2013 Mecklenburg County Community Health Assessment

A Profile of Health Indicators and Prevention Priorities for Our Community

Mecklenburg County Health Department

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MECKLENBURG Healthy Carolinians

Creating a Healthy Mecklenburg Together.

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EXECUTIVE SUMMARY

INTRODUCTION

In the practice of public health practice, the community is the patient and the health of the community is monitored and evaluated on a regular basis by examining key indicators such as infant mortality, communicable disease rates and leading causes of death. Every four years, the Mecklenburg County Health Department conducts a more extensive examination of community health indicators through a state developed process known as a community health assessment (CHA). In addition to providing a picture of the community's health, the CHA meets requirements for state accreditation and funding. Findings from the CHA are used by the Health Department for strategic planning and to develop or support collaborative community action addressing identified priority issues. The Community Health Assessment includes a review of community health indicators, a community opinion survey, a community priority setting activity and action planning on leading priorities.

HIGHLIGHTS: MECKLENBURG COUNTY COMMUNITY DATA OVERVIEW

Leading Causes of Death

- Cancer and cardiovascular disease are the leading causes of mortality, resulting in over 50% of deaths in Mecklenburg County each year. However, mortality rates from cancer, heart disease and stroke have declined steadily over the past five years. This decline may be partially due to prevention efforts but can also be largely attributed to improved treatment.
- As the mortality rates for cancer, heart disease and stroke have declined, death rates from Alzheimer's disease have remained steady, moving it ahead of stroke as the third leading cause of death during 2008-2012.
- The 5th leading cause of death is chronic lower respiratory disease (chronic obstructive pulmonary disease, chronic lower bronchitis and emphysema).
- Unintentional injury is the 6th leading cause of death for the total population, the leading cause of death for those 1-44 years of age and is among the top leading causes of death for Hispanics.
- Diabetes is the 7th leading cause of death and a major contributor to the development of heart disease, blindness, kidney disease and amputation. Approximately 9.5% of Mecklenburg residents report having diabetes.

(NC SCHS Vital Records, 2014, County Data Book and BRFSS)

Health Disparities

- Mortality rates in Mecklenburg County compare favorably with the state and the nation, especially the rate of death from heart disease which is well below that of the US. However, while rates of death are decreasing for most groups, not all residents experience positive outcomes equally.
- African Americans have higher mortality rates than Whites for nearly every type of cancer. Between 2008 and 2012 in Mecklenburg County, black men died from prostate cancer at a rate 3.4 times that of white men. African Americans also die at higher rates than Whites from heart disease, stroke and diabetes. Between 2008 and 2012, African Americans died from diabetes at a rate 3.1 times that of Whites.

- Mortality rates from chronic diseases for Hispanics are lower than other groups because this population group as a whole tends to be younger than other race and ethnic groups in Mecklenburg County. However, nationally, data show that changes in health behaviors such as diet and exercise in some Hispanic immigrants to the US are resulting in rising rates of chronic disease in this population.

(NC SCHS 2014 County Data Book).

Maternal, Child and Infant Health

- In 2012, there were 13,848 births in Mecklenburg County; one out of every five babies born was to a Hispanic mother.
- Almost 33% of births from 2008 through 2012 were delivered by Caesarean section.
- The infant mortality rate in Mecklenburg County has declined for the past 10 years; in 2012, it was 5.3 infant deaths per 1,000 live births, better than the state and the nation. However, between 2008 and 2012, African American infants died at a rate almost four times that of White infants.
- Since 2000, the pregnancy rate in Mecklenburg teens ages 15-19 has decreased by 51% from 72.8 per 1,000 girls15-19 years of age to 35.9 in 2012. However, there are still more than 1,100 teen pregnancies a year.

(NC SCHS 2014 County Data Book).

Access to Care

- In 2012, approximately16.5% or 160,000 Mecklenburg residents were uninsured, more than the combined populations of Cornelius, Davidson, Huntersville, Matthews, Mint Hill and Pineville; 23% of the non-senior adult population, ages 18-64 years, in the county and 6% of the children were uninsured.
- Per the US Census, an estimated 37% (54,300) of uninsured Mecklenburg residents, ages 16-64 years, work full-time jobs.
- The number of uninsured is expected to change with implementation of the Affordable Care Act.

(US Census, American Communities Survey 2012).

Sexual Behavior

- In 2011, 50% of Mecklenburg high school students reported every having sex and 35% reported having sexual intercourse with one or more partners in the past three months. Among those who had sex in the past three months about 61% reported using condoms and 26% reported drinking alcohol or using drugs before last sexual intercourse (MCHD YRBS 2011).
- In 2011, Mecklenburg County reported 246.7 cases of Gonorrhea per 100,000 population compared to 179.9 for North Carolina (NC DPH Epidemiology STD/HIV Surveillance 2012).

Physical Activity, Nutrition and Tobacco Use

- In 2012, approximately 20% of adults reported no physical exercise in the past month, 20% current smoking and 81% eating less than five servings of fruits and vegetables per day; 33% of adults reported elevated cholesterol; 28% high blood pressure and 62% overweight or obesity (NC SCHS BRFSS 2012).

Substance Abuse

- In 2011, nearly 34% of Mecklenburg high school students reported having had at least one drink of alcohol and 16% reported binge drinking (5 or more than drinks in several hours) within the past month; 8% reported driving a car after they had been drinking. Almost 28% reported using marijuana one or more times during their life, up from 21% reported in 2009, an increase of 33% (MCHD YRBS 2011).

Environmental Health

- From 2002 to 2012 the Air Quality Index has fallen from 59 to 45, a 23.7% improvement in air quality.
- As of 2011, there are 37 miles of developed greenways in Mecklenburg, up from 20 miles that were under construction in 2007.

(MC LUESA State of the Environment Report 2012)

Violence

- In 2011, 12% of homicides were the result of Domestic Violence. From 2005 to 2011, the percentage of students participating in the local Youth Risk Behavior Survey (YRBS) reporting teen dating violence increased 37% (MC CSS, Domestic Violence Statistics; MCHD YRBS 2011).
- In 2011, 18% of high school students reported having been the victim of teasing or name calling because of their race or ethnic background in the past month; 16% reported been electronically bullied via methods such as email, chat rooms, instant messaging, web sites or text messaging (MCHD YRBS 2011).

Mental Health

- In 2011, 30% of high school students surveyed reported feeling sad or hopeless almost every day for two weeks or more in a row to the extent they stopped doing some usual activities; 15% reported actually attempting suicide one or more times (MCHD YRBS 2011).
- In 2012, when asked about mental health—stress, depression and problems with emotions—almost 13.7% of adults said their mental health had not been good for 8-29 days in the past month and 4.6% for 30 days or more; 14.1% said they had been told by a healthcare provider that they had a depressive disorder (SCHS BRFSS 2012).

RANKING PRIORITY FOCUS AREAS

In 2013, the CHA Advisory Committee reviewed the nine priority focus areas from the 2010 CHA. Examination of the community data overview suggested that these focus areas remained of current concern and interest. Health Disparities was retained as an element of every focus area rather than as a separate area.

During the spring of 2013, Mecklenburg County residents were encouraged to participate in a Community Opinion Survey, either online or in hard copy, to gauge community beliefs and attitudes towards health as well as prioritize the nine focus areas. In response, 1,888 people returned survey information. On October 25, 2013, 117 individuals representing a variety of community agencies and groups attended a formal CHA Priority Setting meeting. Participants were asked to view a presentation on data specific to each of the nine priority areas, discuss the issues following each presentation and then score the area from 1 (least weight) to 10 (most weight) using the following five criteria: magnitude, severity, intervention effectiveness, public concern and

urgency. Calculated scores were then used to rank the focus areas. Weighted rankings from the two activities were combined with the following results:

1. Chronic Disease and Disability
2. Mental Health
3. Access to Care
4. Violence
5. Substance Abuse
6. Environmental Health
7. Maternal Child Health
8. Responsible Sexual Behavior
9. Injury

A brief video showcasing the event is available on line at http://www.youtube.com/watch?v=xH6tXeK79vA.

RECOMMENDATIONS

As part of the process, participants of the October 25, 2013 Priority Setting meeting made recommendations for the top four prioritized health issues. These recommendations will serve as the foundation for community action planning that will be completed in the spring of 2014. A summary of the recommendations appears below. A complete list of recommendations can be found in the appendices.

Preventing Chronic Disease and Disability

- **Increase opportunities for physical activity** through safe communities, greenways, parks and playgrounds, physical education and recess, sidewalks and bike lanes and community connectivity.
- **Improve access to healthy foods and food choices** through community and school gardens, SNAP benefits accepted by farmer's markets, attracting full-service grocery stores to food deserts and healthy school lunch and vending machine choices.
- **Policies** to support increased physical activity, healthy food choices and tobacco free environments in workplaces, schools, daycare facilities and places of worship.
- **Healthcare providers focus** on prevention and healthy lifestyle choices.
- **Evidence-based interventions**, health education and promotion and health communication that is age-group specific, culturally and linguistically specific and is delivered in the community.
- **Innovative partnerships** between communities and schools, business and healthcare related organizations.
- **Promote civic pride** in and commitment to building a community that values health.

Mental Health

- **Increase Funding/Providers/Services**
    - Increase funding for mental health programs and services, numbers of beds for acute and residential care and number of providers.
    - Increase number of providers representing varied ethnic and cultural backgrounds through scholarships/incentives.
    - Promote school-based programs.

  - Make available free or low-cost counseling.
  - Increase education and prevention services.
- Ensure **comprehensive care** including physical and mental health.
- Work to **decrease stigma** associated with seeking mental health care.
- Promote **Mental Health First Aid** training for mental health professionals.
- Promote **communication and collaboration** among mental health providers and other disciplines/systems such as substance abuse, the criminal justice and education systems, hospitals and DSS.
- **Increase Awareness/Education/Information**
  - Raise awareness of **infant mental health, dual diagnosis** and the idea that **with appropriate treatment, people can get better.**
  - Develop a central repository/hub for mental health resources including more materials in languages other than English.
- **Extend mental health training to non-mental health professionals** and workplaces including law enforcement, the school system, hospitals and DSS; consider non-traditional partners such as frontline workers and transit staff.
- Limit access to firearms.

Access to Care

- Address **barriers to access other than funding** such as transportation, non-traditional hours, culturally competent providers and health literacy awareness and training; improve/develop **reliable funding** for free or low-cost health services; and **improve communication and awareness** of services and how to access them.

Violence Prevention

- **Community/Neighborhood**
  - **Change norms regarding violence**, it is not acceptable; develop a comprehensive plan to address access to firearms; promote efforts that help **create community bonds**/help individuals to get to know their neighbors; encourage a **call to action** from community and faith groups with suggestions for what might work with their particular population; expand **community partnerships** with business, police, faith community, Park and Recreation facilities and libraries, provide culturally appropriate monitoring in unsafe areas; and **increase youth involvement** by offering additional community activities and providing opportunities for leadership
- **Schools and Other Social Service Agencies**
  - Begin **violence prevention education** at the pre-K level, increase after school activities to keep kids active and engaged, expand evidence-based interventions already in place in some schools and expand violence prevention into other social service agencies.
- **Professionals**
  - Use **violence assessment tools** to ensure consistent messages and encourage healthcare professionals to ask about safety at every encounter.

- **Child Abuse**
    - Increase awareness of the importance of **reporting child abuse**, offer safe child care options to parents in need and develop models for **parenting** education and support.
- **Domestic Violence (DV)**
    - Increase efforts to address domestic violence (DV) including support for the DV Review Committee, increase awareness of the Women's Commission and their services, address language barriers in the DV prevention field and distribute DV educational/support information in public places.

SOURCES

Mecklenburg County (MC)

MC Community Support Services, Domestic Violence Statistics http://charmeck.org/mecklenburg/county/CommunitySupportServices/WomensCommission/InfoEdu/Statistics/Pages/LocalHomicides.aspx [accessed November 8, 2013]

MC Health Department/Charlotte Mecklenburg Schools, YRBS Youth Risk Behavior Survey, Charlotte Mecklenburg Youth Risk Behavior Survey 2011 http://www.cms.k12.nc.us/cmsdepartments/csh/Documents/High%20School%20Highlights%20-%202011.pdf [accessed November 8, 2013]

MC LUESA Land Use and Environmental Services Agency, State of the Environment Report http://charmeck.org/mecklenburg/county/LUESA/SOER/Pages/default.aspx [accessed November 8, 2013]

North Carolina State Center for Health Statistics (NC SCHS)

NC SCHS, Behavioral Risk Factor Surveillance System (BRFSS), Mecklenburg Data 2012 http://www.schs.state.nc.us/schs/brfss/2012/nc/nccr/topics.html [accessed November 8, 2013]

NC SCHS, Age-Adjusted, Race-Specific, Sex-Specific Five-Year Death Rates 2008-2012, County Data Book http://www.schs.state.nc.us/schs/data/databook/ [accessed November 8, 2013]

NC SCHS, Cancer Incidence Rates by County and Selected Sites 2006-2010, County Data Book http://www.schs.state.nc.us/schs/data/databook/ [accessed November 8, 2013]

NC SCHS, Pregnancy and Live Births, County Data Book http://www.schs.state.nc.us/schs/data/databook/ [accessed November 8, 2013]

NC SCHS, Infant Mortality Racial Disparities 2008-2012 http://www.schs.state.nc.us/schs/deaths/ims/2012/table3b.html [accessed November 8, 2013]

NC SCHS, Final Infant Death Statistics 2012 http://www.schs.state.nc.us/schs/deaths/ims/2012/2012rpt.html [accessed November 8, 2013]

NC SCHS, Vital Records Volume 2: Leading Causes of Death 2007-2011 http://www.schs.state.nc.us/schs/deaths/lcd/2011/ [accessed November 8, 2013]

North Carolina Division of Public Health (NC DPH)

NC DPH Epidemiology, NC HIV/STD Surveillance Report 2012 http://epi.publichealth.nc.gov/cd/stds/figures/std12rpt.pdf [accessed November 8, 2013]

INTRODUCTION AND OVERVIEW

CHARGE

In the practice of public health, the community is the patient and the health of the community is monitored and evaluated on a regular basis by examining key indicators such as infant mortality, communicable disease rates and leading causes of death. Every four years, the Mecklenburg County Health Department conducts a more extensive examination of the community through a state developed process known as community health assessment (CHA). In addition to providing a picture of the community's health, CHA meets requirements for the state consolidated contract for funding to local health departments as well as state accreditation. Findings from the CHA are used by the Health Department for strategic planning and to develop or endorse collaborative community action addressing identified priority issues. The Community Health Assessment includes a review of community health indicators, a community opinion survey, a community priority setting activity and action planning on the leading identified priorities.

This most recent 2013 CHA process was conducted three rather than four years after the 2010 CHA to allow the Mecklenburg County Health Department, because of resource demands, to move to a schedule that does not include state community health assessment and accreditation processes in the same year.

PROCESS SUMMARY

In Mecklenburg County, Community Health Assessment is led by an Advisory Group of representatives from community organizations and is coordinated and carried out by the Mecklenburg County Health Department Epidemiology Program (MCHD EP). The Epidemiology Program collects primary and secondary data from a variety of sources including formal reporting systems, vital records, NC DETECT, the State Center for Health Statistics, surveys, community reports and focus groups to assemble a picture of health issues and concerns for the county. With guidance from the Advisory Group, this data overview is used to identify health focus areas of concern. These concerns are then presented to a community group which ranks them and makes recommendations. Prioritized areas and recommendations are used to develop, affirm or modify community action plans.

ADVISORY GROUP

The Advisory Group for the 2013 Mecklenburg County CHA consisted of the following members:

- Gary Black – Mecklenburg County Public Information
- Marni Eisner – Council for Children's Rights
- Jane-Goble-Clark – Center for Prevention Services
- Natasha Gonzalez – MeckLINK
- Lee Henderson – Smart Start of Mecklenburg
- Brisa Hernandez – Elizabeth Family Medicine
- Don Jonas – Care Ring
- Stephen Keener – Mecklenburg County Health Department
- Rett Liles – Teen Health Connection

- Mark Martin – Novant Health
- Linda Miller – Centralina Area Agency on Aging
- Heidi Pruess – Mecklenburg County LUESA
- Maria Reese – Carolinas HealthCare System (CHS)
- Sheila Robinson – Faith Community Health Ministry, CHS
- Pat Swaby-Davis – Carolinas HealthCare System
- Michael Thompson – UNC Charlotte
- Kristin Wade – Carolinas HealthCare System
- Janice Williams – Carolinas Center for Injury Prevention, CHS
- Dick Winters – Mecklenburg County Health Department
- MCHD Epidemiology staff: Kerry Burch, Charisse Jenkins, Sara Lovett, Susan Long-Marin and Donna Smith

COMMUNITY DATA OVERVIEW

Development of a community data report allows the identification of community health assets as well as areas requiring attention. This section of the CHA includes statistics on specific community health indicators as well as information on geographic, socioeconomic and demographic features. Data review begins with collecting Mecklenburg specific information from known primary and secondary data sources including formal reporting systems, vital records, the State Center for Health Statistics, surveys, community reports and focus groups. Data were compiled and organized by specific public health issues (e.g. communicable disease, substance abuse) and presented as chapters. Mecklenburg quantitative data are compared with state and national figures. Quick facts, positive trends and areas for improvement are used to summarize each chapter.

PRIMARY DATA COLLECTION

2013 Community Opinion Survey

The MCHD Epidemiology Program modified a health opinion survey developed with assistance of the Advisory Group from the 2010 CHA to collect information from Mecklenburg County residents on health beliefs and barriers to changing certain health behaviors as well as opinions on current health issues and status. Central questions included 1) Do you believe changing your behavior can improve your health, 2) Are you currently trying to change a behavior and 3) What makes behavior change difficult? The latter portion of the 25-question survey asked participants about their opinions on the identified nine health focus areas, health concerns related to the social determinants of health and demographic information.

The survey was offered in English and Spanish and made available online through Survey Monkey from mid-April through the end of June 2013. Paper copies of the English and Spanish versions were also available. Links to the online survey were sent via email to existing mailing lists such as neighborhood association leaders; elected officials (city, county, towns and school board) and community coalitions related to health. All recipients were also asked to both complete the survey and to share the link among their own contacts. Announcements of the survey were placed on the Health Department website and county Facebook page. Distribution of paper copies was targeted to specific populations that might not regularly access computers and

to men because past experience had shown them to be under-represented in survey response. Surveys were delivered to three safety net clinics, a transitional housing center, the Regional AIDS Interfaith Network, an African American church, senior centers, a faith based conference on African American male health and Hispanic health promotion classes.

A total of 1,888 individuals completed the health opinion survey. For complete information on survey results and participant demographics, see the Primary Data & Research chapter.

Youth Talking Circles

The Youth Talking Circles provided an opportunity to hear the opinions and suggestions of youth in our county. Participation from individuals under the age of 18 was largely absent from the Community Health Opinion Survey primarily due to concerns over informed consent of minors, At the suggestion of the CHA Advisory Group, it was decided that there be special effort made to reach out to youth and include their input.

Through partnerships with Teen Health Connection's Teen Advisory Board and Girls Educated and Motivated for Success (GEMS) program and the Mecklenburg County Health Department's Male Involvement program, a total of 3 talking circles were conducted during the month of September 2013.

Five questions were developed by the Health Department's Epidemiology Program. Youth participants were assured that no identifying information would be collected and that feedback would be anonymous. The questions were as follows:

1. What do you think a healthy community looks like?
2. Do you think where you live (your neighborhood) is a healthy place to live? Why or why not?
3. What are the health issues that teens talk about?
4. Of our nine priority areas, what are the four that you think are the most important?
5. What would you change in your community to make it healthier?

A total of 87 youth participated in the talking circles. For a complete summary of the talking circles, see the Primary Data & Research chapter.

IDENTIFICATION OF PRIORITY CONCERNS

In 2013, the Advisory Group reviewed the nine priority focus areas from the 2010 CHA to ascertain if they remained current concerns and to determine whether other concerns should be added to the list. Examination of the community data overview suggested that these focus areas remained of current concern and interest. However, the decision was made to reverse the 2010 decision to change Environmental Health to Healthy Environments Supporting Healthy Choices because action planning showed that many of the strategies to support healthy choices were a better fit with preventing chronic disease and disability. Health Disparities was again considered an overarching issue rather than an individual category. Emergency Preparedness was again discussed and decided against because, even though funding has decreased, it continues to be addressed by a variety of community workgroups. Infectious Disease was also determined not to be a priority concern because when compared to state and national numbers, the county, with the exception of TB (which is trending

positively), ranks very well and communicable disease control systems work effectively. Final discussion yielded the following list of priority focus areas for 2013:

1. Access to Care
2. Chronic Disease and Disability
3. Environmental Health
4. Injury
5. Maternal Child Health
6. Mental Health
7. Responsible Sexual Behavior
8. Substance Abuse
9. Violence

RANKING PRIORITY CONCERNS

The nine priority focus areas were presented to a community meeting of 116 individuals, representing a variety of community agencies and groups. See Priority Ranking Exercise Section for a list of the attendees and the groups they represented as well as additional detail on the process and findings. Attendees were assigned to tables and, after a short presentation and discussion on each topic, were asked to rank each of the nine focus areas with a one to ten score for each of the following five criteria: 1) magnitude, 2) severity, 3) intervention effectiveness, 4) public concern and 5) urgency. Scores were calculated and the rankings presented.

CHA Community Opinion Survey participants were also asked to rank the nine focus areas and this information was combined with that from the Priority Ranking Exercise. Because those taking the survey responded without the education, discussion and criteria scoring provided during the Priority Ranking Exercise, their responses were weighted less heavily. For additional information on this process see the Priority Ranking Exercise chapter. The final results from the combined CHA Community Opinion Survey and the Priority Ranking Exercise are as follows:

1. Chronic Disease and Disability
2. Mental Health
3. Access to Care
4. Violence
5. Substance Abuse
6. Environmental Health
7. Maternal Child Health
8. Responsible Sexual Behavior
9. Injury

COMMUNITY ACTION PLANS

During the Community Priority Setting Activity, when the rankings are announced, participants are asked to self-select into four groups representing the four leading priorities and generate recommendations for addressing their priority of interest. These recommendations serve as the foundation for community action planning around these four priorities beginning in January 2014. Interested individuals from the priority setting activity, the public and from organizations and any coalitions already addressing the issues are invited to participate in the planning process. For a summary of the recommendations from the 2013 Priority Setting Event, see the Priority Setting chapter and see the Appendix for a complete list of recommendations.

APPLICATION/COMMUNICATING FINDINGS

In addition to action planning, findings from the CHA are used as a reference by many organizations for education and awareness, advocacy, funding, program development and education. The Health Department will incorporate the information generated into strategic planning

The final CHA report will be posted on the Health Department website www.meckhealth.org. A brochure summarizing findings and recommendations will be developed and sent to area funders, community leaders, elected officials and other groups with missions that include healthcare and prevention. The Health Director will present the findings to the Board of County Commissioners. Action Plans will also be presented to the Board for their approval. See the Communications Plan section for additional detail on how the findings and recommendations from the CHA will be disseminated.

ACKNOWLEDGMENTS

In addition to recognizing the time and talent contributed by our Advisory Group, the Mecklenburg County Health Department recognizes the following organizations for their contributions: Care Ring for providing the information in the Access to Care chapter and assistance distributing the Health Opinion Survey; UNC Charlotte's Department of Public Health Sciences and the Graduate Public Health Student Association for hosting the Priority Setting Event; Teen Health Connection for conducting two Youth Talking Circles; the Male Involvement Program for conducting a Youth Talking Circle; Faith Community Health Ministry for survey distribution; Elizabeth Family Medicine for survey distribution and assistance with developing the Youth Talking Circle question guide; Supportive Housing Communities for survey distribution; Carolina RAIN for survey distribution; Centralina Area Agency on Aging for survey distribution; Hispanos Saludables for survey distribution; Bethesda Health Center for survey distribution; Ada Jenkins Center for survey distribution; Mecklenburg County GIS for providing the maps found in this document; all of the individuals who presented at the Priority Setting event and provided information for the fact sheets; and the community volunteers for assistance entering paper copies of the survey. Collaboration is critical to the Community Health Assessment process; the input and dedication of the community partners listed throughout this document is greatly appreciated.

ASSETS AND CHALLENGES

Community Assets

Positive Trends and Indicators

Challenges

COMMUNITY ASSETS FOR INFLUENCING HEALTH

While Mecklenburg County encounters numerous health challenges from a diverse and rapidly growing population, it also possesses a wealth of assets that offer assistance in addressing them.

A survey of community assets includes but is not limited to the following:

- Two hospital systems: Carolinas HealthCare System and Novant Health
- Safety Net System of Care
  - One federally qualified community health center: CW Williams
  - Eight free or low cost clinics
    - Charlotte Community Health Clinic
    - Charlotte Volunteers in Medicine Clinic
    - Care Ring
    - Free Clinics of Our Town (Davidson)
    - Matthews Free Medical Clinic
    - Lake Norman Community Health Clinic
    - Shelter Health Services
    - Bethesda Health Center
  - Carolinas Medical Center Ambulatory/Community Care Clinics
    - CMC Biddle Point
    - CMC Elizabeth Family Practice
    - CMC Meyers Park
    - CMC North Park
  - Volunteer physician care for the low-income uninsured program: Physicians Reach Out (administered by Care Ring)
  - A Community Pharmacy: NC MedAssist
  - Mecklenburg County Health Department
- Board of County Commissioners that strongly supports the Health Department
- Strong and numerous Health and Human Services Agencies and Organizations
- Flourishing greenway system
- Poverty rate lower and median income higher than the state
- Consolidated School Health Committee within Charlotte Mecklenburg Schools
- Numerous community collaborations affecting health
  - Children's Alliance
  - Charlotte Mecklenburg Drug Free Coalition
  - Community Child Fatality Prevention and Protection Team
  - Community Domestic Violence Review Team
  - HIV Community Task Force
  - Homeless Services Network
  - MAPPR – Mecklenburg Area Project for Primary Care Research
  - Mecklenburg Food Policy Council
  - Mecklenburg Fruit & Vegetable Coalition
  - Mecklenburg Safe Kids Coalition
  - Mecklenburg Safe Routes to School
  - MedLink of Mecklenburg
- A strong and diverse faith community with over 1000 places of worship
- Multiple Institutions of Higher Education
  - Central Piedmont Community College
  - Johnson C Smith University
  - Pfeiffer University
  - Queens University
  - University of North Carolina at Charlotte

COMPARING HEALTH TRENDS AND INDICATORS

When comparing community health indicators with North Carolina and the United States, in most cases, Mecklenburg County fares as well as, if not better, especially in rates for infant and heart disease mortality. Exceptions are conditions associated with urban areas such as HIV disease, tuberculosis and homicide. However, some health indicators like overweight and obesity are negative across the country so a similar or better comparison does not necessarily indicate a favorable status.

When comparing Mecklenburg leading health indicators with Wake County, the only other county of similar population in the state and an urban county, Mecklenburg does not fare as well. Exceptions are rates of infant mortality and deaths from motor vehicle crashes. Of special note are the large differences between Mecklenburg and Wake in rates of homicide (2.3 times higher), HIV disease (2.1 times higher) and tuberculosis (1.8 times higher). While Mecklenburg and Wake are similar with regards to population size, Mecklenburg's population is more racially and ethnically diverse. These populations tend to experience higher rates of death, disease and disability. Poverty and unemployment are also higher in Mecklenburg and educational attainment lower, which may impact health outcomes for the population. For additional information on how Mecklenburg compares to Wake County, see the section addressing this topic.

While overall Mecklenburg health indicators are mostly positive and trending positive, not all populations are equally enjoying good health. Health disparities are particularly concerning with infant mortality, adolescent pregnancy, diabetes morbidity and mortality, HIV disease and homicide.

POSITIVE HEALTH TRENDS AND INDICATORS

Listed below are examples of indicators that are strongly positive for the county. However, it is important to remember that positive progress has been achieved through attention and resources. To no longer address these issues because they are trending well would be to risk a reversal of positive direction.

- Falling total mortality rates for all race and gender groups
- Decreasing mortality rates for cancer, heart disease and stroke
- Declining infant mortality
- Falling adolescent pregnancy rates
- Low rates of vaccine preventable communicable disease
- Smoke free school and hospital systems as well as restaurants and bars
- Flourishing greenway system and good access to recreational facilities

CHALLENGES: TRENDS AND INDICATORS REQUIRING ADDITIONAL ATTENTION

The information presented below reflects a quick summary of the priority health concerns and information from throughout this report including community recommendations. Some concerns or areas for attention may be reflected in several categories. For a more extensive presentation of data and recommendations by priority health concern, see the Priority Ranking Exercise Section.

HEALTH DISPARITIES

- Are evident in most focus areas
- Special attention is needed to diabetes, infant mortality, STDs and HIV disease
- Poverty and low educational attainment

CHRONIC DISEASE & DISABILITY

- Need to increase healthy behavior choices in physical activity, nutrition and tobacco use
- Overweight and obesity
- Diabetes morbidity and mortality is not trending positive
- As population ages, adequate resources to care for growing numbers of Alzheimer's disease cases

MENTAL HEALTH

- Changes in local delivery of mental health services to the low income population create uncertainty
- Child/Adolescent mental health issues and providers to address them
- Stigma attached to treatment for mental illness
- Lack of services for the uninsured and Limited English Proficiency (LEP) populations

ACCESS TO CARE

- Lack of dental care for low-income adults
- Lack of medical care for the low-income populations who do not qualify for assistance programs as well as the underinsured who earn too much to be considered low income yet work for employers who do not offer affordable health insurance
- Low-income males and the undocumented are at particular risk for not receiving care; healthcare reform may address many of these issues but the problems of the undocumented will not be affected
- The failure of North Carolina to expand Medicaid leaves low-income individuals dependent on free and low cost clinics
- Many of those who do qualify for insurance coverage under the Affordable Care Act will need help with navigating the Marketplace
- Need for culturally appropriate health and mental health information and education as well as providers who can provide culturally appropriate services
- Health literacy

VIOLENCE

- Homicide is among the leading causes of death for adolescents and young adults as well for males of Hispanic ethnicity
- Domestic violence
- Child abuse
- Bullying

SUBSTANCE ABUSE

- Underage drinking
- Binge drinking
- Driving under the influence of alcohol/drugs (DUI)
- Perception that some alcohol use among minors is acceptable and that drinking at home is safer than away from home; lack of understanding of the effect of alcohol on the still developing adolescent brain
- Hispanic alcohol use
- Prescription drug abuse

- Illegal drug use

ENVIRONMENTAL HEALTH

- Air quality
- Built environment
- Food availability and security

MATERNAL CHILD HEALTH

- Large gap between White and African American rates of infant mortality
- Safe sleeping arrangements affect infant mortality by decreasing the likelihood of SIDS and suffocation
- Declining rates of entry into prenatal care during the first trimester
- 12% of births occurs with an interpregnancy interval of less than or equal to six months suggesting unplanned pregnancy
- Even though the overall rate of teen pregnancy is declining, the rate of pregnancies in girls ages 15-17 and 10-14 is still of concern; certain areas of the community are not seeing the drop in adolescent pregnancy experienced by the county as a whole

RESPONSIBLE SEXUAL BEHAVIOR

- High rates of HIV disease and syphilis
- Disproportionate burden of HIV disease and syphilis in the African American community
- 12% of births occur with an interpregnancy interval of less than or equal to six months suggesting unplanned pregnancy
- Even though the overall rate of teen pregnancy is declining, the rate of pregnancies in girls ages 15-17 and 10-14 is still of concern; certain areas of the community are not seeing the drop in adolescent pregnancy experienced by the county as a whole

INJURY

- Unintentional Injury is the 6th leading cause of death for the total population, the leading cause of death for those 1 to 44 years of age and a leading cause of death for Hispanics
- National data suggest that trauma and associated costs resulting from injury exceed those for heart disease. However, public interest in injury prevention as indicated by survey and prioritization is very low, as is funding. Changing the perception that injuries are accidents that are unavoidable to an understanding that injuries are preventable is a challenge that will require considerable creativity and effort
- Falls in the elderly
- Safe sleeping arrangements affect infant mortality by decreasing the likelihood of SIDS and suffocation
- Driving under the influence of alcohol (DUI)

PRIORITY SETTING EXERCISE

List of Attendees

Priority Ranking Results

Combined Priority Ranking Results

Priority Setting Exercise

2013 CHA Survey

Recommendations

OVERVIEW

The Priority Setting Exercise (PSE) took place on October 25, 2013 at the Student Union located at the University of North Carolina campus in Charlotte. Invitations to participate in the priority setting process were sent to over 500 individuals representing a variety of community agencies, neighborhood associations, faith community leaders, colleges and universities, and local elected officials from the county as well as from the seven municipalities within Mecklenburg County. A total of 117 people participated in the exercise; a detailed list of participants as well as demographic information can be found below.

The process of the priority setting exercise was as follows: before the event, participants were sent fact sheets for each of the health issues, a brief presentation was given on the first of the nine health focus areas selected by the CHA advisory group, followed by table discussions, and finally, each individual scored the topic with regard to various criteria. This process was repeated for each of the nine health topics. Scoring sheets (see sample below) were collected throughout the exercise and scores were entered into Epi Info. By the end of the session, participants were presented with the prioritized list of the nine health topics based on their combined scores.

The final step in the priority setting process was to make recommendations for the top four health issues: chronic disease, access to care, mental health and violence. Participants assigned themselves to one of those topic areas and generated a list of recommended actions which are to be used in the action planning process. Before adjourning each participant was asked to fill out a demographic form and an evaluation form.

See the Appendix for a copy of the participant fact sheets for each topic, the PowerPoint presentation used at the event and the full list of recommendations generated.

LIST OF ATTENDEES

First	Last	Agency
Maddy	Baer	Mecklenburg Area Partnership for Primary Research
Julia	Banks	Mecklenburg County Health Department
Kimberly	Barker	Novant Health
Arthur	Bartlett	Legal Services of the Southern Piedmont
Karen	Bennett	Shelter Health Services, Inc.
Katie	Benston	Care Ring
Budd	Berro	Community Member
Paula	Black	Mecklenburg County Health Department
Diane	Boyd	Mecklenburg County Health Department
Harry	Burns	Novant Health
Shambreya	Burrell	UNC Charlotte
Beth	Burton	Community Care Partners of Greater Mecklenburg
Denise	Cathey	The Solomon House/Novant Health
Edna	Chirico	Catawba River District
April	Cook	Lake Norman Community Health Clinic
Scott	Correll	City of Charlotte
Lydia	Cosgrove	Disability Rights and Resources
Luis	Cruz-Melendez	Mecklenburg County Health Department

LIST OF ATTENDEES, cont.

First	Last	Agency
Darrell	Cunningham	Mecklenburg County Department of Social Services
Megan	Dean	Mecklenburg County Health Department
Mark	DeHaven	UNC Charlotte
Vicki	Derderian	Charlotte AHEC
Ronnie	Devine	Mecklenburg County Community Support Services
Luisa	Dexheimer	Latin American Coalition
Ursula	Douglas	Care Ring
Ellen	Dubin	Carolina Refugee Resettlement Agency
Troy	Eisenberger	City of Charlotte
Julie	Elliott	Ada Jenkins
Cheryl	Emanuel	Mecklenburg County Health Department
John	Emerson	Atlanta Hight Intensity Drug Trafficking Area
Mary	Espinosa	Mecklenburg Area Partnership for Primary Research
Nancy	Fey-Yensan	UNC Charlotte
Ellis	Fields	Mental Health Association
Linda	Flanagan	Mecklenburg County Health Department
Lori	Giang	NC MedAssist
Karina	Gonzalez	Mecklenburg County Health Department
Perry	Griffin	Mental Health Association
Bill	Hardister	Mecklenburg County Health Department
Melodee	Harris	Mecklenburg County Health Department
Katherin	Hebert	Town of Davidson
Rebecca	Hefner	City of Charlotte
Lee	Henderson	Smart Start of Meck
Brisa	Hernandez	Mecklenburg Area Partnership for Primary Research
Elizabeth	Hudgens	UNC Charlotte
Nancy	Hudson	Charlotte Community Health Center
Lois	Ingland	Carolinas HealthCare System
Michele	Issel	UNC Charlotte
Larry	James	Grier Heights Presbyterian Chruch
Monica	Johnson	Center for Prevention Services
Don	Jonas	Care Ring
Susan	Jones	Mecklenburg County Health Department
Debra	Kaclik	Charlotte Mecklenburg Schools
Stephen	Keener	Mecklenburg County Health Department
Mike	Kennedy	Mecklenburg County Health Department
Tarik	Kiley	Community Member
Robert	Kluge	Mecklenburg County Department of Social Services
Katie	Kutcher	Centralina Area Agency on Aging

LIST OF ATTENDEES, cont.

First	Last	Agency
Nancy	Langenfeld	Charlotte Mecklenburg Schools
Marian	Lechner	Carolina Refugee Resettlement Agency
Emma	Leon	Mecklenburg County Health Department
Jon	Levin	Mecklenburg County Health Department
Kate	Lowe	Mecklenburg County Health Department
Beth	Mack	UNC Charlotte
Victoria	Manning	United Way
Linda	Margerum	MeckLINK
Betty	Marlin	Primary Health Care
Mark	Martin	Novant Health
Wendy	Mateo	Bethesda Health Center
LaKeisha	McCormick	Center for Prevention Services
Barbara	McNinch	Mecklenburg County Health Department
Allen	Melvin	MeckLINK
Britney	Misson	UNC Charlotte
Sarah	Moore	Carolinas HealthCare System
Candace	Murray	YMCA
Allison	Nelson	Mecklenburg County Health Department
Dave	Parks	UNC Charlotte
Vanessa	Pasquier	Mecklenburg Area Partnership for Primary Research
Elizabeth	Peterson-Vita	MeckLINK
Fontini	Politis	UNC Charlotte
Sherri	Porter	Mecklenburg County Department of Social Services
Heidi	Pruess	Mecklenburg County Land Use and Environmental Services Agency
Aalece	Pugh-Lilly	MeckLINK
Maria	Reese	Carolinas HealthCare System
Chiquita	Reid	Care Ring
Donna	Rice	Mecklenburg Livable Communities
Donella	Richardson	C. W. Williams Community Health Center
Sheila	Robinson	Carolinas HealthCare System
Lisa	Robinson	Mecklenburg County Health Department
Libby	Safrit	Teen Health Connection
William	Saunders	UNC Charlotte
Claire	Schuch	Mecklenburg Area Partnership for Primary Research
Jean	Siers	Society of St. Andrew
Gary	Silverman	UNC Charlotte
Laura	Simmons	Urban Institute
Brenda	Slade	Community Member
Kenesha	Smith	UNC Charlotte

LIST OF ATTENDEES, cont.

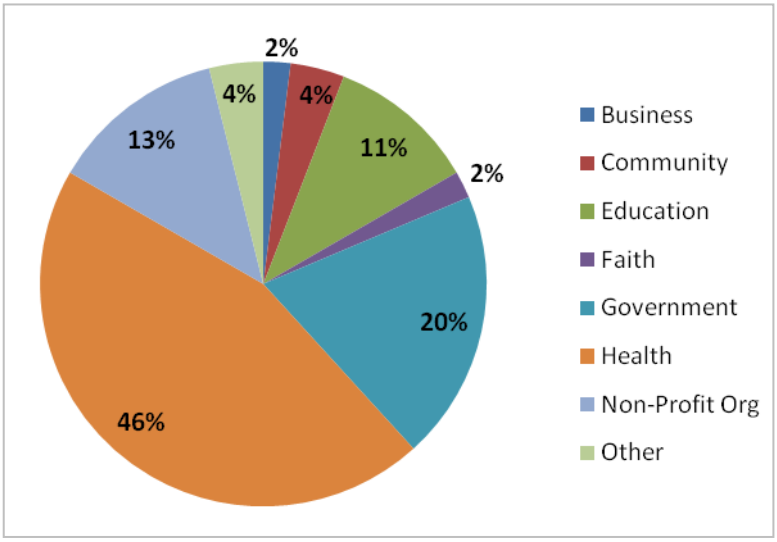
First	Last	Agency
David	Sniffin	Charlotte Mecklenburg Libraries
Ramona	Starks-Cunningham	Mecklenburg County Health Department
Pat	Swaby-Davis	Carolinas HealthCare System
Emily	Tamlin	Council for Children's Rights
Sheree	Tanner	Mecklenburg County Health Department
Hazel	Tapp	Elizabeth Family Medicine
Kris	Taylor	Pat's Place
Mary Ellen	Taylor	Mecklenburg County Health Department
Tyisha	Terry	UNC Charlotte
Michael	Thompson	UNC Charlotte
Caroline	Utz	Metrolina Association for the Blind
Kristin	Wade	Carolinas HealthCare System
Charnele	Walton	UNC Charlotte
Yvonne	Ward	Meck. Co. Provided Services Organization
Debbie	Warren	RAIN, Inc.
Jennifer	Watson	Arthritis Services
Chelsea	White	RAIN, Inc.
Marie	White	Mecklenburg County Women's Commission
Janice	Williams	Carolinas Center for Injury Prevention
Derek	Wilson	Mecklenburg County Sheriff's Office
Dick	Winters	Mecklenburg County Health Department

PRIORITY RANKING RESULTS

DEMOGRAPHIC PROFILE OF ATTENDEES

A total of 117 residents attended the Priority Setting Exercise (PSE) on October 25. Of the attendees, 102 participants completed demographic and evaluation forms. The following data describes the demographic profile of participants.

Priority Setting Exercise Participant Background/Role
(N= 102, Percentages)



- The majority of the population was female (78%).
- 37% were between the ages of 25 – 44 yrs, 54% were 45 – 64 years. Persons less than 24 years accounted for 7% of the population while person over 65 accounted for 5%.
- 68% were White, 28% were Black, 3% were of Other Races and 1% identified with 2 or more races.
- 8% were Hispanic/Latino.
- The majority of attendees reported living in Mecklenburg County for more than 10 years (56%). 11% of attendees reported living in the county for less than 3 years.
- Participants were from various backgrounds, including Health Care, Mental Health, Public Health, Community Members/Leaders, Education and Faith Communities.

PRIORITY RANKING PROCESS

Participants of the October 25 PSE were randomly assigned into groups to prioritize the nine focus areas. Random assignments allowed members to share their diverse knowledge, experience and challenges in addressing each priority area. Prior to the ranking of each priority area, a 10 -12 minute PowerPoint presentation was provided by a field expert to summarize relevant health data and areas of concern. Participants were provided copies of priority area fact sheets to facilitate group discussions prior to ranking (see Appendix for PSE fact sheets). After group discussions, each participant was asked to rank the priority area according the five criteria:

1. ***Magnitude***: Proportion of the population affected or vulnerable
2. ***Severity***: Impact on mortality, morbidity, disability and quality of life
3. ***Intervention Effectiveness***: Proven interventions exist that are feasible from a practical, economic and political viewpoint
4. ***Public Concern***: Degree of public concern and/or awareness
5. ***Urgency***: Need for action based on degree and rate of growth (decline); potential for affecting and amplifying other health or socioeconomic issues; timing for public awareness, collaboration, and funding is present

SAMPLE SCORING SHEET

Topic Area 1: Responsible Sexual Behavior

Please rank the above health topic by scoring the following criteria on a scale from 1 to 10.

CRITERIA FOR RANKING

☐ **Magnitude:** Proportion of the population affected or vulnerable?

1=Affects very few, 10=Affects very many

☐ **Severity:** Impact on mortality, morbidity, disability and quality of life?

1=Not very severe, 10=Extremely severe

☐ **Intervention Effectiveness:** Proven interventions exist that are feasible from a practical, economic and political viewpoint?

1=No effective interventions, 10=Several effective interventions

☐ **Public Concern:** Degree of public concern and awareness?

1=Public is not concerned/aware, 10=Public is very concerned/aware

☐ **Urgency:** Need for action based on degree and rate of growth (or decline); potential for affecting and amplifying other health or socioeconomic issues; or timing for public awareness, collaboration, and funding is present?

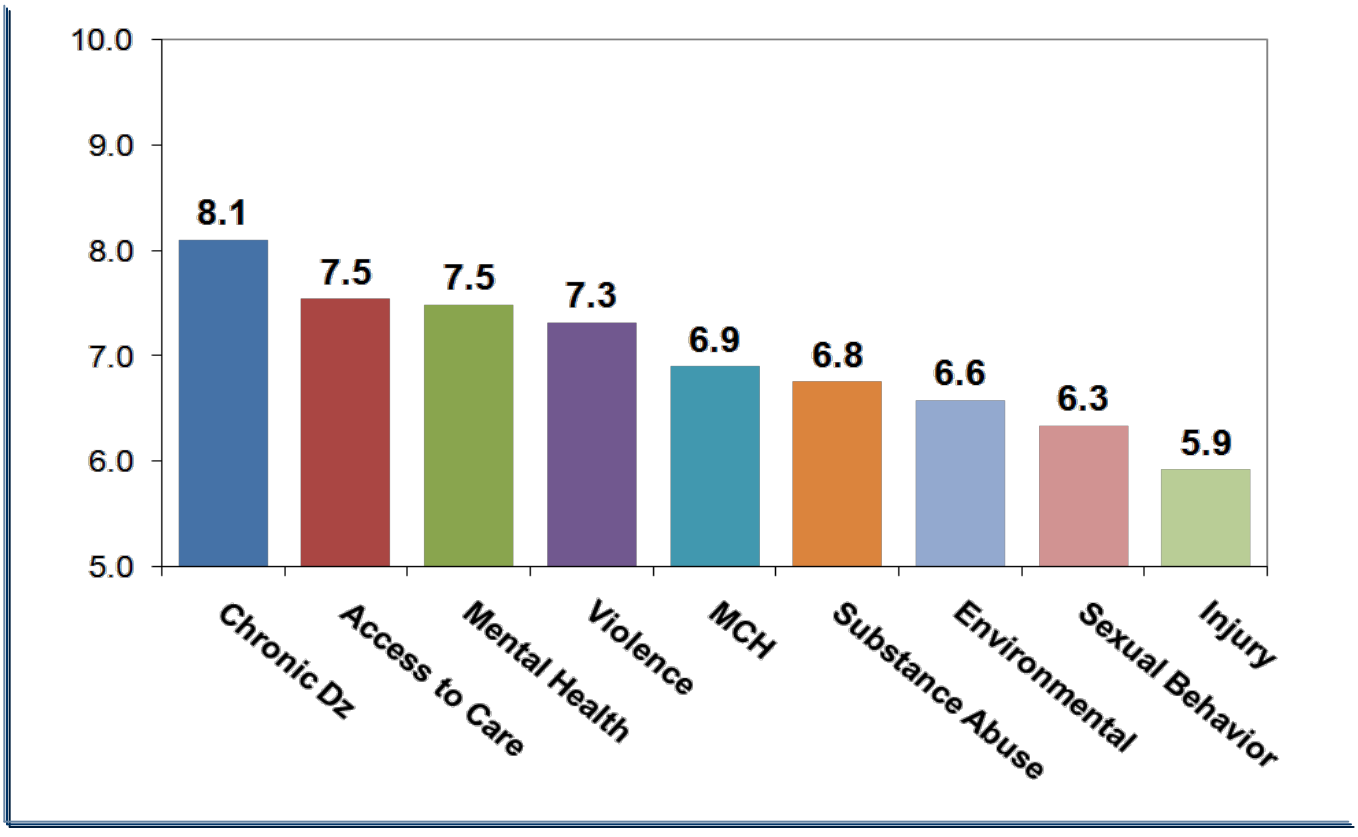
1= Issue is important but no need to address it immediately, 10=Issue requires immediate attention

PRIORITY SETTING RESULTS

Ranking results from participants were entered into an Epi Info database by Mecklenburg Epidemiology staff during the course of the priority setting exercise and the final scorings were presented to attendees at the close of the event.

The rankings and average scores for each of the nine focus areas are listed below.

2013 CHA Priority Setting Exercise: Average Score of Priority Focus Areas
Based upon Oct 25 Priority Setting Event



COMBINED RANKINGS: CHA Survey and Priority Setting Exercise

Mecklenburg County residents were encouraged to participate in a health survey to gauge community beliefs and attitudes towards health and the challenges in maintaining a healthy lifestyle. Survey participants were also presented with a list of the nine priority areas and asked to select the four issues they felt were the most important in terms of affecting the public health of the community. Additional data on the 2013 CHA Survey can be found in the Primary Data and Research section.

Survey participants and Priority Setting Exercise participants ranked Chronic Disease, Access to Care, Mental Health and Violence as the areas of most need within the county. However, survey participants ranked Maternal and Child Health substantially lower than participants from the Priority Setting Exercise.

	2013 Priority Setting Exercise Rankings	2013 CHA Online/Paper Survey Rankings
Chronic Disease	1	1
Access to Care	2	3
Mental Health	2	1
Violence	4	4
Maternal and Child Health	5	9
Substance Abuse	6	5
Environmental	7	6
Sexual Behavior	8	7
Injury	9	8

METHODOLOGY: COMBINING THE RANKINGS

Survey participants were asked to rank the nine focus areas without benefit of data presentations or discussions provided to Priority Setting Exercise (PSE) participants. Survey participants were also not required to base their rankings on the five criteria used during the PSE. This may explain why overall scores among survey participants were lower for each focus area in comparison to scores generated during the PSE. Weighting of priority health rankings were used to accommodate for the differences in methodology. Ranking results for both groups were converted into percentages and PSE rankings were given a weight 3 times that of Survey rankings.

The top four priority areas for both group participants were the same. Action plans for these priority areas will be developed in collaboration with community partners and submitted to the State by June 2014.

Top Four Priority Areas:

1. Chronic Disease
2. Mental Health
3. Access to Care
4. Violence

2006 – 2013 PRIORITY HEALTH RANKINGS AND CHANGES OVER TIME

	2006		2010			2013		
	Priority Setting Average Score	Priority Setting Ranking	Priority Setting Average Score	Priority Setting Ranking	Final Ranking *(Survey Results included)*	Priority Setting Average Score	Priority Setting Ranking	Final Ranking *(Survey Results included)*
Chronic Disease	8.0	**1**	8.1	1	**1**	8.1	1	**1**
Access to Care	7.2	**2**	9.7	2	**2**	7.5	2	**3**
Environmental Health	7.0	**3**	7.2	4	**3**	6.6	7	**6**
Mental Health	7.0	**4**	7.2	5	**7**	7.5	3	**2**
Substance Abuse	6.8	**5**	7.3	3	**4**	6.8	6	**5**
Injury	6.6	**6**	6.6	7	**6**	5.9	9	**9**
Responsible Sexual Behavior	6.5	**7**	6.4	8	**8**	6.3	8	**8**
Maternal and Child Health	5.8	**8**	6.1	9	**9**	6.9	5	**7**
Violence	n/a	**n/a**	7.0	6	**5**	7.3	4	**4**

Notes:

1. Prior to 2010, Injury and Violence were included in the same category for priority health rankings. While these topics were routinely reported together, the populations affected and prevention strategies needed to address unintentional injuries are often different from those found in violence Prevention. Based on recommendations from the CHA Advisory Group and Epidemiology staff members, Violence was included as a separate priority focus area beginning in 2010.

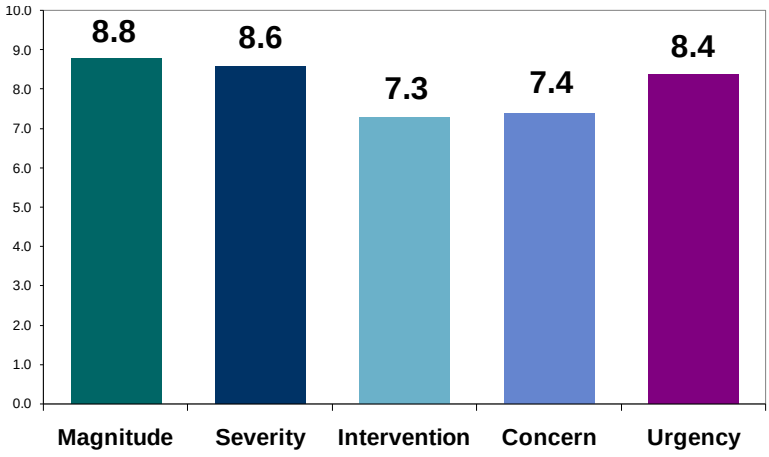
2. The Mecklenburg Health Opinion Survey was first created and used during the 2010 Community Health Assessment process. The survey provides insight on barriers to achieving a healthy lifestyle for residents of various backgrounds. The survey also provides an opportunity for residents not attending the Priority Setting Event to participate in the County ranking process. In 2013, the survey was updated to capture additional health behavior information. For more information on the Health Opinion Survey, see the Primary Data and Research chapter.

RECOMMENDATIONS

1. CHRONIC DISEASE

- **Increase opportunities for Physical Activity**
    - Safe communities
    - Greenways, parks and playgrounds
    - Physical education and recess
    - Sidewalks and bike lanes; community connectivity
- **Improve access to healthy foods**
    - Community gardens and school gardens, SNAP benefits accepted by farmer's markets, food trucks
    - Attract full-service grocery stores to food deserts
    - Healthy school lunch and vending machine choices
- **Policies to support increased physical activity, healthy food choices and tobacco free environments**
    - Schools/higher education/daycare
    - Workplace
    - Centers of worship
    - City/County
- **Healthcare provider focus on prevention and healthy lifestyle choices**
    - Prescriptions for health
    - Financial incentive to incorporate prevention education

2013 PSE: Average Scoring for Chronic Disease
(By Criteria)



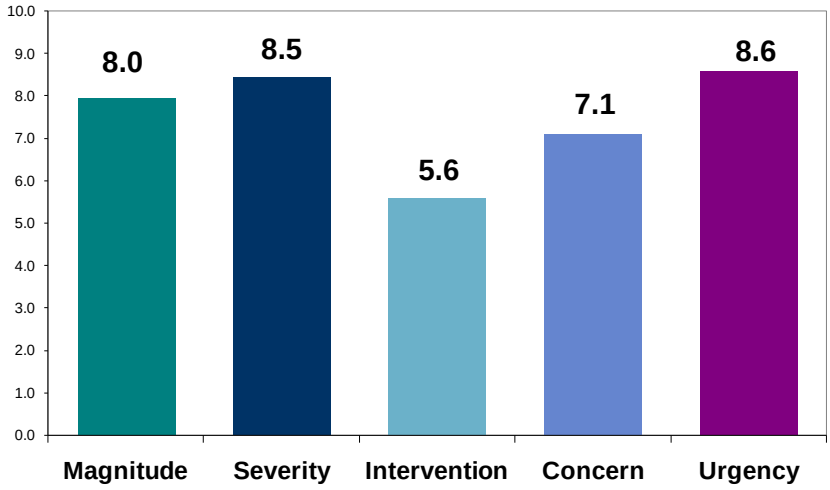
- **Evidence-based interventions, health education and promotion, health communication**
    - Age-group specific
    - Culturally and linguistically specific
    - Community outreach
- **Innovative partnerships**
    - Schools and communities
    - Business and communities
    - Healthcare related organizations and communities
- **Promote civic pride in and commitment to building a community that values health**

RECOMMENDATIONS

2. ACCESS TO CARE

- **Address barriers to access other than funding through transportation, non-traditional hours, culturally competent providers and health literacy awareness and training**
- **Improve/develop reliable funding for free or low-cost health services**
- **Improve communication and awareness**
    - o Provide information on where those with low incomes can get free or low-cost health services and access additional resources such as Crisis Assistance or the Benefit Bank
    - o Educate people about the Affordable Care Act and where to enroll or get help with enrolling
    - o Provide updated access and health services information to 311 as one possible dissemination point.

2013 PSE: Average Scoring for Access to Care
(By Criteria)

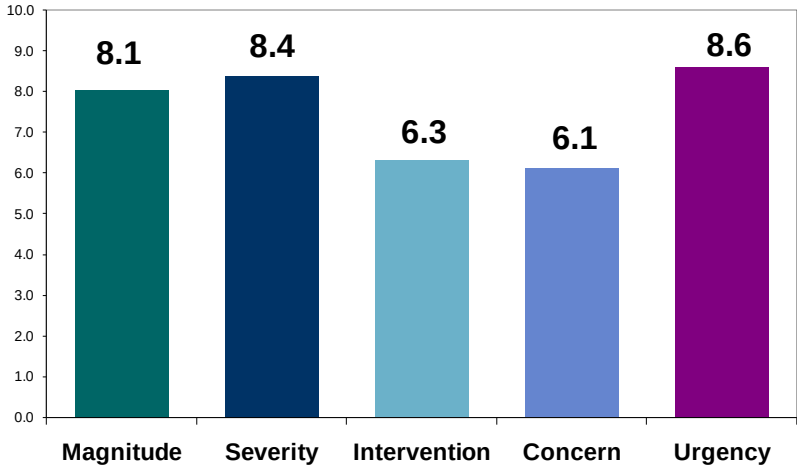


RECOMMENDATIONS

3. MENTAL HEALTH

- **Ensure comprehensive care—physical and mental health**
- **Work to decrease stigma associated with seeking mental health care**
- **Promote Mental Health First Aid training for mental health professionals**
- **Promote communication and collaboration among mental health providers and other disciplines/systems**
    - Substance abuse
    - Criminal justice system
    - Education system
    - Department of Social Services (DSS)
    - Hospitals
- **Increase Funding/Providers/Services**
    - Increase funding for mental health programs and services
    - Increase numbers of beds for acute and residential care
    - Increase number of providers
    - Increase the diversity of providers through scholarships/incentives
    - Promote school-based programs
    - Make available free or low-cost counseling
    - Increase education and prevention services
- **Limit access to firearms**

2013 PSE: Average Scoring for Mental Health
(By Criteria)

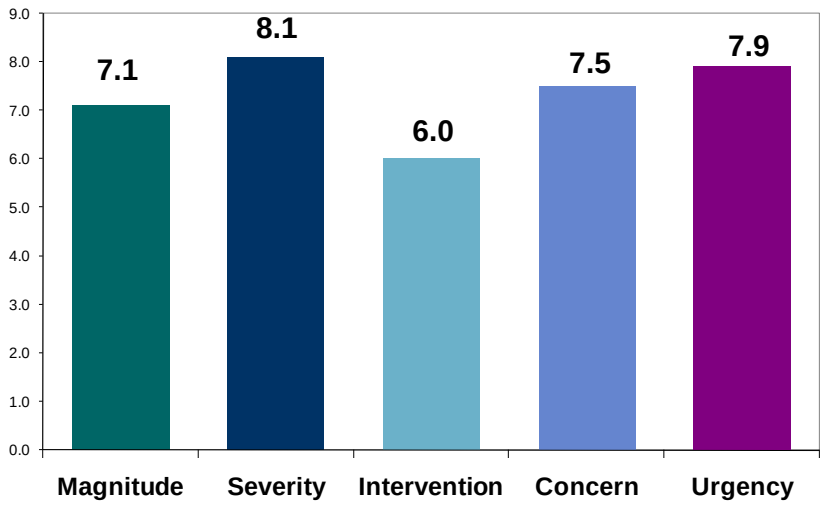


- **Increase Awareness/Education/Information**
    - Recovery Model: with appropriate treatment, people can get better.
    - Dual diagnosis
    - Infant mental health
    - Central repository/hub for mental health resources including more materials in languages other than English
- **Extend mental health training to non-mental health professionals and workplaces**
    - Large systems such as hospitals and DSS
    - All levels of the school system
    - Law enforcement
    - Worksites including initiatives to support or improve mental health
    - Non-traditional partners such as transit workers and other “frontline” workers

RECOMMENDATIONS

4. VIOLENCE

2013 PSE: Average Scoring for Violence
(By Criteria)



- **Community/Neighborhood**
  - Change norms regarding violence, it is not acceptable
  - Develop a comprehensive plan to address access to firearms
  - Engage in efforts that help create community bonds/help individuals to get to know their neighbors
  - Encourage a call to action from community and faith groups with suggestions for what might work with their particular population
  - Expand community partnerships with business, police, faith community, Parks and Rec facilities and libraries
  - Provide culturally appropriate monitoring in unsafe areas
  - Increase youth involvement by offering additional community activities and providing opportunities for leadership

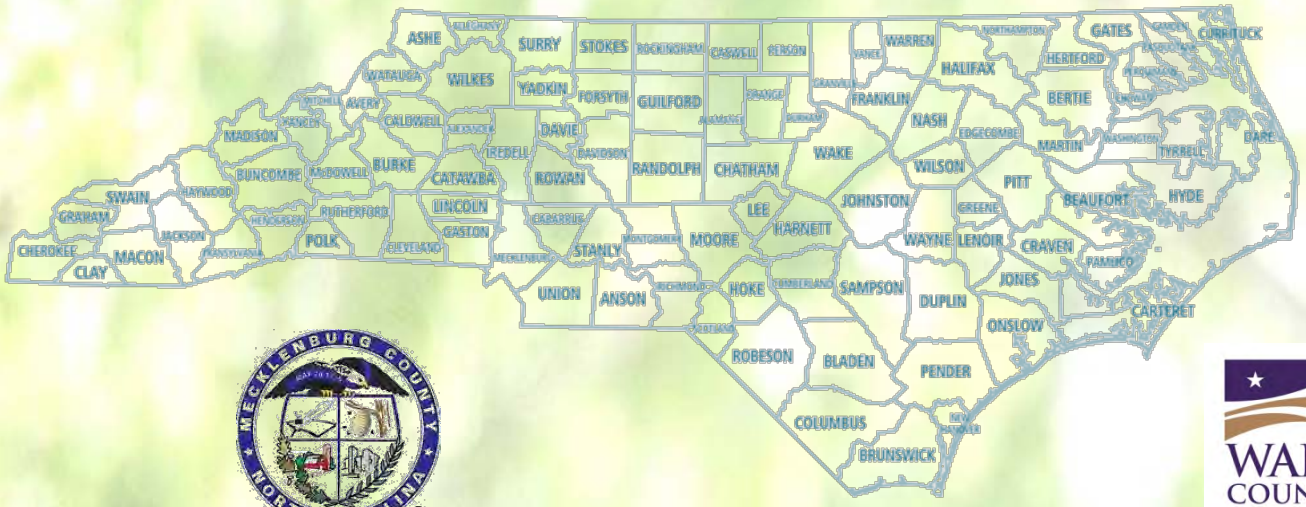
- **Schools and Other Social Service Agencies**
  - Begin violence prevention education at the pre-K level
  - Increase after school activities to keep kids active and engaged
  - Expand evidence-based interventions already in place in some schools
  - Expand violence prevention into other social service agencies

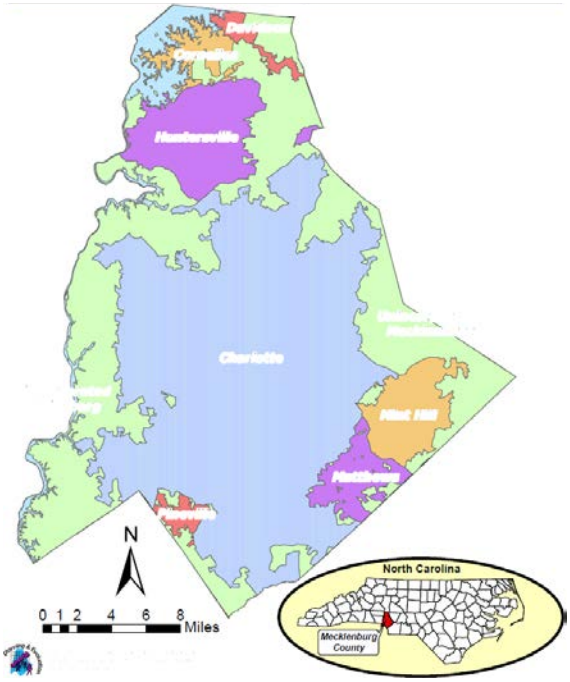
- **Professionals**
  - Use violence assessment tools to ensure consistent messages
  - Encourage healthcare professionals to ask about safety at every encounter

- **Child Abuse**
  - Increase awareness of the importance of reporting child abuse
  - Offer safe child care options to parents in need
  - Offer parenting education and support including the dangers of shaking a baby and corresponding triggers.

- **Domestic Violence**
  - Increase efforts to address domestic violence (DV) including support for the DV Review Committee
  - Increase awareness of the Women's Commission and their services
  - Address language barriers in the DV prevention field
  - Distribute DV educational/support information in public places

PEER COUNTY COMPARISON





Comparisons with Wake County and North Carolina

Peer county comparisons are an important tool in the community health assessment process. They provide geographical units of comparison for various health status indicators, serve as a basis for expected numbers of reportable diseases and provide a method for benchmarking progress towards improvement in health outcomes.

Wake County is identified as a peer of Mecklenburg due to population size, density and age composition, which may indicate similar health needs. Despite these similarities, Mecklenburg's population is younger, more racially diverse and experiences higher levels of poverty. These factors may impact overall health outcomes for the population.

The following section provides a comparison of several health status indicators.

Demographics

Population Size, 2012	Mecklenburg 969,031	Wake 952,151	North Carolina 9,752,073
By Gender			
% Males	48.2%	48.7%	48.7%
% Females	51.8%	51.3%	51.3%
By Age			
Median Age	34.2 yrs	35 yrs	37.8 yrs
Population <5 yrs age	7.3%	6.8%	6.3%
Population >= 65 yrs age	9.4%	9.2%	13.8%
By Nativity			
% Foreign-born	14%	13%	8%
By Race			
White	57.6%	68.4%	69.9%
Black or African-American	30.7%	21.1%	21.6%
American Indian/Alaskan Native	0.5%	0.4%	1.2%
Asian	4.9%	5.6%	2.3%
Native Hawaiian, Other Pacific Islander	0.1%	0.0%	0.1%
Some Other Race	3.4%	2.3%	2.6%
Two or More Races	2.7%	2.2%	2.3%
By Ethnicity			
Hispanics	12.5%	10.0%	8.7%

- Mecklenburg is a county of rapid growth, increasing in population by 32% between 2000 and 2010.
- The median age of the county is 34.2 years, younger than Wake (35 yrs.) and North Carolina (37.8 yrs.).
- In comparison to Wake County, Mecklenburg is more racially diverse with a higher proportion of African Americans, Hispanics, Persons of Other Races and Persons of 2 or more races.
- As these populations experience an excess burden of disease, disability and death, morbidity and mortality rates in the county tend to be higher in comparison to Wake County.

Changing Demographics

- Based on United States Census reports, People of Other Races have the fastest rate of growth in the nation and are expected to surpass Non-Hispanic Whites after 2050.
- The highest rate of growth between the 2000 and 2010 Census was among Hispanics. During this time period the Hispanic population in Mecklenburg increased by 149%, from 44,871 residents in 2000 to 111,944 residents in 2010.
- Asians (93%) and Black/African Americans (45%) reported the second and third highest rate of growth in the county, respectively.

2000 – 2010 Mecklenburg County Population, % Change in Population by Race/Ethnicity

Population Change, 2000 -2010	
NOT HISPANIC	
White, alone	9% ↑
Black, alone	45% ↑
Asian, alone	93% ↑
Native American	33% ↑
Multi-Racial	109% ↑
HISPANIC	
Hispanic	149% ↑
Non Hispanic	24% ↑

Source: US Census Data, 2000 - 2010 Census Data

Education, Income and Poverty

According to the Centers for Disease Control, people with higher levels of education and higher income have better health outcomes and lower rates of many chronic diseases compared to those with less education and lower income levels. Although education, income and poverty rates in Mecklenburg are better than North Carolina overall, Mecklenburg rates lag behind those of Wake County.

	Mecklenburg	Wake	North Carolina
Population Size, 2012	**969,031**	**952,151**	**9,752,073**
Education Attainment			
Less than High school diploma	10.5%	8.2%	14.8%
High School Grad/ equivalent	20.1%	17.2%	27.1%
Some college, no degree	20.9%	18.6%	22.0%
Bachelor's degree or higher	41.3%	47.5%	27.3%
Associate's Degree	7.1%	8.5%	8.7%
Poverty and Unemployment			
Unemployment Rate (% population 16 yrs. and over)	9.8%	6.8%	10.8%
Poverty Rate (% of population below poverty)	15.9%	11.6%	18.0%
Median Household Income			
Median Household Income	$55,295	$63,791	$45,150

Source: US Census Data, 2012 American Factfinder Data

Morbidity and Mortality Measures

In general, Mecklenburg residents experienced better health outcomes than North Carolina. With the exception of infant mortality, stroke and motor vehicle injuries, Mecklenburg County mortality and morbidity rates were higher than rates from Wake.

In comparison to North Carolina, injury deaths were lower in Mecklenburg and Wake. However, deaths due to homicide were slightly higher for Mecklenburg (6.7 per 100,000) in comparison to the State (6.0 per 100,000). homicide rates in Mecklenburg were 2.3 times higher than rates for Wake, indicating differences in population distribution and makeup for the county.

While Mecklenburg and Wake are similar with regard to population size, Mecklenburg's population is younger and more racially and ethnically diverse. These populations tend to experience higher rates of death, disease and disability. Poverty and unemployment are also higher in Mecklenburg, which may impact health outcomes for the population.

	Mecklenburg	Wake	North Carolina
2008 - 2012 Maternal and Child Health Indicators			
Infant Mortality (<1yr) *per 1,000 live births*	5.9	6.7	7.5
Adolescent Pregnancy (girls 15 - 17 years) *per 1,000 girls 15 - 17 years*	25.8	17.8	26.0
2008 -2012 Leading Causes of Death *(age-adjusted death rates per 100,000 population)*			
All Causes Death Rate	706.8	646.9	800.6
Heart Disease	138.5	134.0	174.4
Cancer	161.4	156.4	175.9
Stroke	38.6	43.3	45.1
Motor Vehicle Injury	7.7	8.4	14.3
All Other Unintentional Injury	19.9	18.3	29.4
Homicide	6.7	2.9	6.0
Suicide	9.4	8.8	12.2
2012 Communicable and Sexually Transmitted Diseases (rate per 100,000 population)			
Tuberculosis	3.1	1.7	2.2
Chlamydia	659.6	501.9	524.1
Gonorrhea	193.2	144.1	148.3
HIV Disease, 2010 - 2012 Average Rate (per 100,000 population)	34.0	16.5	15.1
Primary/Secondary Syphilis	9.1	6.0	3.6

NC DHHS: State Center for Health Statistics, 2014 County Health Data Book
HIV/STD Prevention and Care Unit, 2012 HIV/STD Annual Report
Tuberculosis Control Program, 2012 Tuberculosis County Rankings

Select Environmental and Health Behavior Indicators

According to current research, unhealthy behaviors such as tobacco use, lack of physical activity and poor nutrition contribute to half of all deaths in the nation. Creating opportunities for safe physical activity and active transportation is an environmental approach to preventing premature deaths and disabilities related to chronic disease.

Mecklenburg residents were more likely to report smoking, no physical activity and being overweight or obese in comparison to Wake residents. North Carolina rates were higher than both Wake and Mecklenburg in comparison.

Overall air quality measures for Mecklenburg have improved over time, but particulate matter measures still remain higher than Wake and North Carolina.

	Mecklenburg	Wake	North Carolina
2012 Health Behavior Indicators (BRFSS)			
Current Smokers	19.9%	15.8%	20.9%
% Overweight/Obese	62.5%	59.8%	65.8%
% with no Physcial Activity	19.8%	19.3%	24.9%
Environmental Factors			
Daily Fine Particle Matter, 2008	13.2	12.6	12.9
Access to Recreational Facilities, 2010 (per 100,000 population)	16.0	15.0	11.0
Limited Access to Healthy Foods, 2012	7.0%	7.0%	4.0%

Notes:

Daily Fine Particle Matter: Average daily measure of fine particulate matter in micrograms per cubic meter (PM2.5) in a county.

Limited Access to Healthy Foods: % population who are low-income and do not live close to a grocery store.

Source:
NC DHHS: State Center for Health Statistics, 2012 Behavior Risk Factor Surveillance Survey
Robert Woods Johnson 2013 County Health Rankings.

DEMOGRAPHICS

OVERVIEW

Mecklenburg County is the center of the country's fifth largest urban area with over seven million people living within a 100-mile radius. The county consists of a large urban center surrounded by smaller, more rural communities. Charlotte, with an estimated 2012 population of 775,208, is the largest city in the state and occupies 303 of the county's 527 square miles. Other municipalities include Cornelius, Davidson, Huntersville, Pineville, Matthews and Mint Hill.

POPULATION TRENDS

The total estimated population for Mecklenburg County for 2012 is 969,031. This was an increase of 9% since the 2008 American Community Survey estimates. Mecklenburg county population is expected to reach over a million people by 2020.

Live Birth Rate vs. Death Rate

- In 2011, 13,734 resident births and 5,134 deaths were recorded in Mecklenburg County.
- The total live birth rate of 14.5 births per 1,000 population is almost 3 times the total crude death rate of 5.4 deaths per 1,000 population.

2012 MECKLENBURG QUICK FACTS: DEMOGRAPHICS

- The total estimated population for Mecklenburg County for 2012 is 969,031, an increase nine percent since the 2008.
- The total live birth rate of 14.5 births per 1,000 population is almost 3 times the total crude death rate of 5.4 deaths per 1,000 population.
- The 2012 estimated Mecklenburg County population is 58% white and 42% Other Races compared to the estimated 2012 North Carolina population of 9,752,073 which is 70% white and 30% Other Races.
- The 2012 Mecklenburg population is fairly young with a median age of 34.2.
- Charlotte-Mecklenburg Schools (CMS) is the 18th largest school system in the country and the 2nd largest in the Carolinas.
- Almost 40% of Mecklenburg county residents age 25 years and older have at least a bachelor's degree compared to 27% of North Carolina residents.
- Charlotte is the 2nd largest financial center in the nation with more than $2.3 trillion in assets.

Mecklenburg County Population By Race and Ethnicity

2008			2012		
Total Population	***890,515***		***Total Population***	***969,031***	
Race	**Number**	%	**Race**	**Number**	%
White	537,441	60.4%	*White*	558,414	57.6%
African-American	259,772	29.2%	*African-American*	297,899	30.7%
Asian	35,167	3.9%	*Asian*	47,901	4.9%
American Indian/Alaskan Native	3,006	0.3%	*American Indian/Alaskan Native*	4,487	0.5%
Native Hawaiian/Pacific Islander	319	0.0%	*Native Hawaiian/Pacific Islander*	980	0.1%
Other Race	38,555	4.3%	*Other Race*	32,938	3.4%
More than One Race	16,255	1.8%	*More than One Race*	26,412	2.7%
Ethnicity			**Ethnicity**		
Hispanic (of any race)	96,214	10.8%	*Hispanic (of any race)*	121,495	12.5%

RACE/ETHNICITY

- The 2012 estimated Mecklenburg County population is 58% white and 42% Other Races compared to the estimated North Carolina population of 9,036,449 which is 70% white and 30% Other Races.
- Since 2000, the percentage of white residents has declined while African-Americans, Asian/Pacific Islanders, and Hispanics have increased.
- Since 1990, Mecklenburg has experienced a large increase in Hispanic populations due to immigration. The percentage of Hispanics has increased from 6.5% of the total population in 2000 to an estimated 12.5% of Mecklenburg residents in 2012.

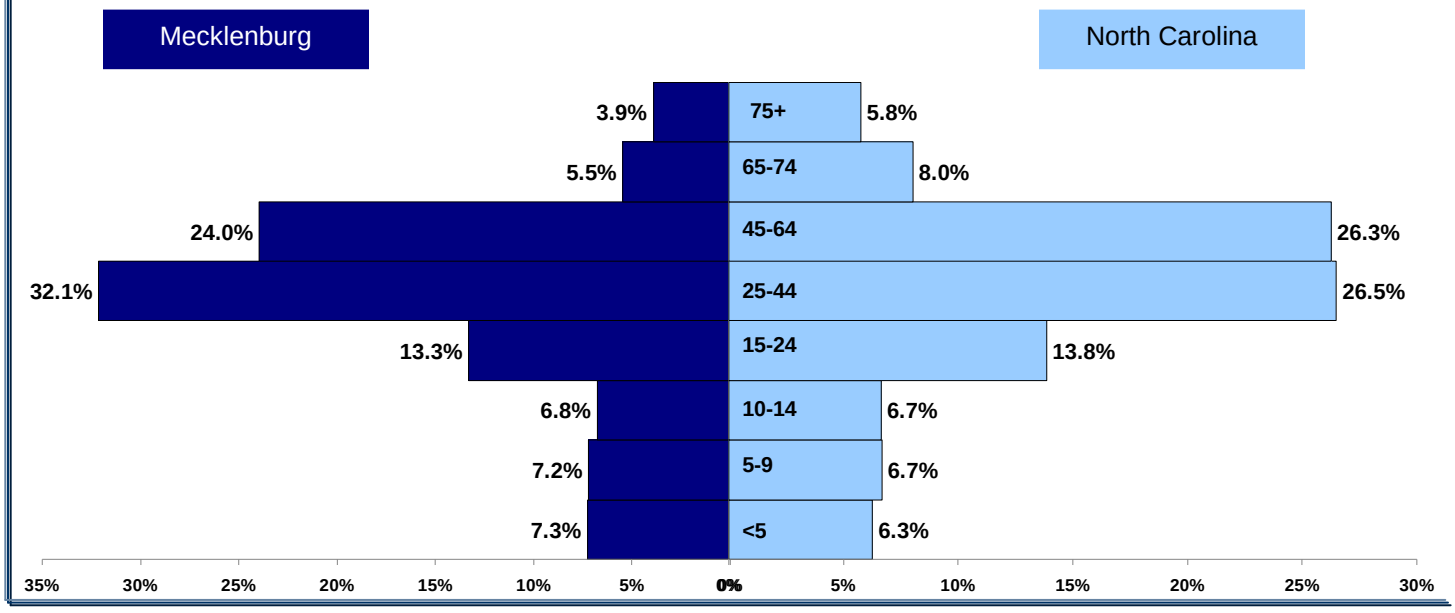
AGE

- Mecklenburg's population is fairly young with a median age of 34.2.
- Over a third of Mecklenburg residents are under the age of 25 similar to 34% of state residents.
- About 9% of Mecklenburg population is over the age of 65 compared to about 14% of North Carolina residents.

EDUCATION

- With a 2012-2013 enrollment of more than 141,000 students in grades K-12 attending 161 schools, Charlotte-Mecklenburg Schools (CMS) is the 18th largest school system in the country and the 2nd largest in the Carolinas.
- In the Charlotte Mecklenburg School District the per pupil expenditure is $8,473.
- The 2013 CMS cohort graduation rate was 81%, up from 66% in 2009.
- Nearly 230,000 students are enrolled in degree or college-transfer programs at the 47 colleges, universities, community colleges and technical institutes located within the 13 county Charlotte Metro Region. Institutions located within the county are listed on the next page.
- Over 40% of Mecklenburg residents age 25 years and older have at least a bachelor's degree compared to 27% of North Carolina residents.

Population by Age Group
Mecklenburg County and North Carolina
2012



Mecklenburg County Demographics
Education Data 2012

Educational Attainment[1]	%
Less than 9th grade	4.5%
9th to 12th grade, no diploma	6.0%
High school graduate (includes equivalency)	20.1%
Some college, no degree	20.9%
Associate's degree	7.1%
Bachelor's degree or higher	41.3%

Primary and Secondary Schools[3]	# of schools
Elementary Schools	88
Middle Schools	39
High Schools	28
Alternative/Special	4
Private & Charter Schools	89

Institutions of Higher Education[2]

University of North Carolina-Charlotte
Queens University
Johnson & Wales University
Johnson C. Smith University
King's College
Montreat College
Pfeiffer University
Central Piedmont Community College

2013 CMS Graduation Rate[3] 81.0%

Per Pupil Expenditure[3] $8,473

ECONOMIC

The recent economic downturn has resulted in increased unemployment and poverty rates. Despite the recession, Charlotte is still the number two banking center in the US with $2.3 trillion in assets.

Unemployment Rate

- The unemployment rate in Mecklenburg County increased from 6.2% in 2000 to 9.8% in 2012.

Income and Poverty Status

- The 2012 median household income for Mecklenburg County was $55,295 compared to $45,150 for North Carolina.
- In 2012, 14% of all persons in Mecklenburg lived in poverty compared to 18% across the state (see Determinants of Health for more information).

Mecklenburg Demographics
Economic Data 2012

Unemployment Rate[1]	9.8%
Median Household Income[1]	$55,295
% of All Persons Living In Poverty[1]	15.9%
persons 18 years or older	13.9%
persons 65 years and older	8.8%

Five Largest Employers in Mecklenburg County[2]

Carolinas HealthCare System
Wells Fargo
Charlotte Mecklenburg Schools
Bank of America
State of North Carolina

Mecklenburg County Vulnerable Populations 2012		
	Estimated % of population	Estimated # of persons
Disabled	8.2%	79,461
Poverty	15.9%	154,076
Uninsured	16.5%	159,890
Limited English Proficiency	8.3%	80,430
Homeless	0.2%	2,418
Children Less than 5 years of age	7.3%	70,739
Persons 65+ years of age	9.4%	91,089
Persons 85+ years of age	1.2%	11,628

VULNERABLE POPULATIONS

Groups that have not been well integrated into health care systems because of cultural, economic, geographic or health characteristics have been defined as vulnerable populations. These populations also may be at higher risk during disasters because of their vulnerability. Examples of vulnerable populations are persons with disabilities, impoverished, homeless, those persons with limited English proficiency, children aged 5 or less, persons aged 65 or more and persons aged 85 or more.

Disabled

Persons who are disabled are limited in everyday life because of physical, emotional, and/or mental health issues.

Poverty

Poverty is the state of being poor: of not having enough money to take care of basic needs such as food, clothing, and housing. The Census Bureau reports annual poverty rates based on 100% Federal Poverty Level (FPL). For more information visit: http://www.census.gov/hhes/www/poverty/poverty.html.

Uninsured

Persons who are uninsured have no type of private insurance (insurance through an employer or insurance that is purchased from a private company) or public insurance (Medicare, Medicaid, or other federal or state plans).

Limited English Proficiency

The Census Bureau defines linguistic isolation as a household in which *NO* member 14 years old and over:

- Speaks only English or
- Speaks a non-English language and speaks English "very well."

In other words, all members 14 years old and over have at least some difficulty with English.

Homeless

Homeless in Mecklenburg County are divided into 3 categories:

- US Dept. of Housing and Urban Development - an individual who lacks a fixed, regular, and adequate nighttime residence
- CMS McKinney Vento- children who are homeless

Homeless con't

- Community Other - Homeless jail inmates , hospital inpatients and the recently foreclosed and evicted

Point-In-Time Count: The-Point-In-Time Count is an unduplicated count of homeless persons at one specific time. This count is conducted in one day during the last week of January each year.

For more information on homeless in Mecklenburg County please visit: http://charmeck.org/mecklenburg/county/CommunitySupportServices/HomelessSupportServices/Pages/default.aspx.

Sources

1. United States Census Bureau, American Community Survey.: www.census.gov/acs. Last accessed 10/30/2013.

2. North Carolina State Center for Health Statistics, www.schs.state.nc.us/SCHS/. Last accessed 10/30/2013.

3. Charlotte Mecklenburg School District: www.cms.k12.nc.us. Last accessed 10/16/2013.

4. Charlotte Chamber of Commerce: www.charlottechamber.com. Last accessed 10/30/2013.

5. North Carolina Department of Public Instruction. Office of Charter Schools http://www.ncpublicschools.org/charterschools. Last accessed 10/30/2013.

6. North Carolina Department of Administration. Office of Non-Public Education. 2011 Home School Statistical Summary. http://www.ncdnpe.org/documents/hhh236.pdf. Last accessed 10/30/2013.

7. NC Health Professions Data System, Cecil G. Sheps Center for Health Services Research, University of North Carolina. http://www.shepscenter.unc.edu/hp/2011/county/119_2011.pdf. Last Accessed 10/30/2013.

MUNICIPALITY PROFILES

Cornelius • Charlotte • Davidson • Huntersville

Pineville • Matthews • Mint Hill

CORNELIUS

"Cornelius is the second youngest of Mecklenburg County's six incorporated towns and was founded in 1893, but not incorporated until March 4, 1905. In 1963, Duke Power created Lake Norman providing the area with a source of hydroelectric power and approximately 70 miles of choice lakeside property.
Cornelius is a highly diverse community with a wide variety of housing opportunities, vibrant retail and office centers and public parks."
Source: Cornelius Town History, www.cornelius.org

2013 Community Health Opinion Survey

In April 2013, nearly 1,900 Mecklenburg residents participated in a health opinion survey to determine beliefs and barriers to healthy behaviors. Participants were also asked to list the top health concerns facing members of their community based on nine health focus areas.

Residents from Cornelius who participated in the survey reported the following:

Top Three Health Concerns for Cornelius Residents:

1. Access to Care
2. Mental Health
3. Choosing Healthy Behaviors to Prevent Chronic Disease and Disability

Rankings based on nine identified focus areas for Mecklenburg.

Additional data from the 2013 Health Opinion Survey can be located in the Primary Data and Research Chapter of this report.

Cornelius at a Glance *(source: US Census, 2010 Census and 2009 -2011 estimates)*

Population

Total number of people living in Cornelius in 2010:

24,866

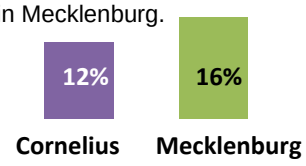
Median Age

People in Cornelius are older than in Mecklenburg.

Cornelius	37.9 years
Mecklenburg	33.9 years

Poverty

The percent of people living below poverty is lower than in Mecklenburg.



Median Household Income:

Median Household income is higher than Mecklenburg.

Cornelius	Mecklenburg
$73,211	$53, 545

Percent Uninsured:

A slightly lower percent of uninsured live in Cornelius than in Mecklenburg.

Cornelius	Mecklenburg
16.2%	17.2%

Population without Automobile:

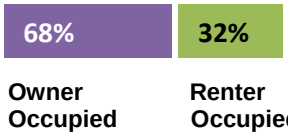
There are less people living without a car in Cornelius.

Cornelius	Mecklenburg
5.5%	7.0%

Education

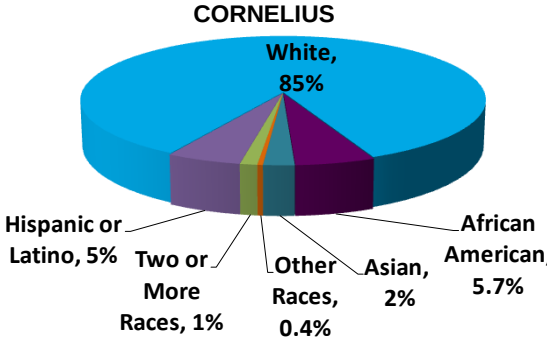
Education	Cornelius	Mecklenburg
Less than High School Diploma	7.0%	11.5%
High school grad or equivalency	18.5%	20.1%
Some college, no degree	16.2%	21.0%
Associate's degree	8.3%	7.7%
Bachelor's degree	33.7%	27.2%
Graduate or professional degree	16.2%	12.4%

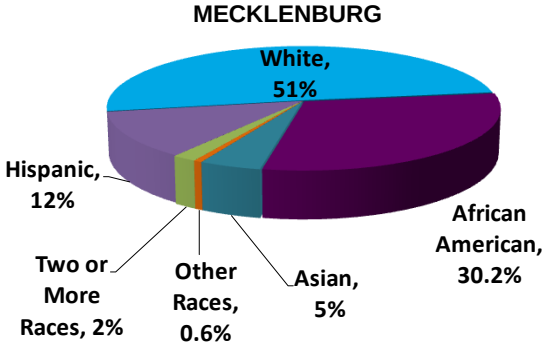
Housing Tenure:



Race/Ethnicity

Cornelius has a higher proportion of White residents than Mecklenburg County overall.





CHARLOTTE

"Charlotte is the capital city of Mecklenburg and owes its name to German born Queen Charlotte, wife of England's King George III. For this reason Charlotte is often referred to as the "Queen City." Charlotte attained city status with America's first discovery of gold in 1799. The city was the gold mining capital of the country until the California Gold Rush fifty years later.

Charlotte is the center of the nation's sixth largest urban region and the 19th largest city in the United States. It is the second largest financial center in the nation."
Source: www.charlottechamber.com

Charlotte at a Glance *(source: US Census, 2010 Census and 2009 -2011 estimates)*

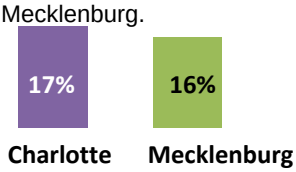
Population
Total number of people living in Charlotte in 2010:

731,424

Median Age
People in Charlotte are younger than in Mecklenburg.

Charlotte	33.2 years
Mecklenburg	33.9 years

Poverty
The percent of people living below poverty is higher than in Mecklenburg.



Median Household Income:
Median Household income is lower than Mecklenburg.

Charlotte	Mecklenburg
$51,224	$53,545

Percent Uninsured:
A slightly higher percent of uninsured live in Charlotte than in Mecklenburg.

Charlotte	Mecklenburg
17.8%	17.2%

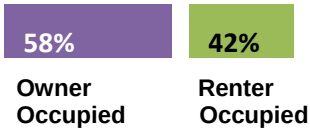
Population without Automobile:
There are more people living without a car in Charlotte.

Charlotte	Mecklenburg
7.9%	7.0%

Education

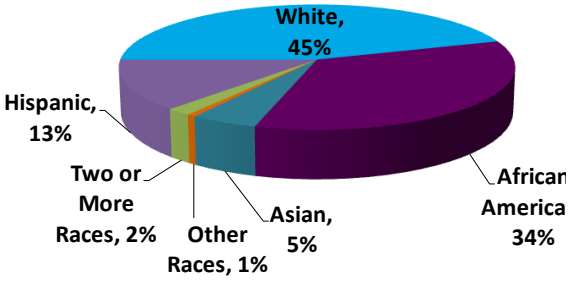
Education	Charlotte	Mecklenburg
Less than High School Diploma	12.2%	11.5%
High school grad or equivalency	20.3%	20.1%
Some college, no degree	21.1%	21.0%
Associate's degree	7.5%	7.7%
Bachelor's degree	26.7%	27.2%
Graduate or professional degree	12.3%	12.4%

Housing Tenure:

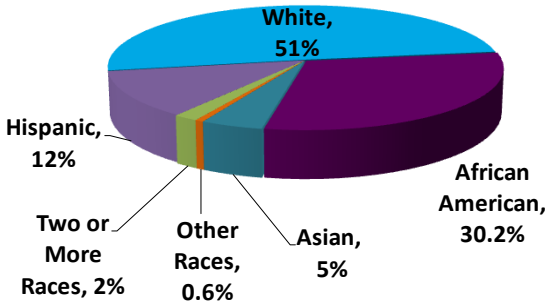


Race/Ethnicity
Charlotte has a lower proportion of White residents than Mecklenburg County overall.

CHARLOTTE



MECKLENBURG



2013 Community Health Opinion Survey

In April 2013, nearly 1,900 Mecklenburg residents participated in a health opinion survey to determine beliefs and barriers to healthy behaviors. Participants were also asked to list the top health concerns facing members of their community based on nine health focus areas.

Residents from Charlotte who participated in the survey reported the following:

Top Three Health Concerns for Charlotte Residents

1. Choosing Healthy Behaviors to Prevent Chronic Disease and Disability
2. Mental Health
3. Access to Care

Rankings based on nine identified focus areas for Mecklenburg.

Additional data from the 2013 Health Opinion Survey can be located in the Primary Data and Research Chapter of this report.

DAVIDSON

"Located 20 miles north of Charlotte, N.C., Davidson is a small college town with engaged and active citizens who care deeply about their community. Davidson is home to Davidson College, with a certified arboretum and remarkable students who contribute to the life of the town.

In the last few years, Davidson has acquired almost 500 acres of open space. Davidson is the 2004 Smart Growth Award winner for Overall Excellence in town planning and design."

Source: Davidson Town History, ***www.ci.davidson.nc.us***

2013 Community Health Opinion Survey

In April 2013, nearly 1,900 Mecklenburg residents participated in a health opinion survey to determine beliefs and barriers to healthy behaviors. Participants were also asked to list the top health concerns facing members of their community based on nine health focus areas.

Residents from Davidson who participated in the survey reported the following:

Top Three Health Concerns for Davidson Residents:

1. Mental Health
2. Choosing Healthy Behaviors to Prevent Chronic Disease and Disability
3. Substance Abuse Prevention

Rankings based on nine identified focus areas for Mecklenburg.

Additional data from the 2013 Health Opinion Survey can be located in the Primary Data and Research Chapter of this report.

Davidson at a Glance *(source: US Census, 2010 Census and 2009 -2011 estimates)*

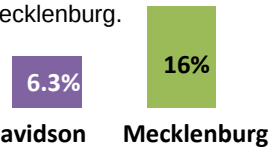
Population
Total number of people living in Davidson in 2010:

10,944

Median Age
People in Davidson are older than in Mecklenburg.

Davidson	35.7 years
Mecklenburg	33.9 years

Poverty
The percent of people living below poverty is lower than in Mecklenburg.



Median Household Income:
Median Household income is higher than Mecklenburg.

Davidson	Mecklenburg
$83,492	$53,545

Percent Uninsured:
Reliable data for uninsured in Davidson is not available due to small population size.

Davidson	Mecklenburg
N/A	17.2%

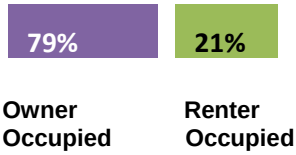
Population without Automobile:
There are less people living without a car in Davidson.

Davidson	Mecklenburg
0.9%	7.0%

Education

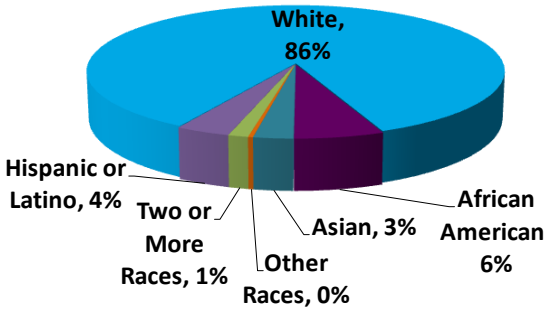
	Davidson	Mecklenburg
Less than High School Diploma	2.2%	11.5%
High school grad or equivalency	11.5%	20.1%
Some college, no degree	14.5%	21.0%
Associate's degree	3.1%	7.7%
Bachelor's degree	39.7%	27.2%
Graduate or professional degree	29.1%	12.4%

Housing Tenure:

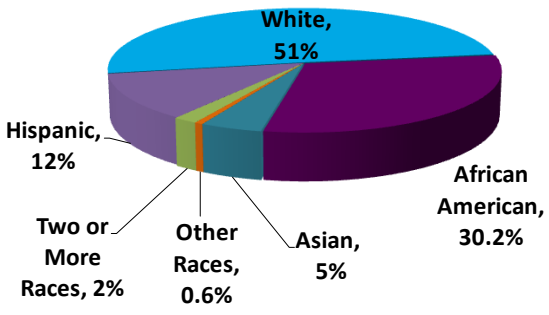


Race/Ethnicity
Davidson has a higher proportion of White residents than Mecklenburg County overall.

DAVIDSON



MECKLENBURG



HUNTERSVILLE

"Huntersville, the first Lake Norman town north of Charlotte in Mecklenburg County, was officially incorporated in 1873. Huntersville provides access to Lake Norman and its 520 miles of shoreline. It is home to Historic Latta Plantation with its 1200+ acres of historic sites, nature preserve, trails for biking, hiking or horseback riding and access to Mountain Island Lake for canoeing."

Source: Huntersville Town History, www.Huntersville.org

2013 Community Health Opinion Survey

In April 2013, nearly 1,900 Mecklenburg residents participated in a health opinion survey to determine beliefs and barriers to healthy behaviors. Participants were also asked to list the top health concerns facing members of their community based on nine health focus areas.

Residents from Huntersville who participated in the survey reported the following:

Top Three Health Concerns for Huntersville Residents:

1. Choosing Healthy Behaviors to Prevent Chronic Disease and Disability
2. Mental Health
3. Access to Care

Rankings based on nine identified focus areas for Mecklenburg.

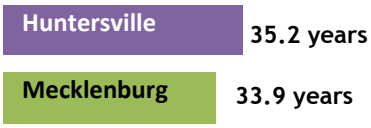
Additional data from the 2013 Health Opinion Survey can be located in the Primary Data and Research Chapter of this report.

Huntersville at a Glance *(source: US Census, 2010 Census and 2009 -2011 estimate)*

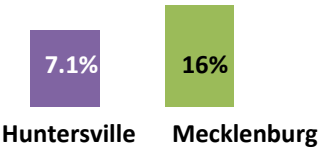
Population
Total number of people living in Huntersville in 2010:

46,773

Median Age
People in Huntersville are older than in Mecklenburg.



Poverty
The percent of people living below poverty is lower than in Mecklenburg.



Median Household Income:
Median Household income is higher than Mecklenburg.

Huntersville	Mecklenburg
$78,511	$53,545

Percent Uninsured:
A slightly lower percent of uninsured live in Huntersville.

Huntersville	Mecklenburg
12.7%	17.2%

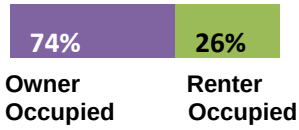
Population without Automobile:
There are less people living without a car in Huntersville.

Huntersville	Mecklenburg
2.7%	7.0%

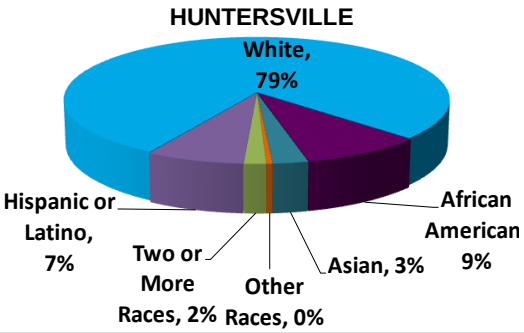
Education

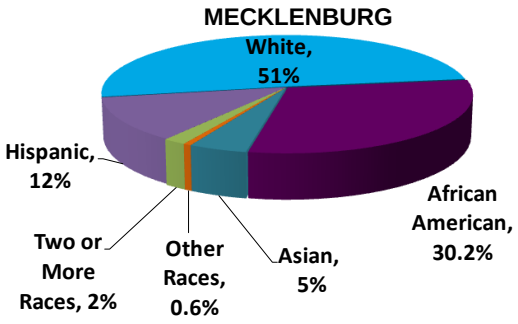
Education	Huntersville	Mecklenburg
Less than High School Diploma	5.9%	11.5%
High school grad or equivalency	15.5%	20.1%
Some college, no degree	18.8%	21.0%
Associate's degree	9.1%	7.7%
Bachelor's degree	35.8%	27.2%
Graduate or professional degree	14.9%	12.4%

Housing Tenure:



Race/Ethnicity
Huntersville has a higher proportion of White residents than Mecklenburg County overall.





MATTHEWS

"In 1879, Matthews was incorporated as a municipal corporation in the state of North Carolina. In 1996, the National Register of Historic Places listed 10 downtown buildings in Matthews. Known as Matthews Commercial District, they comprise a small collection of structures dating from the late 19th to the early 20th century. On March 8, 2004, Matthews celebrated its 125th year as a town. Matthews has grown from 191 citizens in 1880 to a population of 28,000. Matthews is a special place to live, work and raise a family."

Source: Matthews Town History, www.matthewsnc.gov

2013 Community Health Opinion Survey

In April 2013, nearly 1,900 Mecklenburg residents participated in a health opinion survey to determine beliefs and barriers to healthy behaviors. Participants were also asked to list the top health concerns facing members of their community based on nine health focus areas.

Residents from Matthews who participated in the survey reported the following:

Top Three Health Concerns for Matthews Residents:

1. Mental Health
2. Access to Care
3. Choosing Healthy Behaviors to Prevent Chronic Disease and Disability

Rankings based on nine identified focus areas for Mecklenburg.

Additional data from the 2013 Health Opinion Survey can be located in the Primary Data and Research Chapter of this report.

Matthews at a Glance *(source: US Census, 2010 Census and 2009 -2011 estimates)*

Population
Total number of people living in Matthews in 2010:

27,198

Median Age
People in Matthews are older than in Mecklenburg.

Matthews	40.3 years
Mecklenburg	33.9 years

Poverty
The percent of people living below poverty is lower than in Mecklenburg.

Matthews	Mecklenburg
9.5%	16%

Median Household Income:
Median Household income is higher than Mecklenburg.

Matthews	Mecklenburg
$63,247	$53, 545

Percent Uninsured:
A slightly lower percent of uninsured live in Matthews than in Mecklenburg.

Matthews	Mecklenburg
13.3%	17.2%

Population without Automobile:
There are less people living without a car in Matthews.

Matthews	Mecklenburg
4.5%	7.0%

Education

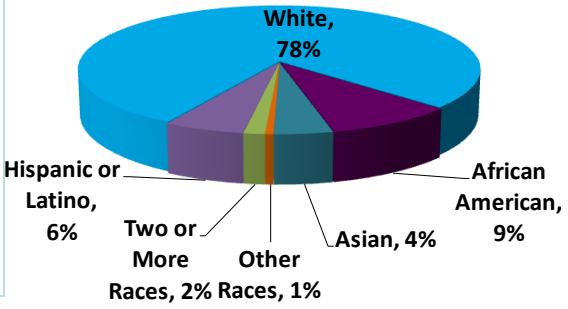
Education	Matthews	Mecklenburg
Less than High School Diploma	5.3%	11.5%
High school grad or equivalency	15.3%	20.1%
Some college, no degree	23.4%	21.0%
Associate's degree	11.6%	7.7%
Bachelor's degree	31.4%	27.2%
Graduate or professional degree	13.0%	12.4%

Housing Tenure:

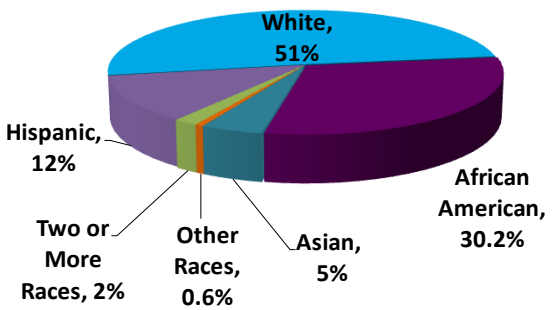
Owner Occupied	Renter Occupied
72%	28%

Race/Ethnicity
Matthews has a higher proportion of White residents than Mecklenburg County overall.

MATTHEWS



MECKLENBURG



MINT HILL

"Incorporated March 11, 1971, with a population of 2,284, the town has enjoyed a steady growth to its current population of approximately 22,000 persons. Primarily a residential community, the business district has shown intensified development in recent years with approximately 285 businesses and professional services available.

The combination of churches, schools, recreational facilities, open space and community spirit make Mint Hill an ideal place to live and work."

Source: Mint Hill Town History, www.minthill.com

2013 Community Health Opinion Survey

In April 2013, nearly 1,900 Mecklenburg residents participated in a health opinion survey to determine beliefs and barriers to healthy behaviors. Participants were also asked to list the top health concerns facing members of their community based on nine health focus areas.

Residents from Mint Hill who participated in the survey reported the following:

Top Three Health Concerns for Mint Hill Residents:

1. Mental Health
2. Choosing Healthy Behaviors to Prevent Chronic Disease and Disability
3. Access to Care

Rankings based on nine identified focus areas for Mecklenburg.

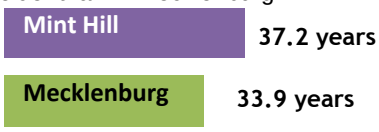
Additional data from the 2013 Health Opinion Survey can be located in the Primary Data and Research Chapter of this report.

Mint Hill at a Glance *(source: US Census, 2010 Census and 2009 -2011 estimates)*

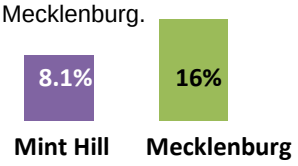
Population
Total number of people living in Mint Hill in 2010:

22,722

Median Age
People in Mint Hill are older than in Mecklenburg.



Poverty
The percent of people living below poverty is lower than in Mecklenburg.



Median Household Income:
Median Household income is higher than Mecklenburg.

Mint Hill	Mecklenburg
$64,839	$53, 545

Percent Uninsured:
A slightly lower percent of uninsured live in Mint Hill than in Mecklenburg.

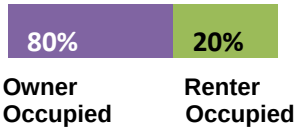
Mint Hill	Mecklenburg
11.7%	17.2%

Population without Automobile:
There are less people living without a car in Mint Hill.

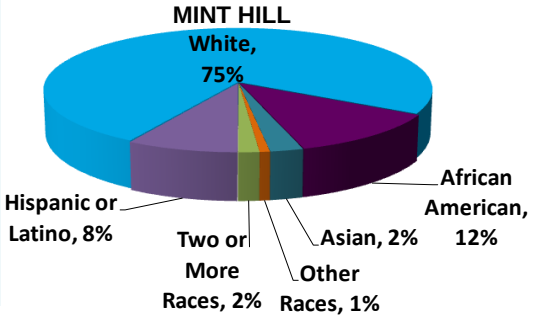
Mint Hill	Mecklenburg
2.2%	7.0%

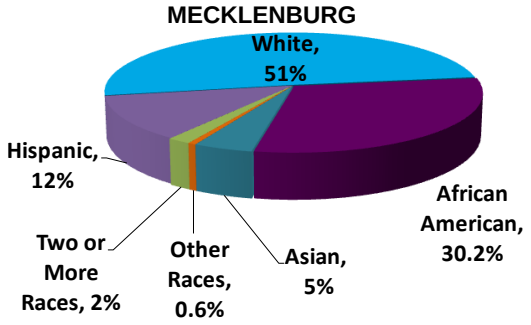
Education	Mint Hill	Mecklenburg
Less than High School Diploma	9.3%	11.5%
High school grad or equivalency	22.0%	20.1%
Some college, no degree	26.3%	21.0%
Associate's degree	8.6%	7.7%
Bachelor's degree	23.9%	27.2%
Graduate or professional degree	9.8%	12.4%

Housing Tenure:



Race/Ethnicity
Mint Hill has a higher proportion of White residents than Mecklenburg County overall.





PINEVILLE

"Pineville is the birthplace of James K. Polk, the 11th U.S. president. The town was changed forever when the initial segment of Interstate 485 connecting interchanges at NC Highway 51 and South Boulevard incidentally passed directly through Pineville.

With nearly 8,000,000 square feet (743,000 m2) of retail space, Pineville is home to the 1,100,000-square-foot (100,000 m2) Carolina Place Mall, at least two power centers and many strip malls, outparcels and free-standing retailers."

Source: Pineville Town History, www.TownofPineville.org

Pineville at a Glance *(source: US Census, 2010 Census and 2009 -2011 estimates)*

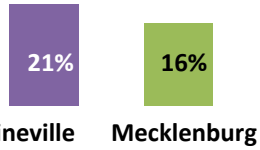
Population
Total number of people living in Pineville in 2010:

7,479

Median Age
People in Pineville are older than in Mecklenburg.

Pineville	35 years
Mecklenburg	33.9 years

Poverty
The percent of people living below poverty is lower than in Mecklenburg.



Median Household Income:
Median Household income is higher than Mecklenburg.

Pineville	Mecklenburg
$34,118	$53, 545

Percent Uninsured:
Reliable data for uninsured in Pineville is not available due to small population size.

Pineville	Mecklenburg
N/A	17.2%

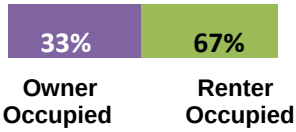
Population without Automobile:
There are less people living without a car in Matthews.

Pineville	Mecklenburg
14.7%	7.0%

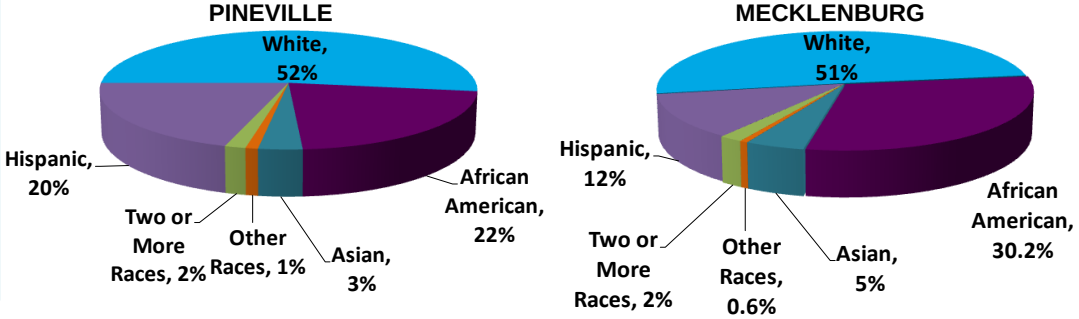
Education

Education	Pineville	Mecklenburg
Less than High School Diploma	19.9%	11.5%
High school grad or equivalency	33.2%	20.1%
Some college, no degree	20.3%	21.0%
Associate's degree	4.6%	7.7%
Bachelor's degree	16.2%	27.2%
Graduate or professional degree	5.8%	12.4%

Housing Tenure:



Race/Ethnicity
Pineville has a higher proportion of White residents than Mecklenburg County overall.



2013 Community Health Opinion Survey

In April 2013, nearly 1,900 Mecklenburg residents participated in a health opinion survey to determine beliefs and barriers to healthy behaviors. Participants were also asked to list the top health concerns facing members of their community based on nine health focus areas.

Residents from Pineville who participated in the survey reported the following:

Top Three Health Concerns for Pineville Residents:

1. Choosing Healthy Behaviors to Prevent Chronic Disease and Disability
2. Mental Health
3. Substance Abuse Prevention

Rankings based on nine identified focus areas for Mecklenburg.

Additional data from the 2013 Health Opinion Survey can be located in the Primary Data and Research Chapter of this report.


DETERMINANTS OF HEALTH

OVERVIEW

Determinants of health are defined as the circumstances in which people are born, grow up, live, work, and age, and the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics *(World Health Organization)*. Together, these factors contribute to inequities in health, explaining why people living in poverty die sooner and get sick more often than those living in more privileged conditions.

The World Health Organization (WHO) Commission on Social Determinants of Health concluded in 2008 that the social conditions in which people are born, live, and work are the single most important determinant of one's health status. In other words, a person's zip code may be more important to health than their genetic code. Low-income neighborhoods may offer inadequate healthcare services, lower quality educational opportunities, fewer job opportunities, and higher crime rates when compared to more mixed-income or high-income communities; all factors which may contribute to continued poverty and the development of poor health outcomes.

Good health involves reducing levels of educational failure, unemployment and improving housing standards for all residents.

2013 MECKLENBURG QUICK FACTS: DETERMINANTS OF HEALTH

- The recent economic downturn has led to increased unemployment rates, foreclosures and overall poverty within the county.
- Unemployment in the county has increased from 7.4% in 2005 to 9.8% in 2012.
- In 2012, 21% of children under 18 were below the poverty level, compared with 9% of people 65 years old and over.
- While poverty levels have increased for the county, Mecklenburg poverty rates are generally lower than that of North Carolina and the Nation. However, disparities persist across race/ethnicity and educational attainment.
- High rates of linguistic isolation exist among Hispanic and Asian American residents which in turn may impact overall health status.
- Individuals and families with access to affordable housing have a greater sense of privacy, security, stability, and control which in turn make important contributions to health.
- Renters, more than homeowners, are more likely to experience housing cost burdens, spending 30% or more of their annual income towards housing.
- Single-family households, in particular single mother-headed households, have higher rates of poverty in comparison to other family types.

LIMITED ENGLISH PROFICIENCY

Fluency in English is a key factor in one's ability to navigate the healthcare system. Individuals with limited English proficiency face significant challenges in attaining employment and receiving quality care.

The Census Bureau defines linguistic isolation as a household in which *NO* member 14 years old and over:

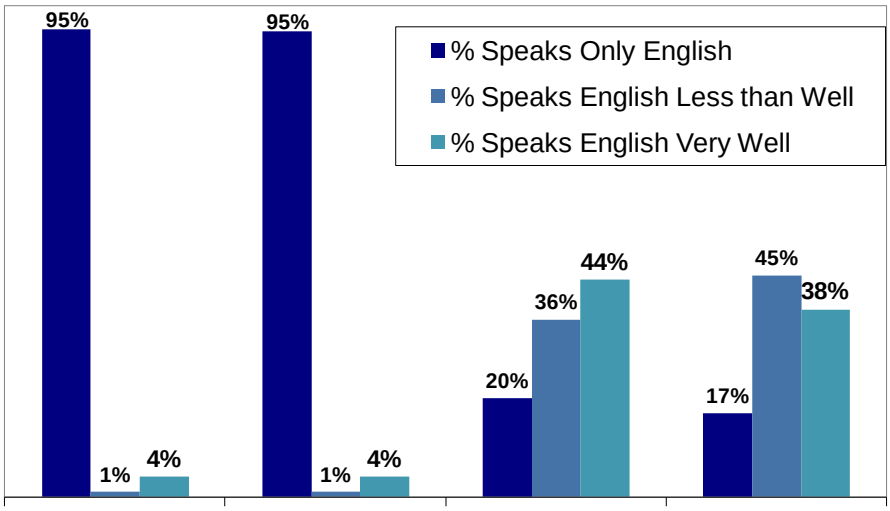
- Speaks only English or
- Speaks a non-English language and speaks English "very well."

In other words, all members 14 years old and over have at least some difficulty with English.

Based upon 2012 US Census estimates:

- Among people at least five years old living in Mecklenburg County, 18% spoke a language other than English at home. Hispanics and Asian Americans represent the highest number of persons who speak a non-English language at home.
- Asian Americans and Hispanics are also more likely to report limited English proficiency. An estimated 36% of Asians and 45% of Hispanics in the county speak English "less than very well".
- These high rates of linguistic isolation among Hispanic and Asian American residents speak to the strong need for interpreter and translator services within healthcare systems.

Language Spoken at Home by Ability to Speak English
Mecklenburg Residents, 2012
(Populations 5yrs. and Over)



Notes:
The following data are based on a sample and are subject to sampling variability.

Estimates for Blacks and Asians include some persons of Hispanic origin.

Estimates for American Indians, Native Hawaiians and Other Pacific Islanders are not available due to small population sizes.

Estimate based upon Mecklenburg residents who speak English ("very well" or "less than very well") but speak a language other than English at home.

Data Source: US Census Bureau, 2012 American Community Survey

EMPLOYMENT AND INCOME

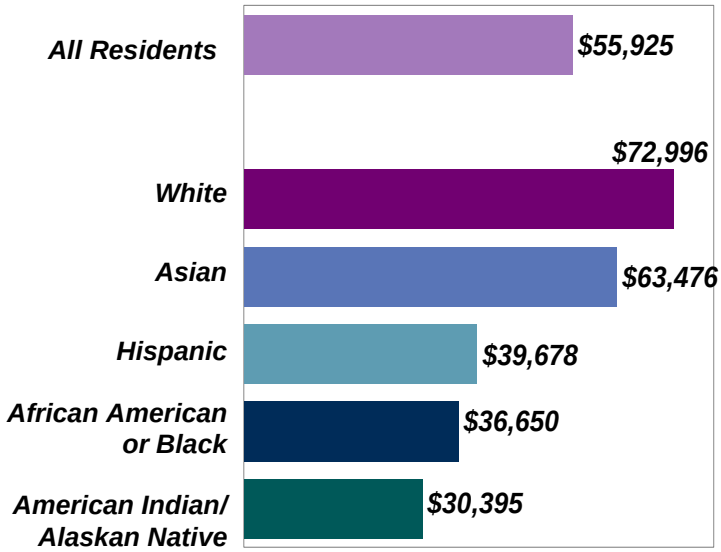
Employment and living wages can provide financial security and access to resources, such as housing and healthcare. Current research shows that life expectancy increases with levels of income. One study demonstrated that men and women in the highest income level can expect to live at least 6 years or more than poor men and women *(National Heart, Lung and Blood Institute)*.

The recent economic downturn has led to increased unemployment rates, foreclosures and overall poverty within the county. Neighborhoods with high levels of unemployment and poverty are at increased risk for excess disease, death and crime.

- In 2005, the unemployment rate for the county was 7.4%. By 2012 the percent of residents who were unemployed increased to 9.8% *(2012 US Census Bureau)*.
- Based upon the most recent Census data, unemployment rates were highest among African American (17%) and Hispanic (10%) residents. Whites and Asians had lower rates of unemployment (6% and 7% respectively).
- In 2012, the median household income for Mecklenburg was $55,925. However, income inequality exists across racial and ethnic lines.
- With the exception of Asians, the median household income for racial and ethnic minority populations is 2 to 3 times lower than that of Whites in the county.
- Higher income levels are often associated with better health outcomes. Based upon 2012 BRFSS data, residents with an annual income less than $50,000 were more likely to report smoking, physical inactivity and obesity in comparison to residents with higher income levels.

Additional information on income and its relation to health status can be found in the Health Disparities Section.

Median Household Income in Past 12 months
2012 Census data for Mecklenburg Residents
(By Race/Ethnicity*)



*Estimates for Asians, American Indian/Alaskan Native and Blacks include some persons of Hispanic origin. Whites are non-Hispanic.

Household Income: the sum of money income received in the calendar year by all household members 16 years old and over, including household members not related to the householder, people living alone, and other non-family household members

Data is for 2012 inflation-adjusted dollars. Data is based upon sample and subject to sampling variability.

Source: US Census Bureau, 2012 American Community Survey, Mecklenburg County

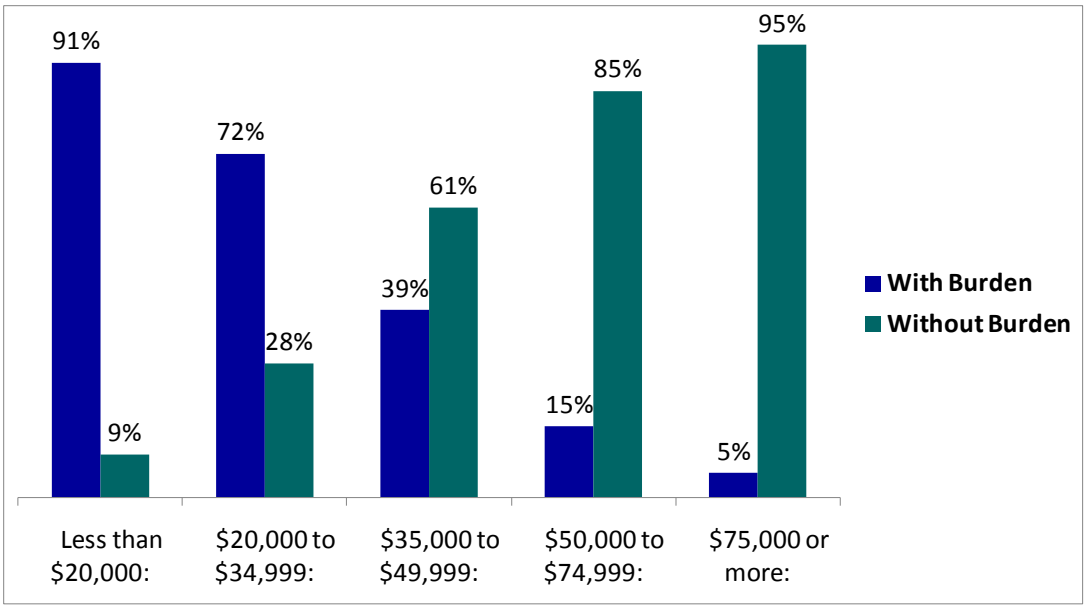
AFFORDABLE HOUSING

Housing is commonly considered to be "affordable" when a household pays no more than 30 percent of its annual income on housing (either renting or buying). Individuals and families with access to affordable housing have a greater sense of privacy, security, stability and control which in turn make important contributions to health. Conversely, a shortage of affordable housing often relegates lower-income families to substandard housing in unsafe, overcrowded neighborhoods with higher rates of poverty and fewer resources for health improvements.

Spending more than 30 percent of annual income on housing can result in housing cost burdens to families. Individuals and families experiencing housing cost burdens tend to have fewer funds left over in their budgets to pay for food and health care expenditures, setting the stage for increased illness and premature deaths.

- Based upon 2012 US Census data, there were 366,000 households in Mecklenburg County. The average household size was 2.6 people.
- The median monthly housing costs for mortgaged owners was $1,423, non-mortgage owners $416, and renters $879.
- Renters were more likely to experience housing-cost burdens than property owners. In 2012, 29% of owners with mortgages, 15% of owners without mortgages, and 48% of renters in Mecklenburg spent 30% or more of household income on housing.
- Residents with a household income of $20,000 or less experience the highest level of housing cost burden in the county (91%). Conversely, only 5% of individuals or families with household income of $75,000 or more experience housing cost burden.

% of Mecklenburg Residents Experiencing Housing Cost Burden by Household Income, 2012
(Income in Past Month)



Notes:

Housing Cost Burden: Individuals or families who spend *more than 30%* of their income on housing are categorized as having a housing-cost burden.

No Housing Cost Burden: Individuals or families who spend *less than 30%* of their income on housing are categorized as having little to no housing-cost burden.

Source: US Census Bureau, 2012 American Community Survey, Mecklenburg County

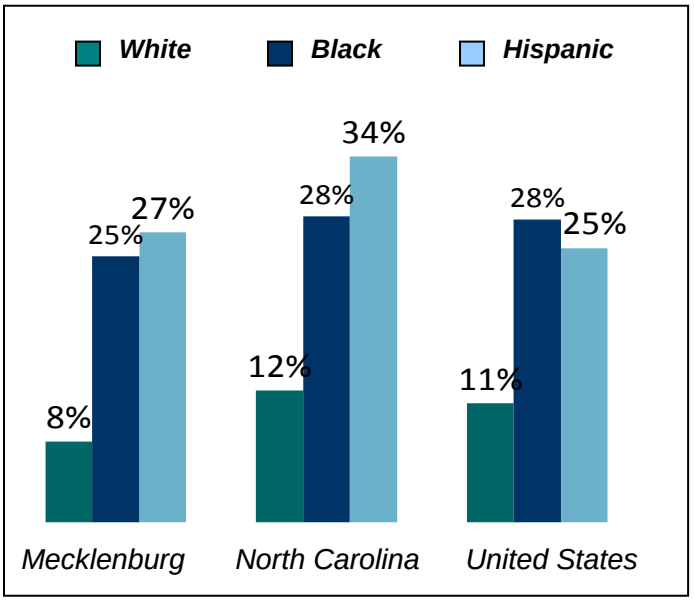
POVERTY IN MECKLENBURG COUNTY

The relationship between poverty and health is complex and influenced by multiple, interrelated factors including: poor environmental conditions, low educational attainment, financial barriers in accessing health services, and a lack of resources necessary to maintain good health status.

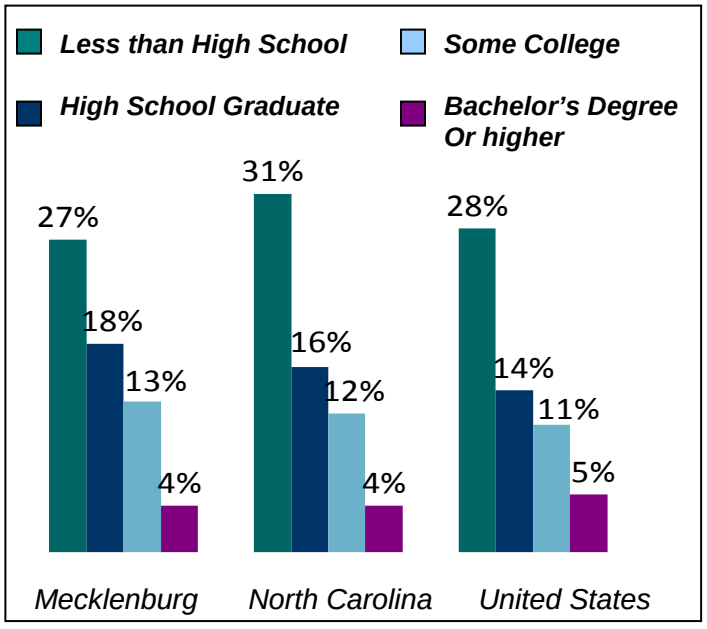
Researchers have found that African American and Hispanic families, more frequently than White families, live in areas of concentrated poverty resulting in racial as well as economic segregation. Low-income neighborhoods may offer inadequate healthcare services, lower quality educational opportunities, fewer job opportunities, and higher crime rates when compared to more mixed-income or high-income communities, all factors which may contribute to continued poverty and the development of poor health outcomes.

- In 2001, there were 63,104 Mecklenburg residents living below the poverty level, about 9% of the population. By 2012, the number of persons living below poverty increased to 16% of the population, or 151,308 residents.
- The 2012 poverty level for Mecklenburg is less than state or national estimates. However, disparities persist with regards to race/ethnicity and education. Black/African American (25%) and Hispanic residents (27%) are three times more likely to live in poverty than Whites (8%).
- Higher levels of education are most often associated with financial security, increased life expectancy and improved health status. Approximately 27% of Mecklenburg residents with less than a high-school diploma live in poverty compared to only 4% of residents with a bachelor's degree or higher.
- Poverty greatly impacts vulnerable populations, such as children and the elderly. In Mecklenburg, 21% of related children under 18 and 9% of people 65 years old and over live in poverty.

Poverty Status by Race/Ethnicity, 2012
Mecklenburg, North Carolina, United States
(Percent of Population in Poverty)



Poverty Status by Education, 2012
Mecklenburg, North Carolina, United States
(Percent of Population in Poverty)



Source: US Census Bureau, 2012 American Community Survey, Mecklenburg County

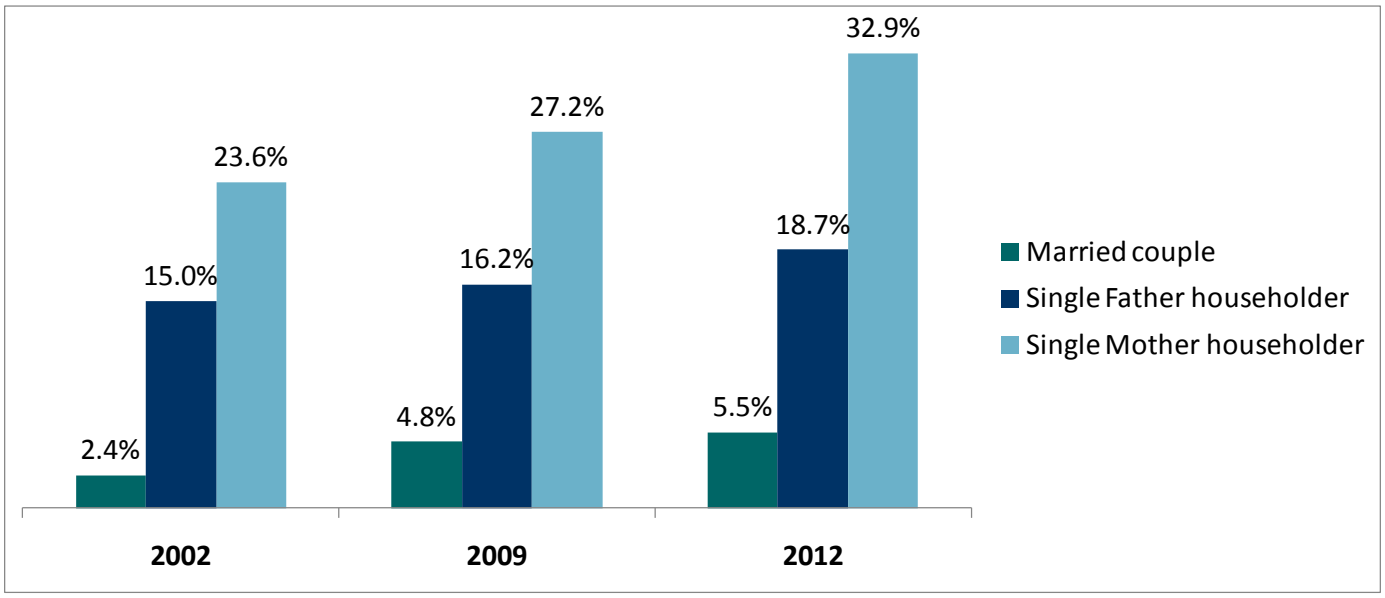
Mecklenburg Families and Poverty

Poverty, or the threat of poverty, remains one of the most stressful challenges facing families today. Families that live in poverty are often unable to afford basic necessities, such as food, housing and stable child care.

Single-family households, in particular single mother-headed households, tend to have higher rates of poverty. Increased poverty rates among single-mothers can be attributed to multiple factors, including: higher earning power of men compared with women, lack of affordable child care and lack of child support payments.

- Families make up 61% of the households in Mecklenburg. This figure includes both married couple families (42%) and other families (19%). Of other families, 9% are female householder families with no husband present and children under 18 years.
- The proportion of Mecklenburg families with incomes below poverty has increased from 7.3% in 2002 to 12.9% in 2012.
- Female householders experience higher rates of poverty than other families. In 2012, 33% of families with a female householder and no husband present had incomes below the poverty level in comparison to 19% of families with a male householder and no wife present.

Mecklenburg County Residents Poverty Status by Family Type, 2002 - 2012
(Percent of Families in Poverty)



Source:
US Census Bureau 2002/2009/2012 American Community Survey

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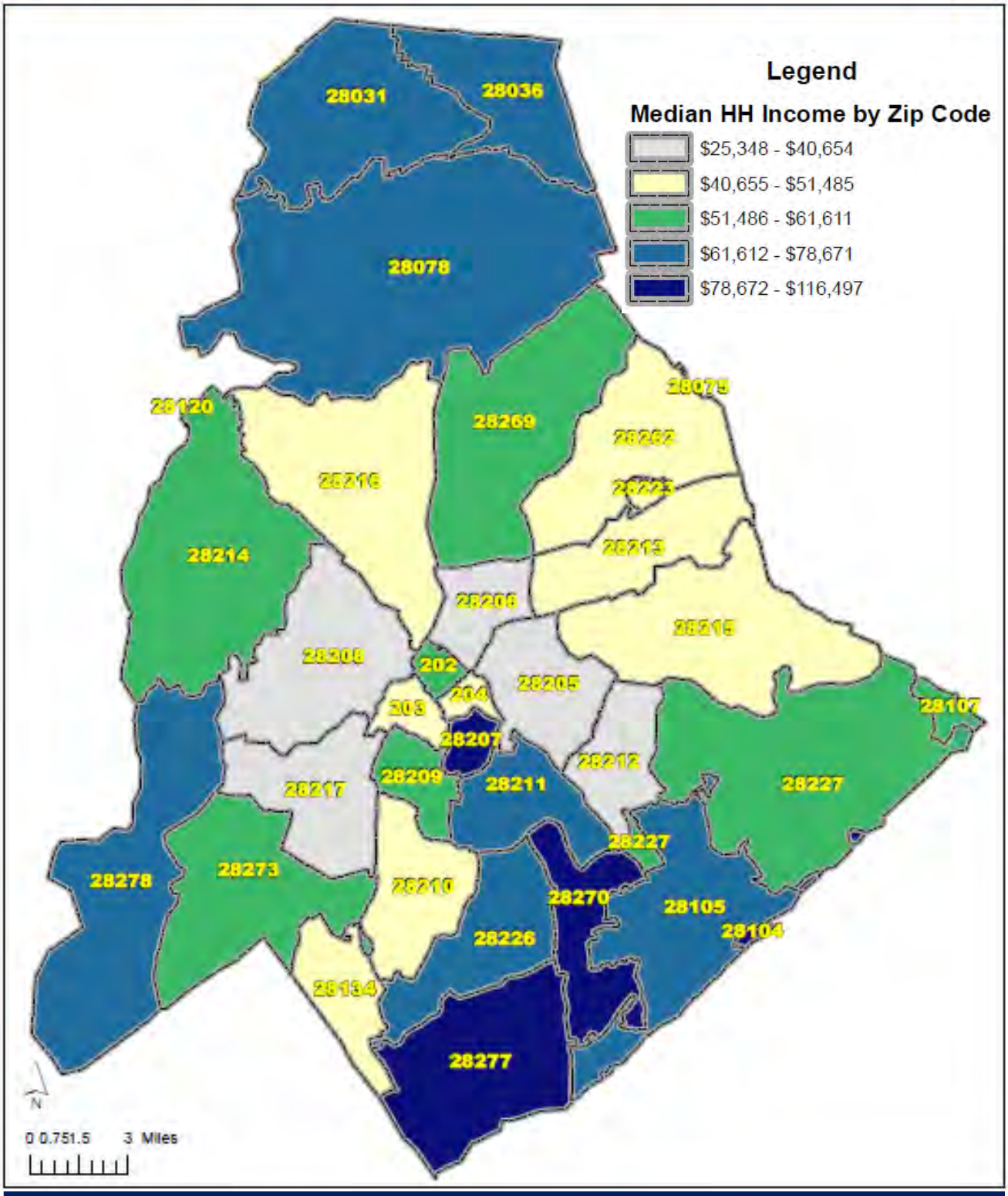
MECKLENBURG COUNTY MAPS

Geographic Information

Socioeconomic Indicators

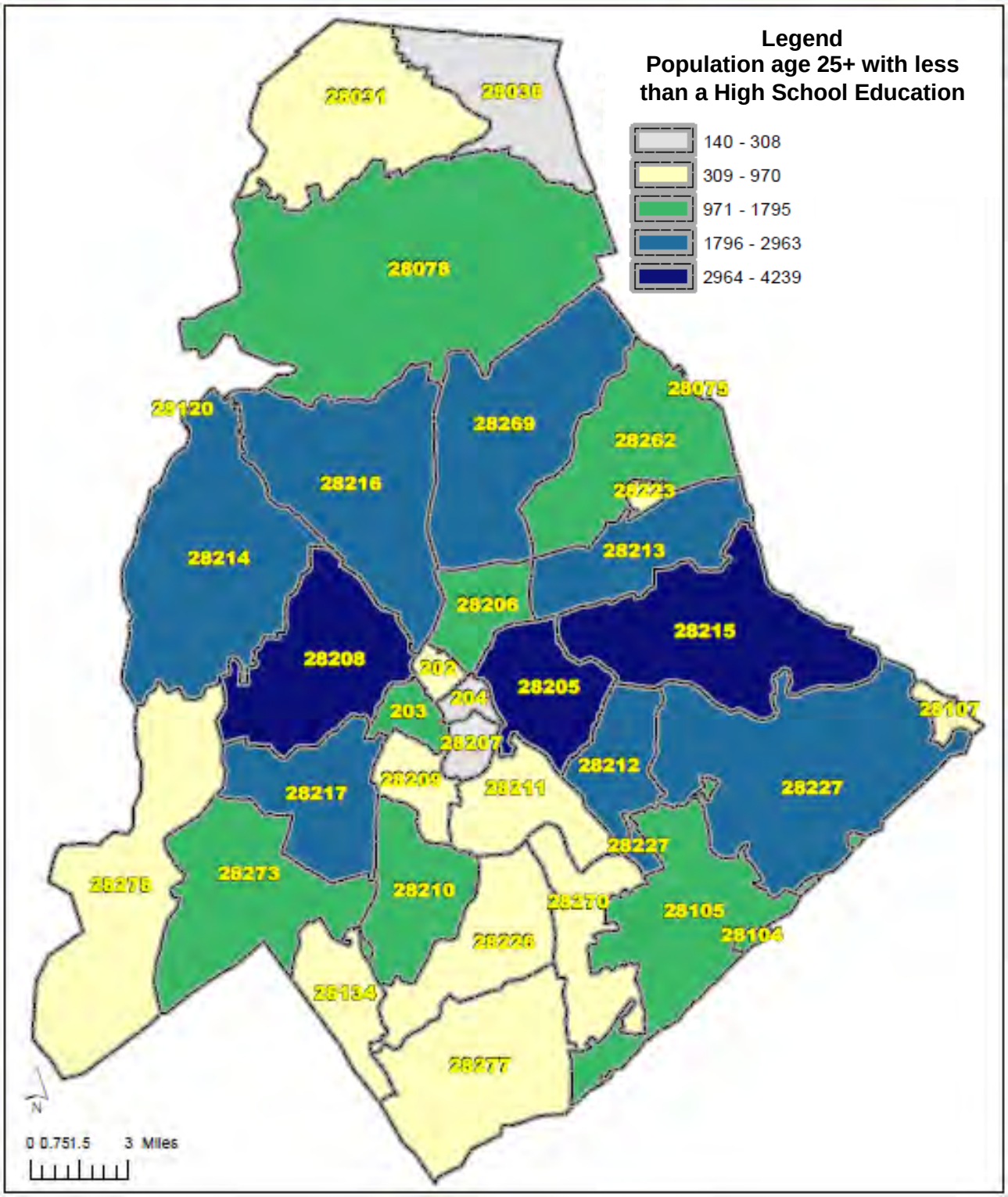
Racial & Ethnic Populations

2013 Median Household Income
Mecklenburg County



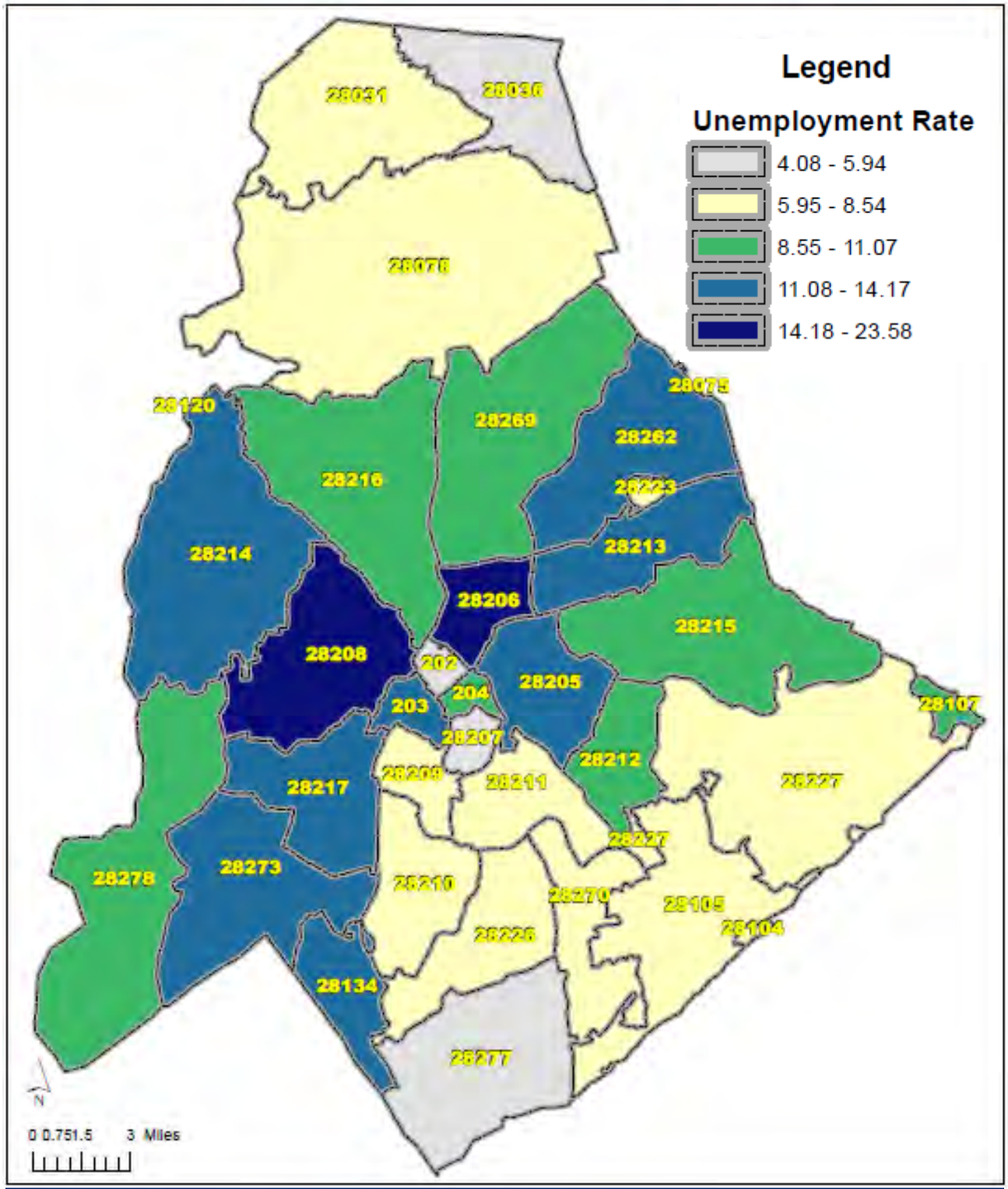
Source: Applied Geographic Solutions | Prepared by Mecklenburg County GIS

2013 Persons Age 25+ With Less Than a 12th Grade Education Mecklenburg County



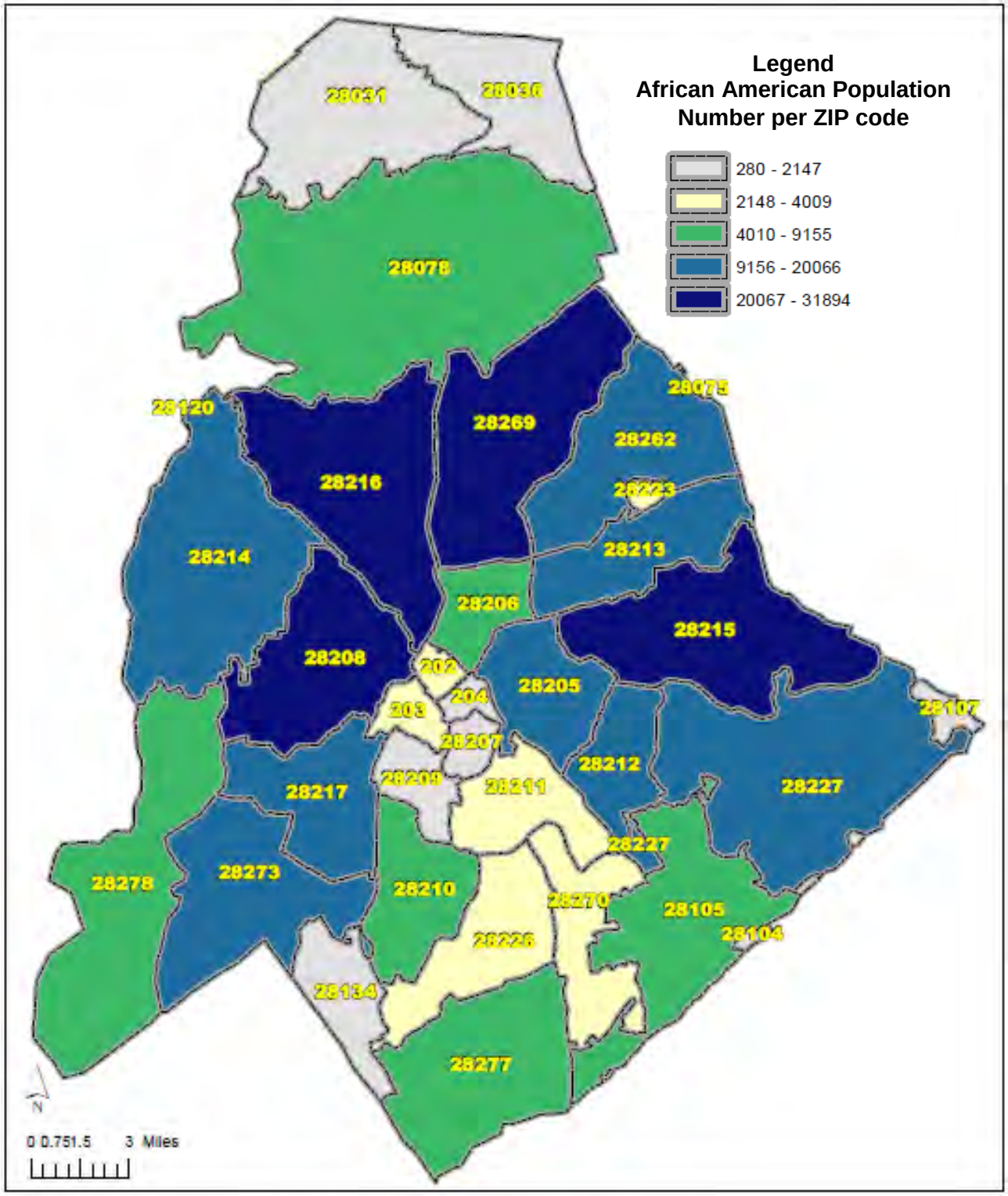
Source: Applied Geographic Solutions | Prepared by Mecklenburg County GIS

2013 Unemployment Rate
Mecklenburg County



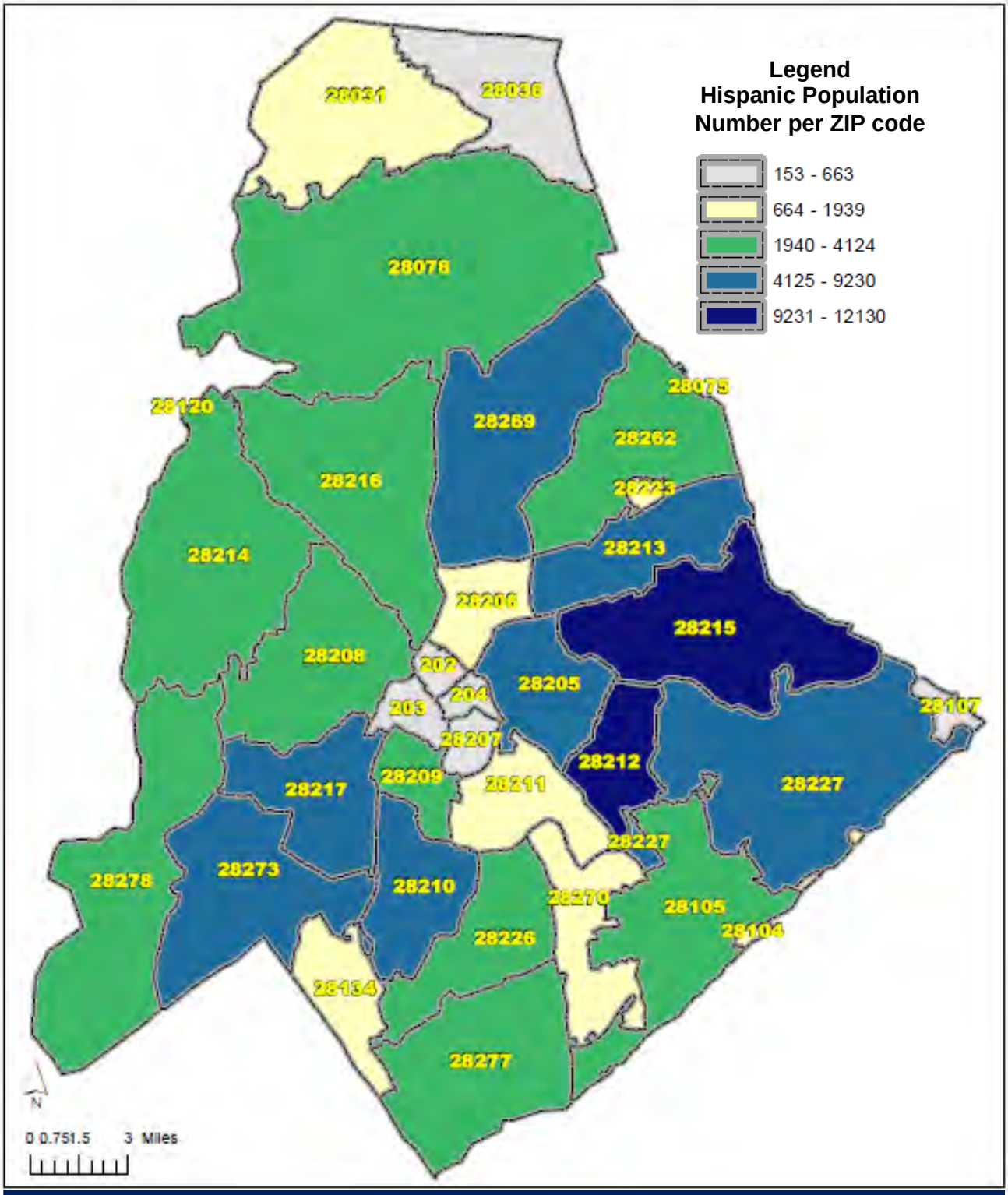
Source: Applied Geographic Solutions | Prepared by Mecklenburg County GIS

2013 African American Population
Mecklenburg County



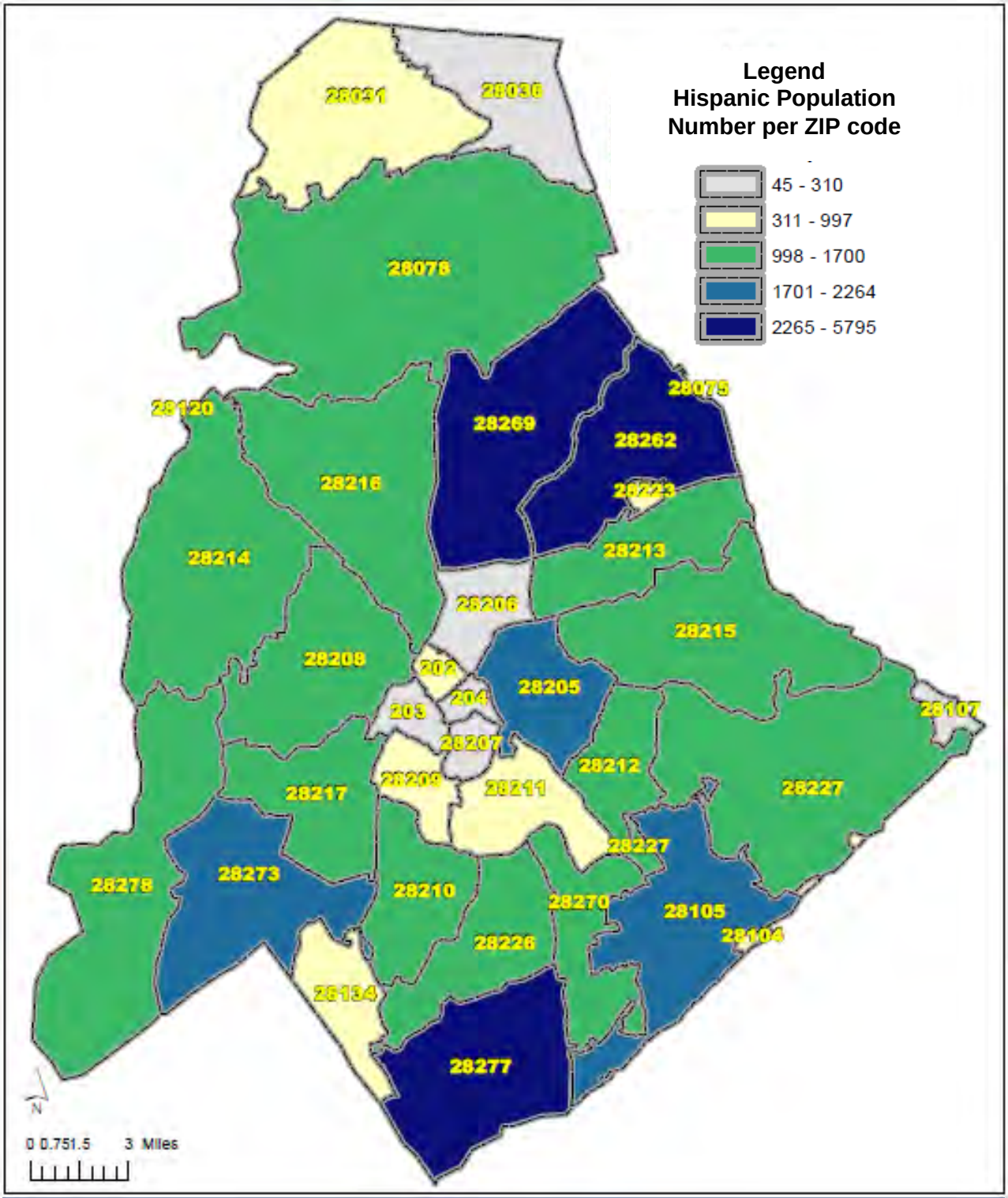
Source: Applied Geographic Solutions **Prepared by Mecklenburg County GIS**

2013 Hispanic Population
Mecklenburg County



Source: Applied Geographic Solutions | Prepared by Mecklenburg County GIS

2013 Asian Population
Mecklenburg County



Source: Applied Geographic Solutions | Prepared by Mecklenburg County GIS

MORTALITY

OVERVIEW

In 2011, the ten leading causes of death in Mecklenburg County remained the same as in 2010 with the exception of four causes. Unintentional Injury moved back up to the 5th leading cause, Diabetes moved up to the 7th leading cause, Influenza and Pneumonia moved up to the ninth leading cause, and Suicide moved down to the 10th leading cause of death.

Cancer remains the leading cause of death after surpassing Heart Disease as the leading cause for the first time in Mecklenburg County in 2004. In 2011, Septicemia moved down to the eleventh leading cause and was replaced by Suicide. Unintentional Injury remains in the top five leading causes.

Mecklenburg County ranks similarly to the state of North Carolina and the United States with the following exceptions: for Alzheimer's disease, Mecklenburg County ranks higher than NC and the US. Mecklenburg ranks lower than NC and the US for COPD which refers to chronic diseases of the lower airway such as chronic bronchitis and emphysema. The age-adjusted death rate for the US was 747.0 per 100,000 US standard population and the life expectancy rate for the US was 78.7 years.

Top Ten Leading Causes of Death Mecklenburg, North Carolina, 2011 and the United States, 2010

	Meck	NC	USA
Cancer	1	1	2
Heart Disease	2	2	1
Alzheimer's Disease	3	6	6
Stroke	4	4	4
Unintentional Injury	5	5	5
Chronic Obstructive Pulmonary Disease (COPD)	6	3	3
Diabetes	7	7	7
Kidney Disease	8	8	8
Influenza and Pneumonia	9	9	9
Suicide	10	*	10

*Not a top ten leading cause of death in NC.

2011 MECKLENBURG QUICK FACTS: MORTALITY

- In 2011, there were 5,134 deaths in Mecklenburg County. Of these deaths, 49% were male and 51% were female.
- Since 2010, Alzheimer's disease has been the 3rd leading cause of death.
- Men are more likely to die from Unintentional Injuries than women. Women are more likely to die of Alzheimer's than men.
- Unintentional Injury is the leading cause of death for children ages 1-14, youth and young adults ages 15-24, and adults age 25-44.
- Whites die at higher rates of Alzheimer's and COPD than Minorities. Minorities die at higher rates of Unintentional Injury, Homicides, and Diabetes than Whites.

SUMMARY OF MORTALITY TRENDS IN MECKLENBURG COUNTY

Positive Trends

- The infant and child death rate has been steadily declining for the past decade.
- Suicide dropped from the 9th leading cause of death to the 10th leading cause of death.
- The infant mortality rate is decreasing.

Areas for Improvement

- Unintentional Injury, Homicide, and Suicide remain in the top three leading causes of death among youth and young adults age 15-24.
- Cancer and Heart Disease remain the leading causes of death for adults age 25 years and older.
- Males die of higher rates of Injury, Homicide, and Suicide than females.
- Suicide remains in the top ten leading causes of death highlighting the need for increasing awareness around prevention and mental health issues.

TREND DATA

- In 2011, Cancer and Heart Disease were the leading causes of death in the county.
- The number of cancer deaths decreased 3.9% from 2010 to 2011. Cancer deaths decreased 10.3% for men and increased 3.2% for women.
- Deaths among males rank comparably to females with the exception of Unintentional Injury, Alzheimer's disease, Homicide, and Suicide. Females rank comparably to males with the exception of Septicemia and Influenza and Pneumonia.
- Women tend to live longer and die of higher rates of Alzheimer's and other chronic diseases than men.
- Men die from Unintentional Injuries, Homicides, and Suicides at higher rates than women.
- People of other races often die at higher rates of Diabetes, Kidney Disease, Unintentional Injury, Homicide, and HIV than whites. They also die at younger ages than whites.
- Whites die at higher rates of Alzheimer's disease, COPD, and Infection than people of Other Races.
- Unintentional Injury, Homicide, and Suicide are the leading killers of adolescents and young adults ages 15-24.
- Birth Defects, Prematurity/Low Birth Weight, and Complications of the Placenta were the leading causes of infant death.
- Unintentional Injury remains the leading cause of death for children ages 1-14 and the 4th leading cause of death among infants <1 year of age as a result of Accidental Suffocation.
- In 2011, there were 115 infant and child deaths ages 0-17. Of the 115 deaths, 20% were *preventable* and 83% (19) occurred among children ages 1-17.

Leading Causes of Death by Age Group Mecklenburg County 2011

Infants (< 1yr.)
* Birth Defects
* Prematurity & Immaturity
* Complications of Placenta

Ages 1 -14
* Unintentional Injury
* Homicide
*Cancer

Ages 15 - 24
* Unintentional Injury
* Homicide
* Suicide

Ages 25 - 44
* Unintentional Injury
* Cancer
* Heart Disease

Ages 45 - 64
* Cancer
* Heart Disease
* Unintentional Injury

Ages 65+
* Cancer
* Heart Disease
* Alzheimer's Disease

Leading Causes of Death by Gender Mecklenburg County 2011

Males	Females
1) Cancer	1) Cancer
2) Heart Disease	2) Heart Disease
3) Unintentional Injury	3) Alzheimer's Disease
4) Stroke	4) Stroke
5) COPD	5) COPD
6) Diabetes	6) Unintentional Injury
7) Kidney Disease	7) Diabetes
8) Alzheimer's Disease	8) Kidney Disease
9) Suicide	9) Influenza & Pneumonia
10) Homicide	10) Septicemia

Leading Causes of Death by Race Mecklenburg County 2011

Whites	Minorities
1) Cancer	1) Cancer
2) Heart Disease	2) Heart Disease
3) Alzheimer's Disease	3) Stroke
4) Unintentional Injury	4) Diabetes
5) Stroke	5) Unintentional Injury
6) COPD	6) Kidney Disease
7) Influenza & Pneumonia	7) Alzheimer's Disease
8) Suicide	8) COPD
9) Diabetes	9) HIV
10) Septicemia	10) Homicide

DEATHS AND DEATH RATES

- In 2011, there were 5,134 deaths in Mecklenburg County.
- Of the 5,134 deaths, 49.0% were male and 51.0% were female.
- A majority of deaths, 66.3% occurred among non-Hispanic whites followed by 30.0% non-Hispanic blacks, 1.4% other non-white, non-Hispanic (i.e. American Indian, Asian), and 2.2% among Hispanics.
- Deaths among residents 65 years and older were the highest at 66.3% followed by 22.3% among residents 45-64 years of age, 6.3% 25-44 years of age, 1.3% 15-24 years of age, <1% 1-14 years of age, and 1.6% among infants <1 year of age .

Death Rates

- In 2011, the death rate was 543.6 deaths per 100,000 population. This was a 1.2% decrease from 550.2 in 2010.
- The death rate for Mecklenburg County is lower than the state rate of 825.2 deaths per 100,000 population and the national rate of 799.5 (2010).
- The five year death rate for 2007-2011 is 556.7 deaths per 100,000 population and is lower than the state rate of 827.8 for the same time period.
- The death rate for non-Hispanic whites was 703.5 deaths per 100,000 population compared to 526.9 per 100,000 non-Hispanic blacks, and 96.6 per 100,000 Hispanics.
- The death rate for non-Hispanic white males was 701.8 deaths per 100,000 population compared to 705.2 per 100,000 non-Hispanic white females.
- The death rate for non-Hispanic black males was 562.4 deaths per 100,000 population compared to 497.1 per 100,000 population non-Hispanic black females.
- When looking at all causes of death, the health disparity between different race and ethnic groups is not as apparent until you look at specific causes of death.

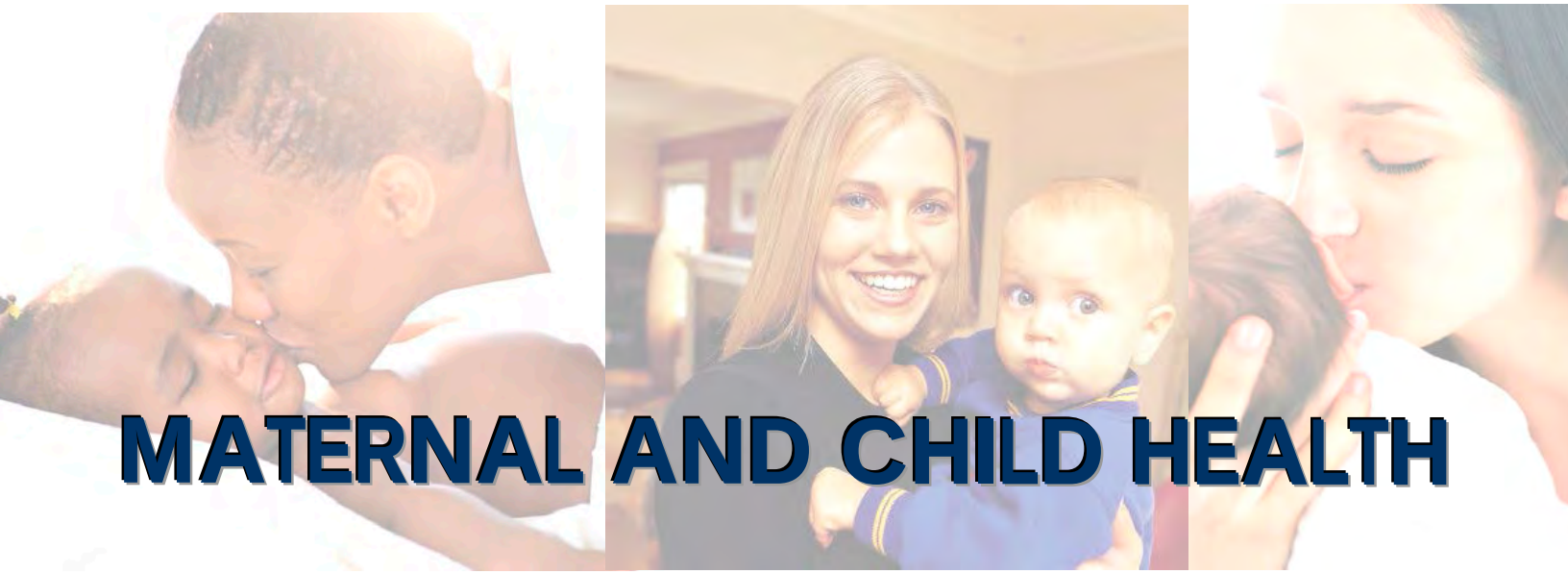
Age-Adjusted Death Rates

- Age-adjusted death rates show what the level of mortality would be if no changes occurred in the age composition of the population from year to year.
- As a result, age-adjusted death rates are better indicators than unadjusted death rates for examining changes in the risk of death over a period of time when the age distribution of a population is changing.
- Age-adjusted death rates are also better indicators of the relative risk of death when comparing across geographic areas or between sex or race subgroups of the population that have different age distributions.
- The age-adjusted death rate for 2007-2011 was 716.7 deaths per 100,000 population, and lower than the state rate of 808.4 per 100,000.
- For 2007-2011 the age-adjusted death rate for non-Hispanic whites was 791.4 deaths per 100,000 population compared to 956.1 per 100,000 population non-Hispanic blacks.
- In the same time period, the age-adjusted death rate for non-Hispanic white males was 944.0 deaths per 100,000 population compared to 1207.4 for non-Hispanic black males.
- Stark differences in the age-adjusted death rates for the leading causes of death were seen for people of Other Races compared to Whites.
- For 2007-2011 non-Hispanic blacks had a higher age-adjusted death rate compared to whites for most of the leading causes except Influenza and Pneumonia, COPD, Other Unintentional Injuries, Suicide, and Alzheimer's disease. For Diabetes and Kidney Disease the rate for blacks was almost 3 times higher than the rate for whites. The rate for Homicide was 4 times higher for blacks and the rate for HIV Disease was 13 times higher than the rate for whites.

Sources:

NC DHHS/State Center for Health Statistics: 2011 data for Mecklenburg County.

National Vital Statistics Reports, CDC, Deaths: Final Data for 2010; Vol. 61 (4), May 8, 2013.



MATERNAL AND CHILD HEALTH

Pregnancies and Births

Birth Outcomes

Infant Mortality

Preconception Health

OVERVIEW

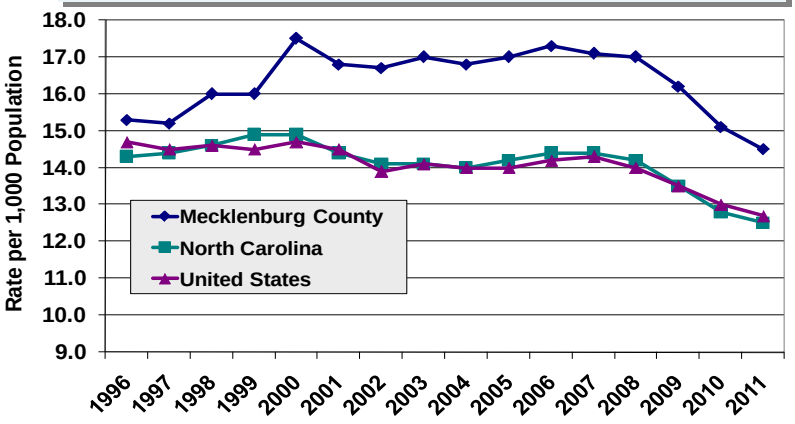
PREGNANCIES AND BIRTHS

From 1998-2010 the statistical information collected on North Carolina's birth certificate was based on the 1989 US Standard Birth Certificate. The latest revision of this certificate was finalized in 2003 and required a magnitude of changes to meet the revised birth certificate standards. In August 2010, NC launched the web-based Vital Records Automation System (VRAS) to improve the timeliness of birth registration and data dissemination as well as to implement the 2003 US certificate standards. Beginning with 2011, many data fields captured on the revised certificate are new or modified and as a result are not comparable to all birth data prior to 2011.

In 2011, the Live Birth Rate was 14.5 per 1,000 population, higher than NC and the nation. This rate has been trending upward since 1996 peaking at 17.5 in 2000 but has steadily declined since 2003. Since 2004, births to non-Hispanic Whites have decreased and Asians remain relatively stable. However, births to non-Hispanic blacks and Hispanics have been increasing. Hispanic births have been increasing an average of two percentage points per year until 2005. Approximately 1 in 5 babies is born is Hispanic/Latino.

Overall in 2011, 42% of births were White, 31% Black, 8% were Other Non-White (i.e. Asian, American Indian etc.). Hispanic births accounted for 19% of all births.

Live Birth Rate per 1,000 population
Mecklenburg, North Carolina, US
1996 - 2011
(based on Smooth Population Estimates)



2011 MECKLENBURG QUICK FACTS: PREGNANCIES AND BIRTHS

- In 2011, there were 13,734 resident live births in Mecklenburg County: 9.4% were of low birth weight, 12.5% were preterm, 76% of mothers received parental care in the first trimester, and 32% were delivered by Caesarean section; 6% were born to mothers under 20 and 2% to mothers over 40 years of age.
- The birth rate for women in their twenties and thirties remained the same while the birth rate for women age 40+ increased slightly.
- The birth rate for teens ages 10-19 continued to decline.
- One in five births is to a Hispanic mother.

TRENDS IN MECKLENBURG COUNTY

Positive Trends

- Teen pregnancy continues to decline in Mecklenburg County, North Carolina, and the US.
- From 2005-2009, the rate of women reporting smoking during pregnancy at the time of birth decreased by 29%.

Areas for Improvement

- Declining number of women entering prenatal care in the first trimester.
- While teen birth rates are declining, there were 264 births to girls ages 15-17 and 10 to girls 10-14 in 2011.
- Fifty percent of teens reported having sexual intercourse and 20% reported having sex with 4 or more partners in their lifetime.
- The rate of primary cesarean deliveries increased 66% from 2007-2011.
- From 2007 to 2011, 12.2% of births had an inter-pregnancy interval of six or fewer months, suggesting that these births were unplanned, highlighting the need for family planning, and reducing the risk for adverse birth outcomes.

Birth Highlights
Mecklenburg County Residents, 2007-2011

2007		
Total Births = 14,767		
Live Birth Rate = 17.1 per 1,000		
Racial Categories		
White Non-Hispanic	**6,167**	**41.8%**
Other Races Non-Hispanic	**5,394**	**36.5%**
▸ *Black or African American*	*4,482*	*83.1%*
▸ *American Indian*	*51*	*0.9%*
▸ *Other Non-White*	*861*	*16.0%*
Hispanic/Latino Ethnicity		
Non-Hispanic	**11,561**	**78.3%**
Hispanic	**3,182**	**21.5%**
Unknown	**24**	**0.16%**
Age of Mother		
40 plus	**398**	**2.7%**
30 - 39 years	**6,230**	**42.2%**
20 - 29 years	**6,857**	**46.4%**
Teens Under the Age of 20	**1,282**	**8.7%**
▸ *Teens 10-14*	18	*1.4%*
▸ *Teens 15-17*	438	*34.2%*
▸ *Teens 18-19*	826	*64.4%*
Birth Outcomes & Prenatal Care		
Premature (<37 weeks)	**1,920**	13.0%
Very Premature (<32 weeks)	**308**	2.1%
Low Birth Weight (<=2500g)	**1,373**	9.3%
Very Low Birth Weight (<=1500g)	**268**	1.8%
First Trimester Prenatal Care	**11,569**	78.3%
Primary C-section	**2,861**	19.4%

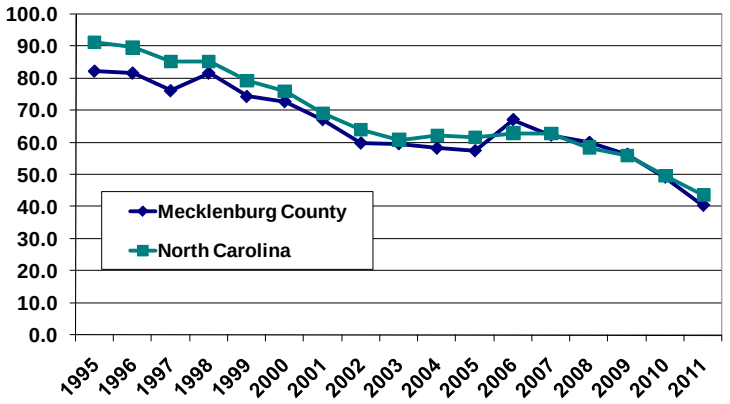
2011		
Total Births = 13,734		
Live Birth Rate = 14.5 per 1,000 population		
Racial Categories		
White Non-Hispanic	**5,764**	**42.0%**
Other Races Non-Hispanic	**5,390**	**39.2%**
▸ *Black or African American*	*4,317*	*80.1%*
▸ *American Indian*	*33*	*0.61%*
▸ *Other Non-White*	*1040*	*19.3%*
Hispanic/Latino Ethnicity		
Non-Hispanic	**11,154**	**81.2%**
Hispanic	**2,571**	**18.7%**
Unknown	**9**	**0.07%**
Age of Mother		
40 plus	**485**	**3.5%**
30 - 39 years	**6,204**	**45.2%**
20 - 29 years	**6,206**	**46.5%**
Teens Under the Age of 20	**839**	**6.1%**
▸ *Teens 10-14*	10	*1.2%*
▸ *Teens 15-17*	264	*31.5%*
▸ *Teens 18-19*	565	*67.3%*
Birth Outcomes & Prenatal Care		
Premature (<37 weeks)	**1,720**	12.5%
Very Premature (<32 weeks)	**255**	1.9%
Low Birth Weight (<=2500g)	**1,290**	9.4%
Very Low Birth Weight (<=1500g)	**210**	1.5%
First Trimester Prenatal Care	**10,384**	76.4%
Primary C-section	**4,423**	32.2%

ADOLESCENTS (AGES 10-19)

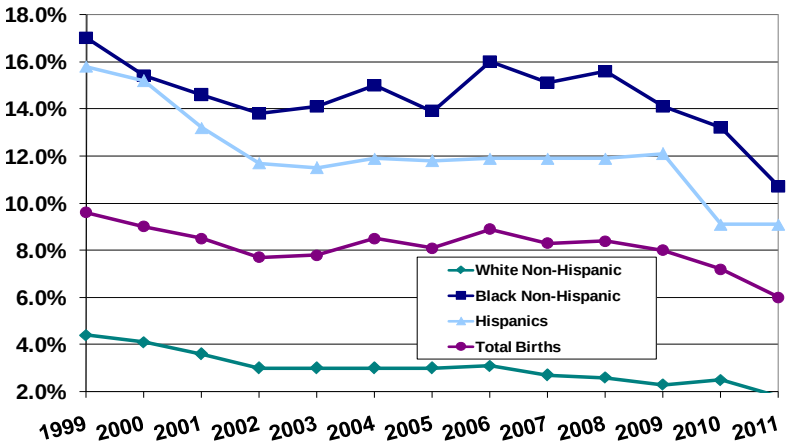
Similar to rates in North Carolina and the nation, adolescent pregnancy rates in Mecklenburg County have been trending downward since the early 1990's. Teens 18-19 years of age account for the largest percentage of births/pregnancies among females under the age of 20.

- In 2011, the pregnancy rate for the youngest teens was 0.5 per 1,000 females age 10-14.The rate for teens age 15-17 was 20.9 per 1,000 females age 15-17, and the rate for teens age 18-19 was 68.9 per 1,000 females ages 18-19.
- From 1995-2011, the pregnancy rate for teens ages 15-19 has decreased by 51%. While the decline in teen pregnancy is strongly positive, in 2011 there were 1,227 teen pregnancies, resulting in 839 births, 383 abortions, and 5 fetal deaths.
- In 2011, the birth rate for teens was 0.3 per 1,000 females age 10-14 (10 births), 14.9 for females ages 15-17 (264 births), and 46.3 for females ages 18-19 (565 births).
- Since 1995, pregnancy rates for females ages 10-14 have fluctuated with a general downward trend. Because the numbers are small, the rates may not be reliable but any pregnancies in this age group are disturbing. In 2011, there were 17 pregnancies (10 births and 7 abortions) among 10-14 year old females. The youngest mother was 12 and all 10 births in the 10-14 year age group were first time moms. According to the 2011 Youth Risk Behavior Survey (YRBS), 20% of middle school students reported having sex and 63% reported their parents or an adult has talked to them about what they expected to do or not to do when it comes to sex.
- In the 2011 YRBS, 50% of high school teens reported having sexual intercourse; 20% reported having sexual intercourse with four or more people during their lifetime; and 26% reported drinking alcohol before having sex.
- Teen pregnancy rates are the highest among minority females. In 2011, the rate for Black females was four times the rate for White females and two times the rate for Hispanic females ages 15-19.

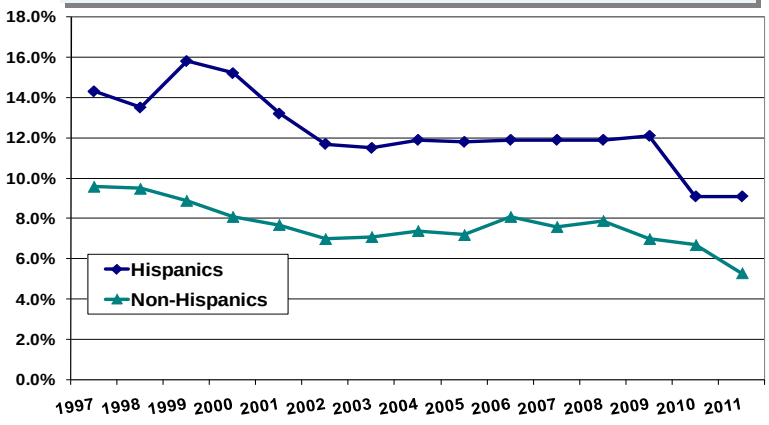
1995 – 2011 Pregnancy Rates for Females Age (15-19)
Mecklenburg County and North Carolina
(per 1,000 Females age 15 – 19yrs)



1999 – 2011 Mecklenburg Teen Births (15-19 yrs) as % of Total Births
By Race and Ethnicity



1997 – 2011 Mecklenburg Teen Births (15-19 yrs) as % of Total Births
By Hispanic Ethnicity



*Hispanics can be of any race. Individuals whose Hispanic Ethnicity was unknown were not included.

OVERVIEW

INFANT MORTALITY

Infant mortality refers to the death of an infant <1 year of age. The infant mortality rate is an indicator of the risk of dying during the first year of life.

In 2011, the top five leading causes of infant death in Mecklenburg County were:

- Congenital Malformations (birth defects)
- Prematurity and low birth weight
- Complications of placenta
- Unintentional Injury (Accidental Suffocation)
- Sudden Infant Death Syndrome (SIDS)

Birth defects are the leading cause of infant death locally and nationally, affecting about 1 in 33 babies born in the US each year and accounting for 20% of all infant deaths. In 2011, 24% of Mecklenburg infant deaths resulted from birth defects.

The weight and gestational age of a newborn infant are the most important predictors for his or her subsequent health and survival. Infants born preterm (<37 weeks) and or at low birth weight (< 2,500g or 5lbs. 8oz.) have a much greater risk of death and both short and long-term disability than full term infants. In 2009, infant mortality rates in the US were 24 times higher for low birth weight infants (< 2500g) compared to infants born weighing 2,500g or more. More than two-thirds (67.0%) of all infants deaths occurred to the 12.2% who were born preterm. The infant mortality rate for very preterm infants (<32 weeks) was 73 times higher than the rate for term infants.

Pregnancies with multiple births (i.e. twins, triplets) have an even higher risk of being low birth weight and/or preterm than single births. Advancements in assisted reproduction technology are increasing the incidence of multiple births.

Other risk factors associated with infant mortality are race and ethnicity, infant sex (males have a higher risk than females), live birth order, short interval births, and maternal characteristics such as age, education, marital status, entry into prenatal care, unsafe sleep practices, and risky health behaviors by the mother (proper nutrition, folic acid consumption, smoking, drinking, and physical activity).

2011 MECKLENBURG QUICK FACTS: INFANT MORTALITY

- In 2011, 80 infants died resulting in an infant mortality rate of 5.8 deaths per 1,000 live births.
- Birth defects accounted for 24% of all infant deaths.
- In 2011, 9.4% of infants were born low birth weight and 12.5% were born preterm.
- The infant mortality rate for non-Hispanic black infants was 3 times higher than the rate for non-Hispanic white infants.
- Safe sleep practices can reduce an infant's risk of SIDS and prevent deaths due to Accidental Suffocation.

TRENDS IN MECKLENBURG COUNTY

Positive Trends

- Since 2004, the infant mortality rate has decreased 37% and continues to decline.
- The infant mortality rate in Mecklenburg County is lower than the state and the nation.
- SIDS deaths have remained low since 2005.

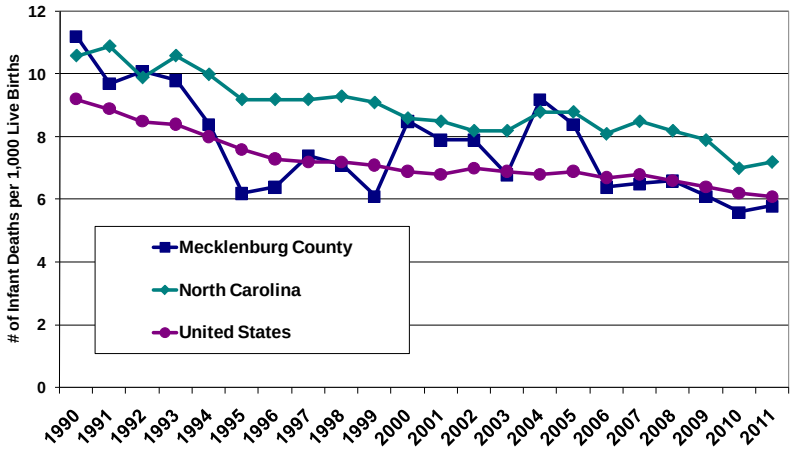
Areas for Improvement

- The percentage of low birth weight and premature births continues to remain the same despite differences in entry into prenatal care.
- Black preterm and low birth weight rates remain the highest of all race/ethnic groups.
- The infant mortality rate for black infants was 10.6 per 1,000 live births and was triple the rate for white infants at 3.5 per 1,000 live births.
- The percentage of women entering prenatal care in the first trimester is decreasing.
- Hispanic women have the lowest rates of entry into first trimester prenatal care.

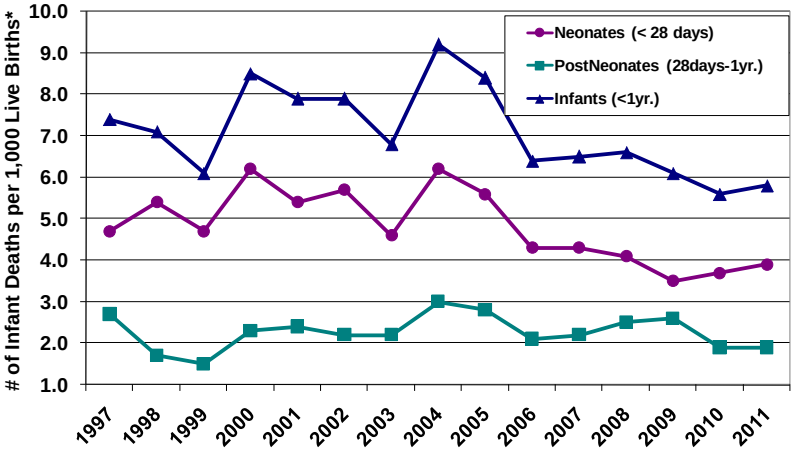
MECKLENBURG COUNTY

- In 2011, there were 80 infant deaths; up slightly from 78 deaths in 2010. The infant mortality rate was 5.8 infant deaths per 1,000 live births and is lower than the state and the nation.
- Since 2000, the infant mortality rate has been declining. However, in 2004 it jumped 35% from 6.8 to 9.2 the highest rate since 1992. Reasons for the sharp increase in 2004 are unknown. In 2005 the infant mortality rate dropped 9% to 8.4 and has continued on sharp decline since.
- Of the 80 infant deaths, 68% (54) were neonates (< 28 days) and 32% (26) were post neonatal (28 days- 1 year). The risk of death is highest in the first four months of life.
- Of the 54 neonatal deaths, 63% were due to conditions originating in the prenatal period (i.e. prematurity and low birth weight), 20% from birth defects, and 17% from other causes.
- Of the 26 post neonatal deaths, 31% were due to birth defects, 15% due to unintentional injury (Accidental Suffocation), 15% due to SIDS, 12% due to infection, and 8% were due to diseases of the major body systems, 4% were due to homicide, and 4% were due to other causes .
- The five year infant mortality rate for 2007-2011 was 6.1 deaths per 1,000 live births compared to the state rate of 7.8 for the same time period.
- Of concern is the considerable gap between the mortality rates for White infants and infants of Other Races. From 2007-2011 the rate for non-Hispanic black infants (11.1 per 1,000 live births) was 3 times greater than the rate for non-Hispanic white infants (3.1).
- Another area for concern is the number of infant deaths caused by Accidental Suffocation. These deaths are due to unsafe sleep practices and are ***preventable***. Since the risk factors for SIDS and Accidental Suffocation overlap, the removal of risk factors for Accidental Suffocation will help reduce the risk of SIDS and ***prevent*** Accidental Suffocation.

1990 - 2011 Infant Mortality Rates per 1,000 Live Births
United States, North Carolina, and Mecklenburg

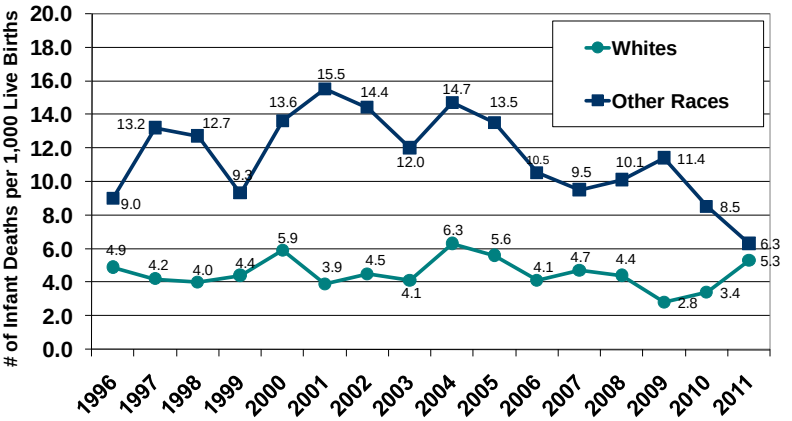


1997 - 2011 Infant Mortality Rates by Age Group (Under 1 Year), *Mecklenburg Residents*



***The neonatal rate is the number of infant deaths < 28 days and the post neonatal rate is the number of infant deaths 28 days – 1 year per 1,000 live births.**

1996 - 2011 Infant Mortality Rates per 1,000 Live Births
by Race (Mecklenburg Residents)



RISK FACTORS FOR INFANT MORTALITY

Prematurity and Low Birth Weight Definitions

Very Low Birth Weight (VLBW) is defined as an infant born weighing less than 1,500g or 3lb 4oz.

Low birth weight (LBW) is defined as an infant born weighing less than 2,500g or 5lb 8oz.

High birth weight (HBW) is defined as an infant born weighing more than 4,000g or 8lb 8oz.

Very Preterm is defined as an infant born less than 32 weeks gestation.

Preterm is defined as an infant less than 37 weeks gestation.

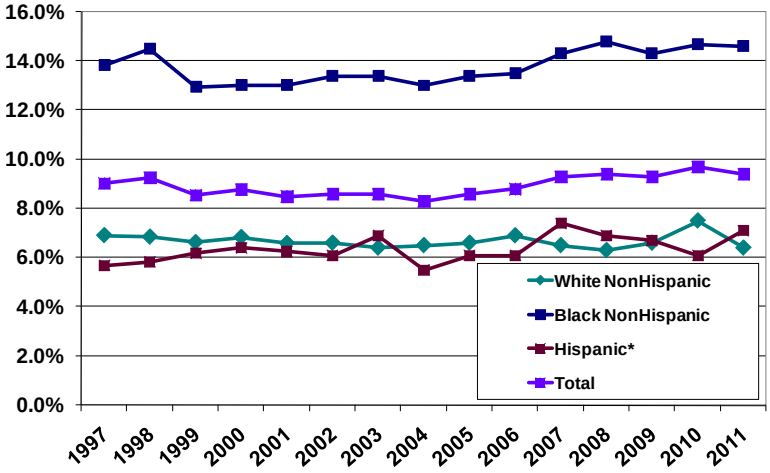
Mecklenburg

- The rate of low birth weight and preterm infants has remained steady at around 9-12% of all births since 1997.
- In 2011 there were 13,734 births; 9.4% of infants were born with low birth weight and 12.5% were born preterm.
- From 2007-2011 the percentage of infants born both preterm and with low birth weight decreased by 7.8%.

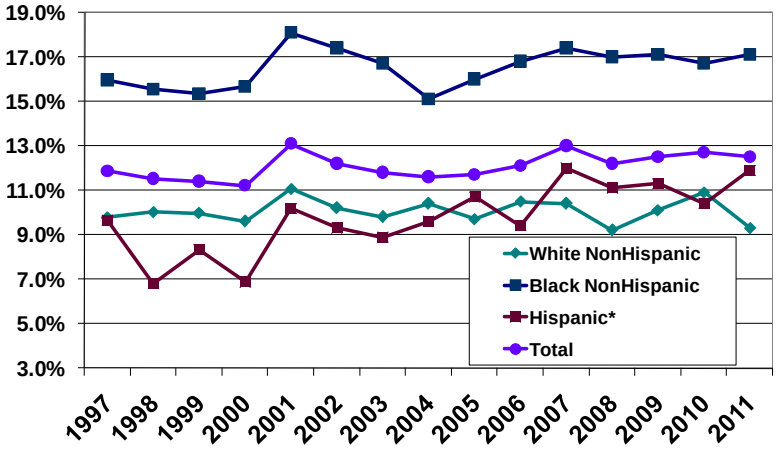
By Race/Ethnicity

- Non-Hispanic black women have the highest rates of LBW and preterm infants of all other racial and ethnic groups. The rate of LBW and preterm infants for non-Hispanic black women is double the rate for non-Hispanic white women.
- Since 1997 Hispanic births have been increasing until 2009. Although their rate of low birth weight and preterm infants is lower compared to non-Hispanic white and black women, their rate of adverse birth outcomes is showing a slight upward trend since 2006.
- The lack of a significant decrease in the rate of low birth weight or preterm infants suggests the need to address risk factors beyond just entry into prenatal care should be the focus.
- From 2007-2011, the rate of preterm births increased slightly for non-Hispanic white women and Hispanic women compared to all other racial and ethnic groups.

1997 – 2011: % of Low Weight Births of the Total Births
By Race and Ethnicity (Mecklenburg Residents)



1997 – 2011: % of Preterm Births of the Total Births
By Race and Ethnicity (Mecklenburg Residents)



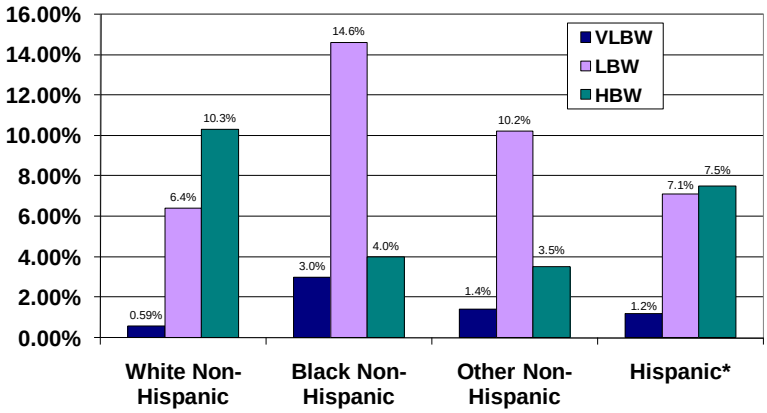
Prematurity and Low Birth Weight, cont.

- From 1997-2011 the rate of premature births has remained around 12% of all births. However, differences among racial groups are evident with non-Hispanic black women having the highest rates and Hispanic women having rates similar to non-Hispanic white women.
- In the US, the rate of preterm births has been increasing since the mid-1980s. In 2008, infants born <34 weeks accounted for 4% of all births but 57% of all infant deaths. Conversely, infants born at 37-41 weeks accounted for a majority of all births but only around 30% of all infant deaths.
- Full-term, low birth weight babies are associated with factors such a smoking, maternal weight gain, and maternal weight at birth. However, the causes of premature deliveries are not well understood, making prevention challenging. Higher plurality births due to reproductive technology, maternal age, and changes in the medical management of pregnancy (i.e. increases in cesarean section and induction of labor for preterm infants) have also had an impact on the rates of preterm births.

Smoking

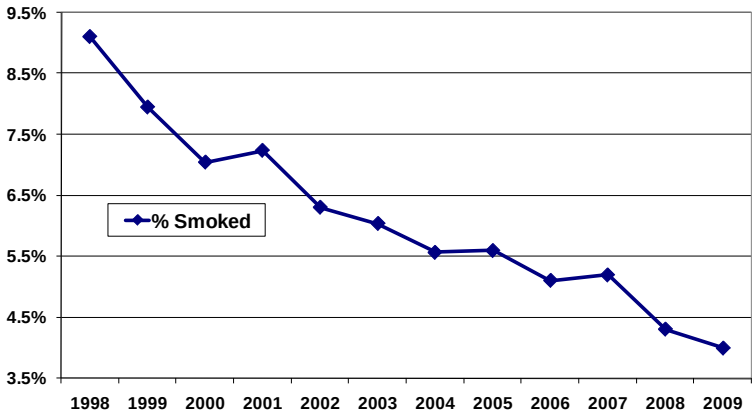
- Tobacco use during pregnancy causes the passage of toxic substances from the placenta to the fetal blood supply. These substances restrict an infant's access to oxygen leading to adverse birth outcomes such as low birth weight, preterm delivery, slow intrauterine growth, infant mortality, and long-term morbidity for future child health development.
- Data on maternal smoking during pregnancy is identified from birth certificates. Since it is self-reported, it cannot be readily determined whether or not the growing stigma attached to smoking outside of or during pregnancy affects this data. Increased legislation efforts and work place policy changes to reduce cigarette smoke exposure may contribute to declining reports of smoking during pregnancy and are accompanied by declining smoking rates in the general population.

2011: % of VLBW, LBW and HBW Infants
By Race and Ethnicity (Mecklenburg Residents)

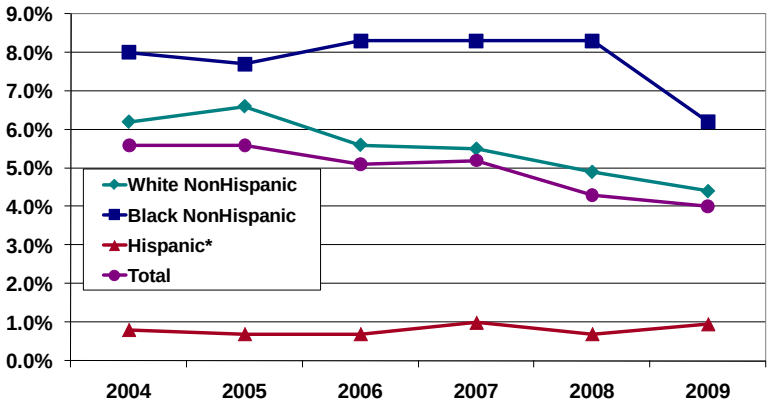


- In 2007, the overall smoking rate during pregnancy in the US was 10.4%. The rate for non-Hispanic white mothers was 2 times higher than non-Hispanic black mothers and 8 times higher than Hispanic mothers.
- From 1998 to 2009, the rate of women who reported smoking during pregnancy in Mecklenburg County decreased by 56%. The maternal smoking rate for NC in 2009 was 10.2% compared to 12.5% in 2004.
- Higher smoking rates were reported by non-Hispanic black mothers and lower smoking rates were reported by Hispanic mothers.
- The implementation of the revised birth certificate in 2010 in NC led to data being unavailable for 2010. In 2011, 3.7% mothers reported smoking during pregnancy as the downward trend continues.

1998 - 2009: % Women Smoking during Pregnancy
(Mecklenburg Residents)
Based upon Self-Reports



2004 - 2009: % Women Smoking during Pregnancy By Race and Ethnicity *(Mecklenburg Residents)*
Based upon Self-Reports

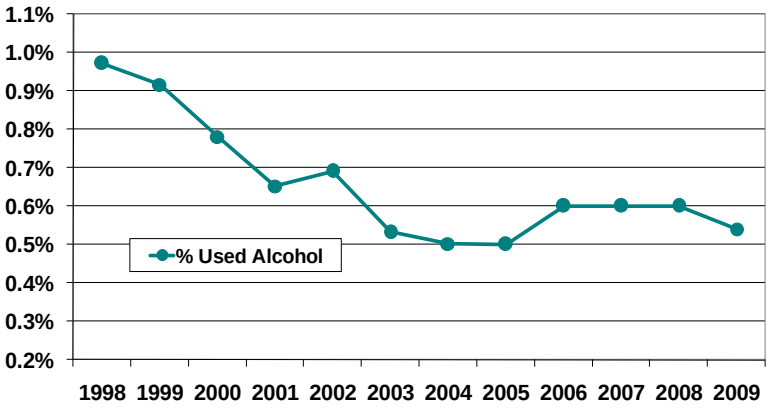


Alcohol Use

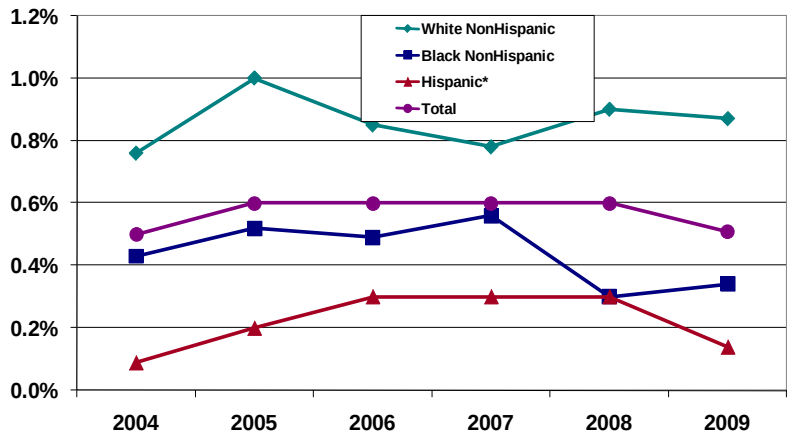
- As with smoking, the use of alcohol during pregnancy is also associated with adverse birth outcomes, most notably Fetal Alcohol Syndrome (FAS). FAS is characterized by impaired mental development as well as some physical features (i.e. eyes close together) and has different levels of severity. FAS is also associated with long-term morbidity for future child development.
- Alcohol use during pregnancy is self-reported on the birth certificate, and, as such, is subject to the limitations of self-reporting negatively perceived information.
- The percent of women who report using alcohol during pregnancy is very small, less than 1%, but decreased by 50% from 1998-2009.
- From 2000 to 2009 there were 9 cases of Fetal Alcohol Syndrome (FAS) reported at the time of birth. However, FAS is frequently not diagnosed until indicated by behaviors and developmental delays at a later age. Of the 119,694 births during this time period 728 (61%) of women reported using alcohol during their pregnancy.
- A majority of women, who reported using alcohol during pregnancy from 2000 to 2009, received adequate prenatal care, were non-Hispanic white mothers, between the ages of 19 and 43, and had greater than 12 years of primary and secondary education.

- White Non-Hispanic women were more likely to report using alcohol during pregnancy than non-Hispanic black and Asian women. Hispanic women had the lowest rate of reporting alcohol use during pregnancy.
- Due to the changes in the revised birth certificate, self-reported alcohol use at the time of delivery was removed and will no longer be included in the birth data beginning in 2010.
- Overall the number of women who self-report smoking or using alcohol during pregnancy appears to be on the decline in Mecklenburg County.

1998 - 2009: % Women Using Alcohol during Pregnancy *(Mecklenburg Residents)*
Based upon Self-Reports



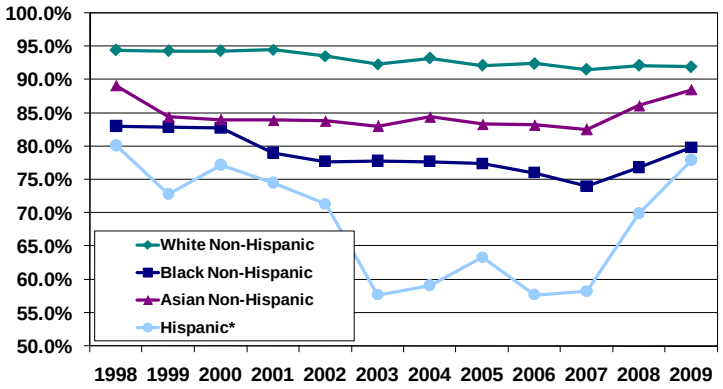
2004 - 2009: % Women Using Alcohol during Pregnancy By Race and Ethnicity *(Mecklenburg Residents)*
Based upon Self-Reports



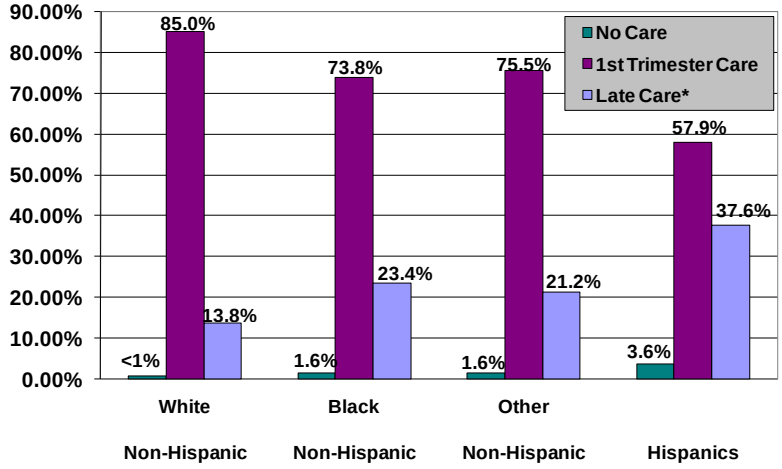
PRENATAL CARE (PNC)

- Entry into prenatal care in the first trimester (first 3 months of pregnancy) and the completion of the recommended number of visits based on the gestational age of the fetus may help reduce adverse birth outcomes (i.e. prematurity and low birth weight) through risk assessment, providing healthcare advice, and managing chronic and pregnancy-related heath conditions.
- From 1998-2009 the percentage of women entering prenatal care in the first trimester increased for all race and ethnic groups except non-Hispanic white mothers.
- Due to the implementation of the revised birth certificate, data on when prenatal care began prior to 2010 is not comparable to 2011. The year 2011 will serve as a new baseline for assessing entry into prenatal care.
- Prior to 2011 the month prenatal care began was a self-reported variable and not a calculated variable. Beginning in 2011, this variable is now calculated from the date of last menses to the date of the first prenatal care visit.
- In 2011, 76.4% of all mothers received prenatal care in their first trimester, 23.6% received late prenatal care (2nd and 3rd trimester), and 1.6% received no prenatal care.
- The disparity in birth outcomes among women receiving prenatal care in the first trimester becomes apparent when looking at entry into prenatal care by race and ethnicity.
- Although Hispanic women have the lowest rate of entry into prenatal care in the first trimester, they have the second lowest rates of preterm and low birth weight infants.
- Non-Hispanic black women have the second lowest rate of entry into prenatal care and have the highest rates of preterm and low birth weight infants of all racial and ethnic groups.
- Regardless of trimester of entry into prenatal care, non-Hispanic black women have the highest rates of preterm and low birth weight infants and highest infant mortality rate.

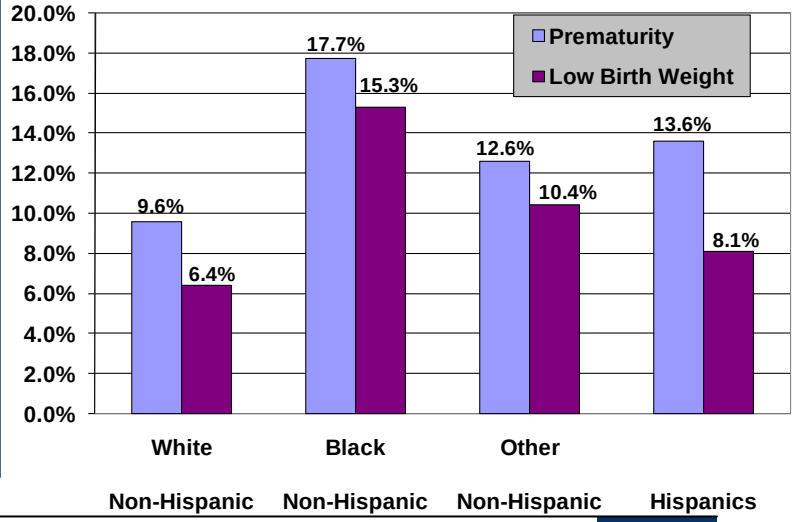
1998 - 2009: % Women Entering PNC in 1st Trimester By Race and Ethnicity *(Mecklenburg Residents)*



2011: Women Receiving 1st Trimester, Late Care and No PNC, By Race and Ethnicity *(Mecklenburg Residents)*



2011 Birth Outcomes by Race and Ethnicity of Mother Receiving PNC in 1st Trimester *(Mecklenburg Residents)*



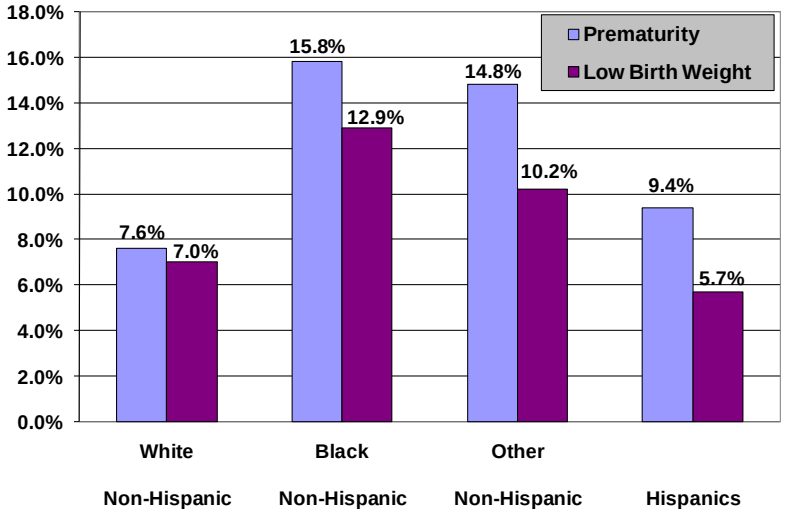
PRENATAL CARE (PNC), *cont.*

- When looking at birth outcomes by race and ethnicity for women who received first trimester prenatal care compared to women who did not, there is not a large difference in the percentage of adverse outcomes.
- This suggests the timeliness of prenatal care alone does not impact prematurity and low birth weight births and that these adverse outcomes are multi-factorial in nature.

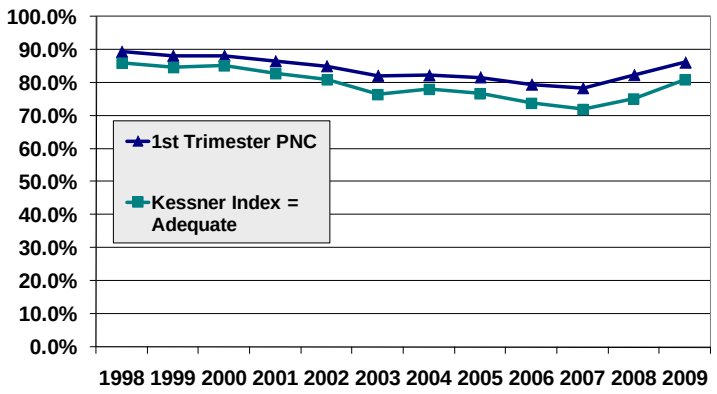
KESSNER INDEX

- The Kessner Index-provides a measure of the adequacy of prenatal care received during pregnancy by assessing the timeliness (month PNC began), and the frequency (number of prenatal care visits) of PNC based on the gestational age of the baby at different times throughout the pregnancy. "Adequate Care" means PNC began in the first trimester and the minimum number of visits for each gestational age period of the baby's growth at different points during the pregnancy was met or exceeded.
- From 1998-2006, the percentage of women entering first trimester prenatal care decreased 11%. Since 2006 this percentage appears to be increasing. The month prenatal care began was a self-reported variable and not a calculated variable prior to 2011, so it is unclear whether or not this trend was truly increasing.
- The 2011 birth data from the revised birth certificate offers a different picture of the percentage of women entering first trimester PNC and receiving adequate care. Future trend data using the new calculated variable will provide a more accurate picture of entry into first trimester prenatal care.
- In 2011, 76.4% of women received first trimester PNC and 72.6% received adequate care. Access to care, rising unemployment rates, and loss of health insurance may have contributed to the recent decline. Other reasons may be influenced by cultural practices, beliefs, attitudes, health behaviors, and priorities around receiving prenatal care.

2011 Birth Outcomes of Mothers Receiving Late and No PNC, by Race and Ethnicity *(Mecklenburg Residents)*



1998- 2009: % Women Entering PNC in 1st Trimester and Receiving Adequate PNC *(Mecklenburg Residents)*



Notes and Sources

* Hispanics can be of any race.

NC DHHS/State Center for Health Statistics 2009, 2010, and 2011 data

NC Behavioral Risk Factor Surveillance System (BRFSS) 2010 data

NC Pregnancy Risk Assessment Monitoring System Survey (PRAMS) 2011 Data

National Vital Statistics Reports:
- Volume 60 (3), December 29, 2011
- Volume 61(1), August 28, 2012
- Volume 61(8), January 24, 2013
- Volume 62(1), June 28, 2013
- NCHS Data Brief, No. 120, April 2013

OVERVIEW

PRECONCEPTION HEALTH

Adverse birth outcomes cannot be solely attributed to late or lack of prenatal care but more so to health behaviors and higher rates of infection and chronic disease prior to conception and during pregnancy, lending support to the need for preconception health. Preconception health focuses on the health status of women of child bearing age (15-44) by looking at individual risk factors and pathways by which these risk factors affect a woman's overall health. This requires a shift in thinking of health prior to, during, and after pregnancy. In addition to prenatal care, health behaviors contribute greatly to a woman's health status.

Despite efforts to improve prenatal care delivery and utilization, there has not been a concurrent decline in adverse birth outcomes locally or nationally. The absence of this decline suggests entry into prenatal care alone cannot impact infant mortality, the problem is multi-factorial in nature, and must take into account health behaviors as they relate to a female's physical health status before and after pregnancy. The preconception health model addresses the need for improving a woman's physical and mental health status regardless of whether she intends to become pregnant or not.

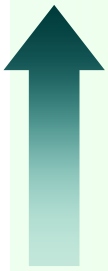
Key factors affecting health outcomes include socioeconomic status, healthcare access and availability, stress, race and ethnicity, birth weight and prematurity, unplanned pregnancy, nutrition and weight, physical activity, smoking, chronic disease, sexual health, social support, education, domestic violence, and substance abuse. Pathways by which these risk factors affect women's health should be addressed with a comprehensive and coordinated effort by the medical and public health community.

Teen pregnancy, while on the decline, only addresses early sexual activity. Delayed child bearing by older females (>35), presents a different set of biological and social issues than younger women. Efforts to improve birth outcomes should address multiple determinants that integrate social, behavioral, environmental, and biological factors that shape or affect pregnancy.

MECKLENBURG QUICK FACTS: HEALTH BEHAVIORS FOR WOMEN

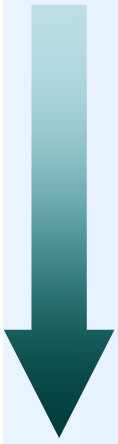
- In 2010, 34% of women reported never taking a multivitamin.
- 15% of women reported being smokers compared to 85% who reported not smoking.
- 8.2% of women reported engaging in binge drinking.
- 78.1% percent of women reported engaging in physical activity.
- 18.5% of females reported being obese based on their BMI.
- Women who had a history of 1 or more chronic diseases during pregnancy were more likely to deliver a low birth weight infant.

TRENDS IN MECKLENBURG COUNTY



Positive Trends

- The number of women who reported being a smoker is small compared to the number of women who reported not being a smoker.
- Over 50% of women reported engaging in physical activity.



Areas for Improvement

- Increasing daily multivitamin use among all women. Daily multivitamin use was higher for white women than minority women.
- The prevalence of obesity was higher for minority women than white women ages 45+ and women age 18-44.
- The rate of females who reported binge drinking was double the rate for white women compared to minority women.
- In 2011, 44.8% of infants born low birth weight had mothers that were considered overweight or obese prior to pregnancy based on their BMI (>25).

PRECONCEPTIONAL PERIOD

- The preconception period refers to a woman's health status prior to pregnancy. Health behaviors such as daily vitamin use, drinking, smoking, diet and physical activity, along with obesity and chronic disease can impact a woman's health status. In 2010:
- **Folic Acid Consumption** – 34% of women reported never taking a multivitamin. Daily multivitamin use was higher for White women than minority women and higher for women age 45+ than for women 18-44 years of age. No multivitamin use was higher for minority women than White women and higher for women ages 18-44 than women 45+.
- **Smoking** – 15% of women reported being smokers compared to 85% who reported not smoking. Smoking status was greater for minority women compared to white women.
- **Binge Drinking** – 8.2% of women reported engaging in binge drinking. Rates among White females were disproportionately higher at 16.4% compared to minority women at 8.7%. The same was true for women age 18-44 who reported 20% compared to women 45+ who reported 6.7%.
- **Physical Activity** – 78.1% percent of women reported engaging in physical activity. White women reported higher rates of physical activity than minority women. Women who were 18-44 were more likely to exercise than women age 45 years and older.
- **Obesity** – 18.5% of females reported being obese based on their BMI. The prevalence was higher for minority women than White women and higher for women age 45+ than women age 18-44.
- **Chronic Disease** – women who had a history of one or more chronic diseases (such as Hypertension, Diabetes etc.) were more likely to deliver a low birth weight infant than women with no medical history at delivery. In 2011, 4.1 % of women with no medical history at the time of delivery, delivered low birth weight infant, and 5.6% delivered a premature infant.

INTERCONCEPTIONAL PERIOD

- The risk for adverse birth outcomes is lowest when the inter-pregnancy interval (time between pregnancies) is at least 18-23mos and greater while the risk increases when the interval is less than 18-23mos. Short interval birth rates can be representative of the lack of contraceptive use and a need for family planning services and counseling prior to pregnancy.
- From 2007-2011 in North Carolina, 12.9% of all live births were short interval births where the time of from last delivery to conception was six months or less. In Mecklenburg County, 12.2% of all live births were short interval births.

By Age and Race/Ethnicity

- According to the 2011 North Carolina Pregnancy Risk Assessment Monitoring System Survey (PRAMS), approximately 46.3% of all NC women reported using contraception.
- The use of birth control after delivery was reported by 87.7% of all NC women and was highest for non-Hispanic white women and females 20-34 years of age.
- Approximately 20% reported no birth control use after delivery because they wanted to get pregnant again. This rate was greater for women <25 years of age than women >25 years of age.
- No birth control use after delivery was higher for non-Hispanic black women at 12.8% compared to non-Hispanic White women at 11.5% and Hispanic women at 11.6%.
- In 2011, 20% of women reported experiencing barriers to prenatal care. Women less than 24 years of age and teens were more likely to experience barriers than women 25 years of age and older.
- Barriers to obtaining prenatal care were highest among non-Hispanic black females, females with less than a high school education, unmarried, receiving WIC or Medicaid, and women who gave to birth to an infant weighing less than 2500g.

HEALTH STATUS INDICATORS FOR WOMEN OF REPRODUCTIVE AGE IN MECKLENBURG

The health status of women of child bearing age should include a focus on individual risk factors and pathways by which these risk factors affect women's health overall. Data from the 2010 Behavioral Risk Factor Surveillance System Survey of females 18 and older in Mecklenburg County provides an estimate of the prevalence of key health behaviors affecting women's health and pregnancy outcomes.

Indicator	Mecklenburg Women Age 18 -44 yrs	Confidence Interval
Binge Drinking	8.2%	5.3 – 12.5
Tobacco Use	15.0%	10.2 – 21.5
Meets Physical Activity Recommendations	78.1%	72.6 – 82.7
Obesity	18.5%	14.2 – 23.7
Overweight	30.2%	24.4 – 36.8
History of Cardiovascular Disease	4.9%	3.4 – 7.2
Diabetes	6.7%	4.8 – 9.4
Uninsured	15.5%	10.2 – 22.9
Has Not Visited a Dental Clinic in Past Year	19.4%	15.0 – 24.8

Source: 2010 Behavior Risk Factor Surveillance System

In 2011, according to the NC PRAMS survey, approximately 20% of all NC females reported experiencing barriers to obtaining prenatal care services in North Carolina. When examining the data by sub groups, the following groups of women reported the highest rate of experiencing barriers to obtaining prenatal care:

- Females < 25 years of age
- Minority and Hispanic females
- Females with < high school degree or high school equivalent
- Unmarried females
- Females who were Medicaid recipients
- Females who were receiving WIC services
- Females who delivered low birth weight infants weighing < 2500g

A previous history of a low birth weight or premature infant is a significant risk factor for having another infant born with an adverse birth outcome. NC 2011 PRAMS data shows 6.6% of all NC women reported their previous delivery resulted in infant being born < 2500g (5lbs 8oz). A history of a low birth weight infant was higher for women < 25 years of age and among non-Hispanic black women. In addition, 13.8 % of all NC women reported their previous delivery resulted in an infant being born < 37 weeks. A history of a premature birth was higher for woman 35 years of age or more and non-Hispanic black and or Hispanic women.

HEALTH BEHAVIORS

Tobacco Use

Overweight/Obesity

Physical Activity

Fruits and Vegetables Consumption

High Blood Pressure and High Cholesterol

Seat Belt Use

OVERVIEW

Health behavior choices play a part in disease, injury, and premature mortality. Behaviors and risk factors affecting disease and injury include but are not limited to smoking, obesity, nutrition, physical activity, and seat belt use. The Behavioral Risk Factor Surveillance System (BRFSS) is instrumental in collecting information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury. Data are weighted and projected to 676,000 Mecklenburg County residents 18 years of age or older. The Youth Risk Behavior Survey (YRBS) also collects information on health behaviors but in middle and high school aged students. Data for the YRBS are also weighted to reflect the demographic composition of Charlotte Mecklenburg High Schools.

CHANGES IN BRFSS METHODOLOGY

Beginning in 2011, the Division of Behavioral Surveillance (DBS) of the Centers for Disease Control and Prevention made two major changes to the BRFSS Survey methodology in order to improve the accuracy of BRFSS estimates. The first change is the adoption of an improved weighting method called *iterative proportional fitting*, commonly referred to as "raking. Raking will improve the representativeness of state estimates by including socio-economic factors, such as education and marital status, in the final survey weights. The second change is the addition of cell phone interviews to the BRFSS. Adoption of cell phones (with no landline phone) has been particularly evident among younger adults and racial/ethnic minorities. As a result of these changes, the BRFSS will better represent lower-income and minority populations and provide more accurate prevalence estimates. However, it will no longer be possible to compare results from 2011 or later BRFSS surveys to results from earlier years of BRFSS data. It is also likely that prevalence estimates will be somewhat higher as a result of the change in methods for behaviors that are more common among younger adults and/or minorities.

MECKLENBURG QUICK FACTS: HEALTH BEHAVIORS

- Healthy behavior choices play a part in disease, injury, and premature mortality.
- The Behavioral Risk Factor Surveillance System and Youth Risk Behavior Survey are instrumental in collecting information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury.
- About a fifth of Mecklenburg adult residents currently report that they smoke cigarettes. Approximately 14% of Mecklenburg teens reported currently smoking cigarettes.
- In 2012, approximately 20% of adults reported some physical activity in the past month.
- Over 59% of Mecklenburg adult residents are overweight or obese.
- About 15% of Mecklenburg teens surveyed are overweight and 13% of teens are obese.
- In 2011, almost 18% Mecklenburg County adults consumed five or more servings of fruits and vegetables a day.
- A third of teens spend three hours or more per day playing video games or using a computer for something that is not school work on an average school day.
- In 2011, almost 29% of Mecklenburg adult residents reported having high blood pressure and one third of Mecklenburg adults reported having high cholesterol (240 mg/dL or more total cholesterol).
- Over 93% of Mecklenburg adults report always wearing a seat belt when either driving or riding in a car.

Behavioral Risk Factor Prevalence (%) Among Adults Mecklenburg, North Carolina and United States 2012			
	Mecklenburg	North Carolina	United States
Smoking	20%	21%	20%
Overweight/Obesity (BMI>25.0)[1]	63%	66%	63%
No Physical Activity[2]	20%	25%	23%
Fruit & Veg (More than 5 servings/day)[3]	18%	14%	N/A
High Blood Pressure[3]	29%	32%	31%
High Cholesterol[3]	34%	39%	38%
Seat Belt Use	91%	91%	N/A

[1] Body Mass Index (BMI) is a ratio of weight to height (weight in kg/height in m^2).

[2] In the past 30 days

[3] 2011 Data

TOBACCO USE

According to the Office on Smoking and Health within the CDC, tobacco use is the leading preventable cause of death in the United States, causing nearly 443,000 deaths each year and resulting in an annual cost of more than $96 billion in direct medical costs. In 2012, it is estimated that over 155,000 adults in Mecklenburg County are current smokers.

By Geographic Area

- In 2012 the prevalence of current smoking is similar in Mecklenburg (20%), North Carolina (21%) and the US (20%).

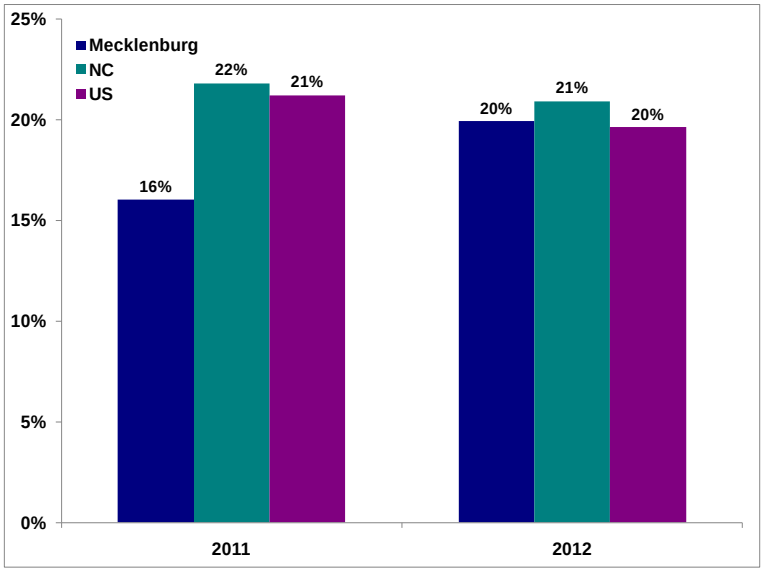
By Race/Ethnicity and Gender (2011-2012)

- The 2011-2012 five year prevalence for smoking was higher among African-Americans (23.7%) than Whites(17.1%).
- The prevalence of smoking was similar among males (18.4%) and females (18.1%).

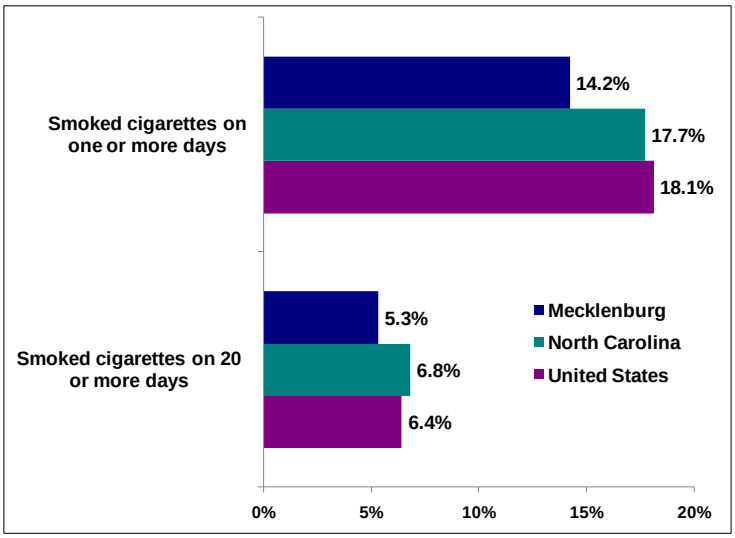
By Education and Income Level (2011-2012)

- College graduates (13.0%) were less likely to report smoking than those residents who were not college graduates (26.7%).
- Mecklenburg county residents who made less than $50,000 a year were more likely to report currently smoking than those who made $50,000 or more (25.3% vs. 9% respectively).

Current Smoking by Geographic Area
Mecklenburg, North Carolina, United States



2011 Youth Risk Behavior Survey
Reported Tobacco Use Among High School Students



Tobacco Use among Youth

In 2011, approximately 14% of Mecklenburg teens surveyed reported having smoked cigarettes on one or more days in the past 30 days, lower than the state prevalence (18%). One out of ten Mecklenburg teens reported smoking a whole cigarette before age 13.

- White teens (17.0%) and Hispanic teens (17.7%) were more likely to report having recently smoked cigarettes than Black teens (11%).
- Male teens (11.4%) were more likely than female teens (8.2%) to report smoking cigarettes
- Over 5% of teens reported smoking cigarettes on 20 or more days in the previous month.
- Among the teens who reported smoking, over half had tried to quit smoking in the last 12 months.
- Almost eight percent of Mecklenburg teens reported using chewing tobacco, snuff or dip on one or more days in the past 30 days.

OVERWEIGHT/OBESITY

National Center for Health Statistics show that 60 million U.S. adults 20 years of age and older are obese. The percentage of young people who are overweight has more than tripled since 1980. Among children and teens aged 6–19 years, over 9 million young people are considered overweight. An estimated 420,000 adults in Mecklenburg County are either overweight or obese.

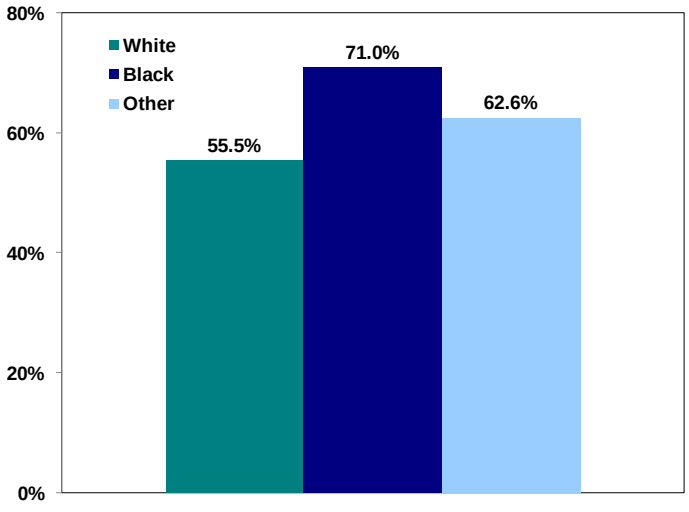
By Geographic Area (2012)

- About 63% of Mecklenburg adult residents are overweight or obese compared to over 65% of North Carolina and 63% of US adults.

By Race/Ethnicity and Gender (2011-2012)

- In 2011-2012, African-American adults (71%) were more likely to be overweight than White adults (56%) and adults of Other Races (63%).
- Adult male Mecklenburg residents (71%) were more likely than females (52%) to be overweight.

2011-2012 Prevalence of Overweight and Obesity among Mecklenburg Adults
By Race/Ethnicity

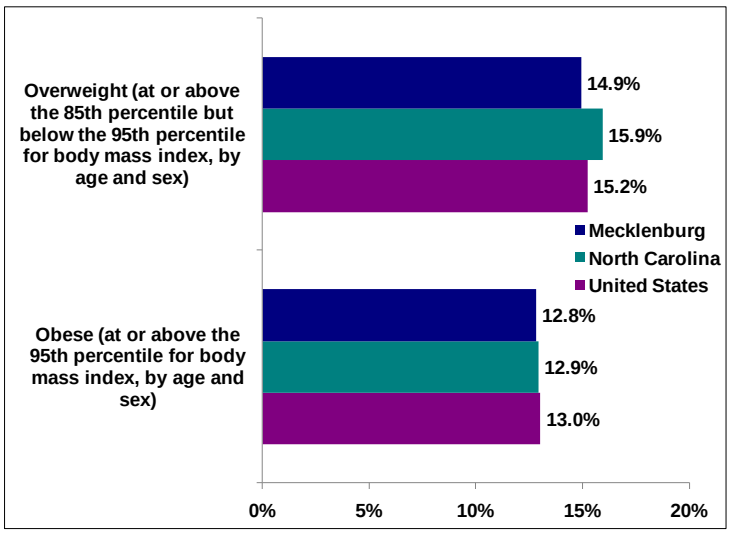


Overweight/Obesity among Youth

About 15% of Mecklenburg teens surveyed are overweight (at or above the 85th percentile but below the 95th percentile for body mass index, by age and sex) and 13% are obese (at or above the 95th percentile for body mass index, by age and sex).

- The prevalence of teens that are overweight and obese is similar in Mecklenburg, North Carolina and the US at around 15% for overweight and 13% for obese.
- Black and Hispanic teens (19%) are more than twice as likely to be overweight than White teens (9%).
- Almost 26% of teens describe themselves as overweight.
- More than 42% of teens reported that they are trying to lose weight.

2011 Youth Risk Behavior Survey
Overweight and Obesity among High School Students



PHYSICAL ACTIVITY

Despite the proven benefits of physical activity, more than 50% of American adults do not get enough physical activity to provide health benefits. Twenty-five percent of adults are not active at all in their leisure time. Activity decreases with age and is less common among women than men and among those with lower income and less education.

By Geographic Area (2011)

- In 2011, one fourth of Mecklenburg County adults reported not exercising in the past 30 days.

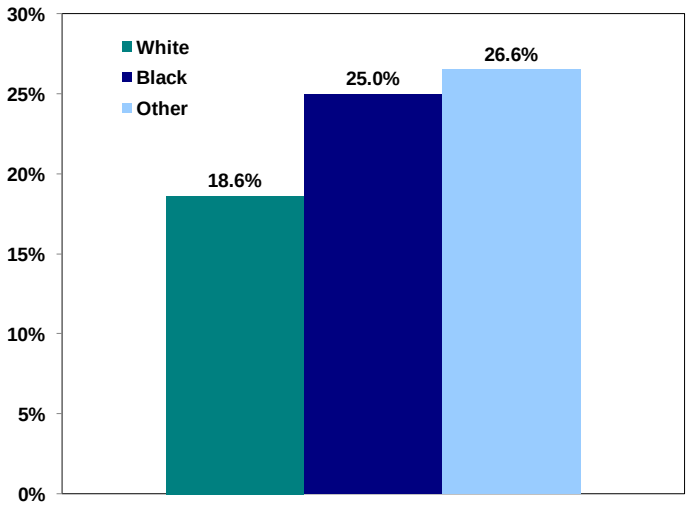
By Race/Ethnicity & Gender (2011)

- Minorities in Mecklenburg are more likely to report not exercising in the past 30 days outside of normal work activity than Whites.
- About one fourth of African Americans reported not exercising in the past 30 days compared to about 19% of Whites.
- Female adults (24%) are more likely to report not exercising than male adults (19%).

By Education and Income (2011-2012)

- Over 30% of Mecklenburg County adults with less than a high school education reported not exercising in the past 30 days, higher than those adults with a college degree (15%).
- Mecklenburg adults with an income of less than $50,000 were more likely to report not exercising in the past 30 days than those adult residents who earn more than $50,000 per year (27% vs. 12%, respectively).

2011 Prevalence of Physical Inactivity in Mecklenburg Adults *By Race/Ethnicity*



Physical Activity and Inactivity among Youth (2011)

- National guidelines call for being physically active at least 60 minutes a day on five or more days a week. About 40% of Mecklenburg teens reported being physically active for a total of 60 minutes or more per day on five or more of the past seven days, lower than the percentage of North Carolina teens (48%).
- Over 17% of teens attend physical education classes daily in an average week when they are in school.
- 37% of teens watch three or more hours of TV on an average school day.
- A third of teens spend three hours or more per day playing video games or using a computer for something that is not school work on an average day.

FRUITS AND VEGETABLES INTAKE

Diets that include a variety of fruits and vegetables may help to reduce the risk of cancer, heart disease, stroke, diabetes, and osteoporosis. In 2011, almost 18% Mecklenburg County adults consumed five or more servings of fruits and vegetables a day.

By Geographic Area (2011)

- The percentage of adults who reported consuming five or more servings of fruits and vegetables a day was higher among Mecklenburg residents than North Carolina.

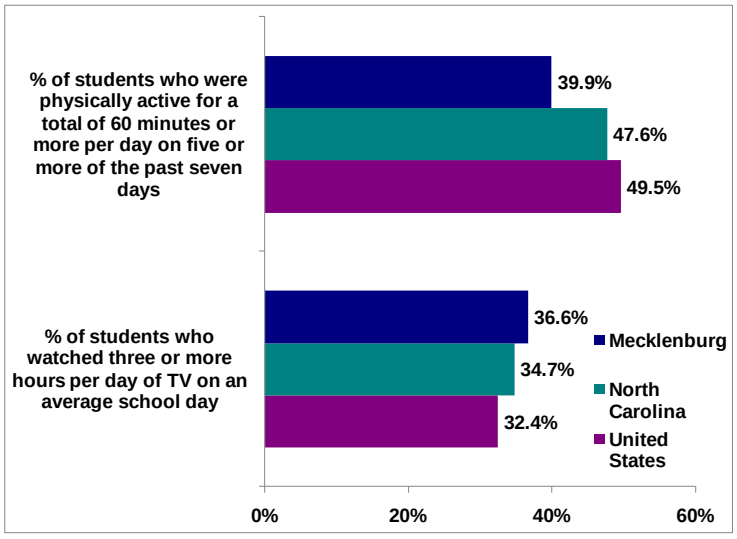
By Race/Ethnicity and Gender (2011)

- The percentage of fruits and vegetable intake was similar among White and Black adults (18% vs. 17% respectively).
- Female adults (26%) were more likely to report consuming five or more servings of fruits and vegetables a day than male adults (9%).

By Education and Income (2011)

- 21% of adults who have an education level of some college and above reported consuming five or more servings of

2009 Youth Risk Behavior Survey *Physical Activity and Inactivity Among High School Students*



fruits and vegetables a day, more than those residents who have a high school diploma or, less (12%).

- Approximately 23% of Mecklenburg teens reported eating fruits and vegetables five or more times on a typical day.

HIGH BLOOD PRESSURE

High blood pressure (hypertension) is called the silent killer because it usually has no symptoms. High blood pressure increases the risk for developing heart disease, stroke, and other serious conditions. It is estimated that 1 out of 3 American adults has high blood pressure and of those with high blood pressure, almost one third are undiagnosed.

By Geographic Area (2011)

- In 2011, almost 211,000 Mecklenburg County adults (29%) reported to a doctor, nurse, or other health professional that they have high blood pressure.

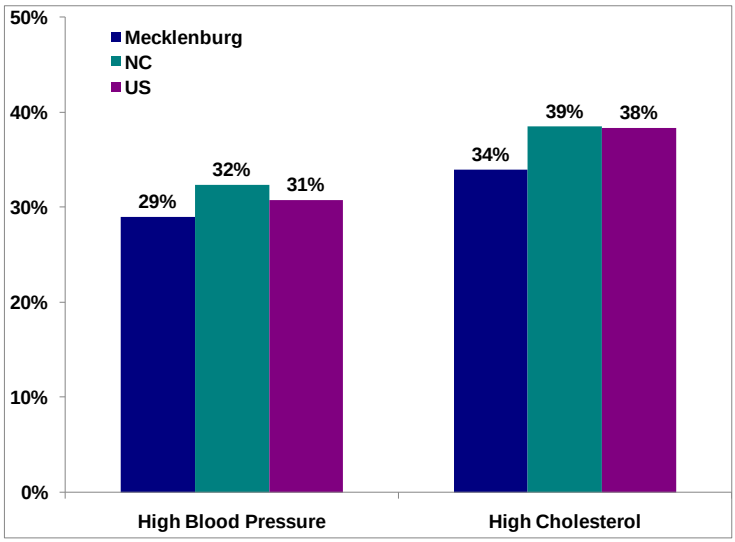
By Race/Ethnicity and Gender (2011)

- Over one third of African American adults (38%) in Mecklenburg County reported being diagnosed with high blood pressure, compared to 28% of Whites.
- Males are more likely to have been diagnosed with high blood pressure than females (32% and 26% respectively).

By Education and Income (2011)

- Thirty-eight percent of adults with a high school education or less reported being diagnosed with high blood pressure, compared to 24% of adults with an education level of some college and above.
- Adults with an income level less than $50,000 were more likely to report being diagnosed with high blood pressure than those adults with a higher income level (36% and 20%, respectively).

2011 Prevalence of Adult High Blood Pressure and High Cholesterol
Mecklenburg, North Carolina, United States



HIGH CHOLESTEROL

High cholesterol is a major risk factor for heart disease, one of the leading causes of death in the United States. Cholesterol levels are affected by age, sex, heredity, and diet. High cholesterol, like hypertension, produces no symptoms and can go undiagnosed.

By Geographic Area (2011)

- In 2011, over one third of Mecklenburg county adults reported being told by a doctor, nurse, or other health professional that they have high cholesterol (240 mg/dL or more total cholesterol).

By Race/Ethnicity and Gender (2011)

- About 40% of White adults reported being diagnosed with high cholesterol compared to 27% of African American adults.
- The prevalence of high cholesterol was similar for both males and females (34%).

By Income (2011)

- Mecklenburg adults with an income level less than $50,000 (35%) were more likely to report being diagnosed with high blood cholesterol than those adults at a higher income level (29%).

SEAT BELT USE

Seat belt use in motor vehicles has been proven to save lives in accidents. The National Highway Traffic Safety Administration (NHTSA) reports that in 2001 of the 31,910 vehicle occupants killed in crashes in 2001, 60% were not wearing a safety belt.

By Geographic Area (2011)

- Over 93% of Mecklenburg adults report always wearing a seat belt when either driving or riding in a car, compared to 91% of North Carolina adults.

By Race and Gender (2011-2012)

- Over 90% of White adults reported always using seat belts compared to 89% of African-Americans.
- Females (94%) were more likely to report always wearing a seat belt than males (88%).

By Education and Income Level (2011-2012)

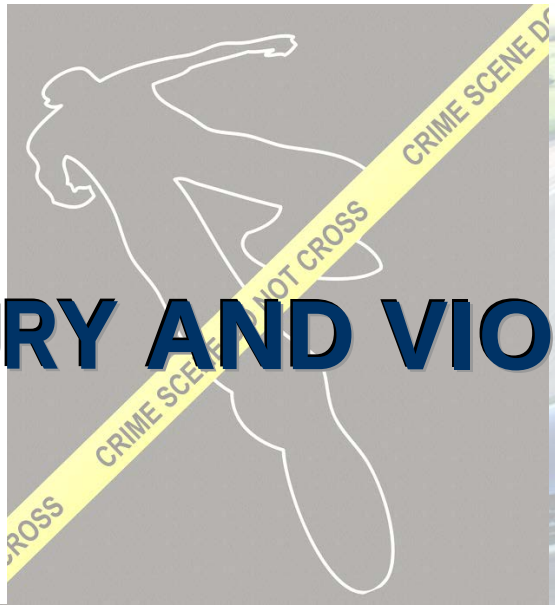
- The prevalence of seat belt use for adults with a high school education or less (89%) was similar to those adults with some college or greater (93%).
- The prevalence of Mecklenburg adults who use seat belts was similar among those with a higher income level (91%) and those adults at a lower income level (92%).

Seat Belt Use Among Youth (2011)

- Over 75% of Mecklenburg teens surveyed either always or most of the time wore a seat belt when riding in a car driven by someone else.
- Over 87% of White teens reported always or most of the time wearing seat belts compared to only 70% of Black teens.

Sources

Centers for Disease Control and Prevention
- Behavioral Risk Factor Surveillance System (BRFSS)
- Youth Risk Behavior Survey (YRBS)
- Office on Smoking and Health
- National Center for Health Statistics (NCHS)
- Division of Nutrition and Physical Activity
- Division for Heart Disease and Stroke Prevention
- National Center for Injury and Prevention Control



INJURY AND VIOLENCE

Unintentional Injuries

Motor Vehicle Injuries

SIDS and Unsafe Sleep

Deaths and Violence among Children and Teens

Homicide

Suicide

OVERVIEW

INJURIES

Injuries are ***preventable***. According to the Centers for Disease Control, Unintentional Injury is the 5th leading cause of death in the nation. In 2010, 129,476 US residents lost their lives due to unintentional injuries. While deaths due to injuries cover a multitude of causes, four major mechanisms of injury in 2010- poisonings, motor vehicle crashes, firearms, and falls accounted for 75% of all injury-related deaths.

Deaths reveal only a portion of injury's impact on the health of our nation and community. Each year millions of people survive their injuries, but are left with chronic and sometimes severe health problems and disabilities. The economic costs of injuries can be felt, not only in dollars, but in loss of productivity, increased hospital stays, and emergency department (ED) visits. According to the National Center for Health Statistics, injuries accounted for:

- 80.1 million ambulatory care visits (2009-2010)
- 41.0 million of emergency department (ED) visits (2009-2010)
- 2.0 million hospital discharges (2009)
- 67% of injury deaths were unintentional, while 21% were suicides and 9% were homicides; 3% were of undetermined intent
- Injuries were the main cause of premature mortality in the U.S., accounting for 29% of all the years of potential life lost before age 65

In 2011, Unintentional Injury accounted for 5% of all deaths. The death rate for injury was 26.9 per 100,000 residents, lower than the state rate of 43.9 and the national rate of 39.1 per 100,000 population.

Injury strikes hardest among the younger population resulting in the most potential years of life lost due to death or disability; yet there is very little funding and staff dedicated to injury prevention. Seatbelts, helmets, child safety seats, not driving while or with someone who is impaired, securing firearms, strong anti-bullying policies, and education around safe sleep practices for infants can help prevent injuries.

2011 MECKLENBURG QUICK FACTS: INJURY AND VIOLENCE

- Poisonings, motor vehicle crashes, and firearms are the top three leading causes of injury-related deaths.
- Unintentional Injury is the leading cause of death among children and teens ages 1-14 and adults 25-44 years of age.
- Other Unintentional Injuries are the leading cause of death among children 1-17 years of age.
- Unintentional Injury, Homicide, and Suicide are the leading causes of death for adolescents and young adults ages 15-24.
- Unintentional Injury deaths among infants are due to Accidental Suffocation as a result of unsafe sleep practices.

TRENDS IN MECKLENBURG COUNTY

Positive Trends

- Data from the CDC Youth Risk Behavior Survey (YRBS) has led to strong anti-bullying policies and increased awareness on the impact of bullying in the school system and the community.
- The Homicide rate decreased 4.4% and the Suicide rate decreased 9.3% from 2010 to 2011.
- Deaths due to motor vehicle injuries are on the decline.

Areas for Improvement

- 20% of all infant and child (0-17) deaths were ***preventable***.
- In 2011, 5 homicides occurred among children <5 yrs of age and 3 were due to child abuse by a caregiver.
- Unintentional injury is the leading cause of death among children ages 1-17 and the 4th leading cause among infants due to Unintentional Suffocation.
- From 2008-2011, Suicide deaths among adolescents has increased.

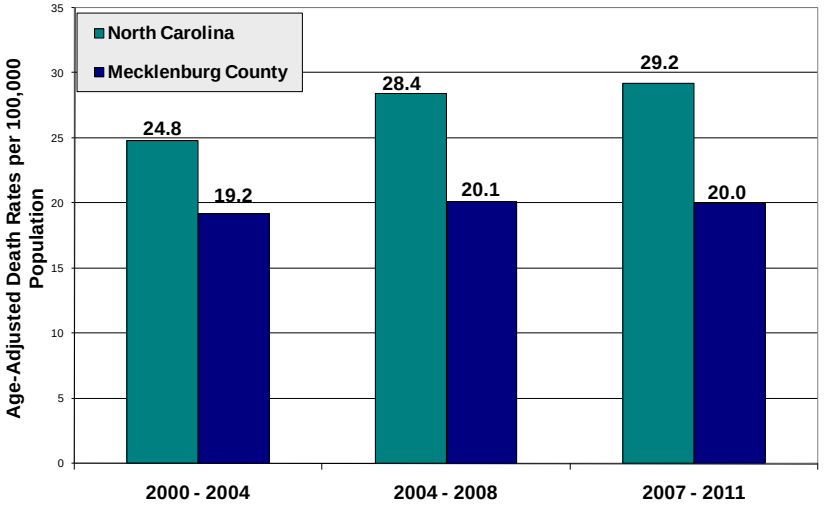
UNINTENTIONAL INJURIES

- Unintentional Injury is comprised of two categories: 1) Motor Vehicle Injuries, and 2) Other Unintentional Injuries.
- During 2011, 254 residents died from unintentional injuries at a rate of 26.9 deaths per 100,000 population, making it the 5th leading cause of death for all ages in the county.
- In 2011, unintentional injury deaths were the result of Unintentional Poisonings (35%), Motor Vehicle Crashes (MVCs) (28%), Falls (25%), Suffocation/Airway Obstruction (10%), and All Other Injuries (2%).
- Over the past five years, all other unintentional injury deaths have remained relatively stable. From 2007 - 2011, the age-adjusted death rate was 20.0 deaths per 100,000 residents compared to an age-adjusted rate of 20.1 deaths per 100,000 during 2000-2004.

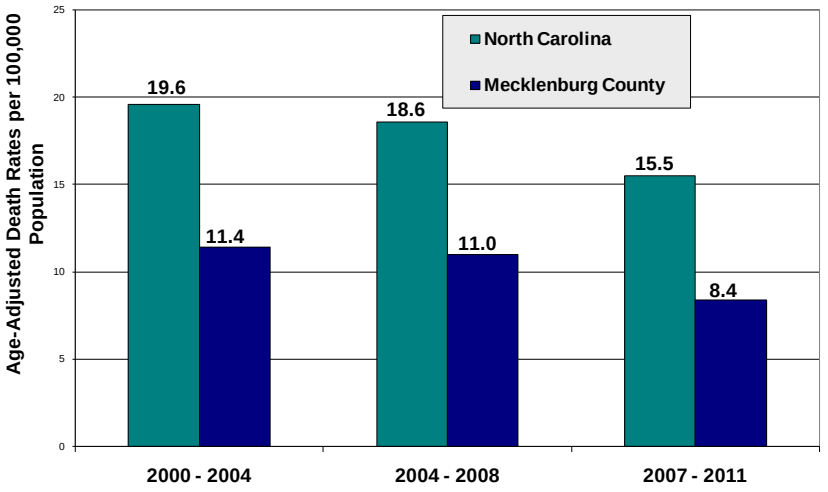
MOTOR VEHICLE CRASH (MVC) INJURIES

- In 2011, the death rate from MVCs was 7.5 per 100,000 residents compared to 19.4 per 100,000 residents for All Other Unintentional Injuries.
- From 2007-2011 there were 383 deaths due to motor vehicle injuries resulting in an age-adjusted rate of 8.4 deaths per 100,000 residents.
- In recent years the number of deaths due to MVCs has gradually declined. In 2011, there were 71 deaths due to MVCs, 23% lower than 92 deaths in the year 2000.
- Based on the 2011 death data:
  - Males are twice as likely to die from motor vehicle injuries compared to females.
  - Males die at higher rates of unintentional injuries than females.
  - Unintentional Injury was the 5th leading cause of death among minorities.

2000 – 2011 Other Unintentional Injury Death Rates
Mecklenburg County and North Carolina
(5 year Age-Adjusted Rates)



2000 – 2011 Motor Vehicle Injury Death Rates
Mecklenburg County and North Carolina
(5 year Age-Adjusted Rates)



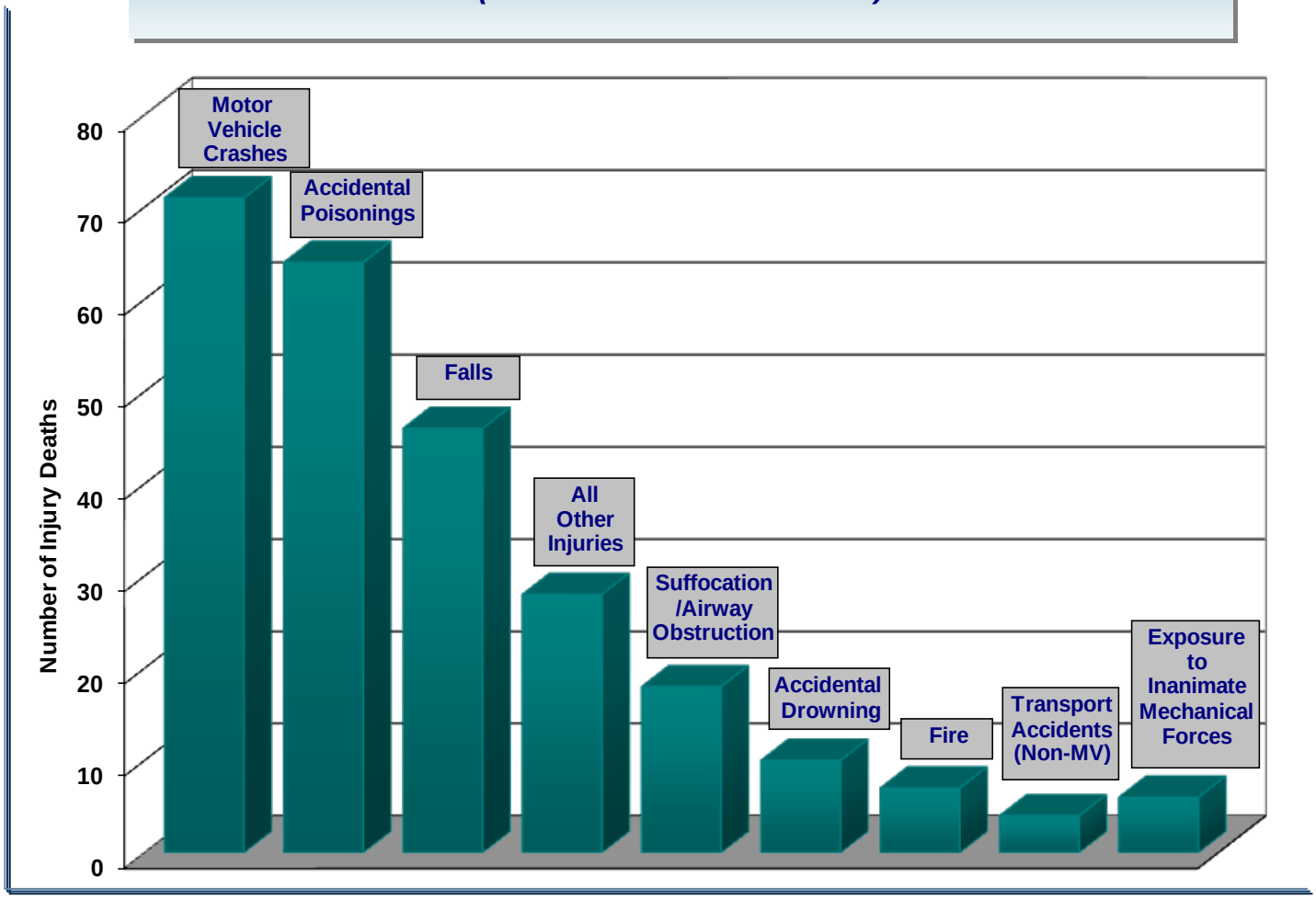
2011 Leading Causes of Death UNINTENTIONAL Injury *Total Deaths: 254*

- ***Motor Vehicle Injuries*** ***28%***
- ***Unintentional Poisonings*** ***25%***
- ***Falls*** ***18%***
- ***Suffocation/Airway Obstruction*** ***7%***
- ***All Other Injuries*** ***22%***

2011 Leading Causes of Death INTENTIONAL Injury *Total Deaths: 153*

- ***Homicides: 60 deaths*** ***39%***
  - *Firearms* *70%*
  - *Sharp Object* *15%*
  - *Hang/Suffocation* *5%*
  - *All Other* *10%*
- ***Suicides: 93 deaths*** ***61%***
  - *Firearms* *52%*
  - *Hang/Suffocation* *24%*
  - *Ingestion* *22%*
  - *All Other* *2%*

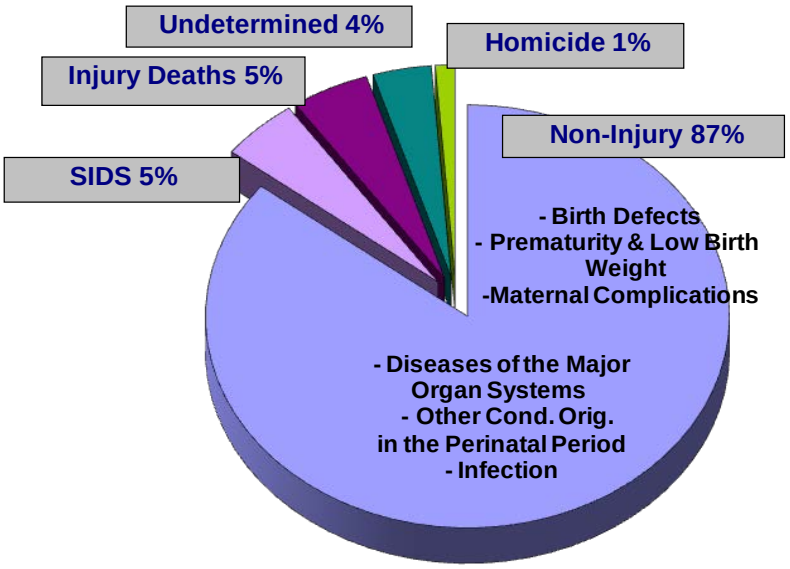
2011 Mecklenburg County Unintentional Injury Deaths by Cause *(Number of Resident Deaths)*



DEATHS IN INFANTS (<1 YEAR)

- A majority of infant deaths are the result of non-injury (natural) related causes such as birth defects, prematurity and low birth weight, and conditions originating in the perinatal period (in-utero).
- In 2011, there were 80 infant deaths. Unintentional Injury was the 4th leading cause of death among infants and 5% of all infant deaths were the result of ***preventable*** injuries.
- There were three preventable deaths among infants in 2011 resulting from Accidental Suffocations.
- Unsafe sleep practices continue to contribute to preventable suffocation deaths among infants in Mecklenburg County each year.

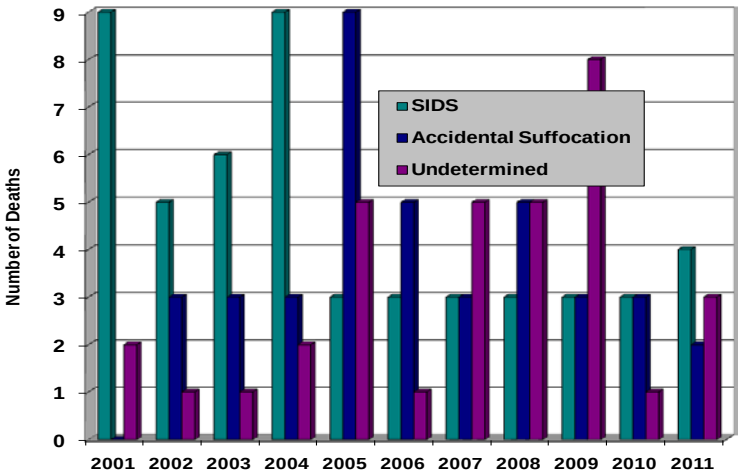
2011 Mecklenburg County Infant Deaths by Cause
(Percentages)
N=80



SIDS AND UNSAFE SLEEP DEATHS

- The Mecklenburg County Community Child Fatality Prevention and Protection Team (CFPPT) is a multidisciplinary group charged by North Carolina Statute 7B-1406-1414 to review all infant and child fatalities in Mecklenburg County from birth to age seventeen.
- Through monthly reviews of all infant and child deaths by the Prevention Team (a subcommittee of the CFPPT), the issue of infant deaths related to or caused by unsafe sleep practices has been identified as reoccurring problem in the community since 2005.
- While the incidence of SIDS has remained low, the incidence of Unsafe Sleep Deaths and Undetermined Deaths (deaths with risk factors related to unsafe sleep practices) has been increasing.
- Community efforts to increase awareness and provide education on proper safe sleep practices, is one of the primary goals of the CFPPT.

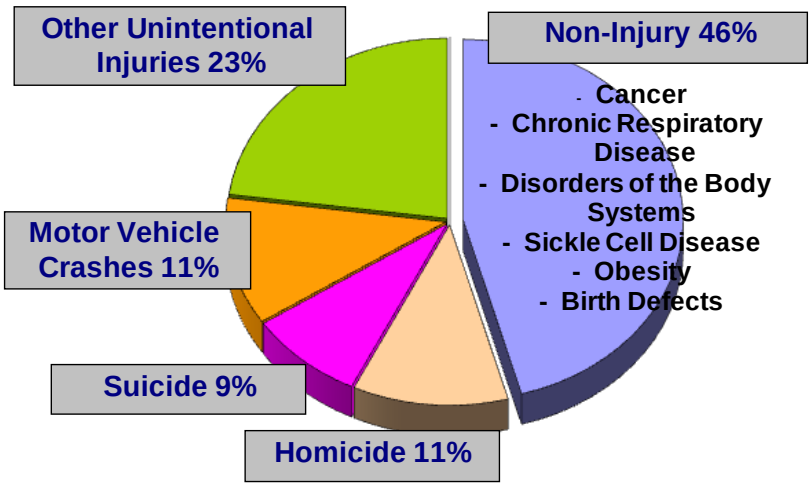
2001-2011 Mecklenburg County Sudden Infant Death Syndrome (SIDS), Accidental Suffocation, and Undetermined Infant Deaths



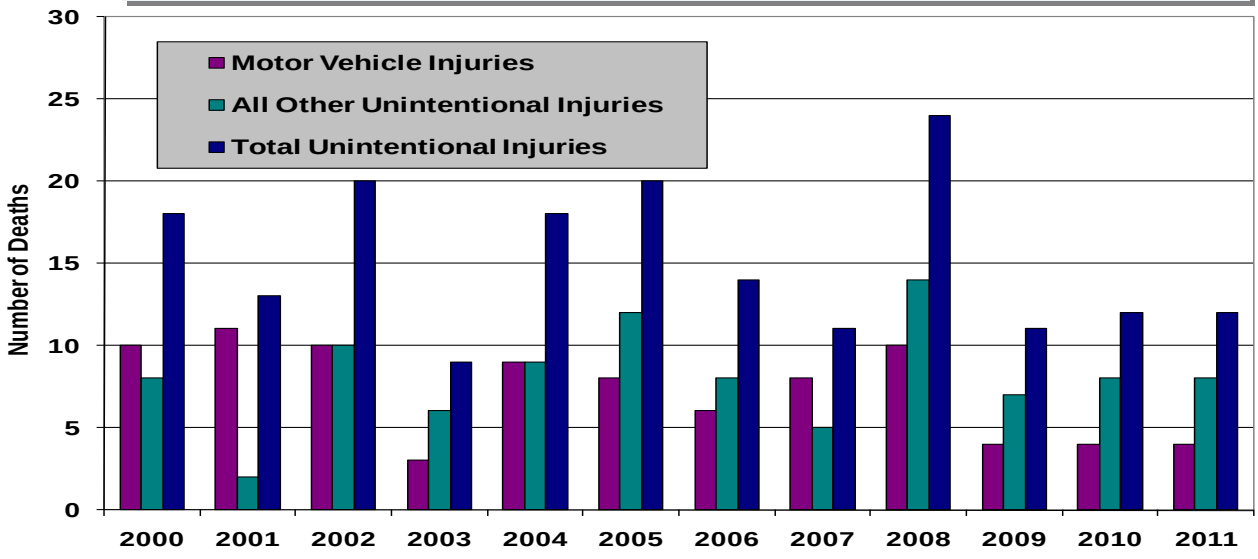
DEATHS AMONG CHILDREN (1 TO 17)

- Compared to infants, a majority of deaths among children ages 1-17 are the result of injury-related causes.
- In 2011, there were 35 child deaths in Mecklenburg County. There were 4 motor vehicle deaths and 8 other unintentional injury deaths. Deaths due to other unintentional injuries included 3 drownings, 2 exposures to fire, 1 accidental shooting, 1 accidental poisoning and 1 undetermined accident.
- Injury gains attention for a few hours when an "incident" is covered and then loses its appeal until the next incident. Nationwide, 1 in 5 teen drivers involved in fatal crashes had some alcohol in their system in 2010. Most of these drivers (81%) had blood alcohol contents higher than the legal limit for adults (CDC).
- In 2010, seven teens ages 16-19 died every day from motor vehicle injuries. Per mile driven, teen drivers ages 16-19 are three times more likely than drivers aged 20 and older to be in a fatal crash (CDC).
- The 2011 local YRBS shows, 24% of middle school students reported ever riding in a car with someone who consumed alcohol and 24% of teens rode in a car driven by someone who had consumed alcohol in the past month.

2011 Mecklenburg County Childhood Deaths by Cause
(Percentages)
N=35



2000 - 2011 Unintentional Injury Deaths among Mecklenburg Children Ages 1 to 17 yrs
(Number of Resident Deaths)



OVERVIEW

VIOLENCE

Violence is a serious problem in the US. It affects all age ranges and types of people causing death, injury, and disability, and increasing the risk of physical, reproductive, and emotional health problems that devastate our community.

- Intentional Injury is comprised of Homicides and Suicides.
- In 2011, Homicide was the 12th leading cause of death in the county. There were 60 homicides with a rate of 6.4 per 100,000 residents which is higher than the state rate of 5.4 per 100,000 and the national rate of 5.3 per 100,000 population.
- Of the 60 homicide deaths, 82% were male and 18% were female. During 2011, homicide was the 2nd leading cause of death for teens and young adults age 15 to 24.
- Of all homicide deaths, 8% occurred among children <15 years of age, 78% among adolescents and adults ages 15-44, 12% among adults ages 45-64, and 2% among older residents 65 years and older.
- In addition, 22% occurred among non-Hispanic whites, 62% among non-Hispanic blacks, and 17% among Hispanics.

FIREARM HOMICIDES

- Firearms are the most common cause of homicides locally, statewide, and nationally. In 2011, the county's firearm homicide rate was 4.4 per 100,000 residents; higher than the state rate of 3.8 per 100,000 and the national rate of 3.6 per 100,000.
- Locally, 70% of homicides were caused by firearms. Of the 47 (78%) homicides that occurred among the 15 to 44 age group, 83% were male, 13% were female, and 81% were caused by firearms.
- Of the firearm homicides, 19% were non-Hispanic white, 64% were non-Hispanic black, and 17% were Hispanic.

FIREARM HOMICIDES, cont.

- In 2011, the rate of firearm homicides for persons of Other Races was 3 times higher at 7.5 per 100,000 residents than the rate for Whites of 2.6 per 100,000.
- The firearm homicide rate for persons age 15-44 was 8.6 per 100,000 which was double the rate for the firearm homicide rate for persons of all ages.

OTHER TYPES OF VIOLENCE

- Deaths resulting from firearms, weapons, and child abuse represent the physical aspect of violence. However, exposure to violent behaviors such as bullying and domestic violence (DV) can cause emotional harm leading to injury or death.
- From 2005-2011, there were 58 domestic violence related homicides with an average of 8 per year.
- Domestic Violence is the largest risk factor associated with infant and child deaths. Child abuse by a caregiver or assault was the cause of death for 1 infant and 4 children < 5 years of age in 2011.
- The local Youth Risk Behavior Survey (YRBS) data for 2005-2011 shows self-reported physical domestic violence among high school teens increased 31% from 10.7% in 2007 to 14% in 2011.
- In addition, the 2011 local YRBS data shows, 45% of middle school students and 19% of high school students reported being bullied on school property within the past year. Bullying on school property within the past year increased 73% among middle school students from 2007 to 2011.
- The Mecklenburg County Domestic Violence Fatality Review Team (MDVFRT) was established in 2009 to intensively review local DV related fatalities and identify systems gaps to help reduce the incidence of DV and prevent future DV fatalities.

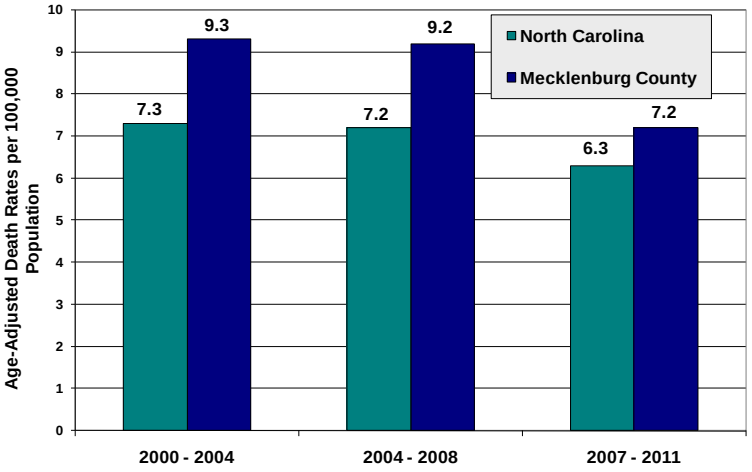
VIOLENCE AMONG CHILDREN AND TEENS

- In 2011, homicide was the second leading cause of death for children ages 1-17.
- There were 5 homicides among children < 5 year of age and zero homicides among children ages 12 to 17.
- Of the 5 homicides, 4 (80%) were non-Hispanic blacks and 1 was Hispanic. One was an infant and four were children.
- According to the 2011 Youth Risk Behavior Survey (YRBS), 16% of local teens reported carrying a weapon such as a gun, knife, or club within the past 30 days, 10% reported having been threatened or injured by a weapon within the past 12 months.

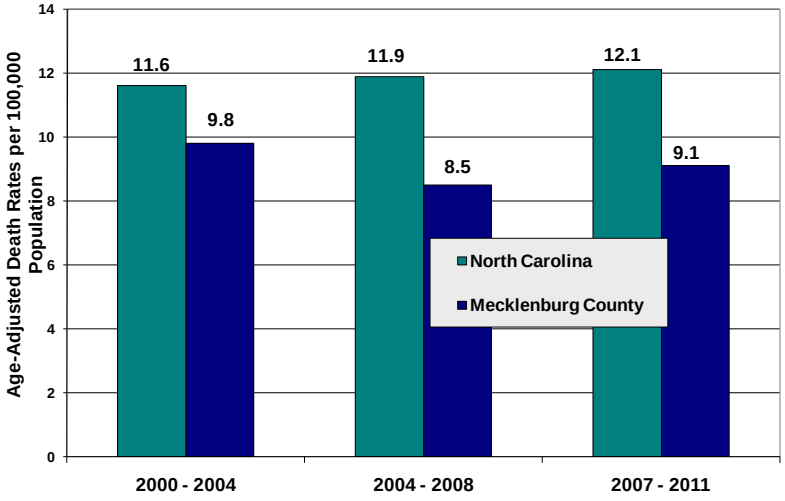
SUICIDES

- In 2011, there were 93 suicides and suicide was the 10th leading cause of death in the county.
- The county's suicide death rate was 9.8 per 100,000 population, lower than the state rate of 12.4 per 100,000.
- The 5 year age-adjusted rate for 2007-2011 was 9.1 per 100,000 population. The 5 year age-adjusted rate for non-Hispanic whites for 2007-2011 was 12.3 per 100,000 population and 2.7 times higher than the rate of 4.5 per 100,000 for non-Hispanic blacks.
- The 2007-2011, 5 year age-adjusted rate of 14.6 per 100,000 for males was 3.4 times higher than the rate of 4.3 per 100,000 for females.
- From 2000-2011 there were 27 suicides among teens, 74% were male and 26% were female.
- The 27 teen suicides ranged in age from 11 to 17, 37% were 16 years of age, 56% were White, and the most common cause was hanging/strangulation/suffocation.
- According to the local 2011 YRBS data,15% of teens reported seriously considering attempting suicide in the past 12 months, 13% reported making a plan about how they would attempt suicide in the past 12 months, and 15% attempted suicide one or more times in the past 12 months.

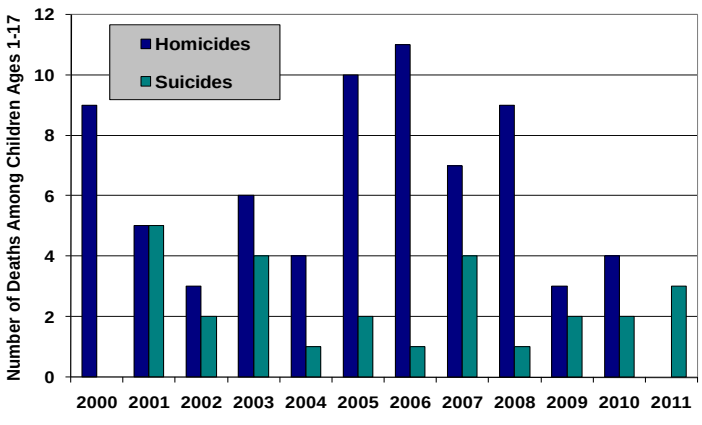
2000 - 2011 Homicide Death Rates
North Carolina and Mecklenburg County,
(5 year Age-Adjusted Rates)



2000 - 2011 Suicide Death Rates
North Carolina and Mecklenburg County,
(5 year Age-Adjusted Rates)



2000 – 2011 Number of Suicide Deaths among Mecklenburg Teens Ages 11 to 17



SOURCES

NC State Center for Health Statistics, 2009, 2010 and 2011 data for Mecklenburg County and North Carolina.

CDC Youth Risk Behavior Survey, 2011, Middle and High School Reports, prepared by Mecklenburg County Health Department.

CDC Injury Data:
http://www.cdc.gov/nchs/fastats/injury.htm

National Center for Health Statistics, National Vital Statistics Report, Volume 61(4), May 8, 2013. Deaths: Final Death Data 2010.

Mecklenburg County Women's Commission, Domestic Violence Fatalities:
http://charmeck.org/mecklenburg/county/CommunitySupportServices/WomensCommission/InfoEdu/Statistics/Pages/LocalHomicides.aspx

ENVIRONMENTAL HEALTH

Air & Water Quality

Tobacco Initiatives

Mecklenburg County Health Department Environmental Health Program

OVERVIEW

Environmental health comprises those aspects of human health, including quality of life, that are determined by physical, chemical, biological, social, and psychosocial factors in the natural environment. Some important aspects of environmental health are air quality, safe drinking water, and the built environment.

AIR QUALITY

Affected by numerous factors such as vehicle traffic, industry, and geography, air quality is a regional as well as a county issue. The quality of outdoor air is measured using the Air Quality Index (AQI). This index is based on concentrations of ozone, particulates, carbon monoxide, nitrogen dioxide and sulfur dioxide. While the region has been successful in curbing most of these pollutants, ozone concentrations and particulate matter remain major concerns. Ozone has been found to contribute to asthma, lung infections, cell inflammation, and shortness of breath. Rising population and the increase of vehicle miles traveled are key factors affecting the ozone level in the Charlotte Metro area. Because ozone levels have consistently remained at approximately 15% above federal compliance levels over the last 20 years, the EPA designated Mecklenburg County and surrounding areas an ozone "non-attainment" area in April 2004.

Number of Days that Ozone Levels have Exceeded Federal Compliance Levels
Mecklenburg County 2008-2012

Year	Number of Days
2008	5
2009	0
2010	14
2011	17
2012	9

2012 MECKLENBURG QUICK FACTS: ENVIRONMENTAL HEALTH

- Environmental health comprises those aspects of human health, including quality of life, that are determined by physical, chemical, biological, social, and psychosocial factors in the natural environment.
- Then number of elevated ozone days has decreased from 17 days in 2011 to 9 days in 2012 in the Charlotte Metro Area.
- Several initiatives have been formed to address the air quality in Mecklenburg County. These include the Mecklenburg Air Quality Program, Clean Air Works! and Clean Air Carolina.
- Ground water and surface water in Mecklenburg are both held to stringent requirements to ensure the safety of the county's drinking water supply.
- In 2010 nearly all restaurants and bars in North Carolina were required to be smoke-free.
- In FY13, 85% of the required food inspections were completed.
- In 2012, 25 cases of animal rabies, 7 cases of Lyme disease and 20 cases of Rocky Mountain spotted fever were reported.
- Seven percent of low income Mecklenburg residents live in what is classified as a food desert.
- There are 33 miles of greenway in Mecklenburg County, up from 20 miles that were under construction in 2007. There are plans for 185 miles over the next 20 years.

Air Quality Initiatives in Mecklenburg County

In surveys conducted by UNC Charlotte, 43% less people were aware of air pollution issues in 2012 than in 2010, yet 99% of respondents believe protecting the environment is important to the quality of life in Mecklenburg County. The public is made aware of ambient air quality information through various media outlets, electronic warning systems, ozone season clean commute initiatives, and daily air quality forecasts. Additionally, the Mecklenburg County Board of County Commissioners approved a formal local clean air policy in 2001. The following are some air quality initiatives in Mecklenburg County.

Mecklenburg County Air Quality (MCAQ)

- Responsible for assuring good air quality for the community through a combination of regulatory and non-regulatory programs.

Clean Air Works!

- Launched in 2006, engages employers in the effort to improve air quality by providing them with tools to help their employees take control of their commutes.

Clean Air Carolina (CAC)

- Formerly known as Carolinas Clean Air Coalition, CAC works to restore clean and safe air to the Charlotte region through coalition building, public policy advocacy and community outreach

WATER QUALITY

Ground Water Quality

Groundwater in Mecklenburg County is high quality source water for both domestic and industrial purposes. Groundwater is a source of drinking water for approximately 15% of Mecklenburg County residents and is also used for commercial and industrial purposes including irrigation. Occasionally there made be a need for treatment of water for taste or odor and there are some areas of the county where groundwater has been impacted by manmade contamination and is not fit for human consumption.

There are more than 1,300 groundwater contamination sites in Mecklenburg County. Investigations of these sites have identified 256 contaminated private wells.

Mecklenburg Priority List (MPL)

There are currently 1,381 MPL sites recorded Mecklenburg County's. Land Use and Environmental Services Agency. Since the program began 10,180 wells have been identified around 847 sites. Approximately 1,900 wells have been sampled and 260 wells have been identified as having contamination. In FY13, two wells had contamination. One of the wells was above the drinking water standard and a treatment system was placed on the well. Wells with contamination below the standard are notified but are not required to treat the water supply.

Surface Water Quality

An estimated 1.5 million people in the Charlotte area rely on the Catawba River and its lakes for their water needs. On an average day, 105 million gallons of clean, safe drinking water are pumped from Lake Norman and Mountain Island Lake to one of three water treatment plants in Charlotte and distributed throughout the county.

In 2005, over 150,000 analyses were conducted for approximately 150 substances, both before and after the treatment process, to ensure safe drinking water. Substances that are tested for include microbial and inorganic contaminants, pesticides and herbicides, organic chemicals and radioactive materials. The highest level of substances found were well below the limits that are required.

TOBACCO INITIATIVES IN MECKLENBURG COUNTY

Smoke Free Restaurants and Bars

As of January 2, 2010, nearly all restaurants and bars in North Carolina, and many lodging establishments, are required to be smoke-free, thanks to North Carolina's Smoke-Free Restaurants and Bars Law.

All enclosed areas of almost all restaurants and bars are to be smoke-free as well as enclosed areas of hotels, motels, and inns, if food and drink are prepared there.

Smoke Free Mecklenburg

Smoke-Free Mecklenburg is a local grassroots coalition of health care professionals, advocacy groups, and individuals committed to bringing smoke-free restaurants, bars and workplaces to Mecklenburg County. This initiative is not anti-smoking or against the tobacco industry; it was developed to promote health, to protect children and workers from second hand smoke, and to help businesses stay productive and competitive in the current economy.

Project Assist

Project ASSIST stands for the American Stop Smoking Intervention Study. The purpose of Project ASSIST is to prevent deaths and health problems attributable to tobacco use. In North Carolina, Project ASSIST is focusing on helping those who want to quit smoking. Mecklenburg County Project ASSIST is a partnership of the American Cancer Society, the Department of Environment, Health, and Natural Resources, the National Cancer Institute, Mecklenburg County Health Department, and voluntary organizations.

MECKLENBURG COUNTY HEALTH DEPARTMENT: ENVIRONMENTAL HEALTH SERVICES

The county's Environmental Health Services program focuses on prevention of disease through proper sanitation, safe food, proper disposal of waste, and management of disease-carrying pests. Services include inspection of food service facilities to ensure food is handled properly and hazards are eliminated to prevent foodborne illnesses; schools, day care facilities, hospitals, and nursing homes are maintained to protect students and those receiving care from exposure to disease causing organisms; and that recreational facilities such as swimming pools do not become vectors of disease.

Other activities include ensuring that homes served by private wells and septic tank systems have systems that effectively treat wastewater to prevent environmental degradation and contamination of natural resources, and ensure a safe water supply is available to all county residents. Environmental Health staff also investigate sites associated with elevated childhood blood lead levels and ensure problems associated with exposure are mitigated.

Carbon Monoxide

Cold weather in Mecklenburg County increases the likelihood of some residents taking extraordinary measures to keep warm. Fuel-burning appliances such as furnaces, gas ranges/stoves, gas clothes dryers and water heaters are all sources of carbon monoxide (CO).

Fireplaces, charcoal grills, wood-burning stoves, kerosene heaters and vehicles, generators and other combustion engines running in an attached garage—even when an outside door is open—may also cause carbon monoxide poisoning.

On January 1, 2004, an ordinance was passed requiring all dwelling units whether owned or leased, regardless of the source of energy used in the dwelling unit, and regardless of whether the dwelling unit has an attached garage, to contain at least one operable Carbon Monoxide Alarm.

Lead Screening

The Childhood Lead Poisoning Prevention Program in the county is administered by both the Public Health Pest Management & Environmental Services (PHPM) and Community-Based Services program of the Health Department. The purpose of the program is to promote childhood lead poisoning prevention, provide medical case management to children under 6 years of age who have elevated lead levels, and apply State rules and regulations addressing childhood lead poisoning prevention.

Children, under the age of six years, who reside in target housing (pre-1978), should have their blood tested for lead at their pediatrician or other health care provider. The initial check is usually done with a simple finger-stick test. If there is an elevated blood lead level then a second test (venous) will be done.

Rabies and Selected Tickborne Diseases Mecklenburg County						
2008-2012 Reported Cases						
	2008	2009	2010	2011	2012	5 Yr Avg
Animal Rabies	15	32	28	31	25	26
Lyme Disease	5	6	6	5	7	6
Rock Mountain Spotted Fever	24	32	7	8	20	13
Erlichiosis	1	0	0	0	0	0

Lead Screening, cont.

Confirmed blood lead levels of 10ug/dl or greater will trigger medical, nutritional, and environmental follow up from health professionals. Below are the lead testing results for Mecklenburg County for 2008-2011.

Lead Testing Results Mecklenburg, 2008-2011			
Year	Screened < 6 years	Confirmed ≥10 ug/dL	Confirmed ≥20 ug/dL
2008	11,470	3	1
2009	12,153	2	1
2010	12,176	8	0
2011	11,454	2	0

Food Inspections

The job of inspecting restaurants and food handling facilities to protect the community from foodborne infections falls to the local health department. Mecklenburg County Health Department's Food and Facilities Sanitation Program (F&FS) is required annually to perform over 10,650 inspections of over 3,800 food and lodging facilities.

For FY13, 85% of required inspections were completed. In the past four years, the percent inspections completed has ranged from 95%-100%.

Percentage of Food Inspections Completed Mecklenburg County FY2009-FY2013	
Year	%
2009	99.7
2010	100
2011	99.9
2012	95.0
2013	85.0

The FY13 completion rate was affected by 1) a significant change in state food service laws and scoring which decreased productivity during the learning period; 2) the Democratic National Convention which stopped regular activity for a week as staff performed 24 hour food security duties; and 3) staff leave and vacancies. Results from inspections may be viewed on line at https://public.cdpehs.com/NCENVPBL/ESTABLISHMENT/ShowESTABLISHMENTTablePage.aspx?ESTTST_CTY=60.

RABIES AND TICK BORNE DISEASES

Rabies is a preventable viral disease transmitted through the bite of a rabid animal. The vast majority of rabies cases occur in wild animals like raccoons, skunks, bats, and foxes. In 2012, there were 25 cases of animal rabies reported.

RABIES AND TICK BORNE DISEASES, cont.

As people build homes in formerly uninhabited wilderness areas where ticks live, tick borne diseases are becoming more of a problem. Tick borne diseases can be caused by viruses, bacteria, or parasites. Most people become infected through tick bites during the spring and summer months.

Twenty cases of Rocky Mountain Spotted Fever and seven cases of Lyme disease were reported in 2012. The year 2008 was the last time a case of erlichiosis was reported in Mecklenburg County.

FOOD DESERTS

A food desert is defined as an area in the United States with limited access to affordable and nutritious food, particularly such an area composed of predominantly lower income neighborhoods and communities. Limited access is defined as living more than 1 mile from a grocery store in an urban area and living more than 10 miles from a grocery store in a rural area.

Lack of access to fresh fruits and vegetables is a substantial barrier to consumption and is related to premature mortality. There is strong evidence that residing in a food desert is correlated with a high prevalence of overweight, obesity, and premature death. Supermarkets traditionally provide healthier options than convenience stores or smaller grocery stores.

Seven percent of Mecklenburg residents that are low income are classified as living in a food desert. The estimated percentage of low income North Carolina residents who live in a food desert is also 7%.

SAFE ROUTES TO SCHOOL

The Health Department has added a staff position to coordinate Safe Routes to School (SRTS), a program to help schools and parents design and sustain walking and biking programs. SRTS has worked with 13 schools in the county as well as leveraged federal grant funding for education and infrastructure programs.

PARKS AND RECREATION

There are almost 11,000 state and federal park acres and over 19,000 local park acres in Mecklenburg County. According to the Trust for Public Land, 26% of Charlotte residents live within ½ mile of a park.

GREENWAYS

Greenways are vegetated natural buffers that improve water quality, reduce the impacts of flooding, and provide wildlife habitat. Greenway trails provide recreation, transportation, fitness, and economic benefits for all to enjoy. The Mecklenburg County greenway system is quickly becoming one of the finest in the country. There are 33 miles of greenway in Mecklenburg County, up from 20 miles that were under construction in 2007. There are plans for 185 miles over the next 20 years.

Sources

Environmental Protection Agency Air Quality Report, www.epa.gov/airdata/ad_rep_aqi.html

2012 Mecklenburg County State of the Environment Report, http://charmeck.org/mecklenburg/county/luesa/soer/Pages/default.aspx

Charlotte Mecklenburg Utilities

Smoke Free Mecklenburg, www.ncallianceforhealth.org/Smoke-Free-Mecklenburg.aspx

Mecklenburg County Health Department Environmental Health Program, http://charmeck.org/mecklenburg/county/HealthDepartment/EnvironmentalHealth/Pages/Default.aspx

County Health Rankings and Roadmaps, Robert Wood Johnson Foundation, www.countyhealthrankings.org/

Safe Routes to School, http://charmeck.org/mecklenburg/county/HealthDepartment/CommunityHealthServices/Pages/SafeRoutestoSchool.aspx

Mecklenburg County Park and Recreation Department, http://charmeck.org/mecklenburg/county/ParkandRec/Pages/default.aspx

The Trust for Public Land Park Score Index, http://parkscore.tpl.org/

COMMUNICABLE DISEASES

Tuberculosis

Sexually Transmitted Diseases

- Chlamydia
- Gonorrhea
- Syphilis

HIV Disease

OVERVIEW

Tuberculosis

Tuberculosis (TB) is a disease caused by bacteria called Mycobacterium tuberculosis. TB usually affects the lungs, but it can also affect other parts of the body. TB is spread through the air from one person to another. The bacteria are put into the air when a person with active TB disease of the lungs or throat coughs or sneezes. People nearby may breathe in these bacteria and become infected.

If not treated properly, TB disease can be fatal. Worldwide, TB affects about 9 million people each year, killing about 2 million. In the United States 10,528 TB cases were reported in 2011 with 569 deaths related to TB disease occurring in 2010, the latest year for which complete data is available *(Centers for Disease Control, 2010 TB Surveillance Report)*.

2013 MECKLENBURG QUICK FACTS: TUBERCULOSIS

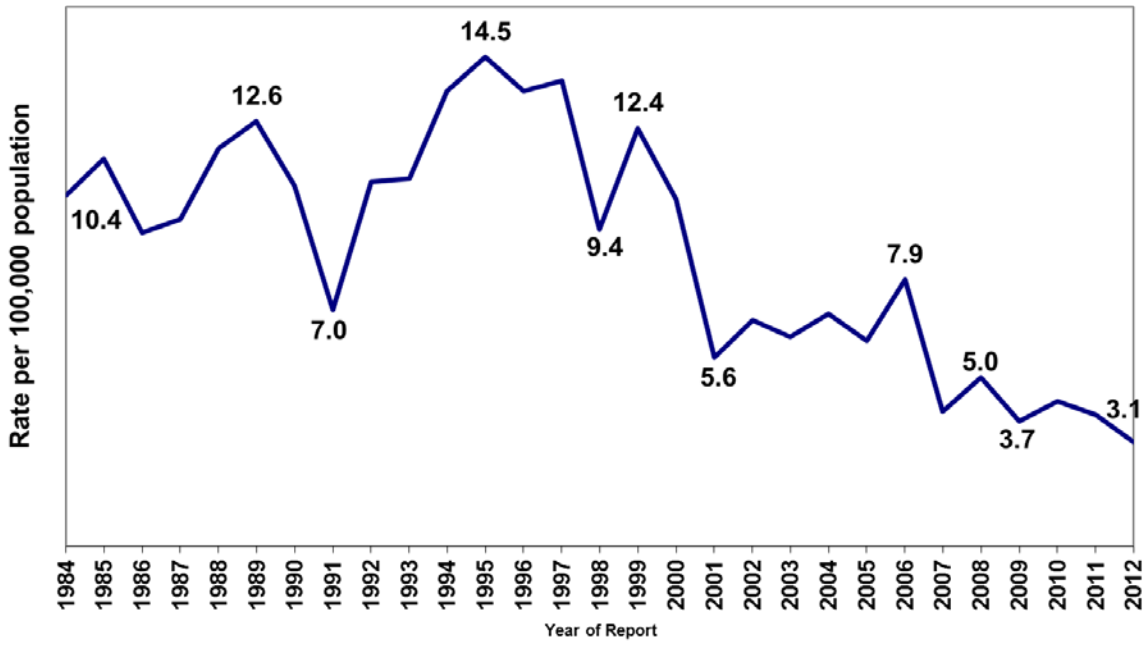
Positive Trends

- Mecklenburg TB case rates declined from 14.5 cases per 100,000 in 1995 to 3.1 cases per 100,000 in 2012.
- There have been limited to no reports of TB disease in long-term care facilities, correctional facilities or among health-care workers in the county.

Areas for Improvement

- Foreign-born cases of TB continue to represent a substantial burden for the county.
- While overall reports and case rates of TB have declined for the county, racial and ethnic minorities remain disproportionately impacted by tuberculosis.

TUBERCULOSIS CASE RATES, Mecklenburg County: 1984 – 2012
Rate per 100,000 population



Data Source: Mecklenburg County Health Department, Tuberculosis Prevention and Control Program

TB CASE REPORTS DECLINE, HOWEVER CHALLENGES PERSIST

TB case rates for the nation have declined, following a resurgence of the disease between 1985 and 1992. The 2008 TB rate of 4.2 cases per 100,000 persons was the lowest recorded since national reporting began in 1953. In Mecklenburg County TB case rates declined from 14.5 cases per 100,000 persons in 1995 to 3.1 cases per 100,000 persons in 2012.

Despite this overall improvement, progress has slowed in recent years. In Mecklenburg, the average annual percentage decline in TB rates slowed from 11.2% per year during 1995 – 2001 to 5.4% during 2002 – 2012. Additionally, foreign-born cases of TB continue to represent a substantial burden for the county.

TUBERCULOSIS IN MECKLENBURG

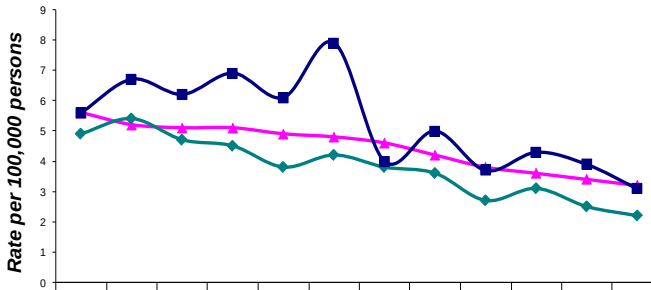
- In 2012, 30 TB cases (a rate of 3.1 cases per 100,000 persons) were reported in Mecklenburg County.
- In comparison to 2006 (55 reported cases), TB reports for 2012 declined by 45% and the annual case rate declined by 61%.

Age, Gender and Racial/Ethnic Differences

- The majority of the 2012 TB cases were reported among persons aged 20-29 years (9 cases or 30%) and persons age 60 years and over (7 cases or 23%).
- Males (16 cases or 53%) were more likely than females (14 cases or 47%) to be reported with TB.
- While overall reports and case rates of TB have declined for the county, racial and ethnic minorities remain disproportionately impacted by tuberculosis.
- Non-Hispanic Asian/Pacific Islanders were greatly impacted by TB during 2012, accounting for 50% of new case reports. In comparison, 23% were non-Hispanic African Americans, 10% were Multiple Race, 10% were Hispanic and 7% were non-Hispanic Whites.
- Several factors contribute to these differences in reports, including increased reports among Foreign born persons, many of whom are racial/ethnic minorities.

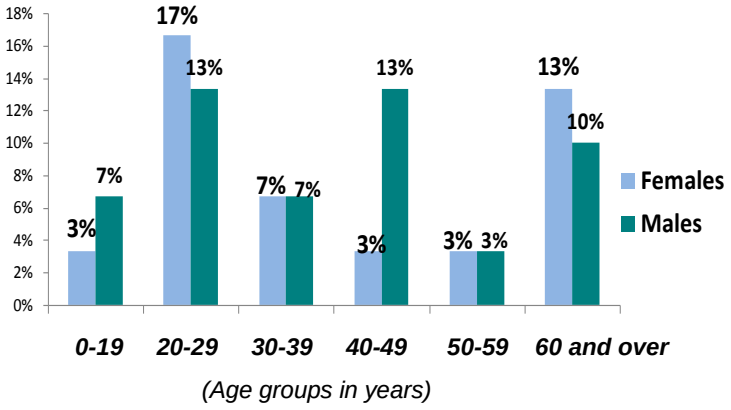
2000 - 2012 TB Case Rates, US, NC, Mecklenburg
(rate per 100,000 population)

2001 - 2012 TB Case Rates, US, NC, Mecklenburg
Annual case rate per 100,000 population



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
USA	5.6	5.2	5.1	5.1	4.9	4.8	4.6	4.2	3.8	3.6	3.4	3.2
NC	4.9	5.4	4.7	4.5	3.8	4.2	3.8	3.6	2.7	3.1	2.5	2.2
Meck	5.6	6.7	6.2	6.9	6.1	7.9	4.0	5.0	3.7	4.3	3.9	3.1

2012 Mecklenburg TB Cases
Percent of Reports by Gender and Age
Total TB Cases = 30



Data Source: Mecklenburg County Health Department, Tuberculosis Prevention and Control Program

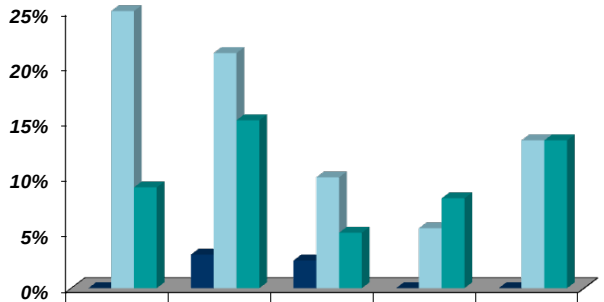
RISK FACTORS FOR TUBERCULOSIS

Increased TB case reports are associated with several risk factors, including:

- being foreign-born
- having a history of substance abuse
- being homeless
- being a resident of a long-term care facility or a correctional facility
- co-infection with HIV, and
- being a health-care worker

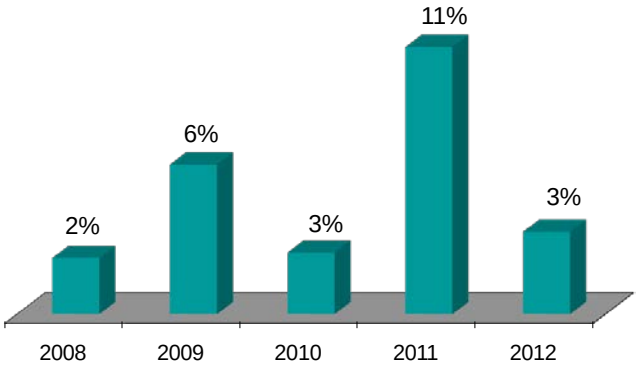
Based upon the past five years of county-level data, there have been limited to no reports of TB disease in long-term care facilities, correctional facilities or among health-care workers.

2008 - 2012 Mecklenburg TB Case Reports
% Reporting Substance Abuse
(within past year)



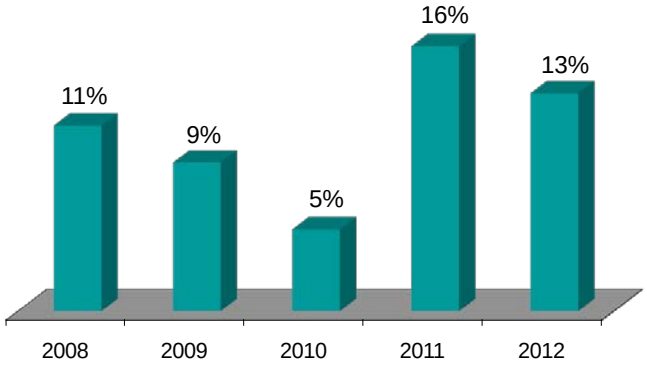
	2008	2009	2010	2011	2012
Injecting Drug Use	0%	3%	3%	0%	0%
Non Injecting Drug Use	25%	21%	10%	5%	13%
Excessive Alcohol Use	9%	15%	5%	8%	13%

2008- 2012 Mecklenburg TB Reports
% Reporting Homelessness
(within past year)



- Reports of being homeless within the past year among TB cases have ranged from 6 – 10%.

2008 - 2012 Mecklenburg TB Reports
% HIV Co-Infection

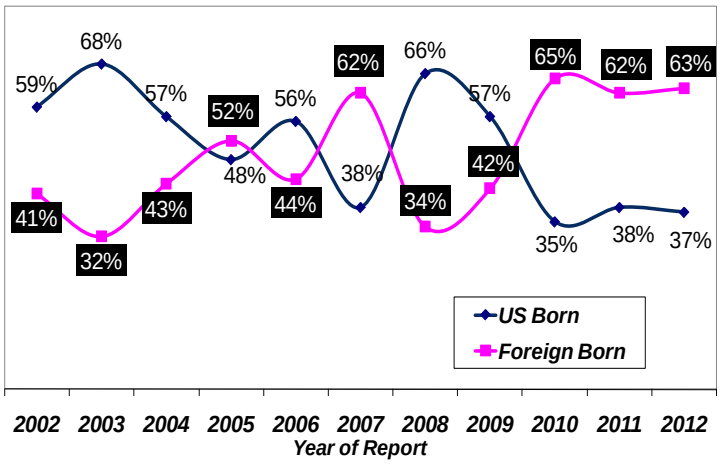


- Approximately 10 – 13% of TB cases reported each year in the county are co-infected with HIV (data based upon 2008 – 2012 Reported TB Cases).

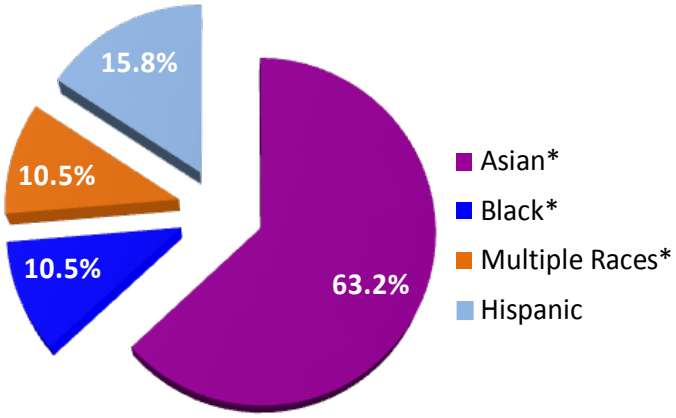
COUNTRY OF ORIGIN: U.S. AND FOREIGN BORN CASE REPORTS

- In general, TB case reports among US born persons has declined over time, while the proportion of TB cases among foreign-born individuals has increased.
- Foreign-born TB cases increased from 41% of total case reports in 2002 to 63% in 2012.
- Non-Hispanic Asians accounted for the majority of foreign born TB reports (63%), while non-Hispanic African Americans (45%) represented the majority of US born TB cases.
- In 2012, the most frequently reported countries of origin among foreign-born persons were Bhutan, India and Vietnam

2002 - 2012 Mecklenburg TB Case Reports
US and Foreign-born Cases by Year of Report
(percentages)

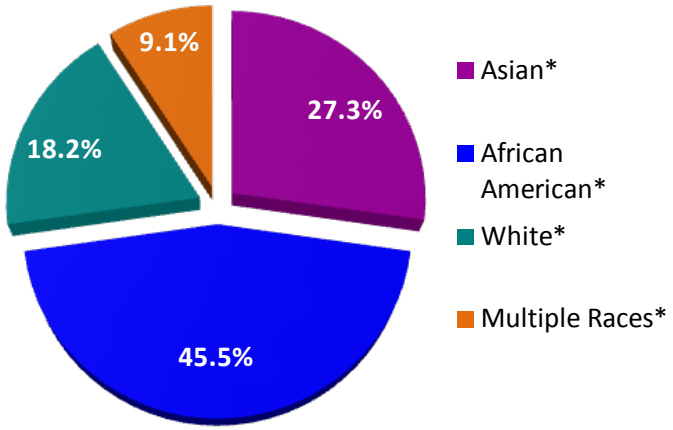


2012 Reported TB Cases: *FOREIGN-BORN*
Total Cases: 19



* Asian and Black and Multiple Race cases are non-Hispanic. There were no foreign-born TB cases among Whites during this time period.

2012 Reported TB Cases: *US-BORN*
Total Cases: 11



*All cases are non-Hispanic. There were no US-born TB cases among Hispanics during this time period.

Data Source: Mecklenburg County Health Department, Tuberculosis Prevention and Control Program

Tuberculosis Case Report Highlights, 2011 - 2012
Mecklenburg County Residents

2011 Mecklenburg County Verified Tuberculosis (TB) Case Reports

Total TB Cases = 37

Annual Case Rate = 3.9 per 100,000 population

	Cases	%
Gender		
Male	22	59.5%
Female	15	40.5%
Racial Categories (includes Hispanic Cases)		
White	18	48.7%
Black or African American	12	32.4%
Asian	6	16.2%
American Indian/Alaskan Native	0	0.0%
Multiple Races	1	2.7%
Ethnicity (Hispanic/Latino)		
Non-Hispanic	26	70.3%
Hispanic	11	29.7%
Unknown/Missing	0	0.0%
Country of Origin		
U.S. Native	14	37.8%
Foreign-Born	23	62.2%
Age Group		
0 - 19 yrs	2	5.4%
20 - 29 yrs	5	13.5%
30 - 39 yrs	9	24.3%
40 - 49 yrs	5	13.5%
50 - 59 yrs	9	24.3%
over 60 yrs	7	18.9%
Behavioral and Occupational Risk Categories (Within the Past Year)		
Injected Drugs	0	0.0%
Non-Injecting Drug Use	2	5.4%
Excessive Alcohol Use	3	8.1%
Homeless	4	10.8%
Resident of Long-Term Care Facility	0	0.0%
Clinical Data		
Site of Disease		
Pulmonary	32	86.5%
Extra Pulmonary	5	13.5%
Both	0	0.0%

2012 Mecklenburg County Verified Tuberculosis (TB) Case Reports

Total TB Cases = 30

Annual Case Rate = 3.1 per 100,000 population

	Cases	%
Gender		
Male	16	53.3%
Female	14	46.7%
Racial Categories (includes Hispanic Cases)		
White	3	10.0%
Black or African American	8	26.7%
Asian	15	50.0%
American Indian/Alaskan Native	0	0.0%
Multiple Races	4	13.3%
Ethnicity (Hispanic/Latino)		
Non-Hispanic	27	90.0%
Hispanic	3	10.0%
Unknown/Missing	0	0.0%
Country of Origin		
U.S. Native	11	36.7%
Foreign-Born	19	63.3%
Age Group		
0 - 19 yrs	3	10.0%
20 - 29 yrs	9	30.0%
30 - 39 yrs	4	13.3%
40 - 49 yrs	5	16.7%
50 - 59 yrs	2	6.7%
over 60 yrs	7	23.3%
Behavioral and Occupational Risk Categories (Within the Past Year)		
Injected Drugs	0	0.0%
Non-Injecting Drug Use	4	13.3%
Excessive Alcohol Use	4	13.3%
Homeless	1	3.3%
Resident of Long-Term Care Facility	1	3.3%
Clinical Data		
Site of Disease		
Pulmonary	21	70.0%
Extra Pulmonary	9	30.0%
Both	0	0.0%

Data Source: Mecklenburg County Health Department, Tuberculosis Prevention and Control Program

OVERVIEW

SEXUALLY TRANSMITTED DISEASES

Sexually Transmitted Diseases (STDs) are diseases that are spread primarily through sexual contact. STDs are extremely widespread and, without treatment, can result in severe and sometimes deadly consequences.

According to the Centers for Disease Control, there are about 20 million new infections in the United States each year, costing the healthcare system nearly $16 billion in direct medical costs alone. CDC estimates that half of all new STDs in the country occur among young men and women.

The true magnitude of the STD epidemic is unknown because many cases of reportable STDs are undiagnosed, and in some cases such as human papillomavirus and genital herpes, are not reportable.

Estimated New STD Cases in the U.S.
(for selected STDs per year)

STD	INCIDENCE (Estimated number of new cases every year)
Chlamydia	3 million
Gonorrhea	650,000
Syphilis	70,000
Herpes	1 million
Human Papillomavirus (HPV)	5.5 million
Hepatitis B	120,000
Trichomoniasis	5 million

Source: Cates, 1999

2013 MECKLENBURG QUICK FACTS: SEXUALLY TRANSMITTED DISEASES

- 6,353 new chlamydia cases were reported in 2012 for a rate of 659.6 per 100,000. While these reports are substantially lower than the previous year, the decrease may be linked to reporting delays and changes to the STD surveillance system.
- Mecklenburg reported 1,861 new cases of gonorrhea during 2012 for an annual case rate of 193.2 per 100,000.
- In 2012, there were 88 new primary and secondary syphilis cases reported in the county, for an annual case rate of 9.1 per 100,000.

SUMMARY OF STDs TRENDS IN MECKLENBURG COUNTY

Positive Trends

- Expansion of screening and use of more sensitive tests have led to better diagnosis of Chlamydia infections in the county.
- Gonorrhea case rates within the county have declined and appear to be stabilizing.
- Syphilis case reports increased across North Carolina beginning in 2009. However, recent reports show declining rates for both the State and county.

Areas for Improvement

- Women, especially young and minority women are hardest hit by chlamydia.
- Racial and ethnic minorities remain disproportionately impacted by STIs.
- Adolescents and young adults account for the majority of chlamdyia and gonorrhea reports in the county.

CHLAMYDIA

Chlamydia is a curable STD caused by the bacterium Chlamydia trachomatis. It is the most frequently reported bacterial sexually transmitted disease in the United States. In 2012, a total of 1,422,976 chlamydial infections were reported in the nation, corresponding to a rate of 456.7 cases per 100,000 population, only a 0.7% increase compared with the rate of 453.4 in 2011.

Because many infections occur with mild or no symptoms, chlamydia reports are substantially under-diagnosed and under-reported. Chlamydia is widespread among sexually active persons, regardless of race, age, or gender.

Changes in screening practices, use of diagnostic tests with differing test performance, and/or changes in reporting practices may mask true increases or decreases in disease reporting. In 2008, North Carolina underwent extensive changes to their electronic disease surveillance system. Reporting delays and changes in reporting processes continue to affect the data.

CASE REPORTING IN MECKLENBURG

- In 2012, 6,353 chlamydia cases (a rate of 659.6 cases per 100,000 persons) were reported in Mecklenburg County nearly 15% lower than reports from 2011 (7,522 reported cases).
- Chlamydia cases reports are heavily influenced by changes in surveillance reporting systems and testing efforts. For example, the large decline in 2007 case reports was most likely an artifact of delayed case reporting, changes in personnel and/or reporting processes.

Trends in reporting by Age and Gender

- Women, especially young and minority women are hardest hit by chlamydia. Nearly 72% of chlamydia reports during 2012 were among women.
- Adolescents (13 – 19 yrs) and young adults (20 – 24 yrs) account for 70% of chlamydia case reports in the county.

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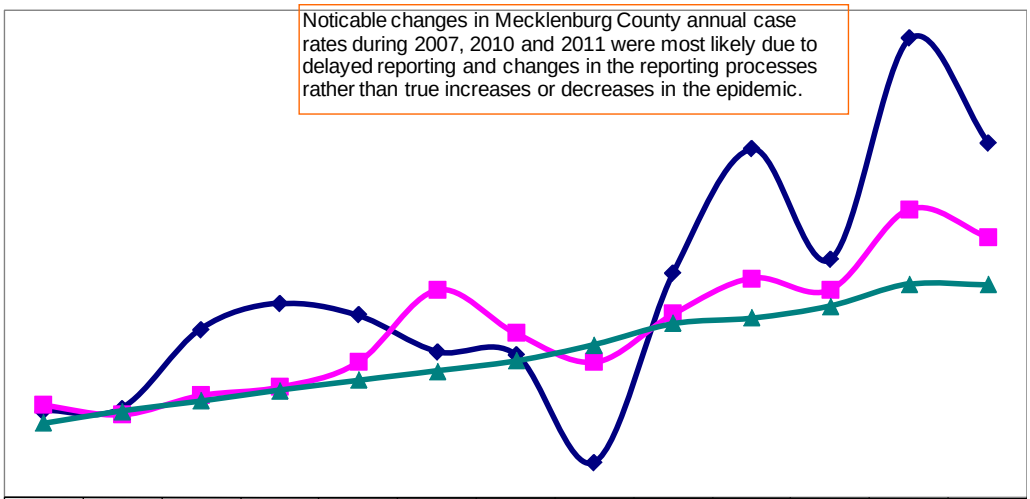
2000- 2012 Chlamydia Case Reports: Mecklenburg, NC, United States
(rate per 100,000 population)



	2000	2001	2002	2003	2004	2005	2006	2007*	2008	2009	2010	2011	2012
Meck	275.2	278.3	392.2	429.7	413.4	359.9	356.1	201.7	473.9	651.2	493.4	810.8	659.6
NC	283.4	269.8	297.8	310.0	344.9	448.4	387.1	345.6	414.5	465.4	449.5	564.8	524.1
United States	257.5	274.5	289.4	304.3	319.6	332.5	347.8	370.2	401.3	409.2	426.0	457.6	456.7

Source: NC DHHS HIV/STD Prevention and Care Unit, Centers for Disease Control 2012 STD Surveillance Report

GONORRHEA

Gonorrhea is a curable sexually transmitted disease caused by the bacterium Neisseria gonorrhea and is the second most commonly reported infectious disease in the United States. In 2012, a total of 334,826 cases of gonorrhea were reported in the United States, yielding a rate of 107.5 cases per 100,000 population. The rate increased 4.1% since 2011; however, the rate decreased 2.9% overall during 2008–2012.

Gonorrhea infections can occur in the genital tract, the mouth and the rectum. Untreated gonorrhea can cause serious and permanent health problems including pelvic inflammatory disease and ectopic pregnancies in women and epididymitis (a painful condition of the testicles) in men. Without proper treatment, gonorrhea can lead to infertility in both men and women.

Like chlamydia, gonorrhea is substantially under-diagnosed and under-reported, and approximately twice as many new infections are estimated to occur each year as are reported *(Centers for Disease Control, STD Factsheets)*.

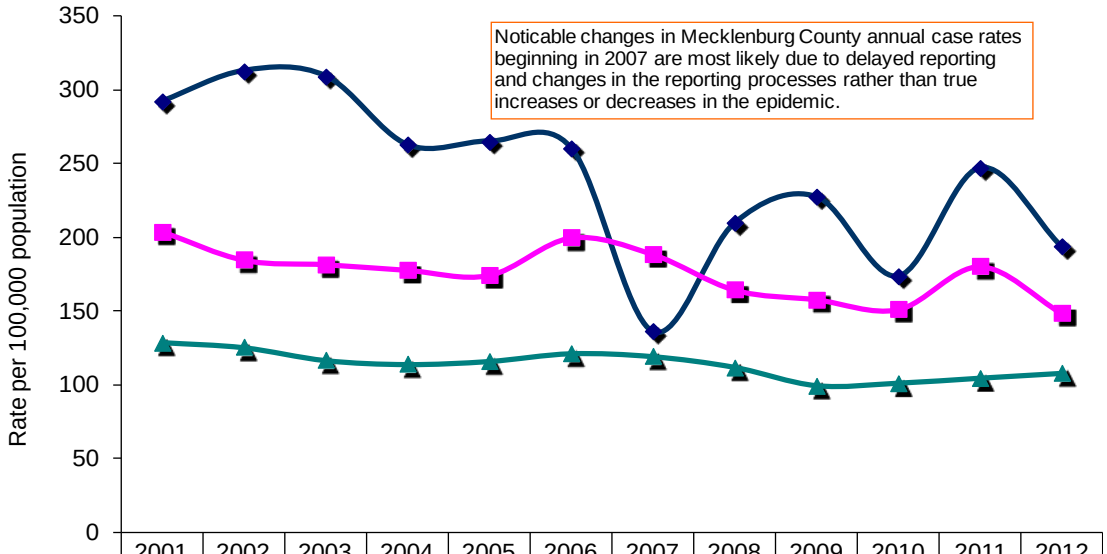
CASE REPORTING IN MECKLENBURG

- Mecklenburg reported 1,861 new cases of gonorrhea during 2012 for an annual case rate of 193.2 per 100,000. This rate was 22% lower than the annual rate of 2011 (246.7).
- The substantial decline in Gonorrhea case reports noted during 2007 was most likely due to delayed case reporting, changes in personnel and/or reporting processes.

Trends in reporting by Age and Race

- Adolescents (13 – 19 yrs) and young adults (20 – 24 yrs) account for the majority of cases in the county. Adolescents accounted for 26% of new reports in 2012 (488 cases), while young adults represented an additional 36% (667 cases).
- Racial and ethnic minorities, in particular African Americans are disproportionately impacted by STIs. Each year racial/ethnic minority populations account for 75 – 80% of new gonorrhea cases in the county.

2000- 2012 Gonorrhea Case Reports: Mecklenburg, NC, United States
(rate per 100,000 population)



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Mecklenburg	291.8	312.5	308.8	262.3	264.7	260.2	135.9	209.4	227.1	173.4	246.7	193.2
North Carolina	203.6	184.3	181.3	177.5	174.0	199.3	188.2	164.1	157.6	150.9	179.9	148.3
United States	128.5	125.0	116.2	113.5	115.6	120.9	118.9	111.6	99.1	100.8	104.2	107.5

Source: NC DHHS HIV/STD Prevention and Care Unit, Centers for Disease Control 2012 STD Surveillance Report

SYPHILIS

Syphilis is a genital ulcerative disease that is highly infectious but easily curable in its early (primary and secondary) stages. Left untreated, however, syphilis can lead to serious long-term complications, including brain, cardiovascular, and organ damage, and even death. Untreated syphilis in pregnant women can also result in congenital syphilis (syphilis among infants), which can cause stillbirth, death soon after birth, and physical deformity and neurological complications in children who survive.

Syphilis, a disease once on the verge of elimination, began re-emerging as a national public health threat in 2001. This is primarily because of a resurgence of the disease among men who have sex with men (MSM), though cases among women have also been increasing in recent years.

Primary and secondary (P&S) syphilis cases reported to CDC increased from 13,970 in 2011 to 15,667 in 2012, an increase of 12.1%. The rate of P&S syphilis in the United States increased from 4.5 to 5.0 (an 11.1% increase) during 2011– 2012.

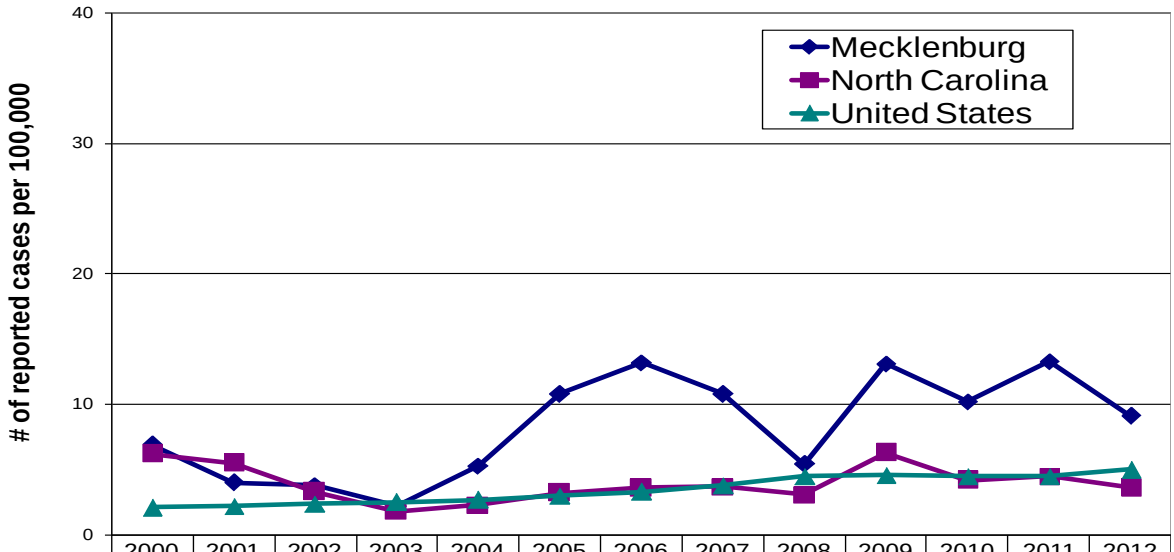
INCREASING SYPHILIS REPORTS FOR NORTH CAROLINA AND MECKLENBURG

In 2009, North Carolina experienced a significant outbreak of new syphilis cases. Statewide reports were 84% higher than the previous year's report. The 2009 increase in syphilis occurred throughout the state and included many North Carolina counties.

Mecklenburg County was one of six counties reporting the highest rate of syphilis increase for the state.

- P&S syphilis reports for Mecklenburg were nearly 2.5 times higher in 2009 (cases=117) versus those of 2008 (cases=48).
- In 2012, Mecklenburg reported 88 new P&S cases for an annual case rate of 9.1 cases per 100,000 population. Case reports for 2012 were 25% lower than in 2009, suggesting decreasing reports for the area.

2000 - 2012 Primary/Secondary Syphilis Case Rates: Mecklenburg, NC, United States
(rate per 100,000 population)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Mecklenburg	6.9	4.0	3.8	2.2	5.3	10.8	13.2	10.8	5.4	13.1	10.2	13.3	9.1
North Carolina	6.2	5.5	3.3	1.8	2.3	3.2	3.6	3.7	3.1	6.3	4.2	4.5	3.6
United States	2.1	2.2	2.4	2.5	2.7	3.0	3.3	3.8	4.5	4.6	4.5	4.5	5.0

Source: NC DHHS HIV/STD Prevention and Care Unit, Centers for Disease Control 2012 STD Surveillance Report

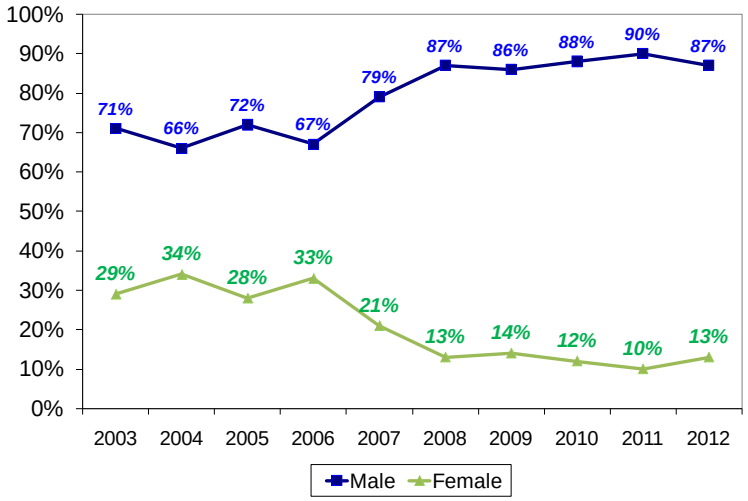
INCREASING SYPHILIS REPORTS FOR MECKLENBURG, *cont.*

Changing Demographics: Age, Gender and Race

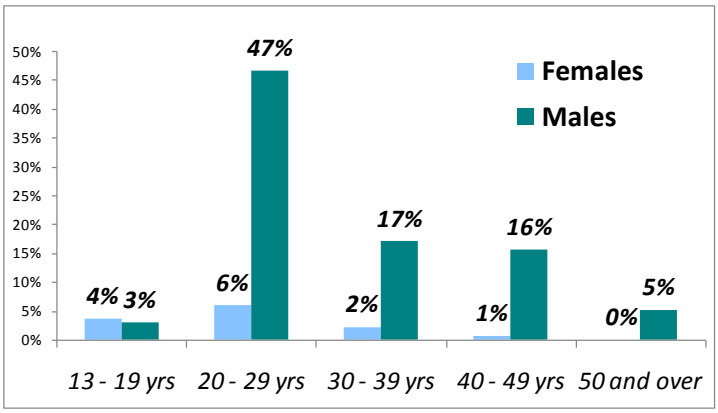
Recent trends point to increased disease transmission among younger populations, both for male and female reports. Current disease burden are indicative of increasing transmission among men who have sex with men (MSM), with notable increases among young African American males. *Data presented below include primary, secondary and early latent syphilis reports, or Early Syphilis*.

- While the majority of reports continue to be male, the proportion of males infected with Early Syphilis each year has increased. In 2006, 67% of new reports were male compared to 87% of total reports during 2012.
- Increased reports have been noted for young adults age 20 – 29 yrs. In 2006, 22% or 41 cases of Early Syphilis were reported among young adults. By 2012, the number of young adults infected with syphilis had increased to 53% of total reports, or 71 cases.
- Males age 20 – 29 yrs account for nearly 50% of Early Syphilis cases reported during 2012.
- As with other sexually transmitted diseases, racial and ethnic populations experience higher rates of disease in the county compared to whites.
- In general, Hispanics account for 5 – 8% of new syphilis reports in the county. Between 75 – 80% of new syphilis cases in the county are African American, the majority of which are young males.

2003 - 2012 Mecklenburg Early Syphilis Cases
Percent of Reports by Gender and Year of Report



2012 Mecklenburg Early Syphilis Cases
Percent of Reports by Gender and Age



Early Syphilis cases include: primary, secondary and early latent reports.

Numbers may not total 100% due to rounding.

Source:
NC DHHS HIV/STD Prevention and Care Unit

RESPONDING TO THE SYPHILIS EPIDEMIC

North Carolina

- The Communicable Disease Branch (CDB) has created an Epidemic Response Team (ERT) composed of field staff, prevention, surveillance and epidemiology staff, the syphilis and HIV outbreak response staff, and Branch leadership.
- A statewide clinician education campaign has been initiated to review the signs, symptoms and treatment for syphilis with frontline medical providers.
- The North Carolina MSM (men who have sex with men) Task Force, comprised of many leaders from around the state, is being established in order to foster dialogue and effective partnership with the MSM community, currently at highest risk for syphilis and/or new HIV infection.
- Increase STD testing in both traditional and non-traditional sites.

Mecklenburg County

- The Mecklenburg County Health Department Epidemiology Team has created a Syphilis Epidemic Response Team composed of field staff, prevention, surveillance and epidemiology staff to provide local leadership in addressing the rise in syphilis reports.
- A county-wide clinician education campaign has been initiated to review the signs, symptoms and treatment for syphilis with frontline medical providers.
- The Mecklenburg County Syphilis Task Force has been established in order to foster dialogue and effective partnership with the MSM community and other high risk communities.
- Mecklenburg County Health Department staff and community partners have increased STD testing in areas identified with high risk populations.

Sources

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North Carolina Department of Health and Human Services, Epidemiology Branch. 2010-2011 Response to Syphilis Available online at: http://www.sph.unc.edu/images/stories/centers_institutes/nciph/documents/oce/comm_disease/06_2010syphilisplan.pdf Accessed: November 2010

2009/2012 MECKLENBURG REPORTED SEXUALLY TRANSMITTED DISEASE CASES
CHLAMYDIA, GONORRHEA AND EARLY SYPHILIS*

	Chlamydia				Gonorrhea				Early Syphilis			
	2009 (N=5,840)		2012 (N=6,353)		2009 (N=2,035)		2012 (N=1,861)		2009 (N=174)		2012 (N=135)	
Race/Ethnicity	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
White	606	10%	691	11%	123	6%	122	7%	32	18%	11	8%
Black/African American	3,771	65%	3,648	57%	1,625	80%	1,379	74%	133	76%	113	84%
American Indian/Alaskan	19	0%	16	0%	4	0%	***	***	0	0%	0	0%
Asian	54	1%	48	1%	7	0%	8	0%	0	0%	***	***
Hispanic	391	7%	442	7%	33	2%	28	2%	5	3%	7	5%
Other	402	7%	69	1%	32	2%	14	1%	4	2%	3	2%
Missing/Unknown	597	10%	1,439	23%	211	10%	308	17%	0	0%	***	***
Total	***5,840***	***100%***	***6,353***	***100%***	***2,035***	***100%***	***1,861***	***100%***	***174***	***100%***	***135***	***100%***
Age												
0-12	***	***	4	0%	***	***	0	0%	0	0%	0	0%
13 - 19	1,892	32%	1,963	31%	602	30%	488	26%	10	6%	9	7%
20 - 29	3,122	53%	3,487	55%	1,004	49%	970	52%	76	44%	71	53%
30 - 39	635	11%	670	11%	285	14%	272	15%	45	26%	26	19%
40 - 49	129	2%	181	3%	103	5%	103	6%	35	20%	22	16%
50+	32	1%	48	1%	33	2%	28	2%	8	5%	7	5%
Missing	29	0%	0	0%	***	***	0	0%	0	0%	0	0%
Total	***5,840***	***100%***	***6,353***	***100%***	***2,035***	***100%***	***1,861***	***100%***	***174***	***100%***	***135***	***100%***
Gender				0%								
Male	1,663	28%	1,762	28%	949	47%	914	49%	150	86%	17	87%
Female	4,177	72%	4,581	72%	1,086	53%	947	51%	24	14%	118	13%
Missing/Unknown	0	0%	10	0%	0	0%	0	0%	0	0%	0	0%
Total	***5,840***	***100%***	***6,353***	***100%***	***2,035***	***100%***	***1,861***	***100%***	***174***	***100%***	***135***	***100%***

Percentages are rounded and may not total to 100% as a result.

*NC EDSS data available as of 09/2013
**Early Syphilis includes primary, secondary and early latent diagnosis.
*** Small Cells/numbers are excluded due to confidentiality constraints.

Source: NC DHHS, North Carolina Electronic Disease Surveillance (NC EDSS) and MCHD Communicable Disease Program

OVERVIEW

HIV Disease

HIV disease refers to the entire spectrum of disease, from initial infection of the virus to the deterioration of the immune system and presentation of opportunistic infections (full-blown AIDS). This term includes:

- Persons with a diagnosis of HIV infection (not AIDS),
- Persons previously reported with an HIV infection who have progressed to AIDS, or
- Persons with concurrent diagnoses of HIV infection and AIDS.

THE HIV DISEASE EPIDEMIC

More than one million people are living with HIV in the United States. The Centers for Disease Control (CDC) estimates that one in five (21%) of those people living with HIV is unaware of their infection.

Despite increases in the total number of people living with HIV in the US in recent years, the annual number of new HIV infections has remained relatively stable. However, new infections continue at far too high a level, with an estimated 56,300 Americans becoming infected with HIV each year.

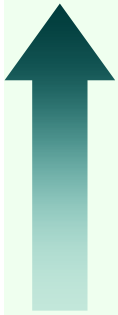
More than 18,000 people with AIDS still die each year in the US. Gay, bisexual, and other men who have sex with men (MSM) are strongly affected and represent the majority of persons who have died. An estimated 15,529 people with an AIDS diagnosis died in 2010, and approximately 636,000 people in the United States with an AIDS diagnosis have died since the epidemic began.

Disparities in health are evident across racial and ethnic categories. By race/ethnicity, African Americans face the most severe burden of HIV in the United States. Based upon CDC data, African Americans account for almost half of people living with a diagnosis of HIV infection. Historically, the number of new infections among Latinos has been lower than that of whites and blacks, but Latinos continue to bear a disproportionate burden of the HIV epidemic.

2013 HIV Disease QUICK FACTS

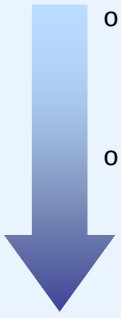
- In 2012, Mecklenburg reported 318 new HIV disease cases for a rate of 33.0 per 100,000 population. HIV disease rates for the county are higher than state and national data.
- As of December 31, 2012, the total number of persons living with HIV/AIDS (PLWH/A) in Mecklenburg is 4,892.
- The three most frequently reported risks among PLWH/A in Mecklenburg include: men who have sex with men (MSM), heterosexual contact and intravenous drug use (IDU).
- In 2011, there were 46 deaths due to HIV in Mecklenburg for a rate of 4.9 per 100,000.

SUMMARY OF HIV DISEASE TRENDS IN MECKLENBURG COUNTY



Positive Trends

- Recent data point to stabilizing HIV disease rates in the county.
- HIV death rates have declined dramatically in the county.
- Mecklenburg County is a grantee recipient of Part A Ryan White Treatment Modernization Act, federal grant funds which provides HIV-related health and support services.



Areas for Improvement

- The Centers for Disease Control estimates that as many as 21% of persons infected with HIV are unaware of their status.
- In comparison to females, males are more than twice as likely to be reported with HIV/AIDS in Mecklenburg representing a significant burden of disease.
- Racial and ethnic minorities remain disproportionately impacted by HIV.

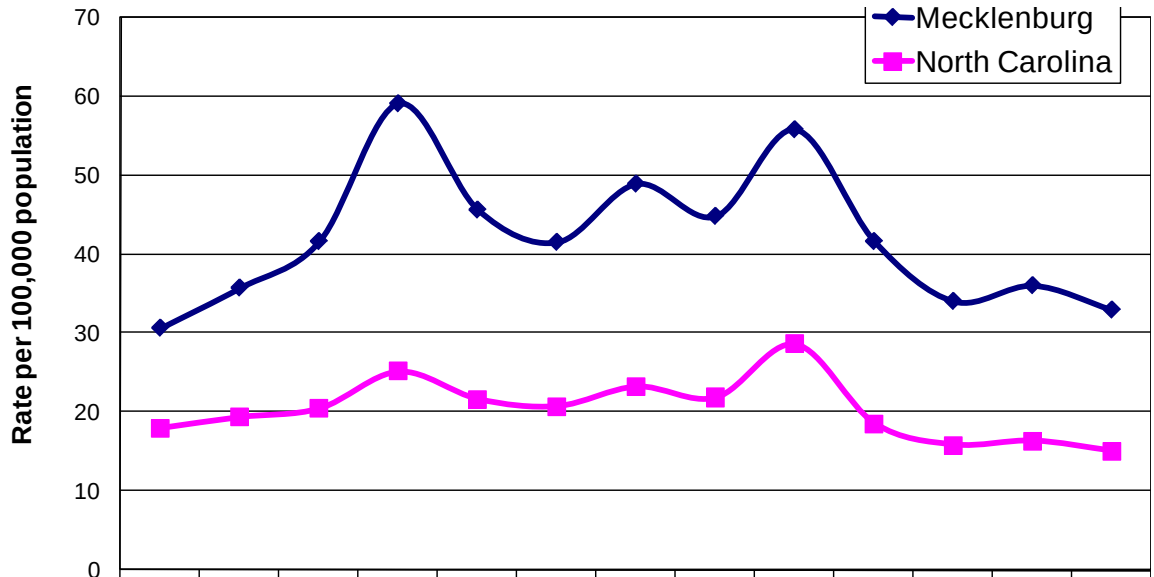
HIV DISEASE REPORTING IN MECKLENBURG COUNTY

Between 2001 and 2003, the rate of reported HIV disease in Mecklenburg increased by 83%, from 35.8 cases per 100,000 population in 2001 to 59.2 in 2003. It is important to note that during 2003 the state of North Carolina enhanced their surveillance activities resulting in the addition of older prevalent cases to the system. This addition partially contributed to the 2003 spike noted for the state and for the county.

Recent data point to stabilizing HIV disease rates for both the county and state. Annual case rates for HIV disease have declined from 55.9 cases per 100,000 in 2008 to 33 cases per 100,000 in 2012. Annual case rates for North Carolina show similar trends of stabilizing and/or declining rates of disease.

- Within the past five years between 300 - 350 new HIV disease cases have been reported each year in the county. In 2012, Mecklenburg reported 318 new HIV disease cases for a rate of 33.0 per 100,000 population.
- Reports during this time period were approximately 27% lower than those during all of 2003 (437 cases reported during 2003).
- HIV disease reports for 2008 were unusually high due to a special project to identify prevalent cases of HIV and AIDS not reported to the local health departments and the state. These reports represented older cases. Without this effort, HIV disease case reports during 2008 would closely resemble reports between 2006 (390 cases) and 2007 (387 cases).

2000- 2012 HIV Disease Case Rates: Mecklenburg and North Carolina
(rate per 100,000 population)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Mecklenburg	30.7	35.8	41.7	59.2	45.7	41.6	49.0	44.9	55.9	41.7	34.1	36.1	33.0
North Carolina	18.0	19.4	20.5	25.2	21.7	20.8	23.3	21.9	28.7	18.6	15.9	16.4	15.1

Source: NC DHHS HIV/STD Prevention and Care Unit

PERSONS LIVING WITH HIV/AIDS IN MECKLENBURG

Based on cumulative reports, over 6,000 cases of HIV/AIDS have been reported in Mecklenburg. However, after accounting for deaths and persons with an unknown vital status, 4,892 persons are reported to be living with HIV/AIDS (PLWH/A).

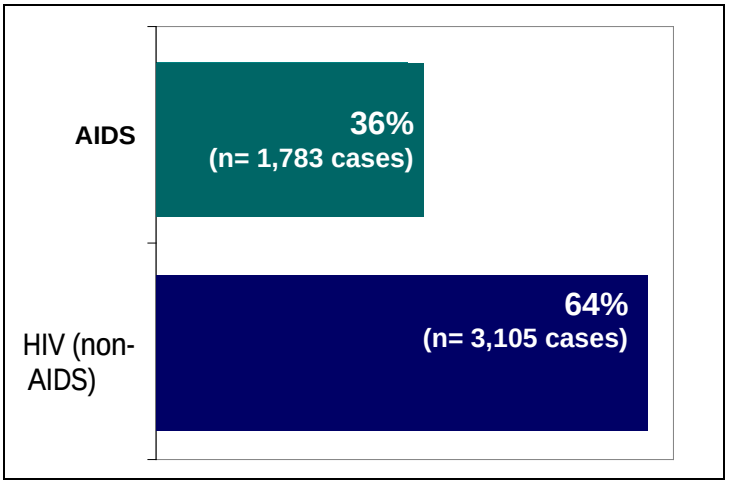
This estimate only reflects those individuals who have been diagnosed and reported with HIV disease and does not include individuals who are, as yet, unaware of their HIV status. The Centers for Disease Control estimates that as many as 21% of persons infected with HIV are unaware of their status. Applying this statistic to the current surveillance of HIV/AIDS would result in an additional 1,350 PLWH/A in the county and would increase the overall prevalence to approximately 6,340 PLWH/A.

- As of December 31, 2012, the total estimated number of individuals living with HIV Disease in Mecklenburg is 4,892. While the majority of PLWH/A in the county are HIV (non-AIDS), 36%, or 1,783 persons, are living with AIDS.
- Nationally, there has been a recent shift in the HIV epidemic with an increase among young adults, females, racial/ethnic minorities and heterosexuals.

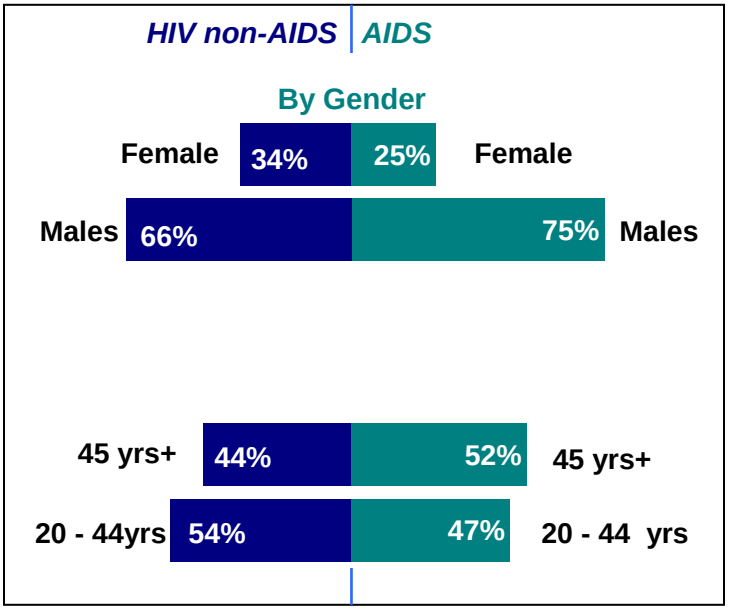
Persons Living with HIV/AIDS: Differences in Age and Gender

- In comparison to Persons living with AIDS (PLWA), Persons living with HIV, non-AIDS (PLWH) in the county are more likely to be:
    - Female, (34% of PLWH are female compared to 25% among PLWA)
    - A younger population, (54% of PLWH are 20 -44 yrs. compared to 47% among PLWA).
- While the total proportion of males and females in the general population are nearly equivalent, 69% of PLWH/A are males. In general males are more than twice as likely to be reported with HIV/AIDS in Mecklenburg as females, representing a significant burden of disease.

2012 Persons Living with HIV/AIDS, Mecklenburg
By Disease Category
Total: 4,892 *(percentages)*



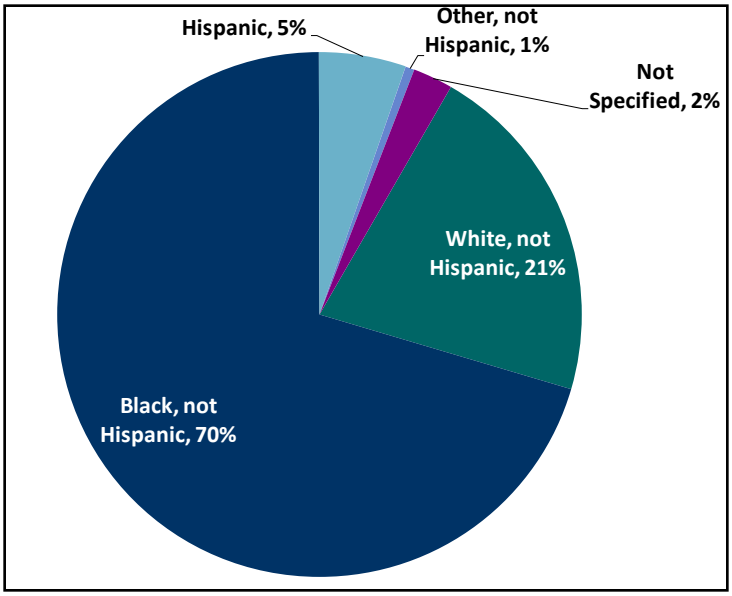
2012 Persons Living with HIV/AIDS, Mecklenburg
By Disease Category, Gender and Age
Total: 4,892 *(percentages)*



Persons Living with HIV/AIDS (PLWH/A): Racial and Ethnic Differences

- Racial and ethnic minorities continue to be disproportionately impacted by HIV/AIDS across the county. Despite representing only 38% of the county's total population, racial and ethnic minorities account for nearly 80% of persons living with HIV/AIDS.
- Non-Hispanic Blacks remain the racial/ethnic group hardest hit by the HIV epidemic and account for the majority of persons living with HIV/AIDS in Mecklenburg (3,443 PLWH/A).
- Much of the increase in HIV reporting among females can be attributed to increased reports among Black women, primarily as a result of heterosexual contact
- While the proportion of Hispanics reported to be living with HIV/AIDS is relatively small (5.4% of PLWH/A), recent increased case reports have been noted among this population.
- Between 2003 and 2009, the number of Hispanics living with HIV/AIDS increased by 457%, from 47 individuals in 2003 to 262 in 2012. Increased prevention efforts as well as expanded HIV testing in the Hispanic community may account for much of this increase in HIV/AIDS case reporting.
- The disparities in health witnessed by racial and ethnic minorities may have more to do with overcoming barriers such as poverty, negative stigma associated with HIV and co-infections with other sexually transmitted infections than with race itself.

2012 Persons Living with HIV/AIDS, Mecklenburg By Disease Category and Race/Ethnicity
Total: 4,892 *(percentages)*



Persons Living with HIV/AIDS in Mecklenburg, Calendar year, 2012	
Race/Ethnic Category	***Number of PLWH/A***
Black, Non-Hispanic	*3,443*
Hispanic	*262*
Other Races, Non-Hispanic	*27*
White, Non-Hispanic	*1,040*
Unknown/Missing	*120*
TOTAL	**4,892**

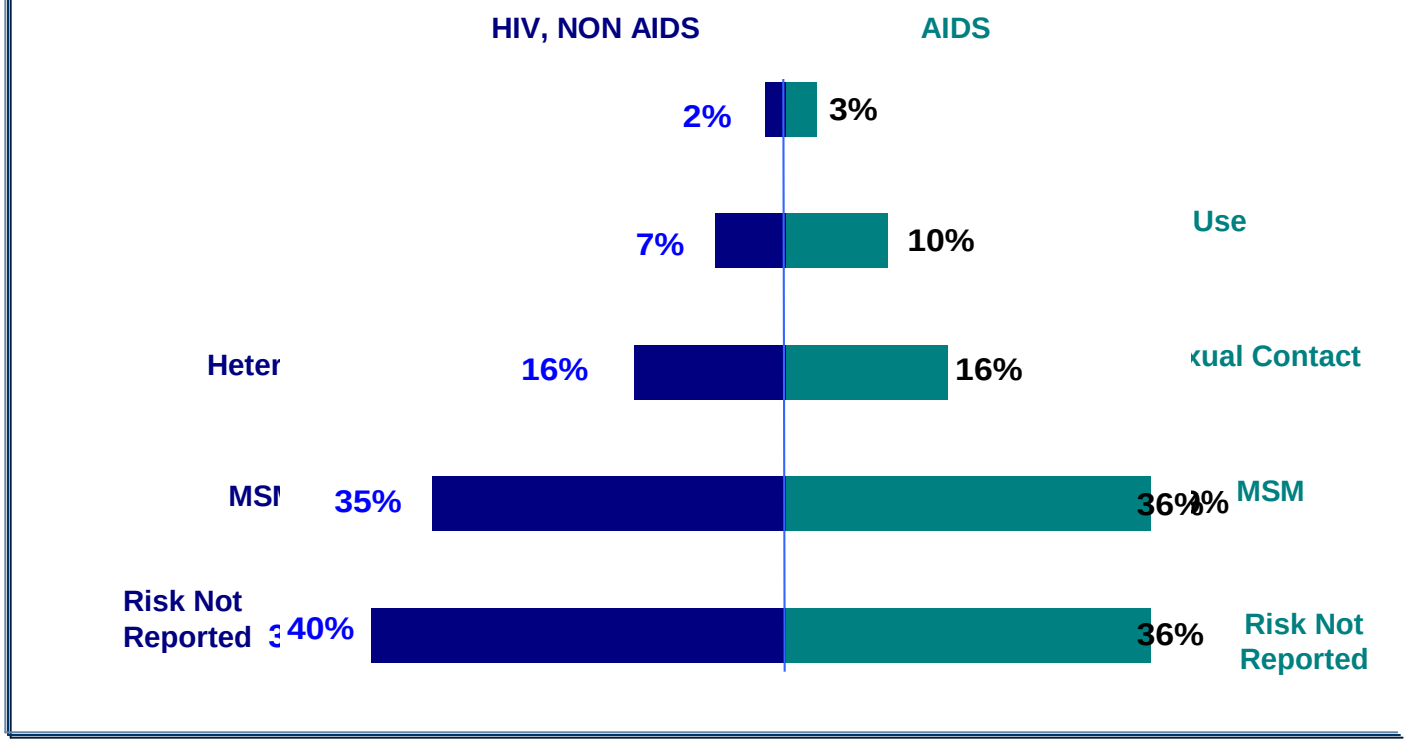
Source: NC DHHS, HIV/STD Prevention and Care Unit, 2012 HIV Mecklenburg Prevalence Data,

Persons Living with HIV/AIDS: Reported Risk Factors for Infection

Each year over one third of HIV/AIDS cases are classified as non-identified risk (NIR). These cases represent persons who are currently being followed by the health department, patients who are lost to follow-up and persons who have declined an interview. NIR cases also include individuals with reported risks that fail to meet one of the CDC-defined risk classifications. The majority of females reported without a CDC-defined risk classification were most likely infected through heterosexual contact. Male NIR cases were more likely to be attributed to MSM and heterosexual contact.

- The three most frequently reported risks among PLWH/A in Mecklenburg include: men who have sex with men (MSM), heterosexual contact and intravenous drug use (IDU).
- When comparing exposure categories between PLWH and PLWA, the following trends are observed:
  - A larger percentage of PLWA report intravenous drug use, and
  - A slightly larger percentage of heterosexual contact is reported among PLWA.
- Research within the Transitional Grant Area (TGA) suggests the majority of persons reported without a risk, particularly in females, are due to heterosexual contact, but fail to meet the CDC-defined risk classification.

2012 HIV Disease Prevalence, Mecklenburg County
BY RISK CATEGORY (%)



HIV DISEASE RELATED DEATHS

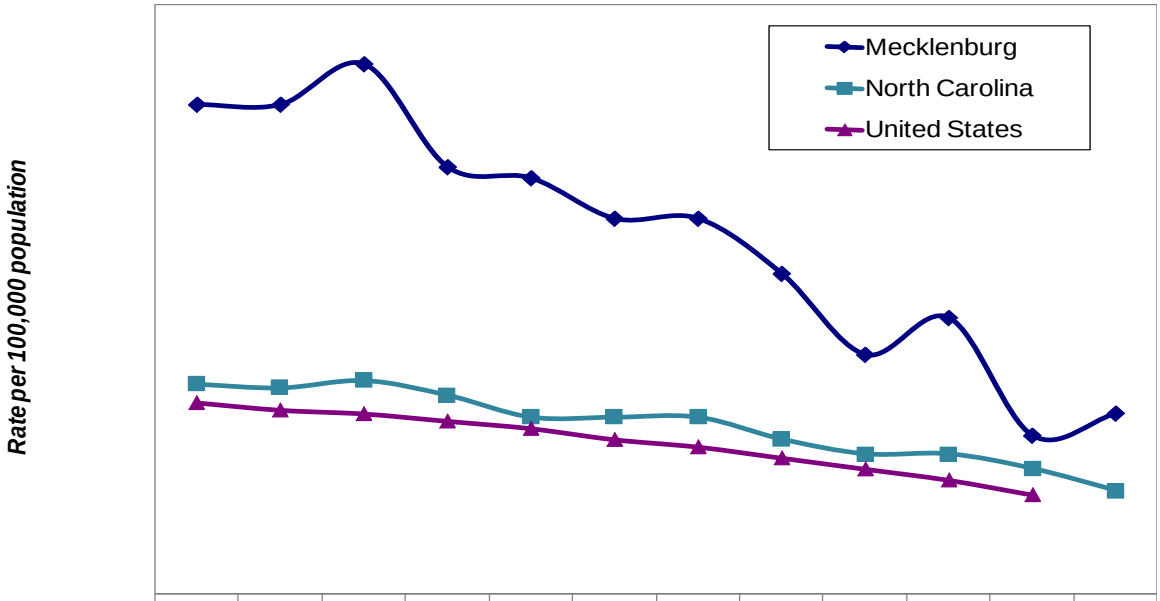
Nationally, an estimated 15,529 people with an AIDS diagnosis died in 2010 and approximately 636,000 people in the United States with an AIDS diagnosis have died since the epidemic began. HIV disease death rates have declined dramatically within the US, from a high of 16.3 deaths per 100,000 in 1995 to 2.7 deaths per 100,000 in 2010. Despite these positive trends, racial and ethnic minorities experience higher rates of HIV-related deaths than do Whites.

HIV Disease deaths in Mecklenburg County

- HIV death rates have declined dramatically in the county. As of December 2011, HIV disease is no longer among the ten leading causes of death for all residents in Mecklenburg. There were 46 deaths due to HIV disease in 2011 for an annual case rate of 4.9 per 100,000, 63% lower than that for year 2000 (13.3 per 100,000).
- Although mortality from HIV disease has declined in the county as a whole, HIV disease continues to be one of the leading causes of death for Persons of Other Races.
- African Americans, in particular, experience higher rates of death than other racial groups. 80% of all HIV-related deaths that occurred in the county during 2011 were among African Americans (total HIV deaths: 46, HIV deaths in African Americans: 37).

Additional data on disparities can be found in the Health Disparities section.

2000 - 2011 HIV Disease Death Rates: Mecklenburg, North Carolina, and US
(deaths per 100,000 population)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Mecklenburg	13.3	13.3	14.4	11.6	11.3	10.2	10.2	8.7	6.5	7.5	4.3	4.9
North Carolina	5.7	5.6	5.8	5.4	4.8	4.8	4.8	4.2	3.8	3.8	3.4	2.8
United States	5.2	5	4.9	4.7	4.5	4.2	4	3.7	3.4	3.1	2.7	

Source: NC DHHS, State Center for Health Statistics: 2000 – 2011 Vital Statistics Report
National Center for Vital Statistics, 2000 - 2010 Final Death Data

PART A RYAN WHITE TREATMENT MODERNIZATION ACT: THE CHARLOTTE-GASTONIA-CONCORD TRANSITIONAL GRANT AREA (TGA)

The Ryan White Program works with cities, states, and local community-based organization to provide HIV-related services to more than half a million people each year. The program is for those who do not have sufficient health care coverage or financial resources for coping with HIV disease. Ryan White fills gaps in care not covered by these other sources.

Part A of the Ryan White HIV/AIDS Treatment Modernization Act of 2006 provides emergency assistance to Eligible Metropolitan Areas (EMAs) and Transitional Grant Areas (TGAs) that are most severely affected by the HIV/AIDS epidemic.

During 2007 Part A Ryan White federal grant funds were allocated for the Charlotte-Gastonia-Concord TGA which includes six counties located in two states: Anson, Cabarrus, Gaston, Mecklenburg and Union counties of North Carolina and York County of South Carolina. Mecklenburg County is the grantee recipient for these federal funds.

- An estimated 1.8 million residents reside in the Charlotte-Gastonia-Concord TGA. As of December 31, 2012, a total number of 6,317 were reported to be living with HIV/AIDS in the region.
- The majority of the general population (52%) and the majority of the HIV/AIDS population (76%) reside in Mecklenburg County.
- During the 2012/2013 Fiscal Year, the Charlotte-Gastonia Ryan White Program provided medical care for nearly 2,200 PLWH/A in the region.

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MENTAL HEALTH

OVERVIEW

Mental health and mental illness are points on a continuum, although much more is known through research about mental illness than about mental health.

A PUBLIC HEALTH PERSPECTIVE

In the United States, mental health programs are rooted in a population-based public health model. Broader in focus than medical models that concentrate on diagnosis and treatment, public health attends to the health of a population in its entirety: The community is the patient. A public health approach encompasses a focus on epidemiologic surveillance, health promotion, disease prevention and access to services.

Public health practices seek to identify risk factors for mental health problems; to introduce preventive interventions that may block the emergence of severe illnesses; and to actively promote good mental health.

FROM THE FIRST SURGEON GENERAL'S REPORT ON MENTAL HEALTH

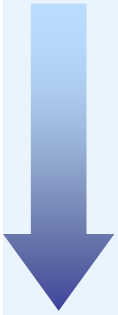
- **Mental Health**—the successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with adversity.
- **Mental Illness**—the term that refers collectively to all mental disorders. Mental disorders are health conditions that are characterized by alterations in thinking, mood or behavior (or some combination thereof) associated with distress and/or impaired functioning.
- "It is easy to overlook the value of mental health until problems surface. Yet from early childhood until death, mental health is the springboard of thinking and communication skills, learning, emotional growth, resilience and self-esteem. These are the ingredients of each individual's successful contribution to community and society."

Mental Health QUICK FACTS

- Mind and body are inseparable. Mental health is fundamental to total health. The mind is a function of the brain and mental health conditions are real health problems.
- Mental disorders are the leading cause of disability in the U.S. for ages 15-44 (NIMH).
- A range of treatments exists for most mental disorders but nearly half of all Americans who have a severe mental illness do not seek treatment. Stigma and cost are two of the major barriers to care (NIMH).
- More than 90 percent of people who kill themselves have a diagnosable mental disorder, most commonly a depressive disorder or a substance abuse disorder (NIMH).
- Alzheimer's disease is the most common cause of dementia among people age 65 and older and the 3rd leading cause of death in Mecklenburg County (NIH, NC SCHS).

Positive Trends

- Community concern is directing more attention to mental health.



Areas for Improvement

- In 2011, 30% of Mecklenburg teens surveyed reported feeling sad or hopeless (YRBS).
- In 2012, when asked about mental health—stress, depression, and problems with emotions—almost14% of adults said their mental health had not been good for 8-29 days in the past month (BRFSS).
- Aging of the population will result in a greater demand for resources for providing treatment and care for those with Alzheimer's Disease.
- Stigma remains a barrier to accessing treatment.
- Access to treatment for those without insurance coverage.

SURGEON GENERAL'S REPORT, CONT.

- Mind and body are inseparable. Mental health is fundamental to total health. The mind is a function of the brain and mental health conditions are real health problems.
- A range of treatments exists for most mental disorders.
- Recommended actions:
  - Continue to Build the Science Base
  - Overcome Stigma
  - Improve Public Awareness of Effective Treatment:
  - Ensure the Supply of Mental Health Services and Providers:
  - Ensure Delivery of State-of-the-Art Treatments:
  - Tailor Treatment to Age, Gender, Race, and Culture:
  - Facilitate Entry Into Treatment:
  - Reduce Financial Barriers to Treatment

BARRIERS TO TREATMENT—STIGMA

Despite the efficacy of treatment options and the many possible ways of obtaining a treatment of choice, nearly half of all Americans who have a severe mental illness do not seek treatment. Financial barriers are one very real obstacle, but often, reluctance to seek care may be in response to the stigma that many in our society attach to mental illness and to people who have a mental illness.

The 2007 national Behavioral Risk Factor Surveillance System Survey (BRFSS) found that most adults with mental health symptoms (78%) and without mental health symptoms (89%) agreed that treatment can help persons with mental illness lead normal lives; 57% of all adults believed that people are caring and sympathetic to persons with mental illness but only 25% of adults with mental health symptoms believed this to be true.

Young adults experience a higher percent of mental disorders than all adults but also may be more reluctant to seek help and to believe that help is effective. A 2006 HealthStyles Survey, licensed from Porter Novelli by SAMHSA and CDC, found that only 25% of young adults18-25 believe that a person with a mental illness can eventually recover, and slightly more than one-half (54%) who know someone with a mental illness believe that treatment can help people with mental illnesses lead normal lives.

These findings highlight both the need to educate the public, especially young adults, about how to support persons with mental illness and the need to reduce barriers for those seeking or receiving treatment for mental illness.

Souce: NIMH, CDC

MENTAL ILLNESS IS DISABLING: THE BURDEN OF DISEASE

Prevalence

- The National Institute of Mental Health (NIMH) reports that mental disorders are common in the United States and internationally. An estimated 26.2% of Americans ages 18 and older, about one in four adults, suffer from a diagnosable mental disorder in a given year.
- Even though mental disorders are widespread, the main burden of illness is concentrated in a smaller proportion of the population. About 6%, or 1 in 17 people, suffer from a serious mental illness.
- Many people experience more than one mental disorder at a given time. Nearly half (45%) of those with any mental disorder meet criteria for two or more disorders, with the more severe illness strongly correlated with comorbidity.

Demographics

- Non-Hispanic blacks are 30% less likely than non-Hispanic whites to experience any disorder during their lifetime (NIMH).
- Disorders are experienced by all age groups although the rate in younger adults is higher than that for those 60 years old and above: 52.4% of those 18-29, 55.0% of those 30-44, 46.5% of those 45-59 and 26.1 % of those 60 and above.

- Women are no more or less likely than men to experience any disorder over their lifetime.
- The average age of onset is 14 years.

Children

- Childhood mental disorders refers to all mental disorders that can be diagnosed beginning in childhood; they are described as serious changes in the ways children typically learn, behave or handle their emotions. Symptoms usually start in early childhood, although some of the disorders may develop throughout the teenage years.
- The CDC reports that one in five children ages 3-17 yrs has a mental health disorder. Childhood mental health disorders include attention-deficit/hyperactivity disorder (ADHD), autism spectrum disorders, behavior disorders, mood and anxiety disorders, substance use disorders and Tourette syndrome (CDC Children's Mental Health).
- Boys tend to have more disorders overall while girls are more likely to have depression.

Source: NIMH, CDC

MENTAL ILLNESS IS DISABLING: THE COSTS OF DISEASE

Direct and Indirect Costs

- Per the World Health Organization, mental disorders are the leading cause of disability in the U.S. and Canada.
- The total costs associated with mental illness stem from both the direct costs of services and treatment and the indirect costs of the disability including public spending for disability support and lost earnings.
- The National Institute of Mental Health (NIMH) conservatively estimates the total costs associated with serious mental illness, those disorders that are severely debilitating and affect about 6 percent of the adult population, to be in excess of $300 billion per year.

Link with Poor Physical Health Outcomes

The Centers for Disease Control reports that mental disorders may be associated with poor physical health (CDC Mental Health Surveillance).

Mental illness is often associated with:

- Increased occurrence of chronic diseases such as cardiovascular disease, diabetes, cancer, obesity, asthma and epilepsy;
- Lower use of medical care, reduced adherence to treatment therapies for chronic diseases and higher risks of adverse health outcomes;
- Use of tobacco products and abuse of alcohol; and
- Increased rates of intentional injuries (homicide, suicide) and unintentional injuries (motor vehicle crashes, falls, etc.). People with a mental illness have injury rates 2 to 6 times higer than the population overall.

DIAGNOSIS

In the US, mental disorders are diagnosed based on the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-V). The following are examples of disorders commonly seen. National statistics are from NIMH with population estimates derived from the 2010 US Census numbers for total population 18 years old or greater.

MOOD DISORDERS

- Includes major depressive disorder, persistent depressive disorder and bipolar disorder.
- Mood disorders afflict about 21.3 million people or 9.5% of the U.S. population age 18 and older in a given year.
- The median age of onset for mood disorders is 30 years.
- Depressive disorders often co-occur with anxiety disorders and substance abuse.

Mecklenburg

- In the 2012 BRFSS, when asked about mental health—stress, depression, and problems with emotions—13.7% of adults said their mental health had not been good for 8-29 days in the past month and 4.6% for 30 days; 14.1% said they had been told by a healthcare provider that they had a depressive disorder.
- In the 2011 YRBS, 30% of high school students surveyed reported feeling sad or hopeless almost every day for two weeks or more in a row to the extent they stopped doing some usual activities.

SUICIDE

- In 2011, 38,364 people died by suicide in the U.S (approximately 12.4 deaths per 100,000); suicide ranked #10 in leading causes of death (CDC/NCHS).
- More than 90% of people who kill themselves have a diagnosable mental disorder, most commonly a depressive disorder or a substance abuse disorder.
- Four times as many men as women die by suicide; however, women attempt suicide two to three times as often as men (NIMH).

Mecklenburg

- In 2011, suicide was the 10th leading cause of death for the total population.
- In 2011, there were 93 suicide deaths. While lower than NC rates, suicide rates in Mecklenburg trended upwards from 2007-2011, increasing by 46.3%. During this period, there were 407 suicide deaths or 9.0 deaths per 100,000 people (NC SCHS).
- Nationally and locally, suicide is the 3rd leading cause of death for teens as well as people ages 0-39. Between 2008 and 2012, 15 children less than 18 years of age died from suicide. There were 9 deaths among 18-19 year olds and 140 in the 20-39 year old age-group. (NC SCHS)
- In the 2011 YRBS, 15% of high school and 24% of middle school students reported thinking about suicide one or more times. Approximately 13% of high school and 17% of middle school students reported making a plan for how they would try to kill themselves and 15% of high school and 11% of middle school students reported trying.
- During 2012, NC DETECT reports 747 visits to county emergency departments associated with suicide; 126 or about 17% were for young people ages 10-17 years.

ANXIETY DISORDERS

- Include panic disorder, obsessive-compulsive disorder, post-traumatic stress disorder, generalized anxiety disorder and phobias (social phobia, agoraphobia and specific phobia).
- Approximately 40.6 million American adults ages 18 and older, or about 18% of people in this age group in a given year, have an anxiety disorder.
- Anxiety disorders frequently co-occur with depressive disorders or substance abuse.
- Most people with one anxiety disorder also have another anxiety disorder. Nearly 3/4 of those with an anxiety disorder will have their first episode by age 21. (NIMH)

SCHIZOPHRENIA

- Approximately 2.2 million American adults, or about 1.1 % of the population age 18 and older in a given year, have schizophrenia.
- Schizophrenia affects men and women with equal frequency.
- Schizophrenia often first appears in men in their late teens or early twenties. In contrast, women are generally affected in their twenties or early thirties. (NIMH)

EATING DISORDERS

- The three main types of eating disorders are anorexia nervosa, bulimia nervosa and binge-eating disorder.
- Females are much more likely than males to develop an eating disorder. Only an estimated 5% to 15% of people with anorexia or bulimia and an estimated 35% of those with binge-eating disorder are male.
- In their lifetime, an estimated 0.5 % to 3.7% of females suffer from anorexia, and an estimated 1.1% to 4.2 % suffer from bulimia.
- Community surveys have estimated that between 2% and 5 % of Americans experience binge-eating disorder in a 6-month period.
- The mortality rate among people with anorexia has been estimated at 0.56 % per year, or approximately 5.6 % per decade, which is about 12 times higher than the annual death rate due to all causes of death among females ages 15-24 in the general population (NIMH).

Mecklenburg

- In the 2011 YRBS, 13% of high school students were actually considered overweight, 26% described themselves as slightly or very overweight and 42% reported trying to lose weight.
- Almost 7% of high school and 6% of middle school students reported they vomited or took laxatives to lose weight or to keep from gaining weight.

ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)

- ADHD is one of the most common mental disorders in children and adolescents and also affects an estimated 4.1 percent of adults, ages 18-44, in a given year.
- ADHD usually becomes evident in preschool or early elementary years. The median age of onset of ADHD is seven years, although the disorder can persist into adolescence and occasionally into adulthood.

AUTISM SPECTRUM DISORDER (ASD)

Autism is an example of a neurodevelopmental disorder and part of a group of disorders called autism spectrum disorders (ASDs), also known as pervasive developmental disorders.

- ASDs range in severity from mild to significantly disabling.
- Estimating the prevalence of ASD is difficult and controversial due to differences in study methods and changes in diagnostic criteria. The rate of ASDs is increasing in the US, though the reasons for this are not fully understood; at present the prevalence rate is estimated to be 1% of the population. One percent of the Mecklenburg population would be an estimated 9,700 people.
- ASDs develop in childhood and generally are diagnosed by age three.
- ASD is almost five times more common in boys (1 in 54) than girls (1 in 252). Girls with the disorder, however, tend to have more severe symptoms and greater cognitive impairment.
- Many children with an ASD may have a comorbid psychological disorder (NIMH).

ALZHEIMER'S DISEASE (AD)

- AD affects an estimated 2.1 to 5.1 million Americans. The number of Americans with AD doubles every five years after the age of 65 (NIH Institute on Aging).
- AD is the most common cause of dementia among people age 65 and older.
- Increasing age is the greatest risk factor for AD. In most people with AD, symptoms first appear after age 65. One in 10 individuals over 65 and nearly half of those over 85 are affected. Rare, inherited forms of AD can strike individuals in as early as their 30s and 40s.

Mecklenburg

- From 2008-2012, Alzheimer's disease killed 1,421 people and ranked as the 3rd leading cause of death.
- Females, who live longer than men, are the group most likely to die from AD. See the Chronic Disease section for additional information.

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SUBSTANCE ABUSE

Alcohol Abuse

Illicit Drug Use

OVERVIEW

Substance abuse is a major public health problem that impacts society on multiple levels. It is estimated that nationally, nearly 24 million people age 12 and older are current illicit drug users and more than half of Americans 12 and over report alcohol use. This number represents 9% of the population age 12 and over. The individual impact of of drug and alcohol use includes injury, violence, social and emotional problems, and death.

Nationally, in 2012, 8.9% of persons aged 12 or older (or 23.1 million people) needed treatment for an illicit drug or alcohol use problem. In Mecklenburg County, that would translate to 71,021 people aged 12 or older who need treatment.

Of those people identified as needing treatment, only 10.8% (2.5 million people) actually received treatment at a specialty facility. In Mecklenburg, that would translate to 7,670 people who receive treatment for their drug and/or alcohol use.

Of the 2.5 million persons aged 12 or older who received specialty substance use treatment in 2012:

- 34% received treatment for **alcohol use** only,
- 36% received treatment for **illicit drug use** only
- 25% received treatment for **both** alcohol and illicit drug use.

Nationally, almost 90% of people who were identified as in need of treatment did not receive treatment.

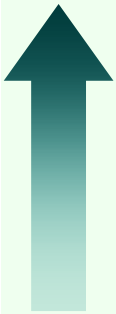
There are approximately 79,000 deaths attributable to excessive alcohol use each year in the United States, making excessive alcohol use the 3rd leading lifestyle-related cause of death for the nation. Health-related consequences of excessive alcohol use include: unintentional injuries, violence, including intimate partner violence and child maltreatment, risky sexual behaviors, alcohol poisoning and depression.

Alcohol use among underage youth remains widespread both nationally and throughout Mecklenburg County. The 2012 National Survey on Drug Use and Health (NSDUH) found that:

- Nearly one quarter (24%) of underage youth have consumed alcohol in the past month, though this rate has been declining since 2002.
- 15.3% of youth aged 12-20 reported binge drinking (having 5 or more drinks).
- 11.2% of people 12 or older reported having driven under the influence of alcohol at least once in the past year.

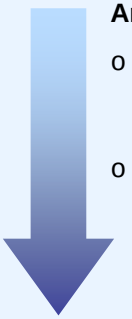
Studies have linked adolescents' abuse of alcohol, drugs, and tobacco to many other problem behaviors and outcomes, including low academic performance, suicide and automobile accidents.

2013 MECKLENBURG COUNTY SUBSTANCE ABUSE QUICK FACTS



Positive Trends

- While rates of past 30-day alcohol use among teens is at 16%, that rate is slightly lower than the state rate and has remained relatively stable.
- Collaboration efforts between school staff, parents, substance abuse experts and law enforcement seek to bring more education and resources to prevent and address substance abuse.



Areas for Improvement

- Marijuana use among high school students is at 28% and has been increasing since 2007.
- Black tar heroin use is increasing dramatically, especially among youth. Unfortunately, data collection on herion use limited at present time.

ALCOHOL USE IN MECKLENBURG

Excessive drinking is directly linked to numerous health risks, both immediate and long term. Immediate risks include unintentional injuries (motor vehicle crashes, falls, etc.), violence, risky sexual behavior and alcohol poisoning. The long term risks associated with excessive drinking include liver disease, cancers (throat, liver, colon, breast), dementia, stroke, depression and anxiety (CDC).

Excessive drinking is of particular concern because it is often thought to be socially acceptable in certain settings (sporting events, college campuses, festivals, etc.). More alarming is the fact that underage drinking is often thought of as a "rite of passage" giving youth the impression that it is okay to drink alcohol.

For the purposes of this section:

Heavy drinking is defined as having more than 2 drinks per day for men and having more than 1 drink per day for women.

Binge drinking is defined as having five or more drinks of alcohol on one occasion.

Excessive drinking includes heavy drinking, binge drinking or both.

Drinking Patterns by Gender, Race and Income

- Although rates of heavy drinking among males and females is the same, men report binge drinking at a rate twice that of females (22% compared to 11%). Heavy drinking, however, is reported slightly more by females than males (7% vs. 6%).
- The rates of heavy and binge drinking among Whites are nearly twice the rates for Blacks
- Individuals with incomes above $50,000 tend to have higher rates of heavy drinking and binge drinking

Excessive Drinking in Mecklenburg County, Behavioral Risk Factor Surveillance System
2011 & 2012

	Heavy Drinking	Binge Drinking
By Geographic Area (2012)		
Mecklenburg	4.8%	13.9%
NC	4.9%	13.1%
US	6.1%	16.9%
By Race/Ethnicity (2011-2012)		
White	7.2%	19.7%
Black	4.1%	10.9%
Other	1.5%	13.7%
By Gender (2011-2012)		
Male	5.4%	22.1%
Female	5.4%	11.0%
By Education (2011-2012)		
High School Gradute or less	3.8%	11.8%
College	6.4%	18.9%
By Income (2011-2012)		
<$50K	5.1%	15.1%
>$50K	6.5%	19.5%

Youth Alcohol Consumption

- 34% of Mecklenburg high school students report drinking alcohol in the past month, 16% report binge drinking.
- These rates are similar to rates among high school students throughout North Carolina.
- Rates of past month alcohol use and binge drinking among teens have remained relatively stable since 2007.
- Almost half (44%) of high school students who reported attending school under the influence of drugs or alcohol also reported achieving grades of mainly Ds and Fs.

ILLICIT DRUG USE

Illicit drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used non-medically.

Abuse of prescription drugs to get high has become increasingly prevalent among teens and young adults. While reports of drug use among teens have declined nationally, recent studies indicate that teens view abusing prescription drugs as safer than illegal drugs. Pain relievers such as OxyContin and Vicodin are the most commonly abused prescription drugs by teens.

Marijuana continues to be the most commonly used illicit drug. According to the 2012 NSDUH, 7.3% (or 18.9 million) people age 12 or older were current marijuana users, meaning they used the drug during the month prior to taking the survey.

- Nearly half (43%) of Mecklenburg high school students who reported marijuana use in 2011 also reported that they achieved grades of mainly Ds and Fs.
- Overall, 18% of high school students reported taking a prescription drug without a prescription but this number varied by race. White teens had the highest rate of prescription drug abuse with 23%. Black teens had the lowest rate of use at 14% followed by Hispanic youth with 21%. These rates have increased over time.
- Black tar heroin is an emerging problem in Mecklenburg County but data on the scope of the problem is limited at present time.
- In 2011, almost 40% of high school students reported that they were offered, sold or given drugs on school property. This rate is the same as 2009 rate but higher than the 2007 rate (32%).

2011 Mecklenburg County Youth Risk Behavior Survey (YRBS)
Reported Substance Abuse among Charlotte-Mecklenburg High-School Students

Substance Abuse	2007		2009		2011	
	Meck	NC	Meck	NC	Meck	NC
Smoked cigarettes on one or more days in the past 30 days	15%	23%	13%	18%	14%	18%
Had at least one drink of alcohol on one or more days in the past 30 days	34%	38%	33%	35%	34%	34%
Had 5 or more drinks of alcohol in a row within a couple of hours (binge drinking) in the past month	16%	21%	14%	19%	16%	18%
Used marijuana one or more times in the past month	20%	19%	21%	20%	28%	24%
Sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times during their life	12%	14%	11%	12%	12%	11%
Offered, sold, or given an illegal drug by someone on school property in the past 12 months	32%	29%	38%	30%	38%	30%

Black Tar Heroin: An Emerging Problem

Mecklenburg County is experiencing an increase in the prevalence of black tar heroin use. This of particular concern because the Charlotte Mecklenburg Police Department (CMPD) reports that the drug is extremely easy to access, often in just a matter of minutes and that use among youth is increasing. Black tar heroin is considered to be highly addictive with users reporting being addicted after as few as three uses.

Anecdotal evidence is being collected by CMPD's Crime Analysis division through the use of the Health and Life Impact Study survey tool. This survey is given to arrestees in CMPD's South division who are also admitted heroin users. The purpose of the survey is to gather information on rates of use, ease of access, incidents of both fatal and non-fatal overdoses and availability and efficacy of treatment facilities.

Though the study is still in its very early stages and the number of respondents is low (30-40), preliminary information suggests that:

- There was a 90% increase in heroin overdoses from 2010 to 2012.
- Heroin fatalities more than tripled in that same time period.
- More than half of survey respondents reported that the age of first use was between 16 and 19.
- While more than three-quarters reported that their method of first use of heroin was smoking/inhalation, almost 10% reported they had injected the drug at first use.
- One quarter of survey respondents said they had switched to heroin from prescription pills because of lower cost/better availability.

Sources

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ACCESS TO CARE

Health Insurance and Access to Care

Disparities in Insurance

Affordable Care Act

Healthcare Safety Net

Dental Services

OVERVIEW

Access to healthcare and the ability of residents to maintain affordable health insurance coverage are key measures of a community's health. Disparities in access to health insurance contribute to disparities in a broad range of health outcomes. Overall, 18% of non-elderly people in Mecklenburg County are uninsured, with significant implications for access to care and the health outcomes of the over 159,000 residents of our community without the security of health insurance.

Data from the Behavioral Risk Factor Surveillance System finds that 20% of Mecklenburg County residents surveyed in 2012 reported a time in the past 12 months when they needed to see a doctor but could not because of the cost. Over 24% of people reported having no one that they think of as their personal doctor or healthcare provider (CDC 2012).

Those who do have health insurance are enrolled in either employer-based coverage, private insurance purchased directly, Medicaid/NC Health Choice, Medicare, military/VA Healthcare, or a combination of the above. A majority of people under age 65 are covered by employer-based health insurance. Medicaid is also a common source of health coverage for children, resulting in a much lower percentage of children uninsured (6%) as compared to non-elderly adults (23%) in Mecklenburg County. In Mecklenburg County, only 8% of adults are covered by Medicaid, compared to 34% of children.

Currently in North Carolina, Medicaid is a program for low-income children, low-income pregnant women, the parents of dependent children (with monthly income no more than $594 for a family of four in 2013) and the low-income aged/blind/disabled. Able-bodied, childless adults are not eligible for Medicaid, regardless of income. An estimated breakdown of health insurance status for the non-elderly population in Mecklenburg County (American Community Survey 2012) can be found on the following page.

MECKLENBURG COUNTY QUICK FACTS ON ACCESS TO CARE

- There are over 159,000 uninsured people in Mecklenburg County, more than the combined total populations of Cornelius, Davidson, Huntersville, Matthews, Mint Hill and Pineville. Mecklenburg County has the most uninsured people of any county in the state.
- There are 14,200 uninsured children under age 18 in Mecklenburg County. Over 11% of all uninsured children in North Carolina live in Mecklenburg County, and as for the total uninsured population, there are more uninsured children in Mecklenburg County than in any other county of North Carolina.
- Young adults age 18-34 have a higher likelihood of being uninsured than any other age group, with over 27% uninsured in 2012.
- Over 37% (54,300) of uninsured people age 16-64 work full-time jobs. Industries with the highest number and percentage of uninsured workers include: construction (53% of workers are uninsured), arts/entertainment/hospitality (37%) and retail (21%).

Insurance Status, Mecklenburg County
American Community Survey, 2012

Children 0-17	Total Number	% Children
Employer Coverage	121,226	50%
Medicaid	82,605	34%
Direct Purchase Private Coverage	17,107	7%
Uninsured	14,148	6%
Other (Tri-Care/Military, Medicare, other combinations)	7,262	3%
Total	242,348	100%
Adults 18-64	**Total Number**	**% Adults**
Employer Coverage	372,884	59%
Uninsured	143,956	23%
Direct Purchase Private Coverage	51,000	8%
Medicaid	39,935	6%
Other (Tri-Care/Military, VA Healthcare, Medicare, other)	24,888	4%
Total	632,663	100%

DISPARITIES IN INSURANCE STATUS

Income

People in low-income households are much more likely to be uninsured than those in higher-income households. There are more than 102,000 low-income, uninsured people in Mecklenburg County living in households earning less than 200% of the federal poverty level ($47,100 a year for a family of four in 2013). This represents 65% of all uninsured people in Mecklenburg County. The median annual household income for the uninsured in Mecklenburg County is $26,300.

Household Income	Number of Uninsured*	Percent of all Uninsured
0-138% FPL**	71,021	45%
139-199% FPL	31,076	20%
200%+ FPL	56,449	35%

* Uninsured people for whom poverty level is determined
** FPL = Federal Poverty Level

Education

There are also striking differences in levels of insurance based on educational attainment. Among adults over age 25 in Mecklenburg County:

- 46.4% of people without a high school diploma or GED are uninsured
- 32.2% of people with only a high school degree or GED are uninsured
- 6.4% of people with a bachelor's degree or higher are uninsured

Race/Ethnicity

Strong racial and ethnic disparities in access to health insurance persist.

- 8.4% of White, non-Hispanic/Latino people are uninsured
- 19% of African American people are uninsured
- 21% of Asian people are uninsured
- 42% of Hispanic/Latino (of any race) people are uninsured.

INSURANCE AND ACCESS

A significant body of research suggests that uninsured people are less likely to have adequate access to medical care and as a result experience poorer health outcomes than insured people. In 2009, the Institute of Medicine (IOM) released a comprehensive report on the impacts of being uninsured. Their review of the literature yielded the following general findings:

- Uninsured adults are less likely than insured adults to receive recommended preventive services like cancer screenings. For example, only 38% of uninsured women over 50 report getting a mammogram in the last two years, compared to 80% of people with private/military insurance and 63% of people with Medicaid or other public health coverage. Similarly, only 21% of uninsured people over 50 report getting recommended colorectal cancer screening, compared to 65% of people with private/military insurance and 55% of people with Medicaid or other public health coverage (Rhodes et al. 2012).

- Uninsured adults with chronic illnesses (such as diabetes or heart disease) are much more likely to delay or forgo necessary medical care and prescription medications.

- Multiple studies show that when uninsured adults reach age 65 and enroll in Medicare coverage, access to care improves. Once on Medicare, they receive more recommended preventive services like cancer screenings and improved access to care for conditions like cardiovascular disease and diabetes.

INSURANCE AND HEALTH OUTCOMES

The IOM review also reported the following key findings related to the impact of insurance status on health outcomes:

- Uninsured children have more avoidable hospitalizations, poorer asthma outcomes, miss more days of school and are less likely than insured children to receive timely diagnosis of serious health conditions.

- Not only does access to care improve for uninsured adults once they enroll in Medicare, but studies suggest improvements in health and functional status. Once on Medicare, those previously uninsured are less likely to die when hospitalized for serious conditions.

- Because uninsured adults are less likely to be aware of cardiovascular conditions and are less likely to receive the medical care and access to prescription medications needed to control these conditions, their conditions are less likely to be well controlled. This leads to poorer health outcomes for the uninsured and higher mortality from serious conditions like cardiovascular disease and trauma.

- Uninsured adults are more likely to be diagnosed with later-stage cancers that are detectable with screening and clinical assessment (e.g. breast cancer, cervical and colorectal cancer). Upon diagnosis, uninsured adults are, as a result, more likely to die or suffer poorer health outcomes. These differences do not also persist in cancers for which early screening is not effective. This suggests that the key difference in outcomes for cancers with recommended screening for early detection (e.g. breast cancer and colorectal cancer) is health insurance status and access to preventive screening.

AFFORDABLE CARE ACT

Basics of the Health Insurance Marketplaces

A key component of the Affordable Care Act that has the potential to reduce the number of uninsured people in Mecklenburg County is the health insurance marketplace. Enrollment in private health insurance plans offered through this new marketplace began October 1, 2013, with coverage beginning as early as January 1, 2014. The health insurance marketplace is a major coverage provision of the Affordable Care Act designed to provide health insurance options in a more regulated, consumer-friendly way.

People in Mecklenburg County who are currently uninsured are eligible for insurance coverage through the new marketplace, and subsidies are available for families earning between 100-400% of the federal poverty level (up to $94,200 for a family of four in 2013) to make coverage more affordable. Information on the available health insurance options and how to enroll can be found online at www.healthcare.gov (www.cuidadosalud.gov for Spanish information) or by phone at 800-318-2596.

All health insurance plans offered in the marketplace will cover essential health benefits including outpatient care, emergency care and hospitalization, maternity care, mental health and substance abuse services, prescription drugs, rehabilitation services and devices, laboratory services, preventive services and pediatrics. Plans in the marketplace will not be able to deny coverage or charge more based on gender or pre-existing conditions.

Three local organizations, C W. Williams Community Clinic, NC MedAssist and Legal Services of the Southern Piedmont, are providing enrollment assistance to local uninsured residents. For more information, call C. W. Williams Community Clinic (704-393-7720), NC MedAssist (704-536-1790) or Legal Services of the Southern Piedmont (704-376-1600). A full list of other application assisters can be found at www.localhelp.healthcare.gov.

Challenges of Implementation and Key Groups Left Behind

While a majority of those currently uninsured in Mecklenburg County will be eligible for coverage through the marketplace, outreach and education will be critical to expanding access and reducing the number of uninsured people in our community. According to Enroll America, a national non-profit organization working to educate people about new health insurance opportunities, 78% of the uninsured do not know about the health insurance marketplace.

Undocumented residents are not eligible for coverage through the marketplace and those who are offered affordable employer-based insurance that meets minimum standards are also not eligible. Additionally, in North Carolina, people in households under 100% of the FPL ($23,550 for a family of four) are not eligible for subsidies or cost-sharing to make marketplace plans more affordable. Many uninsured people in these very low-income families will remain uninsured if they are not eligible for Medicaid and will continue to rely on local safety-net organizations for care.

2013 Federal Poverty Level (FPL) Guidelines
By FAMILY SIZE and %FPL

Family Size	100%	138%	200 %	250%	400%
1	$11,490	$15,856	$22,980	$28,725	$45,960
2	$15,510	$21,404	$31,020	$38,775	$62,040
3	$19,530	$26,951	$39,060	$48,825	$78,120
4	$23,550	$32,499	$47,100	$58,875	$94,200
Each add'l	$ 4,020	$ 5,548	$8,040	$ 10,050	$16,080

HEALTH CARE SAFETY NET

Mecklenburg County has a robust network of organizations that provide affordable, comprehensive healthcare services to low-income uninsured people in our community. MedLink is a collaborative effort bringing together representatives from the local healthcare safety-net organizations that provide or support the delivery of healthcare to the underserved. MedLink advocates for improved access to care in Mecklenburg County through education, communication and collaboration. Learn more about MedLink, its member organizations and the free and low-cost services available to the uninsured in Mecklenburg County at the MedLink website (http://www.medlinkofmecklenburg.org). Safety-net resources for uninsured people in our community include:

Carolinas Medical Center Ambulatory Care Clinics

CMC's four ambulatory care clinics—Myers Park, North Park, Elizabeth Family Medicine, and Biddle Point—offer primary care services, OB/GYN services and a variety of specialty services. There is a sliding-scale fee structure for low-income, documented residents.

C. W. Williams Community Health Center, Inc.

C. W Williams is Mecklenburg County's only Federally Qualified Health Center (FQHC). With two locations, C.W. Williams offers primary care and pediatrics, homeless healthcare clinics, HIV care, women's health services and on-site pharmacy services. C.W. Williams accepts Medicaid, Medicare, privatel insurance, and has sliding-scale fees for uninsured patients.

Physicians Reach Out (PRO) at Care Ring

Physicians Reach Out is an outreach program that provides primary and specialty medical and dental care to low-income uninsured individuals through a network of 1,600 local volunteer physicians and dentists. Volunteers see PRO patients in their own offices, with office visits provided at no charge and other services like diagnostic tests, lab services and hospitalization provided at a reduced cost.

Free and Low-Cost Clinics

Mecklenburg County has six free clinics located around the county (including Davidson, Huntersville and Matthews) that offer primary care services and limited specialty care services to low-income, uninsured children and adults. Free clinics include Bethesda Health Center, Charlotte Community Health Clinic, Free Clinic of Our Towns (Ada Jenkins Center), Lake Norman Community Health Clinic, Matthews Free Medical Clinic and Shelter Health Services. Teen Health Connection is a non-profit healthcare practice that serves adolescents ages 11-22, providing primary medical care, mental health services and health education. Care Ring operates an additional low-cost clinic with modest office fees designed to provide basic care to uninsured and underinsured people between 200-400% of the federal poverty level that do not qualify for free clinics or public programs.

NC MedAssist

NC MedAssist is a community pharmacy that provides free prescription medications and healthcare advocacy to low-income, uninsured people in Mecklenburg County and around the state. NC MedAssist provides pharmacy services to the free clinics and Physicians Reach Out patients.

Mecklenburg County Health Department

While MCHD does not provide comprehensive primary care services, it does offer WIC, family planning services, immunizations, STD and TB treatment, women's health (mammography and Pap smears), and a variety of other services on a sliding scale fee.

DENTAL SERVICES FOR THE UNINSURED

Access to dental care, particularly for uninsured adults, is a continuing challenge in our community. Very few resources are available for adults in need of dental care. In addition to a variety of private dental offices accepting children's Medicaid and NC Health Choice, Biddle Point Pediatric Dental Clinic serves Mecklenburg County children up to age 15. This Health Department clinic primarily serves children with Medicaid, but also accepts private insurance and has a sliding-scale fee structure for uninsured children. Reduced-fee dental services available for adults without insurance include:

Carolinas Medical Center (CMC)

CMC Dental Clinic provides care for acute dental needs such as extractions, abscesses and other associated urgent care needs. Documented, low-income residents of Mecklenburg County are eligible for a sliding-scale fee structure.

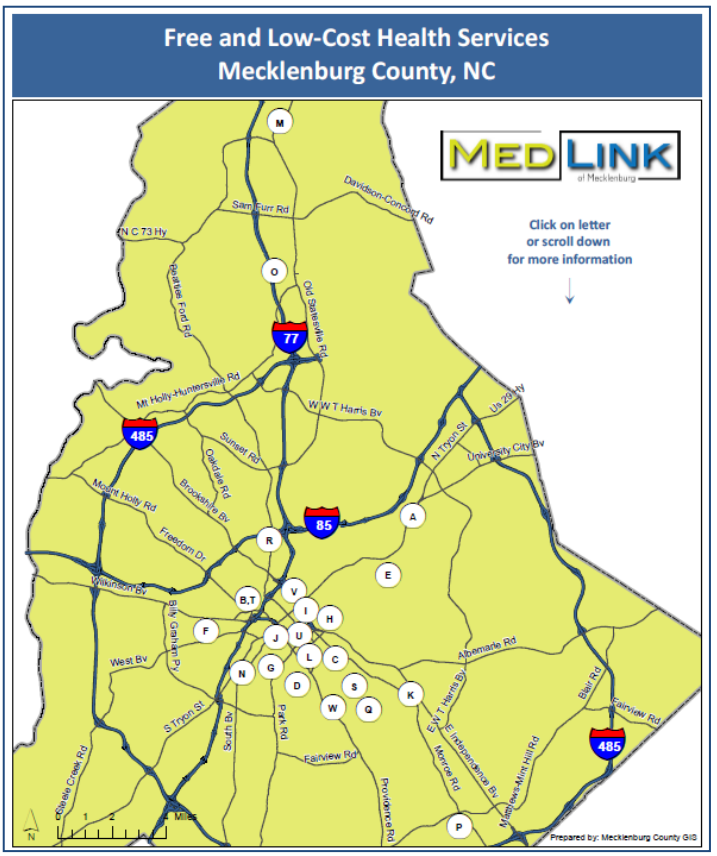
Central Piedmont Community College (CPCC)

CPCC offers a dental clinic through their dental hygiene education program that provides screenings and basic preventative services such as cleanings and fluoride treatments for a low flat fee. This clinic does not provide any restorative treatment.

Ada Jenkins

The Ada Jenkins Center has a mobile dental clinic that serves northern Mecklenburg County with basic dental services including screenings, cleanings, fillings, extractions and specialty referrals.

Health Services Resource Guide



The county, in partnership with MedLink, developed and maintains a resource guide for free and low cost health services. The guide is available on several different websites and is widely distributed in paper form through the Department of Social Services and other social service providers.

This guide has proven especially useful for those providing assistance with applications for health insurance through the Marketplace. Clients who may not qualify for subsidies or who need services before plans become effective are often left with these services as their only options.

The guide can be accessed online at www.meckhealth.org by clicking the "Free and Low Cost Clinics" link.

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CHRONIC DISEASE

OVERVIEW

During the 20th Century, Americans gained almost 30 years in life expectancy. Much of this increase can be attributed to the development of antibiotics and advances in public health such as clean water and immunizations. With these changes came the end of large numbers of deaths due to tuberculosis, other respiratory and enteric illnesses, diphtheria, typhoid, polio and measles. By the close of the 20th century, chronic diseases had replaced infectious diseases as the leading causes of death.

However, while Americans are living longer, they may not be living healthy longer. Chronic conditions may result in a diminished quality of life due to disability, dependence on medication and high costs of medical care.

The positive news is that choosing healthy behaviors may help prevent, delay the onset of, or reduce the effect of many chronic conditions. Healthy behaviors which can assist in maintaining healthy weight, blood pressure and cholesterol levels include: engaging in regular physical activity, eating nutritious foods, and avoiding tobacco.

CHRONIC CONDITIONS ARE LEADING CAUSES OF DEATH & DISABILITY

Locally and nationally, cancer and cardiovascular diseases (heart disease and stroke) are the leading causes of mortality, accounting for almost half of all deaths. The likelihood of acquiring cancer and cardiovascular disease increases with age and they, along with Alzheimer's disease, are the leading causes of death for individuals 45 years of age or older.

Other leading causes of death and disability include lower chronic respiratory disease (includes chronic obstructive pulmonary disease, emphysema and chronic bronchitis), diabetes and kidney disease. Injury is not a disease but the associated trauma may result in a range of chronic neurological and musculoskeletal conditions that can cause disability and result in enormous costs. Asthma, while not a leading cause of death, can kill and if not properly managed may result in disability. Arthritis is an example of a chronic condition that causes widespread disability.

CHRONIC CONDITIONS QUICK FACTS for MECKLENBURG COUNTY

- Chronic diseases such as cancer, heart disease and stroke are the leading causes of mortality and disability; they account for half of all deaths and are the leading causes of death for people ages 45 years and above.
- 23% of Mecklenburg residents have one chronic disease and another 20% have two or more (2012 BRFSS).
- Diabetes is a major contributor to cardiovascular disease as well as blindness, kidney disease and amputations. The number of people with type II diabetes is increasing. About 69,000 people in Mecklenburg County report having diabetes (2012 BRFSS).
- While Americans are living longer with chronic conditions, the associated disability, medical cost and dependence on medication may decrease quality of life.
- The choice of healthy behaviors such as physical activity, eating nutritious foods including a diet rich in fruits & vegetables and avoiding tobacco use can prevent or reduce the impact of many chronic conditions.

Positive Trends

- Decreasing mortality rates for heart disease, cancer and stroke

Areas for Improvement or Attention

- Prevention through healthy behaviors
- Overweight and obesity
- Diabetes prevalence
- Health disparities
- Resources and care facilities for Alzheimer's disease as the population ages

Selected Chronic Conditions
Percent and Estimated Effected Population
2012, Greater than 17 Years

Condition	Percent Reporting	Population Estimate
Cancer	4.3	31,200
Heart Disease	3.5	25,400
Stroke	2.1	15,300
Diabetes	9.5	69,000
Asthma	7.7	55,900
Arthritis	16.7	117,800
One Chronic Condition	22.9	44,400
Two or More Chronic Conditions	20.0	145,300

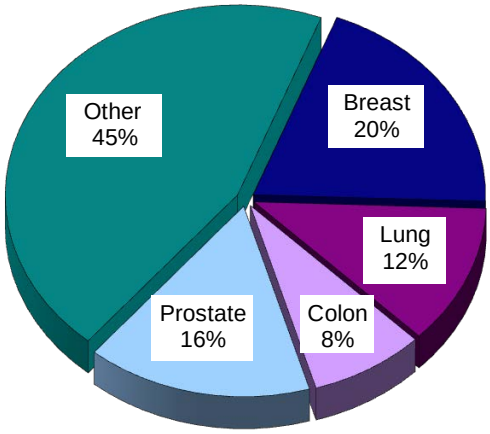
Source: 2012 Behavioral Risk Factor Surveillance System; prevalence estimates based on US Census 2012 American Communities Survey estimate for population greater than 17 years.

CANCER

Cancer is the leading cause of death in Mecklenburg County and in North Carolina. However, nationally and locally cancer mortality rates are slowly declining, a drop largely attributed to lower smoking rates and improved detection and treatment of colorectal, breast and prostate cancers.

- In 2011, Cancer was the leading cause of mortality in Mecklenburg County with 1,203 deaths.
- The 2011 cancer mortality rate of 127.4 deaths per 100,000 population declined from the 2007 rate of 135.9, a decrease of 13.8%.
- A comparison of age-adjusted cancer mortality rates from 2007-2011 shows a rate 7.6% lower than the state (166.0/179.7). Adjusted rates are used to better compare two groups when their demographics are different (the Mecklenburg population is younger than the state) and when age over time increases the likelihood of disease. Many chronic diseases are associated with increasing age.
- Four cancers are responsible for nearly half of cancer deaths: lung, colon, breast and prostate. Together they accounted for 49.7% of the cancer deaths in Mecklenburg County from 2007-2011 and 55.2% of new cancer diagnoses from 2006-2010.
- The 2012 inpatient hospitalization charges for cancer in Mecklenburg County amounted to $140,156,361 with 2,489 cases, a 6.7 average days stay and an average charge of $56,333 per case.
- The likelihood of contracting cancer increases with age. National figures suggest that one out of three women and one out of two men will be diagnosed with some sort of cancer in their lifetimes. In the 2012 BRFSS, 4.3% of county residents report every having been diagnosed with cancer.
- Risk factors for some cancers are well established such as sun exposure and skin cancer, smoking and lung cancer and human papilloma virus (HPV) and cervical cancer. With other cancers where risk factors are less clear, early detection through screening tests can reduce deaths.

Percent of Cancer Cases, By Type
Mecklenburg County, 2006-2010



From 2006 through 2010, of all cancers diagnosed in Mecklenburg County, almost 56% were of four types: breast, lung, prostate and colon.

Source: NC SCHS. Central Cancer Registry. 2006-

Some breast, prostate and colon cancers, when detected early, may be successfully treated. Data from the 2012 BRFSS show:

- 42% of men 50 years old and older had ever taken a home blood stool kit, and 73% had ever had a sigmoidoscopy or colonoscopy,
- 48% of males 40 years old and older had ever had a PSA (prostate-specific antigen) test, and
- 75% of women aged 40 and older had a mammogram in the past two years.

- Recently, there has been some controversy in the medical community about the value of universal screening for prostate cancer with a PSA test and mammograms in women before age 50. Individuals can discuss with their healthcare providers the advantages and disadvantages of these tests and initiate the conversation if the provider does not. The 2012 BRFSS shows that 64% of men report that their healthcare provider has discussed the advantages of PSA testing and 34% that the provider has discussed the disadvantages.
- African Americans have higher mortality rates than whites for nearly every type of cancer. For example, from 2006-2010, the prostate cancer death rate for black men is 3.4 times that of white men. The reason why is not fully understand. Researchers say that while factors such as income, education and healthcare access may account for much of the difference, they do not explain all of the difference.
- Breast cancer incidence is higher in white women than in African American women; however, mortality is greater in African American women, suggesting that some factor, be it access or other, is having an effect.
- In Mecklenburg, from 2006-2010, the rate of breast cancer incidence was 1.1 times greater for White woman (174.2 per 100,000 women) than African American women (152.2). During 2008-2012, the mortality rate was 1.2 times greater for African American women (28.6) than white women (21.3).

Source: NC SCHS BRFSS, County Data Book and Vital Statistics

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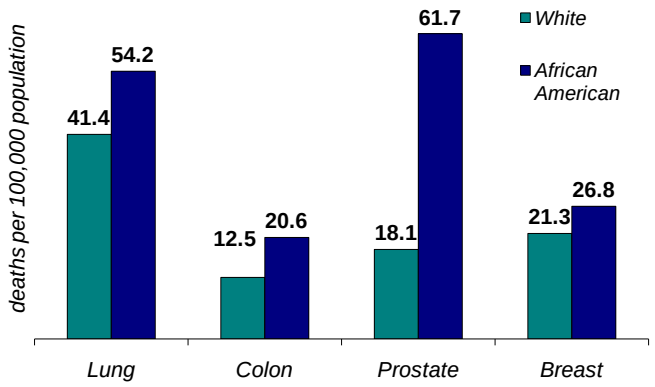
Selected Race-Specific, Age-Adjusted Cancer Mortality Rates
Mecklenburg County, 2008-2012



Source: NC State Center for Health Statistics

HEART DISEASE

- In 2011, heart disease was the 2nd leading cause of death with 968 resident deaths in Mecklenburg County.
- The heart disease mortality rate fell from 118.9 deaths per 100,000 people in 2007 to 102.5 in 2011, a decrease of 13.8%.
- A comparison of five-year, age-adjusted rates from 2007-2011 shows that Mecklenburg County has a rate 20.5% lower than NC (142.6/179.3).
- The 2012 inpatient hospitalization charges for heart disease in Mecklenburg County amounted to $264,448,730 with 5,954 cases, an average days stay of 4.7 days and an average charge or $44,423 per case.
- In 2012, 3.3% of residents reported ever having been told by a medical professional that they had experienced a heart attack or myocardial infarction and 3.5% reported angina or coronary heart disease.

HEART DISEASE, cont.

- Risk factors for heart disease include diabetes, smoking, unhealthy weight, inadequate physical activity, not eating a diet rich in fruits and vegetables, elevated cholesterol and high blood pressure. In the 2011 and 2012 BRFSS, Mecklenburg residents reported:
    - elevated cholesterol – 33%
    - high blood pressure – 28%
    - overweight or obese – 62%
    - diabetes – 9.5%
    - no physical exercise – 20%
    - less than five servings of fruits & vegetables per day – 41% and
    - current smoking – 20%.

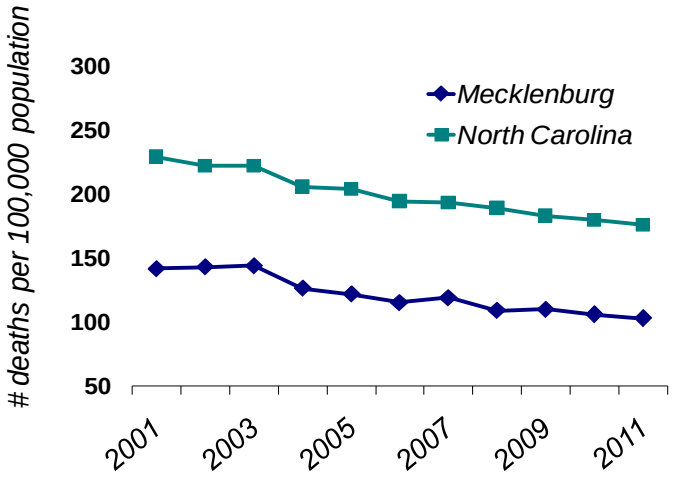
Source: NC SCHS BRFSS, County Data Book and Vital Statistics

CEREBROVASCULAR DISESE (STROKE)

- In 2011, stroke was tied with Alzheimer's disease as the 3rd leading cause of mortality with 285 resident deaths.
- From 2007 to 2011, the stroke mortality rate fell from 33.8 deaths per 100,000 population to 293, a decrease of 13.3%.
- A comparison of five-year, age-adjusted rates from 2007-2011 shows a rate 11.8% lower than the state (40.6/46.0).
- The 2012 inpatient hospitalization charges for stroke in Mecklenburg County amounted to $78,289,186 with 2,087 cases, an average days stay of 5.4 and an average charge of $37,531 per case.
- In the 2012 BRFSS, 2.1% of residents reported ever being told by a medical professional that they had experienced a stroke.
- Risk factors for stroke are similar to those for heart disease.

Source: NC SCHS BRFSS, County Data Book and Vital Records

Heart Disease Mortality Rates, 2001-2011
Mecklenburg County & North Carolina



Source: NC State Center for Health Statistics, Vital Records: Leading Causes of Death 2001-2011

ALZHEIMER'S DISEASE (AD)

- In 2011, Alzheimer's disease tied with stroke as the 3rd leading cause of mortality with 277 resident deaths.
- The age-adjusted mortality rate from AD fell slightly from 45.2 deaths per 100,000 during 2004-2008 to 43.8 from 2008-2012, a decrease of 3.1%.
- The mortality rate for AD is higher in Mecklenburg County than the state and the nation.
- AD is associated with older age. One probable explanation for the rising rates and high rate in Mecklenburg is that as people live longer and mortality rates from other diseases drop due to better prevention and improved treatments (e.g., heart disease, cancer and stroke), AD fills the gap.
- Women have the longest life expectancy and in Mecklenburg, accordingly, they have the highest rates of death from AD.

ALZHEIMER'S DISEASE, cont.

- Alzheimer's disease is largely a diagnosis of exclusion with certainty only at autopsy, although means for diagnosis are improving. Another explanation for rising rates in Mecklenburg is better recognition and diagnosis because of proximity to specialty medical care.
- Currently, there are no clear cut prevention measures for Alzheimer's disease although data suggest that addressing the same risk factors as those for stroke and heart disease may be helpful.
- As much as half of the population 85 years and over may have AD. As the population ages, adequate facilities for care of people with Alzheimer's disease will be a concern.

Source: NIH, NC SCHS County Data Book and Vital Records

CHRONIC LOWER RESPIRATORY DISEASE

Chronic lower respiratory disease includes conditions such as chronic obstructive pulmonary disease (COPD), chronic bronchitis and emphysema.

CHRONIC LOWER RESPIRATORY DISEASE (CONTINUED)

- In 2011, chronic respiratory disease was the 6th leading cause of mortality with 241 resident deaths.
- From 2007 to 2011, the rate for chronic lower respiratory disease mortality in Mecklenburg decreased from 24.1 deaths per 100,000 population to 20.9, a decrease of 13.3%.
- Comparison of five-year, age-adjusted rates from 2007-2011 shows a rate 25.1% lower than the state (34.9/46.6).
- The 2012 inpatient hospitalization charges in Mecklenburg County amounted to $23,557.601 with 1093 cases, an average days stay of 5.2 days and an average charge or $21,553 per case.
- Smoking is a major risk factor for chronic lower respiratory disease. People with one of these conditions may especially be affected adversely by poor air quality.

Source: NC SCHS County Data Book and Vital Statistics

Inpatient Utilization and Charges by Principal Diagnosis for Selected Chronic Conditions
Mecklenburg County, 2012

Condition	Total Cases	Avg Days Stay	Total Charges	Avg Charge Per Case
Cancer	2,489	6.7	$140,156,361	$56,333
Heart Disease	5,954	4.7	$264,448,730	$44,423
Stroke	2,087	5.4	$78,289,186	$37,531
Asthma	1,102	3.1	$15,367,881	$13.945
Diabetes	1,610	4.2	$36,368,466	$22,589
Chronic Lower Respiratory Disease	1,093	4.6	$23,557,601	$21,553
Total	14,335	na	$558,188,225	na

Source: NC State Center for Health Statistics, County Data Book

DIABETES MELLITUS

- Not only is diabetes a leading cause of death, it is also a leading contributor to the development of heart disease, blindness, kidney disease and amputation.
- In the 2012 Mecklenburg BRFSS, 9.5% of the population reported being told by a medical professional that they had diabetes. It is estimated that another 4.5% may have the disease and not realize it.
- Prevention of diabetes emphasizes healthy weight, appropriate diet and physical activity.
- In 2011, diabetes was the 7th leading cause of mortality with 148 resident deaths.
- From 2007 to 2011, the diabetes mortality rate rose from 14.5 deaths per 100,000 population to 15.4, an increase of 8.3%.
- Comparison of five-year, age-adjusted rates from 2007-2011 shows a rate 20.4% lower than the state (17.7/22.0).
- In Mecklenburg County, men die 1.6 times more than females (22.2/13.5) and African Americans 3.1 times more than whites (36.0/11.5) from diabetes. (NC SCHS, 5-year, Age-Adjusted, Race- Specific and Age Specific Rates, 2008-2012).
- The 2012 inpatient hospitalization charges for diabetes in Mecklenburg County amounted to $36,368,466 with 1,610 cases, an average days stay of 4.2 days and an average charge or $22,589 per case.
- Nationally, there is an increase in the incidence of type II diabetes with this disease being diagnosed at younger ages. This increase is largely attributed to the dramatic rise in overweight children and overweight and obese adults over the last 30 years in part due to lack of physical activity and poor diet. In the 2011 YRBS, 13% of teens were considered overweight and in the 2012 BRFSS, 62% of Mecklenburg adults were considered overweight or obese.

Source: MCHS YRBS; NC SCHS BRFSS, County Data Book and Vital Records

ASTHMA

- Asthma affects both children and adults. A leading chronic illness among children and youth, asthma is a major cause of school absenteeism.
- In the 2012 BRFSS, 7.7% or approximately 55,900 Mecklenburg adults reported current asthma.
- In the 2011 Charlotte-Mecklenburg Youth Risk Behavior Survey, 24% of high school students said they had ever been told by a medical professional that they had asthma, a finding which means that in a given group of 30 Mecklenburg high school students, about 7 would have ever been diagnosed with asthma.
- In 2012, 445 Mecklenburg children, 0-14 years of age, were hospitalized because of asthma at a rate of 216.2 per 100,000 children 0-14 years, 1.3 times the state rate of 163.7.
- Total cases hospitalized, children and adults, numbered 1,102. The rate for asthma hospitalizations for all ages was 113.7, about 1.1 times the state rate of 100.3. Hospitalization numbers are for inpatient stays and do not count the much more frequent asthma-related visits to emergency departments.
- The 2012 inpatient hospitalization charges for the 1,102 asthma cases amounted to $15,367,881 with, an average days stay of 3.5 days and an average charge of $13,945 per case.
- Low-income populations, minorities and children living in inner cities experience more emergency department visits, hospitalizations and deaths due to asthma than the general population.
- Asthma attacks can be caused by tobacco smoke, dust mites, furred and feathered animals, certain molds, chemicals and strong odors in the school environment.

ASTHMA, cont.

- Asthma can be controlled with proper diagnosis, appropriate asthma care and management activities.
- School health nurses provide case management for students with asthma.

Sources: CDC Asthma, MCHD YRBS 2011, NC SCHS 2014 County Data Book

ARTHRITIS

- Arthritis is the leading cause of disability in the United States.
- One in five Americans reports being told by a medical professional that they have arthritis. Similarly, in the 2011 BRFS, 16.7% of Mecklenburg residents report medically diagnosed arthritis, rheumatoid arthritis, gout or fibromyalgia; 19.4% reported that joint pain had interfered "a lot" with normal social activities during the past 30 days.
- Increasing physical activity, losing excess weight and participating in self-management education classes have been shown to reduce pain, improve functional limitations and mental health and reduce disability among persons with arthritis.

Source: CDC Arthritis, SCHS BRFSS

SOURCES

CDC Centers for Disease Control

CDC arthritis website found at http://www.cdc.gov/arthritis/ [accessed November 8, 2013]

CDC asthma website found at http://www.cdc.gov/asthma/default.htm [accessed November 8, 2013]

MCHD Mecklenburg County Health Department

MCHD/Charlotte Mecklenburg Schools, YRBS Youth Risk Behavior Survey, Charlotte Mecklenburg YRBS 2011 http://www.cms.k12.nc.us/cmsdepartments/csh/Documents/High%20School%20Highlights%20-%202011.pdf [accessed November 8, 2013]

NIH National Institutes of Health

National Institutes of Health, Institute on Aging, Alzheimer's Disease Fact Sheet, last updated October 2013 http://www.nia.nih.gov/Alzheimers/Publications/adfact.htm [accessed November 8, 2013]

NC SCHS North Carolina State Center for Health Statistics

NC SCHS BRFSS Behavioral Risk Factor Surveillance System, Mecklenburg Data, 2011, 2012 http://www.schs.state.nc.us/data/brfss/survey.htm [accessed November 8, 2012]

NC SCHS County Data Book, Age-Adjusted, Race-Specific, Gender-Specific, Five-Year Death Rates, 2008-2012 http://www.schs.state.nc.us/schs/data/databook/ [accessed Nov 12, 2013]

NC SCHS County Data Book, Cancer Incidence Rates by County and Selected Site 2006-2010 http://www.schs.state.nc.us/schs/CCR/incidence/2010/5yearRates.pdf [accessed November 8, 2013]

NC SCHS County Data Book, Inpatient Utilization and Charges by Principal Diagnosis for Selected Chronic Conditions, Mecklenburg County, 2012 http://www.schs.state.nc.us/schs/data/databook/ [accessed November 8, 2013]

NC SCHS Vital Statistics, Volume 2: Leading Causes of Death - 2011 http://www.schs.state.nc.us/schs/deaths/lcd/2011/ [accessed November 8, 2013]


HEALTH DISPARITIES

OVERVIEW

The National Institute of Health defines health disparities as differences in the incidence, prevalence, mortality and burden of disease and other adverse health conditions that exist among specific population groups in the United States. While the overall health of Americans has dramatically improved, African Americans, Hispanics, Native Americans, and Asian/Pacific Islanders continue to experience striking health disparities, including shorter life expectancy and higher rates of diabetes, cancer, heart disease, stroke and infant mortality. Addressing and eliminating these and other health disparities must remain a priority in order for the nation to maintain the continued improvements in overall health status.

CHANGING DEMOGRAPHICS SHAPE FUTURE PREVENTION EFFORTS

Increased growth among groups experiencing poor health outcomes also magnifies the importance of eliminating health disparities. According to the US Census Bureau, People of Other Races have the fastest rate of growth and are expected to surpass Non-Hispanic Whites after 2050. Future efforts to improve health and health care will be shaped by the needs of this increasingly diverse population.

SUMMARY OF HEALTH DISPARITY TRENDS IN MECKLENBURG COUNTY

Positive Trends

- Eliminating disparities in health is a top priority for the nation and has resulted in the formation of several initiatives and research efforts.
- Since 1994, mortality rates for both Whites and People of Other Races have declined in Mecklenburg County.

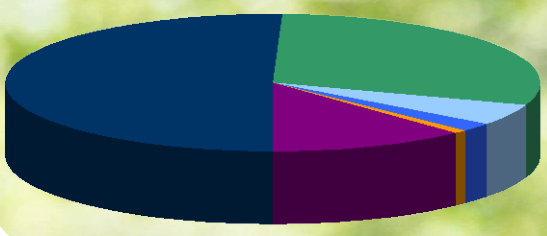
Areas for Improvement

- Despite declines in overall death rates, Other Races are more likely to experience death from disease such as heart disease, cancer and stroke than Whites.
- Other Races as well as persons of lower socioeconomic status are more likely to report poor health behaviors in comparison to their respective counterparts.

2010 US Census Data

MECKLENBURG COUNTY POPULATION: 919,628

A Snapshot of Our Population



White, 51%
Black, 30%
Asian, 5%
Multi-racial, 2%
Other, <1%
Hispanic, 12%

Population Change, 2000 -2010	
NOT HISPANIC	
White, alone	9% ↑
Black, alone	45% ↑
Asian, alone	93% ↑
Native American	33% ↑
Multi-Racial	109% ↑
HISPANIC	
Hispanic	149% ↑
Non Hispanic	24% ↑

HEALTH DISPARITIES AND SOCIOECONOMIC STATUS (SES)

A multitude of complex and often interrelated factors contribute to the existence of health disparities. Research suggests issues of social inequality are involved and must be addressed before differences in health outcomes among racial and ethnic groups can be eliminated. The Centers for Disease Control and Prevention notes socioeconomic status, (SES) is "central to eliminating health disparities because it is closely tied to health and longevity. At all income levels, people with higher SES have better health than those at the level below them." Additional information on SES and its link to health is included in the Social Determinants of Health section of this report.

HEALTH DISPARITIES IN MECKLENBURG

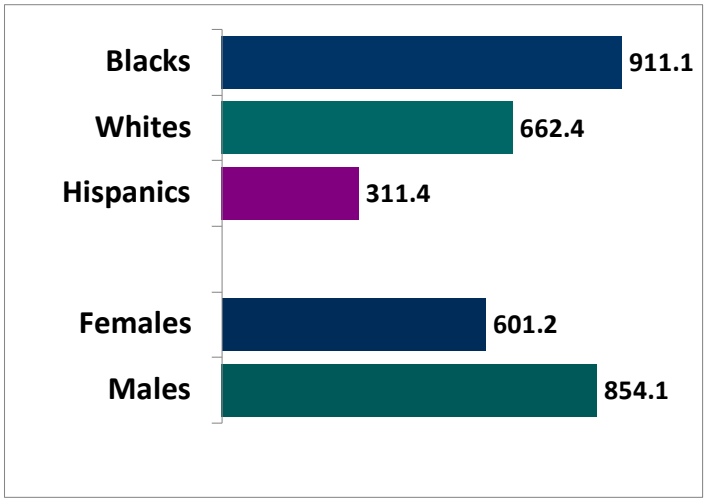
There is no single, best way to measure disparity that is appropriate in all situations. However, health disparities are often measured in terms of differences between rates, percentages, proportions or other quantifiable measures.

In terms of this report, a ratio is calculated by dividing the highest rate of disease or specific condition by the lower rate, providing a general measurement of disparity.

General Health Status and Infant Mortality

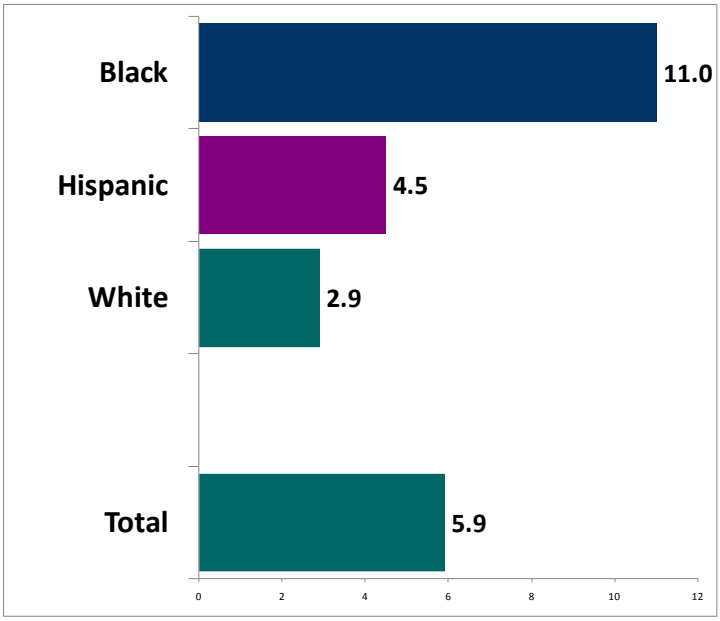
- When comparing Mecklenburg to North Carolina and the United States, most health indicators for the county appear favorable.
- In general, males tend to die at higher rates than females. The age-adjusted rate for All Causes of Death is 1.4 times higher for men than women.
- The overall mortality rate has fallen for both Whites and Other Races however the gap in mortality rates persists.
- The 2008-2012 age-adjusted rate for All Causes of Death is 1.4 times greater for African Americans than Whites. Hispanics have lower rates of death than Whites and African Americans.
- While both Whites and Other Races saw a decline in infant mortality from 1990 until 1995, the gap between the two populations remains wide.

Health Disparities in All Causes Death Rates for Mecklenburg County
2008-2012 Gender/Race Age-Adjusted Rates*



*Death Rates for All Causes per 100,000 population.
Source: NC DHHS/ State Center for Health Statistics

2008 - 2012 Annual Infant Mortality Rates
per 1,000 Live Births by Race
(Mecklenburg Residents)



Source: NC DHHS/ State Center for Health Statistics

- The five-year infant mortality rate for Mecklenburg (2008 – 2012) is 5.9 infant deaths per 1,000 live births. During this time African American or Black infants (11.0 deaths per 1,000 live births) were 3.8 times more likely to die than White infants (2.9 deaths per 1,000 live births).

Disparities in Leading Causes of Death: 2008 – 2012 Adjusted Death Rates

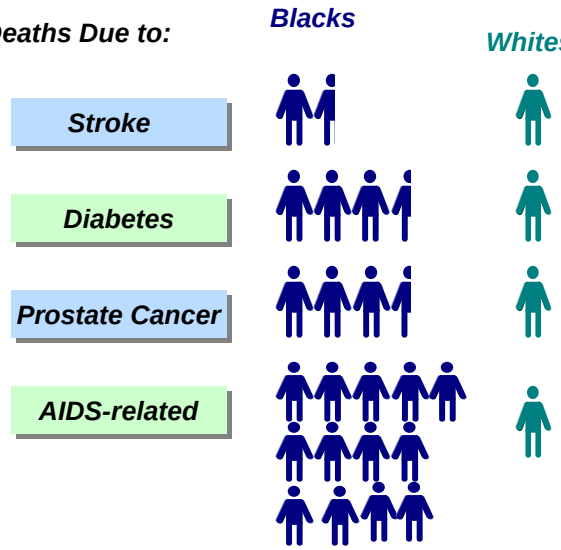
- Coronary heart disease, cancer and stroke are leading causes of death for both Whites and Other Races, including African Americans, Asians, and Native Americans. However, People of Other Races may die at higher rates and younger ages.
- Whites, in comparison to Other Races, are more likely to die of Chronic Obstructive Pulmonary Disease (COPD), Alzheimer's Disease, Pneumonia/Influenza and suicide.
- In data from 2008-2012, death rates for African Americans were 1.3 times higher for heart disease and 1.5 times higher for stroke in comparison to Whites.
- Cancer death rates are also higher among People of Other Races. In comparison to Whites, death rates for African Americans are 1.4 times higher for breast cancer, 1.6 times higher for colon cancer and 3.4 times higher for prostate cancer.
- One of the largest gaps in health status between Whites and African Americans is for HIV disease related deaths. Between 2008 – 2012, African Americans were 13 times more likely to die of AIDS than Whites.

Disparities in Health Risk Behaviors: Tobacco Use, Physical Activity and Dietary Behaviors

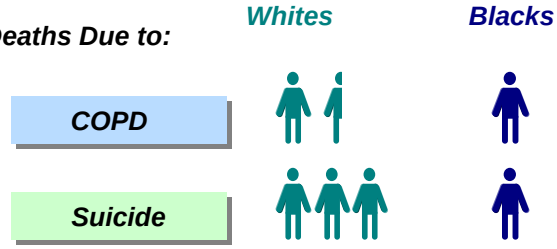
Research suggests that nearly half of all deaths are caused by avoidable behaviors and exposures, such as tobacco use, physical inactivity and poor nutrition. Differences in health behaviors exist across racial/ethnic groups, with People of Other Races often having higher risks for disease.

Disparities in Mecklenburg County: Selected Leading Causes of Death, *(2008 – 2012 Adjusted Death Rates)*

In comparison to Whites, African Americans experience deaths at a rate that is 1.5 times higher for stroke, 3.1 times higher for diabetes, 3.4 times higher for prostate cancer and 13 times higher for AIDS.



Whites experience higher death rates for COPD (1.3 times higher) and Suicide (3.0 times higher) than do African Americans or Blacks.



For many health indicators, socioeconomic factors (such as income, education and neighborhood environment) may have a greater influence on overall health status than race. The following statements were compiled using the 2012 Behavior Risk Factor Surveillance Report (BRFSS).

By Race

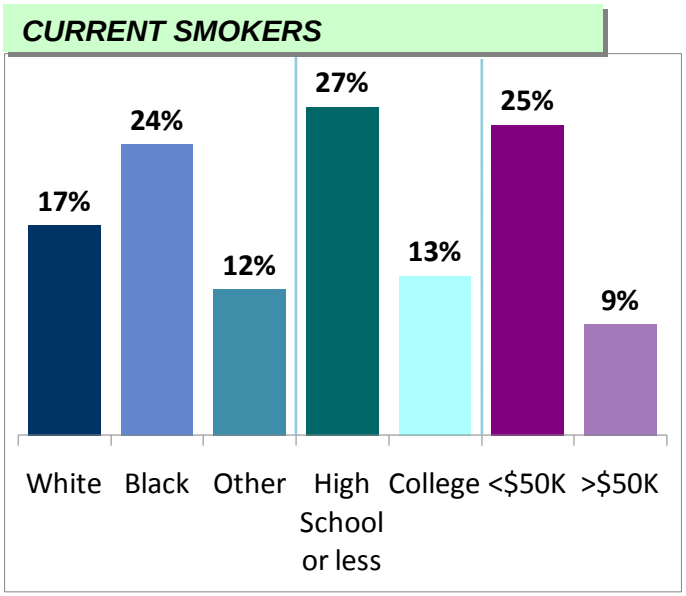
- In comparison to Whites, Blacks were:
  - 1.4 times more likely to report smoking and
  - 1.3 times more likely to report no physical activity
- Rates of overweight and obesity were high for all racial groups. However, the disparity ratio for each of these indicators showed no true difference between the groups.

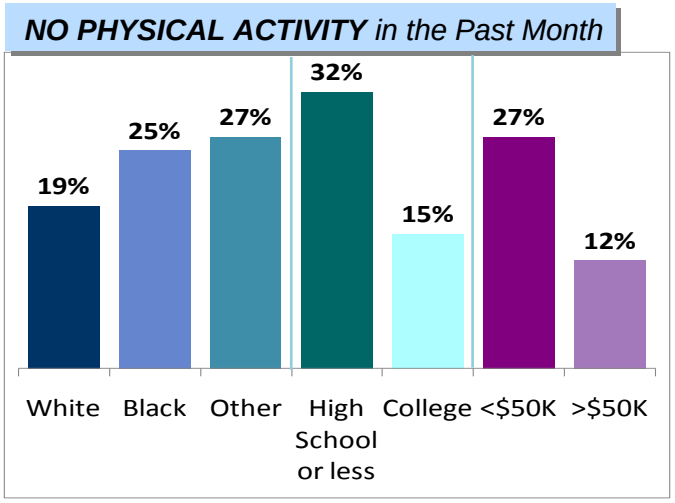
By Income and Education

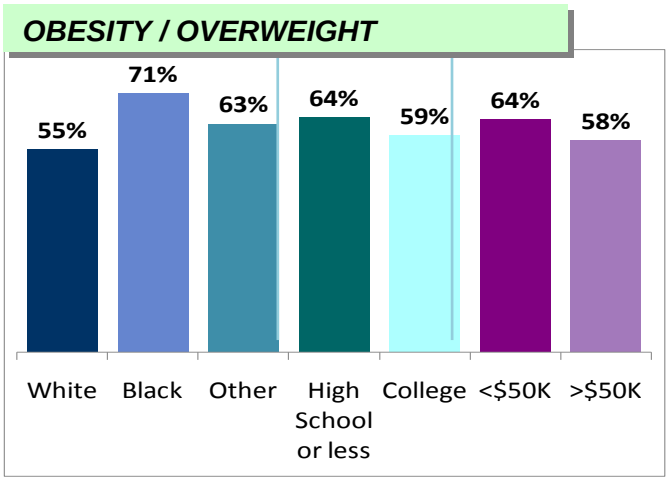
- Individuals with a household income of less than $50,000 were:
  - 2.8 times more likely to report smoking and
  - 2.3 times more likely to report no physical activity in the past month.
- Individuals with High School education or less were:
  - 2.1 times more likely to report smoking and
  - 2.1 times more likely to report no physical activity in the past month.
- Rates of overweight and obesity were similar across educational and income levels.

Additional information and trends for disease risk factors can be found in the Health Behaviors section of this report.

2012 Racial and Socioeconomic Disparities in Health Behaviors: Mecklenburg Residents







Racial Health Disparities for Selected Health Conditions
Mecklenburg County Residents

MAJOR CAUSES OF DEATH

2008 – 2012 Age-Adjusted Death Rates (rate per 100,000 population)

Other Races Deaths > White Deaths	**African American**	**Whites**	**Disparity Ratio**	**Healthy People 2020 Target**
Heart Disease	176.1	130.7	**1.3**	**100.8**
Total Cancer	210.4	151.2	**1.4**	**160.6**
Female Breast Cancer	*28.8*	*21.1*	***1.4***	***20.6***
Colorectal Cancer	*20.6*	*12.5*	***1.6***	***14.5***
Prostate Cancer	*61.7*	*18.1*	***3.4***	***21.2***
Stroke	52.5	34.2	**1.5**	**33.8**
Diabetes	36.0	11.5	**3.1**	**65.8**
HIV infection	15.7	1.2	**13.0**	**3.3**
Homicide	14.2	2.1	**6.8**	**5.5**
White Deaths > Other Races Deaths				
Chronic Lower Respiratory Disease*	29.9	38.1	**1.3**	***
Suicide	4.4	13.4	**3.0**	**10.2**

* Healthy People 2020 measure for this exact indicator does not exist. Reducing deaths due to Chronic Obstructive Pulmonary Disease (COPD), which is a subset of Chronic Lower Respiratory Disease, is listed as an objective for Healthy People 2020.

Data Sources: NC DHHS State Center for Health Statistics, 2008 – 2012 County Level Data
US DHHS Healthy People 2020: Topics and Objectives, www.healthypeople.gov

ELIMINATING DISPARITIES IN HEALTH: A PRIORITY FOR THE NATION, STATE AND COUNTY

The commitment to understanding and eliminating racial and ethnic health disparities is a top priority for the nation and has resulted in the formation of several initiatives and research efforts to identify solutions to this problem. Examples of such efforts include:

- ***Nationwide***: Including health disparities elimination as one of the overarching goals for Healthy People 2020, a comprehensive, nationwide health promotion and disease prevention agenda.
- ***In North Carolina***: Health Disparities is included as one of four top priorities established for the NC Department of Health and Human Services.
- ***In Mecklenburg***: The County Manager's charge and establishment of the Mecklenburg Health Disparities Taskforce, for the development of a county-wide strategic plan to eliminate health disparities.

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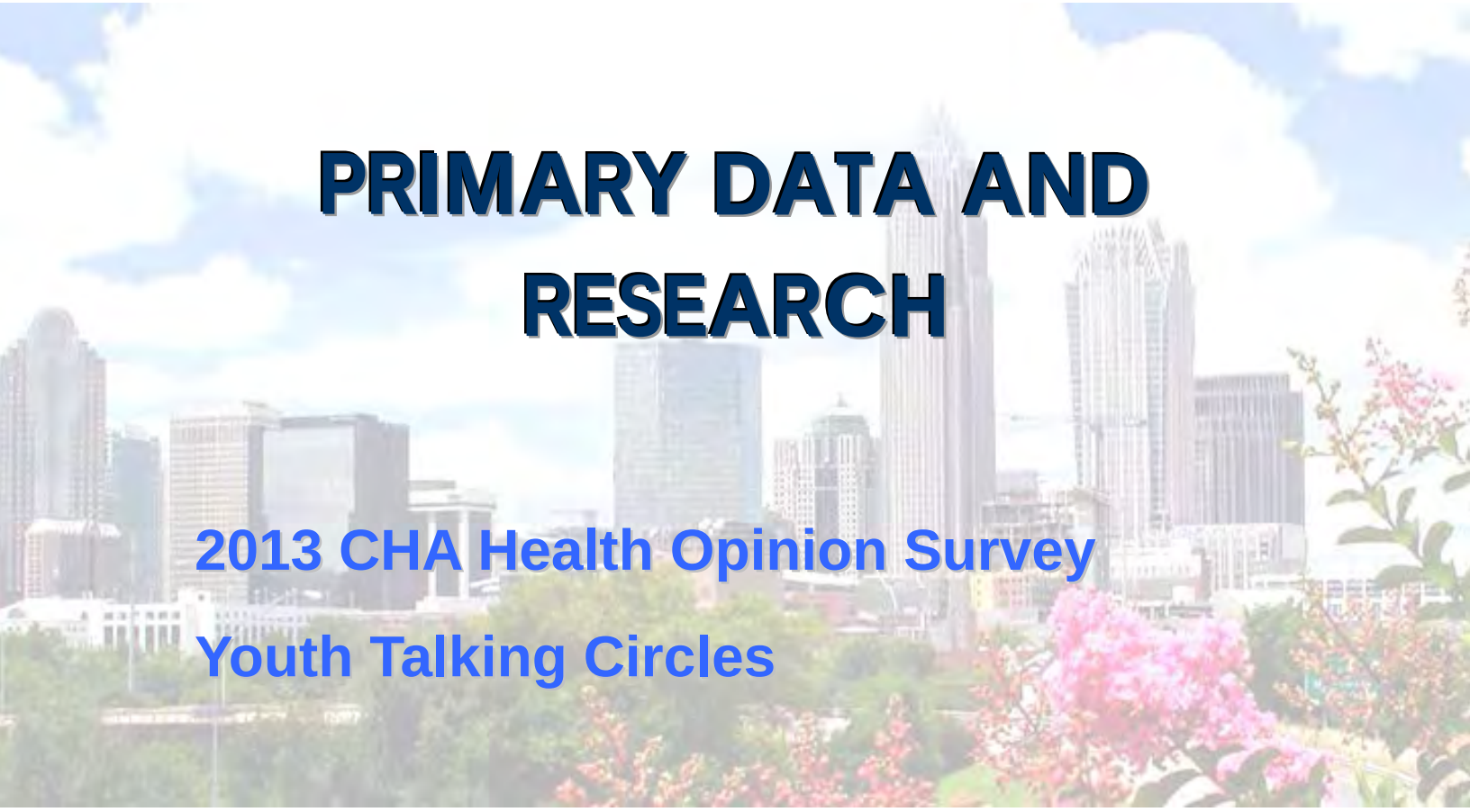


PRIMARY DATA AND RESEARCH

2013 CHA Health Opinion Survey

Youth Talking Circles

OVERVIEW

With guidance from the CHA Advisory Group, the MCHD Epidemiology Program developed a health opinion survey for Mecklenburg County residents. Rather than asking people about specific diseases or conditions for which we already had secondary data, the survey asked about beliefs and barriers to certain health behaviors. The central questions included 1) how often do you think about ways to improve your health, 2) are you currently trying to change a behavior and 3) what may help with behavior change? The latter portion of the 22-question survey asked participants their opinions on the nine identified health focus areas, health concerns related to the social determinants of health and finally demographic information.

METHODOLOGY

The CHA Health Opinion Survey was available to Mecklenburg County residents only. The survey was open for responses from April 15, 2013 to June 30, 2013. Surveys were administered electronically through SurveyMonkey™ and in paper copy in both English and Spanish languages.

The sampling method used for this survey was convenience sampling which is an inexpensive and quick way to collect data. Links to the online survey were sent via email to elected officials of the county, city and towns; heads of city neighborhood associations; city and county employees and through various contact lists. The survey link was also posted on the health department website and the health department Facebook© page. All recipients of the email were encouraged to share the link among their own contacts.

A targeted distribution of paper copies was used to reach areas of the population that may not have received the email or did not have access to a computer. Paper copies were distributed at the following locations: Care Ring, Ada Jenkins, Bethesda Health Center, Our Lady of Guadalupe, Hispanos Saludables, Carolina RAIN, Supportive Housing Communities, four senior centers and at various churches and events in the county.

Characteristics of Residents
2013 Mecklenbug CHA Survey
Total Number of Residents Surveyed 1,888

Gender	#	%
Male	640	34.0
Female	1243	66.0
Race/Ethnicity		
White	1082	58.6
Black/African-American	575	31.2
Asian	22	1.2
Other Race	167	9.1
Hispanic/Latino*	232	12.9
Age Group		
Under 18	3	0.2
18-24	58	3.1
25-44	690	36.7
45-64	777	41.3
65-84	321	17.1
85+	33	1.8
Length of Residency in Mecklenburg		
Less than 1 year	56	3.0
1-2 years	104	5.6
3-5 years	200	10.8
6-10 years	326	17.5
More than 10 years	1174	63.1
Level of Educational Attainment		
12th grade or less	126	6.8
High school graduate or equivalent	175	9.4
Some college, but no degree	335	18.1
Associate degree in college	154	8.3
Bachelors degree in college	527	28.4
Advanced college degree	537	29.0
Employment Status		
Employed for wages	1106	59.8
Self-employed	103	5.6
Out of work for more than 1 year	81	4.4
Out of work for less than 1 year	48	2.6
Homemaker/Caregiver	79	4.3
A Student	46	2.5
Retired	302	16.3
Unable to Work	85	4.6
Annual Household Income		
$0-$19,999	252	14.1
$20,000-$29,999	167	9.3
$30,000-$44,999	220	12.3
$45,000-$64,999	315	17.6
$65,000-$90,000	248	13.9
More than $90,000	462	25.8
Don't Know	127	7.1
Health Insurance Coverage		
Enough insurance coverage	1097	58.1
Some insurance not enough	377	20.0
Not currently covered	306	16.2
Don't Know/Not Sure	32	1.7

A total of 1,888 surveys were completed by Mecklenburg residents. Almost 65% (1,221 surveys) were completed through SurveyMonkey™ and 35% (667) were completed on paper.

CHARACTERISTICS OF SURVEY RESPONDENTS

Demographics

Survey respondents were asked to give some demographic information about themselves such as gender, age, race/ethnicity, education level, income, employment and health insurance coverage. The demographic profile is displayed in the table on the previous page.

Municipalities

Survey respondents were asked what city/town in Mecklenburg they live in. Most survey respondents live in Charlotte which is expected because the majority of Mecklenburg residents reside in Charlotte.

Municipalities of Survey Respondents 2013 Mecklenbug CHA Survey *Total Number of Residents Surveyed 1,888*		
	#	%
Charlotte	1573	83.3
Cornelius	36	1.9
Davidson	26	1.4
Huntersville	68	3.6
Matthews	108	5.7
Mint Hill	52	2.8
Pineville	25	1.3

Healthy Community

Survey respondents were asked how healthy they thought their community was based on availability of: sidewalks, greenways, and parks; access to healthcare; grocery stores/farmer's markets and feeling safe in their neighborhood. Over 80% of respondents reported that their community was healthy or somewhat healthy. Approximately 15% stated their community was unhealthy or somewhat unhealthy.

BEHAVIOR CHANGE

Survey respondents were asked how often they think about ways to keep themselves healthy or improve their health.

Over half of survey respondents stated that they think about ways to keep themselves healthy or improve their health several times a day.

Most respondents (93%) are currently trying to change their behavior in order to improve their health. Eating or drinking healthier foods and being more active were the behaviors residents most frequently reported trying to change.

Table 1. Behaviors Residents Are Trying to Change	
	%
Eating or drinking healthier foods	89.7
Being more active	84.5
Managing stress	50.1
Reducing my chances for injury	33.2
Limiting my alcohol consumption	11.8

EXERCISING MORE

Survey respondents were asked "If you want to exercise more, what could help?" Most persons responded: free exercise classes near my home, having someone to exercise with and going to a gym/having a gym membership.

Table 3.Things that Could Help Residents to Exercise More	
	%
Free exercise classes near my home	43.1
Having someone to exercise with/Buddy support	39.2
Going to a gym/having a gym membership	36.7
More sidewalks or bike lanes	33.5
Permission/encouragement for an	19.7
Exercise equipment in my home	20.9

EATING/DRINKING HEALTHIER

Survey respondents were asked "If you want to drink or eat healthier foods, what could help you?" Most persons responded cheaper fresh fruits and vegetables, more farmer's markets and smaller portion sizes in restaurants.

Table 4. Things that Could Help Residents to Eat/Drink Healthier

	%
Cheaper fresh fruits and vegetables	61.4
More farmer's markets	45.9
Smaller portion sizes in restaurants	42.0
Less temptation—more healthy food and drink choices at work, faith and social gatherings	36.3
Clearer food labels	31.7
Information on what foods/drinks are healthy and recipes for preparing them	29.3

SMOKING CESSATION

Survey respondents were asked "If you want to stop smoking, what could help?" Most survey respondents (83%) stated that they do not smoke. For those that do smoke most stated that access to nicotine substitutes, medications and support group/cessation classes could help them stop smoking.

Table 5. Things that Could Help Residents to Stop Smoking

	%
Access to nicotine substitutes	26.7
Support group/cessation classes	22.5
Access to medications (chantix,	19.4
Free 24-hr help line/Quitline	14.8
Tobacco Free policy at my workplace	14.4

HEALTH RELATED CONCERNS

Survey respondents were asked "What are the greatest health related concerns you have for your family right now?" Over 60% stated that they have no health concern for their family right now. About 30% of respondents stated that some or all their family members is without health insurance or getting regular dental care are their greatest health concerns. More than a fifth of respondents chose not getting regular eye exams as their greatest health concern right now for their family.

By Municipality

The majority of Cornelius, Huntersville, Matthews, and Mint Hill survey respondents stated that they have no health related concerns for their family right now. Most of Charlotte and Pineville residents chose some or all my family members is without health insurance. Davidson residents chose not getting regular dental care as their top health concern.

Table 6. Health Related Concerns

	%
None	62.6
Some or all family members is without health insurance	30.4
Do not get regular dental care because it is too expensive	30.2
Do not get regular eye exams/new glasses because it is too expensive	22.0
Have some insurance but not able to go to the doctor or fill prescriptions because it is still too expensive	15.8

PRIORITY FOCUS AREAS

Survey respondents were asked "When thinking about our community please choose the four priority focus areas you think need the most attention from the list below." The nine priority focus areas are:

- Access to Care (healthcare for those who do not have adequate insurance)
- Changing health behaviors to prevent or slow the onset of chronic disease (heart disease, stroke, arthritis, diabetes)
- Healthcare for mothers, children and babies (prenatal care and immunization to reduce the risk of low birth weight, premature birth, infant death)
- Healthy Environment (clean air, land, water and assuring that healthy places support healthy choices)
- Injury Prevention (car crashes, head injuries, falls, drowning, burns)
- Mental Health (anxiety, depression, suicide, bi-polar disease, schizophrenia)
- Responsible sexual behavior (reducing sexually transmitted diseases, teen pregnancy)
- Substance Abuse Prevention (illegal drug use, prescription drug abuse, alcohol abuse)
- Violence Prevention (bullying, domestic violence, child abuse, assault, murder)

Mental Health, Chronic Disease Prevention, Access to Care and Violence Prevention were voted the top four priority areas needing the most attention.

By Municipality

Charlotte, Davidson, Huntersville, Mint Hill and Pineville residents chose Mental Health and Chronic Disease Prevention as their top two priority areas. Cornelius and Matthews residents chose Mental Health and Access to Care as their top priority areas.

STRENGTHS AND LIMITATIONS

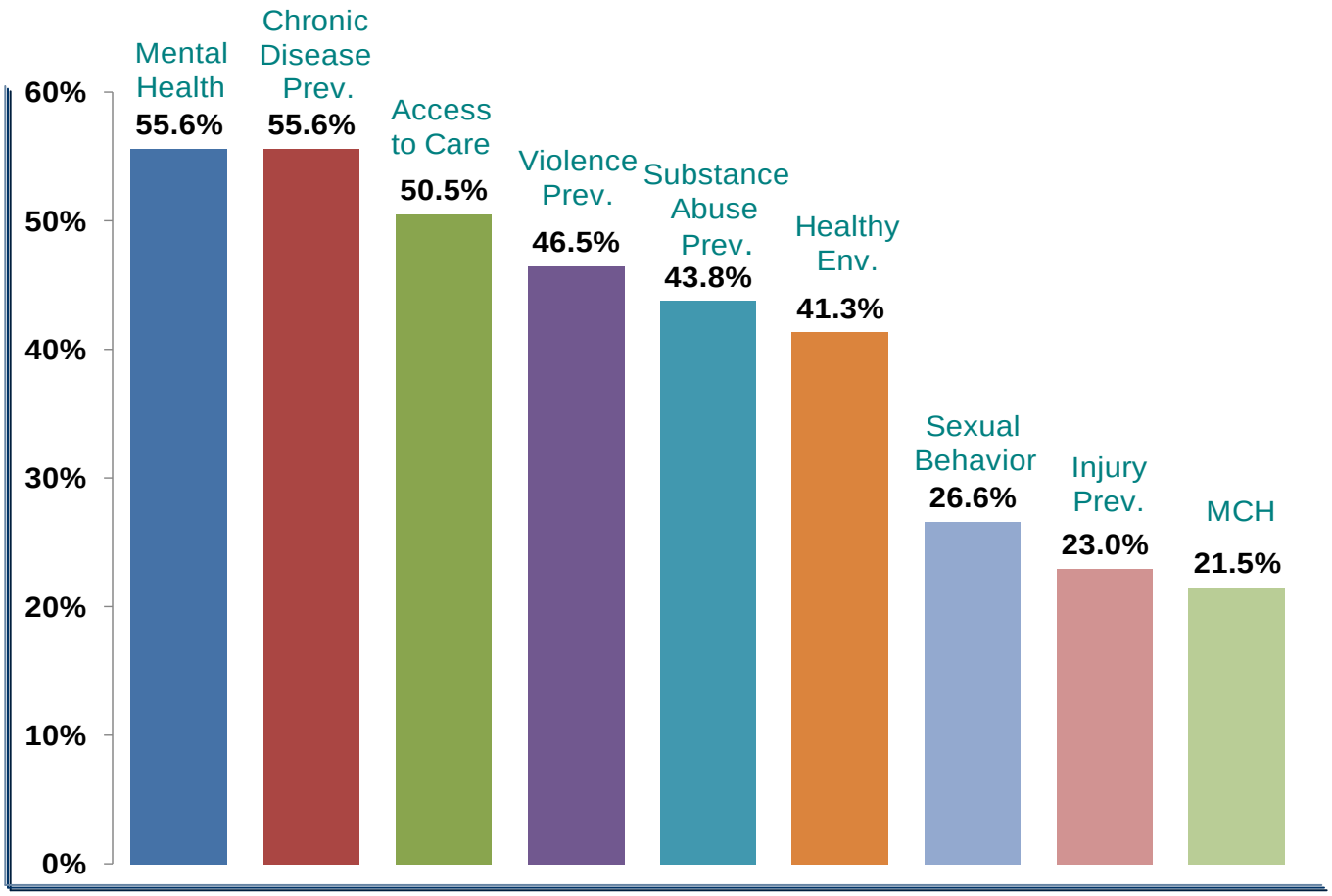
Electronic or online surveys have many associated advantages and disadvantages. Research has shown that online surveys yield response rates that are equal to or better than traditional mail-in surveys or telephone surveys. Although a response rate could not be calculated for this survey, 65% of surveys were filled out online.

Electronic surveys are also cost efficient because they eliminate the need for numerous paper copies and save research time since there is no need for data entry.

A limitation of this survey is the sampling selection bias. Because most of the surveys were completed online it is likely that populations who do not have access to or feel comfortable using a computer may have been missed. This issue was addressed by distributing paper copies at senior centers, health clinics, churches and events throughout Mecklenburg County targeting these populations.

Every attempt was made to gather a sample that resembled the demographic makeup of the county and we were largely successful, however males and Asians were still underrepresented. Caution must be exercised in attempting to weight a convenience sample as one cannot hope to bring it in line with a probability sample and, as such, we would be hesitant to perform such an adjustment and say this survey is totally representative of our county. It does, however, represent the opinion of a wide variety of county respondents as seen in the participant profile.

2013 Priority Focus Areas
As Determined by Survey Respondents



YOUTH TALKING CIRCLES

Participation from individuals under the age of 18 was largely absent from the Community Health Opinion Survey primarily due to concerns over informed consent of minors. However, at the suggestion of the CHA Advisory Group, it was decided that there be special effort made to reach out to youth and include their input.

The Youth Talking Circles provided an opportunity to hear the opinions and suggestions of youth in our county. Through partnerships with Teen Health Connection's Teen Advisory Board and Girls Educated and Motivated for Success (GEMS) program and the Mecklenburg County Health Department's Male Involvement program, a total of 3 talking circles were conducted during the month of September 2013.

A total of five questions for the Youth Talking Circles were developed by the Health Department's Epidemiology Program. Youth participants were assured that no identifying information would be collected and that feedback would be anonymous.

QUESTIONS:

1. What do you think a healthy community looks like?
2. Do you think where you live (your neighborhood) is a healthy place to live? Why or why not?
3. What are the healthy issues that teens talk about?
4. Of our nine priority areas, what are the four that you think are the most important?
5. What would you change in your community to make it healthier?

YOUTH TALKING CIRCLES DEMOGRAPHIC SUMMARY

- A total of 87 youth participated in the talking circles
- The majority of the participants (66) were African American, 18 were White, followed by 1 Asian youth, 1 Indian youth and 1 Hispanic youth
- 63 participants were female, 24 were male
- All youth ranged in age from 12-18

SUMMARY OF RESPONSES:

- A common theme among all three groups was idea that part of a healthy community included seeing people engaged in physical activity.
- Responses regarding thoughts on the health of their community were mixed. Most answered "yes" noting community bonds and opportunities for activity. However, others cited crime and litter as being issues.
- Of the issues that teens talk about, obesity, drugs and alcohol and sex/STDs/pregnancy were common among groups.
- When asked to identify the most important issues in the community, all groups identified Violence, Responsible Sexual Behavior and Substance Abuse. The latter two ranked near the bottom of the list of priorities identified through the Health Opinion Survey and the Priority Setting Event.
- Suggestions for a healthier community ranged from more farmers' markets/healthy food, more opportunities for physical activities, more community engagement, support for youth and the elderly, and increased safety and security.

GEMS Youth Talking Circle

Demographics: 42 participants ages 13-17; all African American; all female

1. What do you think a healthy community looks like?

Big houses
Clean neighborhoods
You see people exercising
Sidewalks
Parks, tennis and basketball courts
Recreation center
A place where you can throw trash away and recycle bins
Diverse community mix of ethnicities

2. Do you think where you live (your neighborhood) is a healthy place to live? Why or why not?

Yes: Neighbors look out for each other and keep it clean and neighbors know each other
Homeowners Association limits what can be done in the neighborhood
People exercise and are responsible when they see trash
No place to get healthy foods like fruits and vegetables

No: Crime, there are some break-ins
Not well maintained (houses need repair)
Trash is all over and there are no garbage cans in the community
Predators in the neighborhood

3. What are the health issues that teens talk about?

Obesity
STD's
Hygiene
Diabetes
Eczema
Mental health (depression, bi polar, voices in your head)
Asthma
Allergies
PMS
Pregnancy
Skin care, acne
Having healthy hair and nails

4. Choose the 4 issues you think are the most important.

1. Violence Prevention
2. Responsible Sexual Behavior
3. Mental Health
4. Healthy environment/injury prevention
5. Access to Care/Healthcare for mothers, children and babies

5. What would you change in your community to make it healthier?

Keeping a watch/monitoring the neighborhood
Increase lighting
Alarm systems
Increase police presence
Sidewalks
Reduce unattended construction sites
Community gatherings
More truancy officers to gather the kids that are not in school and to keep them from walking all through the neighborhoods

Teen Health Connection Teen Advisory Board Talking Circle

Demographics: 28 participants, 1 graduate, 25 high school students, 2 middle school students; 18 White, 7 African American, 1 Hispanic, 1 Indian, 1 Asian; 7 males and 21 females

Note: The facilitator for this group had participants break up into seven small groups of four teens each. Each group provided feedback on the questions.

1. What do you think a healthy community looks like?

Group 1: Healthy community looks like: all citizens covered with medical insurance, quality mental health care for youth and adults, low infant, child and teen death rates, lower number of people who are hungry/thirsty

Group 2: Healthy community looks like: lower obesity rates, lower rates of people who are hungry, low preventable deaths (smoking/heart disease from behaviors), fewer suicides and mental health illnesses that are untreated

Group 3: Healthy community looks like: less injuries and violence, less teen pregnancy, less drug abuse by teens and adults, everyone is physically active

Group 4: Healthy community looks like: all citizens have access to quality medical and mental health care

Group 5: Healthy community looks like: focus on prevention of disease, drug and alcohol use, teen pregnancy, violence and suicide

Group 6: Healthy community looks like: adequate medical resources and medicine for all people, better education around dangers of smoking, drug abuse, prescription drug abuse, alcohol, fewer people sick

Group 7: Healthy community looks like: decrease in deaths from accidents or behavior choices, people living longer more active lives

2. Do you think where you live (your neighborhood) is a healthy place to live? Why or why not?

Group 1: Yes, people are always outside being active – exercise is important.

Group 2: Yes, there are parks and nature trails – lots of bike trails, grocery stores with fresh fruits and vegetables and lots of sports and activities

Group 3: Yes, little to no violence or crime. Safe for families to play outside – neighbors watch out for each other

Group 4: Yes, there is neighborhood security but still nothing ever happens bad. It is a safe place for children to play outside/at the pool/ at the park.

Group 5: Yes, there are sidewalks for kids to ride their bikes or walk. You can walk to the park or to the pool. Lots of people are outside in their yards/gardens.

Group 6: Yes, we have access to healthy food and water. Lots of people have gardens with fresh vegetables – no pollution or chemicals near

Group 7: Yes, there is no violence or crime. Everyone is friendly and youth and family focused. Lots of people like to be outside and exercise.

3. What are the health issues that teens talk about?

Group 1: Eating disorders are important. Lots of kids struggle with trying to fit in so they develop eating disorders. Other teens do not have access to healthy foods and so they can only eat fast food and struggle with obesity and weight challenges. The teenage years are hard with body-image so this is a big issue for teens.

Group 2: Underage drinking is an issue. Teens don't really understand the health risks to drinking. They think it is cool and because it is legal at a certain age that it does not actually harm you. Smoking is also a health issue that impacts a lot of teens. Again, they think it is cool but then have issues trying to stop when they get older.

Group 3: Asthma is an issue for a lot of teens, even ones who are active. Obesity is also a huge issue. Not a lot of teens are eating vegetables and fruits. We eat a lot of fast food and we eat late at night too after practice or studying so it is definitely hard to eat healthy and stay active at this age.

Group 4: Teens talk a lot of about alcohol and drug use. It is easy to find alcohol now, some parents even supply it at parties. Teens are also in a tough situation when they have been drinking because they can't always call a cab (don't have the money) so they drive because they have curfews, etc. This is a huge issue and lots of teens are driving or riding in the cars with teens.

Group 5: Mental Health – one of the leading causes of death is suicide and this is a huge issue for teens because of the difficult adolescent years.

Group 6: Violence and mental health – lots of teens continue to struggle with anxiety and depression and suicidal thoughts and because of bullying and violence these issues will continue.

Group 7: Drug and alcohol abuse are huge health issues for teens – peer pressure plays a hugs role in making this difficult to address.

4. Choose the 4 issues you think are the most important.

Group 1: Violence Prevention, Substance Abuse Prevention & Treatment, Responsible Sexual Behavior, Mental Health

Group 2: Injury Prevention, Substance Abuse Prevention & Treatment, Responsible Sexual Behavior, Mental Health

Group 3: Injury Prevention, Substance Abuse Prevention & Treatment, Responsible Sexual Behavior, Mental Health

Group 4: Violence Prevention, Substance Abuse Prevention & Treatment, Responsible Sexual Behavior, Mental Health

Group 5: Violence Prevention, Substance Abuse Prevention & Treatment, Responsible Sexual Behavior, Mental Health

Group 6: Violence Prevention, Substance Abuse Prevention & Treatment, Responsible Sexual Behavior, Mental Health

Group 7: Violence Prevention, Substance Abuse Prevention & Treatment, Responsible Sexual Behavior, Mental Health

5. What would you change in your community to make it healthier?

Group 1: More mental health services in school for teens, more available and non-stigmatized birth control.

Group 2: Nutrition is an issue but it is cheap to buy fast food and chips/coke – nobody wants to spend money on fruit when they can spend less on a full meal from McDonalds. Make farmers markets cheaper and more access to free fresh fruits and vegetables in schools.

Group 3: Car accidents and injury for teens is still a huge issue, harsher penalties or more law enforcement presence after high school basketball and football games makes kids think twice.

Group 4: Make healthcare easier to access for all people – too may hoops with insurance or doctor's offices not open or not enough mental health services for teens that are cheap or free

Group 5: Get parents to understand that drinking is not ok for teens – parents think because they control it, it is ok for teens – more parenting resources about dangers of underage drinking.

Group 6: This is difficult but continue to talk about mental health and barriers to mental health. Nobody likes to fund mental health or talk about it yet teens continue to die from suicide or try to hurt themselves according to the YRBS data. At some point we need to have a real conversation about what to do about mental health and that it is ok to have therapists to talk to for all people, not just kids.

Group 7: Teen pregnancy or HPV vaccines are such a huge "no" to discuss in the schools because they are too political. When does the health risk outweigh politics – get the larger companies to understand that they need to quit hiding and have real conversations.

Male Involvement Talking Circles

Demographics: 17 participants ages 12-18; all African American, all male

1. What do you think a healthy community looks like?

Clean
Not violent
Fresh grass, lawns
No gang violence
Recreation
Less teen mothers

2. Do you think where you live (your neighborhood) is a healthy place to live? Why or why not?

Yes: Not a lot of negative activity, quiet
Police lives in the neighborhood
Involvement of mixed age groups
Very safe, can sleep with your door open
Not a lot of violence, people get along
Many older people
People are active (reported twice)

Sometimes: Stressful feels under suspicion
People get along most times

No: Loitering, gangs

3. What are the health issues that teens talk about?

Fights
STDs
Cancer
Sex
The future
Drugs (reported three times)
Heroin
Burglary
Weed
Hygiene

4. Choose the 4 issues you think are the most important.

Violence Prevention: 12 votes
Responsible Sexual Behavior: 12 votes
Substance Abuse Prevention & Treatment: 9 votes
Healthcare for Mothers, Children and Babies: 7 votes
Choosing Healthy Behaviors to Prevent Disease: 7 votes
Mental Health: 6 votes
Access to Care: 5 votes
Injury Prevention: 3 votes
Healthy Environment: 3 votes

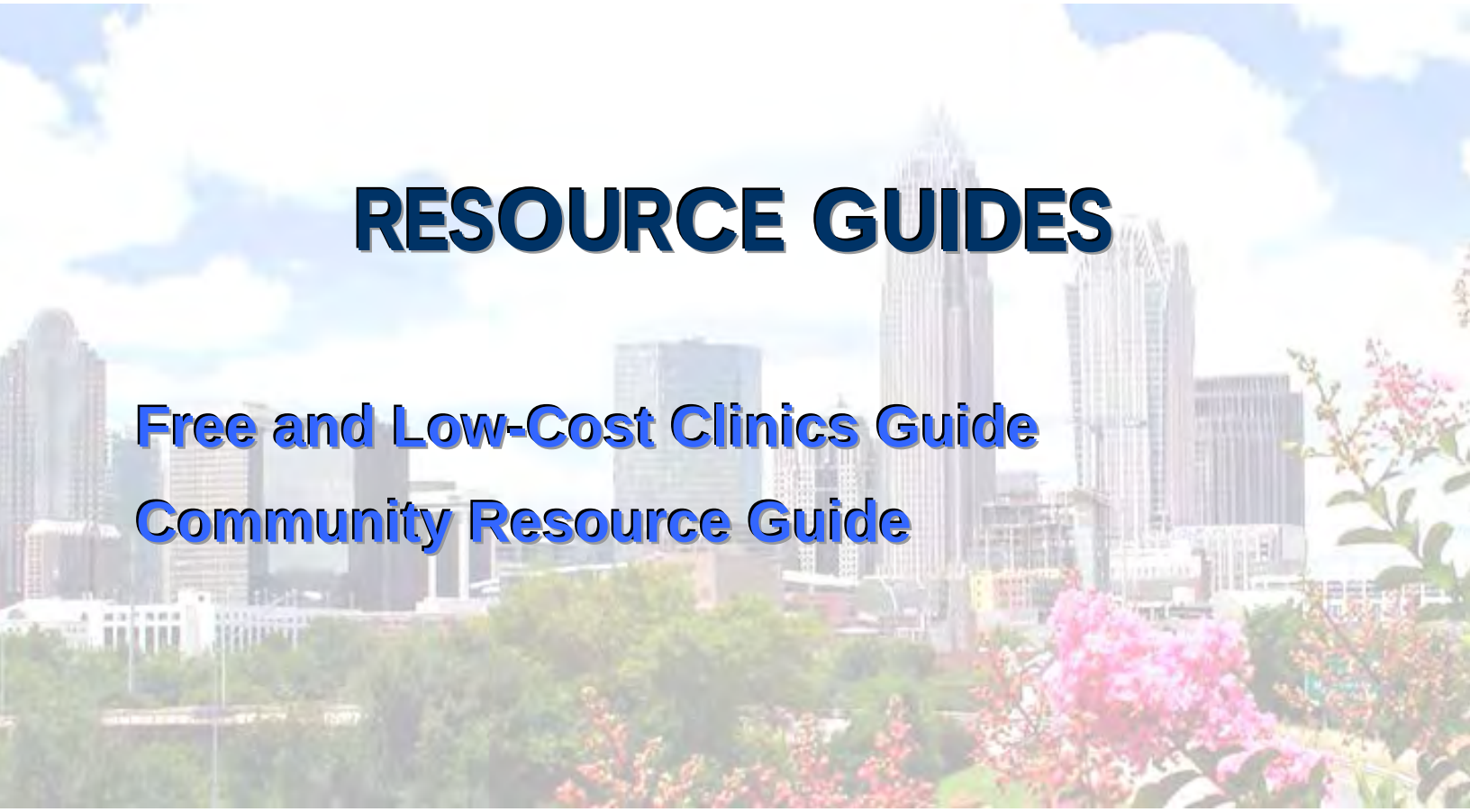
5. What would you change in your community to make it healthier?

Help the children
Help the elderly
Putting up a basketball court
More YMCAs
More food
Gardens
More jobs
More transportation of the disabled
More cars
More schools
More housing
Affordable shopping

2013 CHA COMMUNICATION PLAN

COMMUNICATION PLAN – MECKLENBURG COMMUNITY HEALTH ASSESSMENT 2013		
FORMAT	**MEANS OF DISTRIBUTION**	**TIME LINE**
Final Report	Full report, 250 pages, includes Executive Summary, chapters for each health issue, maps, assessment process, resources and primary research information	Completed December 2013
	Internet – Post on Health Department Epidemiology and Healthy Carolinians websites in format that allows easy browsing	January 2014
	Use ***e-letter*** to notify interested parties, priority setting participants, community leaders, county commissioners, municipalities, county manager and other county agencies, health related non-profits and collaborations, hospitals, and universities that the information is available; include reminder for Community Health Forum, Healthy People 2020 and the action planning process	January 2014
	Presentation – Board of County Commissioners	January 2014
	Press release – Issue with web posting	January 2014
	Social marketing – County Twitter, Facebook and MeckTube	January 2014
Brochure	Bi-fold design, 8 pages, an updated version of the 2010 brochure with the inclusion of municipality information	Design and print February 2014
	Internet – Post on Health Department Epidemiology and Healthy Carolinians websites as pdf for easy download and printing	March 2014
	Mailing with specific recommendations from priority setting session to area funders such as Foundation for the Carolinas, Duke Endowment, CHS Foundation—include action plans	March 2014
	Mailing to those who participated in priority setting and county commissioners	March 2014
	Make ***copies*** available to all partner groups and community events	On-going

COMMUNICATION PLAN (CONTINUED)		
Brochure, continued	Provide ***copies*** to Health Department administration, health educators, and other appropriate staff to be distributed when making public presentations of any sort	March 2014 and on-going as needed
	Include in ***packet materials*** for Community Health Forum	May 2014
PowerPoint Presentation	Create presentation summarizing findings and recommendations	January 2014
	Internet – Post on Health Department Epidemiology and Healthy Carolinians websites as pdf for easy download and printing	February 2014
	Presentation to Health Department Middle Management	February 2014
	Use for ***presentations*** as needed	On-going as scheduled
Written Articles	Identify opportunities for publicizing information and write articles summarizing findings and recommendations or selected areas of interest	On-going as identified
	Mecklenburg Medicine – Summary of findings and priority setting exercise with recommendations; follow up with an article every month featuring one of the eight focus areas	Begin April 2014 with Public Health Month issue



RESOURCE GUIDES

Free and Low-Cost Clinics Guide

Community Resource Guide

MECKLENBURG COUNTY HEALTH DEPARTMENT RESOURCE GUIDES

The Mecklenburg County Health Department employs two online resource guides to provide information on community resources to internal and external clients. The first is a guide to free and low-cost health care facilities in the community. The second is an extensive list of services in a variety of areas ranging from abuse to housing to daycare resources.

The online lists eliminate the costs associated with the frequent printing required to keep large amounts of information current and easily accessible to a large number of people on any day or time. Because of the frequent changes, Mecklenburg County Department of Social Services no longer maintains a hard copy but uses the Free and Low-Cost Clinic Guide as their reference.

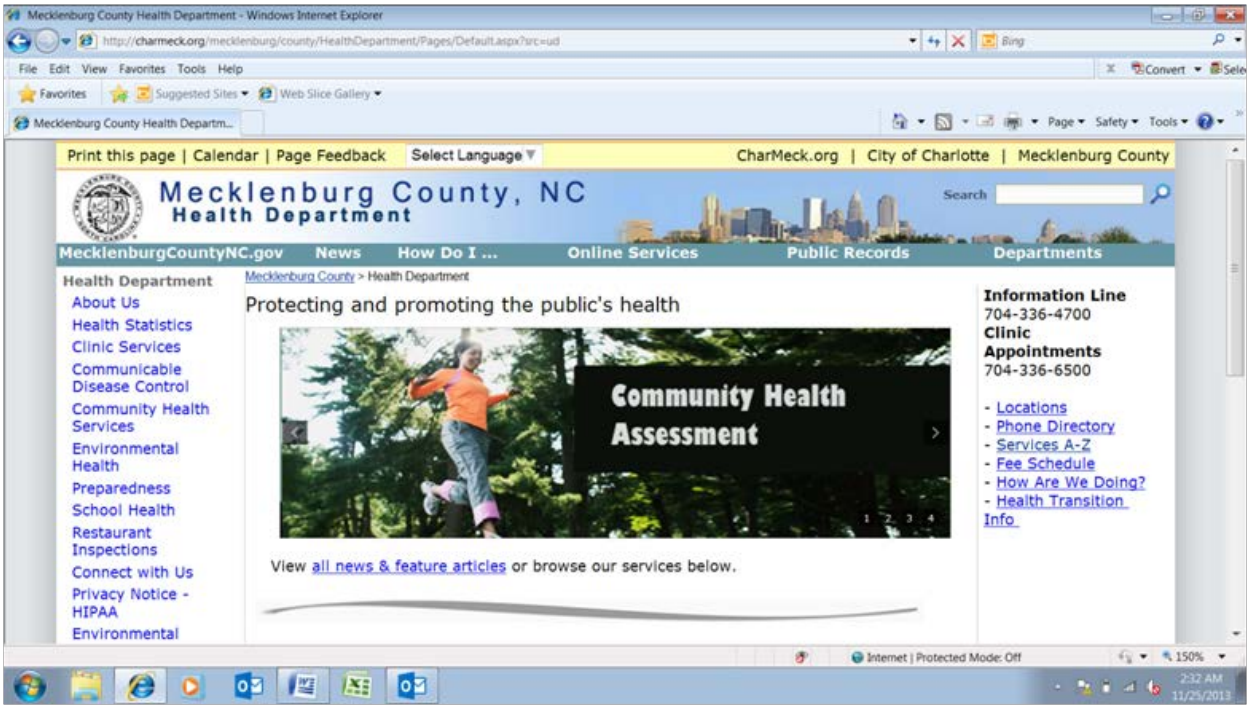
When clients request information by phone they are referred to the website or the requested information is conveyed over the phone, as preferred by the client. If a client in the clinic requests information, it is printed and provided.

The free and low-cost clinic list is populated with information from the safety-net provider organization, MedLink. Members may supply information for updates at any time and a formal update request is done every six months.

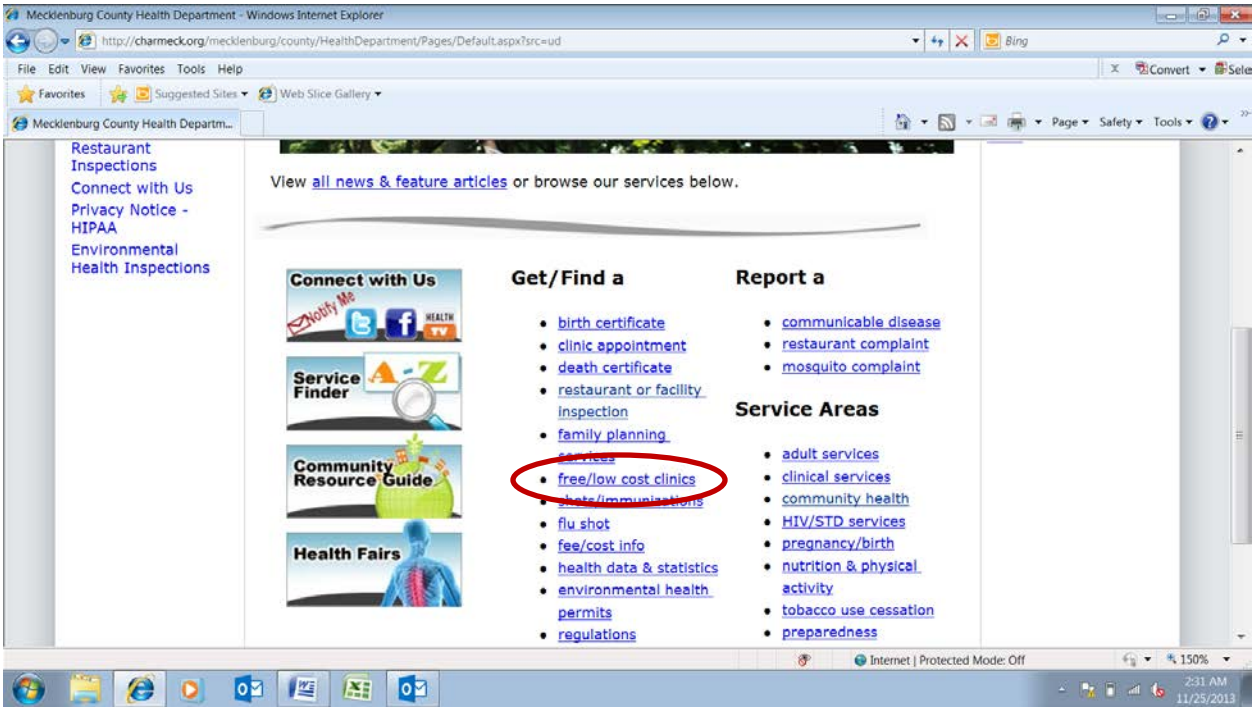
The Community Resource List is formally updated by the Community Resource List Committee once a year with each resource checked for accuracy beginning in January and any updates made in March. Users discovering any changes can request updates at any time.

FREE AND LOW-COST CLINICS RESOURCE GUIDE

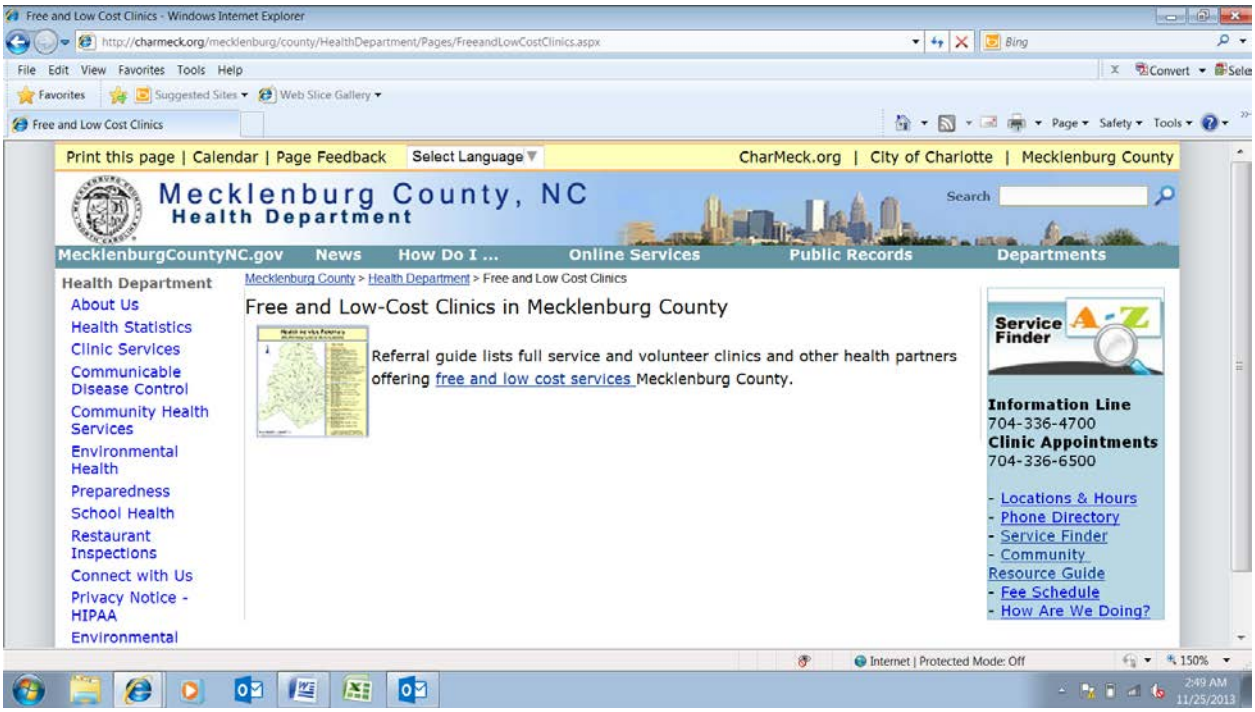
This resource guide is located on the Mecklenburg County Health Department webpage at http://www.MeckHealth.org



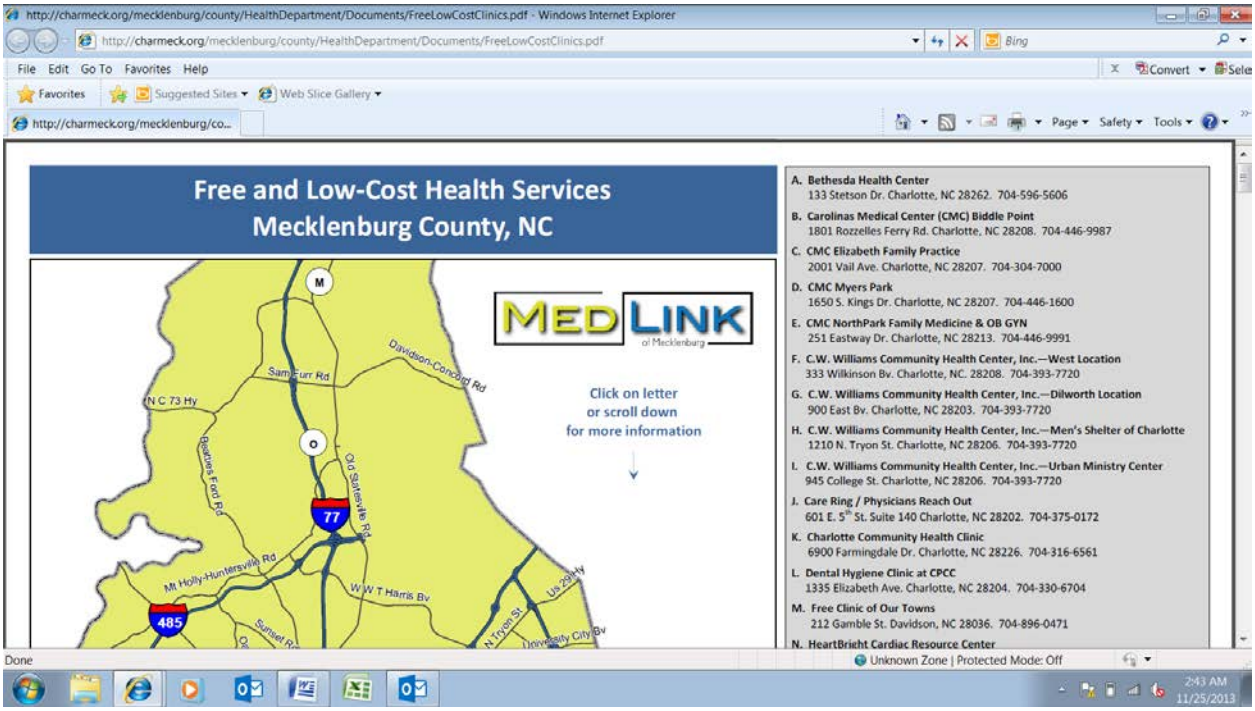
The link to the list is found in the middle of the page in a list of resources titled “Get/Find” and listed as “free/low cost clinics.”



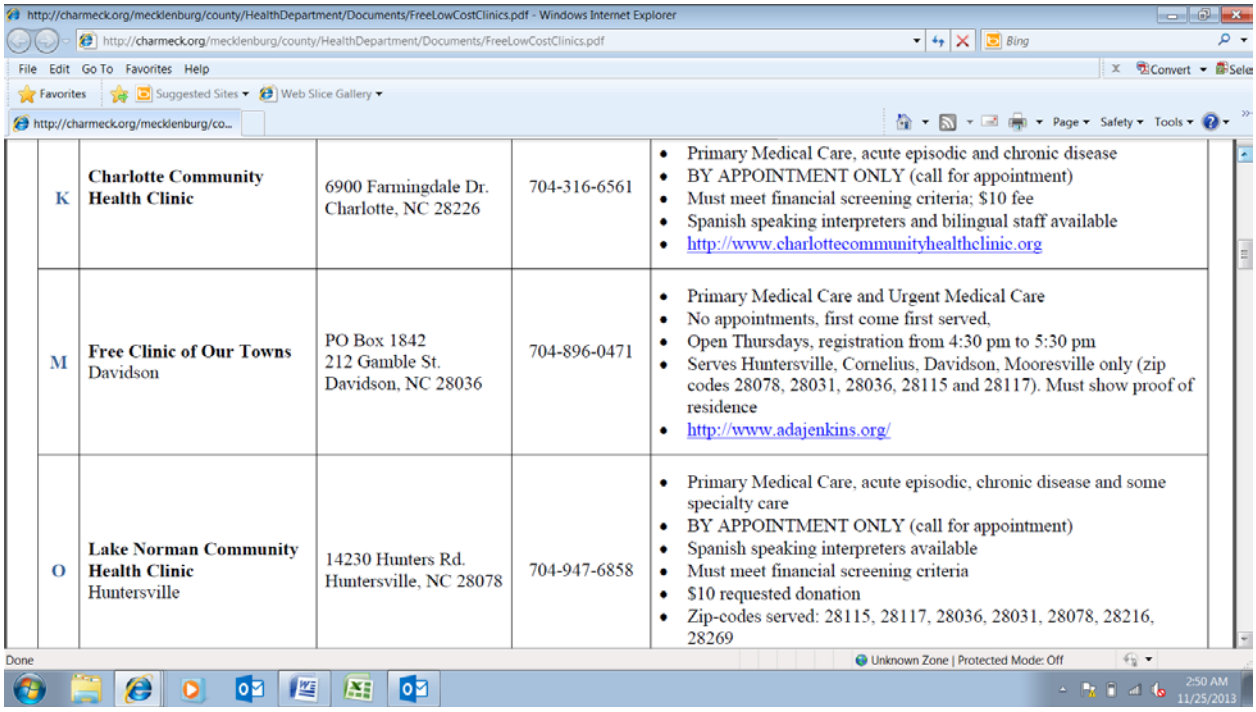
Clicking on the link leads to a Free and Low-Cost Clinic page which in turn opens into a pdf featuring a county map showing the locations of the clinics. The map is followed by a chart listing contact and services provided information.



Locator Map



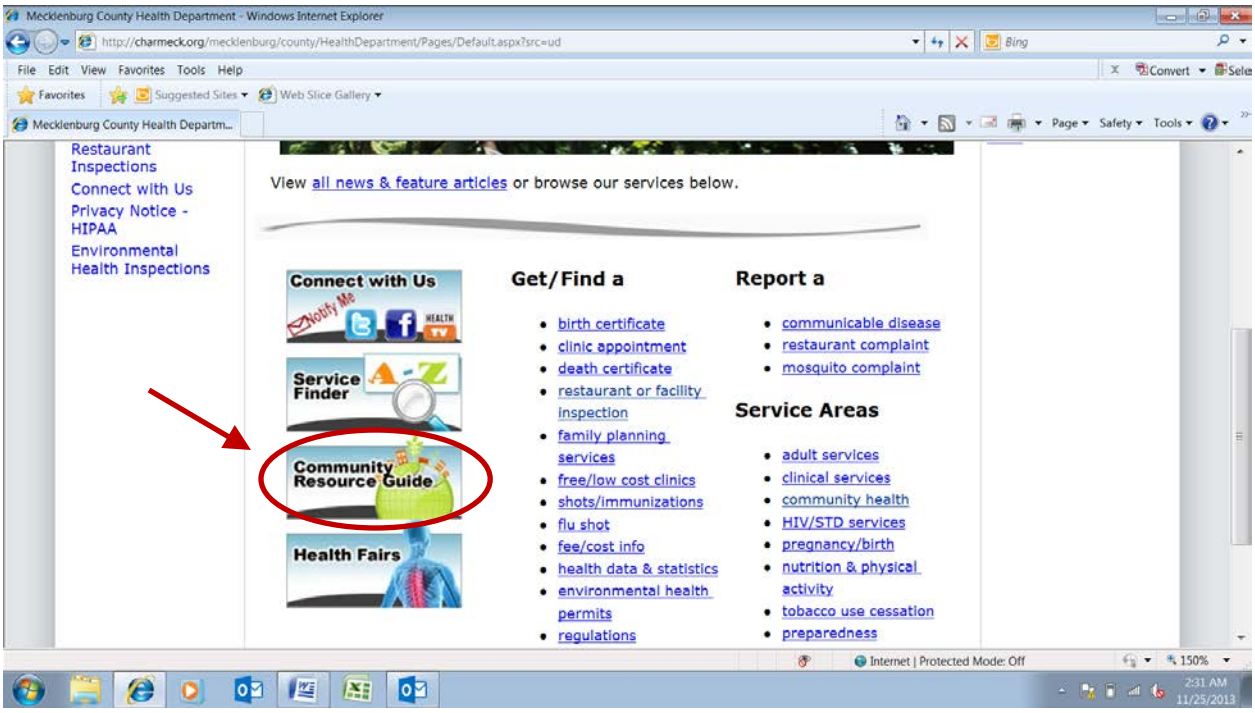
Clinic Information



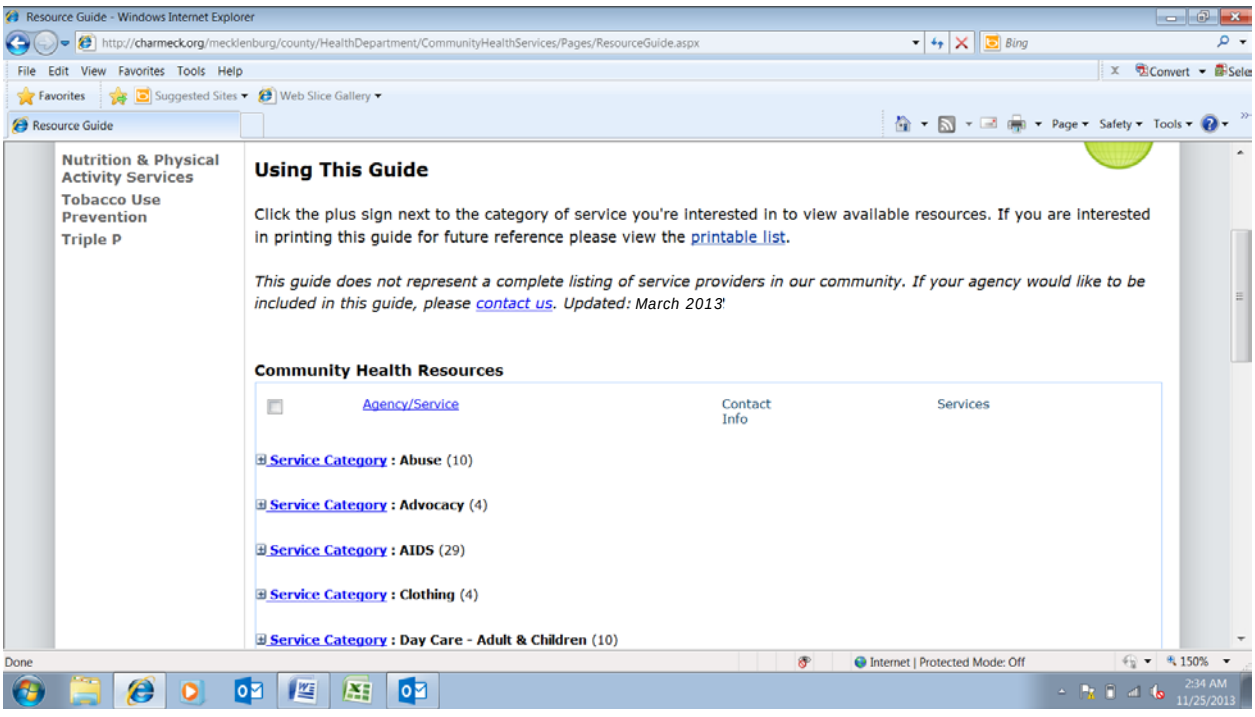
K	**Charlotte Community Health Clinic**	6900 Farmingdale Dr. Charlotte, NC 28226	704-316-6561	• Primary Medical Care, acute episodic and chronic disease • BY APPOINTMENT ONLY (call for appointment) • Must meet financial screening criteria; $10 fee • Spanish speaking interpreters and bilingual staff available • http://www.charlottecommunityhealthclinic.org
M	**Free Clinic of Our Towns** Davidson	PO Box 1842 212 Gamble St. Davidson, NC 28036	704-896-0471	• Primary Medical Care and Urgent Medical Care • No appointments, first come first served, • Open Thursdays, registration from 4:30 pm to 5:30 pm • Serves Huntersville, Cornelius, Davidson, Mooresville only (zip codes 28078, 28031, 28036, 28115 and 28117). Must show proof of residence • http://www.adajenkins.org/
O	**Lake Norman Community Health Clinic** Huntersville	14230 Hunters Rd. Huntersville, NC 28078	704-947-6858	• Primary Medical Care, acute episodic, chronic disease and some specialty care • BY APPOINTMENT ONLY (call for appointment) • Spanish speaking interpreters available • Must meet financial screening criteria • $10 requested donation • Zip-codes served: 28115, 28117, 28036, 28031, 28078, 28216, 28269

COMMUNITY RESOURCE GUIDE

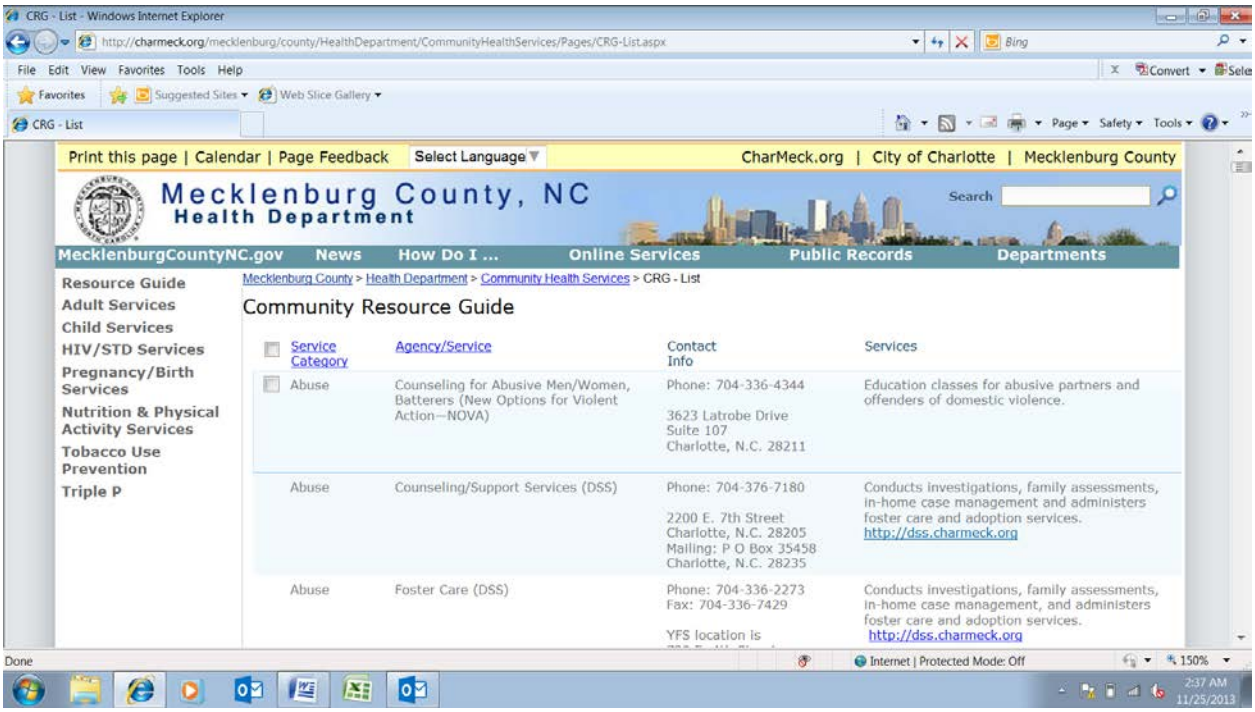
This resource guide is located on the Mecklenburg County Health Department webpage at http://www.MeckHealth.org . It is shown as the third of four “buttons” on the left side of the body of the page, directing visitors to specific resources or services.



Clicking on the button takes the visitor to a long list of various topics. Each topic contains a folder of resources for that topic.



Each topic folder contains contact and service information for each resource in the folder.



APPENDIX

2013 Community Health Opinion Survey

Priority Setting Recommendations

Priority Setting Fact Sheets

Priority Setting Presentation

Technical Notes

2013Mecklenburg County Community Health Assessment Survey

Survey developed by:
Mecklenburg Healthy Carolinians and the
Mecklenburg County Health Department

Mecklenburg Healthy Carolinians has developed this health behavior survey to give county residents a chance to voice their opinions about health issues in their community. Information gathered from the survey will be used to learn more about health needs in the county and the challenges people face in becoming and staying healthy.

This survey is brief and should take about 5 to 10 minutes to complete. This survey is confidential and you will not be identified with the information you give. All responses will be combined and analyzed as a group.

Participation in this survey is completely voluntary. If you do not wish to participate, or decide to stop at any time, you may exit the survey.

Thank you in advance for your time.

---

1. **In which town/city do you live?**
    1. Charlotte
    2. Cornelius
    3. Davidson
    4. Huntersville
    5. Matthews
    6. Mint Hill
    7. Pineville
    8. I do not live in Mecklenburg County

2. **How often do you think about ways to keep yourself healthy or improve your health?**
    1. About once a day
    2. About once a week
    3. About once a month
    4. About once a year
    5. Never

3. Are you currently trying to change your behavior to improve your health?

1. Yes
2. No

4. What behaviors are you currently trying to change? Check all that apply.

1. Being more active (walking, going to gym, taking the stairs, gardening, biking, swimming)
2. Eating or drinking healthier (eat more fruits/vegetables, drink less soda, drink more water)
3. Trying to stop smoking/using tobacco
4. Limiting my alcohol consumption
5. Managing stress
6. Reducing my chances for injury (not texting while driving, wearing seatbelts, using bike helmets, not speeding, etc.)
7. Other, specify_____

5. If you want to exercise more, what could help? Check all that apply.

1. Childcare
2. Going to a gym/ Having a gym membership
3. Safer neighborhoodswhere I can walk
4. More sidewalks or bike lanes
5. Permission/encouragement for an exercise break during hours from my boss
6. More parks and greenways
7. Free exercise classes near my home
8. Having someone to exercise with / Buddy support
9. Exercise equipment in my home
10. I DO NOT believe that exercise will improve my health
11. I DO NOT need to exercise more because I get enough exercise already
12. Other (please say what)_____

6. If you want to eat or drink healthier foods, what could help? Check all that apply

1. Clearer food labels
2. Smaller portion sizes in restaurants
3. A full service grocery store (has fresh meat, milk, fruits and vegetables)near my home
4. Cheaper fresh fruits and vegetables
5. Less advertising for fast food/junk food
6. More farmers markets
7. More water fountains or water coolers
8. Group support—friends and family that are also trying to cook and eat healthier foods
9. Less temptation—more healthy food and drink choices at work, faith and social gatherings
10. Classes on how to choose and cook healthy foods
11. Information on what foods/drinks are healthy and recipes for preparing them
12. Information about gardening and growing food
13. I DO NOT believe that changing what I eat/drink will improve my health
14. I DO NOT need to change what I eat or drink because I already make healthy choices
15. Other (please say what)_____

7. If you want to stop smoking/using tobacco, what could help? Check all that apply.

1. I do NOT smoke/use tobacco products
2. Free 24-hour help line/Quitline
3. Tobacco-free policy at my workplace
4. Support group / Cessation classes
5. Access to nicotine substitutes (nicotine gum/patch/lozenge such as Nicorette, NicoDerm CQ, Habitrol, nicotine nasal spray or inhaler)
6. Access to medications (Chantix, bupropion)
7. Online cessation services
8. Other (please say what)_____
9. I do NOT want to quit smoking/using tobacco products

8. What are the greatest health-related concerns you have for your family, right now? Check all that apply.

1. Some or all of my family is without health insurance
2. Have some insurance but not able to go to the doctor or fill prescriptions because it is still too expensive
3. Do not get regular dental care because it is too expensive.
4. Do not get regular eye exams or glasses because they are too expensive
5. Cannot afford enough food
6. Worried about becoming homeless or currently homeless
7. It is hard to see a doctor or get a test because the health care system is confusing
8. None
9. Other (please say what)_____

9. The following are health issues facing all communities. When thinking about where you live, please choose the FOUR areas you think need the most attention.

1. Violence prevention (bullying, domestic violence, child abuse, assault, murder)
2. Substance abuse prevention and treatment (illegal drug use, prescription drug abuse, alcohol abuse)
3. Responsible sexual behavior (reducing sexually transmitted diseases, teen pregnancy)
4. Mental health (anxiety, depression, suicide, bi-polar disease, schizophrenia)
5. Injury prevention (car crashes, head injuries, falls, drowning, burns)
6. Healthy environment (clean air, land and water, childhood lead screening)
7. Healthcare for mothers, children and babies (immunization, prenatal care and to reduce the risk of low birth weight, premature birth, infant death)
8. Choosing health behaviors to prevent or slow the onset of chronic disease (not smoking to help prevent cancer, eating healthy to help prevent diabetes, exercising to help prevent heart disease)
9. Access to care (healthcare for those who do not have adequate insurance)

10. The following statements are all part of a healthy community:

- *There are sidewalks, bike lanes, greenways, parks or playgrounds where my family and I can exercise.*
- *I can see a doctor or nurse if I need to.*
- *There are grocery stores, farmers markets or community gardens available to me.*
- *I feel safe in my neighborhood.*

Thinking about these statements and where you live, how healthy do you think your community is?

1. Healthy
2. Somewhat healthy
3. Somewhat unhealthy
4. Unhealthy
5. I have no opinion

11. What additional comments or concerns do you have about health or changing health behaviors in your community?

12. What is your age?

1. Under 18
2. 18-24
3. 25-44
4. 45-64
5. 65-84
6. 85+

13. What is your gender?

1. Male
2. Female

14. Which of these groups would you say best represents your race?

1. White
2. Black/African American
3. American Indian/Alaska Native
4. Asian
5. Native Hawaiian/Pacific Islander
6. Other race
7. 2 or more races

15. Are you of Hispanic/Latino origin?

1. Yes
2. No

16. What is your home zip code?_____

17. How long have you lived in Mecklenburg County?

1. Less than 1 year
2. 1 to 2 years
3. 3 to 5 years
4. 6 to 10 years
5. More than 10 years

18. How many people live in your household, including you? _____

19. What was your household income last year?

1. $0-$19,999
2. $20,000-$29,999
3. $30,000-$44,999
4. $45,000-$64,999
5. $65,000-$90,000
6. More than $90,000
7. Don't know

20. What is the highest level of education you have completed?

1. 12th grade or less, no diploma
2. High school graduate or GED
3. Some college, but no degree (includes vocational training)
4. Associate degree in college
5. Bachelor's degree in college
6. Advanced college degree beyond Bachelor's degree

21. Which of the following best describes your current status:

1. Employed for wages
2. Self-employed
3. Out of work for more than 1 year
4. Out of work for less than 1 year
5. A Homemaker / Caregiver / Stay at home parent
6. A Student
7. Retired
8. Unable to work

22. How would you describe your current health insurance coverage:

1. I have enough insurance coverage
2. I have some insurance but it is not enough
3. I am NOT currently covered by any health insurance or health plan
4. Don't know / Not sure
5. Other

The following is the transcribed recommendations for addressing our top four priorities identified at the October 25 Priority Setting Event. Participants self selected into one of the four and wrote up their recommendations before adjourning.

CHRONIC DISEASE: Page 1

- More required education on healthy lifestyles/prevention
- More community group/support system education on healthy lifestyles/prevention including neighborhoods and faith organizations
- In doctors' offices: more prevention, not just treatment of symptoms, more referral to lifestyle practioners, better knowledge of available resources
- Engage business community on the subject of better food products
- Places of employment should support healthy lifestyle choices
- CHS and Novant should focus more on holistic approach to primary care interactions healthy lifestyles
- Offer more low cost preventative screenings in different communities
- More outreach to communities that are not touched by Novant or CHS
- Multi-lingual approach to preventive care
- Health care system should focus more on outcomes and population/community health
- Mecklenburg County should offer health screenings
- More holistic approach to disease prevention

CHRONIC DISEASE: Page 2

- Encourage sidewalk programs
- Diabetes awareness
- Focus on safe neighborhoods
- Physical education in schools
- Healthy meals in school and at home
- Fresh food trucks
- Allow fresh fruit to be carried away from lunch
- Focused interventions in high need schools
- Encourage schools to offer more healthy foods in afterschool programs
- Expansion of CHET: Children's Healthy Eating CCPGM
- Motivational interviewing and shared decision-making approach

CHRONIC DISEASE: Page 3

- Communication to parents and providers about terms like BMI, use and easy to understand approach like red-yellow-green to communicate BMI
- Tax on junk food
- Keep recess in schools
- Partnerships between schools and communities
- Take back the park
- Improve playgrounds
- Open school facilities for public use/exercise
- Increase sidewalks and bike lanes and increase connectivity between neighborhoods and schools
- Improve transit system, address “hub and spoke” system
- Insurance incentives for maintaining good health or improving health measures

CHRONIC DISEASE: Page 4

- Expand interventions already in place
- Consider additional screening in Hispanic and other culturally sensitive/underserved populations
- Evidence based health promotion programs to reduce chronic diseases
- Research efforts underway in Durham, NC
- Branding Charlotte as healthy community/Fit Community
- Focused interventions for different age groups; youth and aging populations
- Address food deserts
- Use of mobile food carts and Friendship Gardens to get healthy food to sites where it is needed
- More mobile farmers’ markets/Go Go Fresco in schools and underserved area
- Increase availability and safety of bike lanes, crosswalks, walking paths and transit areas
- Promote smoke-free environments
- Better coordination between leaders and communities

CHRONIC DISEASE: Page 5

- Increase school gardens for grades K-12
- Increase funding for prevention efforts
- Outlaw drive-through at fast food restaurants
- Improve and increase screening efforts

CHRONIC DISEASE: Page 5, cont.

- Promote lifestyle changes to improve health
- Incentivize health care providers to promote healthy lifestyles and prevention efforts by using park and nutrition "prescriptions"

ACCESS TO CARE: Page 1

- Better communication on where to get free or low-cost services and other resources like crisis assistance or the benefit bank
- Better communication about the Affordable Care Act and where to get help enrolling in the Marketplace, promotion of Navigator organizations
- Improve/establish funding for free or low-cost health services
- Provide access and health services information to 311
- Address other barriers not related to insurance like transportation, having non-traditional hours
- Focus on putting services in areas of need
- Encourage a "one stop shopping" approach where clients can get a variety of services

MENTAL HEALTH: Page 1

- More education and prevention services
- Translate materials and resources into other languages
- Offer free counseling services
- Change policy related to mental health
- Increase awareness of infant mental health
- Promote efforts to reduce stigma associated with mental health
- Ensure comprehensive care, mental and physical health
- Provide worksite trainings and initiates to support or improve mental health
- Recovery model
- Increase resources for families
- Increase awareness of dual diagnosis
- Promote collaboration and communication among service providers
- Increased funding for mental health programs and services

MENTAL HEALTH: Page 2

- Increase the number of mental health providers
- Increase the number of beds for acute and residential care
- Local programs versus out of community care

MENTAL HEALTH: Page 2, cont.

- Promote school-based programs
- Improved communication and collaboration between the criminal justice system and mental health providers
- Promote a better understanding between mental health and substance abuse challenges
- Mental health education at all levels in the school system
- Create a central repository/hub for mental health resources
- Increase professional education and offer scholarships for providers representing various cultural and ethnic groups
- Collaboration and trainings for the police and sheriff's departments throughout the county
- Provide information for transit workers and other "front line" and non-traditional partners
- Limit access to firearms

MENTAL HEALTH: Page 3

- Mental health trainings for large systems in the county (hospitals, Department of Social Services, Charlotte Mecklenburg Schools, etc)
- Promote Mental Health First Aid training

VIOLENCE: Page 1

- Encourage health care providers, police and medics to have access to assessment tools so every agency is on the same page, give consistent messages
- Encourage health care providers to ask about safety at every encounter
- Focus on changing norms regarding violence, it is not acceptable
- Focus on safety at the neighborhood level
- Helping kids to have positive expectations for the future
- Begin violence prevention education at the pre-K level
- Increase after school activities to keep kids active and engaged
- Culturally appropriate monitoring in unsafe areas
- A comprehensive plan to address access to firearms
- Expand evidence-based interventions already in place in some schools
- Integrate violence prevention into other social service agencies

VIOLENCE: Page 2

- Encourage a call to action from community and faith groups with suggestions for what might work with their particular populations
- Expand community partnerships, for example Wal-Mart, police, churches, park and recreation facilities and libraries
- Begin or expand efforts that help create community bonds/help us to get to know our neighbors
- Show that we value police and teachers as a way of improving morale
- Let kids know that they are loved
- Increase awareness of the importance of safely reporting child abuse
- Increased efforts to address domestic violence (DV), support for domestic violence review board

VIOLENCE: Page 3

- Increase awareness of the Women's Commission and their services
- Increase awareness of the fact that DV impact all levels
- Address language barriers in the domestic violence prevention field
- Distribute DV educational/support information in public places
- Ensure that child abuse is reported to the Department of Social Services
- Offer respite and mentoring and parenting programs for parents
- Offer safe child care options to parents in need
- Increase awareness about the dangers of shaking a baby and what are triggers that may lead to it
- Recognize that the stress on families is a component of violence
- Expand the Yellow Men at events

VIOLENCE: Page 4

- Programs like Big Brothers Big Sisters are helpful but rely on a lot of volunteers
- Partnerships with faith and business community might be helpful
- Increase youth involvement by offering more activities and providing them with opportunities for leadership.

2013 Mecklenburg County Summary Report
Responsible Sexual Behavior

THE ISSUE

The recent increase in STDs in the United States presents a growing challenge for public health. The Centers for Disease Control (CDC) estimates that STDs infect 19 million persons each year. Teenagers and young adults are more likely than other age groups to have multiple sex partners and engage in unprotected sex, placing them at increased risk for unplanned pregnancies and STDs.

Magnitude — *Proportion of the population affected or vulnerable*

Selected Health Indicator (source of data)	Meck	NC	Health Indicator Trends
2011, % of teens ever having sex (YRBS)	50%	49%	→
2011, % of teens having sex before age 13 (YRBS)	9%	9%	→
2011 Pregnancy rate, girls 15-19 yrs (NC DHHS, SCHS)	40.5 per 1,000	43.8 per 1,000	↗
2011 Pregnancy rate, girls 15-17 yrs (NC DHHS, SCHS)	20.9 per 1,000	21.4 per 1,000	↗
2011 Chlamydia annual case rate (NC DHHS, Epi HIV/STD)	810.8 per 100,000	564.8 per 100,000	↘
2011 Gonorrhea annual case rate (NC DHHS, Epi HIV/STD)	246.7 per 100,000	179.9 per 100,000	↘
2011 1°/2° Syphilis annual case rate (NC DHHS, Epi HIV/STD)	13.3 per 100,000	4.5 per 100,000	↘
2011 HIV Disease case annual rate (NC DHHS, Epi HIV/STD)	36.9 per 100,000	16.4 per 100,000	↗

Health Indicator Trend KEY

How do we compare to NC?

Good	Fair	Poor	Not Assessed
≥ 20% Better	<20%	≥ 20% Worse	

How do we compare to the previous 5 years?

Getting Better	Stable	Getting Worse	Unknown
↗	→	↘	?

Severity — *Impact on mortality, morbidity, disability and quality of life*

- Based on 2011 YRBS data, 35% of Mecklenburg teens reported having sexual intercourse with one or more people in the past three months. Among those who had sex in the past three months about 61% reported using condoms; however 26% reported drinking alcohol or using drugs before last sexual intercourse.
- Since 2000, the pregnancy rate in Mecklenburg teens ages 15-19 has decreased by 44%, from 72.8 per 1,000 to 40.5 per 1,000 in 2011. While this is promising news there are still more than 1,500 pregnancies a year in teens.
- Nearly 5,000 people are living with HIV disease in Mecklenburg. Between 2007 and 2011, there were 285 deaths due to HIV. While death rates have declined, HIV disease remains a leading cause of death for people of Other Races.
- Approximately 78% of persons living with HIV and 80% or more of Chlamydia and Gonorrhea cases in the county are racial and ethnic populations. Limited access to quality health care, poverty and higher disease prevalence contribute to disparate rates.

Select Health Disparity Ratios

	Blacks		Whites
HIV Death Rates	12 deaths	=	1 death
Pregnancy Rates (15 – 17 yrs)	6 pregnancies	=	1 pregnancy
% of Teens Ever Having Sex	2 teens	=	1 teen

2007 – 2011, NC DHHS Vital Statistics
2011 Mecklenburg Youth Risk Behavior Survey

2013 Mecklenburg Community Health Assessment 10/2013

Intervention Effectiveness

Proven interventions that are practical and feasible

- Public and political support for comprehensive sexual health and HIV/AIDS prevention education to Charlotte- Mecklenburg students. Comprehensive sexual health education would provide students with the knowledge and skills necessary to protect sexual and reproductive health from unintended pregnancy and STDs.
- Routine HIV screening for patients in all health-care settings after the patient is notified that testing should be performed, unless the patient declines (opt-out screening). The Centers for Disease Control recommends that individuals aged 13-64 get tested at least once in their lifetimes and those with risk factors get tested more frequently.
- Development of evidence-based social media campaigns targeting high-risk populations adversely impacted by sexually transmitted infections and HIV/AIDS.
- The Mecklenburg County Health Department, in collaboration with community based organizations and State and National campaigns, have increased STD screenings (including HIV, Hepatitis C and Syphilis) among high risk populations in the county.

Public Concern

Degree of public concern and/or awareness

Adolescent pregnancies and STD/HIV morbidity remain public health concerns for the county. However, advances in technology and medical treatments have vastly improved outcomes for STDS and HIV resulting in fewer deaths. Political action and public concern for Responsible Sexual Behavior often wanes, usually increasing with media coverage of isolated events of STD outbreaks or increases in adolescent pregnancies. Consider the following facts:

- Current North Carolina legislation does not support comprehensive sexual health education.
- Mecklenburg routinely reports the highest number of new HIV disease cases in North Carolina; however HIV-related death rates have declined by 63% between 2001 and 2011 (13.3 deaths per 100,000 vs. 4.9 deaths per 100,000).
- In 2011, there were 42 births to girls 15 and younger, 232 births to those 16-17 and 565 to those 18-19 or a total of 839 births to females under 20, representing 6.1% of all Mecklenburg births.

Urgency

Need for action based on degree and rate of growth

- The emergence of drug-resistant Gonorrhea and growing number of Syphilis cases, particularly among younger populations, support urgency in addressing responsible sexual behavior.
- Mecklenburg teens continue to report risky sexual behavior practices that adversely affect their current and future health. While pregnancy rates among girls 15 – 19 years have declined, adolescents and young adults account for nearly half of new Chlamydia cases in the county.
- Pregnancy in young adolescents may come with health risks to mom and baby. While older teens may not experience the same health risks, they, as with younger teens, may require additional supports: parenting, nutrition, emotional health, child care and education and/or employment.

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2013 Mecklenburg County Summary Report
Substance Abuse Prevention

THE ISSUE

Substance abuse is a major public health problem that impacts society on multiple levels. It is estimated that nearly 24 million or 9% of Americans age 12 and older are current illicit drug users and more than half of Americans 12 and over report alcohol use. The individual impact of abuse of alcohol and other drugs includes injury, violence and even death.

Magnitude Proportion of the population affected or vulnerable

Selected Health Indicator *(source of data)*	Meck	NC	Health Indicator Trends
2011, teens drinking alcohol in past 30 days (YRBS)	34%	34%	→
2011, teens binge drinking in past 30 days (YRBS)	16%	18%	→
2011, teens using marijuana (YRBS)	28%	24%	↘
2011, teens abusing prescription drugs (YRBS)	18%	20%	↘
2011, adults reporting heavy drinking (BRFSS)	6%	6%	?
2011, adults reporting binge drinking (BRFSS)	19%	15%	?

Health Indicator Trend KEY

How do we compare to NC?

Good	Fair	Poor	Not Assessed
≥ 20% Better	<20%	≥ 20% Worse	

How do we compare to the previous 5 years*?

Getting Better	Stable	Getting Worse	Unknown
↗	→	↘	?

**Where data is available*

Severity Impact on mortality, morbidity, disability and quality of life

- Of high school students reporting marijuana use, nearly half (43%) reported that they achieved grades of mainly Ds and Fs.
- Almost half (44%) of students who reported attending school under the influence of alcohol or drugs also reported achieving grades of mainly D's and F's.
- In 2011, 8% of high school students reported driving a car when they had been drinking. This is up from 6% in 2009.
- In 2011, one in four high school students reported that they had consumed alcohol before sexual intercourse.
- The total percentage of high school students reporting taking a prescription drug without a prescription is 18% but this varies by race. Black youth had the lowest reported usage at 14%, followed by Hispanic youth with 21% and White youth had the highest rate of 23%.

Mecklenburg Health Disparity Ratios

Adult Binge Drinking[1]	Whites		Other	
	5 people	=	1 person	
Adult Binge Drinking[1]	Males		Females	
	1.4 people	=	1 person	
% of Teens Abusing Prescription Drugs[2]	Whites		Blacks	
	1.7 people	=	1 person	

1. 2011 Behavioral Risk Factor Surveillance System
2. 2011 Youth Risk Behavior Survey

Intervention Effectiveness

Proven interventions that are practical and feasible

- Essentially, the best interventions for substance abuse are prevention and treatment. These are enhanced by policy & environmental changes like changing alcohol advertisements or campaigns to reduce stigma.
- Six prevention strategies have been identified by the Center for Substance Abuse Prevention, they are: 1) information dissemination, 2) prevention education, 3) alternative activities, 4) problem identification and referral (screening), 5) community based processes and 6) environmental/policy changes. Using these strategies in conjunction with the continuum of care which includes treatment, recovery and maintenance is a time-tested, effective intervention for substance use and abuse.
- The benefits of substance abuse prevention well outweigh the costs of providing the service. According to SAMHSA, for example, effective school-based programs save $18 for every $1 spent and environmental strategies (ranging from driving curfews to peer support) save from $2.60 to $63.00 per dollar spent.

Public Concern

Degree of public concern and/or awareness

- Because drinking alcohol is legal for adults, it is often considered a rite of passage for underage youth to consume alcohol. Many adults consider it a normal part of teenage behavior even to the point of allowing drinking in the home so as to discourage drinking and driving.
- With regard to marijuana, laws are frequently changing across the United States which is allowing for both the medical and recreational use of marijuana. This allowing for greater access to marijuana as well as an increasing perception that marijuana is a harmless substance, rather than a gateway drug.
- With regard to prescription drugs, many people are still not aware that their misuse or abuse can be as dangerous as the use of illegal drugs, leading to addiction and even death. These drugs are taken for reasons or in ways or amounts not intended by a doctor, or taken by someone other than the person for whom they are prescribed.

Urgency

Need for action based on degree and rate of growth

- Underage drinking is an urgent issue because the growing adolescent brain is particularly susceptible to damage from alcohol and other drugs. The brain is not considered fully developed until the mid-20s. In addition, it often leads to other dangerous behavior such as violence, risky sexual activity, impaired driving and ultimately even death due to alcohol poisoning.
- Marijuana users are significantly more likely than non-users to use other illicit drugs, that is, it is considered at "gateway drug." More frequent use of cannabis and younger age of first use of the drug strengthen this relationship.
- Although data is still limited, black tar heroin is quickly becoming a major problem in Charlotte with increasing numbers of youth having easy access to the substance. Heroin is particularly dangerous substance with high rates of overdose deaths and use is associated with many extremely risky behaviors such as violent crime and prostitution.

2013 Mecklenburg County Summary Report
Access to Care

THE ISSUE

Access to care refers to an individual's ability to access and appropriately use health care services. While insurance coverage does not always ensure access, individuals with coverage have easier access to care than those without. They are more likely to have a usual source of care, have fewer delays in receiving care and get more preventative care. Those with little or no coverage often delay care or seek treatment on an emergency basis when conditions are worse.

Magnitude Proportion of the population affected or vulnerable

Selected Health Indicator *(source of data)*	Meck	NC	Health Indicator Trends
2012, adults with a primary care provider (BRFSS)	76%	75%	?
2012, did not see a doctor because of cost (BRFSS)	20%	19%	?
2012, uninsured children (ages 0-17) (ACS)	6%	8%	↗
2012, uninsured adults (ages 18-64) (ACS)	23%	24%	→

Health Indicator Trend KEY

How do we compare to NC?

Good	Fair	Poor	Not Assessed
≥ 20% Better	<20%	≥ 20% Worse	

How do we compare to the previous 5 years*?

Getting Better	Stable	Getting Worse	Unknown
↗	→	↘	?

**Where data is available*

Severity Impact on mortality, morbidity, disability and quality of life

- There are over 159,000 uninsured people in Mecklenburg County, more than the combined total populations of Cornelius, Davidson, Huntersville, Matthews, Mint Hill and Pineville.
- There are 14,200 uninsured children under age 18 in Mecklenburg County. Over 11% of all uninsured children in North Carolina live in Mecklenburg County, and as for the total uninsured population, there are more uninsured children in Mecklenburg County than in any other county of North Carolina.
- Young adults age18-34 have a higher likelihood of being uninsured than any other age group, with over 27% uninsured in 2012.
- Over 37% (54,300) of uninsured people age 16-64 work full-time jobs. Industries with the highest number and percentage of uninsured workers include: construction (53% of workers are uninsured), arts/entertainment/hospitality (37%) and retail (21%).

Mecklenburg Health Disparity Ratios

Uninsured in Mecklenburg[1]

Black	2.4 people	=	White 1 person
Hispanic	5 people	=	White 1 person
HS Diploma or GED	5 people	=	Bachelor's or higher 1 person

1. 2012 US Census, American Communities Survey

Intervention Effectiveness

Proven interventions that are practical and feasible

- While having health insurance improves access, individuals may still face many barriers such as high out of pocket costs, inconvenient office hours, limited transportation and long office waiting times.
- Under ideal circumstances, as more preventive services are covered, health problems can be addressed at earlier stages when both outcomes are better and costs are lower.

Public Concern

Degree of public concern and/or awareness

- The individual mandate portion of the Affordable Care Act becomes effective January 1, 2014. Individuals who choose to not purchase and enroll in an insurance plan will pay a penalty. This penalty increases over time. If premiums are deemed unaffordable for an individual, he or she will be exempt from the penalty.
- North Carolina will not expand the Medicaid program. Currently, Medicaid only covers low-income children, low-income pregnant women, the parents of dependent children (with monthly income no more than $594 for a family of four in 2013) and the low-income aged/blind/disabled. Many low-income, childless, non-disabled individuals will still not be able to afford coverage through the federally facilitated healthcare marketplace.
- As more people enroll in health insurance plans, there may be an increased demand for primary care physicians which may increase wait time for patients.
- The Affordable Care Act is a complicated law and still relatively new and as such, there is a great deal of misinformation and debate surrounding its merits.

Urgency

Need for action based on degree and rate of growth

- As of October 1, 2013, uninsured individuals can enroll in federally sponsored health care plans. Depending on income, many individuals will qualify for federal subsidies to offset the cost of premiums.
- The healthcare and health insurance landscapes have experienced and will continue to experience dramatic changes both locally and nationally.
- While North Carolina law makers have chosen not to expand Medicaid for the current fiscal year, expansion in the future may be a possibility. This would increase the number of low income individuals who would be covered by Medicaid.

2013 Mecklenburg County Summary Report
Injury Prevention

THE ISSUE

Unintentional Injury is the **leading cause of death for those ages 1yr - 44yrs**. Injuries are ***preventable***. Injury is comprised of two main categories: Motor Vehicle Injuries (MVCs) and All Other Unintentional Injuries. In 2011, Injury was the 5th leading cause of death accounting for 5% of all deaths. The death rate was 26.9 per 100,000 residents, a 19% increase from 2010 but lower than the state rate of 43.9 and the US rate of 38.4 (2009). Injury was the 3rd leading cause of death among Males compared to 6th among females.

Magnitude Proportion of the population affected or vulnerable

Selected Health Indicator (Unless otherwise reported all injury data is for NC SCHS Calendar Year 2011)	Meck	NC	Health Indicator Trend
Number of Unintentional Injury Deaths	254		
Unintentional Injury Death Rate per 100,000 population	26.9	43.9	→
Motor Vehicle Injury Death Rate per 100,000 population	*7.5*	*12.9*	↗
All Other Unintentional Injury Death Rate per 100,000 population	*19.4*	*31*	→
Childhood Injury Death Rate (0-17yrs) per 100,000 population	45.5	57.4	↗
Male Injury Rate per 100,000 population	35.1	56.1	→
Female Injury Rate per 100,000 population	19.3	32.3	→

Health Indicator Trend KEY

How do we compare to NC?

Good	Fair	Poor	Not Assessed
≥ 20% Better	<20%	≥ 20% Worse	

How do we compare to the previous 5 years*?

Getting Better	Stable	Getting Worse	Unknown
↗	→	↘	?

**Where data is available*

Severity Impact on mortality, morbidity, disability and quality of life

- Motor Vehicle Crashes (MVCs) accounted for 28% of all injury deaths followed by 72% for All Other Injuries comprised of Unintentional Poisonings (35%), Falls (25%), Suffocation/Airway Obstruction (10%), Drowning (5%) and All Other Injuries (25%).
- In 2011, 65% of injury deaths occurred among persons age 18 to 64, 29% among those 65+, and 6% among children ages 1 to 17 and infants less than 1 yr. of age.
- Unintentional Injury was the 3rd leading cause of death among males, the 6th among females. In 2011, the death rate for males (35.1 per 100,000 males) was almost double the rate of females (19.3 per 100,00 females).
- White Non-Hispanic Males have the highest Injury death rate compared to all other race and ethnicities at 34.3 per 100,000 white males. Their rate is 23% higher than the overall rate and 3 times higher than their White, Non-Hispanic Female counterpart.
- Deaths due to unsafe sleep practices or unsafe sleep environments occur at a disparate rate among Minority infants compared to White infants. In 2011, there were 4 Unintentional Suffocations among infants, 34 between 2005 and 2011.

Select Health Disparity Ratios

	Blacks	**Whites**
Injury Deaths[1]	1 death	= 2 deaths
Injury deaths by Race and Gender	**Females**	**Males**
White Males vs. White Females[1]	1 White female death	= 3 White male deaths
Black Males vs. Black Females[1]	1 Black female death	= 2 Black male deaths

1. 2007 – 2011, 5-year case rates, NC DHHS/SCHS Vital Statistics

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Intervention Effectiveness

Proven interventions that are practical and feasible

- Use of safety devices reduces severity of injury by a range of 70-90%; these include bike helmets, child safety seats, seat belts, proper sports gear.
- Environmental changes and culture campaigns reduce pedestrian and bike injuries. Following the Graduated Drivers license restrictions teen MV crashes declined. Checkpoints reduce DUI and speeding in communities.
- The Mecklenburg County Child Fatality Prevention and Protection Team (CFPPT) was established in 1991 to intensively review local child fatalities and identify systems gaps to help reduce the incidence and prevent child fatalities.

Public Concern

Degree of public concern and/or awareness

Injuries are not a well known problem and usually thought of as an "accident" but we know they are ***preventable*** or we can reduce the impact of the injury received. It has the greatest impact on society and families as ***the leading cause of disability and health care costs for young people age 1-44***. As people recreate, travel, and play in their homes and communities, Injury prevention goes a long way towards increasing the longevity and quality of life of an individual and community.

Urgency

Need for action based on degree and rate of growth

- As the Mecklenburg community grows, more vehicles will be on the road increasing the risk of motor vehicle related injuries.
- Creating a healthy community that encourages physical activity requires a safe, walkable, bikeable community.
- A growing senior population can mean more falls, disability and a corresponding need for care.
- More people participating in sports which may lead to increases in sports injuries.
- The increase in the prescribing of and abuse of opioids can result in increases in property crime, accidental ingestion by children, unintentional overdoses some of which are fatal.

2013 Mecklenburg County Summary Report
Mental Health

THE ISSUE

Mental health is fundamental to total health. The mind is a function of the brain and mental health conditions are real health problems. Mental disorders, including major depression, bipolar disease, schizophrenia and obsessive-compulsive disorder, are the leading cause of disability in the U.S. for those ages 15-44. The Centers for Disease Control reports that nearly one in two Americans will have a mental disorder during their lifetime.

Magnitude Proportion of the population affected or vulnerable

Selected Health Indicator *(source of data)*	Meck	NC	Health Indicator Trends
2012, Adults reporting mental health not good for at least 8 of the past 30 days (BRFSS)	16%	17%	?
2011, High school students reporting feeling sad or hopeless almost every day for 2 wks or more in a row (YRBS)	30%	28%	→
2011, High school students reporting attempted suicide (YRBS)	15%	16%	↘
2007 - 2011 Age Adjusted Suicide Mortality Rate, per 100,000 pop. (NC SCHS)	9.1	12.1	↘

Health Indicator Trend KEY

How do we compare to NC?

Good	Fair	Poor	Not Assessed
≥ 20% Better	<20%	≥ 20% Worse	

How do we compare to the previous 5 years*?

Getting Better	Stable	Getting Worse	Unknown
↗	→	↘	?

**Where data is available*

Severity Impact on mortality, morbidity, disability and quality of life

- The CDC estimates that one in five children ages 3-17 yrs has a mental health disorder. Childhood mental health disorders include attention-deficit/hyperactivity disorder (ADHD), autism spectrum disorders, behavior disorders, mood and anxiety disorders, substance use disorders and Tourette syndrome. Boys tend to have more disorders overall while girls are more likely to have depression.
- More than 90% of people who kill themselves have a diagnosable mental disorder, most commonly a depressive or a substance abuse disorder. Four times as many men as women die by suicide; however, women attempt suicide 2 to 3 times as often as men.
- In 2012, 16% of Mecklenburg adults reported their mental health was not good for at least 8 of the past 30 days. 30% of high school students reported feeling sad or hopeless almost every day for 2 wks in a row to the extent they stopped doing some usual activities.
- While better than the state, suicide rates in Mecklenburg trended upwards from 2007-2011. During this period, there were 407 suicide deaths in Mecklenburg County, 25 of them to children 10-19 years of age. In 2011, suicide was the 10th leading cause of death, resulting in 93 deaths.
- In 2011, 15% of high school students reported attempting suicide. In 2012, local emergency departments reported 747 suicide attempts, 295 or 39.5% were in young people, ages 10-24.

Mecklenburg Health Disparity Ratios

	Blacks		Whites
Suicide Deaths	1 death	=	2.7 deaths

	Men		Women
Suicide Deaths	3.4 deaths	=	1 death

2007 – 2011, Age Adjusted Rates, NC SCHS

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Severity

- Intellectual/developmental disabilities typically are characterized by problems with understanding and reasoning (formerly known as "mental retardation") and neurodevelopment disorders such as autism. The rate of autism is increasing in the US, though the reasons for this are not fully understood; at present the prevalence rate is estimated to be 1% of the population. One percent of the Mecklenburg population would be an estimated 9,700 people.

Intervention Effectiveness

Proven interventions that are practical and feasible

- Best practices: "The recovery model." Recognizes potential for significant improvement in experienced symptoms and ability to lead a fulfilling and productive life despite challenges posed by severe and persistent mental illness.
- A full range of evidence-based treatments may be delivered in a complimentary fashion to increase the potential for improvement. For example, schizophrenia may be best treated by targeted medications as well as psychotherapies. Cognitive-behavioral psychotherapy is effective with depression, anxiety and post-traumatic stress. Interventions for children may use these same methods of treatment, adapted for developmental age, as well as behavioral and play therapies; typically, family engagement is crucial.
- While the majority of services may be offered on an outpatient basis, need may dictate more intensive settings, including day treatment, psychosocial rehabilitation, assertive community treatment, residential facilities or psychiatric inpatient hospitalization.
- While there is a full spectrum of autism disorders in terms of severity and related challenges, individuals with autism often benefit from special education, behavioral and social therapies, medication, job coaching, and in some cases, residential supports. Some individuals may also have a co-existing psychiatric diagnosis, requiring comprehensive interventions by professionals and paraprofessionals with specialized skill sets. The community must be prepared to meet the increased resource challenges posed by this group.

Public Concern

Degree of public concern and/or awareness

- Mental health issues, if left untreated, can contribute to personal distress, dysfunctional family relationships across generations, impaired school or workplace performance, homelessness and for some, behaviors that pose a danger to self or others.
- Suicide is always a tragic event, and data show an alarming trend towards more frequent and lethal suicide attempts by youth. Concerns are also generated by the increasing numbers of young children requiring psychiatric inpatient hospitalization secondary to self-injurious or other dangerous behaviors.

Urgency

Need for action based on degree and rate of growth

Early and untreated psychological trauma can have profound impact on brain development, contributing to longstanding cognitive, social and emotional compromise that puts additional demands on the school and justice systems. It is estimated that at least 15% of incarcerated individuals in the United States have a severe and persistent mental illness, and that jails function as de facto psychiatric hospitals, despite the fact that treatment resources in such facilities are very limited and are more costly than recognized community-based best practice interventions.

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2013 Mecklenburg County Summary Report
Environmental Health

THE ISSUE

Environmental Health affects us all. Traditionally, pollutant free air, water, land, homes and workplaces come to mind when thinking about environmental health. More recently the discussion has broadened to include creating healthy places to support healthy choices. If we are asking individuals to increase their levels of physical activity, eat nutritiously and not use tobacco products, we must provide them with environments that support and encourage those choices.

Magnitude Proportion of the population affected or vulnerable

Selected Health Indicator *(data source)*	Meck	NC	Health Indicator Trends
2011 Average annual Air Quality Index (EPA)	45	N/A	↗
2012, No. of Days when Air Quality was Unhealthy (EPA)	9	N/A	↗
2011, No. of Children 6 yrs and younger with Blood Lead Levels of 10ug/dl or greater (NC DHHS)	2	N/A	↗
2011,Total Miles of Developed Greenway in Mecklenburg (Meck Co. LUESA)	37	N/A	↗
2012, % of population who are low-income and do not live close to a grocery store (Co. Hlth Rankings, RWJF)	7	7	?

Health Indicator Trend KEY

How do we compare to NC?

Good	Fair	Poor	Not Assessed
≥ 20% Better	<20%	≥ 20% Worse	

How do we compare to the previous 5 years*?

Getting Better	Stable	Getting Worse	Unknown
↗	→	↘	?

**Where data is available*

Severity Impact on mortality, morbidity, disability and quality of life

- The quality of outdoor air is measured using the Air Quality Index (AQI). The AQI is a scale from 0-300; the higher the AQI the greater the amount of air pollution in the air. From 2002 to 2012 the AQI has gone from 59 to 45, which equates to a 23.7% improvement in air quality.
- Despite these improvements, ground level ozone exceeded federal compliance levels during nine days in 2012. Ozone has been found to contribute to asthma, lung infections, cell inflammation and shortness of breath. Rising population in the region and the increase of vehicle miles traveled are key factors affecting the ozone level in the Charlotte Metro area.
- Childhood lead poisoning is a major, preventable environmental health problem. Currently there are at least 4 million households in the US with children living in them that are being exposed to lead. From 2002 to 2011 the number of children with blood lead levels of 10ug/dl or greater decreased from 29 to 2.
- Greenways are vegetated natural buffers that conserve floodplains for improving water quality, reduce the impact of flooding, provide wildlife habitat and support preservation of open space. As of 2011 there is 37 miles of developed greenways in Mecklenburg, up from 20 miles that were under construction in 2007.
- Recent findings have shown that populations that are low-income and minority have poor access to grocery stores and healthy foods. In 2012, 7% of Mecklenburg residents that are low-income do not live within a mile of a grocery store.

Intervention Effectiveness

Proven interventions that are practical and feasible

Air Quality: Most air pollution in the County comes from on-road vehicles and non-road equipment. Reducing mobile source emissions is integral to addressing ozone air pollution and complying with the federally standard. Since on-road and non-road engines are regulated at the federal level, local intervention focuses on education and voluntary actions to reduce air pollution, like carpooling, telecommuting, combining trips and using public transportation.

Lead Poisoning: The Childhood Lead Poisoning Prevention Program strives to promote childhood lead poisoning prevention, provide medical case management to children under 6 years of age who have elevated lead levels and apply State rules and regulations addressing childhood lead poisoning prevention.

Greenways: The county has an expanding system of greenway trails on which can be used for transportation through walking or cycling. Choosing walking or cycling over driving improves air quality, provides an opportunity for physical activity and improves water quality in our creeks. Mecklenburg County Park and Recreation is working to provide all residents with access to a park and recreation facility within walking distance from their homes. This lofty goal will improve physical fitness with safe access to facilities that encourage physical activity and community interaction.

Food Deserts: The Health Department supports community gardens and farmer's markets throughout the county. Select farmer's markets in the county accept EBT cards.

Public Concern

Degree of public concern and/or awareness

Air Quality: Awareness of air quality issues is waning while importance of environmental protection is high. In surveys conducted by UNC Charlotte, 43% less people were aware of air pollution issues in 2012 than in 2010, yet 99% of respondents believe protecting the environment is important to the quality of life in Mecklenburg County. The public is made aware of ambient air quality information through various media outlets, electronic warning systems, ozone season clean commute initiatives, and daily air quality forecasts. Additionally, the Mecklenburg County Board of County Commissioners approved a formal local clean air policy in 2001.

Greenways: A recent survey was conducted to get residents opinions about community assets. Highlights of the survey include (1) More greenways and walking trails, (2) More Indoor Physical Fitness Facilities/Programs, (3) More Nature Preserves/nature trails and (5) More parks within walking distance from home. Of note is the fact that the importance of physical fitness programs and facilities was up from the 2008 Citizen Survey results.

Food Deserts: A recent survey asked residents what would help them to eat or drink healthier. Almost half stated more farmers' markets and about a fifth stated a full grocery store that is near their home.

Urgency

Need for action based on degree and rate of growth

Air Quality: The region has until 2015 to comply with federal health-based ozone pollution standard. Mecklenburg County and surrounding counties violate the 2008 national standard for ozone pollution. Poor air quality can impact heart conditions and people living with asthma. High ozone days are linked with increased hospital visits and absences from work/school. Continued violation of the ozone standard could lead to federal intervention in transportation plans reduction of federal highway funding.

Greenways: Park and recreation facilities have not kept up with the demand due to the growth in the county. Park and Recreation continues to work closely with the Board of County Commissioners to understand the mission of the department by appropriating funds for much needed Capital Improvement Projects and land acquisition. Recent legislation at the state level has negatively impacted funding for Bicycle/Pedestrian Trail projects.

Food Deserts: It is estimated that there are over 72,000 residents in Mecklenburg who live in a food desert. Having more non full service grocery stores in these areas may contribute to higher rates of premature death due to heart disease.

2013 Mecklenburg County Summary Report
Maternal, Child and Infant Health

THE ISSUE

Improving the health of mothers, infants and children is important as their well-being determines the health of the next generation. Concerns include the disparity in infant mortality rates between Black infants and those of other races and ethnicities, a lack of positive progress in rates of low birth weight and premature birth, planned pregnancy, adolescent pregnancy, timely entry into prenatal care and preconception health of mothers.

Magnitude — Proportion of the population affected or vulnerable

Selected Health Indicator (Unless otherwise reported all MCH data is for NC SCHS Calendar Year 2011)	Meck	NC	Health Indicator Trend
Number of resident births	13,734	120,403	
Infant Mortality Rate (<1yr) per 1,000 live births	5.8	7.2	↗
White Infant Mortality Rate	*3.5*	*5.5*	→
Black Infant Mortality Rate	*10.6*	*12.9*	↗
Hispanic Infant Mortality Rate	*4.7*	*5.4*	→
% Low Birth Weight (<2500g or 5lbs 8 oz)	*9.4*	*9.1*	→
% Premature Births (< 37 weeks)	12.5	12.0	→
% of women entering prenatal care in 1st trimester	76%	72%	↘
% of women with no 1st trimester prenatal care	22%	26%	↘

Health Indicator Trend KEY

How do we compare to NC?

Good	Fair	Poor	Not Assessed
≥ 20% Better	<20%	≥ 20% Worse	

How do we compare to the previous 5 years*?

Getting Better	Stable	Getting Worse	Unknown
↗	→	↘	?

**Where data is available*

Severity — Impact on mortality, morbidity, disability and quality of life

- In 2011 there were 80 infant deaths. While the overall rate for infant mortality (IMR) has declined and compares favorably with NC and the US, the considerable gap between whites and minority rates remains of concern. In 2011, the IMR for African American infants was 3 times that for Whites and 2.3 times that for Hispanics.
- The trend for low birth weight (LBW) and premature infants has remained relatively flat over the past ten years. African American women have the highest rate of LBW and premature infants but their rate has declined as the rates for Non-Hispanic Whites and Hispanic women are beginning to rise. Conditions related to prematurity and immaturity are one of the largest contributors to infant deaths and may lead to health deficits and developmental delays.
- Short interconception intervals or less than 6 months from last delivery to conception suggest unplanned pregnancy and can have a negative influence on the mother's health and pregnancy. During 2007-2011, 12.2% or 5,736 babies fell into this category.
- Cesarean section is major surgery and increases the likelihood of many short- and longer-term adverse effects for mothers and babies. Nationally (32.8%) and locally (32.2%), almost one third of births occur with C-section. After rising steadily from a low of 4%-5% in the 1960s, rates appear to have been leveling off over the past five years.

Mecklenburg Health Disparity Ratios

	Blacks		Whites
Infant Mortality Rates	3 deaths	=	1 death
Low Birth Weight Rates	2 births	=	1 birth
Premature Birth Rates	2 births	=	1 birth
Prenatal Care Rates (% with no 1st trimester Prenatal care)	2 mothers	=	1 mother

2006 – 2010, 5-year case rates, 2011 single year rates, NC DHHS Vital Statistics.

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Severity

Prenatal Care: Pregnancy can provide an opportunity to identify existing health risks in women and to prevent future health problems for women and their children. These health risks may include: hypertension and heart disease, diabetes, depression, genetic conditions, STDs, tobacco and alcohol use, inadequate nutrition and unhealthy weight. Rates of early entry into prenatal care have been decreasing over the past 10 years.

Child Mortality Rate: The past 5 years have seen a steady decrease in the fatality rate for children ages 0-17. Infant mortality is responsible for the largest proportion of child deaths and the largest contributors are prematurity and congenital anomalies. In older children unintentional injury including motor vehicle related injuries, suicide, homicide and illness (including those resulting from congenital anomalies) are the leading causes of death.

Intervention Effectiveness

Proven interventions that are practical and feasible

- Preconception Health Model—works to reduce the risk of maternal and infant death and pregnancy-related complications by increasing access to quality preconception (before pregnancy) and interconception (between pregnancies) care; seeks to improve health behaviors that lead to a healthier female entering pregnancy.
- Access to comprehensive family planning and reproductive health services
- Pregnancy Care Management—offers entry into a pregnancy medical home and case management services for pregnancy through two months after delivery to all Medicaid eligible women.
- Intensive home visiting programs such as Nurse Family Partnership and Healthy Families America – work to improve prenatal care utilization and birth outcomes, increase parenting skills and decrease child neglect and maltreatment
- Parenting support through validated models such as Triple P
- NC Care Coordination for Children—a free and voluntary program that works to connect families with services for children and families

Public Concern

Degree of public concern and/or awareness

- Racial disparities in infant mortality
- Cost of care for premature and low birth weight infants contributes to overall rising costs of health care
- Children with poor birth outcomes have a greater likelihood of developing disabilities and chronic disease that require continued care and incur increased costs for the family as well as contributing to the overall cost of health care.
- Parenting support has been identified by the Alliance for Children and the Child Fatality Prevention and Protection Team, among others, as a leading recommendation for improving the welfare of children in our community.

Urgency

Need for action based on degree and rate of growth

- Despite efforts to improve prenatal care delivery and utilization, there has not been a concurrent decline in adverse birth outcomes locally or nationally. The absence of a decline suggests 1st trimester entry into prenatal care alone cannot impact infant mortality. Efforts to improve birth outcomes should begin with the preconception model for pregnancy health but also must address multiple determinants, integrating social, behavioral, environmental and biological factors that shape or affect pregnancy.
- Infant and child deaths reflect the worst possible outcomes; because mortality rates are decreasing does not mean the causes have all been identified and addressed. Families in our community continue to need information, education and support to help their children be born healthy and remain healthy.

2013 Mecklenburg County Summary Report
Chronic Disease Prevention

THE ISSUE

Nationally and locally, cancer, heart disease and stroke are the leading causes of mortality, accounting for almost half of all deaths; they are the leading causes of death for people ages 45 years and above. In 2005, 133 million Americans – almost 1 out of every 2 adults – had at least one chronic illness. Health risk behaviors such as lack of physical activity, poor nutrition and tobacco use, contribute to much of the illness, disability and early death related to chronic diseases.

Magnitude Proportion of the population affected or vulnerable

Selected Health Indicator *(2011 Number of deaths and 2007 - 2011 Age-Adjusted Rates, per 100,000 population; (NC SCHS)*	Meck	NC	Health Indicator Trends
Number of Cancer Deaths	1,203		
Cancer Mortality Rate	166.0	179.7	↗
Number of Heart Disease Deaths	968		
Heart Disease Mortality Rate	142.6	179.3	↗
Number of Stroke Deaths	277		
Stroke Mortality Rate	40.6	46.0	↗
Number of Lower Chronic Respiratory Disease Deaths	197		
Lower Chronic Respiratory Disease Death Rate	34.9	46.6	↗
Number of Diabetes Deaths	148		
Diabetes Mortality Rate	17.5	22.0	→

Health Indicator Trend KEY

How do we compare to NC?

Good	Fair	Poor	Not Assessed
≥ 20% Better	<20%	≥ 20% Worse	

How do we compare to the previous 5 years*?

Getting Better	Stable	Getting Worse	Unknown
↗	→	↘	?

**Where data is available*

Severity Impact on mortality, morbidity, disability and quality of life

- In Mecklenburg, mortality rates for cancer, heart disease and stroke are decreasing but still account for almost half of all deaths; in 2011, seven of the ten leading causes of death were due to chronic disease.
- Cancer has overtaken heart disease as the leading cause of death, largely through improved treatment and better outcomes for heart disease.
- The prevalence of diabetes is increasing. In 2011, diabetes was the 7th leading cause of death in the county with 10% of adults reporting a diagnosis. Poorly controlled diabetes is a leading cause of disability, such as adult blindness, end-stage renal disease and non-traumatic lower-limb amputations. Diabetes doubles the risk for stroke and heart disease and is a major contributor to other causes of death.
- Hispanic mortality rates from chronic diseases are lower than other racial/ethnic groups in Mecklenburg because this population tends to be younger. However, national data show that changes in health behaviors such as diet and exercise after coming to the US are resulting in rising chronic disease rates for Hispanics. The American Diabetes Association estimates that 50% of African Americans and Hispanics born since 2000 will develop diabetes.
- Lower chronic respiratory disease, which includes emphysema and chronic bronchitis, was the 5th leading cause of death in 2011. Whites and males tend to die at higher rates than African Americans and females, perhaps reflecting higher rates of smoking among these groups.

Mecklenburg Health Disparity Ratios

	Blacks		Whites
Diabetes Death Rates	3 deaths	=	1 death
Heart Disease (Death Rates)	1.3 deaths	=	1 death
Chronic Lower Respiratory Disease Death Rates	1 death	=	1.3 deaths

Source:
2007 – 2011, Age Adjusted Rates, NC SCHS

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Severity

- In 2011, Alzheimer's disease (AD) tied with stroke as the 3rd leading cause of death. AD is the leading cause of dementia in those 65 and older and it is estimated that as many as half of those 85 and older will have AD. AD death rates in Mecklenburg have held steady over the past five years. The high rate of AD death, especially among women (who as a group live longer than men) most likely reflects the idea that as the rates of cancer, heart disease and other chronic diseases decrease, people live longer and ultimately die of other age associated conditions.

Intervention Effectiveness

Proven interventions that are practical and feasible

- Prevention for Alzheimer's disease is not yet well understood. As the population ages and people live longer, Alzheimer's numbers are expected to increase. A primary concern is adequate facilities and services to support the required intensive care for this illness.
- Risk factors for other chronic diseases (heart disease, stroke, diabetes, chronic lower respiratory disease, some forms of cancer etc.) include high blood pressure, high cholesterol, unhealthy weight, use of tobacco products, poor nutrition and lack of physical activity. Healthy eating, physical activity and not using tobacco products can contribute to decreases in disease rates, premature deaths and disabilities.
- Choosing healthy behaviors is the responsibility of the individual but communities, worksites, child care facilities, schools, places of worship and other organizations can encourage healthy choices by providing environments that support those choices. Examples include:
  - Nutrition: Polices that support breastfeeding outside the home; healthy food and drink choices; access to affordable fresh fruits and vegetables; community gardens and farmers markets that accept SNAP benefits; WIC; farm to school programs; food security.
  - Physical Activity: Communities where people feel safe walking and playing outside; built environment policies to encourage communities with sidewalks, bike lanes, walkable destinations and easily accessible green space; worksite wellness programs; physical education in schools
  - Tobacco Control: "No tobacco" use polices; smoking cessation assistance; preventing youth from beginning to use tobacco products.

Public Concern

Degree of public concern and/or awareness

Strong marketing for as well as the convenience of processed food work against the drive for healthier eating. Fast food restaurants are easily accessible and may be one of the few restaurant choices in some neighborhoods; convenience and price make them an easy choice. The absence of full service groceries makes healthy food expensive and difficult to access in some neighborhoods.

Entertainment and education via technology discourage children and adults from spending time actively. Working physical activity into the everyday schedule requires planning and effort.

Urgency

Need for action based on degree and rate of growth

Today's generation may be the first in U.S. history to not live longer than or as healthy as their parents. The rise in overweight and obesity rates in this country over the past 30 years, especially among children, have increased the need for improved nutritional and physical activity programs to offset this and related risk factors for chronic conditions. The implementation of programs across the country to address childhood obesity are beginning to show positive results suggesting that the problem can be successfully countered if appropriate efforts are made.

2013 Mecklenburg County Summary Report
Violence Prevention

THE ISSUE

Violence affects all ages, race and ethnicities causing death, injury, and disability; increasing the risk of physical, reproductive, and emotional health problems; and devastating our communities. Deaths resulting from firearms, weapons, and child abuse represent the physical aspect of homicide. However, exposure to violent behaviors such as bullying and domestic violence (DV) can cause emotional harm leading to injury or death.

Magnitude Proportion of the population affected or vulnerable

Selected Health Indicator (source of data)	Meck	NC	Health Indicator Trend
Homicide			
2011, Number of Homicides (NC DHHS/SCHS)	60		
2011 Homicide Rate (per 100,000 population) (NC DHHS/SCHS)	*6.4*	*5.4*	↗
Domestic Violence (DV)			
2011, Highschool Students Reporting Dating Violence (YRBS)	*13.6%*	*14.1%*	↘
2011, Number of DV Calls for Service (CMPD)	36,346		
Child Abuse			
2012 Child Abuse Cases (% of substaniated cases due to child abuse) (DSS)	13.8%		→
Bullying: When 1 or more persons tease, threaten, spread rumors about, shove, or hurt another person over and over again			
2011, High School Students Ever been bullied on school property (YRBS)	19%	21%	↘
2011, High School Students Ever electronically bullied or Cyberbullied (YRBS)	16%	16%	↘

Health Indicator Trend KEY

How do we compare to NC?

Good	Fair	Poor	Not Assessed
≥ 20% Better	<20%	≥ 20% Worse	

How do we compare to the previous 5 years*?

Getting Better	Stable	Getting Worse	Unknown
↗	→	↘	?

*Where data is available

Severity Impact on mortality, morbidity, disability and quality of life

- In 2011, Homicide was the 12th leading cause of death and second leading cause of death for children ages 1 to 14 and adolescents and young adults ages 15 to 24.
- Of the 60 homicides, 82% were male and 18% were female. The homicide rate for males was 5 times the rate for females.
- In 2011, 22% occurred among White Non-Hispanics, 62% among African American Non-Hispanics, and 16% among Hispanics. Of all homicides, 72% occurred in zip codes: 28217, 28216, 28215, 28214, 28213, 28208, and 28205.
- The rate of firearm homicides for Black persons (9.2 per 100,000) was 5 times higher than the rate for Whites (1.7 per 100,000).
- In 2011, 12% of homicides were the result of Domestic Violence. From 2005 to 2011, the percentage of students participating in the local YRBS survey reporting teen dating violence has increased 37%.
- In 2011, there were a total of 5 homicides that occurred among children less 17 years of age. All 5 children were under the age of 5 and one was an infant. Homicides among children are most commonly committed by a caregiver.

Select Health Disparity Ratios

	Blacks		Whites
Homicide Death Rate[1]	5 deaths	=	1 death
Firearm Homicide Rate[1]	5 deaths	=	1 death
	MALES		**FEMALES**
Homicide Rate by Gender[1]	5 Males	=	1 female

1. 2007 – 2011, 5-year case rates, NC DHHS/SCHS Vital Statistics

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Intervention Effectiveness

Proven interventions that are practical and feasible

- The Mecklenburg County Domestic Violence Fatality Review Team (MDVRT) was established in 2009 to intensively review local DV related fatalities and identify systems gaps to help reduce the incidence of DV and prevent DV fatalities.
- The Mecklenburg County Child Fatality Prevention and Protection Team (CFPPT) was established in 1991 to intensively review local child fatalities and identify systems gaps to help reduce the incidence and prevent child fatalities.
- Specific staffing units within the District Attorney's Office and CMPD to address DV cases and work more intensively on the most severe cases and offenders.
- There are several effective strategies that have been employed by other cities, but there is not a "one-size-fits all" program that works everywhere. Every municipality needs to study its own specific situation and then develop a multi-pronged approach that involves all of the stakeholders.
- Child Abuse: parenting education including expanded support; improved reporting from recognition that every community member has a responsibility to report; intensive home visitation.

Public Concern

Degree of public concern and/or awareness

Bullying: Parents are concerned about bullying and youth violence in the schools and community. With the use of various technologies, cyber bullying is on the rise.

Questions to address:

1. What are we going to do to address this issue?
2. How can we hold youth and adults accountable for their behavior?

Gun Laws: Ready availability of guns combined with anger and poor conflict resolution skills makes shooting at people an easy response to disagreement. However, gun control is a highly controversial issue. With the recent changes in the Gun Laws in North Carolina, citizens with a concealed carry permit holders can carry their guns into bars and restaurants, playgrounds and other public recreational areas. Also, permit holders will be able to store their firearms in a locked vehicle on public schools and university campuses.

Question to address:

1. How do you protect yourself in a public place?

Domestic and Youth Violence: Domestic Violence and youth violence has been reported a lot in the news this community.

Urgency

Need for action based on degree and rate of growth

Current economic and political conditions have resulted in cutting programs to disadvantaged youth and disadvantaged neighborhoods which may result in kids falling through the safety nets and a corresponding increase in drug and alcohol use, gang involvement, teenage pregnancy and violence.

Rapidly developing technology allows unprecedented exposure to violence through games and the internet. It has also provided new avenues for harassment such as cyberbullying and stalking as well as providing a public forum with few filters for inciting anger and discontent.

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2013 Mecklenburg County Community Health Assessment




Priority Setting Exercise

October 25, 2013

Ten Essential Services of Public Health

ESSENTIAL SERVICE 1:
Monitor health status to identify community health problems.

- Surveillance
- Tracking
- Monthly & Annual Reports
- Every Four Years

→→ **Community Health Assessment**

Community Health Assessment

- Why do we do it?
  - Because we should; requirement for state funding and accreditation
- What is it used for?
  - Monitoring indicators, identifying populations at risk, planning, designing and funding interventions
- How is it done?
  - Review data→ Prioritize findings→ Communicate findings→ Plan action→ Implement Plan

Community Health Assessment

- Who does it?
  - MCHD Epidemiology Staff
  - Advisory Committee
  - Community Input
    - Community Opinion Survey
    - Talking Circles
    - Priority Setting Activity

Community Health Assessment

Advisory Committee

Gary Black – Mecklenburg County, Public Information
Marni Eisner – Council for Children's Rights
Jane-Goble-Clark – Center for Prevention Services
Natasha Gonzalez- MeckLINK
Lee Henderson – Smart Start of Mecklenburg
Brisa Hernandez – Elizabeth Family Medicine
Don Jonas – Care Ring
Stephen Keener – Mecklenburg Co Health Department
Rett Liles – Teen Health Connection
Mark Martin – Novant Health

Community Health Assessment

Advisory Committee

Linda Miller – Centralina Area Agency on Aging
Heidi Pruess – Mecklenburg County LUESA
Maria Reese – Carolinas HealthCare System
Sheila Robinson – Faith Community Health Ministry, CHS
Pat Swaby – Carolinas Diabetes Center, CHS
Michael Thompson – UNC Charlotte
Kristin Wade – Carolinas HealthCare System
Janice Williams – Carolinas Center for Injury Prevention, CHS
Dick Winters – Mecklenburg County Health Department

Prioritizing Exercise

Prioritize →→Recommend →→Plan

- Today—rank health focus areas to prioritize
- Today—recommend interventions or actions for top four prioritized areas
- Beginning in January—action planning around recommendations; we will contact you to see if you are interested in participating!

2013 Health Focus Areas

Access to Care
Chronic Disease & Disability Prevention
~~Health Disparities~~
Healthy Environment
~~Infectious Disease Prevention~~
Injury Prevention
Maternal, Child & Infant Health
Mental Health
~~Preparedness~~
Responsible Sexual Behavior
Substance Abuse Prevention
Violence Prevention

Scoring the Health Focus Areas

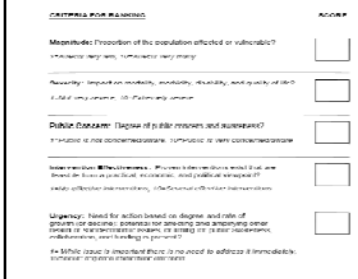
- Each table is supplied with recent data for each health issue
- A short presentation will be made for each issue
- You will have the opportunity to discuss each issue as a group
- Scoring is done individually, there need not be a group consensus at each table

Criteria for Scoring

Each of the 9 issues with be scored with regard to the following criteria:

- **Magnitude**
- **Severity**
- **Public Concern**
- **Intervention Effectiveness**
- **Urgency**

Criteria for Scoring



Summary Sheets

Summary Sheet Legend

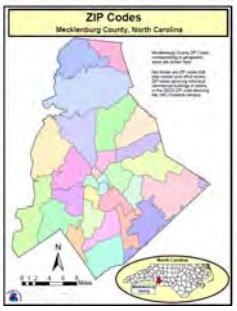
COLOR SHADING:
How do we compare with North Carolina?

Good	Fair/Similar	Poor	Not Assessed
≥ 20% Better	< 20% Difference	≥ 20% Worse	

THE ARROWS:
How do our rates/numbers compare to the previous 5 years?

- Getting BETTER: Our rates have improved over time
- Getting WORSE: Our rates have worsen over time
- STABLE: Little to No change in rates over time
- Unknown: Historical data may be unavailable; unable to assess a trend.

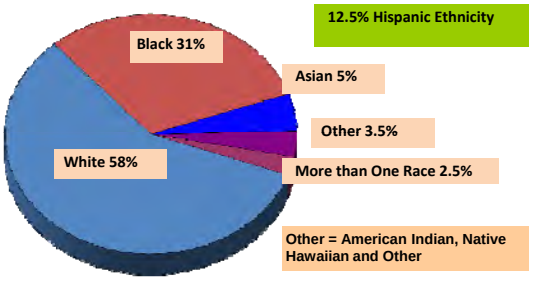
Community Overview



Mecklenburg County
Selected Demographics and
Social and Economic Indicators*

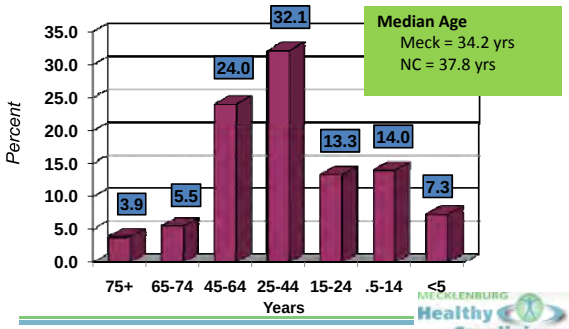
*Unless noted otherwise, data are from the US Census/ACS 2012

2012 Mecklenburg Population ~ 970,000



Racial/Ethnic Make Up

Demographics – Age 2012



Social and Economic Indicators

Culturally Diverse

- Children enrolled in CMS represent 160 different countries
- Of people 5 yrs & older, almost 18% speak a language other than English at home; 8.4% speak English less than very well.

Educational Attainment

Of population 25 yrs and older

- 10.5% Less than a High School Degree
- 20.1% HS Diploma or Equivalent
- 28.0% Some college or Associates Degree
- 41.3% Bachelors Degree or Higher

Social and Economic Indicators

Income

Median household income = $55,295 NC=$45,150
People in Poverty = 15.9% (~154,000 people) NC = 18.0%
Families in Poverty = 12.9% More than triples with single female householder with related children <18 yrs at 39.5%

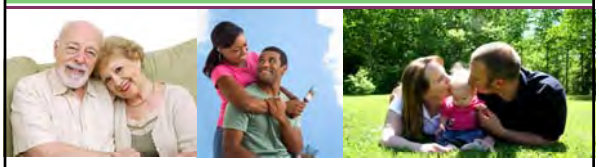
Disabled 8.2% (~79,000 people)

Without Health Insurance 16.5% (~160,000 people)

Point in Time Homeless Count 2013: 1122 people, 356 families

Unemployment Rate 9.8%

2013 Mecklenburg Community Health Assessment: Priority Health Focus Areas



Responsible Sexual Behavior

Presenter: Donna E. Smith, MSPH
Epidemiology Specialist, Epidemiology Program
Mecklenburg County Health Department

October 25, 2013

Prepared by: MCDH Epidemiology Program 08/2013

MAGNITUDE: *Proportion of the Population Impacted,* Adolescent Health

	% of Teens Reporting Sexual Behavior (2011)		
	Meck.	*N.C.*	TREND
Teens Ever having Sex	50%	49%	→
Teens having sex before age 13	9%	9%	→

	Number of Pregnancies (2011)	2011 Pregnancy Rate *(per 1,000 population)*		TREND
	Meck.	*Meck.*	*N.C.*	
Adolescent Pregnancies Girls 15 – 19 yrs	1,210	40.5	43.8	↗

Prepared by: MCDH Epidemiology Program 08/201 Source: YRBS and NC SCHS, 2011 Vital Statistics Data

MAGNITUDE: *Proportion of the Population Impacted,* Sexually Transmitted Diseases

	Reported Cases (2011)	2011 Annual Case Rate *(per 100,000 population)*		TREND
	Meck.	*Meck.*	*N.C.*	
Chlamydia	7,522 cases	810.8	564.8	↘
Gonorrhea	2,264 cases	246.7	179.9	↘
HIV Disease	340 cases	36.9	16.4	↗

- *Chlamydia and Gonorrhea are the two most commonly reported STDS*

Prepared by: MCDH Epidemiology Program 08/2013 Source: 2011 data NC HIV/STD Prevention and Care Unit and NC EDSS

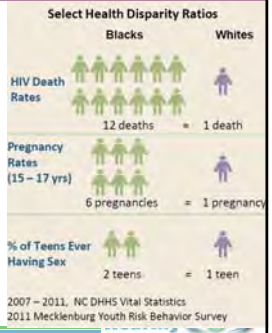
SEVERITY: *Impact on mortality, morbidity, disability and quality of life*

Quick Facts

❖ 35% of Mecklenburg teens reported having sex in the past three months.
- o *61% reported using condoms*;
- o *26% reported drinking alcohol or using drugs* before sex.

❖ Adolescent Pregnancy rates are at an all time low, however there are *more than 1,500 pregnancies a year in teens*.

❖STDS continue to be a public health threat and. *racial minorities face severe disparities in all reportable STDs*



Carolinians

Interventions for Responsible Sexual Behavior

Education, Awareness and Prevention:

- Expanding education/prevention efforts in schools/communities (comprehensive sex education, culturally diverse efforts)
- Education of teen parents to prevent repeat births ex: Teen Health Connection, GEMS, Nurse Family Partnership CareRing, MIP, etc.
- Routine HIV screening for all patients;
- Targeted screening/testing efforts within high risk populations (non-traditional settings; expanded hours of operation; collaborative works)

Prepared by: MCDH Epidemiology Program 08/2013

Interventions for Responsible Sexual Behavior

- **Treatment/ Care**:
  - Early Prenatal Care entry for teen mothers
  - Early STD/HIV diagnosis and entry into care;
  - Improved access to STD prevention and treatment services

Prepared by: MCDH Epidemiology Program 08/2013

Public Concern / Urgency

Adolescent pregnancies and STD/HIV morbidity remain public health concerns.

However public concern for these issues wanes over time.

Should we be concerned?

- Health risk to young mothers and children
- Emergence of drug-resistant disease strains; complications of treatment
- Growing number of STD cases
- Increasing healthcare cost and expenditures

2013 Mecklenburg Community Health Assessment: Priority Health Focus Areas

Substance Abuse

Presenter: Yvonne Ward
Program Administrator, Provided Services Organization
Mecklenburg County

October 25, 2013

Prepared by: MCDH Epidemiology Program 08/2013

MAGNITUDE: *Proportion of the Population Impacted*

	Percentages (2011) MECKLENBURG	NORTH CAROLINA	TREND
Teens binge drinking in past 30 days *(%)*	16%	18%	→
Teens using marijuana *(%)*	28%	24%	↘
Teens abusing prescription drugs	18%	20%	↘
Adults reporting binge drinking	19%	15%	■

Prepared by: MCDH Epidemiology Program 08/2013

Source: 2011 BRFSS (adults) and YRBS (teens)

SEVERITY: *Impact on mortality, morbidity, disability and quality of life*

Quick Facts

- Of high school students reporting marijuana use, 43% reported grades of mainly Ds and Fs.
- In 2011, 8% of high school students reported driving a car when they had been drinking, up from 6% in 2009.
- 18% of high school students reported taking a prescription drug without a prescription.
  - Black youth had the lowest reported usage at 14%,
  - followed by Hispanic youth with 21% and,
  - White youth had the highest rate: 23%

Prepared by: MCDH Epidemiology Program 08/2013

Interventions for Substance Abuse

- **The best interventions to address Substance Abuse are:**
  - Prevention: Early education on substance abuse & alternative activities
  - Treatment: Problem identification, screening and referral to appropriate services
- **Policy and Environmental changes are also critical, for example:**
  - Guidelines for alcohol advertising and sales
  - More oversight and reporting of prescription drugs
  - Improving insurance coverage for treatment
  - Campaigns aimed and reducing stigma around addiction and treatment

Prepared by: MCDH Epidemiology Program 08/2013

Public Concern/Urgency

- Nationally, in 2012, **8.9%** of persons aged 12 or older (or 23.1 million people) **needed treatment** for an illicit drug or alcohol use problem.
  - In Mecklenburg, that would translate to 71,021 people aged 12 or older who need treatment
- Of those people, **10.8%** (2.5 million people) **received treatment** at a specialty facility.
  - In Mecklenburg, that would translate to 7,670 people who receive treatment

Public Concern/Urgency

- Of the 2.5 million persons aged 12 or older who **received specialty substance use treatment** in 2012:
  - 34% received treatment for **alcohol use** only,
  - 36% received treatment for **illicit drug use** only, and
  - 25% received treatment for **both** alcohol and illicit drug use.
- Nationally, almost **90%** of people who needed treatment, did NOT get it.

2013 Mecklenburg Community Health Assessment: Priority Health Focus Areas



Access to Care

Presenter: Donald K. Jonas
Executive Director, Care Ring
October 25, 2013

Prepared by: MCDH Epidemiology Program 08/2013

MAGNITUDE: *Proportion of the Population Impacted*

	Percentages (2011) MECKLENBURG	NORTH CAROLINA	TREND
Adults with Primary Care Doctor *(%)*	76%	75%	?
Did not see a doctor due to cost *(%)*	20%	19%	?
Uninsured children (0 -17 yrs)	6%	8%	↗
Uninsured adults (18 – 64 yrs)	23%	24%	→

Prepared by: MCDH Epidemiology Program 08/2013 Source: US Census Bureau, 2011 ACS Data

SEVERITY: *Impact on mortality, morbidity, disability and quality of life*

Quick Facts

❖ Over 159,000 people are uninsured in Mecklenburg County, more than the combined populations of Cornelius, Davidson, Huntersville, Matthews, Mint Hill and Pineville.

❖ 11% of all uninsured children in North Carolina live in Mecklenburg County.

❖ Young adults age18-34 have a higher likelihood of being uninsured than any other age group

❖ 37% (54,300) of uninsured people age 16-64 work full-time jobs.

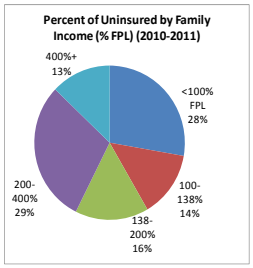
Mecklenburg Health Disparity Ratios

Uninsured in Meck.
Black 2.4 people = White 1 person
Hispanic 5 people = White 1 person
HS Diploma /GED 5 people = Bachelor's or Higher 1 person

Prepared by: MCDH Epidemiology Program 08/2013 Source: 2012 US Census, ACS data

Background: Uninsured in NC

- The U.S. Census estimates that there were ~1.5 North Carolinians under age 65 who were uninsured in 2011 (almost 1 out of every 5 non-elderly people in the state).
- Most people who are uninsured cannot afford to purchase coverage
- Being uninsured can have a profound negative impact on health and financial wellbeing.



Adults & Children

ADULTS:

- More than 1 in 3 (54,000+) of uninsured work in full-time jobs
- Industries with the highest % uninsured:
  - Construction (more than half uninsured)
  - Arts/entertainment/ hospitality (37%)

CHILDREN:

- There are 14,200 uninsured children (<18)
- Equates to more than 1/10 of NC uninsured kids
- More uninsured children than any other county

What about young adults?

- Those aged 18-34 – the Invincibles!
- Highest likelihood of being uninsured
- More than 1 in 4 of the Invincibles not insured

Interventions: Affordable Care Act

- New Marketplace is online
- Navigators + counselors helping those interested
- For coverage beginning Jan 1: Sign up by Dec 15
- Enrollment open through March 31, 2014
- Cannot be denied for pre-existing condition
- Sliding scale subsidy available
- No free lunch: taxes increased to pay for it

Interventions: Medicaid in North Carolina

- Medicaid expansion central part of the ACA
- NC Not Expanding Medicaid
- Access to care for the very poor: local clinics or the ER
- NC General Assembly can revisit Medicaid expansion

Challenges going forward

- Do we have enough providers?
- ACA next steps:
  - Will individuals sign up for coverage?
  - Will employers maintain employer-provided coverage?
  - Will ACA remain in the political crosshairs?
- Having insurance improves access, but:
  - Will newly-insured maintain coverage?
    - Monthly premiums
    - Co-pays
    - Deductibles
- Where will the very poor go for care?

Public Concern / Urgency

Why does access to care matter?

- Access is not ONLY about insurance coverage. Even those with insurance may find care unaffordable or inaccessible due to long wait times or inconvenient hours
- Delaying or foregoing medical care can lead to more complicated medical issues and more costly care

10 Minute Break!

2013 Mecklenburg Community Health Assessment: Priority Health Focus Areas



Injury Prevention

Presenter: Janice Williams MSEd
Director, Carolinas Center for Injury Prevention
Carolinas Medical Center

October 25, 2013

Prepared by: MCDH Epidemiology Program 08/2013

Injuries

Injuries

- Motor Vehicle
  - Bike
  - Pedestrian
  - Sports
  - Poisoning
  - Cut Pierce, Struck by Against, Bites/Stings
  - Suffocation
  - Firearm
  - Falls
  - Fire
  - Burn
  - Drowning
  - Natural and Disasters
  - Bulling/Youth Violence/Child Abuse/Suicide/Homicide/Interpersonal Violence*

Compounding subjects related to injuries

- Mental Health
- Substance Abuse
- Environmental Planning and Engineering Design
- Judicial and Law systems
- Medical Care/ Rehabilitation
- Maternal Child Health

MAGNITUDE: *Proportion of the Population Impacted*

	2011 Annual Death Rates (per 100,000) MECKLENBURG	NORTH CAROLINA	TREND
Unintentional Injury Death Rate *(per 100,000)*	26.9	43.9	→
Motor Vehicle Injury Death Rate *(per 100,000)*	7.5	12.9	↗
Childhood Injury Death Rate (0 -17yrs) *(per 100,000)*	45.5	57.4	↗

Prepared by: MCDH Epidemiology Program 08/2013 Source: 2011 NC DHHS Vital Statistics Data

SEVERITY: *Impact on mortality, morbidity, disability and quality of life*

Quick Facts

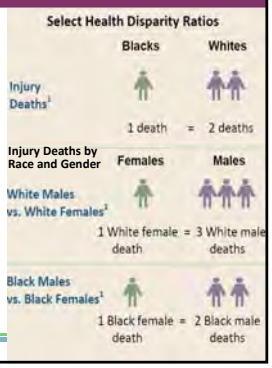
❖ In 2011, 65% of injury deaths occurred among persons age 18 to 64.

❖In 2011, Unintentional Injury was the 3rd leading cause of death among males, the 6th among females.

❖White Non-Hispanic Males have the highest Injury death rate compared to all other race and ethnicities

❖Deaths due to unsafe sleep practices or an unsafe sleep environment occur at a disproportionate rate among Minority infants compared to White infants.

Prepared by: MCDH Epidemiology Program 08/2013



Injury Pyramid- Cost / Disability

- Spending to treat trauma disorders, has raised trauma medical expenditures up to a level comparable with that of heart disease. *(AHRQ)*
  - -$29 billion was spent on hospital inpatient stays
  - -$26 billion on outpatient/office-based medical visits
  - -$9 billion on emergency room visits
- 125,000 Mecklenburg county ED visits in 2011 and 2012, up from 79,000 in 2002/2003
- Injury is the leading cause and cost of disability to families and communities it tends to occur at younger ages (1-44).

Interventions for Injury

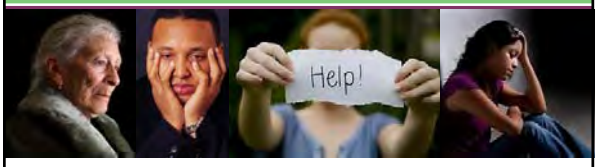
- Use of **safety devices** (seat belts, bike helmets) reduces severity of injury by 70-90%. A $35 booster seat can save $2,500 in injury costs, a $12 bicycle helmet for ages 3-14 can save $580.
- Home visitation programs when combined with modifications (installing hand rails) and supplies (outlet covers) are effective for injury prevention.
- Motor Vehicle Checkpoints yield an estimated cost savings of $82,000 for a cost of only $12,000 per checkpoint.
- The Mecklenburg County Child Fatality Prevention and Protection Team (CFPPT) reviews local child fatalities and to identify systems gaps which may help reduce injury deaths

Prepared by: MCDH Epidemiology Program 08/2013

Public Concern / Urgency

- Injuries are not a well known problem and usually thought of as ***"accidents"***, but ***they are preventable.***
- Injuries are the ***leading cause of disability and health care costs for young people age 1 – 44 yrs***.

2013 Mecklenburg Community Health Assessment: Priority Health Focus Areas



Mental Health

Presenter: Elizabeth Peterson-Vita, PhD
Clinical Director, MeckLINK Behavioral Healthcare

October 25, 2013

Prepared by: MCDH Epidemiology Program 08/2013

MAGNITUDE: *Proportion of the Population Impacted*

	MECKLENBURG	NORTH CAROLINA	TREND
2012, Adults reporting mental health not good for 8 of the past 30 days *(%)*	16%	17%	?
2011, teens reporting feeling sad/hopeless every day for 2 wks or more in a row *(%)*	30%	28%	→
2011, High school students reporting attempted suicide *(%)*	15%	16%	↘
2007 - 2011 Age Adjusted Suicide Mortality Rate, *per 100,000 pop.*	9.1	12.1	↘

Prepared by: MCDH Epidemiology Program 08/2013

Source: 2011 BRFSS (adults) and YRBS (teens); 2007 – 2011 NC SCHS Vital Statistics Data

SEVERITY: *Impact on mortality, morbidity, disability and quality of life*

Quick Facts

❖The CDC estimates that one in five children ages 3-17 yrs has a mental health disorder. Boys tend to have more disorders overall while girls are more likely to have depression.

❖ More than 90% of people who kill themselves have a diagnosable mental disorder.

❖In 2011, suicide was the 10th leading cause of death in Mecklenburg.

❖From 2007-2011, there were 407 suicide deaths in Mecklenburg County, 25 of them to children 10-19 years of age.

Prepared by: MCDH Epidemiology Program 08/2013

SEVERITY: *Impact on mortality, morbidity, disability and quality of life*

- **Intellectual/developmental disabilities** are characterized by limitations in understanding and reasoning (formerly "mental retardation") and neurodevelopmental disorders such as autism. They are typically seen at or near birth and continue through the lifespan.
- The rate of autism is increasing in the US; reasons not clearly understood.
- The prevalence rate of autism in the US is estimated at 1%; that rate applied to Mecklenburg Co would be an estimated 9,700 people.

Prepared by: MCDH Epidemiology Program 10/2013

Interventions for Mental Health

- **Best practices** → "Recovery Model"
- **Full range of treatments across settings** to maximize gains.
  - Schizophrenia: targeted medications and psychotherapy
  - Depression, anxiety and PTSD: cognitive behavioral therapy
- **Interventions for children** may use the same therapies, adapted for developmental age; may also include behavioral and play therapies; typically family involvement is crucial.
- Majority of services may be offered on an **out-patient basis**; in some cases, **more intensive settings** may be needed.

Prepared by: MCDH Epidemiology Program 10/2013

Interventions for Mental Health

- While there is a **full spectrum of autism disorders** in terms of severity and related challenges, individuals with autism often benefit from special education, behavioral and social therapies, medication, job coaching and in some cases residential supports.
- Some individuals with **autism** may also have a **co-existing psychiatric diagnosis** which requires comprehensive interventions by professionals and paraprofessionals with specialized skill sets. The community must be prepared to meet the increased resource challenges posed by this group.

Prepared by: MCDH Epidemiology Program 10/2013

Public Concern / Urgency

- Early and untreated **psychological trauma** can have profound impact on brain development, contributing to cognitive, social and emotional problems that put additional demands on the school and justice systems.
- It is estimated that at least **15% of the incarcerated individuals** in the US have a **severe and persistent mental illness**; jails function as de facto psychiatric hospitals even though treatment resources are limited and more costly than recognized community-based best practice interventions.

Prepared by: MCDH Epidemiology Program 10/2013

Public Concern / Urgency

- Trend towards more frequent and lethal **suicide attempts by youth** and increasing numbers of young children requiring psychiatric inpatient hospitalization secondary to self-injurious or other dangerous behaviors.
- **Mental health issues**, if left **untreated**, can contribute to personal distress, dysfunctional family relationships across generations, impaired school or workplace performance, homelessness and for some, behaviors that pose a danger to self or others.

Prepared by: MCDH Epidemiology Program 10/2013

2013 Mecklenburg Community Health Assessment: Priority Health Focus Areas

Environmental Health

Presenter: Heidi Pruess
Community Plan and Sustainability Officer
Mecklenburg County

October 25, 2013

MAGNITUDE: *Proportion of the Population Impacted*

TREND

Days with Unhealthy Air Quality in Meck. (2011):
45 days

Total Miles of Developed Greenway in Meck. (2011):
37 miles

Prepared by: MCDH Epidemiology Program 08/2013

MAGNITUDE: *Proportion of the Population Impacted*

TREND

Mecklenburg Children (6yrs and younger) with Blood Levels of 10 ug/dl or greater (2011):
2 children

Low-Income population in Mecklenburg with no access to full grocery store, (2012):
7%

?

Prepared by: MCDH Epidemiology Program 08/2013

SEVERITY:
Impact on mortality, morbidity, disability and quality of life

Quick Facts

❖ From 2002 to 2012 the AQI has gone from 59 to 45, a ***23.7% improvement in air quality.***

❖ Ground level ozone exceeded federal compliance levels during ***nine days in 2012***. Ozone has been found to contribute to asthma, lung infections, cell inflammation and shortness of breath.

❖Childhood lead poisoning is a major, preventable environmental health problem. From 2002 to 2011 the number of children with blood lead levels of 10ug/dl or greater ***decreased from 29 to 2***.

❖As of 2011 there is ***37 miles of developed greenways in Mecklenburg, up from 20 miles*** that were under construction in 2007.

Prepared by: MCDH Epidemiology Program 08/2013

Proven Interventions for Environmental Health

Air Quality:
- Public transportation, carpooling, telecommuting and combining trips
- Choosing walking or cycling over driving to improve air quality
- Cleaner construction vehicles

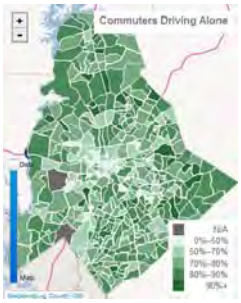
Lead Poisoning:
- Implementation of State rules and regulations regarding lead paint
- Medical case management of children with elevated lead levels (The Childhood Lead Poisoning Prevention Program)

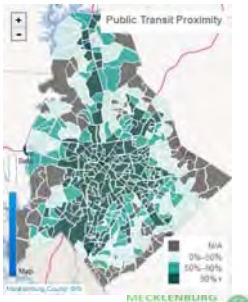
Greenways:
- Expansion of greenway trails
- Increase residential access to a park/recreation facilities within walking distance from their homes

Food Deserts:
- Support for community gardens and farmer's markets throughout the county
- Increase the number of farmer's markets in the county accepting EBT cards
- Increase presence of full service grocery stores in food deserts

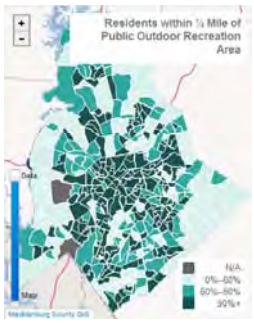
Prepared by: MCDH Epidemiology Program 08/2013

Interventions: Public Transit (QOL)





Interventions: Public Outdoor Recreation (QOL)



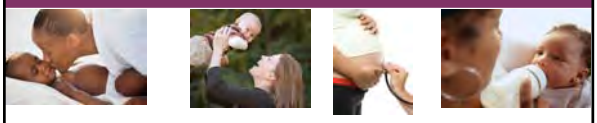
Interventions: Food Access (QOL)

Public Concern / Urgency

- As the region continues to grow, air quality remains a concern; poor air impacts respiratory and cardiovascular health.
- The public may take clean air and water for granted.
- Strong public support for more greenways and outdoor spaces.

10 Minute Break!

2013 Mecklenburg Community Health Assessment: Priority Health Focus Areas



Maternal and Child Health

Presenter: Ramona Starks Cunningham
Mecklenburg County Health Department
Health Manager, PCM/CC4C

October 25, 2013

MAGNITUDE: *Proportion of the Population Impacted*

In 2011, there were 13,734 births and 80 infant deaths, for an infant mortality rate of 5.8 deaths per 1,000 live births.

	Number of Deaths (2011)	2011 Infant Mortality Rate (per 1,000 live births)		
		Meck.	N.C.	TREND
Black Infant Deaths 	46 deaths	10.6	12.9	↗
Hispanic Infant Deaths 	12 deaths	4.7	5.4	→
White Infant Deaths 	20 deaths	3.5	5.5	→

Prepared by: MCDH Epidemiology Program 08/2013 Source: NC SCHS, 2011 Vital Statistics Data

MAGNITUDE: *Proportion of the Population Impacted*

	Percentages (2011) MECKLENBURG	NORTH CAROLINA	TREND
% Low Birth Weight (<2500g or 5lbs 8oz)	9.4%	9.1%	→
% Premature Births (<37 weeks)	12.5%	12.0%	→
% Women with no PNC in 1st Trimester	22.0%	26.0%	↘

Prepared by: MCDH Epidemiology Program 08/2013 Source: NC SCHS, 2011 Vital Statistics Data

SEVERITY: *Impact on mortality, morbidity, disability and quality of life*

Quick Facts

- Within the past 5 years, the fatality rate for children 0 -17yrs has declined.
- Infant mortality is responsible for the largest proportion of all child deaths
- Overall IMR has declined however the gap between whites and minorities remains of concern.
- The trend for low birth weight (LBW) and premature infants has remained relatively flat over the past ten years.
- Black women have the highest rate LBW and premature infants but their rate has declined; the rates for Whites and Hispanic women are beginning to rise

Mecklenburg Disparity Ratios

	Blacks		Whites
Infant Mortality Rates	3 deaths	=	1 death
Low Birth Weight Rates	2 births	=	1 birth
Premature Birth Rates	2 births	=	1 birth

Source: 2011 single year rates, NC DHHS Vital Statistics.

Prepared by: MCDH Epidemiology Program 08/2013 Source: NC SCHS, 2011 Vital Statistics Data

Proven Interventions for MCH

- Preconception Health
- Access to comprehensive family planning and reproductive health services
- Pregnancy Care Management
- Intensive home visiting programs such as Nurse Family Partnership and Healthy Families America
- Parenting support through validated models such as Triple P
- NC Care Coordination for Children

Prepared by: MCDH Epidemiology Program 08/2013

Public Concern / Urgency

- While the overall rate for infant mortality has declined, the gap between white and minority rates remains high
- The cost of care for premature and low birth weight contributes to overall rising health care costs
- Children with poor birth outcomes have a greater likelihood of developing disabilities and chronic disease

2013 Mecklenburg Community Health Assessment: Priority Health Focus Areas

Chronic Disease Prevention

Presenter: Brisa Urquieta de Hernandez
Research Coordinator, MAPPR

October 25, 2013

Prepared by: MCDH Epidemiology Program 08/2013

MAGNITUDE: *Proportion of the Population Impacted*

In 2011, seven of the ten leading causes of death in Mecklenburg were due to chronic disease.

	Number of Deaths (2011)	2007 – 2011 Age Adjusted Death Rate (per 100,000 population)		
	Meck.	Meck.	N.C.	TREND
Cancer	1,203 deaths	166.0	179.7	↗
▪ Cancer has replaced heart dz. as the *leading cause of death*				
Heart Dz.	968 deaths	142.6	179.3	↗
Alzheimer's	277 deaths	43.6	29.0	→
▪ Alzheimer's and Stroke tied as the *3rd leading cause of death*				

Prepared by: MCDH Epidemiology Program 08/2013 Source: NC SCHS, 2011 Vital Statistics Data

MAGNITUDE: *Proportion of the Population Impacted*

	Number of Deaths (2011)	2007 – 2011 Age Adjusted Death Rate (per 100,000 population)		
	Meck.	Meck.	N.C.	TREND
Stroke	277 deaths	40.6	46.0	↗
Lower Chronic Resp. Dz.	197 deaths	34.9	46.6	↗
Diabetes	148 deaths	17.5	22.0	→
▪ 10% of Mecklenburg Adults report having a diabetes diagnosis.				

Prepared by: MCDH Epidemiology Program 08/2013 Source: NC SCHS, 2011 Vital Statistics Data

SEVERITY: *Impact on mortality, morbidity, disability and quality of life*

Quick Facts

❖In Mecklenburg, death rates for cancer, heart disease and stroke are decreasing but still account for almost half of all deaths.

❖Diabetes prevalence is increasing. In 2011, diabetes was the 7th leading cause of death in the county.

❖Alzheimer's Dz. (AD) is the leading cause of dementia among persons 65 and older and is estimated that as many as half of those 85 and older will have AD.

❖Hispanic chronic disease death rates are lower than other racial/ethnic groups but changes in diet and exercise after coming to the US are resulting in rising rates for this group.

Mecklenburg Disparity Ratios

	Blacks	*Whites*
Diabetes Death Rates	3 deaths	= 1 death
Heart Dz. Death Rates	1.3 deaths	= 1 death
Chronic Lower Resp. Dz. Death Rates	1 death	= 1.3 deaths

Source: 2007 - 2011 age adjusted rates, NC SCHS

Prepared by: MCDH Epidemiology Program 08/2013

Limitation of Data

- Underrepresentation of immigrant communities
- Impact of social determinants

Interventions for Chronic Disease

- **Nutrition:**
  - Access to affordable fresh fruits/vegetables;
  - Policies supporting breastfeeding outside the home;
  - Community gardens/farmers markets that accept SNAP;
  - Food security.
- **Physical Activity**:
  - Safe communities that support walking/ playing outside;
  - Built environment policies to encourage physical activity
  - Worksite wellness programs;
  - Physical education in schools
- **Tobacco Control**:
  - "No tobacco" use polices;
  - Smoking cessation assistance;
  - Tobacco prevention in youth

Considerations for interventions:

--Culturally appropriate

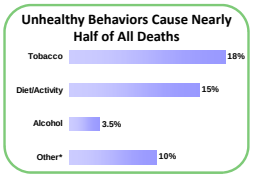
--"place" appropriate

--Collaborative

Prepared by: MCDH Epidemiology Program 08/2013

Public Concern / Urgency

- Nationally and locally, cancer, heart disease and stroke are the leading causes of death.
- Health behaviors are a major contributor to chronic diseases, disabilities and death.



Source: Mokdad AH et al. Actual cases of death in the United States, 2000, JAJA, 2004; 291: 1238-1245.

2013 Mecklenburg Community Health Assessment: Priority Health Focus Areas


Violence Prevention

Presenter: Ronnie Devine
PSN Manager, Mecklenburg County Community Support Services

October 25, 2013

Prepared by: MCDH Epidemiology Program 08/2013

MAGNITUDE: *Proportion of the Population Impacted*

	MECKLENBURG	NORTH CAROLINA	TREND
2011 Homicide Rate (per 100,000)	6.4	5.4	↗
2011, High school Students reporting dating violence *(%)*	14%	14%	↘
2012 Child Abuse Cases (% of substantiated cases due to child abuse)	13.8%	N/A	→
2011, High school students who were cyber bullied (%)	16%	16%	↘

Prepared by: MCDH Epidemiology Program 08/2013 Source: 2011 BRFSS and US Census Bureau, 2011 ACS Data

SEVERITY: *Impact on mortality, morbidity, disability and quality of life*

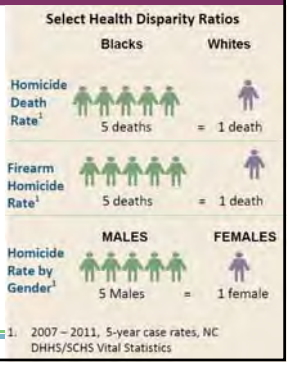
Quick Facts

❖ Homicide was the 12th leading cause of death and second leading cause of death for children ages 1 to 14.

❖In 2011, the homicide rate for males was 5 times the rate for females.

❖ 12% of homicides were the result of Domestic Violence.

❖ From 2005 to 2011, the percentage of students participating in the local YRBS survey reporting teen dating violence has increased 37%.



Prepared by: MCDH Epidemiology Program 08/2013

Interventions for Violence

Domestic Violence (DV) Interventions include:

- Intensive review of cases to identify system gaps to reduce DV cases and deaths (ex: Mecklenburg County Domestic Violence Review Team)
- Improved reporting and recognition from community and family members

Child Abuse Interventions include:

- Parenting education including expanded support;
- Improved reporting from recognition that every community member has a responsibility to report
- Intensive home visitation.

Prepared by: MCDH Epidemiology Program 08/2013

Interventions for Violence

Homicide Interventions include:

- Most homicides involve a firearm. Changing gun laws may have an impact on deaths due to a firearm.
- Community partnerships with law enforcement.

Bullying Interventions include:

- Education and outreach to parents, youth and school staff to learn how to talk about bullying and where to find support
- Awareness of cyber-bullying and how to responsibly use technology and social media

Prepared by: MCDH Epidemiology Program 08/2013

Youth Interventions

- The *"Do the Write Thing"* essay challenge is an initiative of the National Campaign to Stop Violence, a coalition of institutions, businesses and community leaders.
- The program is designed to encourage students in middle schools to write about youth violence and drug abuse and suggest solutions.
- The ultimate goal of this challenge is to break the cycle of violence in homes, schools and neighborhoods by encouraging students to make a commitment to do something about these problems.

Public Concern / Urgency

- Economic and political conditions have led to program cuts to disadvantaged communities which may increase incidents of violence.
- High profile incidents like school shootings bring a lot of attention to the issue of gun violence.
- New technology increases exposure to violence through games and the internet. And provides new avenues for harassment such as cyber-bullying and stalking.

Done!

Enjoy your lunch and come back to learn the results!

2010 Mecklenburg County Community Health Assessment




Community Health Opinion Survey

October 25, 2013

Charisse Jenkins, MSPH

Methodology

- Developed by Epidemiology Program to gauge health beliefs and prioritize health issues
- April 15 – June 30
- Administered in both English and Spanish
- Surveys were available on paper and electronically through SurveyMonkey®
- 1,888 surveys completed

Survey Respondents

- Ages 45-64
- Female
- White-59%, Black-31%, Hispanic-13%
- Lived in Mecklenburg >10 years
- Bachelor's or Graduate Degree
- Employed
- Has Health Insurance

What behaviors are you currently trying to change?

Eating or drinking healthier foods	90%
Being more active	85%
Managing stress	50%

If you wanted to exercise more, what could help?

Free exercise classes near my Home	43%
Having someone to exercise with/buddy support	39%
Going to a gym/Gym membership	37%

If you wanted to eat/drink healthier foods, what would help?

Cheaper fresh fruits & vegetables	61%
More farmer's markets	46%
Smaller portion sizes in restaurants	42%

If you wanted to stop smoking, what would help?

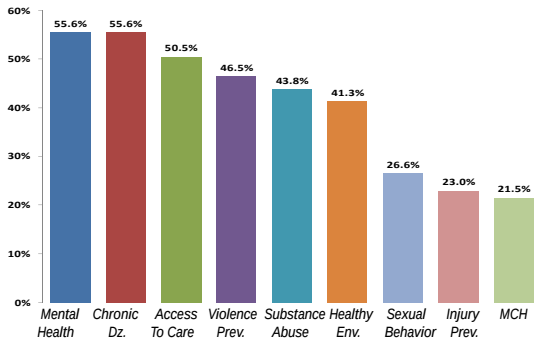
Access to nicotine substitutes	27%
Support group/Cessation classes	23%
Access to cessation medications	19%

What are the greatest health concerns you have for your family?

Some or all my family members is without health insurance	30%
Do not get regular dental care because it is too expensive	30%
Do not get regular eye exams/glasses because it is too expensive	19%

The following are health issues facing all communities. When thinking about where you live, please choose the FOUR areas you think need the most attention.

Priority Areas—Survey



Conclusion

More results in the 2013 CHA!



One more thing!

Please remember to fill out the following:

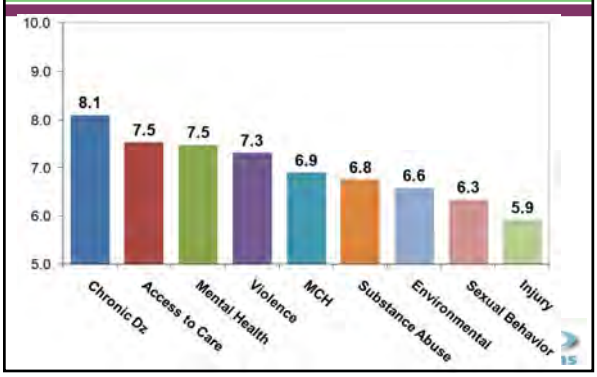
1. Demographic Information
2. Evaluation

Thank you!

Once again THANK YOU for your time

And now THE RESULTS…

2013 Priority Setting Event: Ranking Results—Average Scoring




Top Four Priority Areas
Chronic Disease
Access to Care
Mental Health
Violence
Carolinians

TECHNICAL NOTES

TECHNICAL NOTES: Behavioral Risk Factor Surveillance System (BRFSS)

Changes to the BRFSS Survey Methodology

Beginning in 2011, the Division of Behavioral Surveillance (DBS) of the Centers for Disease Control and Prevention made two major changes to the BRFSS Survey methodology. These changes were designed to improve the accuracy of BRFSS estimates; however the results using these new methods are not comparable to BRFSS estimates from previous years[1].

The first change is the adoption of an improved weighting method called *iterative proportional fitting*, commonly referred to as "raking." Raking is a technique for weighting the survey data, whereby the weighted respondent data is made more comparable to the characteristics of the target population, such as the proportion of Hispanic adults in the state. Raking improves the representativeness of state estimates by including socio-economic factors, such as education and marital status, in the final survey weights. The former post-stratification methodology was limited to adjusting the final weights by categories of age, race and sex and is no longer utilized.

The second change is the addition of cell phone interviews to the BRFSS. Adoption of cell phones (with no landline phone) has been particularly evident among younger adults and racial/ethnic minorities. Adding cell phone interviews improves the BRFSS coverage of these groups. As a result of these changes, the BRFSS will better represent lower-income and minority populations and provide more accurate prevalence estimates. However, it will no longer be possible to compare results from 2011 or later BRFSS surveys to results from earlier years of BRFSS data. It is also likely that prevalence estimates will be somewhat higher as a result of the change in methods for behaviors that are more common among younger adults and/or minorities.

For more information on changes to the methodology please visit the NC BRFSS at www.schs.state.nc.us/units/stat/brfss/ or the CDC BRFSS www.cdc.gov/brfss/.

Strengths and Limitations of the BRFSS Survey Data

One limitation of a telephone survey is the lack of coverage of persons who live in households without a telephone. Households without a telephone are, on average, of lower income. Therefore, for many of the health risks measured, the results are likely to understate the true level of risk in the total population of adults. A second limitation is due to the fact that the data are self-reported by the respondents. We expect that respondents tend to underreport health risk behaviors, especially those that are illegal or socially unacceptable. A third limitation is that these data are "cross-sectional," meaning that the data are collected in a single point in time. Each month an entirely new sample of respondents are contacted. Therefore, causality cannot be inferred from BRFSS survey results. All that can be determined is the likelihood of an association between two or more variables, such as the association between smoking and cardiovascular disease – these results do not permit one to say that smoking "causes" heart disease.

There are some significant advantages of the telephone survey methodology, including better quality control over data collection made possible by a computer-assisted-telephone-interviewing system, relatively low cost, and speed of data collection. The BRFSS methodology has been used and evaluated by the CDC and participating states since 1984. The content of the survey questions, questionnaire design, data collection procedures, interviewing techniques and editing procedures have been carefully developed to improve data quality and lessen the potential for bias. The data collection is ongoing, and each year new annual results become available.

1. Pierannunzi, C., Town, M., Garvin, W., Shaw, F and Balluz, L. Methodologic Changes in the Behavioral risk Factor Surveillance System in 2011 and Potential Effects on Prevalence Estimates. *Morbidity and Mortality Weekly Report*; 2012 June;61(22):410-413. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6122a3.htm?s_cid=mm6122a3_w. Accessed September 12, 2012.

TECHNICAL NOTES: HIV Disease

HIV Disease Cases

HIV Disease covers the entire spectrum of disease, from initial infection of the virus to the deterioration of the immune system and presentation of opportunistic infections (full-blown AIDS). The time that it takes for each person to go through these stages varies. However, the process of HIV disease is fairly slow and usually takes several years from infection to the development of AIDS. In surveillance and case reporting, the term HIV disease includes:

- persons with a diagnosis of HIV infection (not AIDS),
- persons previously reported with an HIV infection who have progressed to AIDS,
- persons with a concurrent diagnoses of HIV infection and AIDS.

HIV disease cases are counted by the date on which HIV infection was first diagnosed and reported. In some cases the date of infection is based on the date of report for an AIDS diagnosis because the infected individual was never reported with an HIV infection prior to the AIDS diagnosis.

HIV Disease Case Rates

Rates are expressed as cases per 100,000 population. Each rate is calculated by dividing the number of cases reported in a geographic area during a specific time period by the area's population during that time period, multiplied by 100,000. Population denominators used to calculate rates for North Carolina and Mecklenburg County were based on county and state population projections calculated by the NC State Demographics Unit.

HIV Disease Surveillance

Advances in treatment and technology, such as the introduction of highly active antiretroviral therapy (HAART), have increased life expectancy for persons infected with HIV and slowed the progression to acquired immunodeficiency syndrome (AIDS). Consequently, AIDS surveillance no longer provides an accurate picture of current changes in the HIV epidemic. Monitoring trends in the HIV epidemic today requires collecting information on HIV cases that have not progressed to AIDS. Areas with confidential name-based HIV infection reporting requirements use the same uniform system for data collection on HIV cases as for AIDS cases.

United States: While AIDS is a reportable condition in all 50 states, name-based HIV data are not reportable in all states. As of November 2005, a total of 33 states have conducted name-based HIV/AIDS reporting for at least 4 years. A complete listing of these states can be found on the Centers for Disease Control and Prevention (CDC) website (www.cdc.gov).

North Carolina: AIDS case reporting in North Carolina began in 1984 with name-based HIV reporting starting in 1990. By state law, morbidity reports of HIV and AIDS from health providers are submitted to local health departments on confidential case report forms and communicable disease report cards. These reports along with laboratory diagnostics of HIV-positive results are forwarded to the NC HIV/STD Prevention and Care Branch which maintains a database for all NC counties.

HIV Disease Risk Category (Exposure Mode)

HIV disease risk category refers to an individual's most likely method of becoming infected with HIV. Although an HIV-infected person may report a number of behaviors that place them at risk for the disease, the CDC uses a hierarchical model to select the one risk factor most likely to have been responsible for HIV infection.

This does not mean that the HIV infection is known to have been caused by the assigned risk category, but rather that the assigned risk category is the most likely mode of transmission.

HIV Disease Cases with Non-Indentified Risk (NIR)

HIV disease cases that are classified as non-identified risk include:

- cases that are under current investigation by local health departments,
- cases in persons whose exposure history is missing because they have died, declined to be interviewed, or were lost to follow-up, and
- cases in persons who were interviewed for risks but did not meet any of the CDC-defined risk classifications.

Many of the female NIR cases in North Carolina report heterosexual contact as their only mode of exposure. However, to be included in the CDC-defined criteria for heterosexual contact, a person must know their partners' HIV status or risk for HIV. Without this information, the case is categorized as NIR. The NC HIV/STD Prevention and Care Branch has reevaluated these cases and where appropriate have reassigned some cases into a "presumed heterosexual" risk category. For more information on HIV NIR case reports in North Carolina, read the annual ***HIV Prevention & Community Planning Epidemiologic Profile for North Carolina*** located on NC HIV/STD Prevention and Care Branch's website: www.epi.state.nc.us/epi/hiv/surveillance.html.

TECHNICAL NOTES: Sexually Transmitted Diseases (STDs)

North Carolina Surveillance of STDs

The North Carolina STD Surveillance data system underwent extensive changes in 2008 as North Carolina implemented NC EDSS (the North Carolina Electronic Disease Surveillance System). NC EDSS is a component of the Centers for Disease Control and Prevention (CDC) initiative to move states to web-based surveillance and reporting systems. Reporting delays and changes in reporting processes for chlamydia and gonorrhea may have substantially affected data.

In 2007 local changes in personnel as well as delayed reporting accounted for a lower than anticipated number of reported Gonorrhea cases. Data for this year should be interpreted with caution as the sharp decline was most likely due to this reporting artifact.

Racial and Ethnic Disparities in STD Surveillance

Research indicates that racial and ethnic minorities are over-represented among persons of lower socioeconomic status in the United States and may utilize public clinics more than whites. Since STI reporting from public clinics may provide more complete reporting than private providers, the difference in rates between whites and racial/ethnic minorities may be overestimated. However, this reporting bias does not fully explain the disparity between racial groups. Limited access to quality health care, poverty and higher disease prevalence also contribute to disparate rates for racial/ethnic minorities.

Gonorrhea Screening and Testing

It is important to note that the number of gonorrhea cases reported each year is influenced by multiple factors in addition to the occurrence of the infection within the population. For example changes in screening practices, use of diagnostic tests with differing test performance, and/or changes in reporting practices may mask true increases or decreases in disease reporting. Therefore caution should be exercised in interpreting short-term trends in gonorrhea case reporting.

Chlamydia Screening and Testing

Chlamydia case reports are influenced by multiple factors in addition to the occurrence of the infection within the population. For example changes in screening practices, use of diagnostic tests with differing test performance, and/or changes in reporting practices may mask true increases or decreases in disease reporting. Therefore caution should be exercised in interpreting short-term trends in chlamydia case reporting.

Women, especially young women, are hit hardest by chlamydia. Studies have found that chlamydia is more common among adolescent females than adolescent males, and the long-term consequences of untreated disease are much more severe for females. Up to 40 percent of females with untreated chlamydia infections develop PID, and 20 percent of those may become infertile. The Centers for Disease Control and Prevention (CDC) recommends annual chlamydia screening for all sexually active women under age 26, as well as older women with risk factors such as new or multiple sex partners.

The recent advent of highly sensitive nucleic acid amplification tests that can be performed on urine will most likely lead to better diagnosis and increased case reporting for men. Nationally, chlamydia case reporting for men has **increased** by 36.4% between 2002 and 2006 in comparison to a 16% increase for women during the same time period.

Chlamydia and Gonorrhea Annual Case Rates

Crude incidence rates (new cases/population) were calculated on an annual basis per 100,000 population. Rates were calculated by dividing the number of cases reported from each year by the estimated county-specific population (the most current detailed population file available at time of publication).

TECHNICAL NOTES: Mortality

Race and Ethnicity Considerations

The terms *white, nonwhite, other races* and *minority* designates racial status. The term *Hispanic* denotes ethnicity. Hispanics can be of any race are therefore included in the denominator for both white and other races (minority/nonwhite) categories. However, In Mecklenburg County, the majority of Hispanics fall into the white racial category, therefore, if only two population categories, white and non-white (minority or other races), are available, it is erroneous to assume the non-white (or minority) rates are heavily influenced by Hispanics.

In order to best compare one racial group to another, it is necessary to sort out non-Hispanic groups such as non-Hispanic White, non-Hispanic Black, non-Hispanic Asian, non-Hispanic American Indian (or Native American) or non-Hispanic Other (often includes all races except White and Black due to small numbers) when these data are available such a comparison can be made.

Small Number of Events and Caution When Interpreting Infant Mortality Rates

The term “rate” usually refers to the number of vital events (i.e. births, deaths, pregnancies etc.) in a given period of time (i.e. 2003 or 2001-2003) divided by the average number of people at risk during that period (i.e. average population estimate during that period). For example, the infant mortality rate represents the number of infants less than 1 year of age at risk of dying before the age of 1 year (or years) of all the infants born in a given time period or specific year.

It is often the case when infant mortality rates are examined on a local level (i.e. city or county) by race and ethnicity that the rate is based on a small number of deaths (less than 20 events). Any death rate with less than 20 events in the numerator will have substantial random variation over time (a large standard error) and are subject to serious random error. Therefore, extreme caution should be taken when making comparisons or assessing trends with rates based on less than 20 events. When assessing trends in infant mortality rates that are race/ethnic specific rates and based on small numbers, the emphasis should be placed on the number of deaths rather than the rates.

Annual infant mortality rates for Mecklenburg County as a whole would be a more stable rate because it is based on number of events (>20) and the amount of random error associated with the rate is significantly reduced. When examining infant mortality rates by race and ethnicity you are subject to smaller numbers of events (i.e. number of deaths in the racial or ethnic category) and the amount of random error increases making the rate unstable. Although the Hispanic population in Mecklenburg County has been growing an average of 2 percentage points per year since 1998, the number of infant deaths is still less than 20 per year making the infant mortality rate for this population unstable and subject to random error. As a population grows it is normal to expect more deaths within that population as time goes on.

Source: NC DHHS/State Center for Health Statistics
Prepared by the Mecklenburg County Health Department, Epidemiology Program, October 2013

TECHNICAL NOTES: Birth Data

In 2010, North Carolina began using the 2003 US Revised Standard Birth Certificate. The changes in the Revised Birth Certificate required the addition, deletion, and modifications too many of the variables collected from the birth certificate. As a result of these changes, many birth variables from 2010 and forward will not be comparable to variables prior to 2010. Since 2010 was the transition year to the new birth certificate data and not all birth certificate were completed using the revised version, 2011 will serve as the new baseline for many birth data variables.

Race and Ethnicity Considerations:

The terms *white, nonwhite, other races* and *minority* are used to designate racial status. The term *Hispanic* denotes ethnicity. Hispanics can be of any race and therefore are included in the denominator for both white and other races (minority/nonwhite) categories. However, in Mecklenburg County, the majority of Hispanics fall into the white racial category, therefore, if only two population categories, white and non-white, are available, it is erroneous to assume the non-white rates are heavily influenced by Hispanics.

In order to best compare Hispanics to other races, it is necessary to sort out the Non-Hispanic groups whether they are White, Black, Asian, American-Indian or of another Non-White race. As a result, comparisons should be made between Hispanic rates and non-Hispanic rates (i.e. White Non-Hispanic pregnancies compared to Black Non-Hispanic pregnancies compared to Hispanic pregnancies) if this type of data is available. Such comparisons in Mecklenburg County cannot be made for birth and/or pregnancy (births + abortions + fetal deaths) rates because the North Carolina State Demographer only estimates population numbers for total, White, and Non-White (also termed Other Races or Minorities) race categories, making population numbers for Hispanic and Non-Hispanic populations unavailable and the calculation of race/ethnic-specific rates impossible in Mecklenburg County.

Instead, the number or percentage of the total births and/or pregnancies between Hispanics and Non-Hispanic groups is compared because race and ethnicity are available as separate variables within these databases. Unfortunately in Mecklenburg County, comparisons of Non-Hispanic groups with Hispanic groups cannot be made to the same degree when comparing births to pregnancies because the variable race is not coded the same way in the abortion data as it is in the birth and fetal death data. Therefore when examining pregnancy data by race and ethnicity, White Non-Hispanics and Black Non-Hispanics compared to Hispanics are used more often due to larger numbers for these race groups. All other race categories are summarized as Other Non-White Non-Hispanic and only included when appropriate for the data being analyzed.

Pregnancies:

Total Pregnancies represent the sum of all induced abortions, live births, and fetal deaths 20 or more weeks of gestation reported in the state of North Carolina. *Not included are spontaneous fetal deaths (still births) occurring less than 20 weeks of gestation that are not reportable to the state.*

- Live Birth – the birth of a live born infant.
- Abortion – The premature termination of a pregnancy, resulting in or caused by death of the fetus or embryo. Two types are considered in the context of public health reporting:
    - Induced Abortion: The purposeful interruption of pregnancy with the intention other than to produce a live born infant or to remove a dead fetus and which does not result in a live birth. In 1967, abortion became available on demand in NC with the condition it be performed by a licensed physician in a hospital or licensed abortion clinic.

  - Spontaneous Abortion: An interruption of pregnancy for some reason other than human choice, i.e., a miscarriage or stillbirth. Spontaneous abortions less than 20 weeks gestation are not reportable in NC.

- Fetal Death – Stillbirths or an infant born 20 or more weeks gestation that is reported to the state of North Carolina.

Data Limitations and Caution of Interpretation of Rates:
Rates based on less than 20 events (i.e. number of pregnancies) are statistically unstable and should be interpreted with caution. Given the Race and Ethnicity Considerations listed above, caution should be used in interpreting rates for White vs. Non-White race categories in Mecklenburg County due to Hispanics being included in both. In other words the pregnancy rates for Whites does not just represent pregnancies among White females but also Hispanic females whose race was designated as White.

Source: NC DHHS/SCHS – Prepared by the Mecklenburg County Health Department, Epidemiology Program, October 2013.

TECHNICAL NOTES: Infant Mortality

Infants are fined as all children within 365 days of date of birth or under 1 year of age. Infant mortality is defined as the number of resident infant deaths per 1,000 resident live births for a particular year.

Race and Ethnicity Considerations

The terms *white, nonwhite, other races* and *minority* designate racial status. The term *Hispanic* denotes ethnicity. Hispanics can be of any race are therefore included in the denominator for both white and other races (minority/nonwhite) categories. However, In Mecklenburg County, the majority of Hispanics fall into the white racial category, therefore, if only 2 population categories, white and non-white (minority or other races), are available, it is erroneous to assume the non-white rates are heavily influenced by Hispanics.

In order to best compare Hispanics to other racial groups, it is necessary to sort out Non-Hispanic groups whether they are white, black, Asian, American Indian or other, and when these data are available such a comparison can be made (i.e. Hispanic rates are compared to Non-Hispanic white or Non-Hispanic black rates). Such comparisons can be made for infant deaths because the rates are based on the number of live births for which data is available for each Non-Hispanic racial category and Hispanics.

Small Number of Events and Caution When Interpreting Infant Mortality Rates

The term “rate” refers to the number of vital events (i.e. births, deaths, pregnancies etc.) in a given period of time (i.e. 2003 or 2001-2003) divided by the average number of people at risk during that period (i.e. July 1st average population estimate during that time period). For example, the infant mortality rate represents the number of infants less than 1 year of age at risk of dying before the age of 1 year (or years) of all the infants born in a given time period or specific year.

It is often the case when infant mortality rates are examined on a local level (i.e. city or county) by race and ethnicity that the rate is based on a small number of deaths (less than 20 events). Any death rate with less than 20 events in the numerator will have substantial random variation over time (a large standard error) and are subject to serious random error. Therefore, extreme caution should be taken when making comparisons or assessing trends with rates based on less than 20 events. When assessing trends in infant mortality rates that are race/ethnic specific and based on small numbers, the emphasis should be placed on the number of deaths or percentage of deaths out of the total number of deaths rather than the rates.

Annual infant mortality rates as a whole or by broad race categories such and White and Minority are more stable than rates by ethnicity because they are based on greater than 20 events and the amount of random error associated with the rate is significantly reduced. When examining infant mortality rates by race and ethnicity you are dividing up the events into smaller subgroups and for populations with a total number of deaths less than 20, the amount of random error increases making the rate unstable. Although the number of Hispanic births in Mecklenburg County has been increasing by an average of 2 percentage points per year since 1998, the number of Hispanic infant deaths is still less than 20 per year making the infant mortality rate for this population unstable and subject to random error. As a population grows it is normal to expect more deaths within that population over time.

Source: NC DHHS/State Center for Health Statistics
Prepared by the Mecklenburg County Health Department, Epidemiology Program, October 2009

TECHNICAL NOTES: Teen Pregnancy

Race and Ethnicity Considerations:

The terms *white, nonwhite, other races,* and *minority* are used to designate racial status. The term *Hispanic* denotes ethnicity. Hispanics can be of any race and therefore are included in the denominator for both white and other races (minority/nonwhite) categories. However, in Mecklenburg County, a majority of Hispanics fall are categorized as White for race in addition to Hispanic for ethnicity. Therefore, if you are only using white and minority (nonwhite), it is erroneous to assume that the non-white rate is heavily influenced by Hispanics. The designation of Hispanics as white artificially inflates the rate for whites and does not allow for a true comparison between races or to see the disparity in pregnancy rates across all race and ethnic groups.

In order to provide the best comparison, it is necessary to sort out the Non-Hispanic race groups such as White, Black, Asian, American-Indian (or Native American) and any other Non-White race and compare them to Hispanics. As a result, comparisons can then be made between Hispanic rates and non-Hispanic rates (i.e. White Non-Hispanic pregnancies compared to Black Non-Hispanic pregnancies compared to Hispanic pregnancies) if the data is available. This type of comparison in Mecklenburg County cannot be made for birth and pregnancy (births + abortions + fetal deaths) rates because the standard population estimates used only reflect the broad racial categories, Whites and Non-Whites (i.e. Other Races, Minorities) which include Hispanics. Population numbers using more specific racial categories and Hispanic ethnicity can be made using other reputable population data sources when available. In addition, the way in which race and ethnicity are categorized varies among birth, abortion and fetal death records limiting how specific the racial groups can get.

In some instances, the number of births and/or pregnancies between Hispanics and Non-Hispanic groups is compared because race and ethnicity are not available as separate variables within these databases. The number of births or pregnancies may be also be compared when the number of events is small leading to an unstable rate such as in the 10-14 year old age group. Unfortunately in Mecklenburg County, comparisons of Non-Hispanic groups with Hispanic groups cannot be made to the same degree when comparing births to pregnancies because the variable race is not coded the same way in the abortion data as it is in the birth and fetal death data. Therefore when examining pregnancy data by race and ethnicity, White Non-Hispanics and Black Non-Hispanics compared to Hispanics is used more often due to larger numbers and more stable rates for these race groups. All other race categories are summarized as Other Non-White, Non-Hispanic and used when appropriate for the data being analyzed.

Pregnancies:

Total Pregnancies represent the sum of all abortions (induced and spontaneous), live births, and fetal deaths 20 or more weeks gestation reported in the state of North Carolina. *Not included are spontaneous fetal deaths (still births) occurring less than 20 weeks of gestation that are not reportable to the state.*

Teen Pregnancy Rates are calculated per 1,000 females by using the sum of all induced abortions, live births, and fetal deaths divided by the July, 1st mid-year population for females in a particular age group (i.e. 10-14, 15-17, 18-19, 15-19) published by the NC State Center for Health Statistics x 1,000.

For example, if the total pregnancy rate for females age 15-17 is 32.9 that means among girls ages 15-17 years of age in Mecklenburg County there are approximately 32.9 pregnancies for every 1,000 females in this age group.

- Live Birth – the birth of a live born infant.
- Abortion – The premature termination of a pregnancy, resulting in or caused by death of the fetus or embryo. Two types are considered in the context of public health reporting:

  - Induced Abortion: The purposeful interruption of pregnancy with the intention other than to produce a live born infant or to remove a dead fetus and which does not result in a live birth. In 1967, abortion became available on demand in NC with the condition it be performed by a licensed physician in a hospital or licensed abortion clinic.

  - Spontaneous Abortion: An interruption of pregnancy for some reason other than human choice, i.e., a miscarriage or stillbirth. Spontaneous abortions less than 20 weeks gestation are not reportable in NC.

- Fetal Death – Stillbirths or an infant born 20 or more weeks gestation that is reported to the state of North Carolina.

Data Limitations and Caution of Interpretation of Rates:
Rates based on less than 20 events (i.e. number of pregnancies or births) are statistically unstable and should be interpreted with caution.
Given the Race and Ethnicity Considerations listed above, caution should be used in interpreting rates for White vs. Non-White race categories in Mecklenburg County due to Hispanics being included in both denominators. In other words the pregnancy rate for Whites does not just represent pregnancies among White females but also Hispanic females whose race was designated as White.

10-14 year olds – This is the youngest age group for which pregnancy statistics are calculated for. However, because there numbers of pregnancies are small compared to 15-17 and 18-19; their rates must be interpreted with caution. It is more appropriate to compare numbers of pregnancies from year to year for this population due to the small numbers when broken down into more specific race categories beyond Whites and Non-Whites.

Source: NC DHHS/SCHS – Prepared by the Mecklenburg County Health Department, Epidemiology Program, July 2013 (revised).

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