

Alexander County Health Department Community Health Assessment



Public Health
Prevent. Promote. Protect.

*Alexander County Health Department
338 1st Ave SW
Taylorsville, NC 28681*

Committee for Community Health Assessment

- Public Health Staff
- Civic Group Leaders
- Health Professionals
- Business Leaders
- County Program Members
- Board of Health Members
- Religious Leaders
- Committee consisted of members from many different segments of our community.

Authors

A smaller steering committee authored and coordinated the community review process.

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Alexander County History and Trivia:

(Courtesy of Alexander Chamber of Commerce)

- In 1751, the area now know as Alexander County was part of Anson County, later to become Rowan, part of Wilkes, part of Burke and part of Iredell. Early pioneers names of this area appear on the Surry County Tax List of 1771, 1772, etc.
- Bishop Spangenburg and a party of fellow Moravians made two surveys in present Alexander County in 1752. He left a diary giving details about lower Little River and our Brushy Mountains.
- Johnathan Barrett, early pioneer who was in this area when Bishop Spangenburg of the Moravians came into this area in 1752, left his name with us in the form of Barrett's Mountain.
- Elk Shoals Creek Settlement was settled as early as 1751. John and William Ireland, Andrew Morrison, Allen Alexander, William Morrison and William McKnight had proprietary land grants from the Earl of Granville.
- According to tradition and records that Daniel Boone had a hunting lodge in present day Northern Alexander County before he made his journey to Kentucky in approximately 1769.
- Little River Baptist Church is the first Baptist Church to be erected in what is now Alexander County in the year 1786. The first association was held in 1771. An old deed gives the date of this Church by calling it the "Old Meeting House". The date of the deed is 1786. {Barnes Deed}
- Alexander County was founded from Iredell, Wilkes and Caldwell Counties in 1847.
- The Baptist Institute later called Baptist Collegiate Institute and much later Taylorsville High School was built on land that at one time belonged to James "Jimmy" James, uncle of the notorious Jesse James.
- Around the turn of the Century All Healing Springs and White-Davis Sulphur Springs were two of Western North Carolina's leading summer resorts.
- William E. White wrote the first history of Alexander County. Mr. White was County Surveyor, County Superintendent of Public Instruction. In 1872 he was elected on the Board of County Commissioners. Mr. White was elected to the State Senate in 1891 from Iredell, Wilkes, and Alexander County.
- The Honorable R. Z. Linney was a famous Western North Carolina lawyer, Alexander County Citizen, and member of the United States Congress. He represented the Eighth Congressional District by serving three terms. His nickname was "Bull of the Business". He also named our train "The June Bug".
- Brantley York who was head master of York Collegiate Institute in Alexander County, widely known educator and minister, organized Union Institute in 1838. It was later renamed Trinity College and later moved to Durham where it is known today as Duke University.
- The first appendicitis operation in North Carolina was performed in Taylorsville, North Carolina in 1896. Dr. Robert Killian performed the operation on the son of Thomas Sharpe of Hiddenite, North Carolina

Community Health Assessment: An Introduction, Method and Results

A community health assessment is the foundation for improving and promoting the health of the community members. It is a process by which community members gain an understanding of the health, concerns, and health care systems of the community. Through collaborative efforts forged among community leaders, public health agencies, businesses, hospitals, private practitioners, and academic centers, a community is able to identify, collect, analyze and disseminate information on community's assets, strengths, resources, and needs. A community health assessment usually culminates in a report or a presentation that includes information about the health of the community as is today and discusses the community's capacity to improve the lives of residents.

In a community-based assessment, as is promoted in the North Carolina Community Assessment Process, community members take the lead role in forming partnerships, gathering health-related data, determining priority health issues, identifying resources, and planning community health programs. In this framework, the assessment process starts with people who live in the community and gives the community primary responsibility for determining the focus of assessment activities at every level.

The concept that individuals and communities can improve and control their health was reinforced by the Healthy People initiative of the United States Department of Health and Human Services. It began with the 1979 publication entitled *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention*. Since that time, subsequent reports including *Healthy People 2000* and *Healthy People 2010* have been published. These have led to the creation of state and local initiatives, such as Healthy Carolinians 2010.

The goals of Healthy Carolinians 2010 do not differ from those of Healthy People 2010. The basic guiding principles are (1) increase quality and years of healthy life; (2) eliminate health disparities among the disadvantaged. In addition to these North Carolina is focusing on improving access to preventive health services, protecting the public's health, fostering positive and supportive living and working conditions in our communities, as well as supporting individuals to develop the capacities and skills to achieve health living.

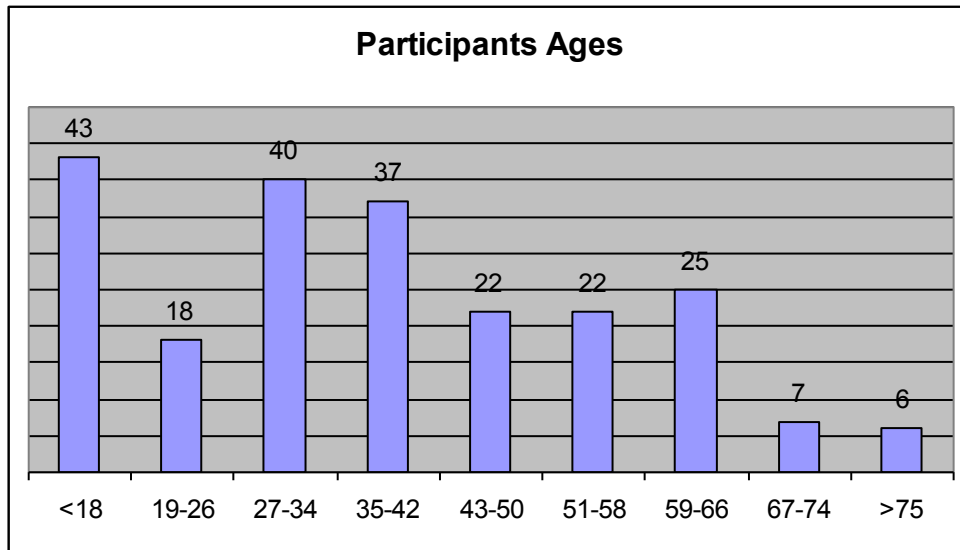
Method

We employed a quantitative, cross-sectional approach to data collection. The authors of this document designed the survey instrument entitled *Alexander County Community Health Assessment Questionnaire*. The participants were asked background information such as age, gender, race, occupational status, and status of health insurance. Participants were also asked to rate 26 health-related questions on a scale of (0) *no problem*, (1) *somewhat of a problem*, (2) *Major problem*, (3) *Unknown*. The survey instrument was distributed via email to Chamber of Commerce business partners and all county employees. Additionally, the survey was distributed to Alexander Central High School students, attendees of a Rotary Club meeting, attendees of a health promotion fair held at the Senior Center, patrons of Spilled Bean coffeehouse, clients of Alexander County Health Department and patrons of various other businesses located within the county.

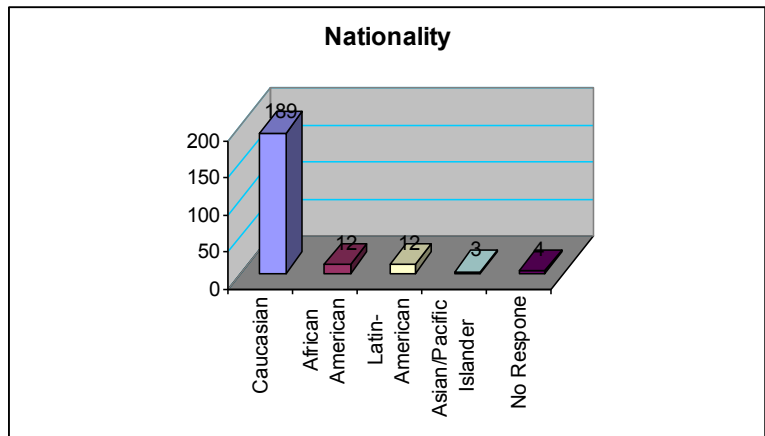
Results

An estimated 600 surveys were distributed. Three hundred and fifty-five surveys were not returned. Twenty-five surveys were returned but were useable for data analysis. Eight surveys were missing data but remained usable for analysis. A total of 220 surveys were used in analysis.

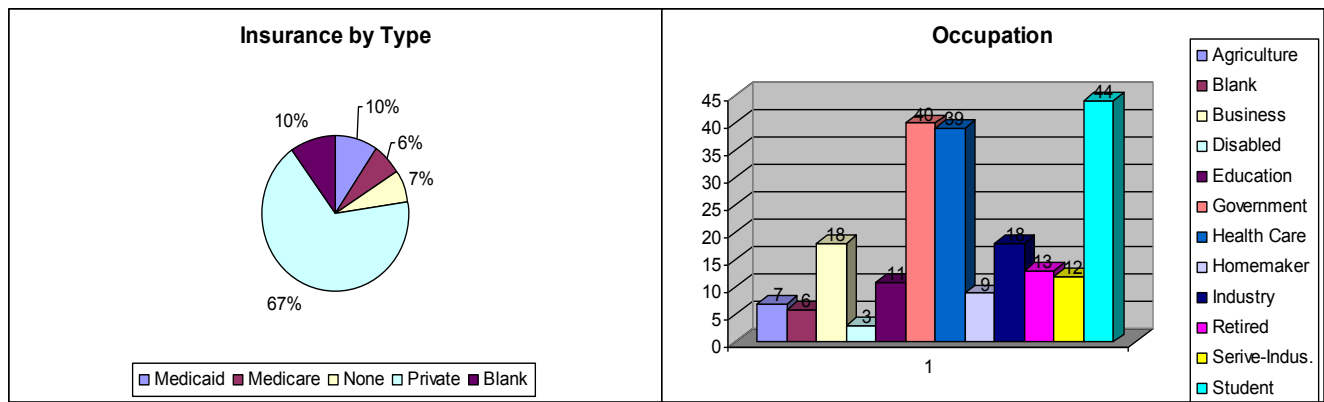
The data from the surveys were analyzed using the Microsoft Excel program. The interpretation revealed that of those participating in the survey 60% were female, 40% were male. Next, the age variable was classified based on a 7-point scale. The total numbers per class are outlined in following graph.



Furthermore we sought to understand the races represented by the participants of the survey. It was concluded that 85.9 % were Caucasian, 5% were African American, 5% were Hispanic, and 1.4% were Asian / Pacific Islander. It should also be noted that 1.8% did not supply an answer to this question.



Other demographic items such as insurance status and occupation were reviewed in this survey. Sixty-seven percent of the total participants were privately insured. See graphs below.



Expanded information as well as survey instrument can be found in appendix A&B.

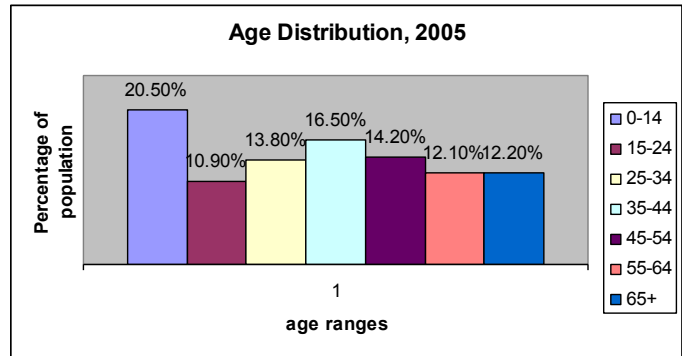
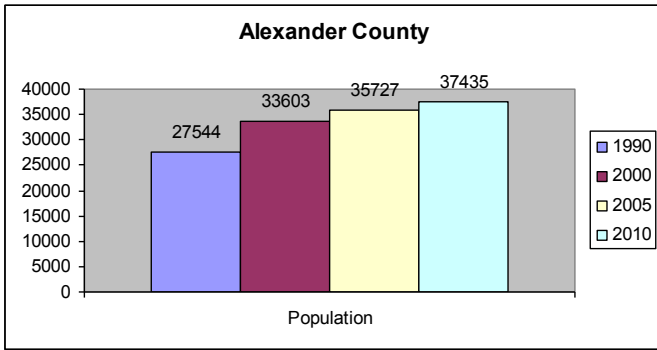


(Courtesy of David Icenhour for Charlotte USA.com)

Alexander County is located in the foothills of the Appalachian Mountains and bordered on the south by the Catawba River. The county covers 263 square miles, and Taylorsville is the county seat and the largest city. Other townships include Bethlehem, Ellendale, Wittenburg, Stony Point, Hiddenite, Sugar Loaf, and Vashti.

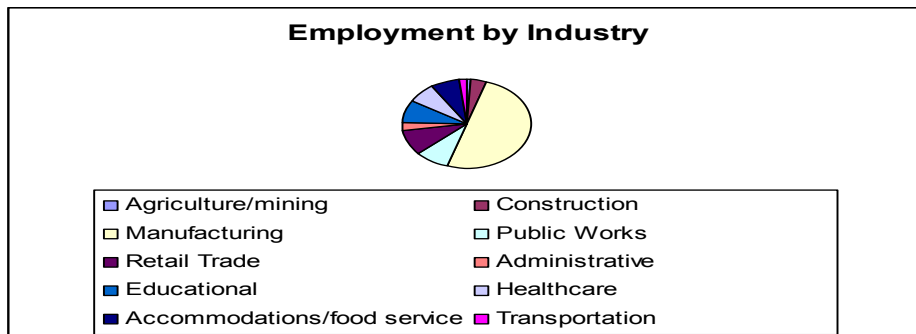
Two-thirds of Alexander County is farmland and major commodities include poultry, dairy, tobacco, apples, and forestry products, grain crops and beef cattle.

The graphs below reveal the population over a 10-year period as well as the age distribution for the county as of 2005.



The majority of county residents (33.9% of the total population) are employed in the manufacturing sector, producing goods such as furniture, textiles, apparel, paper products, electrical components, and lumber products. Of these manufactures the largest is Mitchell Gold and Bob Williams employing roughly 700 individuals. Other major employers in the manufacturing sector are Hancock & Moore, Inc., Craftmaster Furniture Corp., Schneider Mills Industries, Inc., Broyhill Furniture, Clayton-Marcus Furniture, and Shur-Tape Technologies.

In the following chart other areas of employment are depicted by industry. This list is not exhaustive but rather represents the major areas of employment



Other Quality of Life Indicators

The average annual high temperature in Alexander County is 76F, and the average annual low is 38F. Average annual rain 49 inches and average snowfall is 8 inches.

According to the EPA Scorecard, Alexander County ranked among the highest in the nation concerning the amount of poultry waste. Alexander County's total animal waste ranks in the 60%- 70% for the nation as well. Other issues concerning the environmental health of Alexander County include run-off of this nitrogen and phosphorous rich waste leading to impairment of ground water and waterbeds in the county. These statistics should be understood in the context that two-thirds of the county is farmland. Even though the participants of the survey did not list *water supply/quality* as a major concern, Alexander County Public Health officials are taking a proactive approach by implementation of enhanced environmental health efforts beginning in the near future.

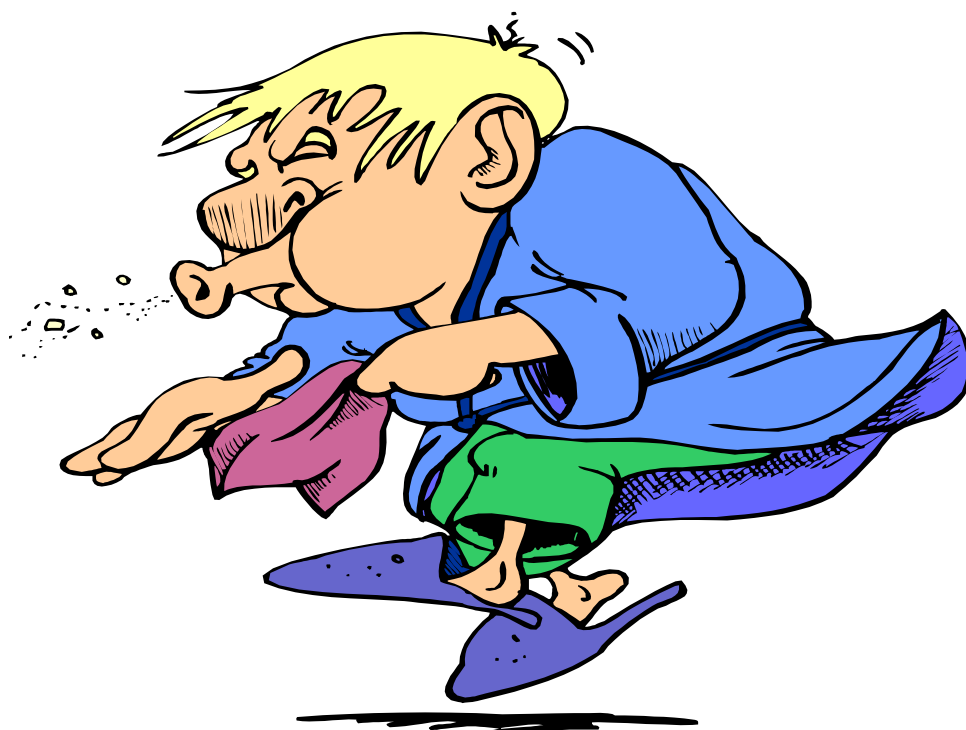
Focus Areas



The Health Assessment Committee prioritized these five areas to focus interventions over the next three years. These areas came from analysis of statistical data, survey results, input from four community forums and committee input.

Focus Areas: Influenza
Asthma
Sexually Transmitted Diseases
Cardiovascular Disease
Mental Health

INFLUENZA



The Flu (Influenza) is a leading cause of death in Alexander County. Influenza was the sixth highest cause of death for our citizens per the State Center for Health Statistics. With the impending potential for a flu pandemic, the committee felt flu was a critical area for focus.

Every year in the United States:

- 5% to 20% of the population gets the flu
- More than 200,000 people are hospitalized from flu complications
- 36,000 people die from flu

The potential deaths from an Influenza Pandemic could cause catastrophic numbers of deaths. There have been three influenza pandemics during the 20th century. The “Spanish” flu pandemic of 1918-1919 was the most notorious; more than 20 to 40 million people died worldwide. In the United States, more than 500,000 people died. The impact of the next influenza pandemic could be devastating on our health care system. Therefore, the committee felt it was imperative to focus on this area for preparedness.

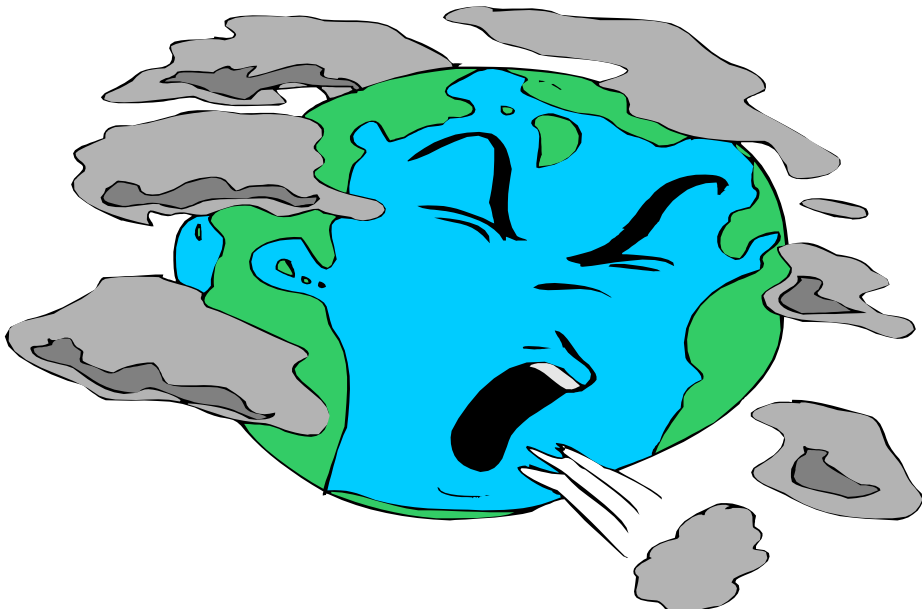
Strategies for Influenza Interventions

- Increase number of residents who receive the flu vaccine
- Collaborate with community resources to develop a pandemic flu plan
- Educate the community on flu prevention and intervention strategies
- Educate the community on home emergency preparedness

Objective:

- 1) Increase public knowledge on seasonal flu versus Pandemic flu
- 2) Reduce influenza death rates and hospitalizations for residents of Alexander County.

Asthma



Asthma

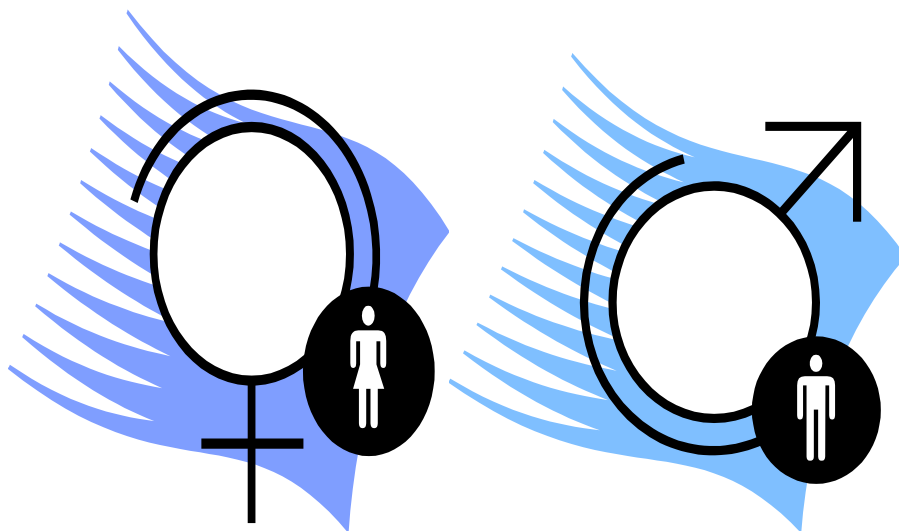
Asthma is the most common chronic condition in school age children in Alexander County. According to the annual school health report more school days are lost from asthma related illness than any other chronic condition. Asthma specialists say children who go untreated for asthma risk developing scar tissue and permanent loss of lung function due to inflammation. Asthma can not be cured, but most people with asthma can control it so that they have few and infrequent symptoms. With improved management individuals with asthma can live active lifestyles.

Smoking appears to be a major contributor to our respiratory death and disease rates. Our percentage of resident live births where mothers smoked during pregnancy has risen since 1999 from 19.7% to 21.7% for 2004. (N.C. County Trends Report) This is substantially higher than the 13.2% for N.C. in 2000-2004.

Objective: By June, 2007, develop Asthma Coalition who will focus on reducing asthma related hospitalizations and increase asthma management.

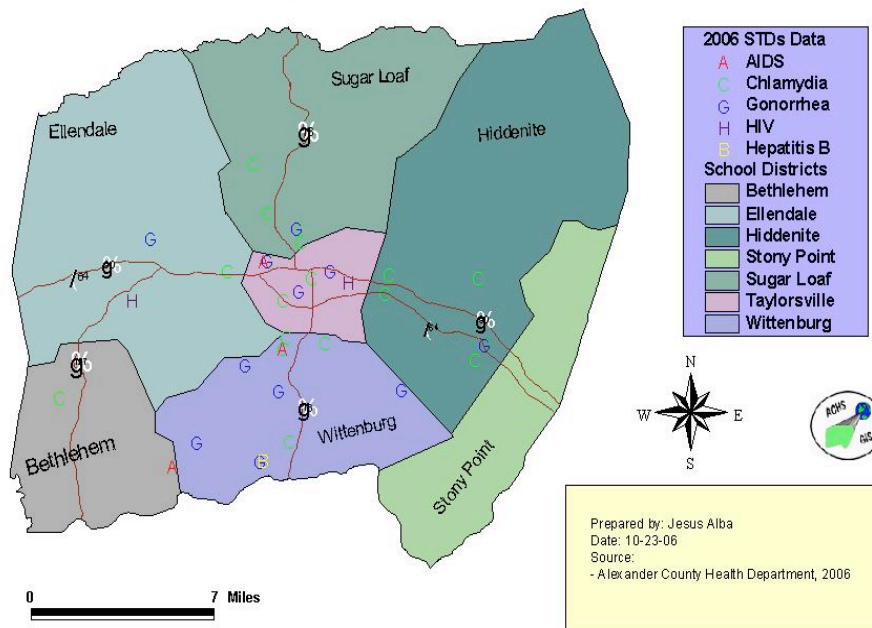
Infectious Disease

Sexually Transmitted Disease

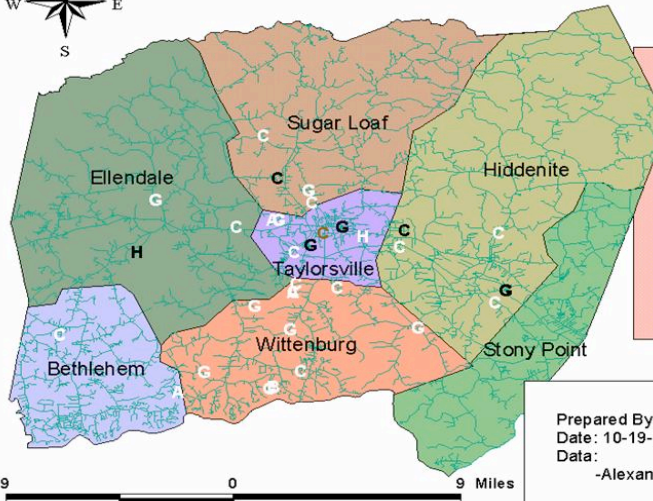
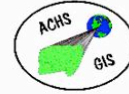


Sexually Transmitted Diseases (STD's) remain a major public health challenge in Alexander County. While substantial progress has been made in diagnosing and treating certain STD's in recent years public health officials estimate a 300% increase in new infections in 2005. In addition to the physical and psychological consequences of STD's, these diseases also exact a tremendous economic toll. Direct medical cost associated with STD's in the United States are estimated at \$13 billion annually as reported by the Centers for Disease Control. Overall trends are increasing in Alexander County despite efforts to increase education and preventive strategies. Twenty eight percent of the documented Sexually Transmitted Diseases are among 13 to 19 year olds. Chlamydia represents 48% of our overall Sexually Transmitted Diseases, with Gonorrhea representing 29%. These trends are consistent with overall statistics in North Carolina. Chlamydia can easily be cured with antibiotics but is often undiagnosed. Chlamydia untreated can cause serious health consequences for women including Pelvic Inflammatory Disease, Ectopic Pregnancy and Infertility.

STDs Compared to School Districts



Comparison of Residents With STDs: Race



Legend

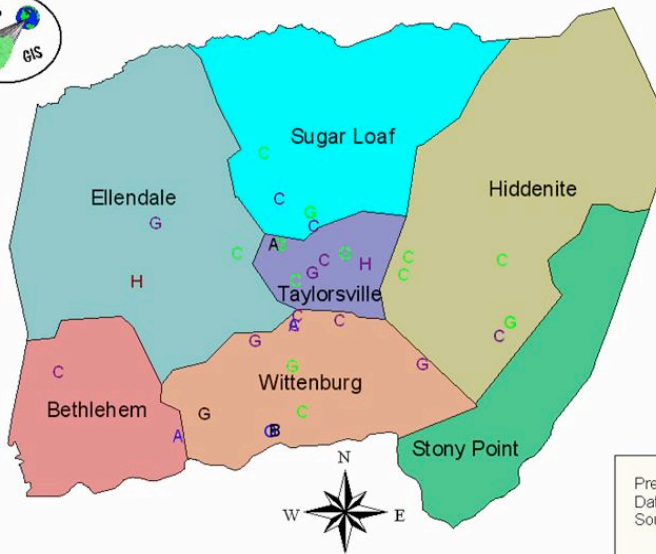
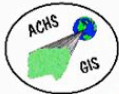
- Hispanic
 - C Chlamydia
- Caucasian
 - A AIDS
 - C Chlamydia
 - G Gonorrhea
 - H HIV
 - B Hepatitis B
- Black
 - C Chlamydia
 - G Gonorrhea
 - H HIV
- Alexander county roads

Prepared By: George Denis
 Date: 10-19-06
 Data: -Alexander County Health Dep., 2006



STDs Compared to Age

Legend



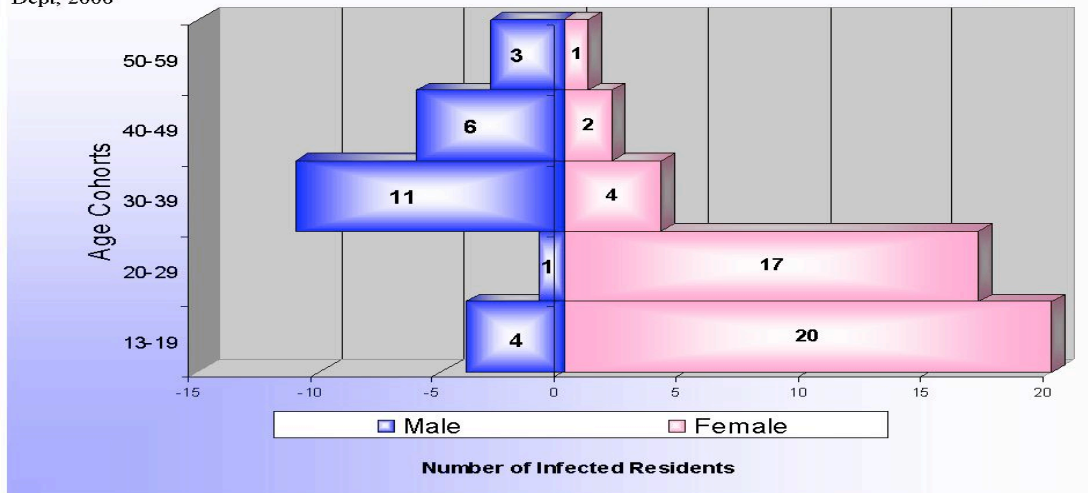
- People Aged 50-59 with STDs
 - A AIDS
 - G Gonorrhea
 - B Hepatitis B
- People Aged 40 with STDs
 - H HIV
- People Aged 30-39 with STDs
 - A AIDS
 - G Gonorrhea
 - B Hepatitis B
- People Aged 20-29 with STDs
 - C Chlamydia
 - G Gonorrhea
 - H HIV
- People Aged 13-19 with STDs
 - C Chlamydia
 - G Gonorrhea
- School Districts
 - Bethlehem
 - Ellendale
 - Hiddenite
 - Stony Point
 - Sugar Loaf
 - Taylorsville
 - Wittenburg

Prepared by: Jonathan Hart
 Date: 10/24/06
 Source: Alexander County Health Dept.



Data: Alexander
 County Health
 Dept, 2006

STDs Analyzed by Age and Gender

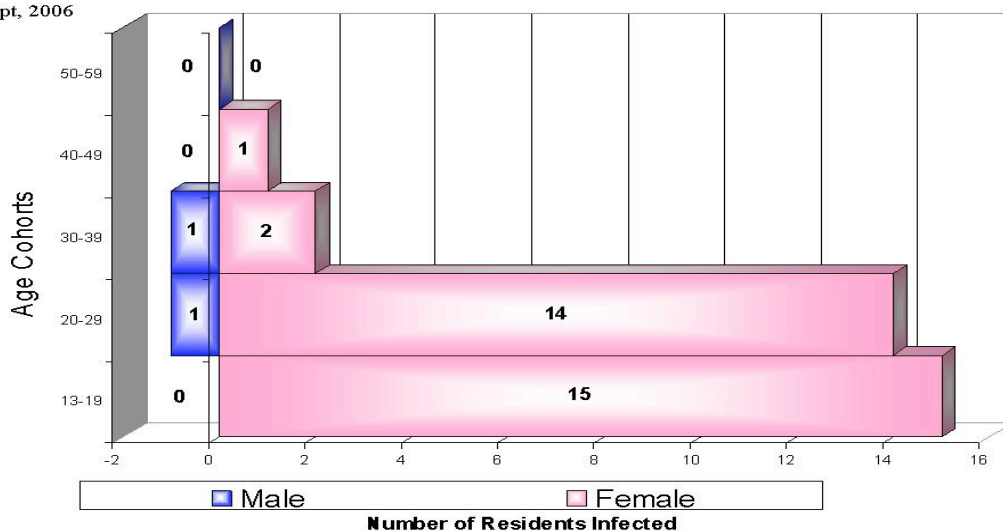


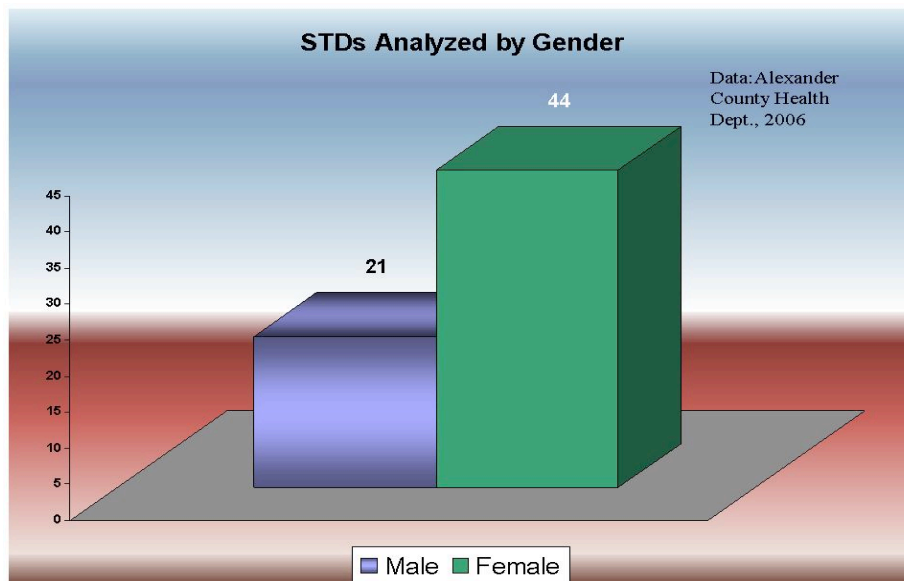
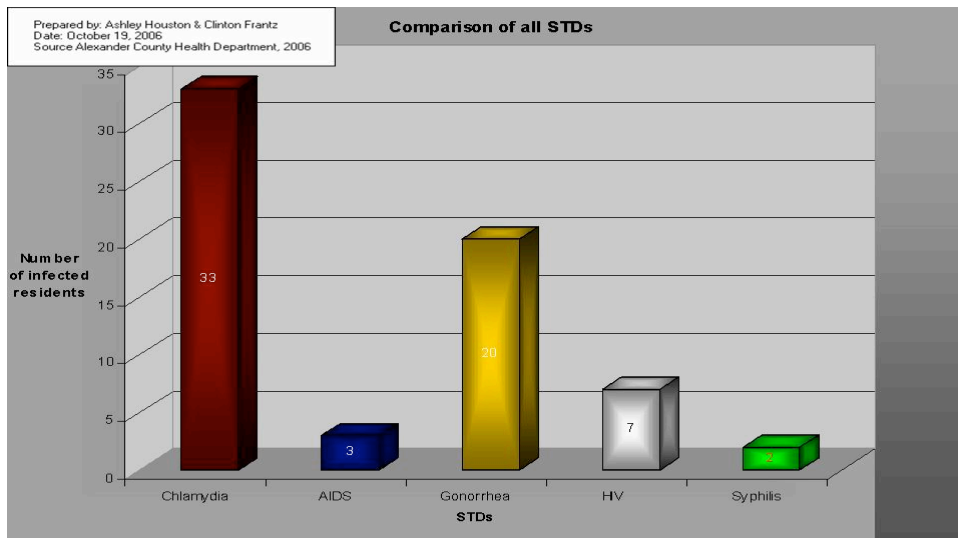
Significant Findings

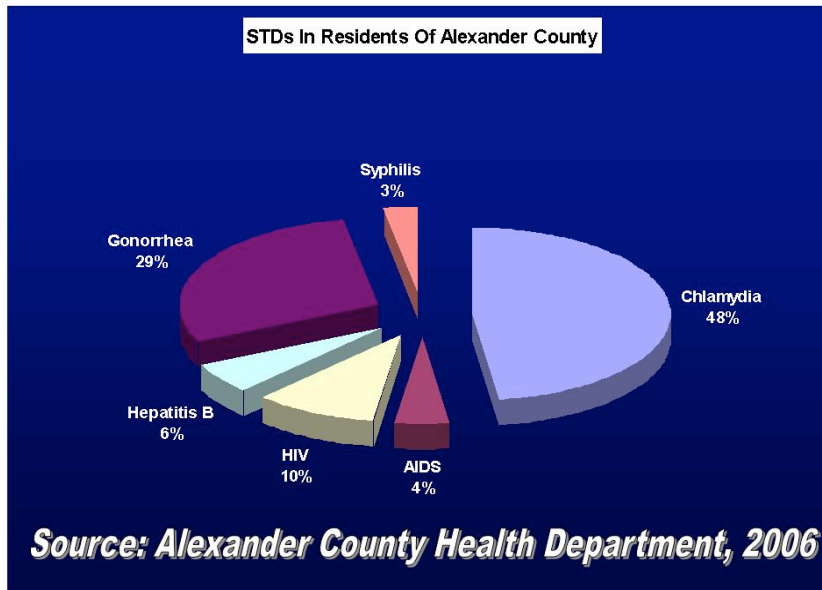
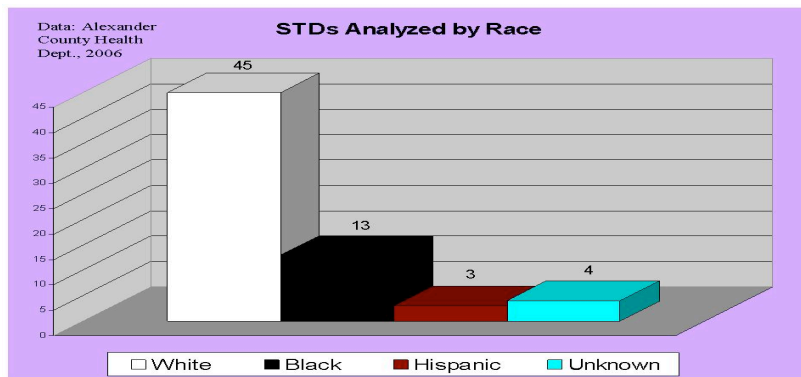
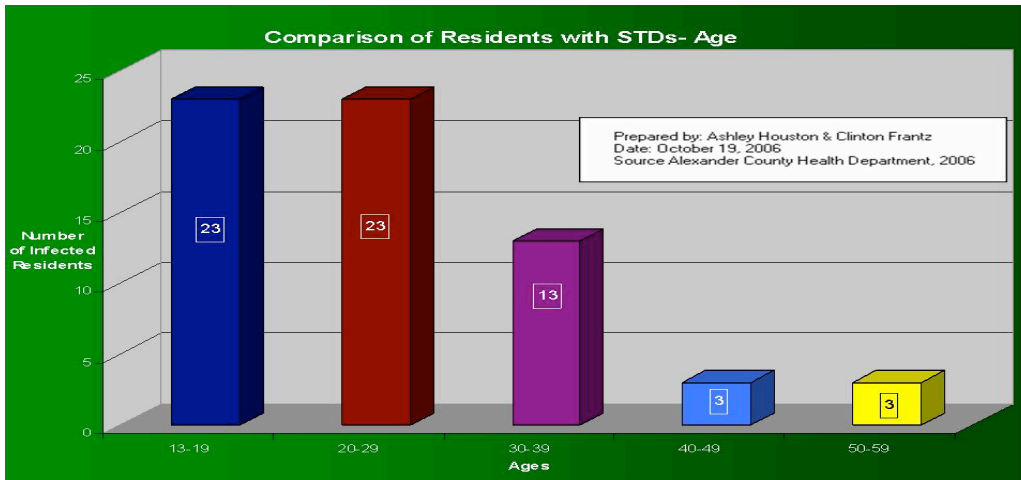
- The female age cohort from 13-19 have over 28% (20 of the 69) of the documented STD cases in 2006 while the same group accounts for less than 5% of the population.
- Females account for over 90% of the county's residents with Chlamydia (22 out of 24) in the same time period. In a 2004 National CDC study, women represented 77% of the people infected with Chlamydia.

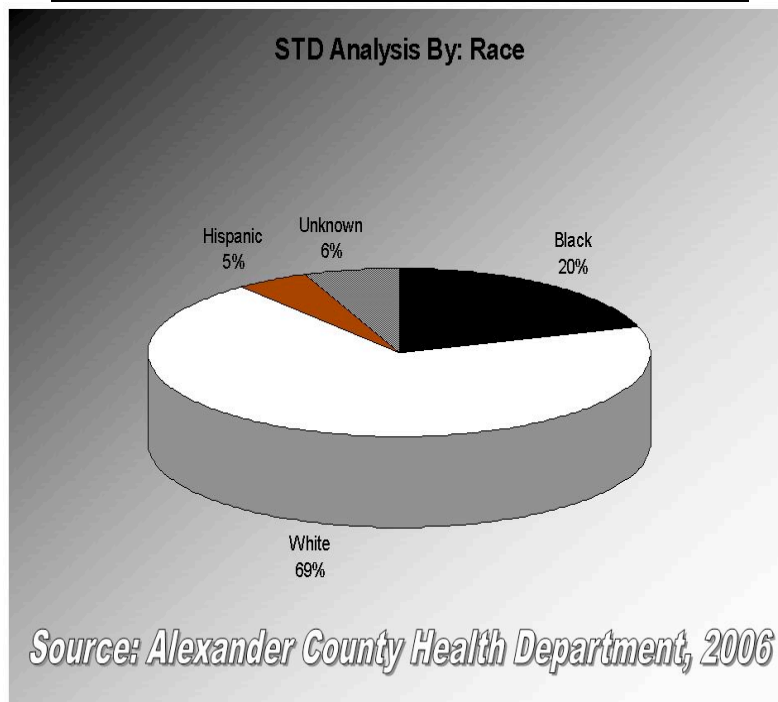
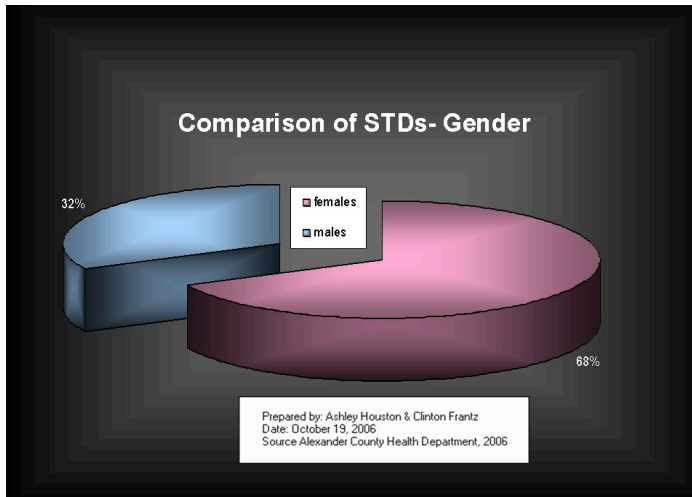
Data: Alexander
 County Health
 Dept, 2006

Chlamydia Cases Analyzed by Age and Gender

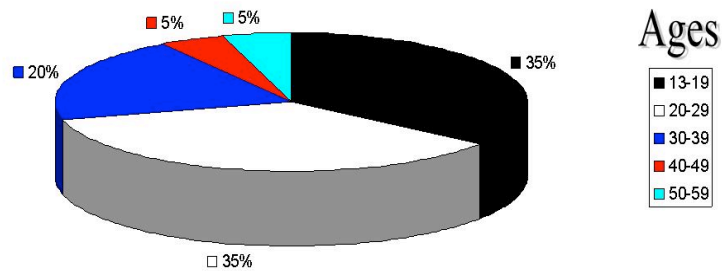








STDS Analyzed By: Age



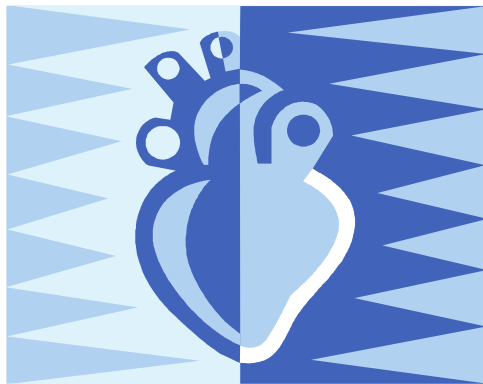
Source: Alexander County Health Department, 2006

Significant Findings

- Chlamydia is the most prevalent STD in Alexander County and accounts for 48% of the STDs
- Females are twice as likely as males to have an STD.
- Whites represent 90.4% of the population, but have 69% of the STDs.
- Blacks represent 4.7% of the population, but have 20% of the STDs.
- Other minorities represent 4.9% of the population, but have 11% of the STDs.
- In a 2004 CDC National Study, Blacks proportionately have more STDs than whites.

Objective: Promote responsible sexual behavior with emphasis on abstinence.

Cardiovascular Disease



Cardiovascular Disease

Heart disease and stroke are the most common cardiovascular diseases. They are the first and third leading causes of death for both men and women in the United States, accounting for nearly 40% of all annual deaths. More than 910,000 Americans die of cardiovascular diseases each year, which is 1 death every 35 seconds. Although these largely preventable conditions are more common among people aged 65 or older; the number of sudden deaths from heart disease among people aged 15-34 has increased.

In addition, more than 70 million Americans currently live with a cardiovascular disease. Coronary heart disease is a leading cause of premature, permanent disability in the U.S. workforce. Stroke alone accounts for disability among about 1 million Americans. More than 6 million hospitalizations each year are because of cardiovascular diseases.

The economic impact of cardiovascular disease on our nation's health care system continues to grow as the population ages. The cost of heart disease and stroke in the United States is projected to be \$403 billion in 2006, including health care expenditures and lost productivity from death and disability.

Risk factors must be addressed. Here are a few of our findings:

- ❖ Statistics from Alexander County School System's 2005 – 2006 Body Mass Index screening of second and fifth grade students showed that out of 933 children screened 266 were overweight with BMI's at or greater than the 95th percentile for age and gender. Seventh grade students were also screened. Of the 389 screened, 98 were overweight (BMI at or greater than 95%) while 83 were considered at risk with a BMI between 85th to 94th percentile for age and gender. Those 181 at-risk and overweight seventh grade students comprise 46.5%, or almost half, of the seventh grade population while 28.5% of the second and fifth graders are considered overweight.
- ❖ To obtain data on physical activity a observational survey was conducted at a local walking trail, two members of the Community Health Assessment Task Force observed a total of five hours, during the summer with temperatures in the 80s and 90s, in a variety of time slots both morning and afternoon hours over two consecutive weekdays at Matheson Park. The findings show a total of 30 children under the age of 6 (33%), 13 between the ages 6-19 (15%), 43 ranged in age from 20-55 (48%), and 4 people were 55 or older (4%) for a total of 90 people using the park. There were 45 females (52%) and 42 males (48%), 21 were walking on the trail (24%) while 61 were using the playground equipment (70%). The visitors to the park in the mornings were almost exclusively young mothers and their children. They played on the playground equipment and nearer the noon hour often brought lunch. A few workers from the factory across the street came over to eat lunch at one of the covered shelters. There were few walkers during the day. The mothers agreed that it was very difficult to push a stroller on the loose, sandy surface

of the walking tracks there. Most walkers were individual walkers who appeared in the late afternoon and early evening observation period. No one used the volleyball net area. A few children enjoyed going down to the small creek to see the tadpoles and small fish. Our study showed a lack of physical activity and a need to repair the walking track. Eat Smart Move More granted our county money to make the necessary repairs.

- ❖ The Alexander County YMCA currently has a membership of 1,233 members. On a monthly breakdown the facility usage is around 63%.

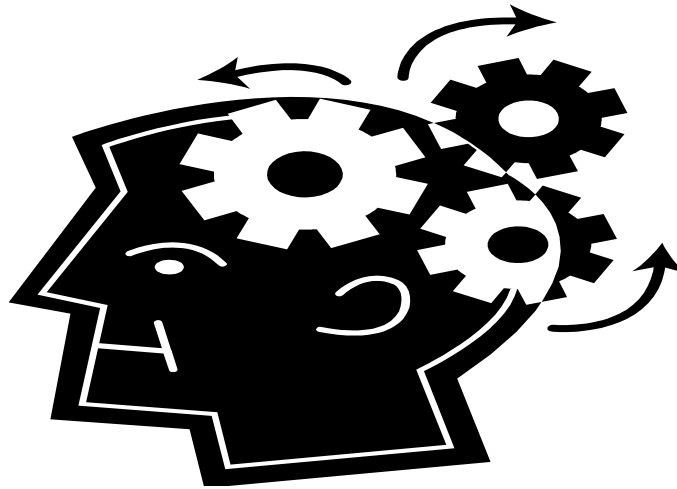
A key strategy for addressing these risk factors is to educate the public and health care practitioners about the importance of prevention. Current national guidelines recommend that all adults have their blood pressure checked regularly and their blood cholesterol levels checked every 5 years. Systems changes are needed to help health care practitioners follow guidelines for treating patients with or at risk for heart disease and stroke, such as prescribing beta-blockers and aspirin. Preventive actions can help people with any level of blood pressure or cholesterol reduces their risk.

People also need to be educated about the signs and symptoms of heart attack and stroke and the importance of calling 911 quickly. Forty-seven percent of heart attack victims and about the same percentage of stroke victims die before emergency medical personnel arrive. Other important risk factors for heart disease and stroke – such as diabetes, tobacco use, physical inactivity, poor nutrition, and overweight and obesity – need to be addressed through lifestyle changes and appropriate use of medications. In a collaborative effort, Cooperative Extension, Health Department and retired Endocrinologist will be teaching strategies for preventing Heart disease and Stroke prevention at a variety of locations. The curriculum includes: physical activity, nutrition, weight management, blood pressure/cholesterol, stroke signs, stress management and tobacco cessation.

References: <http://www.cdc.gov/nccdphp/publications/aag/cvh.htm>

Objective: By June, 2008, the community will establish four programs to address the issues of cardiovascular disease and obesity using a multi-agency approach.

Mental Health



Mental Health and Risky Taking Behavior

Substance Abuse & Mental Health & Responsible Sexual Behavior

- Reduce the proportion of homeless adults who have serious mental illness
- Increase the proportion of local sexually transmitted disease programs that routinely offer Hep. B Vaccines to all STD clients
- Increase the proportion of youth detention facilities and adult city or county jails that screen for common bacterial sexually transmitted diseases within 2 weeks and treat STD's prior to persons are released.
- Increase the proportion of local health department that have contracts with managed care providers for the treatment of non-plan partners of patients with bacterial sexually transmitted disease (gonorrhea, syphilis and Chlamydia)
- Increase the number of communities using partnerships or coalitions to conduct comprehensive substance abuse prevention efforts.

Focus Areas:

Environmental Quality and Tobacco Use

- Increase the proportion of the county's population served by community water systems with optimally fluoridated water.
- Establish laws on smoke free indoor air that prohibit smoking or limit it to separately ventilated areas in public places and worksites.
- Increase the proportion of worksites with formal smoking policies that prohibit smoking or limit it to a separately ventilated area.
- Increase smoke-free and tobacco-free environments in schools, including all school facilities, property, vehicles and all school events.
- Increase the proportion of persons served by community water systems who receive a supply of drinking water that meets the regulations of the Safe Drinking Water Act.

Mental Health Care/ Substance Abuse

Mental health is defined in *Healthy People 2010* as encompassing the ability to engage in productive activities and fulfilling relationships with other people, to adapt to change, and to cope with adversity. Mental health is an integral part of personal well being, both family and interpersonal relationships, and the ability to contribute to community or society. Mental disorders hinder one's ability to maintain mental health. They are conditions that are characterized by alterations in thinking, mood, or behavior, which are associated with distress or impaired functioning.

Mental disorders are indiscriminate and are often profoundly under-recognized. They occur across the life span and affect persons of all races, cultures, sexes and educational and socioeconomic groups. It is estimated that in the US approximately 40 million adults

have a mental disorder. According to data from US Department of Health and Human Services, “At least one in five children and adolescents between the age of 9 to 17 years old has a diagnosable mental disorder in a given year and about 5% of children and adolescents are extremely impaired by mental, behavioral, and emotional disorders.” For both adults and children, these conditions include and are not limited to anxiety, depression, dementia, substance abuse, Alzheimer’s disease, bi-polar disorder, obsessive-compulsive disorder, or post traumatic stress disorder.

Providing community services and care to people suffering from mental illness or emotional distress is a complex endeavor influenced by many individual and community factors and requires a variety of approaches. A primary factor affecting access for rural residents like those in Alexander County is the lack of mental health services and mental health specialty practitioners. Historically a shortage of specialty mental health practitioners persists in rural areas. It is established that rural residents often seek care for mental health concerns in primary care settings, but lack of providers and insurance often lead those with mental health issues to seek care at critical access emergency rooms, such as the one we have in Alexander County. The ER becomes a safety net and sieve through which residents can be directed to the appropriate (outside the county) resource. This situation is especially true of Alexander County residents.

We found that presently only outpatient care exists for substance abuse and mental health care within the county and these are provided on a limited basis, often with a lengthy wait time to obtain an appointment. When community assessment survey data was compiled, participants felt that mental health care and substance abuse were major concerns. Not only do the residents of the county feel these are a major concern, according to statistics provided by Foothills Mental Health, LMA even though the county is small geographically the per capita utilization of mental health and substance abuse services are relatively high. Alexander County residents account for 13% of their overall population served. The other counties served by the Foothills system are Burke, Caldwell, and McDowell. Currently the Foothills Mental Health system is in the process of reorganization and the future of its services and the full scope of its services is an uncertainty.

The goals of the *Healthy People 2010* initiative speak specifically to the need of mental health. The overall goals are to improve mental health and ensure access to quality and appropriate mental health services.

Objective: By December, 2008, Mental Health services opportunity will be increased with focus on substance abuse interventions.

Appendix A. Community Health Assessment Survey

Our goal is to establish what are the specific health care concerns of Alexander County residents. Your response to this questionnaire will help determine what services may be offered in the future. Thank you for your time and participation.

Your age: _____ Gender: _____ Race: _____

What is your job field? (Circle or Enter # corresponding to choices below) _____

1. Agricultural (farmer, rancher)
2. Business (Finance, Sales, attorney)
3. Industry (furniture, construction, factory)
4. Government (county employee, EMS, PD, DOC)
5. Education (teacher, principle, professor)
6. Health (physician, nurse, pharmacy, lab, x-ray, dental)
7. Service Industry (fast food, mechanic, hotel, store clerk)
8. Student
9. Homemaker
10. Disabled
11. Retired

What health insurance do you have? (Circle or Enter # corresponding to choices below) _____

1. Medicaid
2. Medicare
3. Private, employer paid
4. Private, self-paid
5. No Insurance at this time

This section asks your opinion about some services in Alexander County. There is no right or wrong answer-We want to know what you think is the level associated with each problem/condition. Circle your response.

Health and Human Services	No Problem	Somewhat of a Problem	Major Problem	I Don't Know
Quality of school system- all grades	0	1	2	3
911 services responsiveness	0	1	2	3
Access to primary medical care (local Dr.)	0	1	2	3
Availability of Dental services	0	1	2	3
Drug & Alcohol treatment (inpatient/outpatient)	0	1	2	3
Emergency Medical Care (ER, urgent care)	0	1	2	3
Job opportunities-new economic development needed	0	1	2	3
Mental Health care/ counseling	0	1	2	3
Need for smoke free restaurants, store, public spaces	0	1	2	3
Need for transportation to health care	0	1	2	3
Poor air quality contributing to illness	0	1	2	3
Recreation facilities or social programs (all ages)	0	1	2	3
Water supply/ quality	0	1	2	3

This section asks your opinion about the level of problem that you feel Alexander County has with the following diseases, conditions and disabilities. Again there is no right or wrong answer- we simply want your opinion. Circle your response.

Diseases, Conditions and Disabilities	No Problem	Somewhat of a Problem	Major Problem	I Don't Know
	0	1	2	3
Asthma/ Lung Diseases (COPD, Emphysema)	0	1	2	3
Abuse (domestic, child or elder)	0	1	2	3
Cancer (any type)	0	1	2	3
Chronic Pain (fibromyalgia, RLS, degenerative disk disease)	0	1	2	3
Diabetes	0	1	2	3
Heart Disease (heart attacks, congestive heart failure)	0	1	2	3
High Blood Pressure	0	1	2	3
HIV/AIDS/HEPATITIS	0	1	2	3
Kidney Disorders (stones, on dialysis)	0	1	2	3
Mental health problems (anxiety, depression, Bi-polar)	0	1	2	3
Migraines	0	1	2	3
Pneumonia/Flu	0	1	2	3
Sexually Transmitted Diseases	0	1	2	3
Stroke	0	1	2	3
Substance Abuse (illegal drugs, alcohol)	0	1	2	3

Please return this questionnaire to County Health Dept Representative/Employee or Fax to 828 635-***

Appendix B Results and Rationale

Since the work of any County Health Department is focused towards the population of the county, it seemed logical and necessary to classify the survey questions into three specific focus areas based on accepted Public Health Practice standards and the Minnesota Department of Health's *Public Health Intervention Wheel, 2002 edition*.

The first focus area is a Community approach. In Community –focused approach the goal is to change the community norms, community attitudes, community awareness, community practices, and community behaviors. Interventions are directed toward the entire population within the community in an effort to improve the health of the community as a whole.

The next focus area is a Systems approach. In a Systems-focused approach the goal is to elicit change at the organizational level, working toward changing policies, laws, and power structures. The focus is not directly on individuals and communities but on the systems that impact health. Changing systems is often a more effective and longer lasting way to impact population health than requiring change from every single individual in the community.

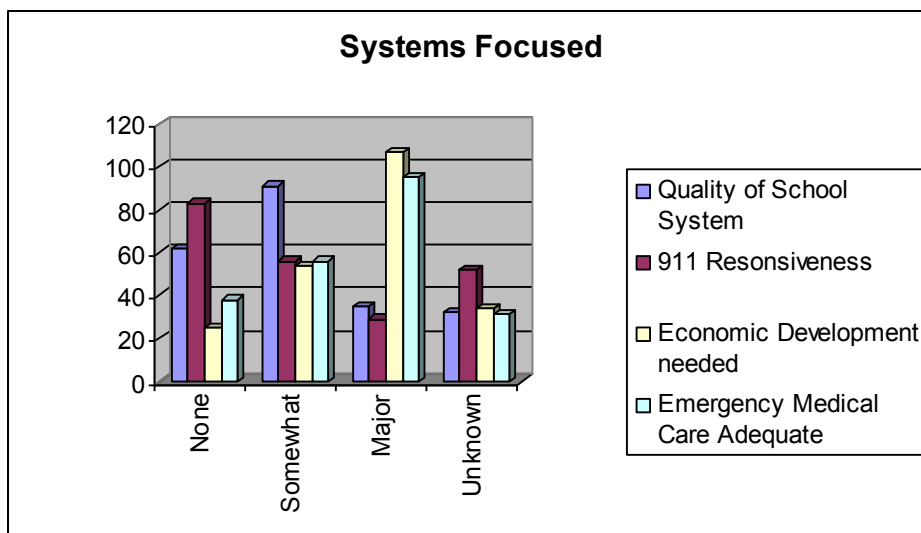
The last focus area is an Individual approach. In an Individual-focused approach the goal is to affect changes in personal knowledge, attitudes, beliefs, practices and behaviors of the individuals of the community. Care is taken to ensure individuals in at-risk populations are identified and served as effectively as possible.

We also sought to classify the diseases, conditions and disabilities identified by our survey participants into two groups: acquired and intrinsic. Acquired diseases, condition or disabilities are generally attributed to influences outside the person, such as environment, social-economic factors or produced by contagious organisms. Interventions to reduce or

eliminate these conditions would be focused at the systems and community level. Specific treatment would focus care at the individual level.

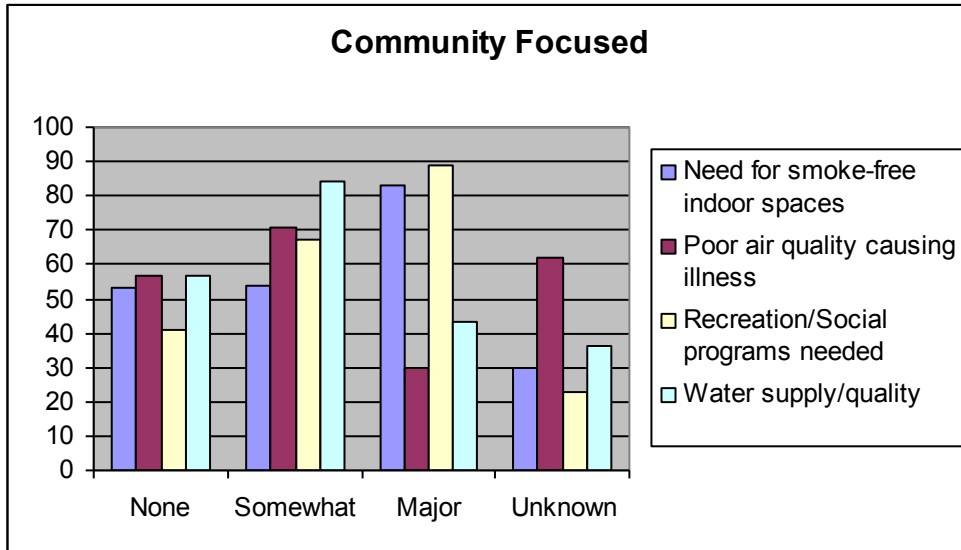
Intrinsic diseases, conditions or disabilities are those that originate within the person and can be attributed to a genetic predisposition or brought about by personal risk factors. These conditions are ones that are not generally considered contagious. Any interventions for treatment would therefore be focused at the individual, with interventions targeting prevention and health promotion focused at the community and systems level.

In the systems focused areas of investigation the questions included rating *quality of school system for all grades, 911 services responsiveness and jobs- need for economic development* on the scale of 0- no problem, 1- somewhat of a problem, 2- major problem and 3- unknown problem. Consistently the area that stood out that survey participants felt was a major problem was *jobs-need for economic development* at 49%. The second highest percentage in the major category was *emergency medical care* (43.2%). The next area was *quality of the school system* (41.4%) being somewhat of a concern.



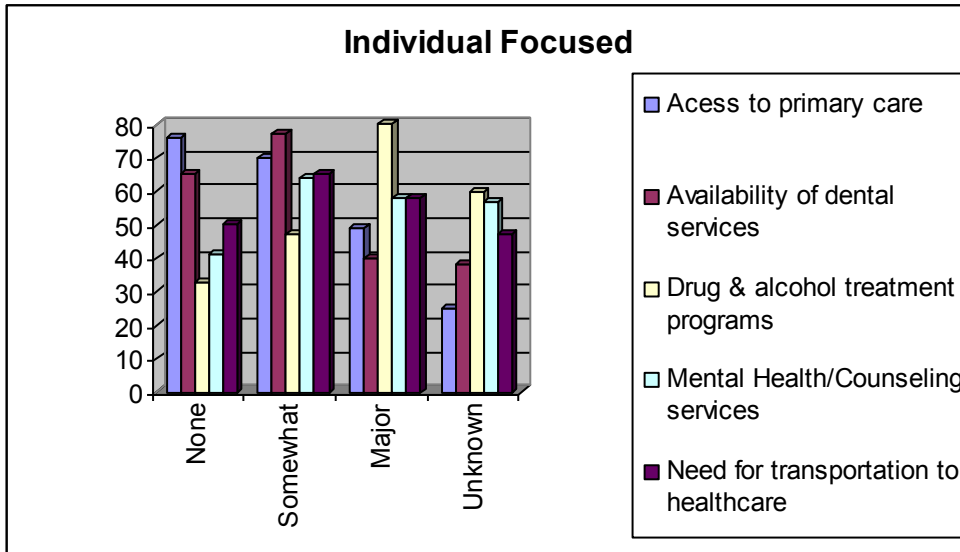
The next areas of investigation were the community-focused questions. These included rating the *emergency medical care, need for smoke-free indoor spaces, poor air quality contributing to illness, recreation facilities or social programs and water supply/ quality* on the same scale previously mentioned. In this section we found that the survey participants rated *recreation/social programs needed* highest at

40.5%, followed by at need for smoke-free indoor spaces at 37.7%. It should also be noted that 38.2% of those taking the survey felt that water supply/quality was somewhat of a problem.



Dealing with the individual focused questions, we found that participants rated *drug & alcohol treatment programs* (36.4%) and *mental health care/counseling* (26.3%) as major problems in the county. When grouped together, these 2 areas account for 62.7% of the survey participants believing these were a major problem. *Availability of dental services*, and *access to primary care*, both rated (35%) as somewhat of a problem.

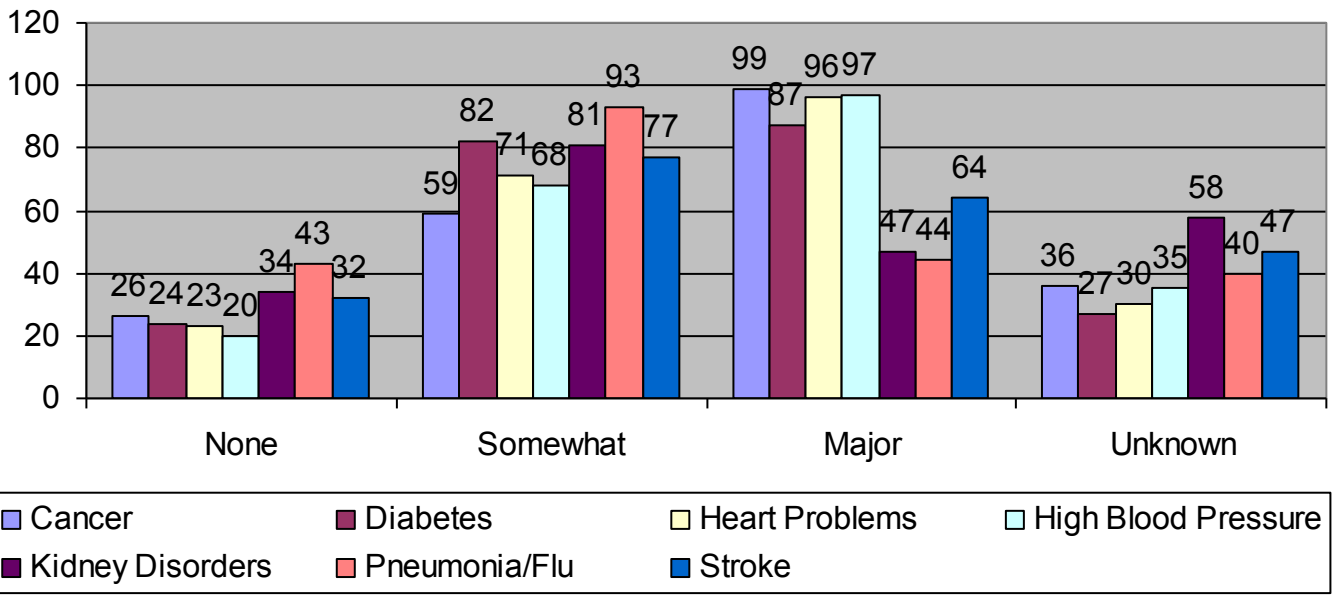
Alexander County is considered a rural area. National Public Health and other governmental agencies recognize that rural residents have greater difficulty accessing primary health care than their urban and sub-urban counterparts. The *Healthy People 2010* initiative has a sub-set of priorities devoted strictly to Rural Health Disparities. In the report by Public Health experts show that 73% of rural population identified access to health care as a major need. Other items identified nationally include need for mental health services at 49%, and need for dental services at 41%.



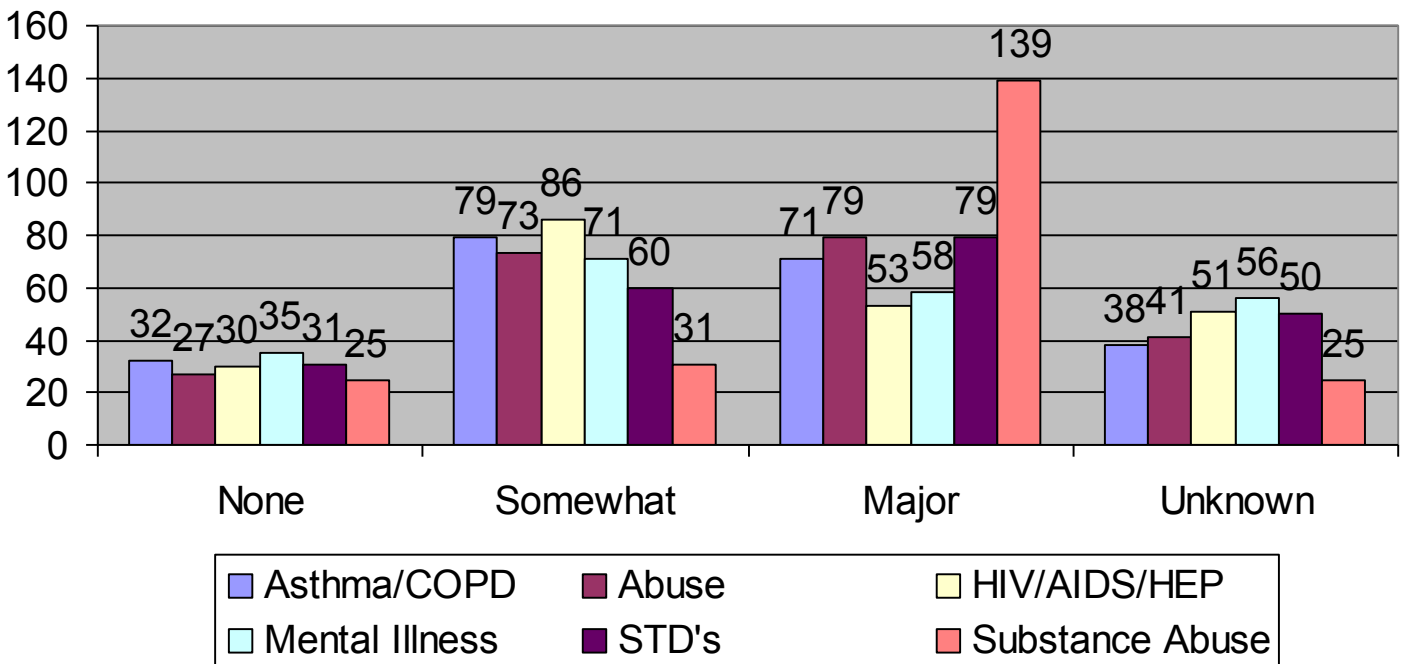
Diseases, conditions and disabilities:

After a review of the above survey data and the statistical data, we selected five of the identified health issues for Alexander County and the Health Department to focus our prevention, promotion and health restoration efforts towards. These areas are asthma/tobacco, influenza, sexually transmitted diseases, cardiovascular/cerebrovascular disease, and substance abuse/mental health.

Intrinsic Disease/Conditions



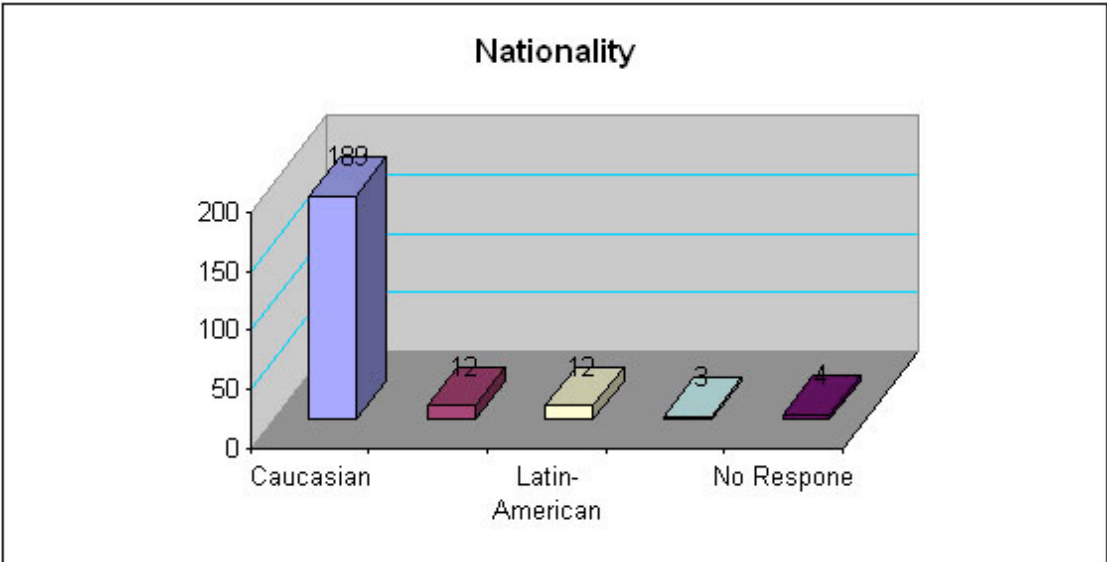
Acquired Disease/Conditions



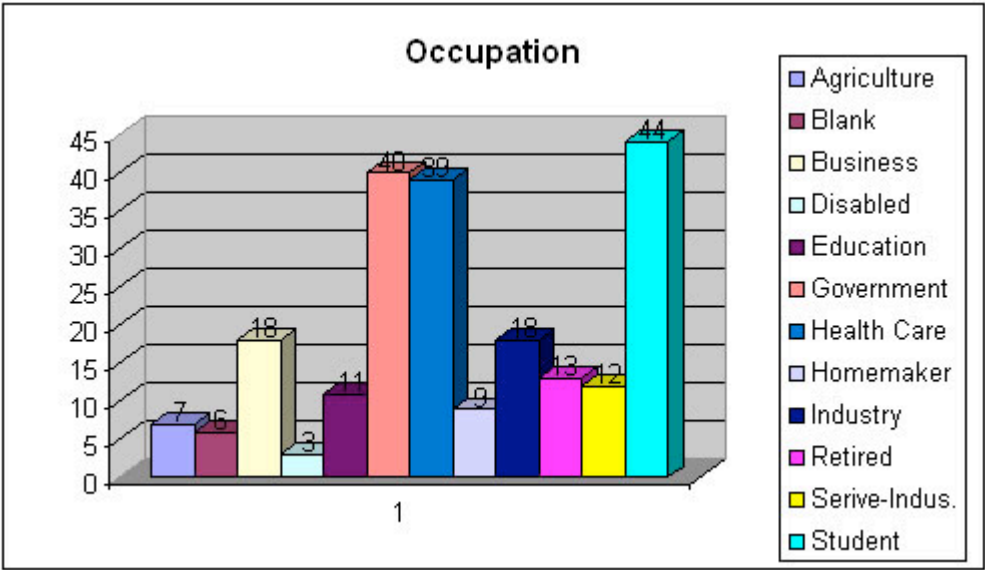
Comments made by survey participants:

- 36yr old male writes, “Meth. is killing our community- I see the effects often, it makes all others (problems) small time. DSS, EMS, law enforcement, education all suffer!”
- 15yr old female writes concerning the quality of the school system, “School nurses needed”
- 26yr old female writes, “Access to medical care is a major problem, it is hard to get in with good Doctors. New patients end up with a P.A.” also she says “Need more recreation facilities and social programs for the youth and young adults.”
- 18yr old female write, “Alexander County does a great job and has for as long as I have been here, but I’m sure some things can be helped more than others.”
- 35yr old male writes, “There is no push in the school system for higher education”
- 15yr old female writes concerning the need for more recreation facilities and social programs, “a child died trying to have fun, he was killed by a drunk driver. We need something!!”

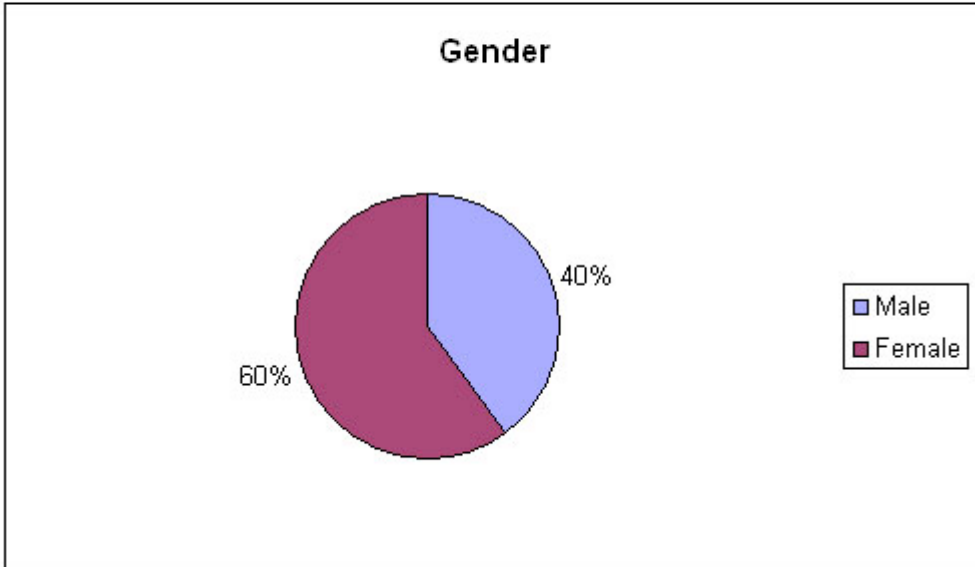
Caucasian	189
African American	12
Latin-American	12
Asian/Pacific Islander	3
No Response	4



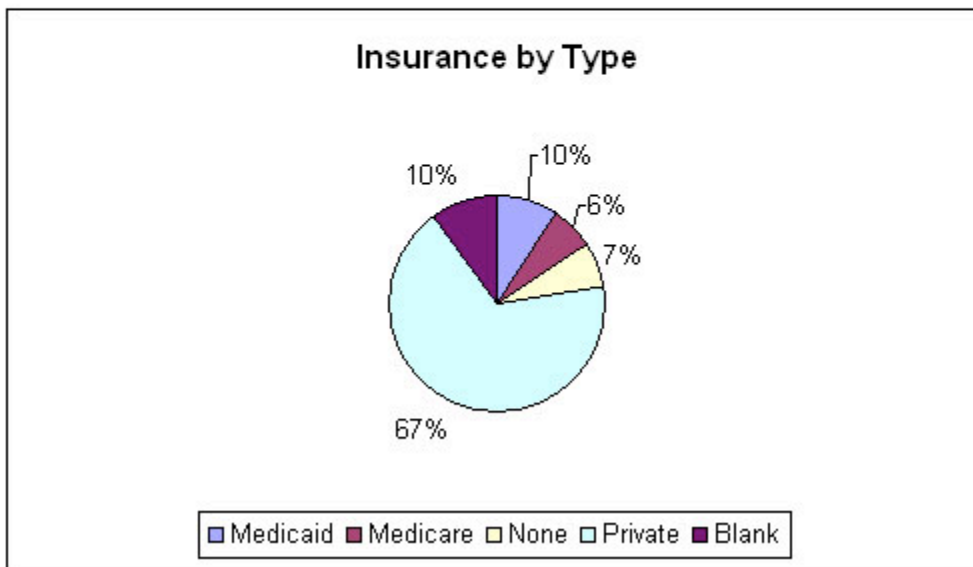
Agriculture	7
Blank	6
Business	18
Disabled	3
Education	11
Government	40
Health Care	39
Homemak	9
Industry	18
Retired	13
Sevive-Indu	12
Student	44



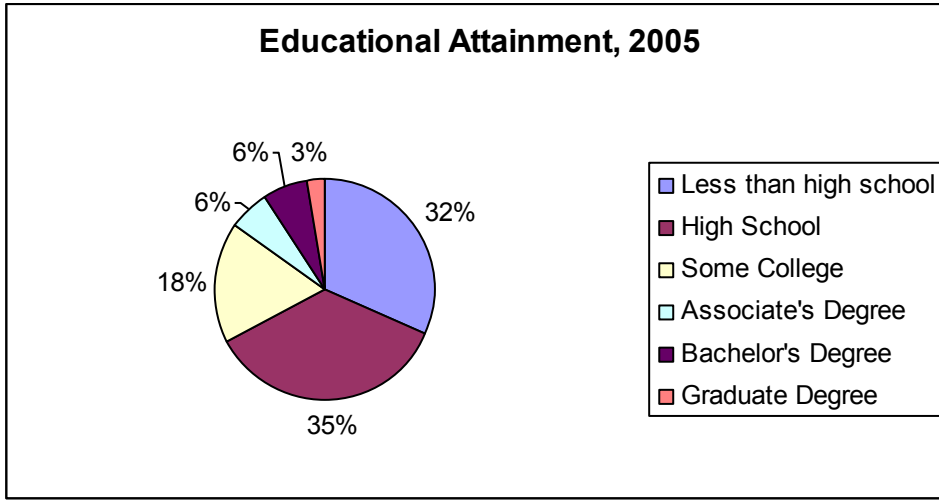
Male	88
Female	132



Medicaid	21
Medicare	14
None	15
Private	148
Blank	22



Section 3- Social Factors



Crime rate, unemployment rate and educational attainment account for many of the socio-economic indicators of the county and can help explain increased incidents of certain health conditions. The crime statistics provided in the following table reveal an increasing trend in the arson, assault, and violent crime rates. It can be concluded that with an increase in the substance abuse rates the rates of crime- including the more violent crimes- can logically be expected to increase.

Year	Index Rate	Violent Rate	Property Rate	Murder Rate	Rape Rate	Robbery Rate	Assault Rate	Burglary Rate	Larceny Rate	MVT Rate	Arson Rate
1996	2,131.40	142.5	1,988.90	9.9	6.6	26.5	99.4	735.9	1,113.80	139.2	9.9
1997	2,115.50	127.5	1,988.00	6.5	3.3	16.3	101.4	595.1	1,252.30	140.6	3.3
1998	2,239.50	125.5	2,114.00	6.4	16.1	6.4	96.5	704.7	1,300.00	109.4	19.3
1999	2,300.80	97.2	2,203.60	3.1	9.4	9.4	75.2	793.1	1,297.70	112.8	15.7
2000	2,720.00	181.5	2,538.50	6	11.9	29.8	133.9	934.4	1,428.40	175.6	8.9
2001	2,722.00	148.1	2,573.90	3	8.9	26.7	109.6	989.3	1,395.10	189.6	8.9
2002	2,382.10	197.3	2,184.80	2.9	8.8	17.7	167.8	745	1,272.00	167.8	11.8
2003	2,664.80	131.5	2,533.30	5.8	29.2	14.6	81.8	955.5	1,361.60	216.2	23.4
2004	2,386.20	121.6	2,264.60		17.4	17.4	86.9	897.7	1,222.10	144.8	20.3
2005	2,538.40	213.4	2,325.00	5.7	22.8	22.8	162.2	879.3	1,257.80	187.8	28.5

(Courtesy of NC SBI-Div. of Criminal information website)

Unemployment rate usually is a social economic consideration for an increased crime rate. Alexander County's reported unemployment rate is 5.5%. These numbers are strikingly high considering the relative small population of Alexander Co. compared to the percentages to the state average of 5.2% and the national average of 5.1%, according to the US Department of Labor's 2005 report.

An indicator of future success and earning potential can be found in the educational attainment of a county's residents. Alexander County currently has 5,688 students enrolled in its school system. The following graph depicts the percentage of total population, (age 25 years or older) highest level of education completed. Notice that the percentage of individuals with the total educational attainment of high school or less accounts for 67% of the total population. This number may be startling but it is not completely surprising since the major industries of the county do not require higher education. Also lower than state and national averages is the per capita household income for Alexander County-\$20,933 for the year 2005.

