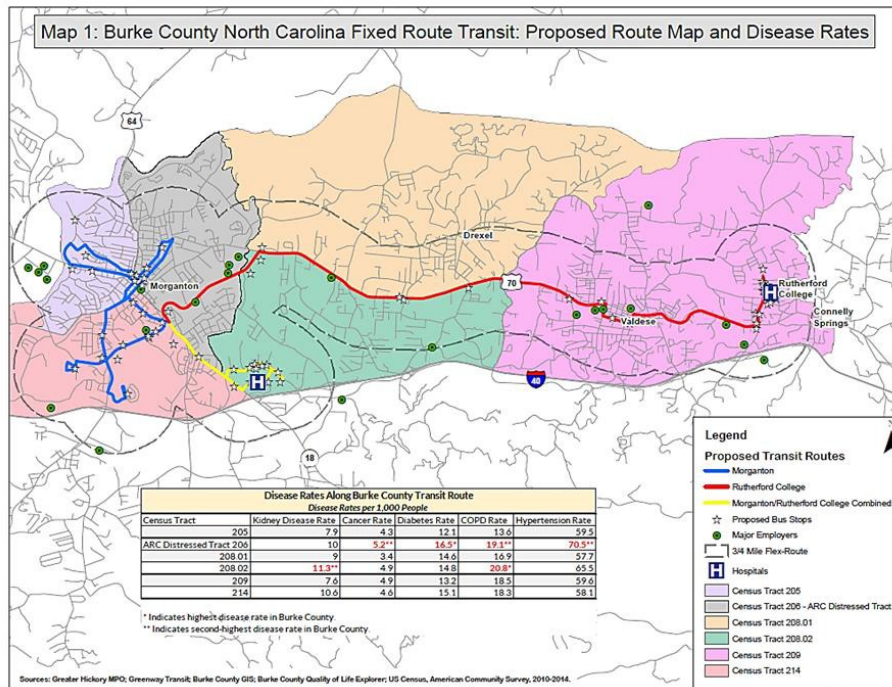
Research has shown a clear link between financial health, which includes the ability to afford house, and physical health. People with strong financial health experience less stress, access regular preventive healthcare, make healthier choices and take prescribed medication. People with strong physical health can work longer and are better equipped to deal with financial issues. Access to safe, secure and good quality housing is an important determinant of good health and assists communities with the following: 1) frees family resources which in turn can be used for nutritious food and health care expenditures; 2) provides greater residential stability and reduces stress and related adverse health outcomes; 3) fosters greater self-esteem and a sense of security over their physical environment; 4) well-constructed/well-maintained housing can limit exposure to allergens, neurotoxins and other dangers; 5) neighborhood improvements can create healthier opportunities such as walkable communities, retail establishments, access to fresh produce, etc.

## **Transportation**

Prior to 2018, the Western Piedmont Regional Transportation Authority (WPRTA), commonly known as Greenway Public Transportation, operated rapid demand van and paratransit (ADA-compliant) services in Burke County with no fixed or regular route. An individual had to schedule a request by phone for individualized van transit service at least three (3) days in advance with a Greenway reservationist.

In 2018, a community coalition of businesses, nonprofits, and governmental agencies partnered to discuss the need for regular transportation in Burke County. Under the guidance of the Western Piedmont Council of Governments, transportation planners and the service operator, WPRTA/Greenway prepared a narrative of need to convince third-party, external grantees to fund a fixed route in Burke County.

Two of the larger obtained grants were funded by the Appalachian Regional Commission (ARC) and the Kate B. Reynolds Charitable Trust. Grant narratives expressed transportation need for employment and medical appointments, respectively. For example, the ARC grant application included letters of support from area businesses and employers to show that there was support for regular transit for working people in the county. There was also data for disease rates in Burke County to show the need for medical transportation (\*\*see graphic/map below).



Other local funders contacted to assist in starting a fixed route included the Burke County United Way, Burke Development, Inc., Burke’s Women’s Fund, Carolinas HealthCare System Blue Ridge, Community Foundation of Burke County, Western Piedmont Foundation at Western Piedmont Community College, County of Burke, City of Morganton, Town of Drexel, Town of Rutherford College, Town of Valdese, FTA funds, and individual contributors.

Ultimately successful, the resources pooled were substantial enough to fund 4 Burke County Flex Routes for a two-year trial period, starting in October 2018.

Two routes (21 and 22) cover Morganton city proper and 2 routes (23 and 24) have a service area from Morganton city to Valdese or Rutherford College in east Burke County. Riders can request a “deviated” stop within .75 mile of a route, therefore the routes are known as “flex.”

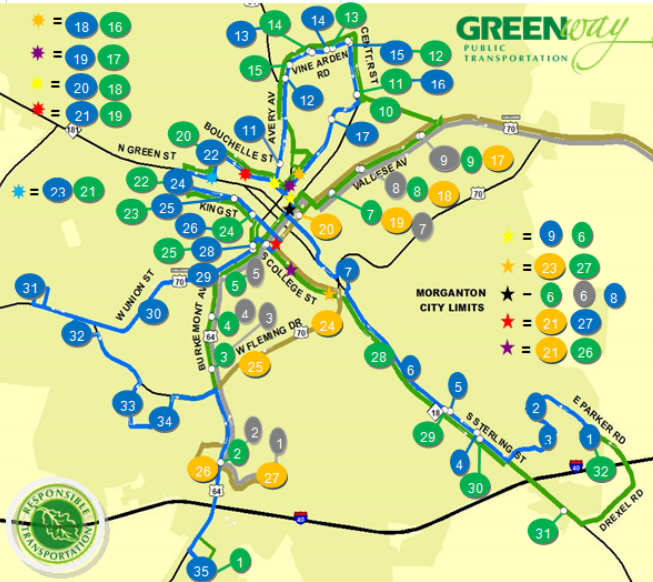
Below are the Burke Flex Routes effective as of May 13, 2019. The transportation planning team, including the Greenway Operations Director/Safety Manager, has carefully calibrated the routes and bus stops to give transit access to low-income housing residences, food and shopping centers, and medical and human service providers.

te 24 - Silver		
Valdese Hospital	Stop Location	Est. Time
oute 23 (Gold)		
College (WPCC)	-000	
ve - WPCC Entrance	-001	
Burkmont Ave	-005	
ve & New St	-006	
on -W Meeting St	-007	
Court House	-009	
& Church St	-013	
& Hogan St	-014	
& Carolina St	-015	
rd	-019	
Hwy 70	-021	
rexel	-024	
S Oakland Ave	-025	
Drexel	-026	
ing - Lydia Ave	-034	
nents - Church St	-036	
aldese	-039	
il - Valdese	-040	
aldese	-041	
h Store	-043	
ark	-043	
es - Valdese	-044	
ldred St SE	-045	
use - Malcolm Blvd	-048	
illage Town Hall	-050	
ital - Outpatient	-055	
oute 23 (Gold)		
te 23 - Gold		
Hospital to WPCC	Stop Location	Est. Time
oute 24 (Silver)		
ital - Outpatient	-000	
ital - Cancer Center	-001	
Rutherford College	-004	
ldred St NE	-010	
ies - Valdese	-011	
Bank - Valdese	-012	
col	-013	
aldese	-015	
al - Valdese	-016	
il - Valdese	-017	
ing - Lydia Ave	-020	
- Drexel	-029	
& Oakland Ave	-036	
al Practice - Hwy 70	-034	
Rd	-036	
& Carolina St	-040	
& Hogan St	-041	
& Church St	-043	
y Courthouse	-044	
brary - Concord St	-046	
l Apts - S College St	-047	
armacy	-048	
al / Case Farms	-049	
ing Dr	-051	
rkemont Ave	-053	
college (WPCC)	-055	
oute 24 (Silver)		

## Burke Flex Route effective September 3, 2019

Fares begin September 3

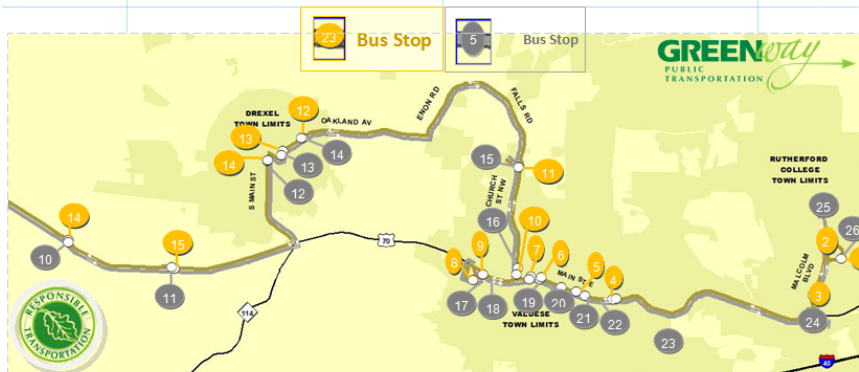
Call 828-465-7634 for more information



Check out our real-time Ride Systems application and more at [www.mygreenway.org](http://www.mygreenway.org)

Title VI - WPRTA is committed to ensuring that no person is excluded from participation in, or denied the benefits of its services on the basis of race, color or national origin as protected by Title VI of the Civil Rights Act of 1964, as amended.

Route 21 - Blue		
Parker Rd to Magnolia	Bus Stop Location	Est. Time
From Route 22 (Gold)		
1 Burke County Human Se	-000	
2 Cannon Pharmacy	-001	
3 Blue Ridge - Morganton	-005	
4 S Sterling St & E Parker	-006	
5 Sterling Forest Apartmen	-007	
6 Village Creek Apartment	-009	
7 Routes - E Fleming Dr	-013	
8 Burke County Court Hou	-014	
9 Burke Integrated Health	-015	
10 Burke County Office Bld	-019	
11 Food Matters - Avery Av	-021	
12 The Rising Church - Rock	-024	
13 Vinearden Rd & Brackett	-025	
14 Vinearden Rd & View St	-026	
15 Vinearden Rd & Center	-034	
16 Center St & E Union St	-036	
17 NC Works - E Union St	-039	
18 Millside Manor	-040	
19 Morganton City Hall	-041	
20 Bouchelle St & Avery Av	-043	
21 Bouchelle St & Fleming	-044	
22 Bouchelle St & Caldwell	-045	
23 Caldwell St & N Green St	-048	
24 Morganton Senior Cente	-049	
25 Collect Recreation Cente	-050	
26 Community House	-055	
27 Morganton Library	-056	
28 History Museum Annex	-057	
29 Morganton First Baptist	-058	
30 Mimosa Apts / Flynn Ho	-059	
31 Ingles - Carlson City Bld	-060	
32 Shurey Park - Golf Course	-061	
33 Walmart - Morganton He	-062	
34 Backs - Morganton Heig	-063	
35 Big Lots - Magnolia Plaza	-064	
To Route 22 (Gold)		
Route 22 - Green		
Magnolia Plaza to Pa	Bus Stop Location	Est. Time
From Route 21 (Blue)		
1 Big Lots - Magnolia Plaza	-000	
2 WPCC Entrance - Burken	-001	
3 PPG Paints - Burkemont	-005	
4 Burkemont Ave & New St	-006	
5 Mission Station -W Meeting	-007	
6 Burke County Court Hou	-009	
7 Valdese Ave & Church St	-013	
8 Valdese Ave & Hogan St	-014	
9 Valdese Ave & Carolina	-015	
10 E Union St & Tennessee	-019	
11 E Union St & Center St	-021	
12 Vinearden Rd & Center	-024	
13 Vinearden Rd & View St	-025	
14 Vinearden Rd & Brackett	-026	
15 Hunters Coin Laundry -	-034	
16 Millside Manor	-036	
17 Morganton City Hall	-039	
18 Bouchelle St & Avery Av	-040	
19 Bouchelle St & Fleming	-041	
20 Bouchelle St & Caldwell	-043	
21 Caldwell St & N Green St	-044	
22 Morganton Senior Cente	-045	
23 Collect Recreation Cente	-048	
24 Community House	-049	
25 Burke Pharmacy / Librar	-050	
26 Alder Springs Apts - S Co	-055	
27 Table Rock Pharmacy	-056	
28 Beregation - S Sterling St	-057	
29 S Sterling & Sloan St	-058	
30 Zesty's / Footprints High	-059	
31 Plaza Inn / Waffle House	-060	
32 Burke County Human Se	-061	
To Route 21 (Blue)		



## Scheduling a flex route trip within the ¾ mile (deviation) of the route:

The flex route is a shared ride, public transportation service. Requests for ¾ mile deviated service may be made during normal business hours by 12:00 p.m. on the preceding business day that service is requested, however additional notice is recommended. Reservations may be made between the hours of 8:30 a.m. and 5:00 p.m. Monday through Friday by calling 828-464-9444.

Please provide the following information when you schedule a ride: name, pickup address, phone number, destination, need a van with a lift, bringing a personal care attendant or children.

Deviated same day service requests are not available. The trip requests for both destination and return shall be scheduled at the time of the request. Same day service is available at designated bus stops.

Bus Stop	Route 23 - Gold	Valdese Hospital to WPCC	Bus Stop Location	Est. Time
1	Valdese Hospital - Outpatient	-000		
2	Valdese Hospital - Cancer Center	-001		
3	Walgreens - Rutherford College	-004		
4	Main St E & Edred St NE	-010		
5	Binbo Bakeries - Valdese	-011		
6	First Citizens Bank - Valdese	-012		
7	Old Rock School	-013		
8	Food Lion - Valdese	-015		
9	Dollar General - Valdese	-016		
10	Church St NW	-017		
11	Valdese Housing - Lydia Ave	-020		
12	Autism Care - Drexel	-029		
13	Mimosa Ave & Oakland Ave	-030		
14	Drexel Park	-031		
15	Drexel Medical Practice - Hwy 70	-034		
16	US 70 & Zion Rd	-036		
17	Valdese Ave & Carolina St	-040		
18	Valdese Ave & Hogan St	-041		
19	Valdese Ave & Church St	-042		
20	Burke County Courthouse	-044		
21	Morganton Library - Concord St	-046		
22	Alder Springs Apts - S College St	-047		
23	Table Rock Pharmacy	-048		
24	Dollar General / Case Farms	-049		
25	Aldi - W Fleming Dr	-051		
26	Cook Out - Burkemont Ave	-053		
27	Community College (WPCC)	-055		
	To Route 24 (Silver)			
Bus Stop	Route 24 - Silver	WPCC to Valdese Hospital	Bus Stop Location	Est. Time
1	Community College (WPCC)	-000		
2	Burkemont Ave - WPCC Entrance	-001		
3	PPG Paints - Burkemont Ave	-005		
4	Burkemont Ave & New St	-006		
5	Mission Station -W Meeting St	-007		
6	Burke County Court House	-009		
7	Valdese Ave & Church St	-013		
8	Valdese Ave & Hogan St	-014		
9	Valdese Ave & Carolina St	-015		
10	US 70 & Zion Rd	-019		
11	Drexel Drug - Hwy 70	-021		
12	Downtown Drexel	-024		
13	Mimosa Ave & Oakland Ave	-025		
14	Autism Care - Drexel	-026		
15	Valdese Housing - Lydia Ave	-034		
16	Agape Apartments - Church St	-036		
17	Food Lion - Valdese	-039		
18	Dollar General - Valdese	-040		
19	Auto Zone - Valdese	-041		
20	Footprints Thrift Store	-042		
21	Centennial Park	-043		
22	Binbo Bakeries - Valdese	-044		
23	Main St E & Edred St SE	-045		
24	JD's Smokehouse - Malcolm Blvd	-048		
25	Rutherford College Town Hall	-050		
26	Valdese Hospital - Outpatient	-055		
	To Route 23 (Gold)			

## Flex Route Bus Fares:

Effective September 3, 2019  
Bus Operators do not make change

Single Ride.....\$1.25  
Seniors disabled\*.....0.60

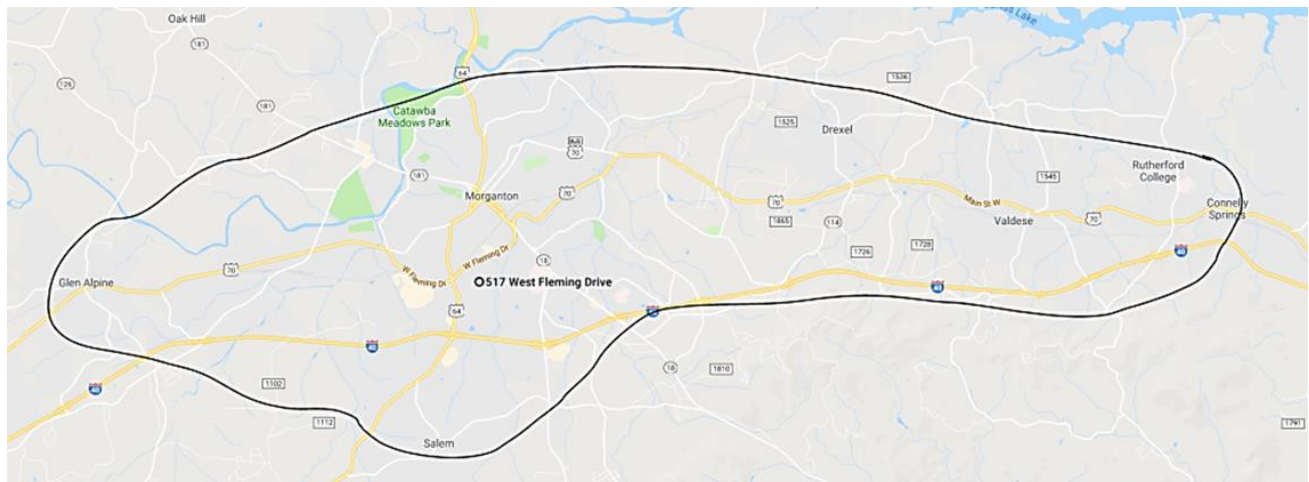
Must present a WPRTA ID card, Photo I.D. proof of age (65 or older) or a Medicare card issued pursuant to Sections II and XVII of the Social Security Act to the bus operator before paying reduced fare.

Five and under.....Free  
All day pass.....3.00  
Thirty day pass.....45.00  
Student semester pass.....100.00

As one can see from the table below documenting Burke ridership, usage of the new “flex” routes in Burke County has continued to grow through community support.

	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
<b>Operating Days</b>	23	20	15	21	20	21	21	22	20	183
<b>Walk on</b>										
Route 21	520	601	592	706	800	805	762	1018	1082	6886
Route 22	445	564	581	919	868	730	766	840	777	6490
Route 23	89	78	49	131	138	155	163	218	404	1425
Route 24	71	68	69	116	116	160	168	187	324	1279
<b>Walk-On Total</b>	1,125	1,311	1,291	1,872	1,922	1,850	1,859	2,263	2,587	16,080
<b>Deviations</b>										
Route 21/22	213	188	136	283	363	420	322	481	269	2675
Route 23/24	40	21	6	10	45	52	47	59	103	383
<b>Deviations Total</b>	253	209	142	293	408	472	369	540	372	3058
<b>Overall Total</b>	1378	1520	1433	2165	2330	2322	2228	2803	2959	19,138

On-call van service still exists and is widely used in Burke County, including services provided for Medicaid-funded Department of Social Services medical transportation. Request for van service transportation around the county is evaluated on a case-by-case basis. The map below shows the general service area for van (rapid demand public) service.



Para-transit van service is available to riders who have disabilities or other mobility issues (wheelchair, etc.) in compliance with the Americans with Disabilities Act (ADA). All vans and Greenway/WPRTA vehicles are equipped with electronic lifts and ramps (as well as wheelchair securement devices); and all drivers have training in operating mobility-assistance devices.

## Behavioral/Mental Health

The Federal initiative, Healthy People, charges communities with acting on the following: “to create effective programs we must work collaboratively across sectors to address the unique needs of a community”. In 2015, Burke Integrated Health (BIH) was established through a collaborative effort of numerous organizations to offer a one stop location to access behavioral and primary health care needs along with assessing social determinates of health for all participants. Integrated care resulted in improved outcomes for persons experiencing a mental illness, but to improve outcomes even more the need to address social determinates of health (SDOH) came to the forefront. In response, employment/positions were created to address these SDOH. Peer Navigators and/or Population Case Managers assist those identified with SDOH needs with referrals to community resources.

Since being established, BIH has continued to grow. 1,376 BIH participants received comprehensive clinical assessments (CCA) from July 1, 2017 through June 30, 2018. These CCAs were conducted by licensed mental health clinicians to help identify, arrange and initiate services at BIH and/or in the community; including 579 new patients referred to BIH for primary care.

During this same period, 49 BIH participants reported that if they had not received services at BIH they would have gone to the emergency department for help. The average cost of an emergency department visit is \$1,233 (See <https://www.letstalkcost.com/solutions/6-ways-to-reduce-your-health-care-costs/>) and; therefore BIH saved an estimated \$60,000(+).<sup>22</sup>

In addition to BIH providing services, Partners Behavioral Health Management, the LME/MCO managing Burke County, dispatched the Mobile Crisis Management team 187 times to Burke County from July 1, 2018 through June 30, 2019 resulting in 30 psychiatric hospitalizations, 33 placements in area Facility-Based Crisis inpatient units and a remaining 124 crisis events that were resolved in the community.

As another behavioral healthcare provider, Carolinas Healthcare System Blue Ridge provided local data for Behavioral Health and Detox admissions and inpatient days from 2016-2018:<sup>23</sup>

### Behavioral

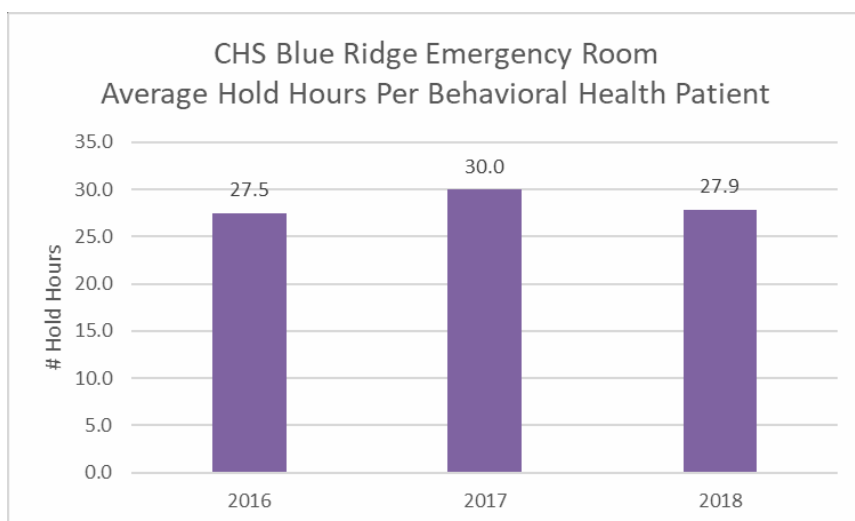
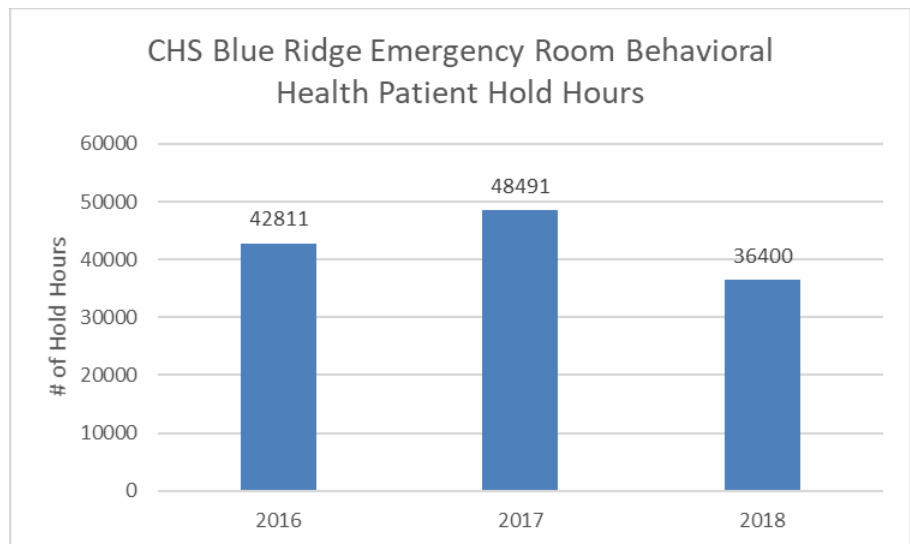
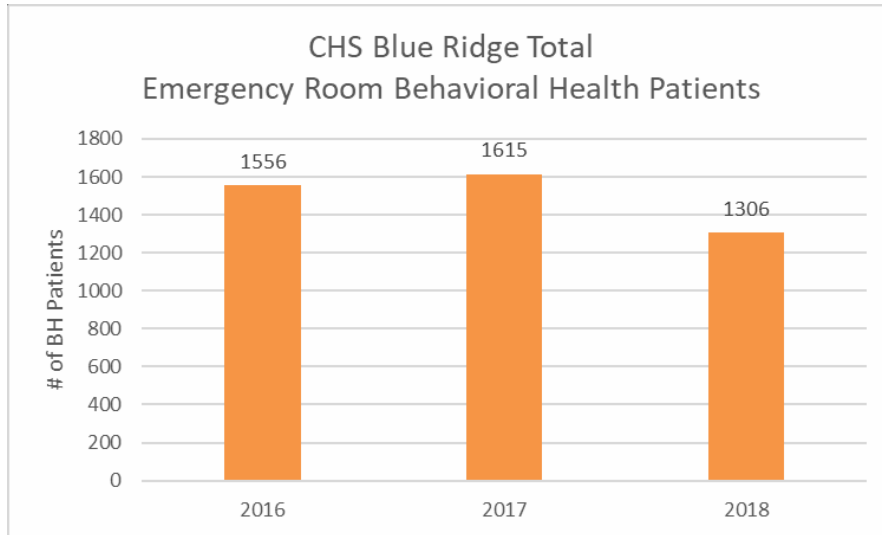
Year	Admission	Patient Days
2016	758	7382
2017	755	7286
2018	870	6941

### Detox

Year	Admission	Patient Days
2016	537	2503
2017	376	1868
2018	214	1117

This data depicts a continued increase in hospital admissions and inpatient days for both issues.







Even with these efforts, a report to the Joint Legislative Oversight Committee dated 01/31/18 noted over 2,000 Burke County residents were in need but did not receive behavioral health services.

## Older Adult Profile

According to the 2017 North Carolina State Aging Profile, developed by the North Carolina Department of Health and Human Services (NCDHHS), North Carolina nationally ranks 9th both in total population and in the number of people 65 and older. Since 2017, North Carolina has seen an increase in the number of older adults who call North Carolina home (see Chart 1). Due to this trend, the state is estimated to have more people over the age of 60 than under the age of 18 as soon by the end of 2019. Burke County is also expected to experience a similar rate of change in the older adult population (see Chart 2). This in turn leads to a statewide challenge of long-term and supportive services.<sup>24</sup>

Age	2017		2037		% Change 2017-2037
	#	%	#	%	
Total	10,283,255		12,684,352		23%
0-17	2,312,886	23%	2,606,213	21%	13%
18-44	3,658,073	36%	4,419,187	35%	21%
45-59	2,072,070	20%	2,304,524	18%	11%
60+	2,240,226	22%	3,354,428	26%	50%
65+	1,617,993	16%	2,660,084	21%	64%
85+	181,695	2%	382,686	3%	111%

Chart 1

Chart 1

## Burke

### Aging profile, 2017

Chart 2

Ages	2017		2037		% Change (2017-2037)
	#	%	#	%	
Total	90,776		100,291		11%
0-17	18,352	20%	19,283	19%	5%
18-44	28,942	32%	33,572	34%	16%
45-59	19,471	21%	16,500	17%	-15%
60+	24,011	27%	30,936	31%	29%
65+	17,802	20%	25,281	25%	42%
85+	2,054	2%	3,442	3%	68%

**Chart 3***Ages 65 and Over*

Rank	Cause	Number
1	Diseases of the heart	14,710
2	Cancer	13,656
3	Chronic lower respiratory diseases	4,599
4	Cerebrovascular disease	4,295
5	Alzheimer's disease	4,245
6	Diabetes mellitus	1,973
7	Pneumonia and influenza	1,690
8	Other unintentional injuries	1,646
9	Nephritis, nephrotic syndrome and nephrosis	1,625
10	Septicemia	1,135
	All other causes (Residual)	17,506
	<b>Total Deaths—All Causes</b>	<b>67,080</b>

As described in the Chart 3, the North Carolina State Center for Health Statistics reported in the “NC Vital Statistics Leading Cause of Death”, Volume 2 (published October 2017),<sup>25</sup> among those age 65 and older, diseases of the heart, cancer and chronic lower respiratory diseases were the top three leading causes of death. In February 2019, NC Medicare published a report stating that nearly 2 million North Carolina residents are enrolled in Medicare. The Medicaid Annual Report: SFY 2018, depicts 8.4% of Medicaid beneficiaries in North Carolina are over the age of 65. The second highest claims and premiums total for NC Medicaid recipients was \$1,210,500,000 and covered the cost of skilled nursing facilities. Care for older adults in North Carolina has an immense impact on taxpayer dollars.

The cost of care for older adults can be alarming, but it is not the only area of concern. Many older adults are cared for by unpaid family caregivers. NC DHHS describes a family caregiver as:

- a person of any age providing care for an older adult age 60 or older,
- a person providing care for a person of any age with Alzheimer’s disease or related brain Disorder; or
- a person (who is not the birth of adoptive parent), who is age 55 or older, raising a related child age 18 or under or an adult with a disability.

The concern crosses racial/ethnic barriers. According to the 2019 Alzheimer’s Disease Facts and Figures Report, published by the Alzheimer’s Association, there are an estimated 473,000 family caregivers of older adults with Dementia in NC. Those family caregivers provide 538,000,000 hours of unpaid care, which equates to a total value of \$6,806,000,000. Family caregivers are a vital part of the continuum of care received by older adults in North Carolina. Therefore, support for caregivers is a crucial consideration in planning for the future needs of a growing older adult population in Burke County as well as North Carolina.

According to a BMI qualitative study of health and social needs of aging Latinos there are many barriers preventing access to health care for aging Latinos including but not limited to the inability to speak English, low educational levels and lack of health literacy (Responding to Health and Social Needs of Aging Latinos in New: Growth Communities). In order to meet the needs and demands of the increasing Latino populations, we must remain cognizant of their needs and have the ability to provide access to services.

## Sexually Transmitted Infections/Teen Pregnancy & Teen Live Births

Sexually Transmitted Infections (STI's) remain a significant public health problem according to Healthy People 2020 (ODPHP, 2016). Healthy People 2030 continues to have goals of promoting health and preventing disease and premature death (ODPHP, 2019). Certain STI's are reportable to the State of North Carolina just like certain other communicable and infectious diseases. In the past 5 years, newly diagnosed cases of Chlamydia, Gonorrhea, Acute Hepatitis B, HIV and Primary & Secondary Syphilis have increased in Burke County; the numbers for Hepatitis C have stayed the same; AIDS Stage 3 has decreased slightly.

<b>Reportable Sexually Transmitted Infections</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Chlamydia	230	201	269	285	334
Gonorrhea	37	22	40	69	165
Syphilis (Primary, Secondary, and early Latent)	6	2	0	7	13
HIV Infection	5	1	6	5	6
AIDS (Acquired Immuno-Deficiency Syndrome)	2	4	2	5	1
Acute Hepatitis B	1	0	3	5	7
Acute Hepatitis C	3	3	2	4	3

When comparing Burke County to the peer counties of Caldwell, Lee, Rockingham, Surry and Wilkes Counties, regarding Chlamydia, Gonorrhea and Syphilis; Burke County maintains a higher transmission rate. Burke County incidence rates for Chlamydia, Gonorrhea and Syphilis, however, remain consistently lower than the state rates. The highest numbers and incidence of these STI's from 2013 to 2017 remain in the age groups of 20-29 years old with the majority falling in the range of 20-24 years of age; furthermore, these remain the highest in the male and female African American group.<sup>26</sup>

Pregnancy rates have fallen 11.7% among Burke County teens (age 15-19) from 2012-2017. Over this time period we have also seen a decrease in the teen pregnancy rate in all of Burke's peer counties. In 2012, Burke County had 120 pregnant teens, or 43.9%, which fell to 75 pregnant teens, or 32.3%, in 2017. Although Burke County's teen pregnancy rate is trending downward it is still 5.5% higher than the state rate of 26.7%. When divided racially, there were not enough teen pregnancies in Burke County to yield statistically significant results, so those figures are not included.<sup>27</sup>

### Teen Pregnancy Live Births      2016-2018

<b>AGE</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
10-14 years old	1	0	1
15-19 years old	70	67	53

**2016 Teen Live Births Age Breakdown**

Age 14	1
Age 15	3
Age 16	1
Age 17	12
Age 18	16
Age19	38

**2017 Teen Live Births Age Breakdown**

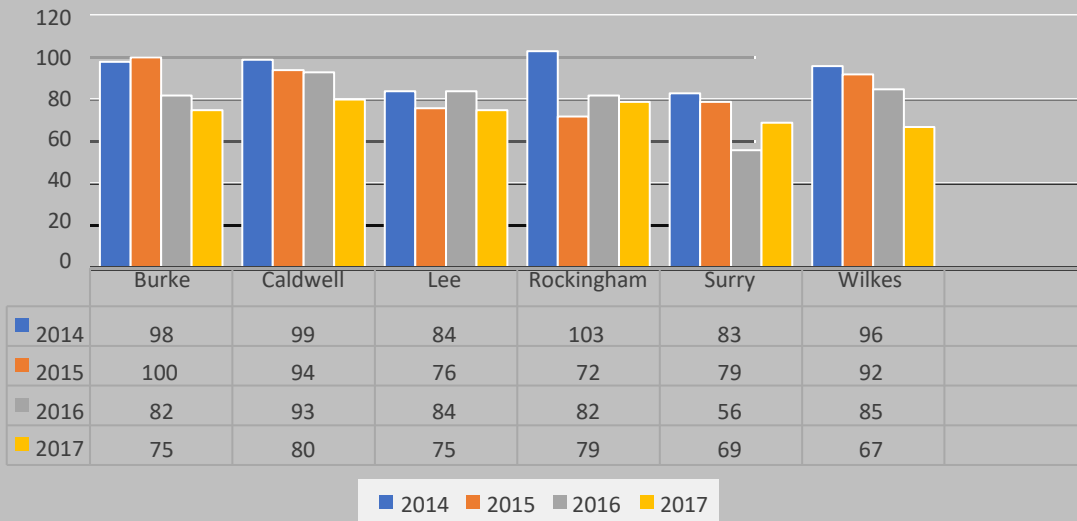
Age 15	3
Age 16	6
Age 17	6
Age 18	18
Age 19	34

**2018 Teen Live Births Age Breakdown**

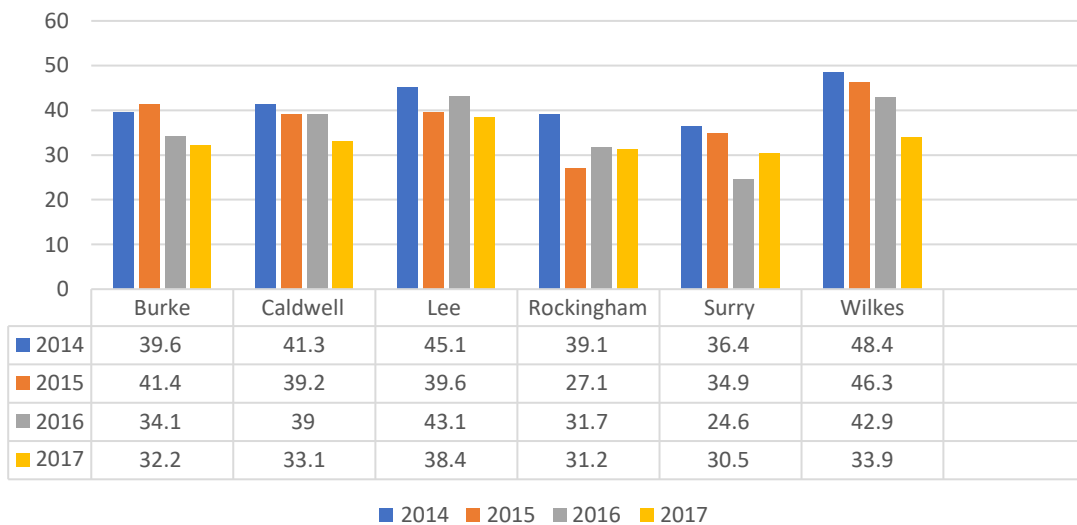
Age 12	1
Age 15	1
Age 16	1
Age 17	6
Age 18	17
Age 19	28

Graphs 10 and 11 show a breakdown of Burke County's number and rate of teen pregnancies for 2014-2017 as compared to each of Burke's peer counties.<sup>28,29</sup>

**Graph 10: Peer County Comparison  
Number of Pregnancies Age 15-19**



**Graph 11 Peer County Comparison Pregnancy Rate  
Age 15-19**



## Tobacco

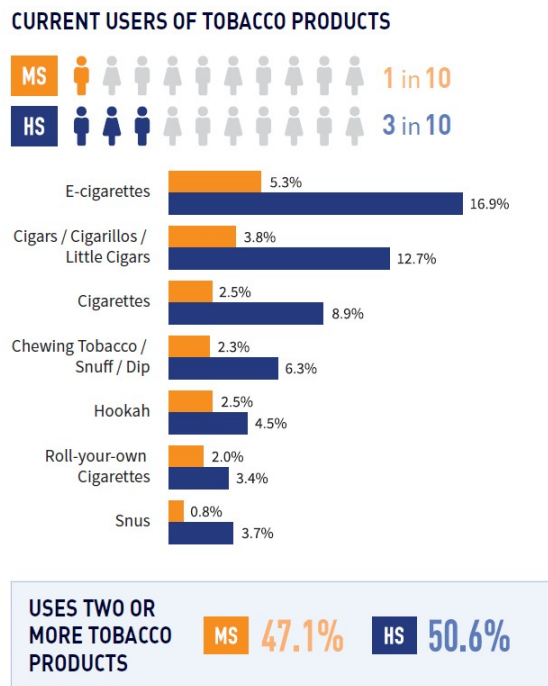
As stated by the Office on Smoking and Health (2019), “smoking leads to disease and disability and harms nearly every organ system of the body.” In the chart below, the North Carolina State Center for Health Statistics reported in their *NC Vital Statistics Leading Causes of Death Volume 2* (published in October 2017), that among all ages in North Carolina, cancer, disease of the heart and chronic lower respiratory disease were the top three leading causes of death among NC residents. All three of these causes can be linked to smoking and could be prevented if smoking was identified as the contributing factor; as smoking is the number one cause of preventable death (CDC 2019).

<i>All Ages</i>		
Rank	Cause	Number
1	Cancer	19,526
2	Diseases of the heart	18,276
3	Chronic lower respiratory diseases	5,317
4	Cerebrovascular disease	4,941
5	Alzheimer's disease	4,152
6	Other unintentional injuries	3,950
7	Diabetes mellitus	2,813
8	Nephritis, nephrotic syndrome and nephrosis	2,002
9	Pneumonia and influenza	1,896
10	Septicemia	1,559
	All other causes (Residual)	26,066
	<b>Total Deaths—All Causes</b>	<b>90,498</b>

Fortunately, Burke County has responded to this crisis. In 2010, the Burke County Board of Commissioners developed an implementation process for all county-owned buildings, grounds, and vehicles to be tobacco-free and as of 2019, Burke County has tobacco free government grounds and parks (NC TPCB, 2019). This was a much-needed policy because in 2014, 24% of adults smoked in Burke County; compared to 20% of adults in North Carolina (County Health Rankings, 2019).

Although smoking has been the hot topic for tobacco use over the past few years, across the state it is becoming apparent that electronic vaping devices are becoming more of an issue. According to the NC Youth Tobacco Survey (NCYTS), 16.9% of high school students and 5.3% of middle school students currently use e-cigs and over 23% of high school students were considering use next year. This shows an 894% increase for high school students and a 430% increase for middle

school students since 2011 (NCYTS, 2017). The graph below shows the distribution of current tobacco product users in middle and high school in North Carolina (Chart 2).



**Chart 2**

Over the next few years, it is going to be critical that Burke County, Carolinas Healthcare System Blue Ridge, Burke County Schools, Burke Substance Abuse Network, and the Burke County Health Department work together to decrease the use of tobacco products among residents of Burke County, specifically among youth. By focusing on youth, it may be possible to not only decrease the number of tobacco users, but also decrease the likelihood of residents dying prematurely of preventable disease associated with tobacco use.

## Morbidity and Mortality

Life expectancy is the average number of additional years that one given age would be expected to live if current mortality conditions remain constant. It is expected that residents born between 2015-2017 have an estimated life expectancy of 76.4 years.

### 2012-2016 Ten Leading Causes of Death

Rank	Cause	Number	Rate
1	Diseases of the heart	1,129	253.5
2	Cancer – All Sites	1,105	248.1
3	Chronic lower respiratory diseases	383	86.0
4	Cerebrovascular disease	298	66.9
5	Alzheimer’s disease	253	56.8
6	Other unintentional injuries	239	53.7
7	Diabetes mellitus	154	34.6
8	Pneumonia & influenza	127	28.5

9	Suicide	94	21.1
10	Nephritis, nephrotic syndrome, & nephrosis	88	19.8

### 2017 Ten Leading Causes of Death

Rank	Cause	Number	Rate
1	Diseases of the heart	222	21.7
2	Cancer	218	21.3
3	Chronic lower respiratory diseases	77	7.5
4	All other unintentional injuries	55	5.4
5	Alzheimer's disease	51	5.0
6	Cerebrovascular diseases	45	4.4
7	Diabetes mellitus	37	3.6
8	Motor vehicle injuries	2	2.3
9	Parkinson's disease	20	2.0
10	Pneumonia & influenza	18	1.8

A large portion of these leading causes of death can be attributed to the aging of the community. The order of the leading causes of death has changed somewhat since the 2016 data was published. "Other unintentional injuries" moved from a ranking of 6 to 4 and could be attributable to the rise of substance misuse within the county. "Motor vehicle injuries" and "Parkinson's disease" were previously not in the top ten leading causes but have moved up into the rankings.<sup>34</sup>

## Environmental

### Recycling and Waste Management

Burke County consists of seven municipalities in which the Town of Valdese, City of Morganton, and the Town of Rutherford College are the only municipalities that receive pick up service through the county's only recycling service, Simply Green Recycling. Simply Green currently serves 610 houses in Burke County along with 112 businesses and restaurants. Out of the estimated 88,898 residents, this is a very small percentage. Residents also have the option to dispose of their recyclable waste in designated receptacles located across the county; although this use is currently not tracked.

### Burke County Environmental Health Stats

Burke County Health Department's Environmental Health division works to keep the residents of Burke County safe through two primary functions: Food and Lodging sanitation inspections and On-site Authorizations, Operational Permits and Private Well Permits. Food and Lodging staff complete sanitation inspections for restaurants, school cafeterias, nursing homes, vendors for festivals, institutional facilities such as hospitals, etc. During the fiscal year 2018-2019, Environmental Health's food and lodging staff inspected 716 food service and



lodging/institutional facilities. The On-site Wastewater staff permits and supervises new construction, expansion and repairs of septic systems along with permitting new well construction or repairs of an existing well. During fiscal year 2018-2019, On-site Wastewater staff issued 620 permits for septic systems and 76 permits for wells-new and existing.

## Areas of Success

There is a strong sense of community engagement and a desire by organizations and individuals in Burke County to collectively address concerns that impact the health of residents. All the initiatives mentioned are successful because of the dedication and commitment of the community to ensuring Burke County is a healthy place for all populations.

Success since the last CHNA comes in many forms in Burke County. This CHNA is being completed as a joint effort between Burke County Health Department and Carolinas HealthCare System Blue Ridge, along with the organizations that comprise the Burke Wellness Initiative. This coordinated effort has provided a process for formal community engagement.

Burke Substance Abuse Network (BSAN) is a coalition of providers, support groups, related agencies and other stakeholders who come together to: (a) network; (b) identify gaps in service; and (c) strategically plan responses to community needs as they relate to the reduction of substance abuse and use in youth, young adults, their families, and all citizens of Burke County, NC for long term community health. In 2018, the coalition completed a strategic planning process to realign the resources available in the community with the desire to impact change as it relates to substance use/misuse in Burke County. Combined with the receipt of a Drug-Free Community (DFC) grant from the Substance Abuse Mental Health Services Administration (SAMHSA) and the resulting inclusion of a community coordinator to assist with program implementation, resource identification and cross-sector connections, BSAN grew to include over 150 active members representing over 80 community agencies/organizations and was realigned to include key task forces. These task forces include Faith, Underage Drinking, RxEAP (Prescription Education Awareness and Prevention), Public Information and Advocacy, Provider Access and the Communities Project.

Additional efforts include the Drug Free Communities grant-funded program, dubbed Drug-Free Burke which facilitated multiple prevention efforts in the Burke County Public School System. The program also coordinates efforts across the community to ensure the specific prevention of underage drinking and misuse of prescription medications; as well as other associated substances of which use is prevalent. Echoing and supporting the goals of Drug-Free Burke is a program through Burke Recovery called Adolescent Prevention Services which provides intervention services, through a Certified Substance Abuse Counselor, for students in middle and high school who are in situations of experimentation or minor misuse.

From the BSAN community collaborative, a core group of members assembled including community, governmental and legal representatives to work on two important needs identified to assist the legal aspects of substance misuse. Grants were written and secured to implement the

L.E.A.D (Law Enforcement Assisted Diversion) and Adult Drug Court (Burke County Recovery Court) programs. These programs will be funded for multiple years through the Federal Department of Justice. LEAD is a pre-arrest community-based and law enforcement led diversion program with the goals of improving public safety and public order, while reducing short-term incarceration and recidivism of low-level drug and sex offenders. This program diverts these voluntary offenders into community based, intensive case management and treatment receiving a wide array of support services. In 2018, the L.E.A.D program was initiated within the entire county including all local municipalities. Burke County Recovery Court is a post-adjudication, voluntary, supervised, holistic, cognitive based, judicially mandated intensive treatment program for offenders who have been identified as having problems with drugs and/or alcohol. The population this will serve is the high risk/high need adult non-violent offenders convicted of DWI level 1 and 2 with a felony or misdemeanor drug conviction, or a felony or misdemeanor conviction other than a drug conviction, if alcohol or drugs were a contributing factor in the crime.

As part of the continuum of substance use disorder services available for those in active addiction involved in the legal community; Burke County also offers a jail services program. The jail services program offers treatment and recovery support services to those incarcerated due to substance use disorder. In addition, the BRIDGE program offered through Burke Recovery, assists offenders released from incarceration continued outpatient treatment, recovery support services and assistance with reintegration back into the community.

Burke County has also secured grant funding from the Kate B. Reynolds Charitable Trust through Healthy Places for the next three years. These funds will be used to complete a comprehensive community strategic gap/needs/asset analysis of the drug use/misuse challenge within the county. This analysis will assemble all organizations that assist those in addiction and recovery services to the table to work collaboratively to create a mapping of data, resources, strategies and interventions to continue combatting the drug epidemic from all angles.

Burke Recovery and partnering agencies have been blanketing the community with prevention education and programming to positively impact the reduction of substance use/misuse. Between May and December 2018, 746 lock boxes were distributed throughout the community to allow citizens the opportunity to lock their medications and help reduce the availability of theft of prescription medications. A follow up program called “Follow the Box” ensures members of the prevention team reach out to all lockbox recipients to ensure they are using their box, determine the effectiveness and discover if any additional resources or lockboxes are needed.

A public information and advocacy group with representation from Burke Recovery, Alcoholics Anonymous, The Meeting Place, Burke County Sheriff’s Office, Burke Youth Health Coalition, The Cognitive Connection, Vessels of Mercy (Women’s Treatment and Recovery Program), NAMI, Western Piedmont Community College and community members assembled to create and develop adult/youth focused consistent substance use/misuse communication and prevention education for the community. Messages are distributed through print, radio and many avenues of social media to reach as many residents as possible.

Carolinas Healthcare System Blue Ridge has been working on strategies to reduce the number of mental health emergency department visits through several avenues. A social worker was added to the emergency department to help decrease behavioral health holds along with establishing additional outpatient resources for the community to obtain mental health services. Burke Integrated Health, a collaboration of agencies offering behavioral health services, primary care and substance use treatment, has assisted with providing an alternative to presenting to the emergency department (see the Mental/Behavioral Health section). The use of these and other strategies has helped Carolinas Healthcare System Blue Ridge see a slight reduction in the number of emergency department behavioral health patients, behavioral hold hours and average hold hours per behavioral health patient as depicted in graph earlier in this assessment (pg.28).

In 2018, community partners were trained in Adult/Youth Mental Health First Aid. These evidence-based trainings teach members of the public how to help a person with a mental health problem, experiencing a worsening of a mental health problem or in a mental health crisis. Mental Health First Aid does not teach people how to treat or diagnose mental health or substance use conditions but teaches people how to offer initial support until appropriate professional help is received or until the crisis resolves. This group will continue to train additional community members such as faith-based organizations, teachers, coaches, school counselors, civic organizations, etc.

The Burke County Sheriff's Office is pleased to announce the new Burke County Jail is scheduled to open on December 20, 2019. The state-of-the-art 264 bed facility will enable the County to house all the Burke County inmates in the local jail. Subsequent to adequate staffing to ensure the safety of the officers and inmates, this jail will provide Burke County with the opportunity to rent any empty beds to overcrowded jails in other counties. The rental of these extra beds will generate revenue for Burke County. In addition, the jail opening will stop Burke County from renting up to 62 beds in five other counties and stop deputies working overtime to transporting inmates to other jails.

A housing leadership team has assembled and commissioned an initial housing study to determine the extent of the housing/unaffordable housing shortage within the county. The leadership team has created four work groups: 1) legislative, 2) available housing, 3) affordable housing and 4) blighted housing along with homelessness needs. This year, a housing summit was held to bring these issues to a wider audience and to offer the opportunity for individuals/agencies to get involved by having these work groups develop a six-month action plan for addressing this issue. While there has been some positive movement on this critical issue, much work is still required to provide more permanent and rental properties for Burke County residents and those looking to relocate to the county.

## Areas of Concern

### **Homelessness**

Homelessness continues to be an issue for Burke County. As the number of individuals transitions into the county continues to increase, the ability to keep adequate resources for this transitioning population is becoming difficult. The homelessness data is not reflective of the entire county but is heavily documented from the Morganton area where most of the resources are located.

Accuracy of information can be difficult since agencies gathering homeless data use various assessment instruments which does not yield consistent, accurate county wide data. There is also a lack of constant resources for this population.

### **Substance Use/Misuse**

Substance misuse continues to be a great concern in Burke County. Through BSAN, Burke County is working to become a recovery-oriented community. The number of hospitalizations and deaths due to opioid, heroin, meth and other illicit drugs remains concerning for the public's safety. Additional treatment and recovery support services remain necessary in the fight to reduce the demand from those in addiction. Burke County is seeing an increase in the use of meth and other drugs since the accessibility to opioids has been reduced. Burke County parents with positive drug screens remain the leading cause of children being taken out of their home environment and placed for care with grandparents/great-grandparents or in other kinship situations. Due to the exponential increase of children in need, Burke County Department of Social Services continues to struggle to find qualified foster parents for the large number of children being placed in the system.

### **Medicaid Transformation**

Medicaid transformation and the many facets of change it brings for all Medicaid providers will be a challenge when it is implemented. Burke County is concerned that the transformation could create an atmosphere of competitiveness among behavioral health and other providers thereby straining the positive collaborative avenues cultivated among agencies over the last several years.

### **Housing**

Lack of housing and lack of affordable housing, including transitional housing, plays a vital role in the health and well-being of the residents in Burke County. As the housing crisis is studied further and long-range strategies are developed, this concern can be reduced in the future. The housing issue can also impact future business growth within the county. Housing is one of the most impactful aspects that businesses will study before starting or growing a business in a projected area.

# Top Health Priorities

## Priority Determination

During the 2019 community engagement process, Burke County residents were surveyed to determine the top health issues affecting our community. In September 2019, Burke Wellness Initiative members, stakeholders and residents participated in a prioritization exercise to take the top 5 identified issues and focus them to the top 3 priorities for development of the Community Health Improvement Plan. The prioritization exercise used was the Hanlon Method; a method that weighs 1) the ability to evaluate outcomes, 2) the size of the problem, and 3) the seriousness of the problem. The seriousness of the issue accounted for criteria to be reviewed such as the severity of the problem, potential public concern, potential economic loss associated with the health problem and the actual impact on others within the community. The three priorities chosen based on the criteria assigned through this method cause large numbers of death, disability, hospitalizations: and higher medical costs, both direct and indirect, for the residents in Burke County.

Priorities identified for development of the Community Health Improvement Plan for the next three years of focus are:

1. Heart Disease/Stroke
2. Substance Use Disorder
3. Chronic Obstructive Pulmonary Disease (COPD)

## Priority One: Heart Disease/Stroke

Cardiovascular disease (Heart disease) refers to conditions that involve the narrowed or blocked blood vessels within the heart that can lead to a heart attack, chest pain (angina) or stroke. Conditions that affect the heart muscle, valves, rhythm, or congenital heart defects are also considered forms of heart disease. Atherosclerosis is the most common cause of cardiovascular disease. Risk factors for heart disease include age, sex, family history, smoking, poor diet, high blood pressure, high cholesterol, physical inactivity, excess weight, stress, etc. You cannot change family history, but many other lifestyle changes such as quitting smoking, eat a diet low in salt and saturated fat, reduce or manage stress, exercise at least 30 minutes most days of the week and control other chronic conditions can improve or prevent heart disease.

- About **610,000 people** die of heart disease in the United States every year—that's **1 in every 4 deaths**.<sup>35</sup>
- Heart disease is the leading cause of death for both men and women.
- Coronary Heart Disease (CHD) is the most common type of heart disease, killing over **370,000 people** annually.<sup>36</sup>
- Every year about **735,000 Americans** have a heart attack. Of these, 525,000 are a first heart attack and 210,000 happen in people who have already had a heart attack.<sup>37</sup>

Stroke (Cerebrovascular disease) can be caused by a blocked artery (ischemic stroke) or the leaking or bursting of a blood vessel (hemorrhagic stroke). Some people may experience only a temporary disruption of blood flow to the brain (transient ischemic attack, or TIA) that does not cause permanent damage. A stroke happens when the blood supply to part of the brain is damaged in some way that does not allow the brain tissue to get oxygen and nutrients. Brain cells begin to die within a few minutes. Those experiencing a stroke or symptoms need prompt treatment since early action and treatment can minimize brain damage and further complications.

Like heart disease, there are similar factors that can increase stroke risk including excess weight, physical inactivity, heavy drinking or use of some illicit drugs, high blood pressure, smoking and exposure to secondhand smoke, high cholesterol, family history of stroke, age, sex, etc. Men have a higher risk of stroke, but women are more likely to die from strokes.

Heart Disease and Stroke have ranked in the top 5 leading causes of death in Burke County since 2008. Charts below show the prevalence of heart disease, stroke and COPD in the ages of 40 to 85+. As Burke County continues to age, these numbers have the potential to rise and cause greater physical, financial, mobility, etc. devastation to individuals and families.

**2014-2018 Ten Leading Causes of Death by Age Group**  
**Ranking, Number of Deaths, and Unadjusted Death Rates per 100,000 Population**

40-64 YEARS	0	TOTAL DEATHS --- ALL CAUSES	1,238	776.4
	1	Cancer - All Sites	320	200.7
	2	Diseases of the heart	245	153.7
	3	Other Unintentional injuries	102	64.0
	4	Chronic lower respiratory diseases	78	48.9
	5	Chronic liver disease & cirrhosis	52	32.6
	6	Diabetes mellitus	51	32.0
	7	Suicide	46	28.8
	8	Motor vehicle injuries	28	17.6
	9	Cerebrovascular disease	21	13.2
	10	Septicemia	19	11.9
		Nephritis, nephrotic syndrome, & nephrosis	19	11.9

<b>65-84 YEARS</b>	<b>0</b>	<b>TOTAL DEATHS --- ALL CAUSES</b>	2,318	3018.5
	<b>1</b>	<b>Cancer - All Sites</b>	630	820.4
	<b>2</b>	<b>Diseases of the heart</b>	477	621.2
	<b>3</b>	<b>Chronic lower respiratory diseases</b>	242	315.1
	<b>4</b>	<b>Cerebrovascular disease</b>	132	171.9
	<b>5</b>	<b>Alzheimer's disease</b>	97	126.3
	<b>6</b>	<b>Diabetes mellitus</b>	78	101.6
	<b>7</b>	<b>Other Unintentional injuries</b>	56	72.9
	<b>8</b>	<b>Pneumonia &amp; influenza</b>	47	61.2
	<b>9</b>	<b>Septicemia</b>	34	44.3
		<b>Nephritis, nephrotic syndrome, &amp; nephrosis</b>	34	44.3

<b>85+ YEARS</b>	<b>0</b>	<b>TOTAL DEATHS --- ALL CAUSES</b>	1,344	13492.6
	<b>1</b>	<b>Diseases of the heart</b>	390	3915.3
	<b>2</b>	<b>Alzheimer's disease</b>	150	1505.9
	<b>3</b>	<b>Cancer - All Sites</b>	145	1455.7
	<b>4</b>	<b>Cerebrovascular disease</b>	122	1224.8
	<b>5</b>	<b>Chronic lower respiratory diseases</b>	66	662.6
	<b>6</b>	<b>Pneumonia &amp; influenza</b>	45	451.8
	<b>7</b>	<b>Parkinson's disease</b>	35	351.4
	<b>8</b>	<b>Other Unintentional injuries</b>	31	311.2
	<b>9</b>	<b>Diabetes mellitus</b>	26	261.0
	<b>10</b>	<b>Nephritis, nephrotic syndrome, &amp; nephrosis</b>	25	251.0

Carolinas Healthcare System Blue Ridge reported, from 2018 – 2019, there were approximately 3,178 hospitalizations and emergency department visits along with the NC State Center for Health Statistics reported approximately 403 deaths attributable to these chronic conditions.

With heart disease/stroke being identified as a priority, the Burke Wellness Initiative will begin to develop some goals, strategies and interventions within the Community Health Improvement Plan to move the needle and reduce the many burdens of these chronic conditions.

## Priority Two: Substance Use Disorder

Substance use/misuse of legal, illegal and non-medical use of prescription opioid medication continues to adversely impact the citizens of Burke County. The impact can be felt in all levels of resources, agencies and individual death and disability within this growing issue. According to the 2019 NC County Health Rankings and Roadmaps report, Burke County had 34 drug

overdose deaths.

According to NC DHHS Injury and Violence Prevention Branch 2017 report, 17 Burke County residents died from unintentional opioid overdoses; 63 residents sought care at the emergency department for opioid overdoses and 8,133,000 opioid pills were dispensed to Burke County residents.<sup>38</sup>

The NC Injury and Violence Prevention Branch also reported the following statistics for Burke County:<sup>39</sup>

- Rate of unintentional overdose deaths for 2012-2016 was 27.9 compared to 12.2 for the State
- 62% were male and 38% were female
- 46% were aged 25 – 44 and 46% were aged 45 – 64
- 94% were White, 4% were African American and 1% were Asian and 1% Other
- The number of opioid pills dispensed per person in an outpatient setting was 120.9 compared to 66.5 for the State

North Carolina estimated the total lifetime costs for medical and work loss from medication and drug fatalities for 2016: \$150,246 for medical and \$33,513,152 for work loss, for a total of \$33,663,578.<sup>40</sup>

Morganton Public Safety reported the following statistics within Morganton city limits:<sup>41</sup>

- In 2017, 111 arrests were made for manufacturing, intent to sell, deliver or traffic and 133 arrests related to schedule VI marijuana and 38 arrests for schedule III or IV substances.
- In 2018, 155 arrests were made for manufacturing, intent to sell, deliver or traffic and 67 arrests related to schedule VI marijuana and 26 arrests for schedule III or IV substances.

Morganton Public Safety also reported 17 overdose reversals in 2018 and 8 reversals from January - May 2019 along with 3 confirmed heroin overdose deaths within the first part of 2019.<sup>42</sup>

According to the 2018-2019 PRIDE survey taken by 573 students (263 male and 306 female) in grades 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> within Burke County Public Schools, the following statistics were compiled regarding legal and illegal substances used:<sup>43</sup>

- |                             |                     |                 |
|-----------------------------|---------------------|-----------------|
| • Average age of first use: | Cigarettes/tobacco  | 13 years of age |
|                             | E-Cigarettes/Vaping | 14 years of age |
|                             | Alcohol             | 13 years of age |
|                             | Marijuana           | 13 years of age |
|                             | Prescription meds   | 12 years of age |
|                             | Opioid pain killers | 13 years of age |



- Past 30 days of use: 1 out of 10 high school seniors used alcohol  
1 out of 21 students surveyed (8,10,12 grades) used alcohol within the last 30 days (13% in 2016-2017 school year)  
1 out of 55 high school seniors surveyed used prescription drugs within the past 30 days – of those 50% used only on weekends (3% in 2016-2017)  
1 out of 55 high school seniors surveyed used opioid pain killers within the past 30 days
- Perception of Risk: Highest perception of risk is in the 10<sup>th</sup> grade  
30% of students surveyed (8,10,12 grades) do not perceive drinking alcohol as a moderate-great risk  
20% of students surveyed does not perceive prescription drug use as a moderate-great risk  
20% of students surveyed does not perceive use of opioid pain killers as a moderate-great risk
- Ease of Access: 1 out of every 5 students surveyed perceives alcohol is fairly easy/very easy to get  
1 out of 12 students surveyed perceives prescription drugs are fairly easy/very easy to get  
1 out of 13 students surveyed perceives opioid pain killers are fairly easy/very easy to get
- Location of Use: Most students surveyed use cigarettes/tobacco/e-cigs/vaping at home, friend's house or other places  
1 out of 12 high school seniors, who admit to drinking, use alcohol at home  
1 out of 34, 8<sup>th</sup> grades, who admit to drinking, use alcohol at a friend's house  
1 out of 15 high school seniors, who admit to drinking, use alcohol at a friend's house
- Time of Use: 1 out of 28, 8<sup>th</sup> graders surveyed, who admit to drinking, use alcohol on the weekends  
1 out of 28, high school sophomores, who admit to drinking, use alcohol on the weekends  
1 out of 8, high school seniors, who admit to drinking, use alcohol on the weekends

Weekends are the highest time of use across the board for any substance referenced in the youth survey.

According to the survey data:

- Making good grades is the most impactful protective factor against the use of illicit drugs among students
- Parents setting clear rules is the second most impactful protective factor against the use of illicit drugs among students

- Attending church or other religious gathering places is the third most impactful protective factor against the use of illicit drugs among students

A great deal of positive work has already been accomplished around substance use disorder, but much work is still required to battle this continued priority within Burke County.

### Priority Three: Chronic Obstructive Pulmonary Disease (COPD)

Like heart disease and stroke, Chronic Obstructive Pulmonary Disease (COPD) is a chronic condition for a large portion of Burke County residents and is depicted in the leading causes of death charts within the Priority One section above. COPD is a disease that makes it hard to breathe. It is a progressive disease that gets worse over time. COPD causes coughing with large amounts of mucus, wheezing, shortness of breath, chest tightness and other symptoms.

COPD can often be prevented. Smoking is the leading cause of COPD. Long term exposure to other lung irritants such as air pollution, chemical fumes or dusts has also been contributed to COPD.

Carolinas Healthcare System Blue Ridge reported approximately 1,970 hospitalizations and emergency department visits and NC State Center for Health Statistics reported approximately 140 deaths attributable to COPD in Burke County.

With COPD being identified as a priority, the Burke Wellness Initiative will begin to develop some goals, strategies and interventions within the Community Health Improvement Plan to move the needle and reduce the burden of this chronic condition.

Heart disease, stroke and COPD have some common lifestyle changes like healthy eating active living, smoking cessation, etc. that can be more directly focused to assist in preventing, delaying or better managing these chronic conditions and extending the quality of life for Burke County residents.

### Community Resources

Business and human service agencies within Burke County provide access to community resources for residents through their websites. Burke County United Way also provides residents with resource information through the 211 web-based platform. Burke County residents also have access to community resources through Carolinas Resource Hub located at Carolinas Healthcare System Blue Ridge website. This resource hub provides listings of community resources by type including social determinants of health, medical and behavioral resources. Residents can access the resources individually or during a clinical visit along with providing a referral to another resource through the platform thereby reducing some access barriers.

## Acknowledgements

Special thanks to all those individuals and agency representatives on the Burke Wellness Initiative for all their diligent work and input into the completion of this assessment. Without your collaborative work this assessment would not have been as comprehensive. Moving forward together as a community will inspire positive work within Burke County.

Special thank you to all those on the Burke Wellness Initiative that gathered and provided valuable data and information used in this Community Health Needs Assessment.

## Appendices

Appendix A: Burke Wellness Initiative Members

Appendix B: 2019 Burke County CHNA Survey

Appendix C: 2019 Burke County CHNA Survey Results

Appendix D: 2019 Burke County CHNA Focus Group Results

Appendix E: Access to the 2019 Burke County CHNA

Appendix F: References

### Appendix A: Burke Wellness Initiative Members

First Name	Last Name	Title	Agency
Jason	Baisden	Program Officer	Kate B. Reynolds Charitable Trust
Danette	Brackett	Director of Business Development	Carolinas HealthCare System Blue Ridge
Renee	Brackett	Adult Services/Burke Integrated Health Director	Burke Integrated Health
Brad	Buchanan		Morganton Public Safety
Beverly	Carlton	President/CEO	Olive Hill Community Economic Development Corporation, Inc.
Johnnie	Carswell	Burke County Commissioner	Burke County
Wendy	Cato	Community Member/Morganton City Council	Morganton City Council
Traci	Clark	General Accounting Manager	Carolinas HealthCare System Blue Ridge
Tara	Conrad	Community Engagement Director	Partners Behavioral Health Management
Jim	Craig	Regional Coordinator	Western Carolina University
Brittany	Dobbins	Director of Operations – Blue Ridge Medical Group	Carolinas Healthcare System Blue Ridge
Kim	Duncan		Western Piedmont Council of Governments
Carol	Ervin	Behavioral Health Director	Carolinas Healthcare System Blue Ridge
David	Everhart	Emergency Department Director	Carolinas Healthcare System Blue Ridge
Deedra	Epley	Director	Burke Health Network

First Name	Last Name	Title	Agency
Sherry	Fisher	Executive Director	Good Samaritan Clinic
Brandi	Greer	Drug Free Communities Coordinator	Burke Recovery
Sarah	Haymore	Program Manager	Catawba Valley Healthy Families
Banks	Hinceman	Major	Burke County Sheriff's Office
Randi	Huizenga	Drug Court Coordinator	Burke County Recovery Court
Kim	James	Executive Director	Burke Recovery
Valerie	Kelly	Director of Nursing	Burke County Health Department
Aaron	Kohrs	Mobility Manager	Greenway Transportation
Linda	Johnson	Administrative Assistant	Carolinas Healthcare System Blue Ridge
Shawn	Lane	Community Accessibility Specialist	NC Division for the Deaf and Hard of Hearing
Michelle	Mathis	Executive Director	Olive Branch Ministries
Sharon	McBrayer	Reporter	The News Herald
Rebecca	McLeod	Health Director	Burke County Health Department
Thomas	Meek	Primary Care Physician	The Cognitive Connection
Miranda	Michaels	School Nurse Coordinator	Burke County Public Schools
Brittany	Mikeal	Community Outreach Representative	United Healthcare

First Name	Last Name	Title	Agency
Chae	Moore	Public Health Education Specialist	Burke County Health Department
Lisa	Moore	Health Education Supervisor	Burke County Health Department
Mayra	Moore	Spanish Language Interpreter	Burke County Health Department
Bianca	Moses	Director of Community Relations	The Outreach Center
Leslie	Mull	Nurse Manager – Emergency Department	Carolinas Healthcare System Blue Ridge
Barbara	Nagy	Community Member	N/A
Edward	Plyler	CMO Continuing Care	Carolinas HealthCare System Blue Ridge
Karen	Pritchard	Nursing Program Director	Western Piedmont Community College
Regina	Rhodes	Manager – Quality and Care Management	Carolinas Healthcare System Blue Ridge
Melaina	Rhoney	Executive Director	A Caring Alternative
Traci	Riebel	Executive Director of Hospital Foundation	Carolinas Healthcare System Blue Ridge
Francisco	Risso	Chaplain	Carolinas Healthcare System Blue Ridge
Maureen	Schwind	Executive Director	Burke County United Way
Sarah	Stamey	Aging Specialist	Western Piedmont Council of Governments - AAA
Tonia	Stephenson	President	Burke County Chamber of Commerce

First Name	Last Name	Title	Agency
Mike	Swan	Director of Student and Family Services/Community Liaison	Burke County Public Schools
Joset	Taylor	Director of Operations - ASC	Carolinas Healthcare System Blue Ridge
Lynette	Taylor	QI Director	The Cognitive Connection
Andrew	Thomas, II		Carolinas HealthCare System Blue Ridge
Emily	Troutman	Extension Agent	NC Cooperative Extension – Burke County Center
Michael	Vance	Community Member and Board Member for Burke Recovery	N/A
Steve	Villar	Executive Director	Morganton Housing Authority
Julie	Walker	CEO	The Cognitive Connection
John	Waters	CEO	Catawba Valley Behavioral Health
Jason	Whisnant	Captain	Morganton Public Safety
Steve	Whisenant	Sheriff	Burke County Sheriff's Office
Amy	White	Registered Nurse	Skill Creations, Inc.
Alma	Yanez	Enrollment Coordinator	Burke Health Network



## Appendix B: 2019 Burke County CHNA Survey

You can help identify the most important health issues in Burke County by completing this survey. Your answers will help our community develop plans to address these issues. Survey results are part of the Burke Wellness Initiative's 2019 Community Health Needs Assessment. Responses are confidential.

**Please do NOT write your name on the survey.**

1. Do you live in Burke County? ☐ Yes ☐ No (**STOP HERE if you do not live in Burke County.**)
2. What is your zip code? \_\_\_\_\_

Quality of Life Statements	Circle one number for each statement.				
	Strongly Disagree	Disagree	Agree	Strongly Agree	Not Applicable
3. Burke County's health resources meet most of my medical needs.	1	2	3	4	N/A
4. If you are 18-54 years old, Burke County is a good place to live.	1	2	3	4	N/A
5. If you are 55 years or older, Burke County is a good place to live.	1	2	3	4	N/A
6. I know where to go to learn about jobs that are open in Burke County.	1	2	3	4	N/A
7. Burke County is a safe place to work, play, pray and live.	1	2	3	4	N/A
8. Burke County has resources to help individuals and families with substance use disorder, mental health and poverty issues.	1	2	3	4	N/A

**9. Please check the “top health issues” in Burke County. Choose 5 from the list below.**

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Aging problems (mobility/hearing/vision)                 | <input type="checkbox"/> Cancer  | <input type="checkbox"/> Substance use/misuse (prescription/illegal drugs/alcohol) |
| <input type="checkbox"/> Dementia/Alzheimer's                                     | <input type="checkbox"/> Liver disease   | <input type="checkbox"/> Sexually transmitted diseases/HIV                         |
| <input type="checkbox"/> Asthma   | <input type="checkbox"/> Kidney disease  | <input type="checkbox"/> Hepatitis C   |
| <input type="checkbox"/> COPD(Chronic Obstructive Pulmonary Disease)/Lung Disease | <input type="checkbox"/> Infectious/contagious diseases (TB, pneumonia, flu, etc.) | <input type="checkbox"/> Teenage pregnancy   |
| <input type="checkbox"/> Heart disease/Stroke                                     | <input type="checkbox"/> Mental health/Behavioral health/Depression                | <input type="checkbox"/> Motor vehicle accidents                                   |
| <input type="checkbox"/> Diabetes/Obesity   | <input type="checkbox"/> Oral/dental health  | <input type="checkbox"/> Children born addicted                                    |
| <input type="checkbox"/> Pre/postnatal depression                                 | <input type="checkbox"/> other: _____  |  |

**10. Please check the most important “unhealthy behaviors” in Burke County. Choose 5 from the list below.**

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Substance use/misuse (prescriptions/illegal drugs/alcohol) | <input type="checkbox"/> Not going to a dentist for regular check-ups          | <input type="checkbox"/> Second-hand smoke  |
| <input type="checkbox"/> Poor personal hygiene                                      | <input type="checkbox"/> Not going to a medical provider for regular check-ups | <input type="checkbox"/> Suicide            |
| <input type="checkbox"/> Having unsafe sex  | <input type="checkbox"/> Not using, or incorrectly using child safety seats    | <input type="checkbox"/> Tobacco use/vaping |
| <input type="checkbox"/> Lack of exercise   | <input type="checkbox"/> Not using seat belts                                  | <input type="checkbox"/> Unhealthy eating   |
| <input type="checkbox"/> Not getting immunizations                                  | <input type="checkbox"/> Reckless/impaired driving                             | <input type="checkbox"/> Violent behavior   |
| <input type="checkbox"/> Other: _____   |  |   |

**11. Please check the most important “Social issues” in Burke County. Choose 5 from the list below.**

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Lack of resources for people with cultural or language differences | <input type="checkbox"/> Lack of health care providers<br>What kind? _____ | <input type="checkbox"/> Family impact due to imprisonment         |
| <input type="checkbox"/> Disaster Preparedness/bioterrorism                                 | <input type="checkbox"/> Lack of public transportation                     | <input type="checkbox"/> Safe places to walk, exercise, play, etc. |
| <input type="checkbox"/> Homelessness   | <input type="checkbox"/> Access to healthy food                            | <input type="checkbox"/> Lack of spay/neuter pets                  |
| <input type="checkbox"/> Lack of resources from prison or other places                      | <input type="checkbox"/> Lack of affordable childcare                      | <input type="checkbox"/> Literacy (reading and writing)            |
| <input type="checkbox"/> Inadequate/Unaffordable housing for all                            | <input type="checkbox"/> Poverty   | <input type="checkbox"/> Violent Crime                             |

\_\_\_ Lack of affordable health insurance/health care/medications

\_\_\_ Environmental pollution (air, water, land)

\_\_\_ End of life planning

\_\_\_ Lack of education/dropping out of school

\_\_\_ Racism/Discrimination

\_\_\_ Underemployment/poor paying jobs

\_\_\_ Neglect and abuse (of a child, a spouse, the elderly, etc.)

\_\_\_ Other: \_\_\_\_\_

**12. Do you have children or teens living in or regularly visiting your home? If yes, what are your attitudes and behaviors around substance use?**

\_\_\_ No children or teens living or regularly visiting in our home  
\_\_\_ I save unused prescription medications in the house for later use

\_\_\_ I have prescription medications unlocked in my home  
\_\_\_ I allow my child to attend adult chaperoned parties where alcohol is served

\_\_\_ I know how to properly get rid of medications

\_\_\_ I talk with my child about the dangers of high-risk behaviors (Such as sex, drinking and drug use, etc.)

\_\_\_ I am aware of the medication drop boxes in Burke County

\_\_\_ I have alcohol in unlocked spaces in my home (cabinet, refrigerator, etc.)

\_\_\_ I keep prescription and over-the-counter medications in a lock box in my home

\_\_\_ I think it is okay to allow my son or daughter to drink alcohol in our own home

\_\_\_ Other: \_\_\_\_\_

**13. How would you rate your own personal health? Please check one answer.**

\_\_\_ Very healthy

\_\_\_ Somewhat healthy

\_\_\_ Somewhat unhealthy

\_\_\_ Very unhealthy

**14. Do you currently have any of the following? Check all that apply.**

\_\_\_ Dementia/Alzheimer's

\_\_\_ Heart Disease

\_\_\_ Substance use issues

\_\_\_ Asthma

\_\_\_ High blood pressure

\_\_\_ Hearing/vision

\_\_\_ Cancer

\_\_\_ High cholesterol

\_\_\_ Thyroid Disorders

\_\_\_ Chronic Obstructive Pulmonary Disease (COPD)/Lung Disease

\_\_\_ Overweight/obesity

\_\_\_ Diabetes/Diabetes risk

\_\_\_ Mental Health/Depression/Anxiety

\_\_\_ None

\_\_\_ Other: \_\_\_\_\_

**15. During the past year, did you have a problem getting medical care you needed? If yes, check all that apply.**

\_\_\_ No, I did not have any issues this year

\_\_\_ I did not have transportation

\_\_\_ I did not have health insurance

\_\_\_ No one would take my insurance

\_\_\_ I did not know where to go

\_\_\_ No one was accepting new patients

\_\_\_ Hospital would not take my insurance

\_\_\_ My insurance did not cover what I needed

\_\_\_ They were not open when I needed them

\_\_\_ I could not afford it/the cost was too high

\_\_\_ Took too long to get an appointment

\_\_\_ Other: \_\_\_\_\_

**16. When was your last routine physical/wellness check-up? Do not include visits while you were sick or pregnant.**

\_\_\_ Within past year

\_\_\_ 1-2 years ago,

\_\_\_ 3-5 years ago,

\_\_\_ 5+ years ago

\_\_\_ Never

**17. During the past year, did you have a problem filling a prescription? If yes, check all that apply.**

\_\_\_ No, I did not have issues filling prescriptions

\_\_\_ I had a problem with Medicare Part D

\_\_\_ I did not have prescription coverage

\_\_\_ My insurance did not cover what I needed

\_\_\_ I could not afford it/the cost was too high

\_\_\_ I did not have transportation

\_\_\_ Other: \_\_\_\_\_

**18. If one of your friends or family members needed counseling for a mental health/behavioral health, substance use/misuse or developmental disability problem, whom would you suggest they contact? *Check all that apply.***

- |   |   |
|---|---|
| <input type="checkbox"/> Broughton Hospital   | <input type="checkbox"/> Doctor (Nurse Practitioner, Physician's Assistant, etc.) |
| <input type="checkbox"/> Burke Integrated Health/CVBH/A Caring Alternative/Cognitive Connection | <input type="checkbox"/> Hospital Emergency Department                            |
| <input type="checkbox"/> Burke Recovery   | <input type="checkbox"/> Minister/Pastor  |
| <input type="checkbox"/> Burke Health Network/Good Samaritan Clinic                             | <input type="checkbox"/> Partners Behavioral Health Management                    |
| <input type="checkbox"/> Children's Developmental Services                                      | <input type="checkbox"/> School Counselor   |
| <input type="checkbox"/> Counselor or Therapist in private practice                             | <input type="checkbox"/> I do not know  |
| <input type="checkbox"/> Vocational Rehabilitation/Independent Living                           | <input type="checkbox"/> Other: _____   |

**19. During the past year, did you have a problem getting mental health care?**

***If yes, check all that apply.***

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> No, I did not have any issues this year     | <input type="checkbox"/> I did not have transportation            | <input type="checkbox"/> I did not have health insurance       |
| <input type="checkbox"/> No one would take my insurance              | <input type="checkbox"/> I did not know where to go               | <input type="checkbox"/> No one was accepting new patients     |
| <input type="checkbox"/> Hospital would not take my insurance        | <input type="checkbox"/> My insurance did not cover what I needed | <input type="checkbox"/> They were not open when I needed them |
| <input type="checkbox"/> I could not afford it/the cost was too high | <input type="checkbox"/> Took too long to get an appointment      | <input type="checkbox"/> Other: _____                          |

**20. Which of the following end of life plans do you have? *Check all that apply.***

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Do Not Resuscitate (DNR)/Living Will           | <input type="checkbox"/> Organ donor    | <input type="checkbox"/> Funeral Expenses/Arrangements                |
| <input type="checkbox"/> Power of Attorney/Healthcare Power of Attorney | <input type="checkbox"/> Life Insurance | <input type="checkbox"/> Medical Orders for Scope of Treatment (MOST) |
| <input type="checkbox"/> Will   | <input type="checkbox"/> I do not know  | <input type="checkbox"/> None   |

**21. How often do you exercise for at least 30 minutes, outside of your job, each week?**

- ☐ None- I do not exercise    ☐ Once a week    ☐ 2-3 times per week    ☐ 4-6 times per week    ☐ Daily

**22. Where do you get your fresh fruits and vegetables? *Check all that apply.***

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Chain Grocery Store (Food Lion, Lowes, Galaxy, Food Matters, Aldi, etc.) | <input type="checkbox"/> Local Produce Store    | <input type="checkbox"/> Local Food Pantries                           |
| <input type="checkbox"/> Family Garden/Community Garden   | <input type="checkbox"/> Roadside Produce Stand | <input type="checkbox"/> No - I do not get fresh fruits and vegetables |
| <input type="checkbox"/> Farmers Market   | <input type="checkbox"/> Other: _____           |  |

**Please answer this next set of questions so we can see how different types of people feel about local health issues. Remember, your answers are confidential and cannot be linked to you in any way.**

**23. How old are you?** \_\_\_\_\_

**24. Gender** ☐ Female ☐ Male

**25. What is your race and ethnicity?**

- |   |  |  |  |   |                                     |                                       |
|---|--|--|--|---|-------------------------------------|---------------------------------------|
| <input type="checkbox"/> Asian/Pacific Islander | <input type="checkbox"/> Black- Non-Hispanic | <input type="checkbox"/> Hispanic/Latino | <input type="checkbox"/> Native American | <input type="checkbox"/> White- Non- Hispanic | <input type="checkbox"/> Multi-Race | <input type="checkbox"/> Other: _____ |
|---|--|--|--|---|-------------------------------------|---------------------------------------|

26. What is the last grade you completed in school? *Check only one (1) answer.*

- ☐ Did not complete high school
- ☐ College no degree
- ☐ Bachelor's degree
- ☐ High School Diploma/GED
- ☐ Associate degree
- ☐ Graduate degree (Masters/Doctoral)

**27. How many hours a week do you work?**

☐ Employed full-time (33+ hours)

☐ Unemployed

☐ Student

☐ Employed part-time (32 hours or less)

☐ Disabled; unable to work

☐ Temporary/Seasonal/Migrant Farmworker

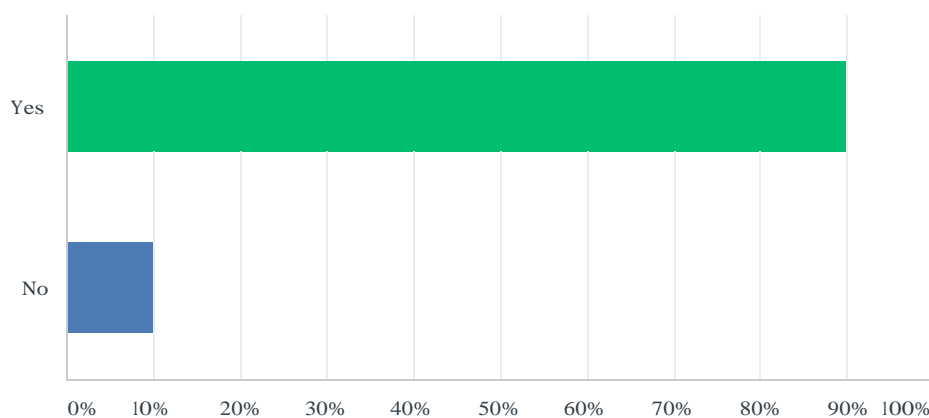
☐ Stay at home parent

☐ Retired

## Appendix C: 2019 Burke County CHNA Survey Results

### Q1 Do you live in Burke County?

Answered: 1,049 Skipped: 0

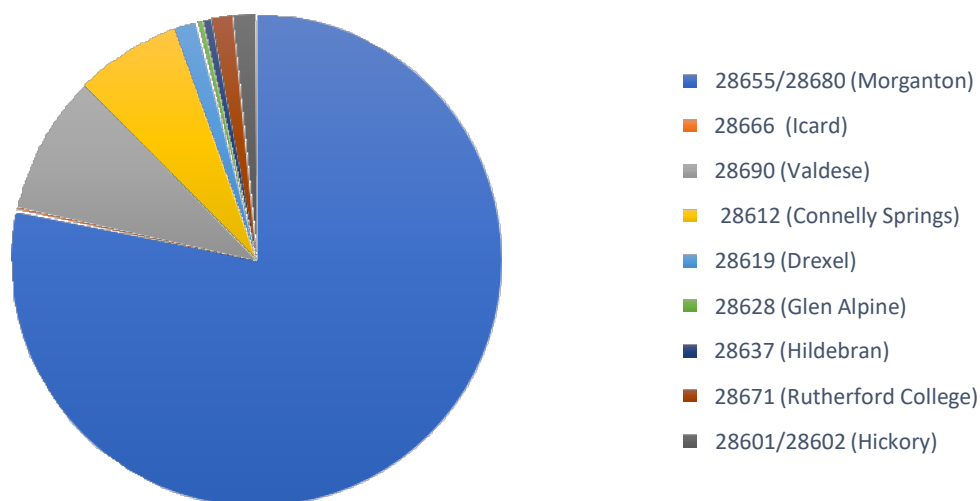


ANSWER CHOICES	RESPONSES	
Yes	90.18%	946
No	9.82%	103
TOTAL		1,049

\*\*All participants that answered “no” to living in Burke County were directed to a disqualification page.

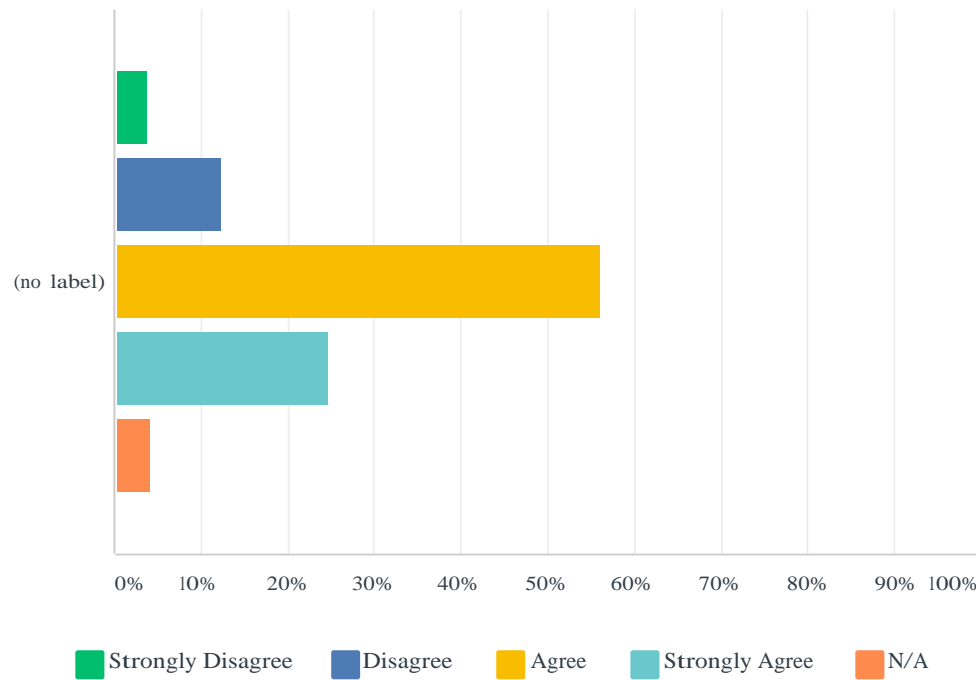
### Question 2: What is your zip code?

Answered: 927 Skipped: 122



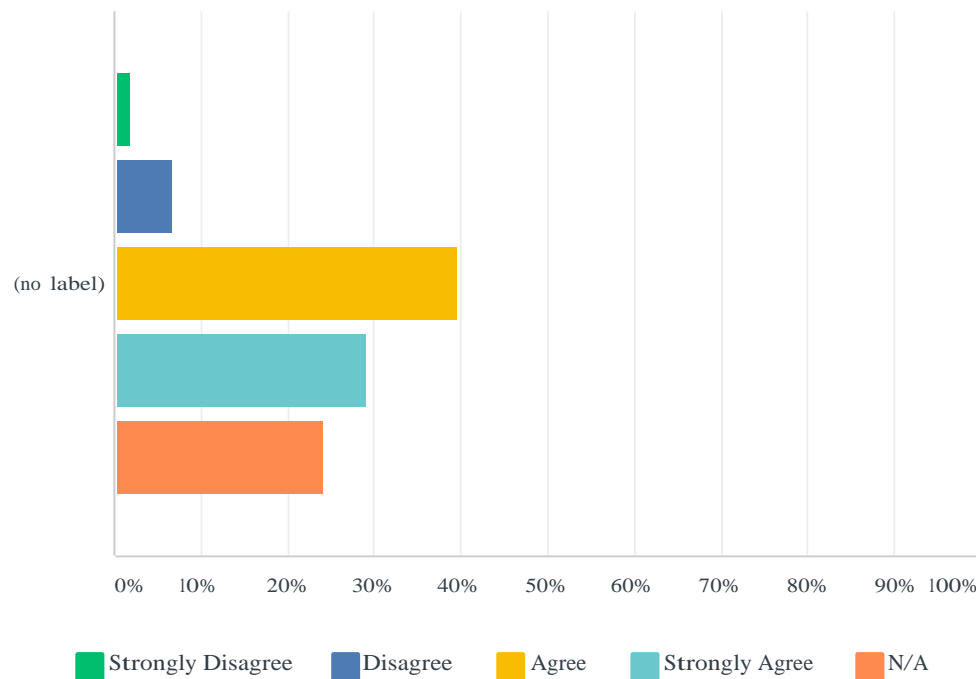
### Q3 Burke County's health resources meet most of my medical needs.

Answered: 902 Skipped: 147



### Q4 If you are 18-54 years old, Burke County is a good place to live.

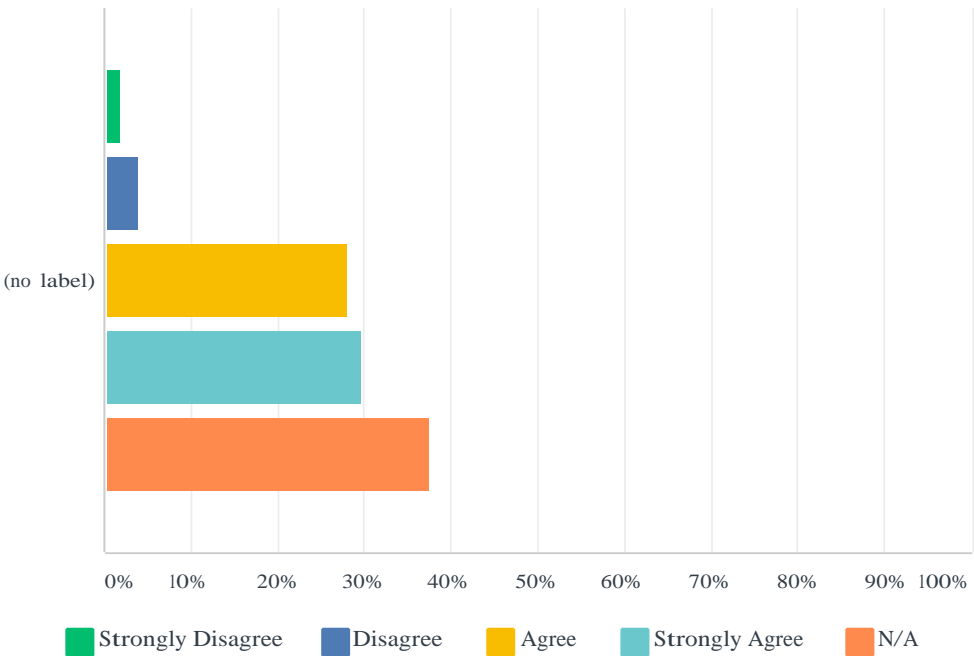
Answered: 854 Skipped: 195



	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	N/A	TOTAL	WEIGHTED AVERAGE
(no label)	1.64%	6.44%	39.23%	28.92%	23.77%	854	3.25
	14	55	335	247	203		

Q5 If you are 55 years or older, Burke County is a good place to live.

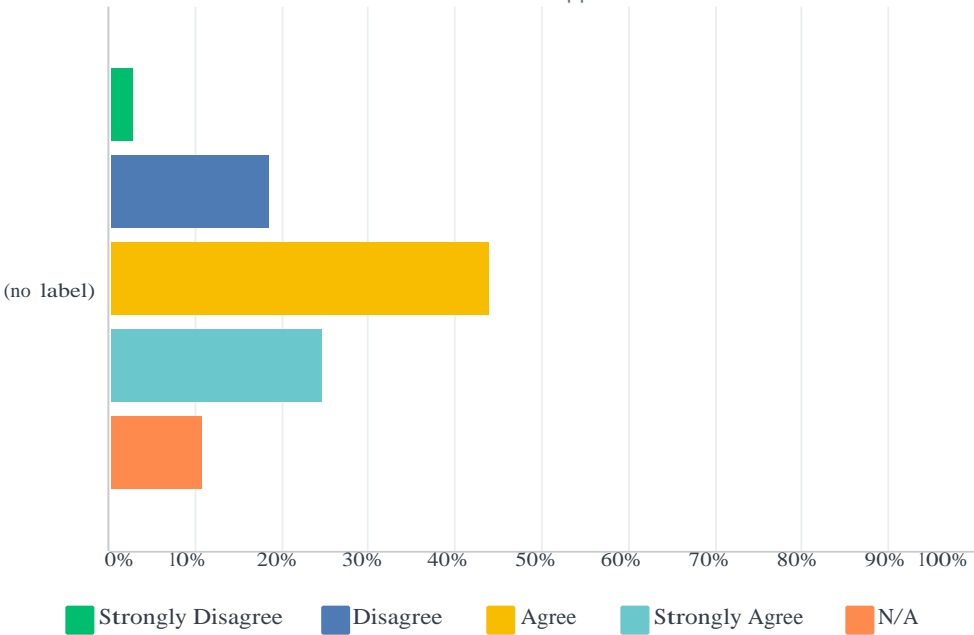
Answered: 887 Skipped: 162



	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	N/A	TOTAL	WEIGHTED AVERAGE
(no label)	1.58%	3.83%	27.73%	29.54%	37.32%	887	3.36
	14	34	246	262	331		

Q6 I know where to go to learn about jobs that are open in Burke County.

Answered: 896 Skipped: 153

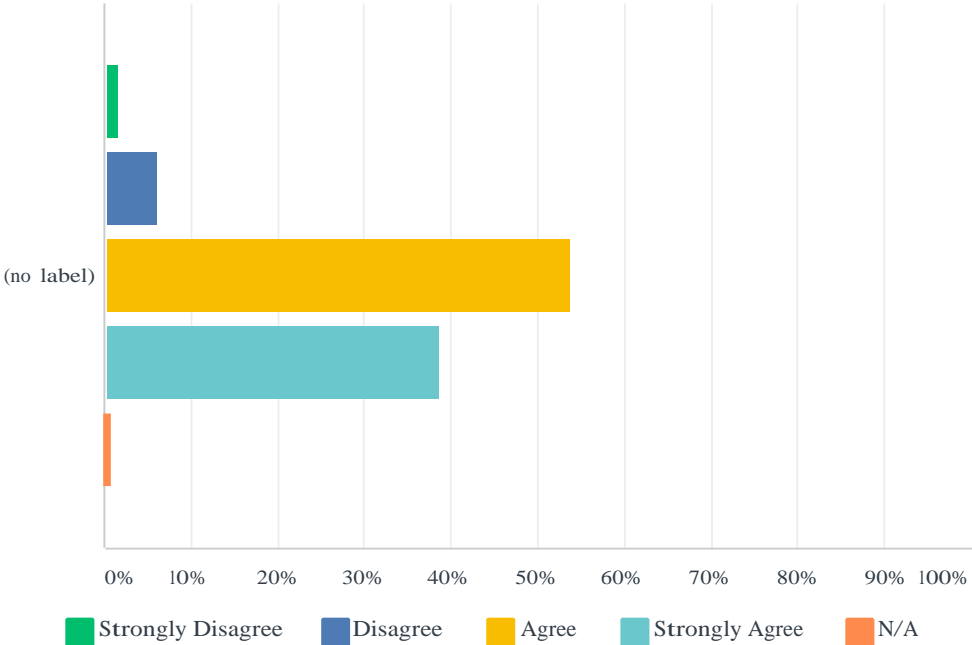


	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	N/A	TOTAL	WEIGHTED AVERAGE
(no label)	2.68%	18.42%	43.75%	24.55%	10.60%	896	3.01
	24	165	392	220	95		



Q7 Burke County is a safe place to work, play, pray and live.

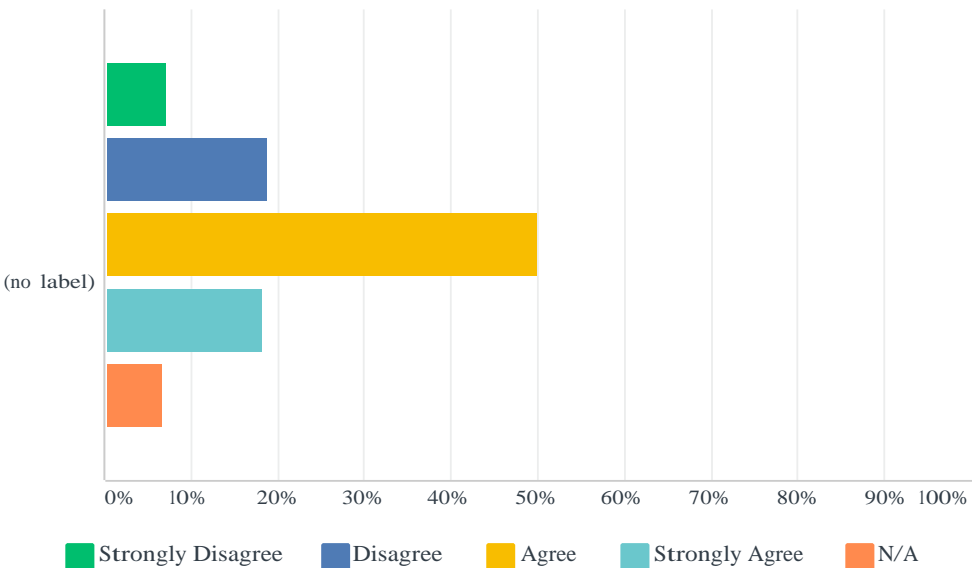
Answered: 902 Skipped: 147



	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	N/A	TOTAL	WEIGHTED AVERAGE
(no label)	1.44%	5.76%	53.55%	38.47%	0.78%	902	3.30
	13	52	483	347	7		

Q8 Burke County has resources to help individuals and families with substance use disorder, mental health and poverty issues.

Answered: 905 Skipped: 144

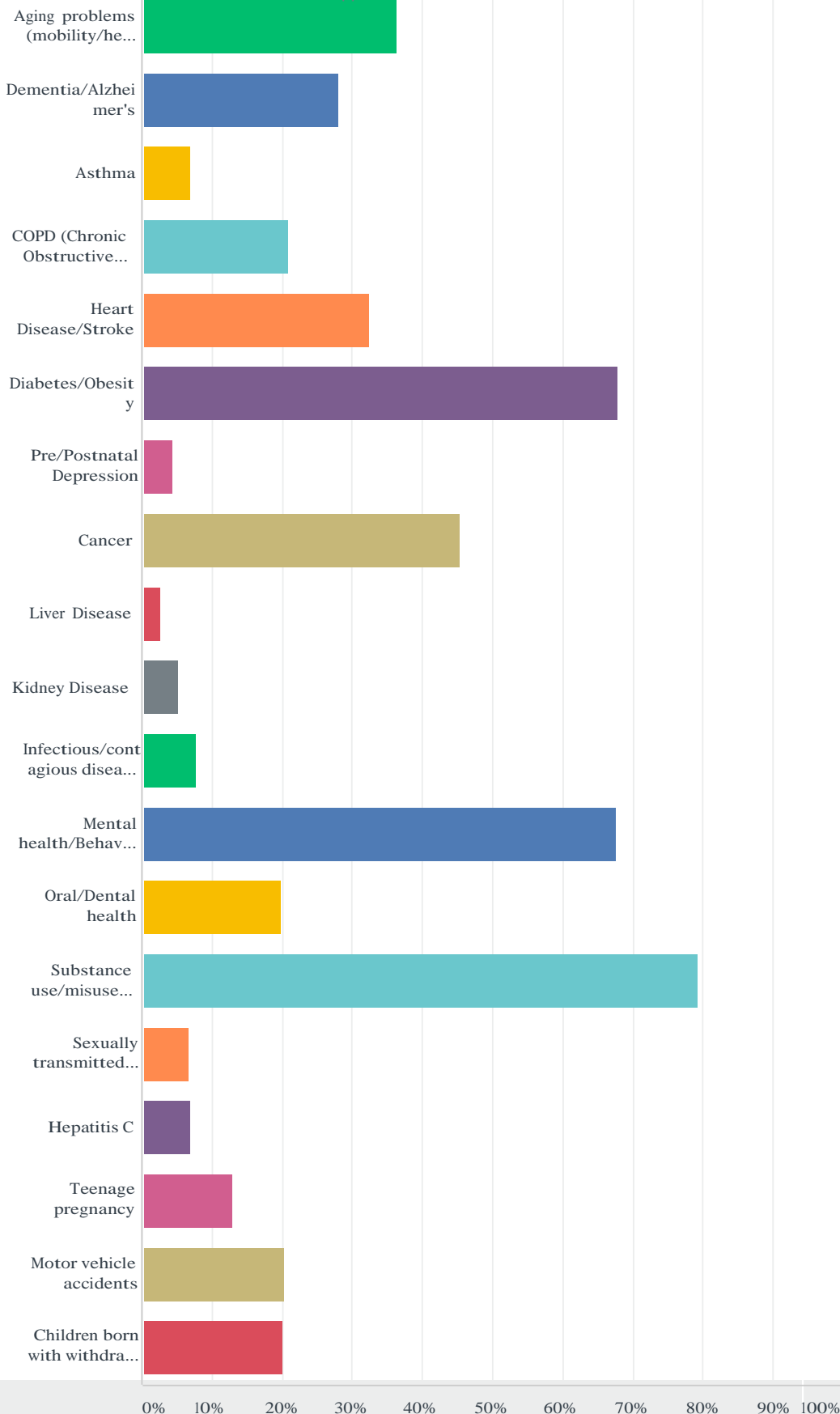


	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	N/A	TOTAL	WEIGHTED AVERAGE
(no label)	6.96%	18.67%	49.83%	18.01%	6.52%	905	2.84
	63	169	451	163	59		

## Q9 Please check the "top health issues" in Burke County. Choose 5 from the list below.

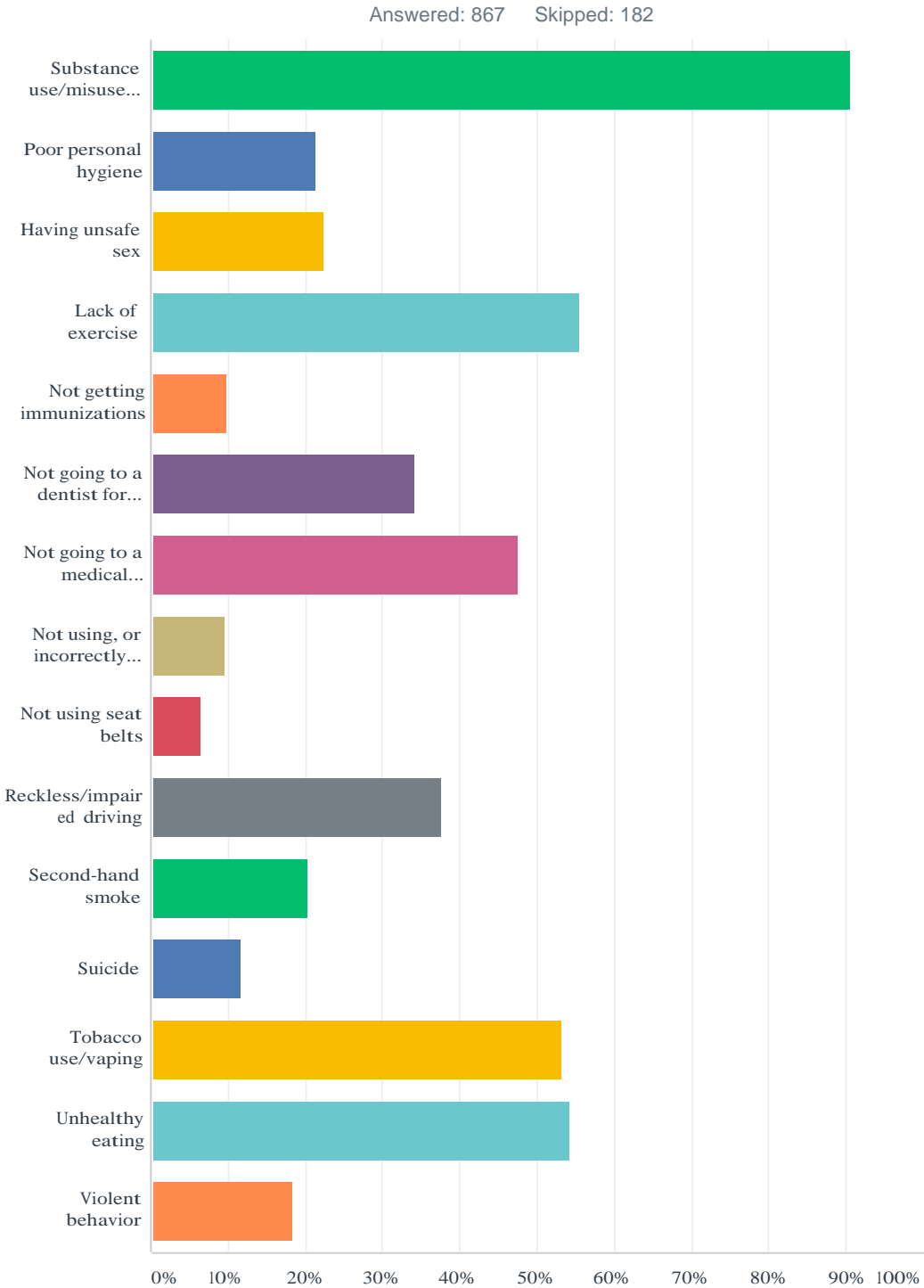
Answered: 869

Skipped: 180



Aging problems (mobility/hearing/vision)	36.25%	315
Dementia/Alzheimer's	27.73%	241
Asthma	6.67%	58
COPD (Chronic Obstructive Pulmonary Disease)/Lung Disease	20.71%	180
Heart Disease/Stroke	32.22%	280
Diabetes/Obesity	67.55%	587
Pre/Postnatal Depression	4.26%	37
Cancer	45.11%	392
Liver Disease	2.42%	21
Kidney Disease	4.95%	43
Infectious/contagious diseases (TB, pneumonia, flu, etc.)	7.59%	66
Mental health/Behavioral health/Depression	67.43%	586
Oral/Dental health	19.56%	170
Substance use/misuse (prescription/illegal drugs/alcohol)	79.06%	687
Sexually transmitted diseases/HIV	6.44%	56
Hepatitis C	6.79%	59
Teenage pregnancy	12.66%	110
Motor vehicle accidents	20.14%	175
Children born with withdrawal symptoms	19.91%	173
Total Respondents: 869		

Q10 Please check the most important “unhealthy behaviors” in Burke County. Choose 5 from the list below.

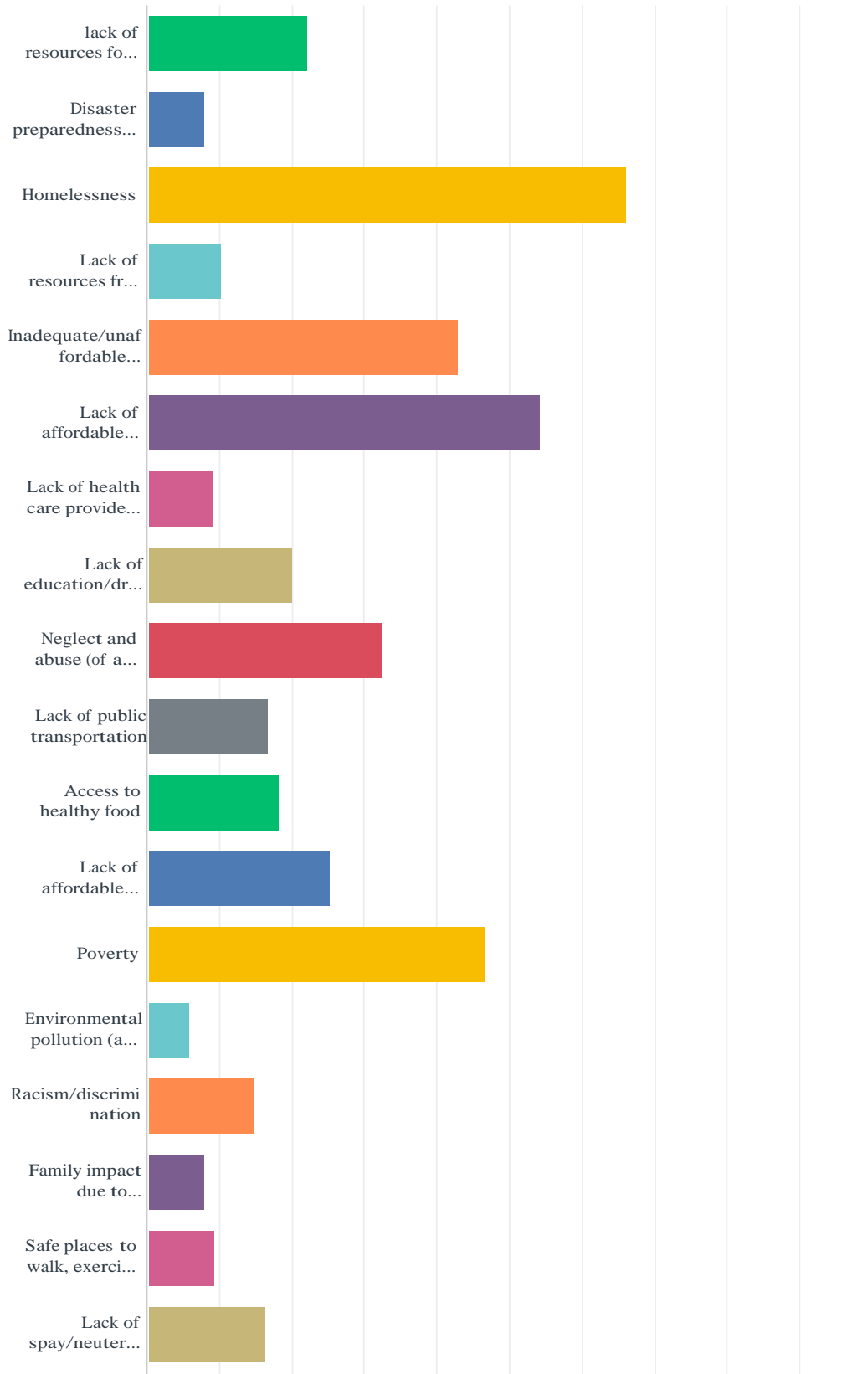


ANSWER CHOICES	RESPONSES	
Substance use/misuse (prescription/illegal drugs/alcohol)	90.31%	783
Poor personal hygiene	21.11%	183

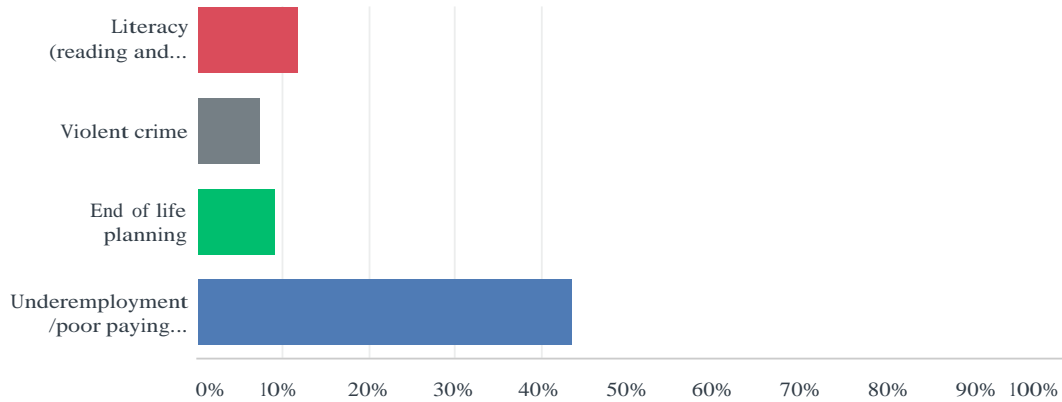
Having unsafe sex	22.26%	193
Lack of exercise	55.25%	479
Not getting immunizations	9.57%	83
Not going to a dentist for regular check-ups	33.79%	293
Not going to a medical provider for regular check-ups	47.29%	410
Not using, or incorrectly using child safety seats	9.34%	81
Not using seat belts	6.34%	55
Reckless/impaired driving	37.49%	325
Second-hand smoke	20.18%	175
Suicide	11.53%	100
Tobacco use/vaping	52.83%	458
Unhealthy eating	53.98%	468
Violent behavior	18.22%	158
Total Respondents: 867		

# Q11 Please check the most important “social issues” in Burke County. Choose 5 from the list below.

Answered: 861 Skipped: 188

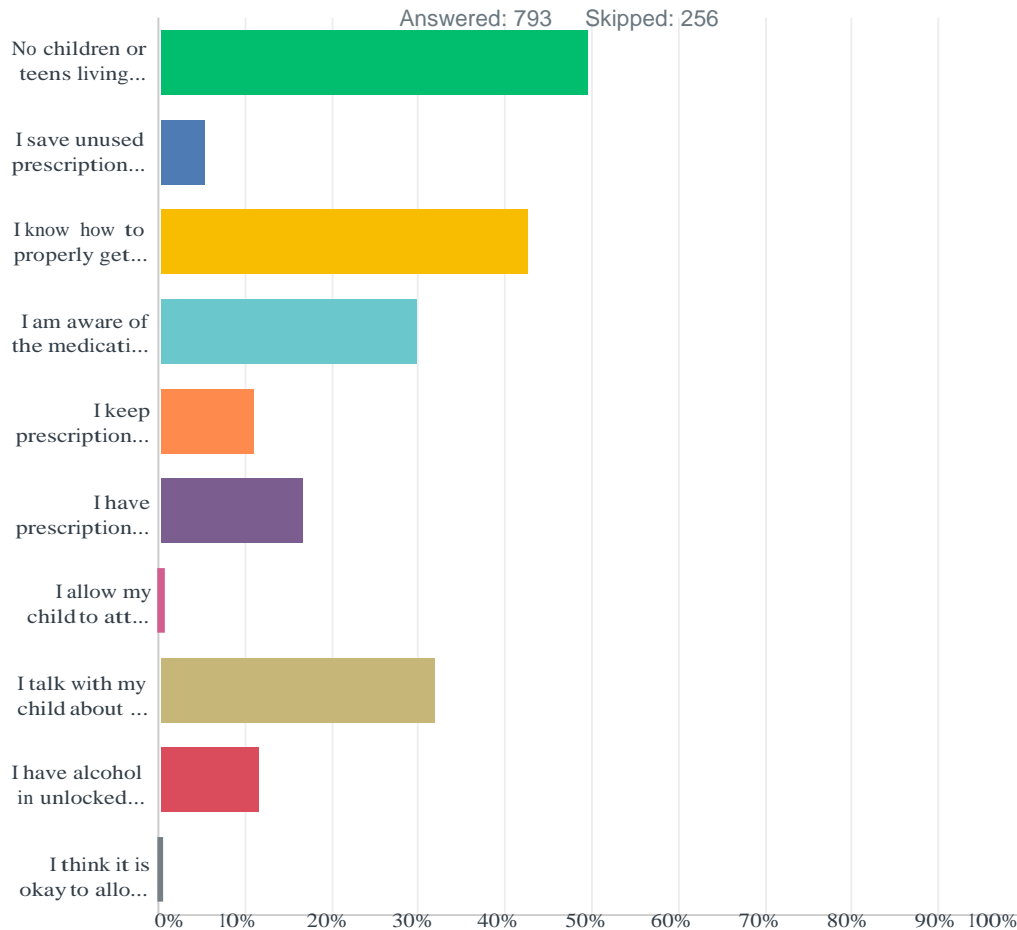


## 2019 Burke County Community Health Needs Assessment Survey



ANSWER CHOICES	RESPONSES	
lack of resources for people with cultural or language differences	22.07%	190
Disaster preparedness/bioterrorism	7.67%	66
Homelessness	65.97%	568
Lack of resources from prison or other places	10.10%	87
Inadequate/unaffordable housing for all	42.74%	368
Lack of affordable health insurance/health care/medications	54.01%	465
Lack of health care providers (Please indicate what kind in the other comments section.)	9.06%	78
Lack of education/dropping out of school	19.86%	171
Neglect and abuse (of a child, a spouse, the elderly, etc.)	32.29%	278
Lack of public transportation	16.49%	142
Access to healthy food	18.00%	155
Lack of affordable childcare	25.20%	217
Poverty	46.34%	399
Environmental pollution (air, water, land)	5.69%	49
Racism/discrimination	14.63%	126
Family impact due to imprisonment	7.67%	66
Safe places to walk, exercise, play, etc.	9.18%	79
Lack of spay/neuter pets	16.03%	138
Literacy (reading and writing)	11.61%	100
Violent crime	7.32%	63
End of life planning	8.94%	77
Underemployment/poor paying jobs	43.21%	372
Total Respondents: 861		

## Q12 Do you have children or teens living in or regularly visiting your home? If yes, what are your attitudes and behaviors around substance use?

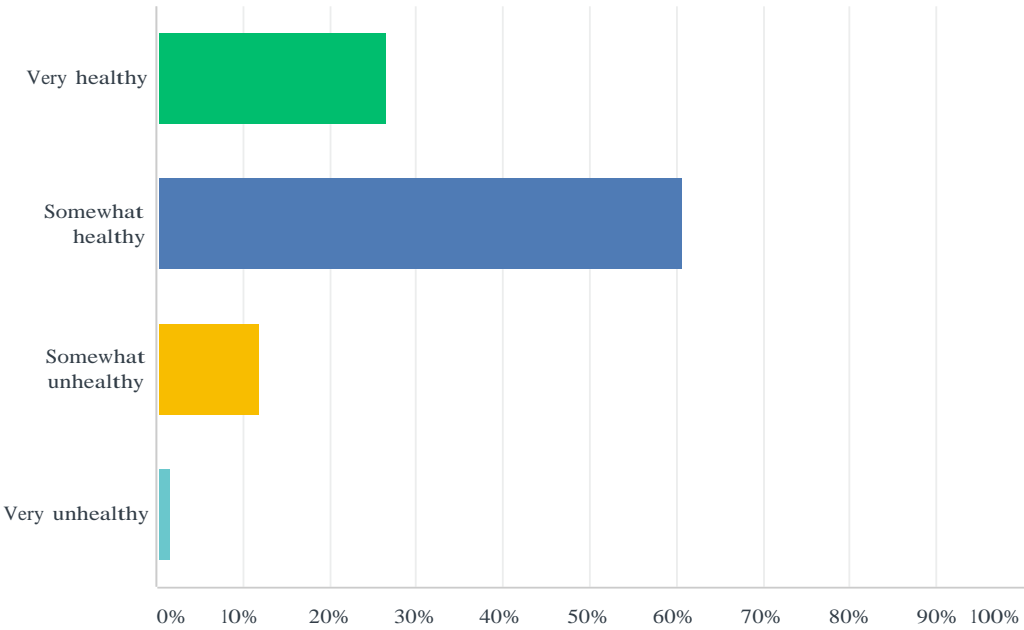


ANSWER CHOICES	RESPONSES	
No children or teens living or regularly visiting in our home	49.43%	392
I save unused prescription medications in the house for later use	5.17%	41
I know how to properly get rid of medications	42.37%	336
I am aware of the medication drop boxes in Burke County	29.63%	235
I keep prescription and over-the-counter medications in a lock box in my home	10.84%	86
I have prescription medications unlocked in my home	16.52%	131
I allow my child to attend adult chaperoned parties where alcohol is served	0.76%	6
I talk with my child about the dangers of high-risk behaviors (Such as sex, drinking and drug use, etc.)	31.78%	252
I have alcohol in unlocked spaces in my home (cabinet, refrigerator, etc.)	11.48%	91
I think it is okay to allow my son or daughter to drink alcohol in our own home	0.63%	5
Total Respondents: 793		



Q13 How would you rate your own personal health? Please check one answer.

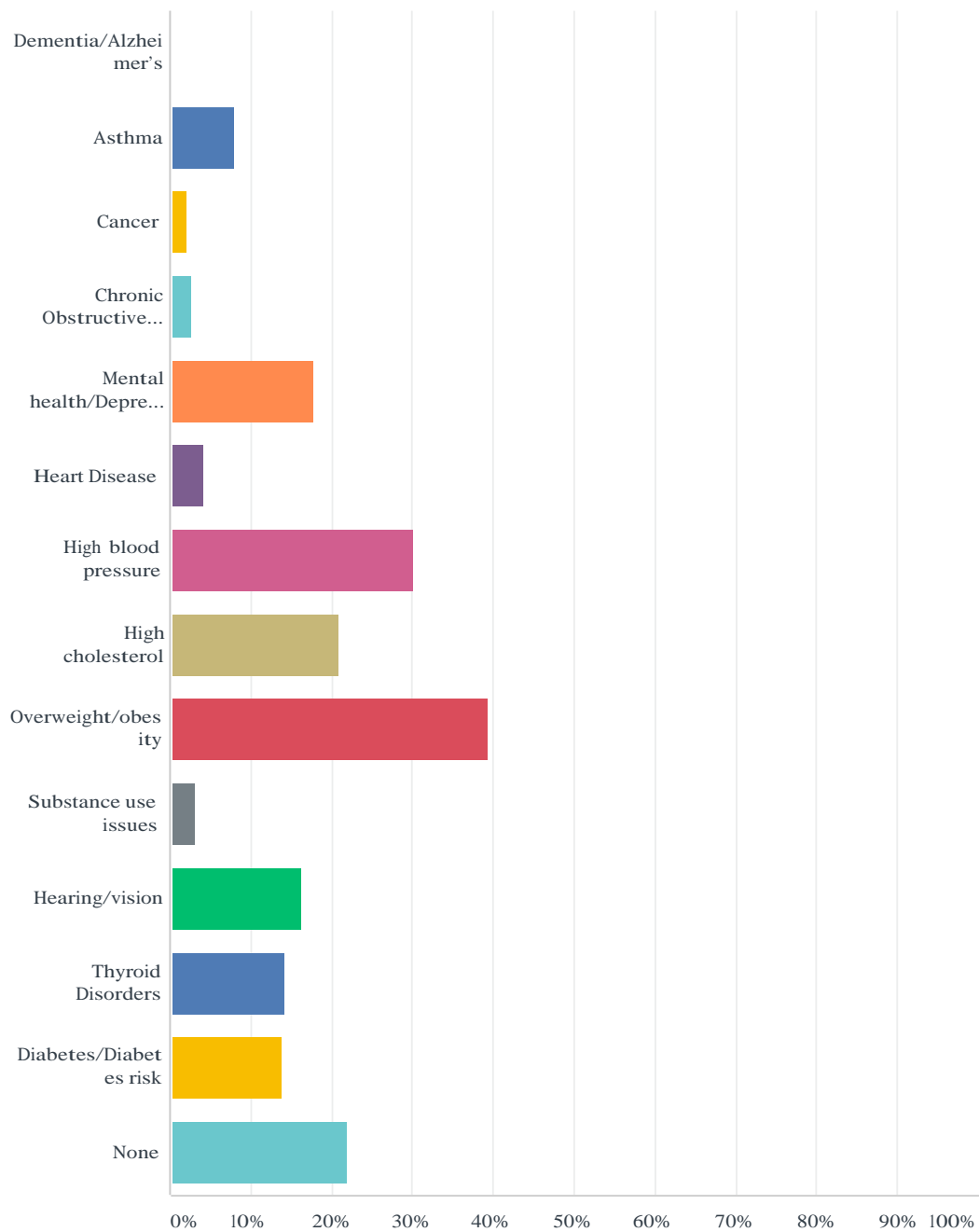
Answered: 872 Skipped: 177



ANSWER CHOICES	RESPONSES	
Very healthy	26.26%	229
Somewhat healthy	60.55%	528
Somewhat unhealthy	11.70%	102
Very unhealthy	1.49%	13
TOTAL		872

Q14 Do you currently have any of the following? Check all that apply.

Answered: 845 Skipped: 204

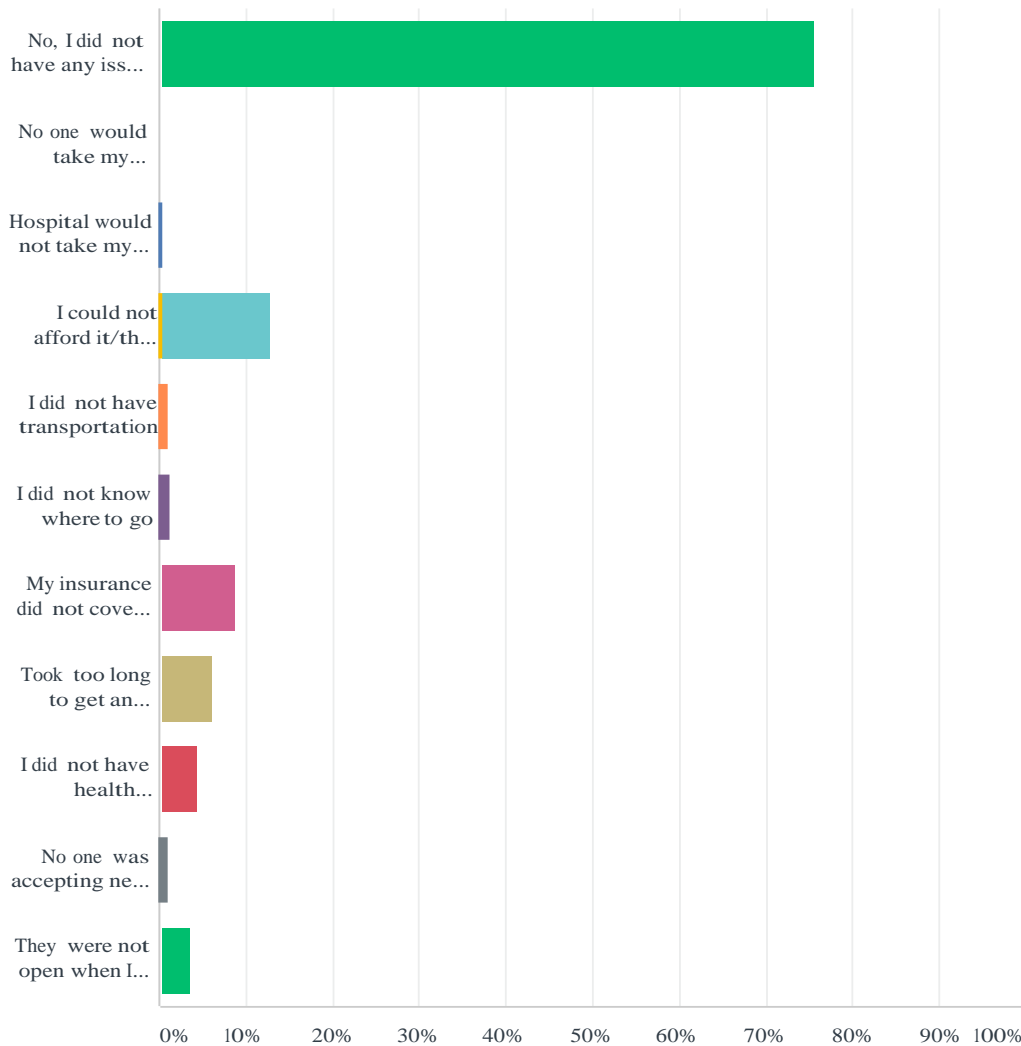


ANSWER CHOICES	RESPONSES	
Dementia/Alzheimer's	0.24%	2
Asthma	7.69%	65
Cancer	1.89%	16
Chronic Obstructive Pulmonary Disease (COPD)/Lung Disease	2.49%	21
Mental health/Depression/Anxiety	17.51%	148

Heart Disease	3.91%	33
High blood pressure	29.94%	253
High cholesterol	20.71%	175
Overweight/obesity	39.17%	331
Substance use issues	2.96%	25
Hearing/vision	16.21%	137
Thyroid Disorders	14.08%	119
Diabetes/Diabetes risk	13.61%	115
None	21.78%	184
Total Respondents: 845		

## Q15 During the past year, did you have a problem getting medical care you needed? If yes, check all that apply.

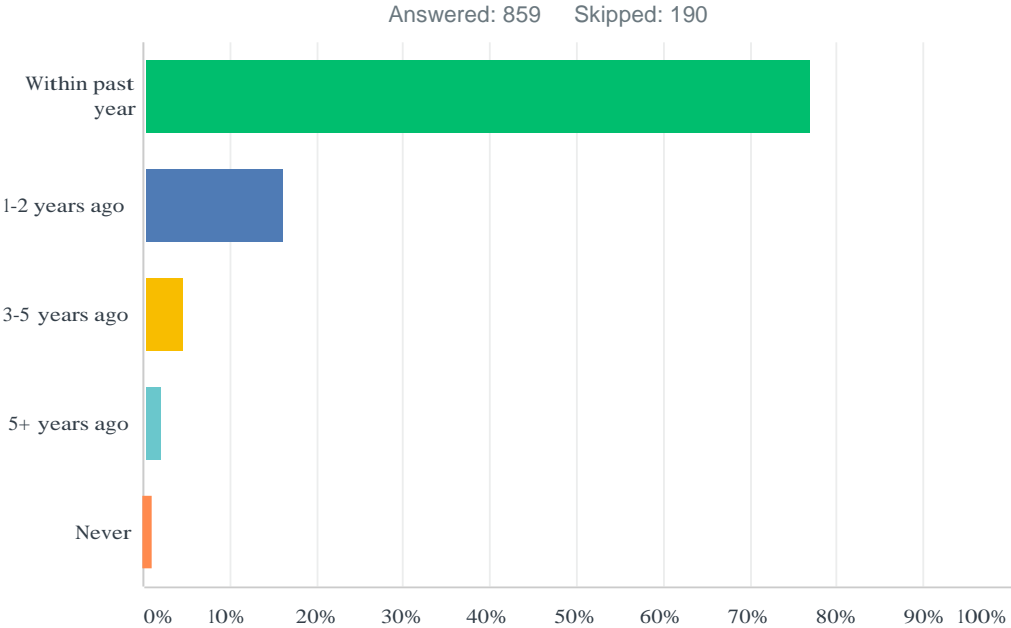
Answered: 831 Skipped: 218



ANSWER CHOICES	RESPONSES	
No, I did not have any issues this year	75.33%	626
No one would take my insurance	0.48%	4
Hospital would not take my insurance	0.36%	3
I could not afford it/the cost was too high	12.52%	104
I did not have transportation	1.08%	9
I did not know where to go	1.32%	11
My insurance did not cover what I needed	8.66%	72
Took too long to get an appointment	5.78%	48
I did not have health insurance	4.21%	35

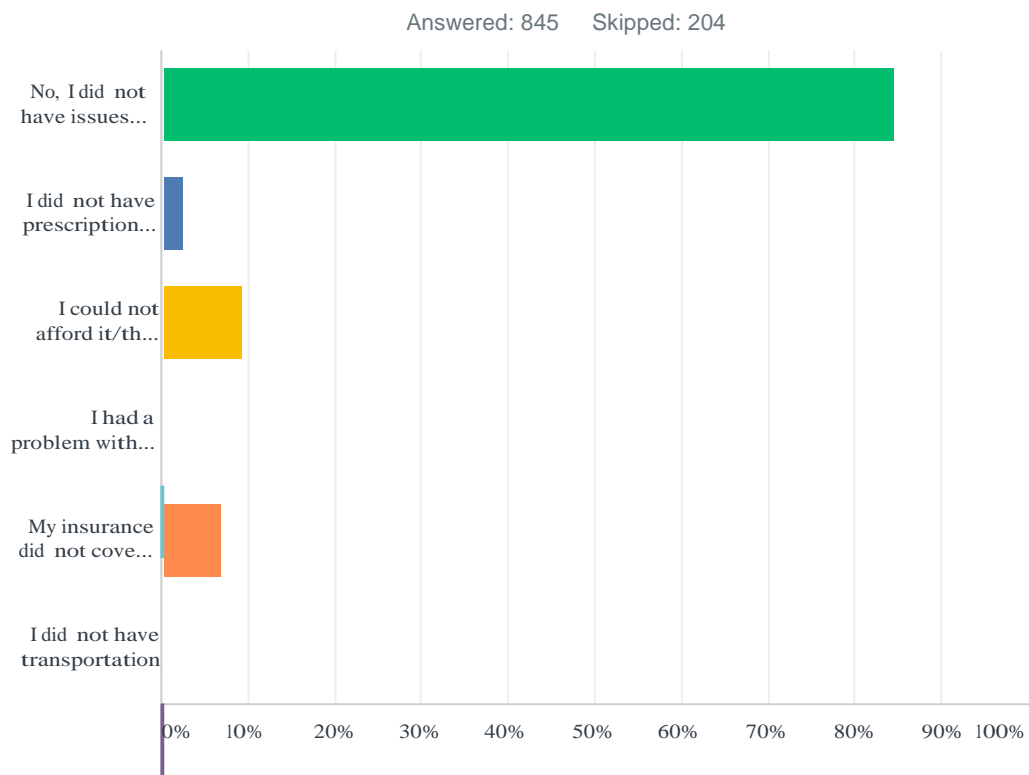
No one was accepting new patients	1.08%	9
They were not open when I needed them	3.25%	27
Total Respondents: 831		

Q16 When was your last routine physical/wellness check-up? Do not include visits while you were sick or pregnant.



ANSWER CHOICES		RESPONSES	
Within past year		76.72%	659
1-2 years ago		15.95%	137
3-5 years ago		4.42%	38
5+ years ago		1.86%	16
Never		1.05%	9
TOTAL			859

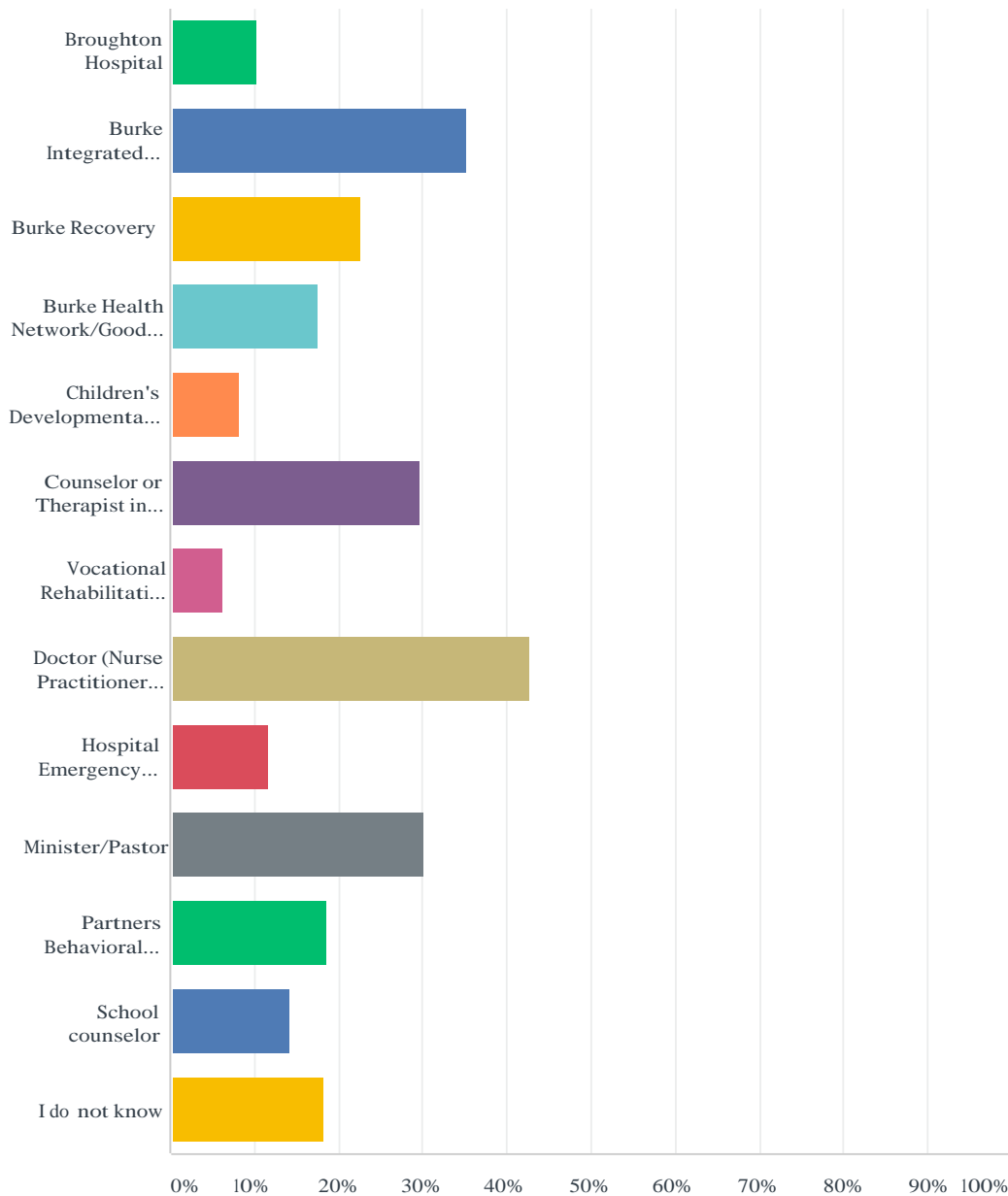
Q17 During the past year, did you have a problem filling a prescription? If yes, check all that apply.



ANSWER CHOICES	RESPONSES	
No, I did not have issues filling prescriptions	84.26%	712
I did not have prescription coverage	2.25%	19
I could not afford it/the cost was too high	9.11%	77
I had a problem with Medicare Part D	0.36%	3
My insurance did not cover what I needed	6.63%	56
I did not have transportation	0.47%	4
Total Respondents: 845		

**Q18 If one of your friends or family members needed counseling for a mental health/behavioral health, substance use/misuse or developmental disability problem, whom would you suggest they contact? Check all that apply.**

Answered: 833 Skipped: 216



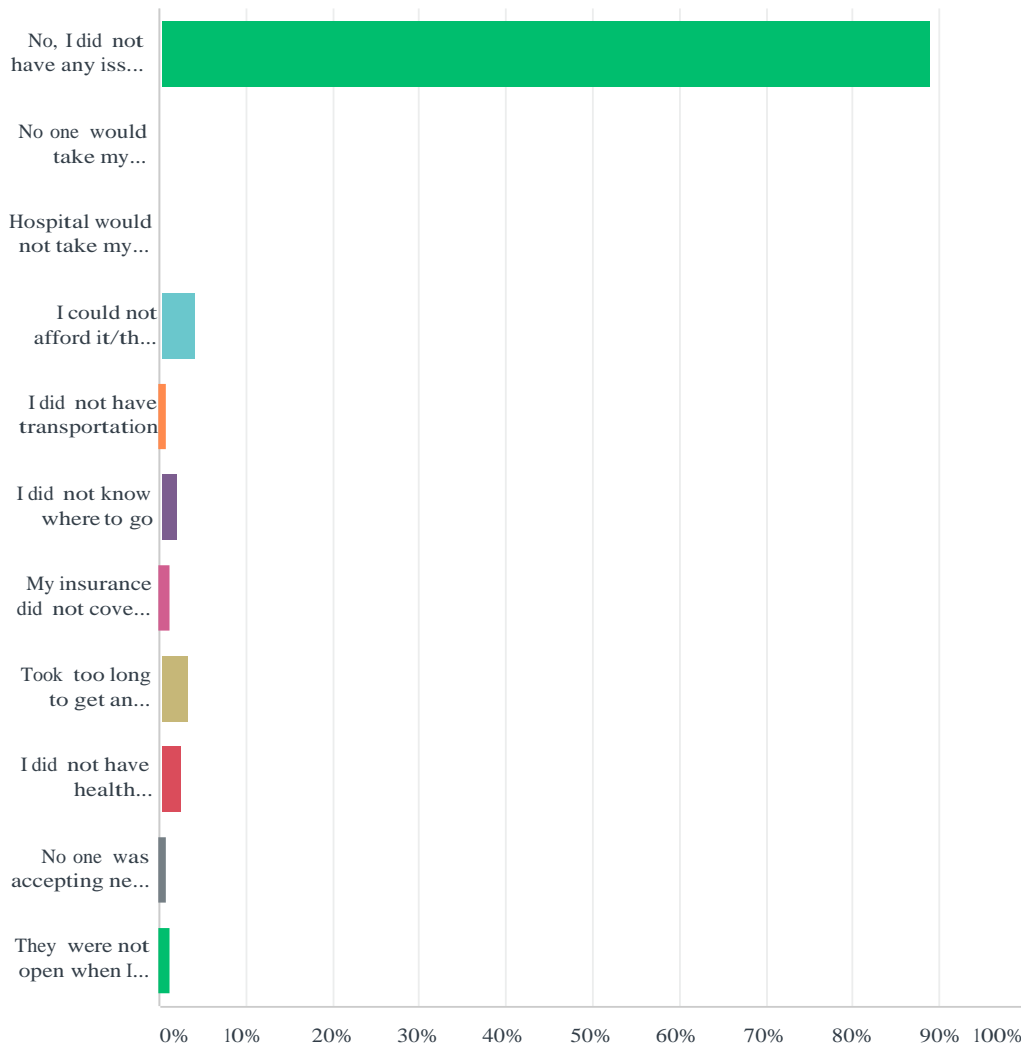
ANSWER CHOICES	RESPONSES	
Broughton Hospital	9.96%	83
Burke Integrated health/CVBH/A Caring Alternative/Cognitive Connection	34.93%	291
Burke Recovery	22.45%	187



Burke Health Network/Good Samaritan Clinic	17.29%	144
Children's Developmental Services	7.92%	66
Counselor or Therapist in private practice	29.53%	246
Vocational Rehabilitation/Independent Living	6.12%	51
Doctor (Nurse Practitioner, Physician's Assistant, etc.)	42.50%	354
Hospital Emergency Department	11.52%	96
Minister/Pastor	30.01%	250
Partners Behavioral Health Management	18.49%	154
School counselor	13.93%	116
I do not know	18.01%	150
Total Respondents: 833		

## Q19 During the past year, did you have a problem getting mental health care? Check all that apply.

Answered: 818 Skipped: 231

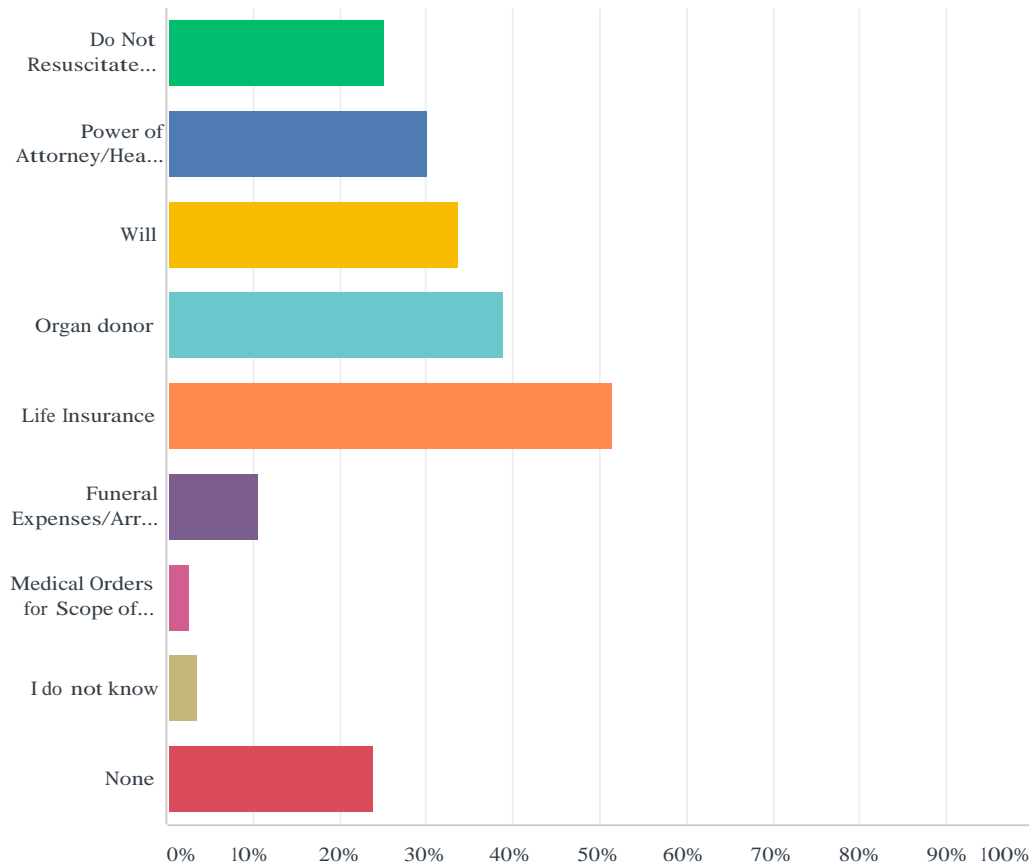


ANSWER CHOICES	RESPONSES	
No, I did not have any issues this year	88.63%	725
No one would take my insurance	0.24%	2
Hospital would not take my insurance	0.00%	0
I could not afford it/the cost was too high	4.03%	33
I did not have transportation	0.73%	6
I did not know where to go	1.83%	15
My insurance did not cover what I needed	1.34%	11
Took too long to get an appointment	3.06%	25
I did not have health insurance	2.32%	19

No one was accepting new patients	0.73%	6
They were not open when I needed them	1.22%	10
Total Respondents: 818		

## Q20 Which of the following end of life plans do you have? Check all that apply.

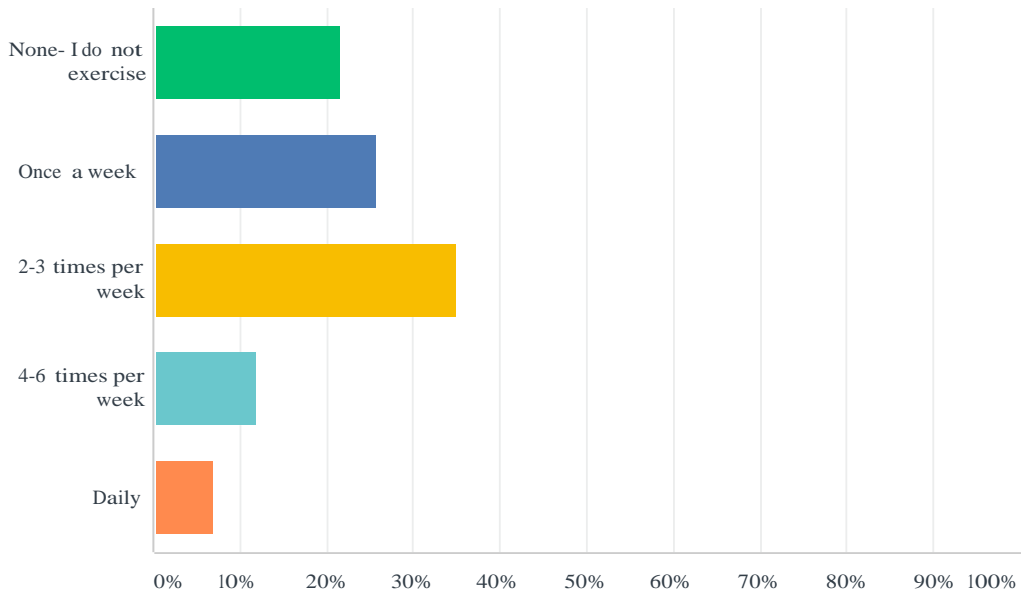
Answered: 852 Skipped: 197



ANSWER CHOICES	RESPONSES	
Do Not Resuscitate (DNR)/Living Will	24.88%	212
Power of Attorney/Healthcare Power of Attorney	29.81%	254
Will	33.45%	285
Organ donor	38.62%	329
Life Insurance	51.29%	437
Funeral Expenses/Arrangements	10.56%	90
Medical Orders for Scope of Treatment (MOST)	2.58%	22
I do not know	3.29%	28
None	23.71%	202
Total Respondents: 852		

# Q21 How often do you exercise for at least 30 minutes, outside of your job, each week?

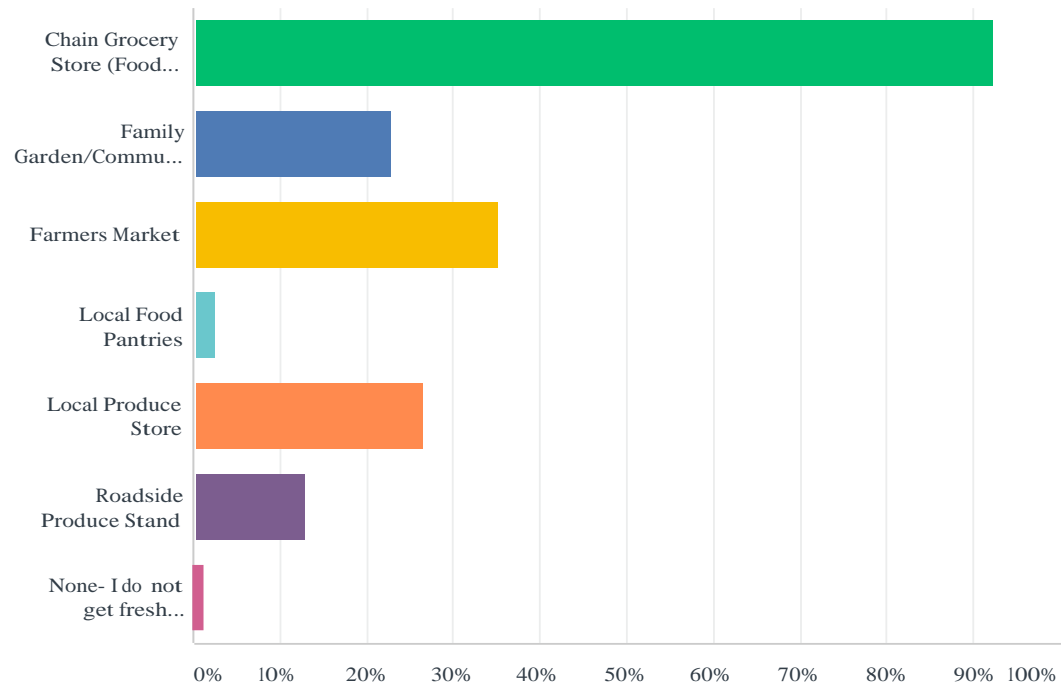
Answered: 850 Skipped: 199



ANSWER CHOICES	RESPONSES	
None- I do not exercise	21.29%	181
Once a week	25.53%	217
2-3 times per week	34.71%	295
4-6 times per week	11.76%	100
Daily	6.71%	57
TOTAL		850

Q22 Where do you get your fresh fruits and vegetables? Check all that apply.

Answered: 855    Skipped: 194



ANSWER CHOICES	RESPONSES	
Chain Grocery Store (Food Lion, Lowes, Galaxy, Food Matters, Aldi etc.)	92.05%	787
Family Garden/Community Garden	22.69%	194
Farmers Market	34.85%	298
Local Food Pantries	2.34%	20
Local Produce Store	26.43%	226
Roadside Produce Stand	12.75%	109
None- I do not get fresh fruits and vegetables	1.17%	10
Total Respondents: 855		

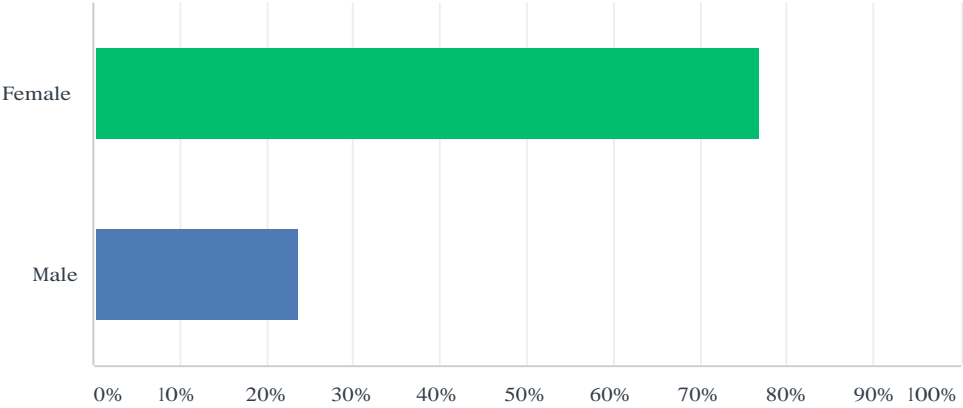
## Q23 How old are you?

Answered: 854   Skipped: 195

Ages of the respondents ranged from 18 to 93. Due to the “write-in” nature of this question, a graph is not available to depict the varied results.

# Q24 Gender?

Answered: 852    Skipped: 197

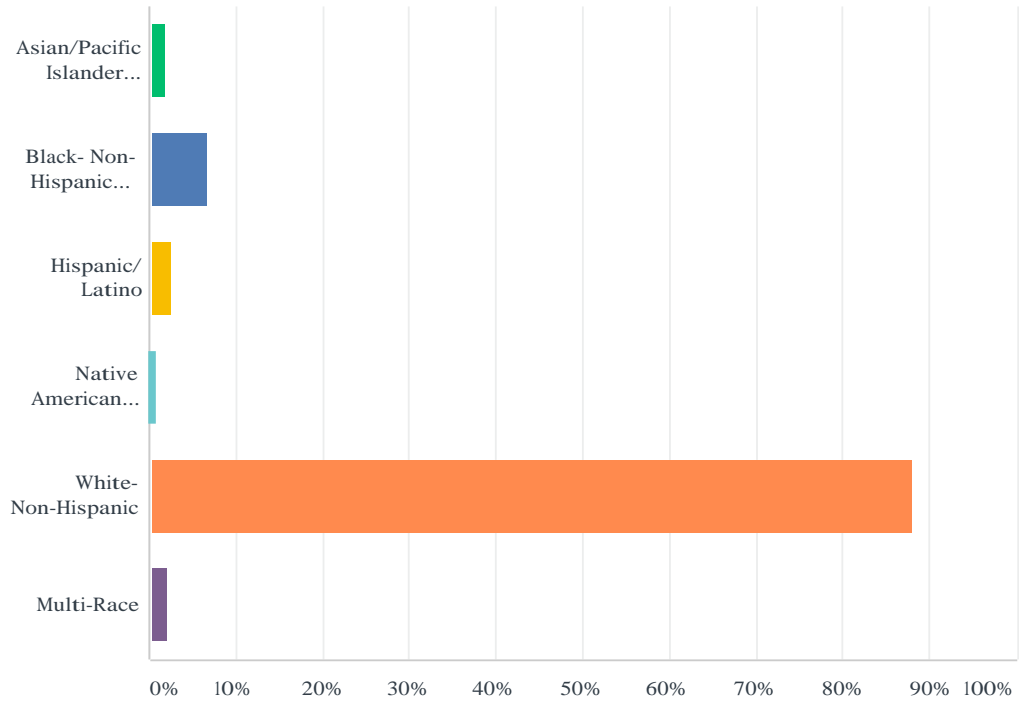


ANSWER CHOICES		RESPONSES	
Female		76.64%	653
Male		23.36%	199
			852



# Q25 What is your race and ethnicity?

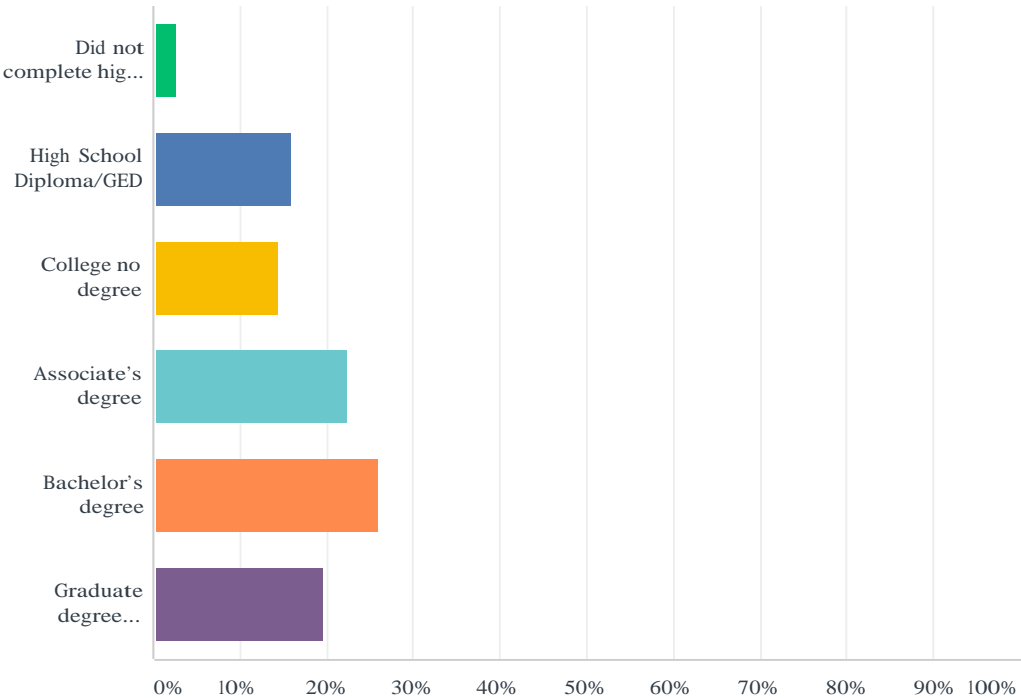
Answered: 851    Skipped: 198



ANSWER CHOICES	RESPONSES	
Asian/Pacific Islander	1.76%	15
Black- Non- Hispanic	6.58%	56
Hispanic/ Latino	2.35%	20
Native American	0.82%	7
White- Non-Hispanic	87.90%	748
Multi-Race	1.88%	16
Total Respondents: 851		

Q26 What is the highest grade you completed in school? Check only one (1) answer.

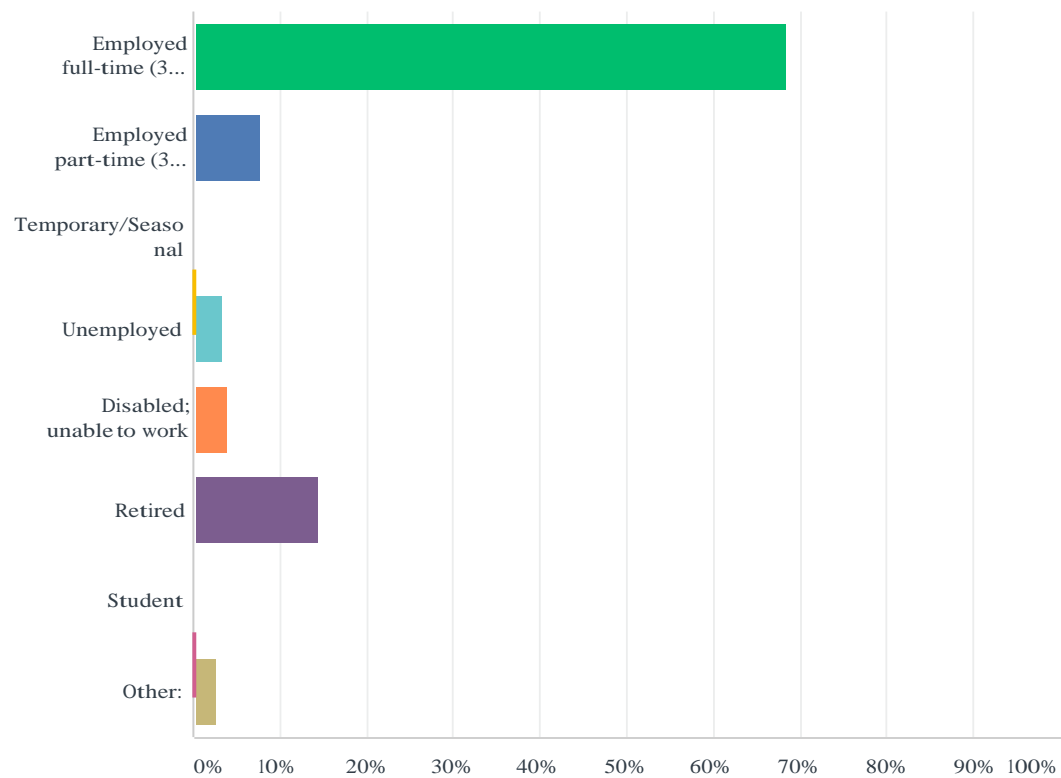
Answered: 855    Skipped: 194



ANSWER CHOICES	RESPONSES	
Did not complete high school	2.57%	22
High School Diploma/GED	15.67%	134
College no degree	14.27%	122
Associate's degree	22.22%	190
Bachelor's degree	25.73%	220
Graduate degree (Masters/Doctoral)	19.53%	167
TOTAL		855

# Q27 How many hours a week do you work?

Answered: 857    Skipped: 192



ANSWER CHOICES		RESPONSES	
Employed full-time (33 + hours per week)		68.14%	584
Employed part-time (32 hours or less per week)		7.47%	64
Temporary/Seasonal		0.35%	3
Unemployed		3.03%	26
Disabled; unable to work		3.85%	33
Retired		14.24%	122
Student		0.35%	3
Other:		2.57%	22
TOTAL			857

## Appendix D: 2019 Burke County Focus Group Results

### Focus Group Discussion Questions

The top themes seen throughout the focus groups are included with each of the discussion questions. The full responses for the focus groups are available from the Burke County Health Department upon request.

#### Question 1: What do you think are the top health issues in Burke County?

1. Drug/alcohol use
2. Behavioral health/mental health
3. Heart disease
4. Obesity
5. Diabetes
6. Tobacco use
7. Elderly assistance/transportation

#### Question 2: What do you think are the most unhealthy behaviors in Burke County?

1. Drugs/alcohol
2. Unhealthy eating
3. Tobacco use/vaping
4. Unprotected sex

#### Question 3: What are the top social issues in Burke County?

1. Lack of housing/affordable housing
2. Lack of affordable healthcare insurance
3. Homelessness
4. Transportation
5. Access to internet (not available in rural parts of county)
6. Poverty
7. Racism

#### Question 4: Do you have children or teens living in or regularly visiting your home? If yes, what are your attitudes and behaviors around substance use?

1. Keep meds in purse and not leave at home
2. Keep in safe place (Lock your meds)
3. Kids should not be drinking at home
4. Lack of monitoring/supervision of kids
5. No alcohol in unlocked spaces
6. Open communication/education about substances

#### Question 5: During the past year, did you have a problem getting medical care you needed?

1. Medicare does not pay enough on bills
2. Co-pays too high

3. Doctor's refusing to see you if you don't have the co-pays
4. Hospital wouldn't take my insurance
5. Very few specialists that accept Medicaid

**Question 6: During the past year, did you have a problem filling a prescription?**

1. Can't afford them and pay other bills
2. Insurance companies force patients to get meds at certain pharmacies due to price
3. Meds not available

**Question 7: During the past year, did you have trouble getting mental health care?**

1. The provider came up with an excuse not to help me
2. Not enough psychiatrists in county
3. Must take children to other counties for counseling
4. Mental health access for youth is low. Difficult time with referrals for access for children
5. Stigma about illness

**Question 8: What is good about living, working, playing, and praying in Burke County?**

1. Burke County has a lot of resources compared to other counties
2. Lots of recreational activities – inside and outdoors
3. Good relationship with law enforcement
4. A lot of churches
5. Community gardens and food pantries to help feed people
6. Agencies work well together
7. Nice people
8. Nice downtown area
9. Taxes good compared to other counties – Cost of living lower
10. New bus route
11. Burke Mission Station
12. County is growing

**Question 9: What are some specific things that you would change to better the health of the community or changes that you would like to see in the future?**

1. Work on the homeless problem. Maybe use some buildings at Broughton and places to use as homeless shelters until people can get back on their feet
2. Have more treatment and recovery options for substance use so family doesn't have to go out of state to recover
3. Hire new government and get rid of the political parties
4. More law enforcement with better pay
5. Decrease nepotism in companies and government at all levels
6. No limits on some of the housing for seniors
7. Teach basic survival skills for youth
8. Change all wages to living wages
9. Need a place for those with mental illness to go during the day instead of a shelter
10. Free bus routes

11. Affordable childcare
12. Provide more prevention education
13. Burke County struggles with an identity problem. What does the county want to be known for textiles? tourism? retirement area? Decide what will be attractive and beneficial for the entire county and promote, attract businesses, and build resources around that identity

## Appendix E: Access to the 2019 Burke County CHNA

**The 2019 Community Health Needs Assessment can be accessed through the following outlets:**

Public Libraries

Burke County Government website

Burke County Health Department website

Carolinas Healthcare System Blue Ridge website

Burke County United Way website

**Community Health Needs Assessment presentations will include:**

Carolinas Healthcare System Blue Ridge Board of Directors

Burke County Board of Health

Burke County Board of Commissioners

Burke County Chamber of Commerce/Business for Breakfast

Townships/Municipalities (Upon request)

Other community groups, organizations, faith community (Upon request)

If your organization/agency is interested in a presentation of the 2019 Community Health Needs Assessment, please contact Lisa Moore, Burke County Health Department, at 828-764-9218 or [lisa.moore@burkenc.org](mailto:lisa.moore@burkenc.org)

## Appendix F: References

- <sup>1</sup>United States Census Bureau. (2017). American Fact Finder: Annual Estimate of the Population: 2017 Population Estimates: table: ACS Demographic and Housing Estimates. Retrieved from <http://factfinder.census.gov>.
- <sup>2</sup>NC Department of Commerce. October 2019. Burke County Profile. Retrieved from <https://accessnc.opendata.soft.com>
- <sup>3</sup>United States Census Bureau. (2017). American Fact Finder: Annual Estimate of the Population: 2017 Population Estimates: table: Age and Sex: Retrieved from <http://factfinder.census.gov/>.
- <sup>4</sup>United States Census Bureau. (2017). American Fact Finder. Annual Estimate of the Population: 2017 Population Estimates: table. Age and Sex: Retrieved from <http://factfinder.census.gov/>.
- <sup>5</sup>United States Census Bureau. (2017). American Fact Finder. Annual Estimate of the Population: 2017 Population Estimates: table. Age and Sex: Retrieved from <http://factfinder.census.gov/>.
- <sup>6</sup>United States Census Bureau. (2017). American Fact Finder: Annual Estimate of Poverty Status: 2017 Poverty Status Estimates: table: Poverty Status in the Past 12 Months. Retrieved from <http://factfinder.census.gov/>.
- <sup>7</sup>United States Census Bureau. (2017). American Fact Finder: Annual Estimate of Poverty Status: 2017 Poverty Status Estimates: table: Poverty Status in the Past 12 Months. Retrieved from <http://factfinder.census.gov/>.
- <sup>8</sup>United States Census Bureau. (2017). American Fact Finder: Annual Estimate of Poverty Status: 2017 Poverty Status Estimates: table: Poverty Status in the Past 12 Months. Retrieved from <http://factfinder.census.gov/>.
- <sup>9</sup>United States Census Bureau. (2017). American Fact Finder: table: Selected Economic Characteristics. Retrieved from <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>
- <sup>10</sup>United States Census Bureau. (2017). American Fact Finder: table: Selected Economic Characteristics. Retrieved from <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>
- <sup>11</sup>Local Area Unemployment Statistics; Bureau of Labor Statistics. Retrieved from [https://accessnc.opendata.soft.com/pages/dashboard\\_laborforce\\_laws/](https://accessnc.opendata.soft.com/pages/dashboard_laborforce_laws/)
- <sup>12</sup>United States Census Bureau. (2017). American Fact Finder: 2013-2017 American Community Survey 5-Year Estimates: table: Commuting Characteristics by Sex: Retrieved from <http://factfinder.census.gov/>
- <sup>13</sup>Burke Development Incorporated. (2018). Largest Employers in Burke County. Retrieved from <http://burkedevinc.com/business-resources/existing-industry/>
- <sup>14</sup>Local Area Unemployment Statistics; Bureau of Labor Statistics. Retrieved from [https://accessnc.opendata.soft.com/pages/dashboard\\_laborforce\\_laws/](https://accessnc.opendata.soft.com/pages/dashboard_laborforce_laws/)
- <sup>15</sup>Burke County Public School Administration
- <sup>16</sup>NC DOA. (2018-2019). 2019 NC Home School Statistical Summary Report: Retrieved from [https://files.nc.gov/ncdoa/18-19\\_Home\\_School\\_Annual\\_Report.pdf](https://files.nc.gov/ncdoa/18-19_Home_School_Annual_Report.pdf)



- <sup>17</sup> United States Census Bureau. (2017). American Fact Finder: American Community Survey: table: Selected Housing Characteristics: Retrieved from <http://factfinder.census.gov/>
- <sup>18</sup> United States Census Bureau. (2017). American Fact Finder: American Community Survey: table: Selected Housing Characteristics: Retrieved from <http://factfinder.census.gov/>
- <sup>19</sup> United States Census Bureau. (2017). American Fact Finder: American Community Survey: table: Selected Housing Characteristics: Retrieved from <http://factfinder.census.gov/>
- <sup>20</sup> United States Census Bureau. (2017). American Fact Finder: American Community Survey: table: Selected Housing Characteristics: Retrieved from <http://factfinder.census.gov/>
- <sup>21</sup> United States Census Bureau. (2017). American Fact Finder: American Community Survey: table: Selected Housing Characteristics: Retrieved from <http://factfinder.census.gov/>
- <sup>22</sup> Burke Integrated Health: Retrieved from <https://www.letstalkcost.com/solutions/6-ways-to-reduce-your-health-care-costs/>
- <sup>23</sup> Carolinas Healthcare System - Blue Ridge
- <sup>24</sup> NC Department of Health and Human Services. 2017. NC State Aging Profile: Retrieved from <https://www.ncdhhs.gov>
- <sup>25</sup> NC State Center for Health Statistics: NC Vital Statistics: table: Leading Causes of Death Volume 2, October 2017: Retrieved from [https://schs.dph.ncdhhs.gov/data/vital/lcd/2016/pdf/Vol2\\_2016\\_PRT.pdf](https://schs.dph.ncdhhs.gov/data/vital/lcd/2016/pdf/Vol2_2016_PRT.pdf)
- <sup>26</sup> NC Public Health Department: Statistics and Reports. (2013-2017): Retrieved from <https://epi.publichealth.nc.gov/cd/stds/figures.html>
- <sup>27</sup> NC State Center for Health Statistics: Statistics and Reports: Vital Statistics: table: Reported Pregnancies 2012-2017: Retrieved from <https://schs.dph.ncdhhs.gov/data/vital/pregnancies/2017>
- <sup>28</sup> NC State Center for Health Statistics: Statistics and Reports: Vital Statistics: table: Reported Pregnancies 2012-2017: Retrieved from <https://schs.dph.ncdhhs.gov/data/vital/pregnancies/2017>
- <sup>29</sup> NC State Center for Health Statistics: Statistics and Reports: Vital Statistics: table: Reported Pregnancies 2012-2017: Retrieved from <https://schs.dph.ncdhhs.gov/data/vital/pregnancies/2017>
- <sup>30</sup> NC State Center for Health Statistics: NC Vital Statistics: table: Leading Causes of Death Volume 2, September 2019: Retrieved from [https://schs.dph.ncdhhs.gov/data/vital/lcd/2016/pdf/Vol2\\_2016\\_PRT.pdf](https://schs.dph.ncdhhs.gov/data/vital/lcd/2016/pdf/Vol2_2016_PRT.pdf)
- <sup>31</sup> NC Tobacco Prevention and Control Branch. 2019. Smoke Free and Tobacco Free Local Government Policies, September 2019: Retrieved from <https://nc.maps.arcgis.com/apps/webappviewer/index.html?id=c878320e7c494e99804005894c7519eb>
- <sup>32</sup> NC County Health Rankings. 2019. Burke County. Health Behaviors, August 2019: Retrieved from <https://www.countyhealthrankings.org/app/north-carolina/2014/rankings/burke/county/outcomes/overall/snapshot>
- <sup>33</sup> NC Tobacco Prevention and Control Branch. 2017. NC Youth Tobacco Survey, Middle and High School Fact Sheet: Retrieved from <https://www.tobaccopreventionandcontrol.ncdhhs.gov/data/yts/docs/2017-YTS-FactSheet-FINAL.pdf>

- <sup>34</sup> NC State Center for Health Statistics: NC Vital Statistics: table: Leading Causes of Death Volume 2, October 2017: Retrieved from [https://schs.dph.ncdhhs.gov/data/vital/lcd/2016/pdf/Vol2\\_2016\\_PRT.pdf](https://schs.dph.ncdhhs.gov/data/vital/lcd/2016/pdf/Vol2_2016_PRT.pdf)
- <sup>35</sup> CDC, NCHS. Underlying Cause of Death 1999-2013 on [CDC WONDER Online Database](#), released 2015. Data are from the Multiple Cause of Death Files, 1999-2013, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed Feb. 3, 2015.
- <sup>36</sup> CDC, NCHS. Underlying Cause of Death 1999-2013 on [CDC WONDER Online Database](#), released 2015. Data are from the Multiple Cause of Death Files, 1999-2013, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed Feb. 3, 2015.
- <sup>37</sup> Mozaffarian D, Benjamin EJ, Go AS, et al. Heart disease and stroke statistics—2015 update: a report from the American Heart Association. *Circulation*. 2015;131:e29-322.
- <sup>38</sup> NC Department of Health and Human Services: Injury and Violence Prevention Branch. 2017. Poisoning Data: Retrieved from <https://www.injuryfreenc.ncdhhs.gov/DataSurveillance/Poisoning.htm>
- <sup>39</sup> NC Department of Health and Human Services: Injury and Violence Prevention Branch. 2017. Poisoning Data: Retrieved from <https://www.injuryfreenc.ncdhhs.gov/DataSurveillance/Poisoning.htm>
- <sup>40</sup> NC Department of Health and Human Services: Injury and Violence Prevention Branch. 2017. Poisoning Data: Retrieved from <https://www.injuryfreenc.ncdhhs.gov/DataSurveillance/Poisoning.htm>
- <sup>41</sup> Morganton Department of Public Safety
- <sup>42</sup> Morganton Department of Public Safety
- <sup>43</sup> Burke Recovery. 2018-2019 PRIDE Survey