

Georgia Department of Public Health  
North Central Health District  
Baldwin County

2013

COMMUNITY HEALTH  
ASSESSMENT



## Table of Contents

<b>INTRODUCTION.....</b>	<b>5</b>
<b>COMMUNITY STRENGTHS AND THEMES ASSESSMENT .....</b>	<b>6</b>
Introduction.....	7
Key Informants .....	7
Demographics within the interviews .....	7
Quality of Life Questionnaire .....	8
Summary of Community Themes and Strengths Assessment .....	9
Conclusion .....	10
<b>LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT .....</b>	<b>11</b>
Purpose and Background .....	12
Methods.....	12
Results.....	13
Conclusion .....	13
<i>Action Plan</i> .....	13
<b>HEALTH STATUS REPORT .....</b>	<b>14</b>
<b>NORTH CENTRAL HEALTH DISTRICT OVERVIEW .....</b>	<b>15</b>
<b>BALDWIN COUNTY OVERVIEW .....</b>	<b>15</b>
History and Geography .....	15
General Population Characteristics .....	16
Household Characteristics .....	16
Employment.....	17
Education .....	18
<b>HEALTH CARE ACCESS .....</b>	<b>19</b>
<b>LEADING CAUSES .....</b>	<b>20</b>
Leading Cause of Mortality .....	20
Leading Causes of Premature Deaths .....	21
Leading Cause of Hospitalizations .....	21
<b>CHRONIC DISEASE .....</b>	<b>22</b>
Cardiovascular Disease .....	22
Cancer .....	24
Asthma .....	26
Diabetes.....	27
Alcohol Use .....	28
Smoking .....	29
Overweight/Obesity .....	29

<b>INFECTIOUS DISEASE .....</b>	<b>30</b>
Sexually Transmitted Diseases (STD).....	30
<i>Chlamydia</i> .....	30
<i>Gonorrhea</i> .....	31
<i>Syphilis</i> .....	32
Human Immunodeficiency Virus (HIV).....	33
Tuberculosis.....	35
Vaccine Preventable Illness .....	36
<i>Influenza</i> .....	37
<i>Pneumonia</i> .....	37
Gastrointestinal Disease.....	38
Invasive Bacterial Disease (Non-Vaccine Preventable) .....	39
<b>ENVIRONMENTAL HEALTH.....</b>	<b>40</b>
Vectorborne/Zoonotic Disease.....	40
Rabies.....	41
<b>MATERNAL AND CHILD HEALTH .....</b>	<b>42</b>
Pregnancy.....	42
<i>Teen Pregnancy</i> .....	43
Prenatal Care.....	45
Abortions.....	46
Infant Mortality .....	47
Childhood Morbidity .....	49
Childhood Immunizations.....	50
Youth Risk Behaviors .....	52
<i>Youth Obesity</i> .....	52
<i>Alcohol and Other Drug Use</i> .....	53
<i>Youth Smoking</i> .....	54
<b>BEHAVIORAL AND MENTAL HEALTH.....</b>	<b>56</b>
<b>CRIME AND SAFETY .....</b>	<b>57</b>
Crime.....	57
<i>Homicide</i> .....	57
<i>Family Violence</i> .....	58
<i>Child Maltreatment</i> .....	58
Injuries .....	59
<i>Motor Vehicle Crashes</i> .....	59
<i>Suicide</i> .....	60

**Appendix..... 61**  
    Contact Us..... 67  
        *Baldwin County Health Department..... 67*  
        *North Central Health District..... 67*

## INTRODUCTION

The North Central Health District (NCHD), composed of 13 individual counties, is seeking accreditation from the National Public Health Accreditation Board (PHAB). Accreditation will provide health departments the ability to improve quality, access, services, value, and accountability to stake holders within the community. One of the prerequisites for accreditation includes the completion of a Community Health Assessment.

The Community Health Assessment involves a process of collecting, analyzing, and using data to educate and mobilize communities, develop priorities, garner resources, and plan actions to improve the public's health. It is one of the core functions of public health, which is why it's in the accreditation standards. It involves the systematic collection and analysis of data in order to provide the health department and the community it serves with a sound basis for decision-making. It should be conducted in partnership with other organizations in the community and include collecting data on health status, health needs, community assets, resources, and other community or state determinants of health status. A community health assessment links directly to Standard 1.1. The intention here is that, for accreditation purposes, the health department can demonstrate that it systematically assesses its jurisdiction's health status and can describe it. Most health departments should have access to much of the data needed. Partnerships with hospitals, academic institutions, other governmental agencies (such as schools or police), and non-profit health promotion organizations will help to access additional data needed to assess the health of the community or state. Putting it all together in an organized way to describe the health status or health profile of the community it serves might be a little different way to use the information available.

Our community health assessment is composed of the following three sections:

- **Community Strengths and Themes Assessment** -- provides qualitative information on how communities perceive their health and quality of life concerns as well as their knowledge of community resources and assets.
- **Local Public Health System Assessment** -- measures the capacity and performance of the local public health system by surveying all organizations and entities that contribute to the public's health.
- **Health Status Report** -- provides quantitative data on a broad array of health indicators, including quality of life, behavioral risk factors, and other measures that reflect a broad definition of health.

## **COMMUNITY STRENGTHS AND THEMES ASSESSMENT**

## **Introduction**

The Community Strengths and Themes Assessment, was determined by the Mobilizing for Action through Planning and Partnerships (MAPP) strategy. The MAPP strategy consists of six phases:

1. Organize for success and developing partnerships
2. Collaborating a shared community vision
3. Includes Four Assessments:
  - a. Community Themes and Strengths Assessment
  - b. Local Public Health System Assessment
  - c. Community Health Status Assessment
  - d. Forces of Change Assessment
4. Identify strategic issues
5. Formulate goals and strategies
6. Action Cycle that links planning, implementation, and evaluation of the community themes.

The “Community Strengths and Themes Assessment,” of phase three in the MAPP process was employed to gain insight upon the quality of life in Baldwin County, Georgia. This was done through interviewing key informants from each county, whom are individuals within a particular facet of the community that are considered to have a valued opinion in reference to the designated population. Each key informant was presented with a preselected set of questions that will be used amongst all 13 counties within the NCHD. The results of the assessment will provide the NCHD with a comprehensive summary of community perceived views on the current state of health in Baldwin County, Georgia.

This portion of the Community Health Assessment was completed through the partnership of Dr. David Harvey, District Director, and Mercer University’s Masters of Public Health Program's students under the supervision of Dr. Jimmie Smith.

## **Key Informants**

There were 34 key informants from Baldwin County interviewed in various ways. Key informants were classified as community members, government officials, administrators, medical and social services. These individuals all lived within Baldwin County and ranged in ages from 14 to 65.

## **Demographics within the interviews**

Survey: 24 participants

Individual Interviews: 10 participants (50% Female and 50% Male)

### **Quality of Life Questionnaire**

Each key informant was asked a set of 12 questions reflecting the quality of life within that county. Responses ranked on a scale of 1 to 5, with 5 being the most positive.

1. Are you satisfied with the quality of life in our community? (Consider your sense of safety, well-being, participation in community life and associations, etc.) [IOM, 1997]
2. Are you satisfied with the health care system in the community? (Consider access, cost, availability, quality, options in health care, etc.) [IOM, 1997]
3. Is this community a good place to raise children? (Consider school quality, day care, after school programs, recreation, etc.)
4. Is this community a good place to grow old? (Consider elder-friendly housing, transportation to medical services, churches, shopping; elder day care, social support for the elderly living alone, meals on wheels, etc.)
5. Is there economic opportunity in the community? (Consider locally owned and operated businesses, jobs with career growth, job training/higher education opportunities, affordable housing, reasonable commute, etc.)
6. Is the community a safe place to live? (Consider residents' perceptions of safety in the home, the workplace, schools, playgrounds, parks, the mall. Do neighbors know and trust one another? Do they look out for one another?)
7. Are there networks of support for individuals and families (neighbors, support groups, faith community outreach, agencies, organizations) during times of stress and need?
8. Do all individuals and groups have the opportunity to contribute to and participate in the community's quality of life?
9. Do all residents perceive that they-individually and collectively-can make the community a better place to live?
10. Are community assets broad-based and multi-sectoral?
11. Are levels of mutual trust and respect increasing among community partners as they participate in collaborative activities to achieve shared community goals?
12. Is there an active sense of civic responsibility and engagement, and of civic pride in shared accomplishments?

## **Summary of Community Themes and Strengths Assessment**

After reviewing the data collected from key informant interviews, these are the most prevalent strengths and themes discussed in Baldwin County:

*Resources* – While key informants perceive their community as being resource rich, they believe “there is not much communication to let the people know which resources are out there.”

*Access to healthcare* – Key informants felt they were able to get healthcare services at Rivers Edge Behavioral Health Center, Tender Care Clinic, and Oconee Regional Medical Center. However, “the hospital because of financial obligations turns away people which they otherwise would not turn away.” Furthermore, key informants believed barriers such as cost, knowledge about the resources, and transportation impacted access and utilization of health services within the county.

*Quality of life* – Although quality of life can be difficult to measure, interviewees were asked to think about their sense of wellbeing, safety, and participation in community life and community associations. Overall, 64% of individuals surveyed identified Baldwin County to be somewhat healthy.

*Education* – Key informants recognized the ongoing “struggle with the public school system and graduation rate.” Higher educational attainment opportunities are available with the presence of Georgia Military College, Georgia College and State University and other vocational programs. However, “...students aren’t graduating at the rate and level that they should be to be able to achieve those educational opportunities.” It has become a priority to educate those who are unemployed as a result of industries leaving the area (Rheem, Mohawk industries, and Central State Hospital). “There has been a big push to get these people educated to become a work-ready community. In doing so, many individuals including Georgia College, Central Georgia Tech, and Chamber of Commerce, feel that by helping the people get GEDs, we will have a safer and more enjoyable community.”

*Mental health* – Interviewees felt that there is a problem with mental health patients not receiving needed services. Many of these patients were released from Central State Hospital into the general population because of the need for down-sizing. Key informants believe that solutions must be implemented to ensure those who need mental health services are treated with dignity and receive the necessary services.

*Community participation* – The community members’ perceived that they lacked the opportunity to participate and contribute to the community’s quality of life. Thus, they felt that they could not contribute to making the community a better place to live.

*Civic pride* – Overall interviewees did not think there was much perceived pride in Baldwin County individuals, but civic pride is evident in some community and governmental organizations. Interviewees stated that they, “see not only higher institutions, but also city and county governments, trying to make some headway,” to help people feel like their thoughts, opinions, and presence are valuable regardless of educational or demographic background. For example, civic pride is apparent with the collaborative revitalization of the Harrisburg community.

*Risky behaviors* – The four leading risky behaviors identified by individuals surveyed were alcohol abuse, being overweight, dropping out of school, and poor eating habits. For the period 2006- 2010, obesity and alcohol abuse rates were higher in Baldwin County in comparison to the entire state of Georgia. Furthermore, the outlined risky behaviors identified in the surveys were also expressed in the key informant interviews.

### **Conclusion**

In conclusion, Baldwin County informants shared several significant themes and strengths, of which the top two included access to healthcare and education. Informants believed there were healthcare resources available, but there was a lack of awareness related to these resources. This theme and strength is intertwined with education because awareness can be spread through public health education. The more residents of Baldwin County are aware of resources, the better the health of the county will be.

Overall, the Community Themes and Strengths Assessment proved to be a beneficial tool in evaluating the needs of a community. Key informant interview results revealed that the most commonly discussed themes and strengths were consistent with actual health statistics. This assessment is an important tool to review when implementing programs in the community because it identifies how several problems and issues are interrelated. This not only helps explain this collected data, but it gives it life. By allowing community representation in the accreditation process, the community is involved. The opinions and concerns of county citizens are documented, and will be used in optimizing the health in Baldwin County.

**LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT**

## **Purpose and Background**

The National Public Health Performance Standards Program (NPHPSP) assessments are a helpful tool in evaluating the current performance against a set of optimal standards. This is a partnership effort to improve the practice of public health and the performance of public health systems. This Local Public Health System Assessment (LPHS) report is intended to help the North Central Health District gain a good understanding of its performance and move on to the next step in strengthening the public system.

The 10 Essential Public Health Services (EPHS) describe the public health activities that all communities should undertake and serve as the framework for NPHPSP instruments. These include:

- 1) Monitor health status to identify and solve community health problems.
- 2) Diagnose and investigate health problems and health hazards in the community.
- 3) Inform, educate, and empower people about health issues.
- 4) Mobilize community partnerships and action to identify and solve health problems.
- 5) Develop policies and plans that support individual and community health efforts.
- 6) Enforce laws and regulations that protect health and ensure safety.
- 7) Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
- 8) Assure competent public and personal health care workforce.
- 9) Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
- 10) Research for new insights and innovative solutions to health problems.

## **Methods**

The methodology was to stratify NCHD staff in three categories- county nurse managers, district management team members, and randomly selected staff members from each program, and ask them to indicate if they participated in any activity listed in the survey instrument. If so, they were asked to indicate if they had any documentation or artifacts that support their statement. The data was then summarized in to one table.

The survey results include percentage ratings for each of the full standards, based on if the individual indicators within each standard were met. These indicators represent the individual objectives that when joined together, comprise the total standard. The score for each standard category was based on the percentage of separate indicators met within the standard.

The rating system for the standards was as follows:

- **No Activity** - 0% or absolutely no activity
- **Minimal Activity** - 1% to 25% activity
- **Moderate Activity** - 26% to 50% activity
- **Significant Activity** - 51% to 75% activity
- **Optimal Activity** - 76% to 100% activity

**Results**

This table provides a quick overview of the NCHD's performance in each of the 10 EPHS. Each score is determined by the percentage of how many individual objectives for each EPHS were fulfilled. These scores range from a minimum of 0 to a maximum of 100.

The overall performance score for all 10 Essential Public Health Services:

**Significant Activity**  
67%

Summary of performance scores by Essential Public Health Service (EPHS)		
EPHS		Score
1	Monitor Health Status to Identify Community Health Problems	100
2	Diagnose and Investigate Health Problems and Health Hazards	92
3	Inform, Educate, and Empower People about Health Issues	70
4	Mobilize Community Partnerships to Identify and Solve Health Problems	71
5	Develop Policies and Plans that Support Individual and Community Health Efforts	45
6	Enforce Laws and Regulations that Protect Health and Ensure Safety	50
7	Link People to Needed Personal Health Services and Assure the Provision of Health Care when Otherwise Unavailable	86
8	Assure a Competent Public and Personal Health Care Workforce	56
9	Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-Based Health Services	46
10	Research for New Insights and Innovative Solutions to Health Problems	54
<b>Overall Performance Score</b>		<b>67</b>

**Conclusion**

While the district-wide public health system's overall rating for the 10 EPHS was categorized at "Significant Activity," it is important to note that this is a perceptual survey and that Essential Public Health Services Standards that were positively rated as a whole do not necessarily reflect a lack of need for improvement.

**Action Plan**

Moving forward, the next steps for improvement of NCHD's local public health system include forming a team, including public health employees and partners, to look at each EPHS individually to assess for improvements. This focus will be reflected in the NCHD's Quality Improvement Plan.

## **HEALTH STATUS REPORT**

## NORTH CENTRAL HEALTH DISTRICT OVERVIEW

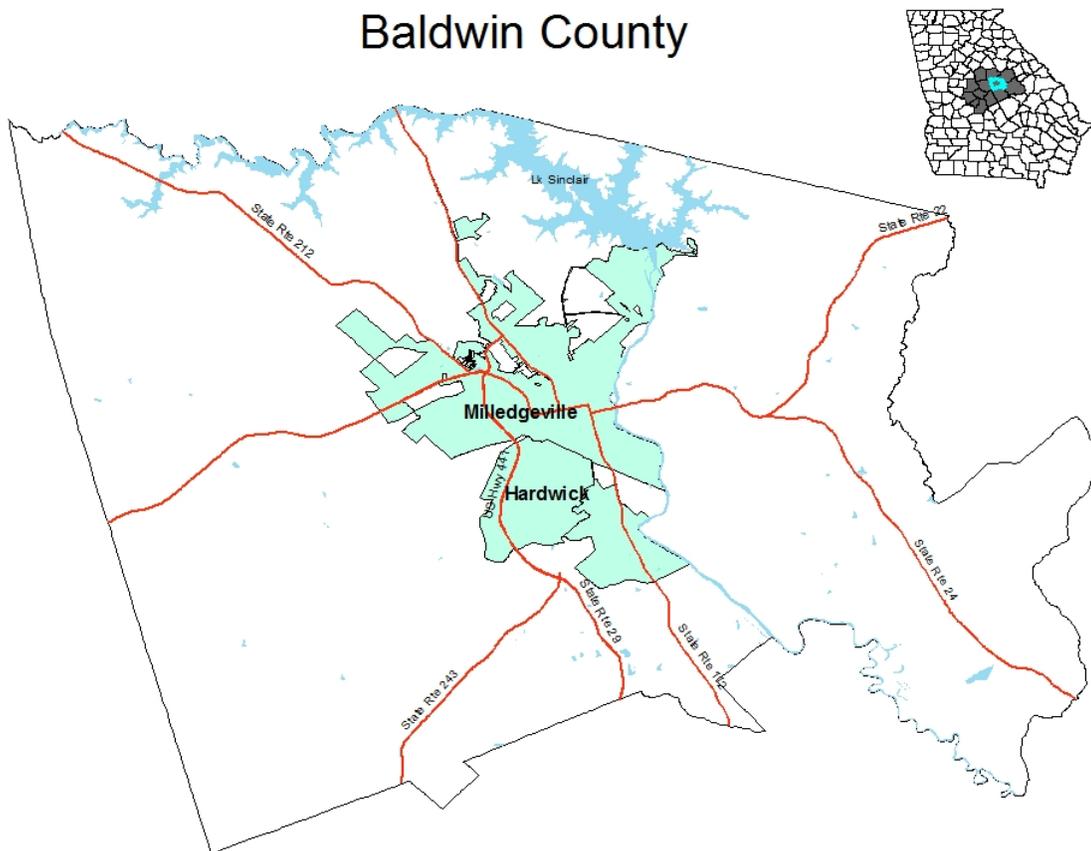
The North Central Health District (NCHD) is composed of 13 counties located in Middle Georgia. These counties are Baldwin, Bibb, Crawford, Hancock, Houston, Jasper, Jones, Monroe, Peach, Putnam, Twiggs, Washington, and Wilkinson Counties. According to the United States Census Bureau it accounts for approximately 520,905 people. The goal of the NCHD is optimal health for all Georgians and also strives to prevent diseases, promote health and protect communities against health threat. The success of NCHD is directly correlated to ideal participation and collaboration from the representative counties.

## BALDWIN COUNTY OVERVIEW

### History and Geography

Baldwin County was created on May 11, 1803 and the county seat in Milledgeville used to be the state capital from 1804 to 1868, when the honor was transferred to Atlanta. The State of Georgia has a strong presence in the county with the Middle Georgia Correctional Institution, Central State Hospital, the Youth Development Center, and two University System units. The historic district of Milledgeville includes the Old State Capitol and Governor’s Mansion. It is also the only city designed specifically to be a state capital.

**Figure 1: Map of Baldwin County**



## General Population Characteristics

- **The NCHD is home to 520,905 individuals.**
- **Baldwin County represents 9% of the population within NCHD**, and has 371.2 people per square mile of land area.
- Between 2000 and 2010 the population in Baldwin County grew by 1%.
- The majority of the populations are within the working age group of 18-64 years of age and White and Black/African American are the most prevalent races.

## Household Characteristics

- **The number of households has increased by 24%** since 2000 in Baldwin County, which is mostly seen in family and non-family households.

**Table 1: General Population Characteristics.**

Demographic Characteristics of Baldwin County		
<b>General Characteristics</b>		
Total Population	45720	
Median age (years)	34.1	
% Under 18 years	21%	
% 18-64 years	67%	
% ≥ 65 years	12%	
% Male	50%	
% Female	50%	
<b>Race/Ethnicity</b>		
% American Indian/ Alaska Native	0.2%	
% Asian	1.3%	
% Black/ African American	42%	
% Native Hawaiian/Other Pacific	0.0%	
% White	55%	
% Other Races	0.8%	
% Two or More Races	1.2%	
% Hispanic/Latino (of any race)	2%	
<b>Household Characteristics</b>		
Average Household Size	2.45	
Average Family Size	2.97	
Total Households	16,788	
	Family Households	61.8%
	Nonfamily Households	38.2%
Family Households with Children (<18 years old)		4,294
	Married Couple Households with Children	38%
	Female Householder with Children	19%
	Male Householder with Children	2%

Source: U.S. Census Bureau

**Employment**

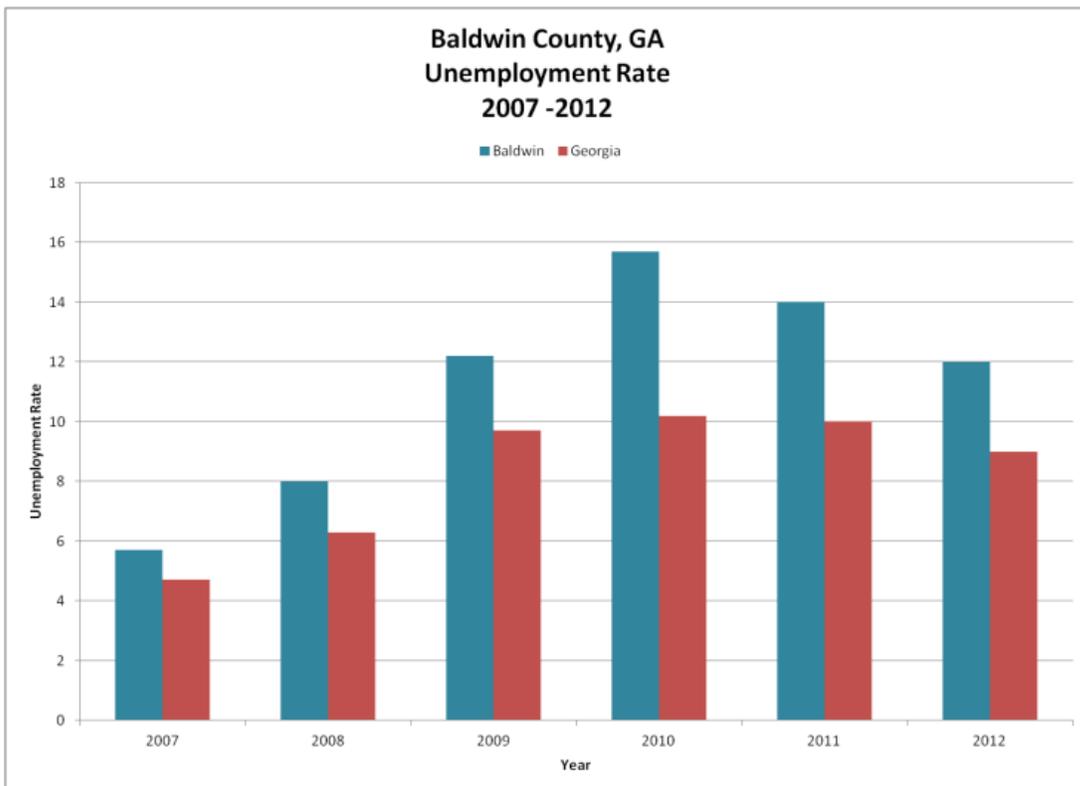
- **The unemployment rate in Baldwin County has consistently stayed above the state unemployment rate.**
- **The median household income is lower than the state average and the number of children in poverty is at a higher percentage in Baldwin County.**

**Table 2: Economic Indicators**

Economic Indicators		
	Baldwin	Georgia
Unemployment Rate, 2012	12.0	9.0
Median Household Income, 2010	\$36,091	\$46,252
% Population Employed 16 years and over	39%	44%
Children in poverty	35%	25%
% of Households with food Stamp/SNAP benefits in the past 12 months	14%	10%

Source: U.S. Census Bureau

**Figure 2: Changes in the Unemployment Rate.**



Source: Bureau of Labor and Statistics

## Education

- Table 3 details the number of elementary, middle, and high schools located in each county, school enrollment, free/reduced lunch, graduation rates, HOPE qualifications for the 2009-2010 school year, and educational attainment for adults (age 25 and over).
- Baldwin County has a total of **6 public schools with a total enrollment of 5,467 kids and had a higher proportion of students in the school system who qualify for free/reduced lunch (73%) compared to the state (56%).**
- **Of those adults 25 and over in Baldwin County, only 18% have a college degree and 36% only have up to a high school diploma.**

**Table 3: Education Information**

<b>Baldwin County Education Information, 2010/2011 School Year</b>		
<b>Total Number of Schools</b>	<b>Elementary</b>	4
	<b>Middle</b>	1
	<b>High</b>	1
<b>Total Enrollment</b>		5,467
<b>% Students Qualifying for Free/Reduced Lunch</b>		73%
<b>2011 Graduation Rate</b>		5.0%
<b>% 2010 Graduates Eligible for HOPE</b>		22.8%
<b>% Illiterate*</b>		19.8%
<b>Educational Attainment*</b>	<b>Less than 9th grade</b>	8%
	<b>9th to 12th grade, no diploma</b>	14%
	<b>High school graduate (includes equivalency)</b>	36%
	<b>Some college, no degree</b>	18%
	<b>Associate's degree</b>	6%
	<b>Bachelor's degree</b>	10%
	<b>Graduate or professional degree</b>	8%

Sources:

\*U.S. Census Bureau

#U.S. Dept of Ed

All other data: GA Dept of Ed

For the 2010-2011 school year, a cohort graduation rate was used. To see a description of how this was calculated go to <http://gaosa.org/reportinfo.aspx#indicators>.

## HEALTH CARE ACCESS

Health care access requires financial coverage and access to providers. Lack of health insurance has a profound negative effect on access to health care. Those without insurance are less likely to have regular medical care and are more likely to go without care.

- **21%** of the Baldwin County population was uninsured in 2010.
- **18%** of adults in the North Central Health District reported being in fair or poor health.

Residents must have access to healthcare facilities and providers and the amount of those in a community is an indicator of the adequacy of health services available.

**Table 4: Health Care Resources**

Health Resources, Baldwin County		
<b>Number of Physicians/ 100,000 population</b>	<b>Total</b>	177.2
	<b>Primary Care</b>	70
	<b>Obstetricians/Gynecologists</b>	10.9
	<b>Specialists</b>	107.2
	<b>Psychiatrists</b>	19.7
	<b>Dentists</b>	39.4
<b>Facilities</b>	<b>Total number of hospitals</b>	2
	<b>Number of Beds, Total</b>	958
	<b>Ambulatory Surgical Centers</b>	0
	<b>Community Mental Health Centers</b>	0
	<b>Federally-Qualified Health Centers</b>	0

Source: U.S. Department of Health and Human Services

## LEADING CAUSES

### Leading Cause of Mortality

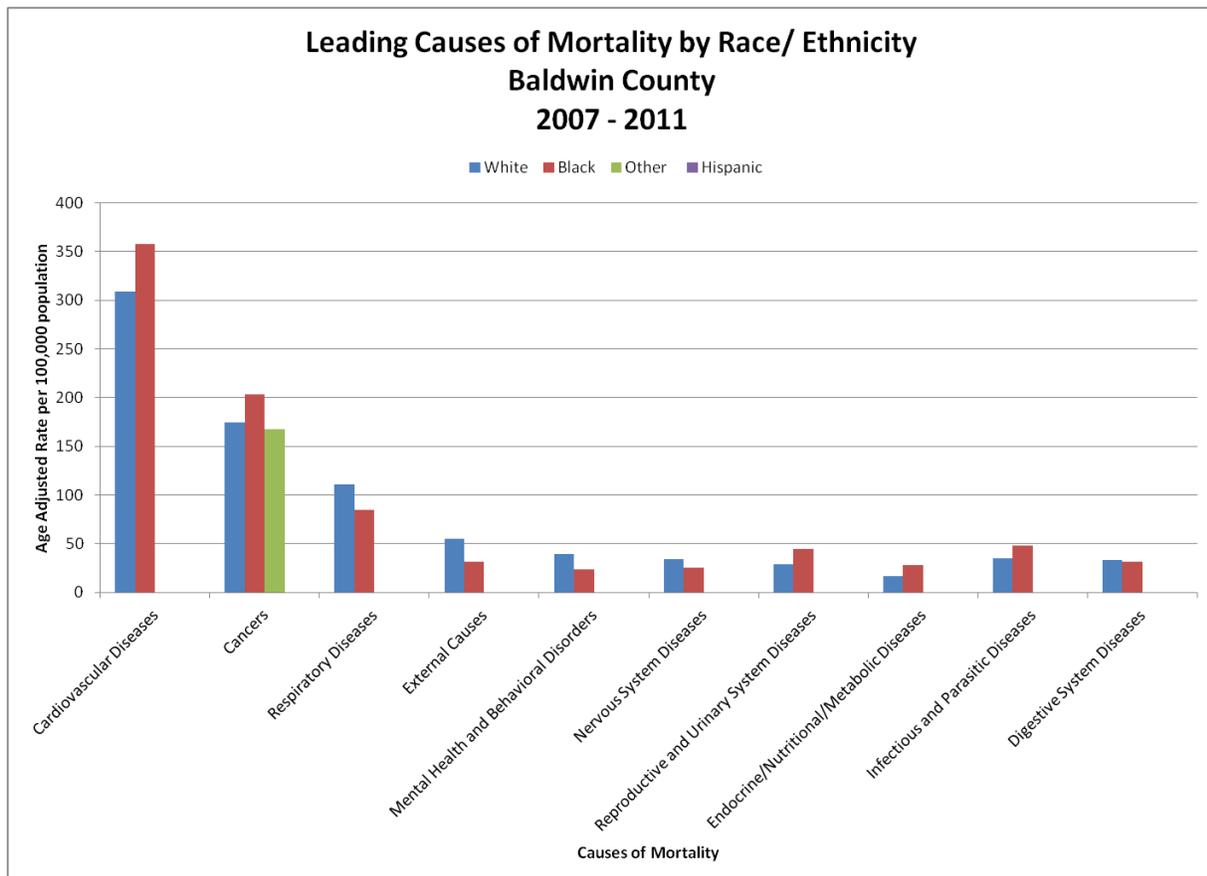
- **Heart disease and Cancer are the leading causes of death in Baldwin County.**
- From 2007-2011, there were a total of 1,885 deaths in Baldwin County, averaging **377 deaths per year.**
- During that same period, the overall mortality rate of the white population was 838.3 per 100,000 populations and the overall mortality rate of the black population was 879.4 per 100,000 populations.

**Table 5: Leading Causes of Mortality**

Cause of Death
Cardiovascular Diseases
Cancers
Respiratory Diseases
External Causes
Mental Health and Behavioral Disorders
Nervous System Diseases
Reproductive and Urinary System Diseases
Endocrine/Nutritional/Metabolic Diseases
Infectious and Parasitic Diseases
Digestive System Diseases

Source: OASIS

**Figure 3: Leading Causes of Mortality by Race/Ethnicity**



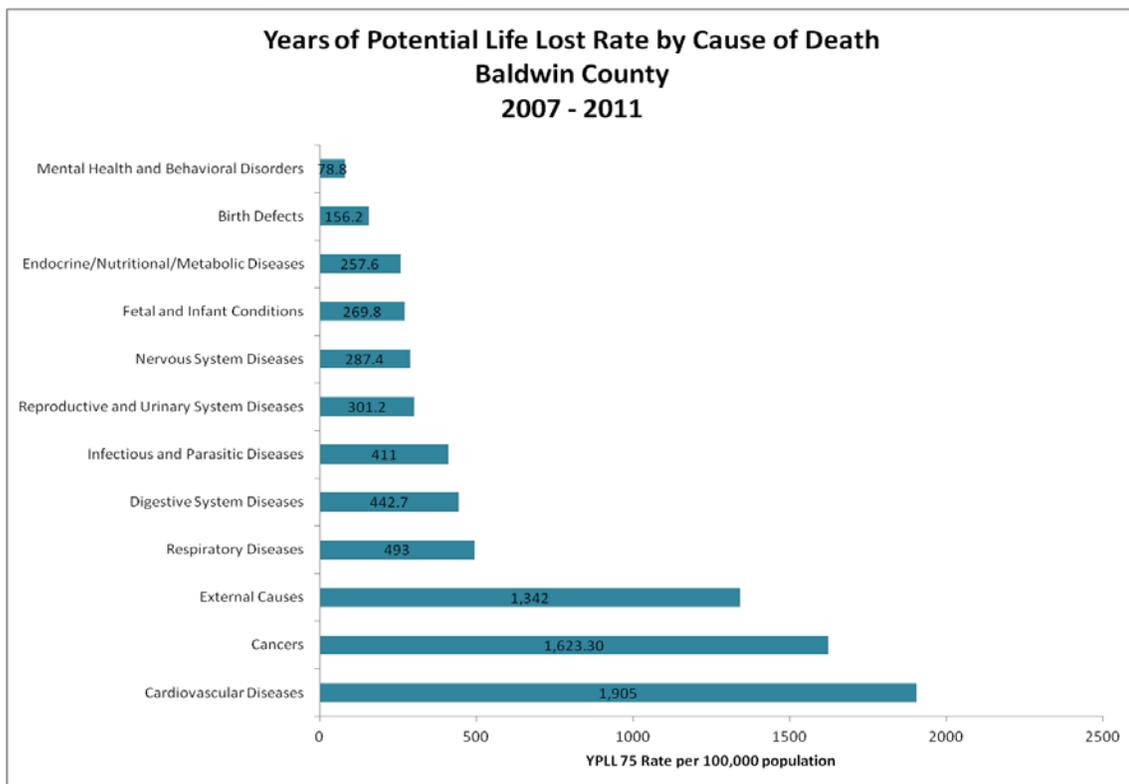
Source: OASIS

Other Race=Asian, American Indian or Alaska Native, Native Hawaiian or Pacific Islander, or Multiracial

### Leading Causes of Premature Deaths

- **The top 5 leading causes of premature death in Baldwin County are Cardiovascular Disease, Cancers, External Causes, Respiratory Diseases, and Digestive System Disease.**
- Premature death is measured by the number of Years of Potential Life Lost (YPLL) due to a death occurring before the age of 75. The YPLL rate is calculated by taking the total years of life lost and dividing by the population younger than 75.

**Figure 4: Leading Causes of Premature Death**



Source: OASIS

### Leading Cause of Hospitalizations

- In Baldwin County, the leading causes of hospitalization were External Causes, Respiratory Disease, Bone and Muscle Disease, Digestive System Disease, and Reproductive and Urinary System Disease

**Table 6: Leading Causes of Hospitalizations**

Cause of Hospitalization
External Causes
Respiratory Diseases
Bone and Muscle Diseases
Digestive System Diseases
Reproductive and Urinary System Diseases
Infectious and Parasitic Diseases
Cardiovascular Diseases
Pregnancy and Childbirthing Complications
Nervous System Diseases
Mental Health and Behavioral Disorders
Endocrine/Nutritional/Metabolic Diseases

Source: OASIS

## CHRONIC DISEASE

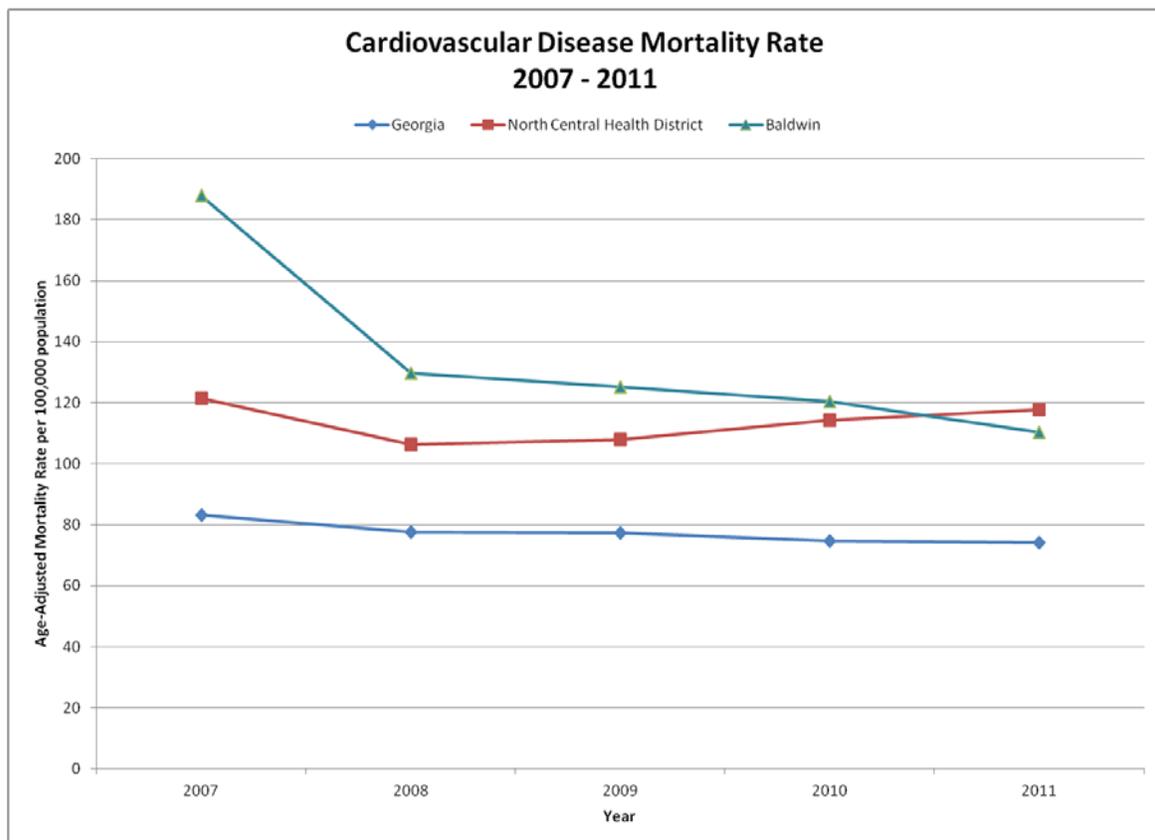
According to the Centers of Disease Control and Prevention (CDC), chronic diseases (such as cardiovascular disease, cancer, diabetes, and asthma) are “the most common, costly, and preventable of all health problems” in the country. Most chronic diseases are caused by modifiable behaviors, and are commonly referred to as risk behaviors. The four most common risk behaviors are lack of physical activity, poor nutrition, tobacco use, and excessive alcohol consumption.

### Cardiovascular Disease

Cardiovascular disease (CVD) is the leading cause of death, hospitalization, and years of potential life lost in the district and it is the leading cause of disability in the U.S. The cost of CVD in the U.S. is estimated at \$444 billion, and treatment accounts for \$1 for every \$6 spent on health care. CVD includes all diseases of the heart and blood vessels; such as obstructive heart disease, stroke, high blood pressure, hypertension, atherosclerosis, and aortic aneurysms. Risk factors of CVD include high cholesterol, high blood pressure, diabetes, and behavior and lifestyle choices such as tobacco use, diet, physical activity, obesity, and alcohol. Family history of CVD can also make an individual more susceptible.

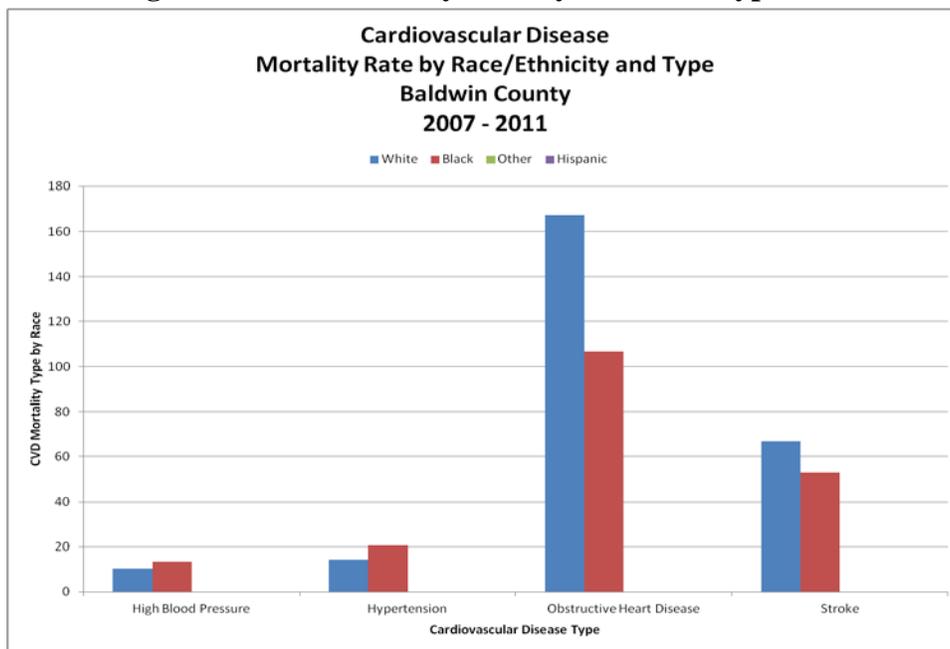
- The 2007-2011 **Obstructive Heart Disease, which includes heart attacks, is the leading cause of heart disease** in Baldwin County (135.1 per 100,000 population) and is higher than the Georgia rate of 77.4 and the NCHD rate of 113.5.

Figure 5: CVD Mortality Rate



- The mortality rate for Cardiovascular Disease in Baldwin County is **highest among the white population** from 2007-2011 was 258.6 per 100,000 population. The black mortality rate for CVD during this time was 193.9 per 100,000, other races showed no trend.

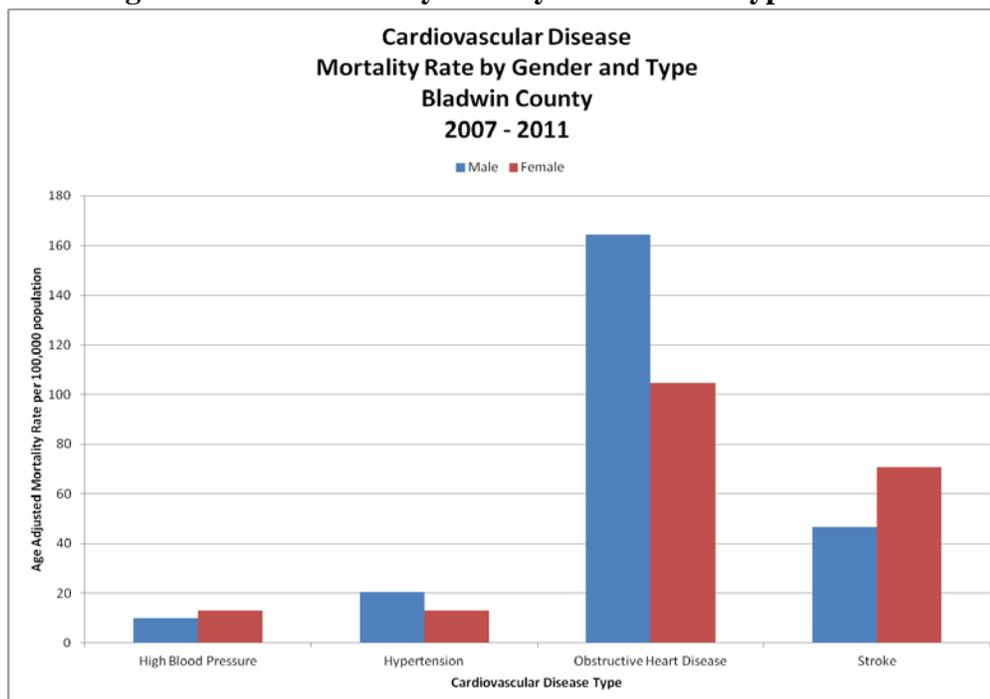
**Figure 6: CVD Mortality Rate by Race and Type**



Source: OASIS

- When comparing genders, males have slightly higher mortality rates than females.

**Figure 7: CVD Mortality Rate by Gender and Type**

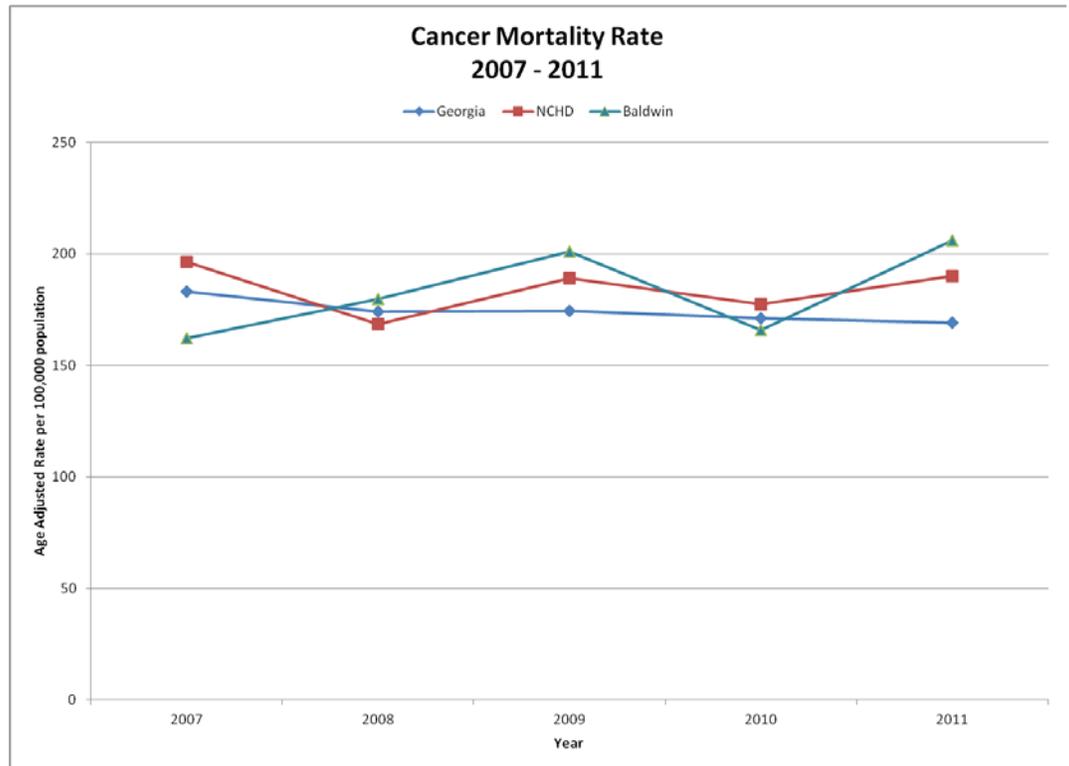


Source: OASIS

**Cancer**

Cancer is a disease in which cells divide abnormally without control and can invade adjacent tissues. The cells can also metastasize and spread to other parts of the body through the blood and lymphatic system. Nearly 2/3 of cancer deaths are associated with behavioral factors such as tobacco use, diet, obesity, and lack of physical activity.

**Figure 8: Cancer Mortality Rates.**



Source: OASIS

- Cancer is a leading cause of death in the U.S. and Georgia, and the second cause of death in Baldwin County.
- **The mortality rate due to cancer has steadily decreased in Georgia since 2007 but has increased in Baldwin County since 2011.**

**Table 7: Mortality Rates due to Leading Causes of Cancer by Gender.**

Age Adjusted Mortality Rates per 100,000 population due to Leading Causes of Cancer by Gender, 2007 - 2011					
Males	Baldwin	Georgia	Females	Baldwin	Georgia
Lung Cancer	62	68.9	Lung Cancer	34.9	37.7
Prostate Cancer	18.8	25.5	Breast Cancer	20	23
Pancreatic Cancer	17.3	12.1	Pancreatic Cancer	12.3	9
Colon Cancer	17.1	19.6	Colon Cancer	12.2	13.6

Source: OASIS

- **Lung cancer is the leading cause of cancer mortality for both men and women in Baldwin County and Georgia.**
- The 2<sup>nd</sup> leading cause of cancer mortality is prostate cancer for men and breast cancer for women.

**Table 8: Leading Causes of Cancer Incidence by Gender and Race**

Leading Causes of Cancer Incidence by Gender and Race, Baldwin County, 2004 - 2008							
White Male	Incidence Rate	Black Male	Incidence Rate	White Female	Incidence Rate	Black Female	Incidence Rate
Prostate	130.4	Prostate	289.29	Breast	181.25	Breast	137.18
Lung	110.5	Lung	145.34	Lung	76.03	Colon/ Rectal	61.14
Colon/ Rectal	47.7	Colon/ Rectal	67.34	Colon/ Rectal	34.15	Lung	31.75
Bladder	36.7	Bladder	24.78	Lymphoma	21.03	Lymphoma	17.08
Melanoma	31.2	Oral	22.46	Ovary	13.37	Thyroid	22.88

Source: Georgia Comprehensive Cancer Registry  
 Incidence Rate = new cases per 100,000 population

- The leading causes of new cancer cases in Baldwin County among males were prostate and lung cancer and in females breast cancer.
- **The incidence rate for lung cancer among white and black males and in white females in Baldwin County is higher than the U.S. rate for white males (79.9 per 100,000), black males (95.1), and white females (50.3).**

**Table 9: Routine Preventative Cancer Screenings**

Percent of Adult Residents Reporting Routine Preventative Cancer Screenings, 2006 - 2010	North Central Health District (Macon)	Georgia
Prevalence of Mammography in the Last 2 Years among Women	81%	77.7%
Prevalence of Pap Testing in the Last 3 Years among Women, AGE 18+	89.4%	86.9%
Prevalence of ever having had a Sigmoidoscopy or Colonoscopy among adults, AGE 50+	62.5%	63%
Prevalence of Adult Men 40+ years old, which had a Prostate Cancer Screening in the Last Two Years.	67.7%	59.1%

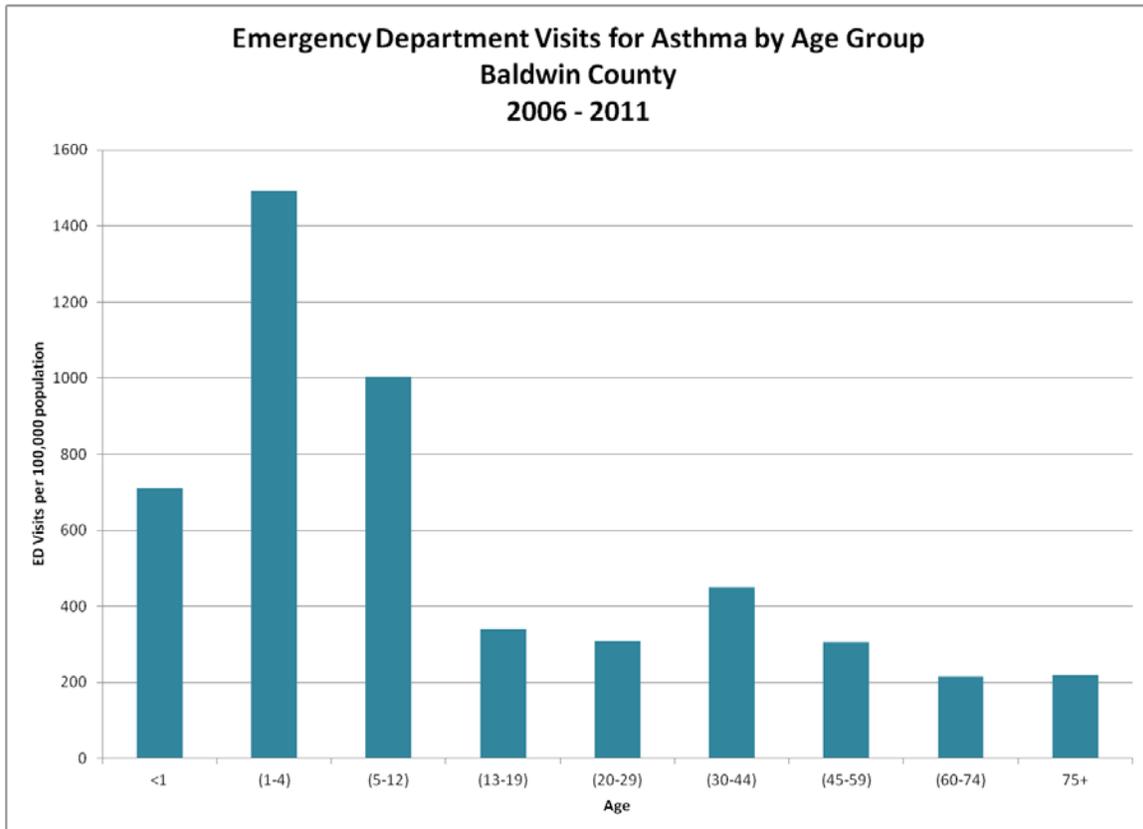
Source: OASIS

- **The North Central Health District has a larger percentage of residents receiving routine cancer screenings** including: mammography, pap smears and prostate screenings compared to Georgia. However, the percentage of residents reporting sigmoidoscopy or colonoscopy is slightly lower than the state.

## Asthma

Asthma is a chronic respiratory disease that affects the lungs. It causes recurring incidents of wheezing, breathlessness, chest tightness, and nighttime or early morning coughing. Asthma can be controlled by medication and by staying away from environmental triggers than can cause an attack. Common asthma triggers include tobacco smoke, dust mites, pollution, cockroaches, pets, and mold.

**Figure 9: Emergency Department Visits by Age Group**



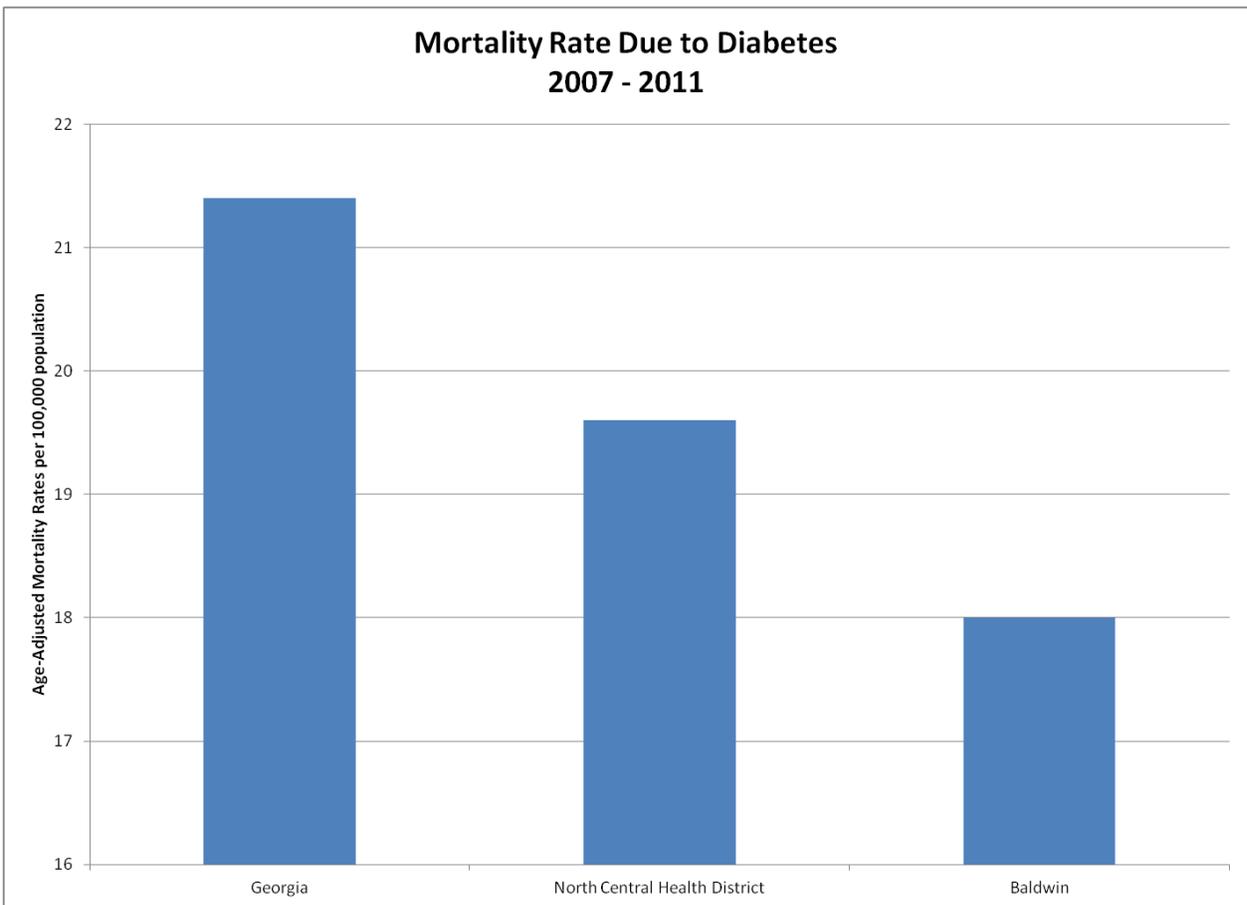
Source: OASIS

- From 2006-2010 in Baldwin County, **Asthma accounted for 1,037 (1.1%) of emergency department visits and had a hospital discharge rate of 442.2 per 100,000.**
- From 2006-2010 in Baldwin County, **children ages 1-12 were most affected** by asthma symptoms that led to an emergency department visit.
- The emergency department visit rates in Baldwin County due to asthma were much **higher for blacks (675.2 per 100,000 population) and other races (627.1) compared to whites (257.4)**
- In the North Central Health District 8.1% of adults have been told they currently have asthma compared to the state of Georgia at 7.7%.

## Diabetes

Diabetes mellitus is a disease characterized by high blood sugar levels. It is the result of the body's inability to produce and/or use insulin made by the pancreas. It can cause serious health complications including heart disease, blindness, kidney failure, and lower extremity amputations. Risk factors which contribute to the development of adult onset diabetes (type 2) include older age, obesity, genetics, history of pregnancy related diabetes, impaired glucose tolerance, physical inactivity, and race/ethnicity.

**Figure 10: Age Adjusted Mortality Rate for Diabetes**



Source: OASIS

- In Baldwin County:
  - **The black mortality rate from 2007-2011 due to diabetes (13.5) was higher than the white mortality rate (9.6).**
  - The age adjusted emergency department visit rate for diabetes from 2006-2010 was 211.7 per 100,000.
    - Black: 435.6
    - White: 206.7
    - Other: 101.7
- In the North Central Health District 11.4% of adults have been told they are diabetic compared to the state of Georgia at 9.5%.

## Alcohol Use

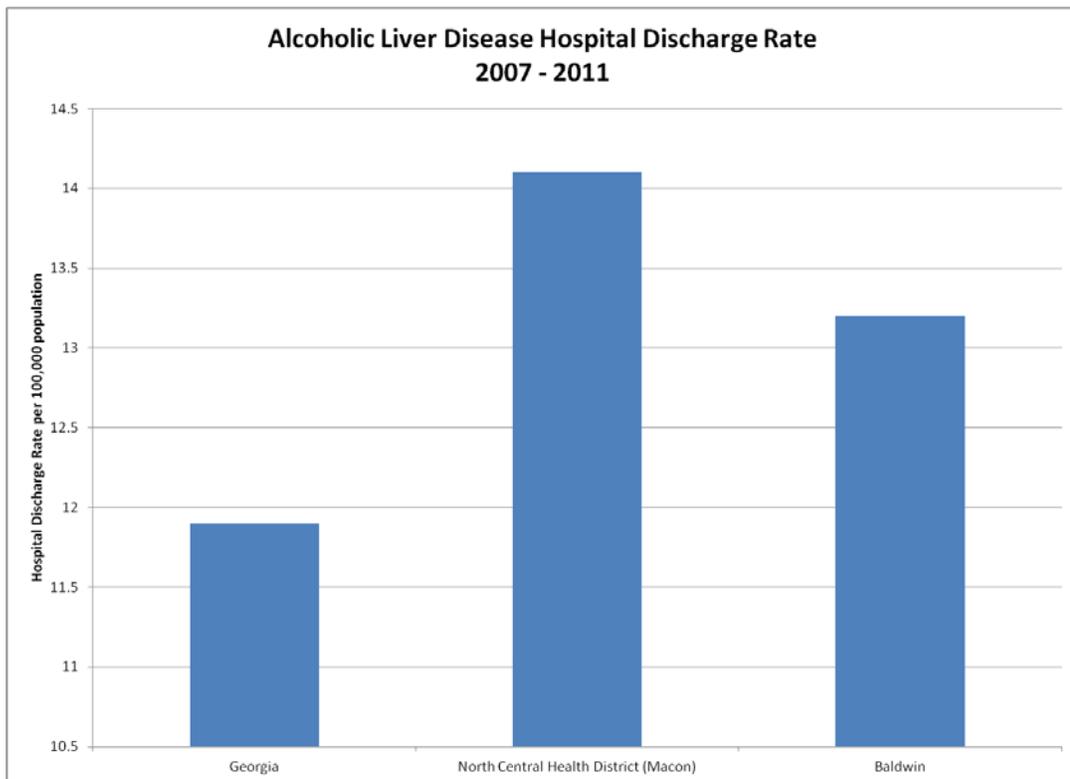
Over time, excessive alcohol use can lead to the development of chronic diseases, neurological impairments and social problems. These include but are not limited to—

- Cirrhosis of the liver
- Pancreatitis
- Gastritis
- Cancer of the mouth, throat, esophagus, liver, colon, and breast
- High Blood Pressure
- Psychiatric problems
- Cardiovascular diseases, such as hypertension and myocardial infarction (heart attack)
- Neurological problems, such as dementia and stroke
- Unintentional Injuries
- Poor birth outcomes

In the North Central Health District **11.7% of adults report binge drinking** (defined as 5+ drinks/day for men and 4+ drinks/day for women) compared to the state of Georgia at 12.5%.

Alcoholic liver disease (cirrhosis) is caused by damage to the liver and its function due to alcohol abuse. It can cause health complications such as bleeding disorders, fluid in the abdomen, portal hypertension, hepatic encephalopathy, kidney failure and liver cancer. **The hospital discharge rate from alcoholic liver disease in Baldwin is higher than the state of Georgia.**

**Figure 11: Hospital Discharge Rate due to Alcoholic Liver Disease**



## Smoking

Smoking harms nearly every organ of the body and is the cause of many diseases. These include but are not limited to—

- Coronary heart disease
- Stroke
- Lung disease, such as lung cancer, emphysema, bronchitis and chronic airway obstruction
- Cancers such as acute myeloid leukemia, bladder, cervix, esophagus, kidney, larynx, lung, oral, pancreatic, pharynx, stomach, and uterus)
- Abdominal aortic aneurysm
- Reproductive and early childhood problems (infertility, preterm birth, stillbirth, low birth weight, and Sudden Infant Death Syndrome (SIDS))

The adverse health effects from cigarette smoking account for an estimated 443,000 deaths, or nearly one of every five deaths, each year in the United States. In the North Central Health District **22.9% of adults report being a current smoker** compared to the state of Georgia at 18.8%.

## Overweight/Obesity

Overweight and obesity are terms used to describe weight that is above what is considered healthy. For adults, the terms are dependent on an individual's body mass index. Overweight is defined as a BMI of 25-29.9 and obesity is defined as a BMI of 30 or higher. Obesity and being overweight are associated with an increased risk of certain disease and health problems, including —

- Coronary heart disease
- Type 2 diabetes
- Cancers
- High blood pressure
- High Cholesterol
- Stroke
- Liver and gallbladder disease
- Sleep apnea and respiratory problems
- Osteoarthritis
- Gynecological problems

There are a variety of factors that contribute to being overweight or obese; these include caloric intake, environment, activity levels, genetics, and medication.

In Baldwin County

- **31%** of Adults report being obese.
- **28%** of Adults report no leisure time physical activity.
- **9%** of the population who are low-income and do not live close to a grocery store.
- **52%** of the restaurants are fast-food establishments.
- There are **11** recreational facilities per 100,000 populations.
- **11%** of the population lives within half a mile of a park.

Source: County Health Rankings

## INFECTIOUS DISEASE

The Georgia Department of Public Health, under the legal authority of OCGA 31-12-2 has designated certain diseases and conditions notifiable. The purpose of reportable disease surveillance is to:

- identify in a timely way any diseases or conditions that may require immediate public health intervention and follow up;
- detect changing trends or patterns in disease occurrence;
- identify areas or communities that require special public health response as a result of changes in disease patterns; and
- Assess and evaluate control and prevention interventions.

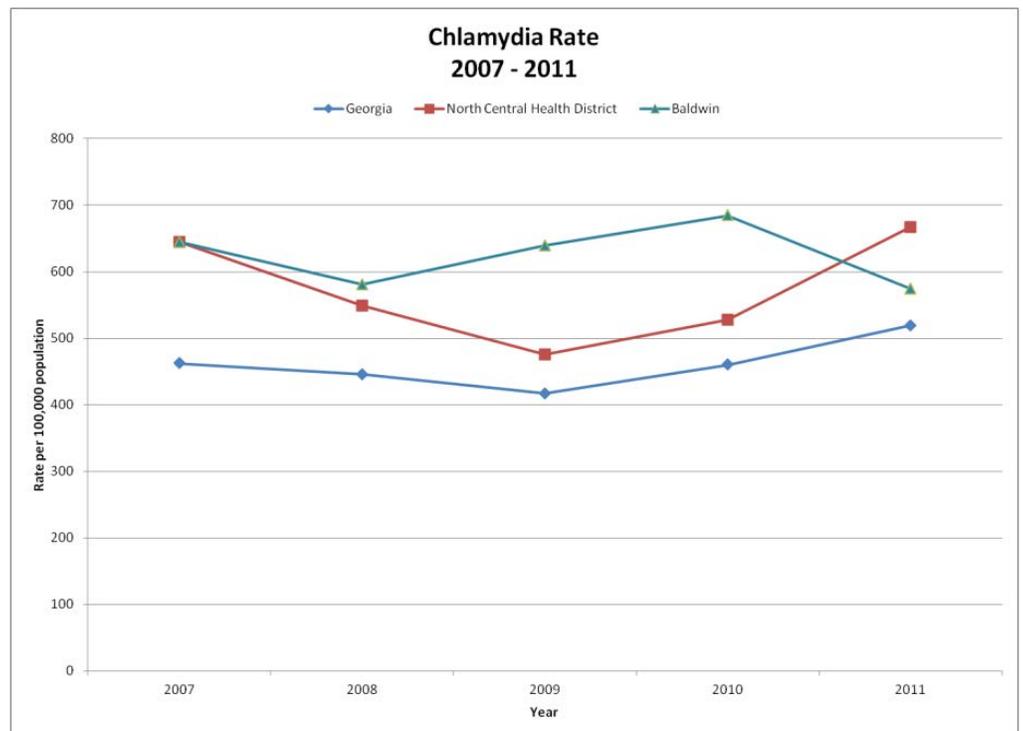
In Georgia, public health surveillance is conducted on more than 50 diseases and conditions. The data are collected by local and state health agencies who are responsible for analyzing, interpreting and disseminating the information to "those who need to know" for administrative, program planning, and decision making purposes.

### Sexually Transmitted Diseases (STD)

#### *Chlamydia*

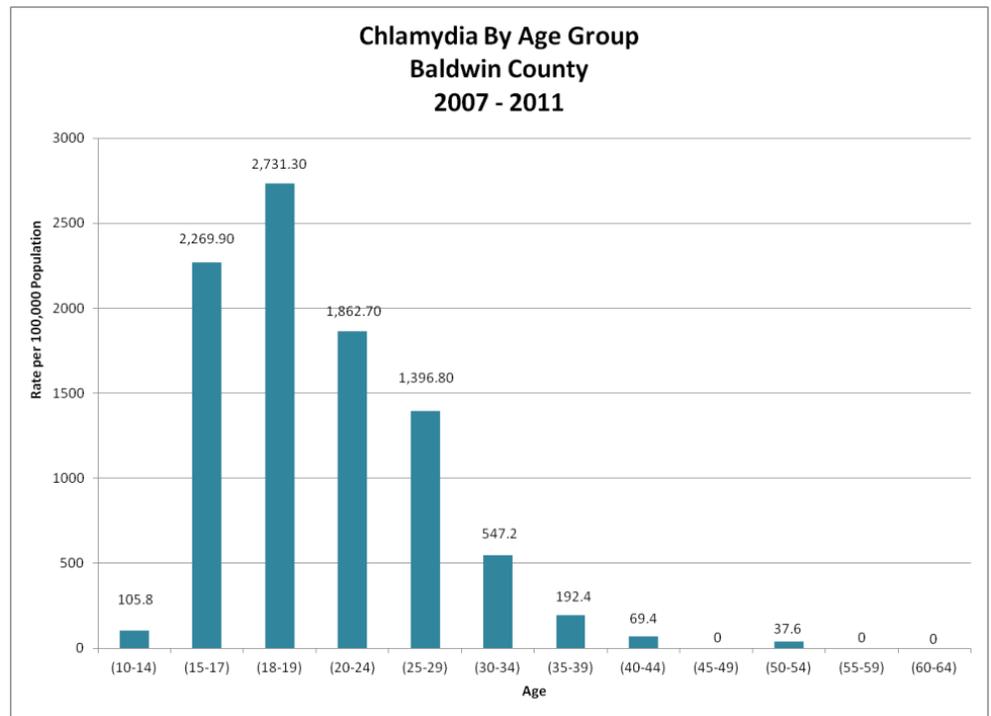
A common STD, Chlamydia is known as a silent disease because about  $\frac{3}{4}$  of infected women and about  $\frac{1}{2}$  of infected men have no symptoms. If symptoms do occur, they usually appear within 1 to 3 weeks after exposure. If untreated, Chlamydia infections can progress to serious reproductive and other health problems with both short term and long term consequences.

**Figure 12: Chlamydia Rate**



- According to 2011 data, **Georgia ranks 7<sup>th</sup> highest** in the U.S. for rates of Chlamydia.
- From 2007-2011, **Baldwin County ranked 31<sup>st</sup> highest** for the number of Chlamydia cases and **36<sup>th</sup> highest** for the rate (cases per 100,000)

**Figure 13: Chlamydia Rate by Age Group**



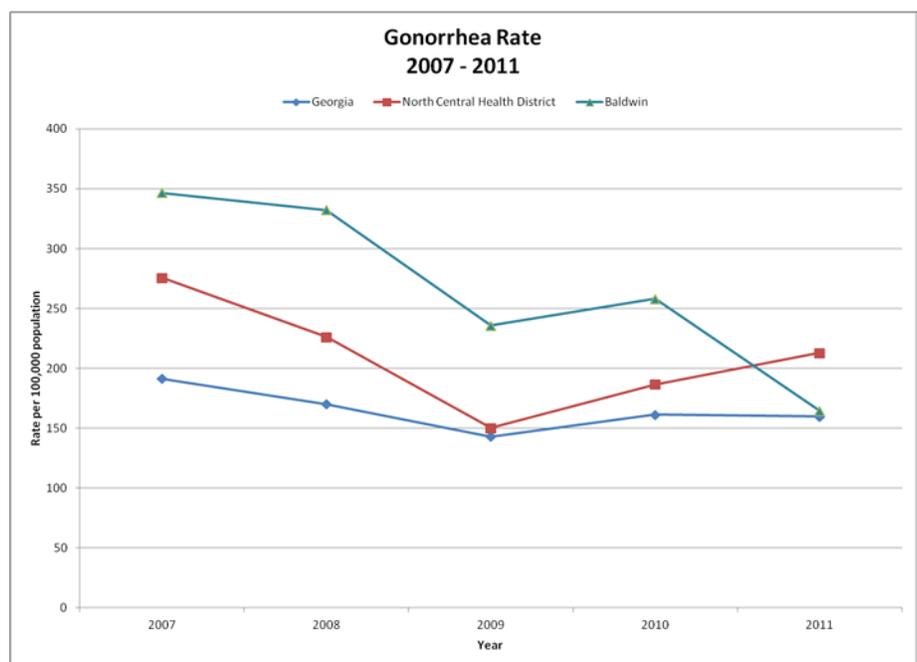
Source: OASIS

- The highest rates of Chlamydia in Baldwin County are among 15-24 year olds.
- In Baldwin County, of the known Chlamydia cases where race was identified, the rate among the black population of 660.6 per 100,000 and the Hispanic population, 325.1 per 100,000 was significantly higher than the white (82) and other (121.7)

*Gonorrhea*

Gonorrhea is an STD that when left untreated causes serious and permanent health problems. In women, gonorrhea causes pelvic inflammatory disease. In men, gonorrhea causes a painful condition of the ducts attached to the testicles that may lead to infertility if left untreated (epididymitis). Since 2007 there has been an increase in drug resistant gonorrhea that has led to changes in national treatment guidelines.

**Figure 14: Gonorrhea Rate**

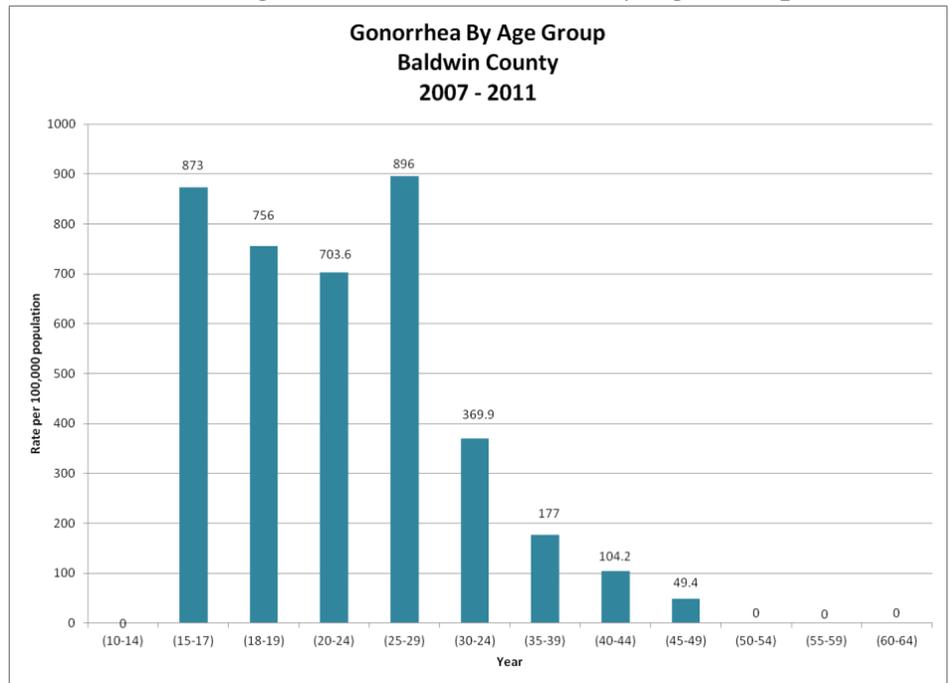


Source: OASIS

- According to 2011 data, **Georgia ranks 6<sup>th</sup> highest** in the U.S. for rates of Gonorrhea.
- From 2007-2011, **Baldwin County ranked 20<sup>th</sup> highest** for the number of Gonorrhea cases and **20<sup>th</sup> highest** for the rate (cases per 100,000)

**Figure 15: Gonorrhea Rate by Age Group**

- The highest rates of Gonorrhea in Baldwin County are among 15-29 year olds.
- In Baldwin County, of the known Gonorrhea cases where race was identified, the rate among the Black population of 338.1 per 100,000 and the Hispanic population (130) was significantly higher than the White (21.5) and Other (0) and populations.



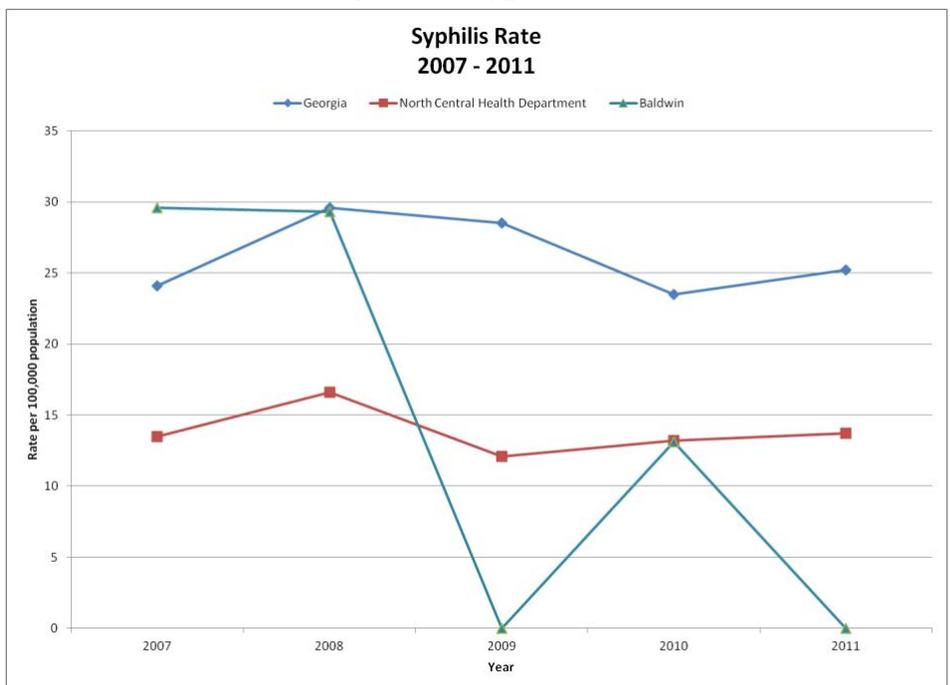
Source: OASIS

*Syphilis*

Syphilis is an STD referred to as “the great imitator” because many of its signs and symptoms are similar to other diseases. Initially it is characterized by appearance of one or more sores called chancres. Without treatment, the infected person will continue to have syphilis even though signs and symptoms may not be present. In the late stages, the disease may damage internal organs and lead to death.

**Figure 16: Syphilis Rate**

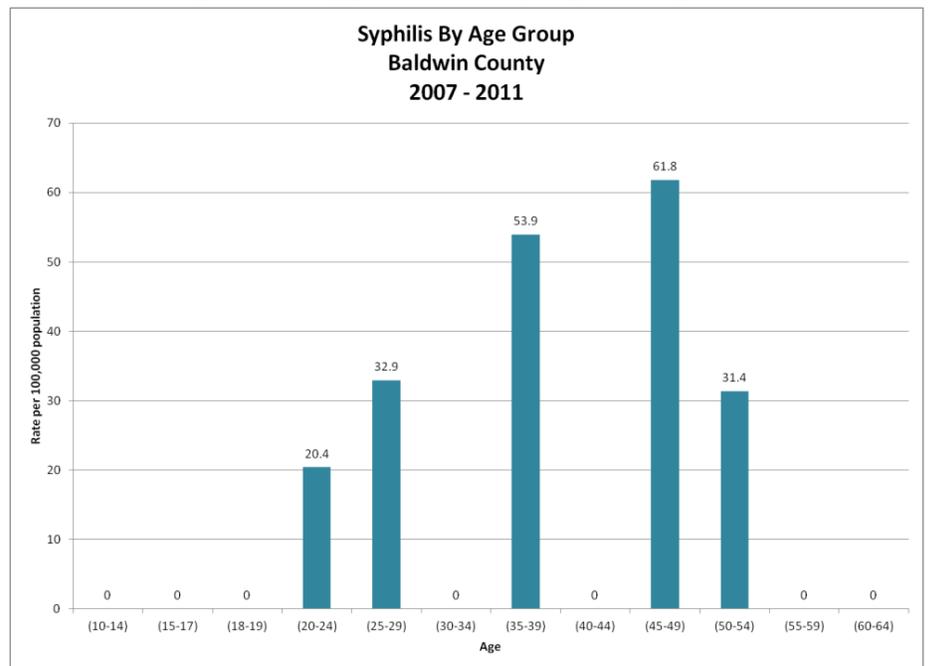
- According to 2011 data, **Georgia ranks 3<sup>rd</sup> highest** in the U.S. for rates of Primary and Secondary Syphilis.
- From 2007-2011, **Baldwin County ranked 24<sup>th</sup> highest** for the number of Syphilis cases and **19<sup>th</sup> highest** for the rate (cases per 100,000)



Source: OASIS

**Figure 17: Syphilis Rate by Age Group**

- The highest rates of Syphilis in Baldwin County are among 45-49 years.

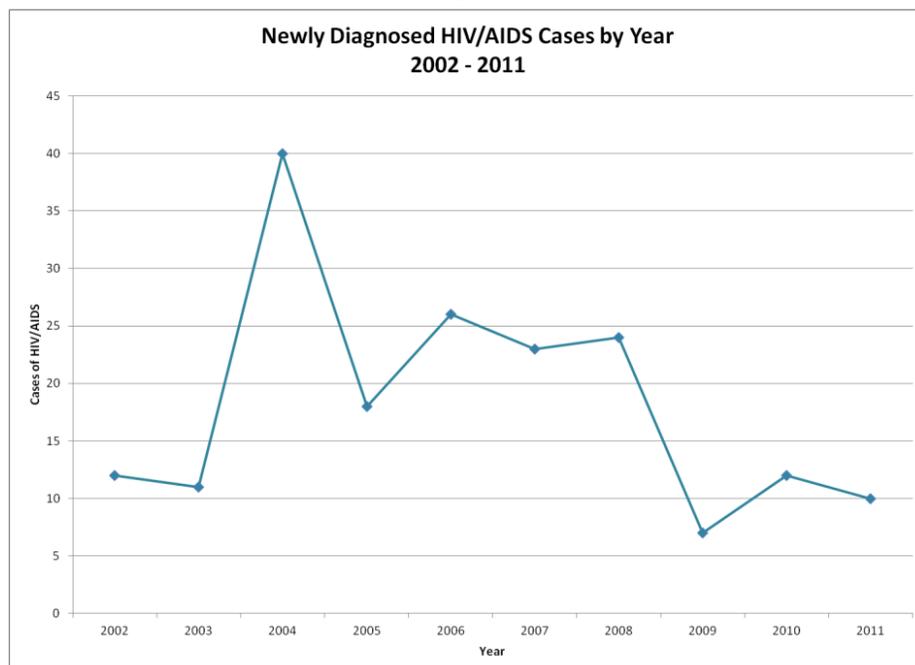


Source: OASIS

### Human Immunodeficiency Virus (HIV)

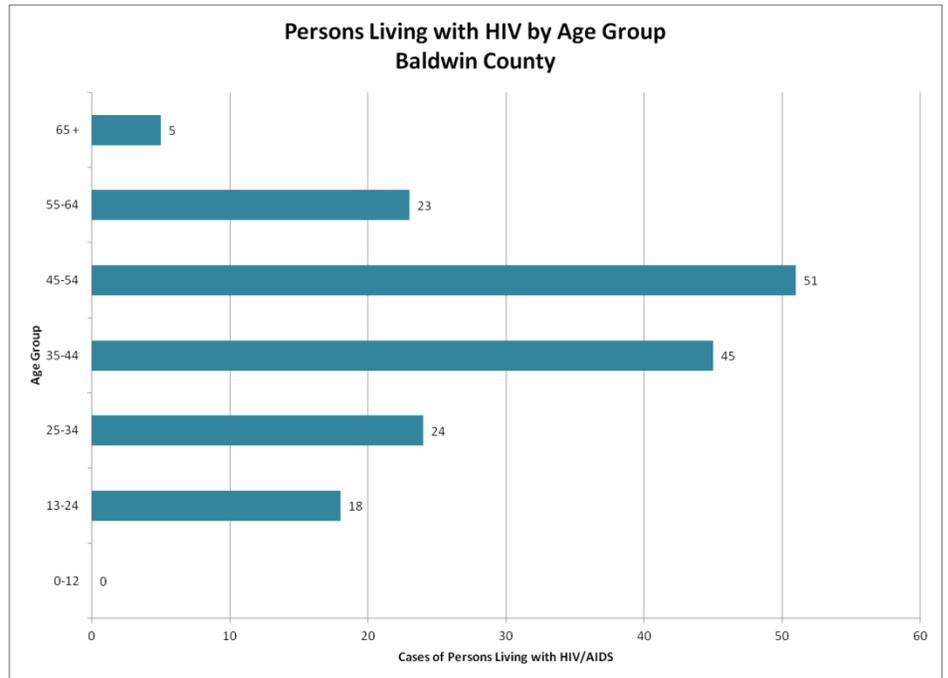
HIV can lead to acquired immunodeficiency syndrome (AIDS) and is unlike some other viruses, the human body cannot get rid of HIV. That means that once you have HIV, you have it for life. and is transmitted by contact with infected body fluids: blood, semen, vaginal fluids, and breast milk. The most common methods of transmission are sexual intercourse or sharing needles. No safe and effective cure currently exists, but work is being done to find one. Meanwhile, with proper medical care, HIV can be controlled.

**Figure 18: Newly Diagnosed HIV/AIDS Cases**



Source: Georgia Department of Public Health, HIV/AIDS Epidemiology Section

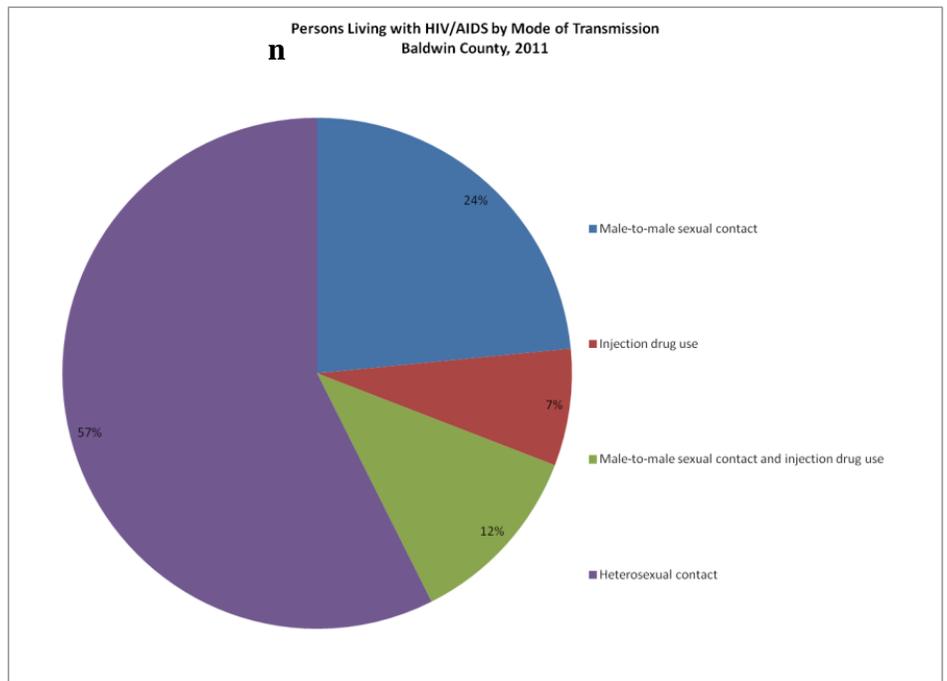
**Figure 19: Persons living with HIV/AIDS by Age Group**



According to the High School Youth Risk Behavior Survey in 2011 (covering grades 9-12), only **12.4%** of students report that they **were never taught** in school about AIDS or HIV infection.

Source: Georgia Department of Public Health, HIV/AIDS Epidemiology Section

**Figure 20: Mode of Transmission**



- Methods of transmission that are considered **high risk are blood recipients, male-to-male sexual contact, and heterosexual contact.**
- From 2006-2010, only **47% of adults in the NCHD reported ever being tested for HIV**, which was a 12% decrease from 2000-2004 (55%).

Source: Georgia Department of Public Health, HIV/AIDS Epidemiology Section

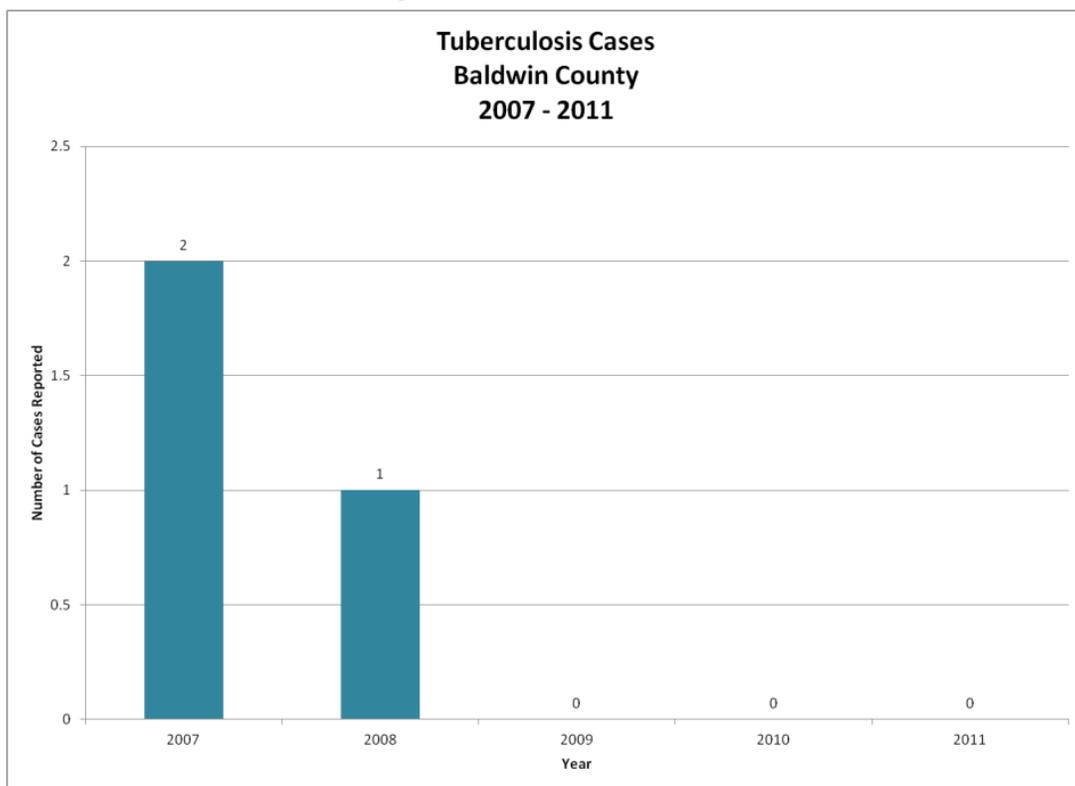
**HIV/AIDS DATA**

- Includes new diagnosis of HIV infection regardless of stage of disease at diagnosis
- Case counts include incarcerated persons and may artificially inflate the numbers

## Tuberculosis

Tuberculosis (TB) is a bacterial disease caused by *Mycobacterium tuberculosis*. The most common site of disease is the lung (pulmonary TB), but other organs may be involved. Pulmonary TB causes the following symptoms: coughing that lasts longer than 2 weeks, pain in the chest when breathing or coughing, and coughing up sputum or blood. A person can either have latent TB infection (LTBI) or active TB infection. LTBI is an infection with the bacteria that are alive but inactive in the body, there are no symptoms, and individuals cannot spread TB to others however they may develop active TB later in life if they do not receive treatment. Persons at higher risk for TB are individuals who are foreign born, HIV infected, refugee or immigrant, and those living in close quarters (congregate setting).

**Figure 21: Tuberculosis Cases**



Source: SENDSS

In Baldwin County from 2007-2011,

- TB occurred predominantly among **men (63%) compared to women (33%)**.
- The highest number and proportion of TB cases by age group for both sexes occurred among persons in the **60 to 69 age group**, followed by the 30 to 39 and 40 - 49 age group.
- There were **3 cases of TB in children (0-19)**
- **24% of TB Cases occurred in foreign born persons**. The most frequent country of origin of foreign born TB cases in Baldwin County are:
  - **Philippines 16%**
  - **India 4%**
  - **Unknown 4%**

**Vaccine Preventable Illness**

Prevention of diseases is the foundation of public health. Vaccine preventable diseases, such as polio, measles, diphtheria, Pertussis, rubella, mumps, tetanus, and Haemophilus influenza type b (Hib), are costly and result in missed time from work, doctor’s visits, hospitalizations, and possibly death. Through vaccination, children develop immunity without suffering from the actual diseases that vaccines prevent.

- From 2007-2011, there were no cases of mumps, Neisseria Meningitis, Pertussis, or Tetanus in Baldwin County.

**Table 11: Vaccine-Preventable Diseases in Baldwin County**

Vaccine Preventable Diseases (Cases), Baldwin County, 2007-2011					
Disease	2007	2008	2009	2010	2011
Haemophilus influenzae (invasive)	1	4	1	0	0
Mumps	0	0	0	0	0
Neisseria Meningitis	0	0	0	0	0
Pertussis	0	0	0	0	0
Streptococcus pneumoniae	9	9	9	8	4
Tetanus	0	0	0	0	0

Source: SENDSS

- **Vaccinations to prevent serious diseases are available at the Baldwin County Health Department, (478) 445 - 4274.**
- From 2007 - 2011, the Baldwin County Health Department gave 4,674 vaccinations.

**Table 12: Number of Vaccinations Given in the Health Department**

Number of Vaccines Given, Baldwin County, 2011	
DTP/aP	403
Hep A	281
Hep B	112
Hib	191
Influenza	1,622
Measels, Mumps, Rubella (MMR)	316
Meningo (Meningitis)	313
Polio	344
Tetanus (Td/Tdap)	635
Varicella (Chicken Pox)	457

Source: GRITS

### *Influenza*

Seasonal Influenza (flu) is a contagious respiratory illness caused by influenza viruses. It can cause mild to severe illness that can lead to hospitalization and death. Individuals that are considered to be at a higher risk for serious complications include: elderly individuals, young children, and people with other underlying health conditions. It is important to get a flu vaccination every year because the viruses included in the vaccination change.

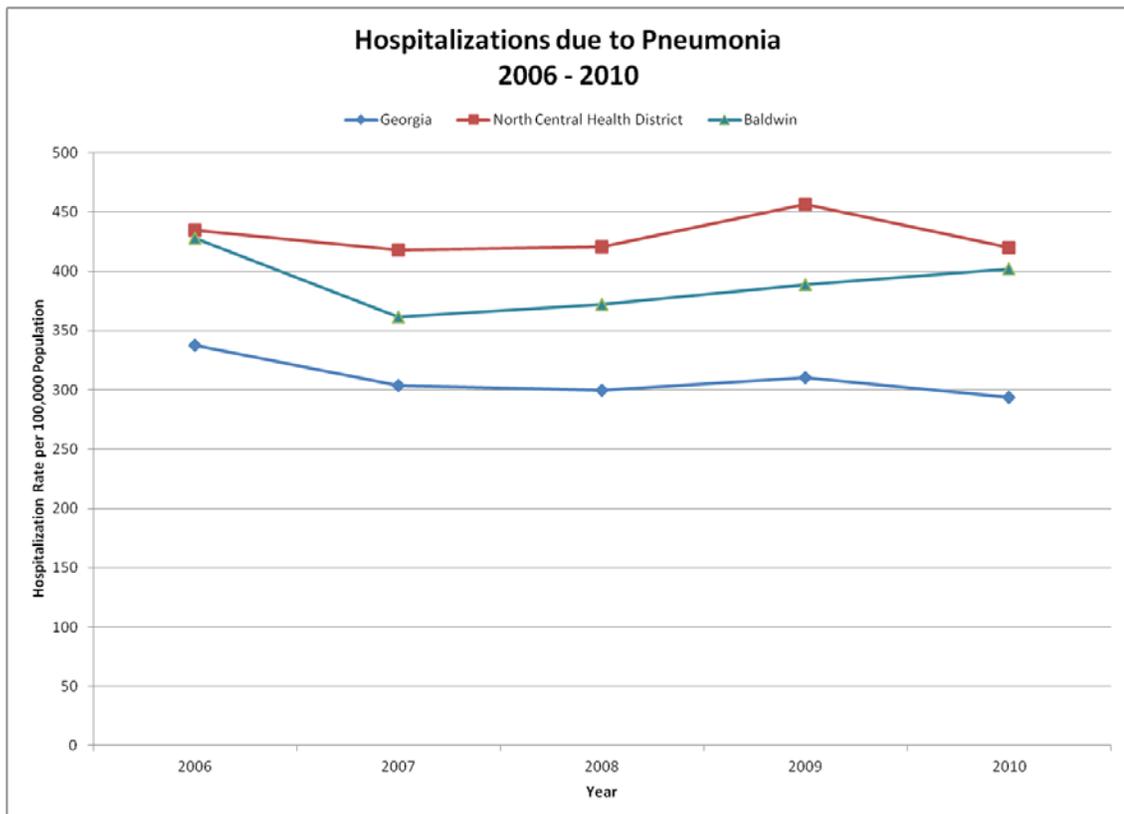
- **1,622 Influenza (flu) shots** were given in the **Baldwin County Health Department** in 2011.
- There were **no deaths** due strictly to influenza in Baldwin County in 2011.
- From **2006-2010**, there were **13 hospitalizations** attributed to influenza in Baldwin County.

### *Pneumonia*

Pneumonia is an infection of the lungs that can cause mild to severe illness in people of all ages and is caused by bacteria or viruses. Globally, pneumonia causes more deaths than any other infectious disease. There are vaccines available that prevent pneumonia.

- From **2006-2010**, there were **915 hospitalizations** attributed to pneumonia in Baldwin County.

**Figure 22: Hospitalizations due to Pneumonia.**

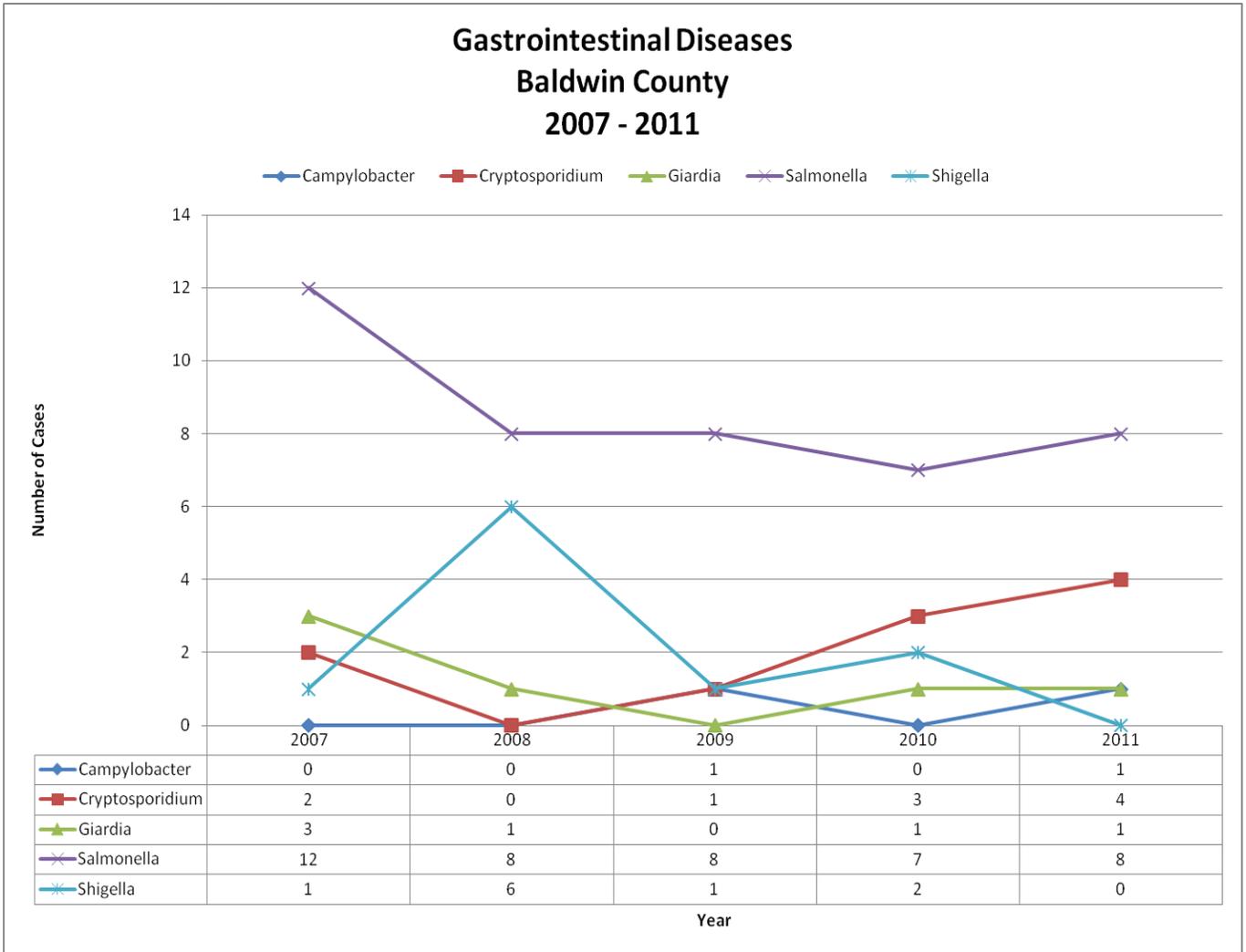


Source: OASIS

### Gastrointestinal Disease

Intestinal diseases are infections that are commonly transmitted through consuming contaminated food, but can also be spread through contact with water, animals, and other environmental sources. In order for a person to be tested for an intestinal disease, their doctor must collect stool samples and send it to a laboratory for testing. Since everyone doesn't go to the doctor when they are ill and/or do not have testing done; many cases of intestinal disease are not reported.

**Figure 23: Gastrointestinal Diseases (Cases) in Baldwin County**



Source: SENDSS

- Salmonella has consistently increased since 2007 and has had the **largest** number of cases from 2008-2011.

### **Invasive Bacterial Disease (Non-Vaccine Preventable)**

Invasive bacterial diseases can occur when a bacteria enters the body and causes an infection in a particular area. Streptococcal Disease Group A (GAS) is a bacterium commonly carried in the throat and on the skin, often without symptoms but it can cause mild to severe illness, such as strep throat, necrotizing fasciitis, and impetigo. Streptococcal Disease Group B is a bacterium that colonizes in the colon and genital tract of women and may cause infections in mothers and be passed to their infants at the time of delivery and cause meningitis and sepsis. It is common for an adult to carry this disease and not have symptoms. The mode of transmission in non-pregnant adults is unknown. Methicillin-resistant *Staphylococcus aureus* (MRSA) is a resistant form of staph bacteria that is primarily spread through direct skin to skin contact. Athletes, children in childcare settings, and congregate settings such as prisons and jails are at a high risk for MRSA.

**Table 13: Invasive Bacterial Diseases in Baldwin County**

<b>Invasive Bacterial Diseases (Cases), Baldwin County, 2007-2011</b>					
<b>Disease</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
<b>MRSA (community associated)</b>	9	7	11	13	9
<b>Streptococcus (Group A)</b>	1	3	2	6	0
<b>Streptococcus (Group B)</b>	6	6	8	7	8

Source: SENDSS

## **To report an infectious disease contact:**

**North Central Health District**  
**Epidemiology and Infectious Disease Unit**  
**201 Second St, Ste 1100**  
**Macon, GA 31201**  
**Phone (478)751-6303**  
**Fax (478)752-1710**

## ENVIRONMENTAL HEALTH

The Environmental Health Section at the North Central Health District provides control and prevention through a combination of surveillance, education, enforcement, and assessment programs designed to identify and abate the environmental conditions that adversely impact human health. Additional information, including Rules and Regulations, can be found for each program by directing your web browser to the Division of Public Health Environmental Health Section: [www.georgiaehs.us](http://www.georgiaehs.us).

The following services are provided by local and district environmental specialists within the NCHD:

- Plan review, permitting, inspection and complaint investigation of :
  - Food Service establishments
  - Tourist accommodations
  - Public Swimming Pools
  - On-site sewage management systems and pumper operations
- Investigation of foodborne, waterborne and vectorborne diseases
- On-site sewage contractor testing and certification
- Investigation of general nuisance complaints concerning sewage, insects, rodents, solid waste, and other environmental issues
- Evaluation and testing of individual water wells
- Conducts investigations and provides technical assistance to private physicians, veterinarians, hospital emergency rooms, and local animal control shelters by following the Rabies Control Law and coordinates specimen testing with the Georgia Public Health Laboratory.
- Childhood Lead Poisoning Prevention Program

### Vectorborne/Zoonotic Disease

Vectorborne diseases are those bacterial and viral illnesses transmitted by mosquitoes, ticks, and fleas. Zoonotic diseases are spread between animals and humans and are caused by bacteria, viruses, parasites, and fungi.

- The NCHD Epidemiology Program interviews reported human cases of Vectorborne and zoonotic diseases. These interviews provide valuable epidemiological data as well as education to infected residents.
- The NCHD Environmental Specialists work to educate the public regarding the prevention of mosquito-borne viruses in the human and equine populations. In addition, public health environmentalists work closely with the District and State Epidemiologists in the area of surveillance, submitting specimens as needed and reporting and mapping areas of concern throughout the District.

**Table 15: Vectorborne Diseases**

Vectorborne/Zoonotic Diseases (Cases), Baldwin County, 2007-2011	
Anaplasma	0
Brucellosis	0
Ehrlichiosis/Anaplasmosis	0
Lyme	3
Malaria	0
Rabies	1
Rocky Mountain Spotted Fever	6
Toxoplasmosis	0
West Nile Virus	0

Source: SENDSS

**Rabies**

Rabies is a preventable viral disease of mammals most often transmitted through the bite of a rabid animal. The vast majority of rabies cases reported to the Centers for Disease Control and Prevention (CDC) each year occur in wild animals like raccoons, skunks, bats, and foxes. The rabies virus infects the central nervous system, ultimately causing disease in the brain and death. The early symptoms of rabies in people are similar to that of many other illnesses, including fever, headache, and general weakness or discomfort. As the disease progresses, more specific symptoms appear and may include insomnia, anxiety, confusion, slight or partial paralysis, excitation, hallucinations, agitation, hypersalivation (increase in saliva), difficulty swallowing, and hydrophobia (fear of water). Death usually occurs within days of the onset of these symptoms.

Although human rabies deaths are rare, the estimated public health costs associated with disease detection, prevention, and control have risen, exceeding \$300 million annually. These costs include the vaccination of companion animals, animal control programs, maintenance of rabies laboratories, and medical costs, such as those incurred for rabies postexposure prophylaxis (PEP). Although the cost varies, a course of rabies immune globulin and five doses of vaccine given over a 4-week period typically exceed \$1,000. The cost per human life saved from rabies ranges from approximately \$10,000 to \$100 million, depending on the nature of the exposure and the probability of rabies in a region.

**Figure 24: Types of Animals Tested**

Types of Animals Tested Baldwin County, 2011		
Animal	How Many Tested	Tested Positive
Dog	2	0
Raccoon	1	0

The greatest number of rabies tests are done on dogs. From 2001-2011, there was an average of 1 rabid animal per year in Baldwin County.

Source: Baldwin County Environmental Health

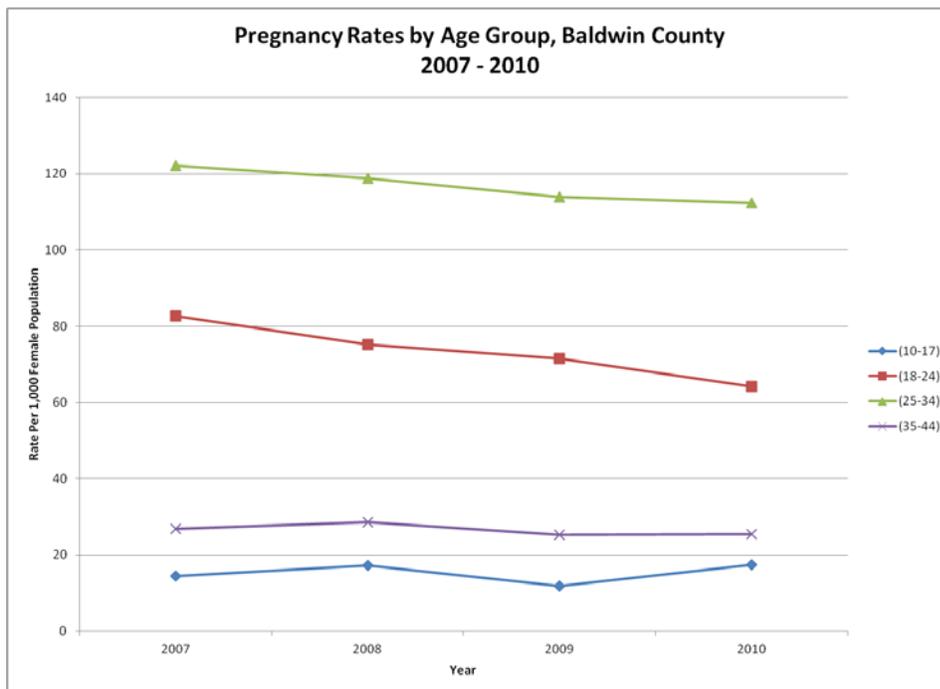
## MATERNAL AND CHILD HEALTH

The well-being of mothers, infants, and children determines the health of the next generation and can help predict future public health challenges for families, communities, and the health care system. The objectives of the Maternal and Child Health topic area address a wide range of conditions, health behaviors, and health systems indicators that affect the health, wellness, and quality of life of women, children, and families.

### Pregnancy

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, Sexually transmitted diseases (STDs), Tobacco use and alcohol abuse, inadequate nutrition, and Unhealthy weight. The risk of maternal and infant mortality and pregnancy-related complications can be reduced by increasing access to quality preconception (before pregnancy) and interconception (between pregnancies) care. Moreover, healthy birth outcomes and early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential. During 1961–2011, birth rates decreased for all women aged 15–44 years. During 2007–2011, birth rates decreased for all women aged <35 years, with rates for women aged 20–24 years (85.3 per 1,000 population) and those aged 15–19 years (31.3) reaching historic lows.

**Figure 24: Pregnancy Rates by Age Group**

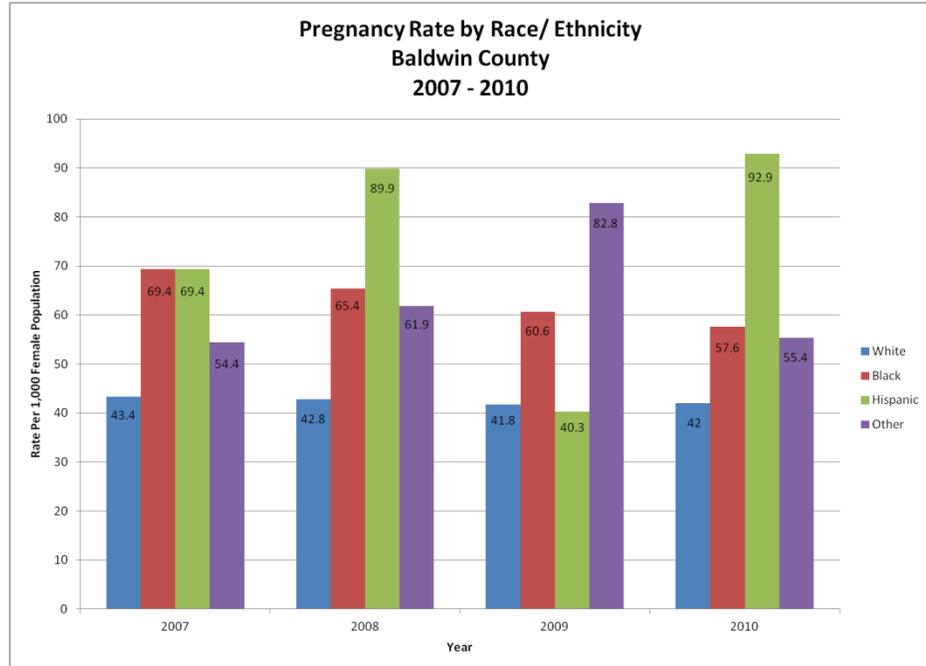


Source: OASIS

- The overall pregnancy rate for Baldwin County from 2007-2010 was **47 per 1,000 female population**, which was lower than the pregnancy rate in the District of 53.
- The total number of pregnancies which occurred in Baldwin County from 2007 – 2010 was 3,548.

**Figure 25: Pregnancy Rate by Race/Ethnicity**

- In 2008 and 2010, **Hispanic women consistently had the highest rates of pregnancy.**



### *Teen Pregnancy*

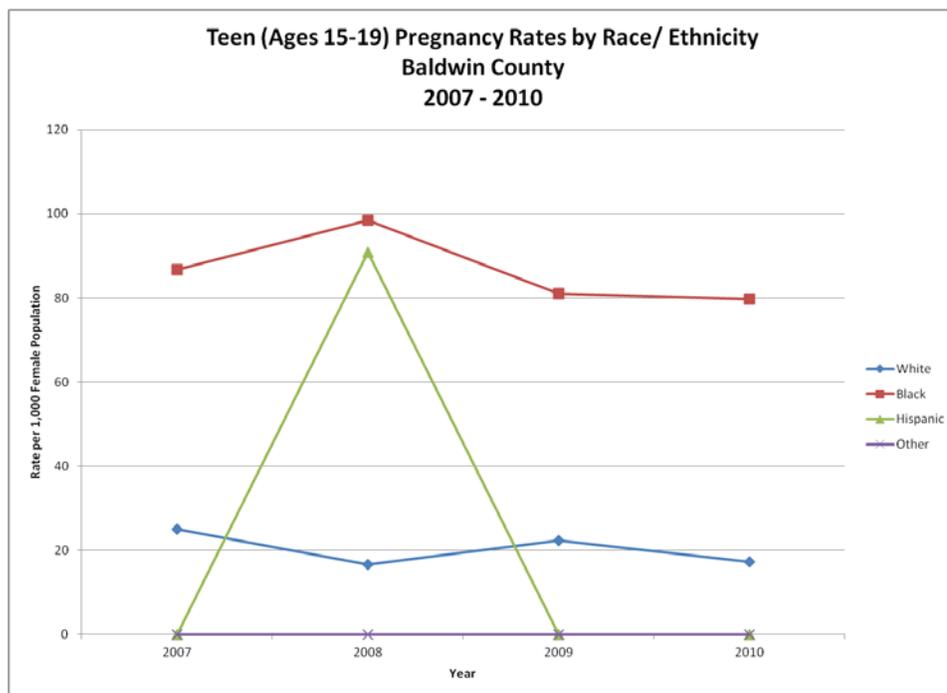
In 2011, a total of 329,797 babies were born to women aged 15–19 years, for a live birth rate of 31.3 per 1,000 women in this age group. This is a record low for U.S. teens in this age group, and a drop of 8% from 2010. Birth rates fell 11% for women aged 15–17 years, and 7% for women aged 18–19 years. While reasons for the declines are not clear, teens seem to be less sexually active, and more of those who are sexually active seem to be using birth control than in previous years. Teen pregnancy and childbearing bring substantial social and economic costs through immediate and long-term impacts on teen parents and their children and therefore remain a concern for public health.

In 2008, teen pregnancy and childbirth accounted for nearly \$11 billion per year in costs to U.S. taxpayers for increased health care and foster care, increased incarceration rates among children of teen parents, and lost tax revenue because of lower educational attainment and income among teen mothers. Pregnancy and birth are significant contributors to high school dropout rates among girls. Only about 50% of teen mothers receive a high school diploma by 22 years of age, versus approximately 90% of women who had not given birth during adolescence. The children of teenage mothers are more likely to have lower school achievement and drop out of high school, have more health problems, be incarcerated at some time during adolescence, give birth as a teenager, and face unemployment as a young adult.

These effects remain for the teen mother and her child even after adjusting for those factors that increased the teenager’s risk for pregnancy, such as growing up in poverty, having parents with low levels of education, growing up in a single-parent family, and having poor performance in school.

**Figure 26: Teen Pregnancy Rate by Race/Ethnicity**

- From 2007-2010, **Black teens (15-19 years old) had the highest pregnancy rate.**



Source: OASIS

**Figure 16: Repeat Teen Births**

- In Baldwin County (2011), repeat teen births occurred most often in the **18-19 year old age group.**

Repeat Teen Births, Baldwin County, 2007-2011	
Age of Mother	Number of Births
10 to 14	1
15 to 17	33
18 to 19	102

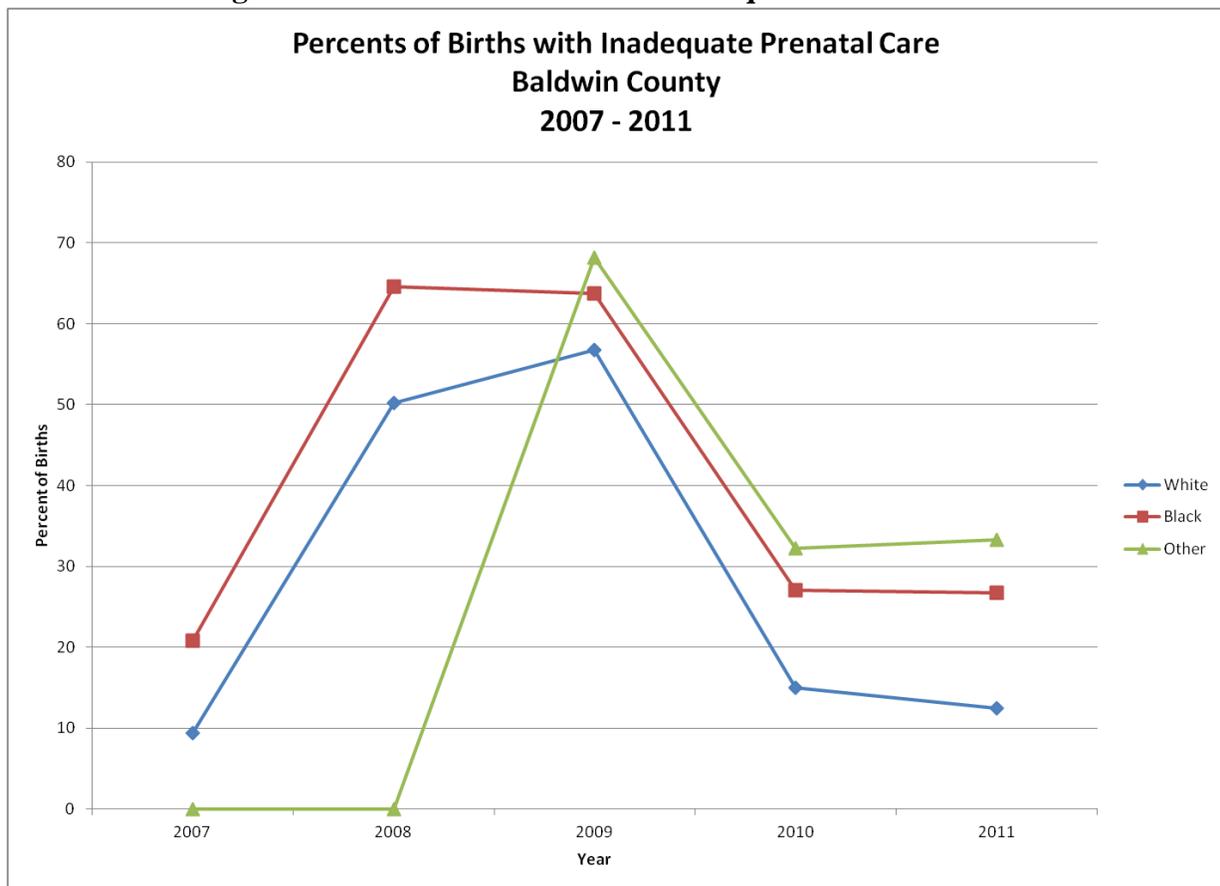
Source: OASIS

## Prenatal Care

Women who see a healthcare provider early and regularly during pregnancy improve their chances of having healthier babies, are less likely to deliver prematurely, and are less likely to have other serious problems related to pregnancy.

The Kotelchuck measure is an index of adequacy of prenatal care based upon month of entry, number of prenatal visits and gestational age of infant at birth. It uses American College of Obstetricians and Gynecologists standards for number of visits. The number of births by the "inadequate" value from the Kotelchuck Index, per 100 live births. Formula =  $[\text{Number of Live Births with Inadequate Kotelchuck Value} / \text{Number of Live Births}] * 100$ . Based on the Kotelchuck index, inadequate prenatal care is defined by a score of 79% or less.

**Figure 27: Percent of Births with Inadequate Prenatal Care**



Source: OASIS Miner

- In **2008 and 2009** there was a **peak** in inadequate prenatal care in Baldwin County in all race groups.

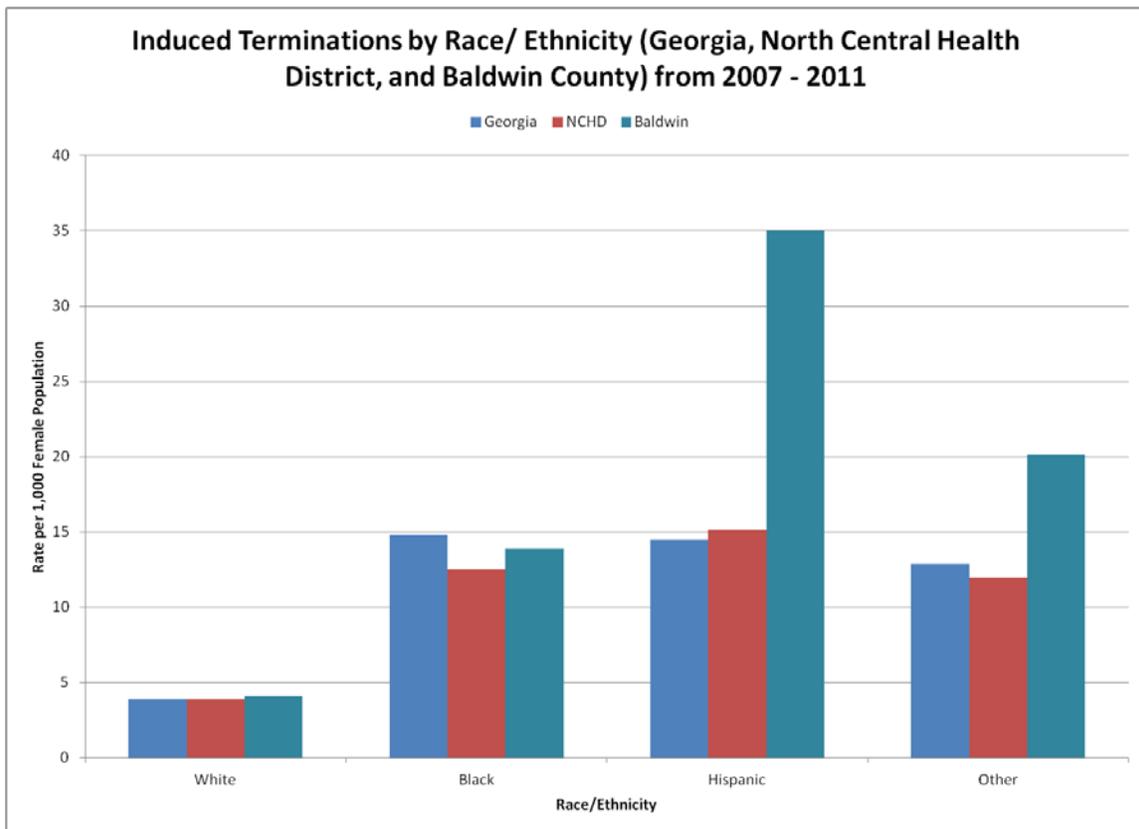
## Abortions

A legal abortion is defined as an intervention performed by a licensed clinician that is intended to terminate an ongoing pregnancy. Abortion data is used to document the number and characteristics of women obtaining legal induced abortions, evaluate the effectiveness of programs for reducing teen pregnancies and unintended pregnancies among women of all ages, calculate pregnancy rates, on the basis of the number of pregnancies ending in abortion, in conjunction with birth data and pregnancy loss estimates, and monitor changes in clinical practice patterns related to abortion, such as changes in the types of procedures used, and weeks of gestation at the time of abortion. This information is needed to calculate the mortality rate of specific abortion procedures.

In 2009, 784,507 legal induced abortions were reported to CDC from 48 reporting areas. The abortion rate for 2009 was 15.1 abortions per 1,000 women aged 15–44 years and the abortion ratio was 227 abortions per 1,000 live births. Women in their twenties accounted for the majority of abortions in 2009 and throughout the period of analysis. The majority of abortions in 2009 took place early in gestation: 91.7% of abortions were performed at  $\leq 13$  weeks' gestation, and of the abortions performed at  $\leq 13$  weeks' gestation, 69.8% were performed at  $\leq 8$  weeks' gestation.

- The number of abortions reported in Baldwin County from 2007-2011 was **733** and the rate was **9.8 per 1,000 female populations**.

**Figure 28: Induced Terminations**

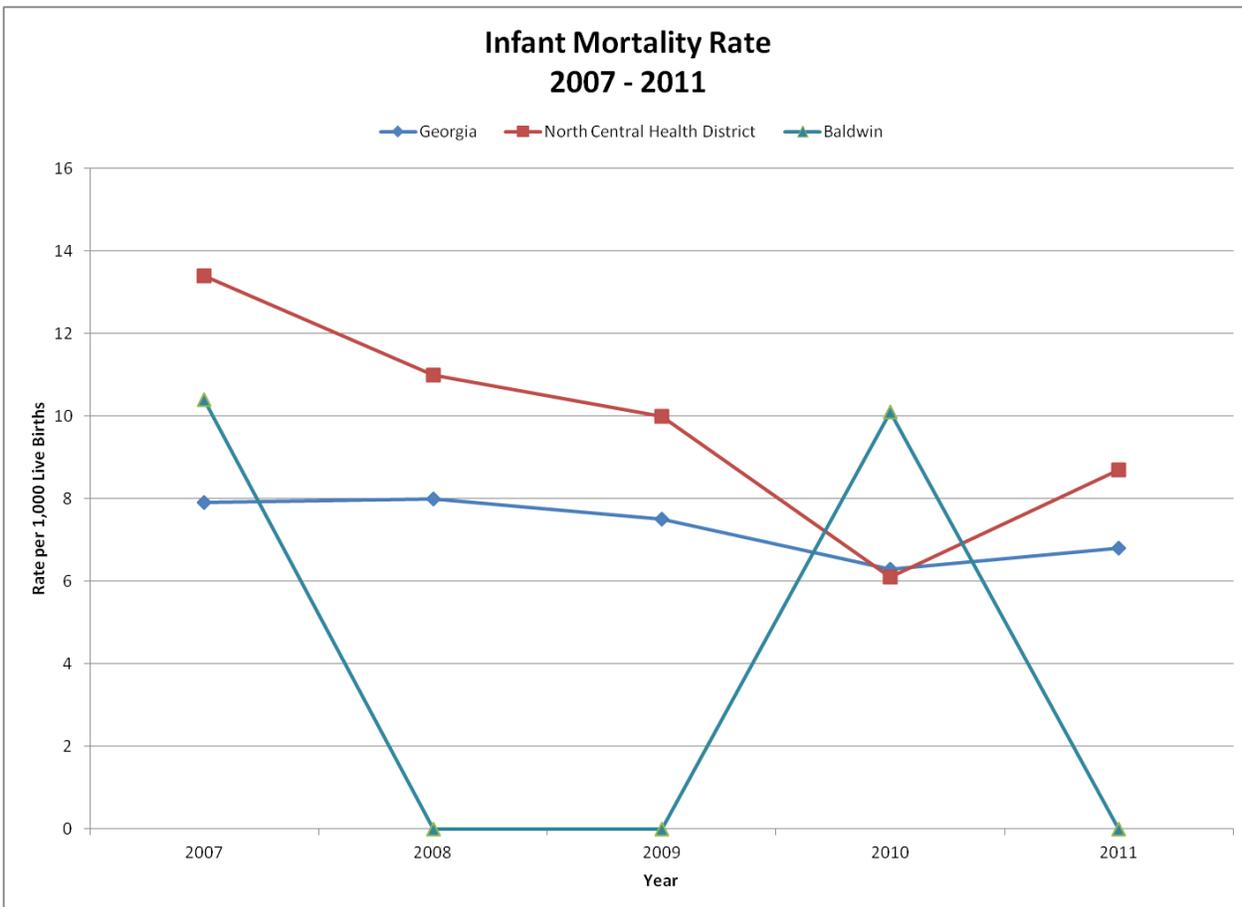


Source: OASIS

### Infant Mortality

- From 2007-2011 the infant mortality rate for Baldwin County is **lower** than that of the State.
- Infant Mortality rates are **highest in the black population** in Baldwin County.

**Figure 29: Infant Mortality**



Source: OASIS

**Table 16: Top Causes of Infant Deaths**

Top Causes of Infant Deaths, Baldwin County, 2007 – 2011	
Cause of Death	
Prematurity	
Birth Defects	
External Causes	
Respiratory Distress Syndrome (RDS)	
Sudden Infant Death Syndrome (SIDS)	
Birth Related Infection	

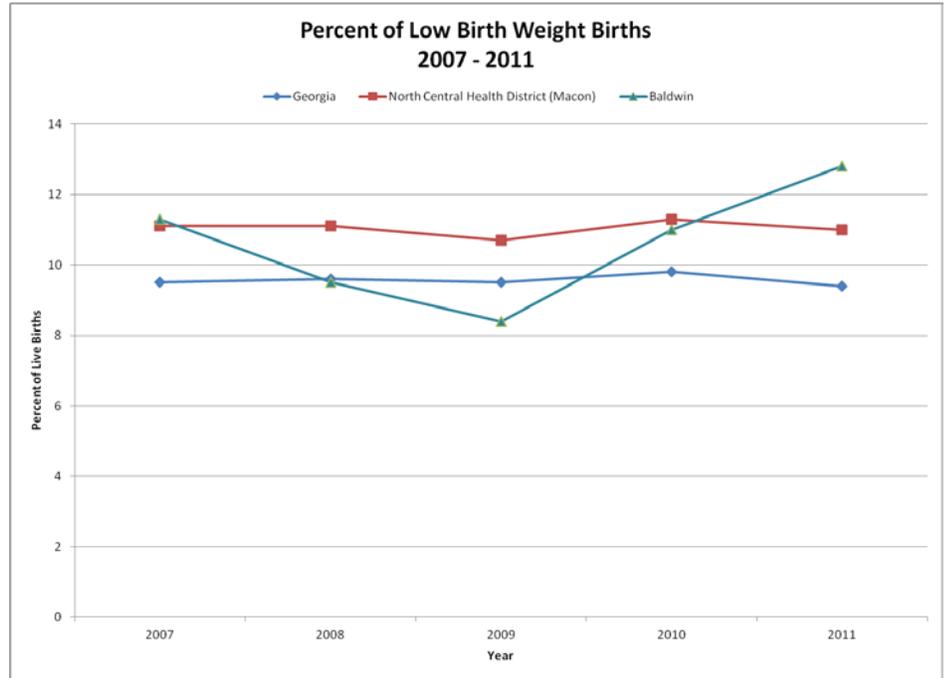
Source: OASIS

**Low Birth Weight Births**

A weight of less than 5.5 lbs, or 2500 grams, at birth is considered to be low birth weight. A low birth weight infant can be born too small, too early, or both. This can happen for many different reasons which may or may not be related. Some causes may be smoking or drinking alcohol while pregnant, lack of weight gain, and be younger than 15 years or older than 35 years. Low birth weight babies are at an increased risk for serious health problems, disabilities, and death.

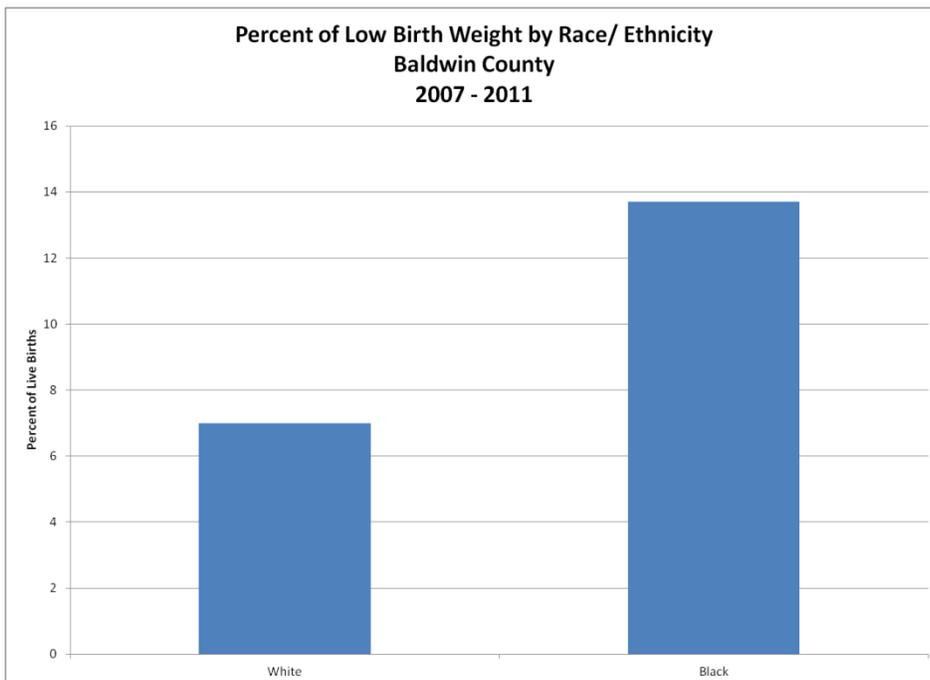
- **10.5 % of births** in Baldwin County from 2007-2011 were babies with low birth weights, compared to 9.5% for Georgia.

**Figure 30: Percent of Low Birth Weight Live Births**



Source: OASIS

**Figure 31: Percent of Low Birth Weight Live Births by Race/Ethnicity**



Source: OASIS

- Blacks give birth to low birth weight babies at a **higher percentage** than Whites.

## Childhood Morbidity

Injury and Respiratory Diseases are the leading causes of emergency department visits in children 1-19 years of age in Baldwin County from 2007-2011.

**Table 17: Leading Causes of Emergency Department Visits in Children aged 1-19**

Cause of Emergency Department Visit	Baldwin County	
	Number of Ed Visits	Ed Visit Rate per 100,000 population
<b>External Causes</b>	4,026	8,551.2
<b>Motor Vehicle Crashes</b>	458	972.8
<b>Falls</b>	1,056	2,242.9
<b>Respiratory Diseases</b>	3,945	8,379.2
<b>Asthma</b>	473	1,004.7
<b>Pneumonia</b>	162	344.1
<b>Infectious and Parasitic Diseases</b>	1,030	2,187.7
<b>Digestive System Diseases</b>	893	1,896.7
<b>Reproductive and Urinary</b>	790	1,678
<b>Bone and Muscle Diseases</b>	816	1,733.2
<b>Mental Health and Behavioral</b>	185	392.9

Source: OASIS

### Childhood Immunizations

The results of the 2011 Immunization Report for Georgia indicates that District 5-2 (North Central Health District) immunization rate of children by 24 months of age was higher than the state rate (83.5% vs. 82.4%). By the end of data collection, the district up-to-date (UTD) immunization rate was higher than the state rate (99% vs. 94%).

**Table 18: Leading Causes of Emergency Department Visits in Children aged 1-19**

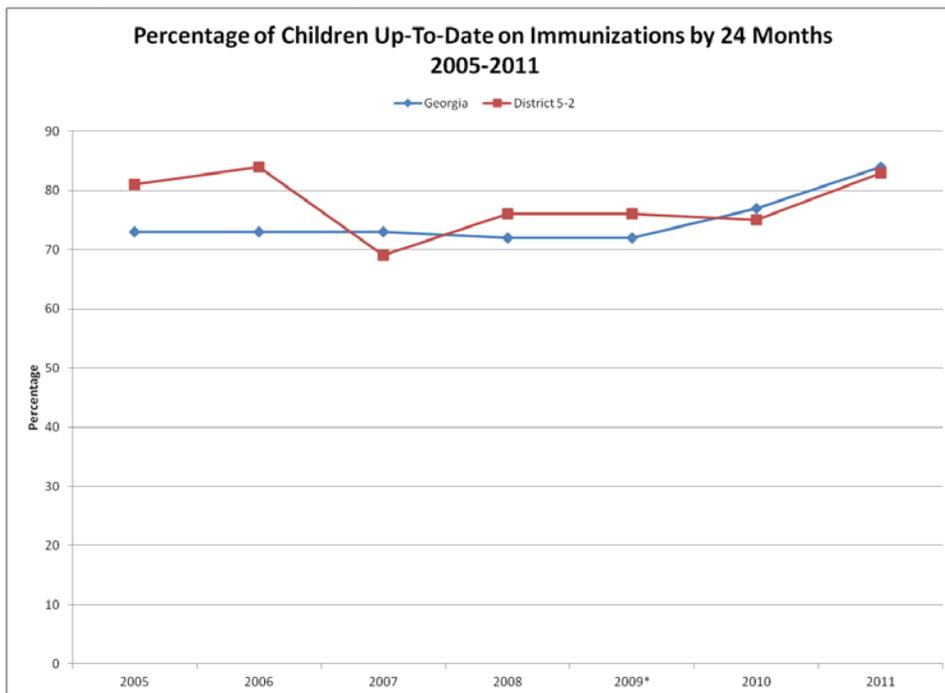
Immunization Summary by Series & Antigen, District 5-2, 2011		
	District	State Average
UTD immunization rate* by 24 months	83.5	82.4
UTD immunization rate* by end of data collection <sup>1</sup>	99.0	94.0
4 Dtap by 24 months	87.6	85.8
3 Dtap by 24 months	99.0	97.5
3 IPV by 24 months	96.9	96.7
1 MMR by 24 months	96.9	93.0
UTD Hib by 24 months	94.9	95.1
3 Hep B by 24 months	97.9	96.5
1 Varicella by 24 months	96.9	93.9
UTD PCV by 24 months	97.9	96.7
2 Rotavirus by 24 months	68.0	83.8
2 Hep A by 24 months	55.7	53.1
1 Influenza by 24 months	53.6	60.1
2 H1N1	24.7	27.1

Source: Georgia 2011 Immunization Report

<sup>1</sup> This value includes children who become UTD during the data collection period. This number, when compared to the values followed with "by 24 months", is a testament to the efforts of district staff to reach the children originally listed as incomplete in their district.

\* This rate includes children up-to-date by ACIP-recommended catch-up schedule.

**Figure 32: Percentage of Children UTD on Immunizations**



From 2010 to 2011: The District 5-2 UTD immunization rate by 24 months increased by 11% from 2010 to 2011. The district UTD immunization rate by the end of data collection increased by 2.1% from 2010 to 2011.

**Table 19: Immunization Coverage by 24 months of age**

Antigen-Specific Immunization Coverage (%) by 24 months of age, District 5-2, 2005-2011						
	2005	2006	2007	2008	2010	2011
4 Dtap by 24 months	84.2	86.3	76.9	81.3	81.2	87.6
3 Polio by 24 months	92.1	95.4	91.0	88.8	95.5	96.9
1 MMR by 24 months	91.4	93.1	84.6	89.6	93.2	96.9
UTD HiB by 24 months	89.2	92.4	82.1	85.8	90.2	94.9
3 Hepatitis B by 24 months	90.7	93.9	88.5	91.0	97.0	97.9
1 Varicella by 24 months	92.1	93.9	84.6	88.1	95.5	96.9
UTD PCV by 24 months	43.2	75.6	78.2	85.1	90.2	97.9
2 Rotavirus	-	-	-	-	65.4	68.0
1 Influenza by 24 months	-	-	-	-	49.6	53.6

Source: Georgia 2011 Immunization Report

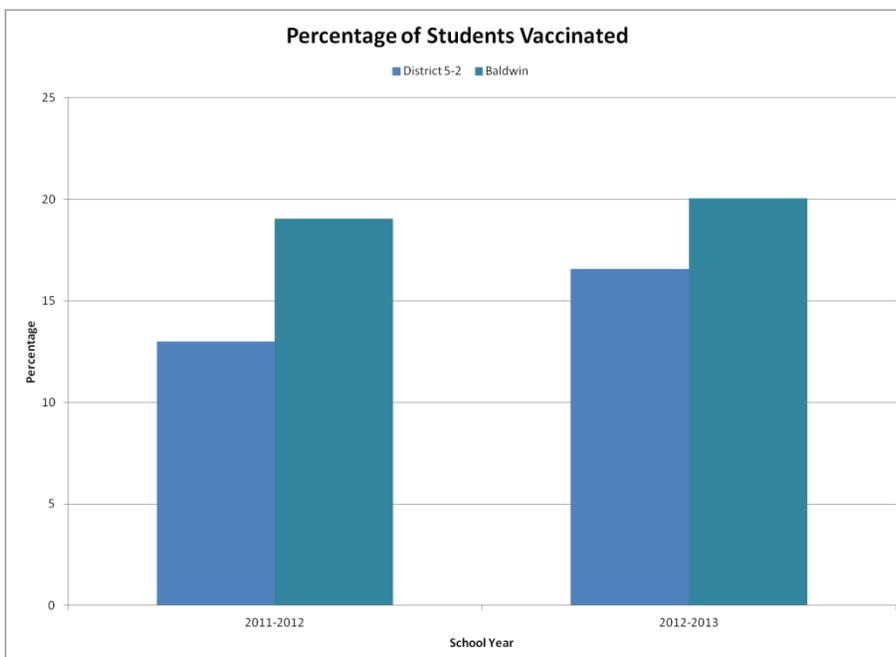
**Immunization Rates by Antigen:** In District 5-2, the UTD immunization rate by 24 months for most antigens fluctuated from 2005-2010. Increasing to higher rates for all antigens in 2011.

Among antigen rates in 2011, the DTaP UTD immunization rate was the lowest at 87.6%, up from 81.2% in 2010. The Hib UTD immunization rate was second-lowest at 94.9%, up from 90.2% in 2010.

Since first being ACIP-recommended in 2002, UTD coverage by 24 months for the pneumococcal conjugate vaccine increased from 43.2% in 2005 to 97.9% in 2011.

## Influenza

**Figure 33: Percent of Children Vaccinated Through School-Located Influenza Vaccination Programs**



Influenza is a contributing factor to school absences. School-located influenza vaccination (SLIV) programs provide greater access for students to be immunized.

Baldwin County has seen a steady increase in participation in the SLIV program.

Source: NCHD SLIV Program

## Youth Risk Behaviors

Health risk behaviors are often established during childhood and adolescence and can extend into adulthood. Encouraging the adoption of healthy behaviors during childhood is easier and more effective than trying to change unhealthy behaviors during adulthood.

### *Youth Obesity*

Obesity in children and adolescents has immediate and long-term effects on health and well being and continues to be a major public health concern in the U.S. Immediate health effects includes cardiovascular disease such as high cholesterol or high blood pressure, prediabetes, bone and joint problems, sleep apnea, and social and psychological problems such as stigmatization and poor self-esteem. Long-term health effects include heart disease, type 2 diabetes, stroke, several types of cancer, and osteoarthritis.

According to the High School Youth Risk Behavior Survey in 2011 (covering grades 9-12):

- **15% of Georgia high school youth were estimated to be obese** compared to the U.S. rate of 13%
- **Black youth had the highest percentage of obesity** at 17.6%, compared to whites at 12.8% and Hispanics at 16.5%.
- **43.1% at vegetables less than one time per day** compared to 37.7% in the U.S.
- **53.8% did not attend physical education classes in an average week** (when in school).
- **36.6% reported watching television** for 3 or more hours per day.
- **27.8% reported using a computer** for 3 or more hours per day.
- **81.9% drank a can, bottle or glass of soda/pop** at least once during the week.

According to the Middle School Youth Risk Behavior Survey in 2011 (covering grades 6-8):

- **35.3% did not attend physical education classes in an average week** (when in school).
- **45.2% reported watching television** for 3 or more hours per day.
- **30.5% reported using a computer** for 3 or more hours per day.

*Alcohol and Other Drug Use*

Alcohol and other drug use among our nation’s youth remains a major public health problem. Substance use and abuse can increase the risk for injuries, violence, HIV infection, and other diseases.

In 2011:

- High school students that report drinking alcohol has **decreased** over the years, however **34.6% of high school students report current alcohol use and 66.1% have had alcohol at least once in their lifetime.**
- **17.5% of high school students report having five or more drinks of alcohol in a row within a couple of hours on at least 1 day in the past month.**

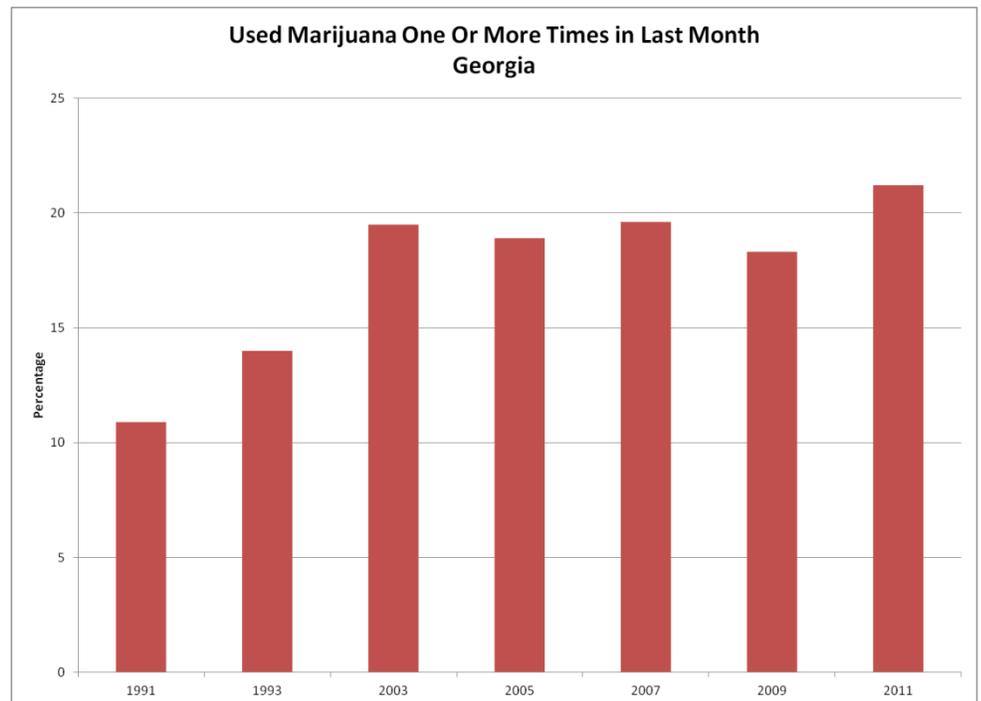
**Figure 34: Teens currently using alcohol**



Source: YRBSS

**Figure 35: Teens currently using marijuana**

- High school students that report marijuana use has **increased** over the years
- **21.2% of high school students report current marijuana use and 37.9% have used marijuana at least once in their lifetime.**
- 6.7% of high school students report ever using cocaine, 4.7% report heroin use, 6% report methamphetamines use, and 8.5% report ecstasy use.

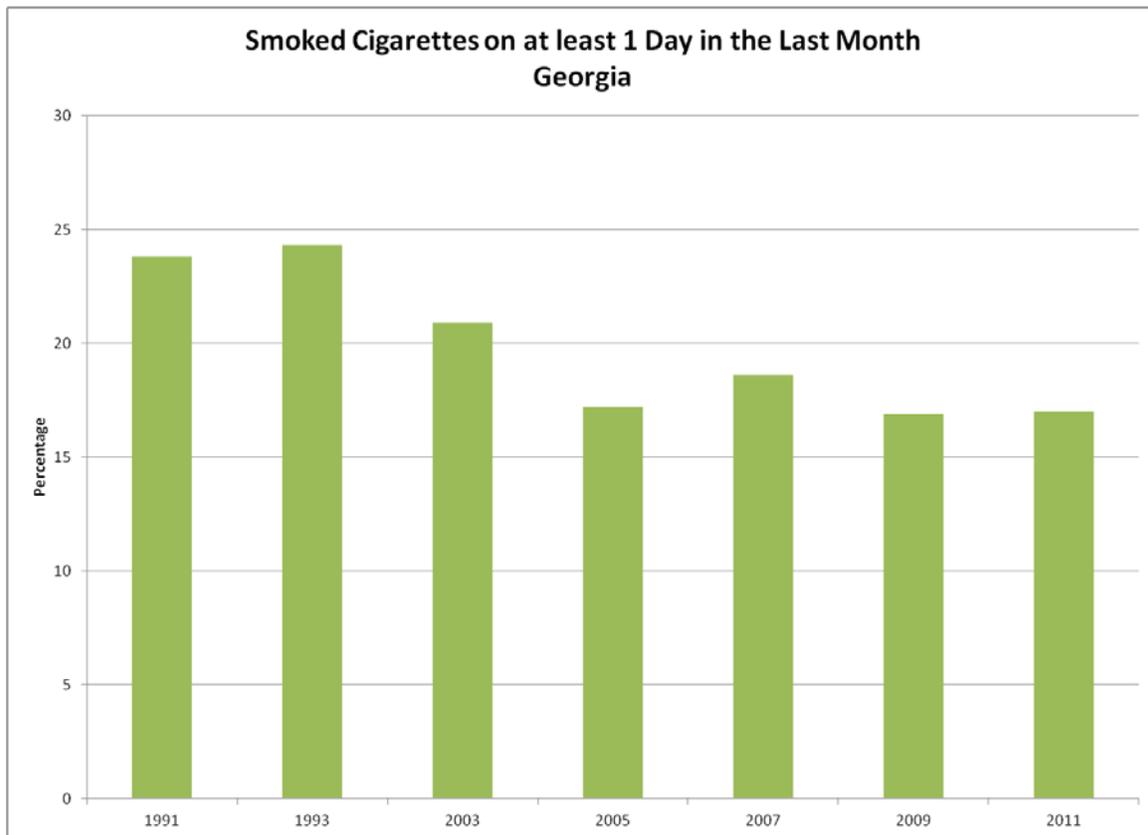


Source: YRBSS

*Youth Smoking*

According to the 2012 Surgeon General’s report on tobacco and youth, more than 600,000 middle school students and 3 million high school students smoke cigarettes. Rates of decline for cigarette smoking have slowed in the last decade and rates of decline for smokeless tobacco use have stalled completely. Smoking can cause bad breath, coughing, increased heart beat and blood pressure, respiratory problems, reduced immune function, increased illness, tooth decay, gum disease, and pre-cancerous gene mutations. Smoking during youth is also associated with an increased likelihood of high risk sexual behavior and using illegal drugs and alcohol. Some risk factors associated with youth tobacco use include low socioeconomic status, tobacco use by family and friends, lack of skills to resist tobacco use, lack of parental support or involvement, ease of access to tobacco products, low levels of educational achievement, low self esteem and aggressive behavior (e.g., fighting, carrying weapons).

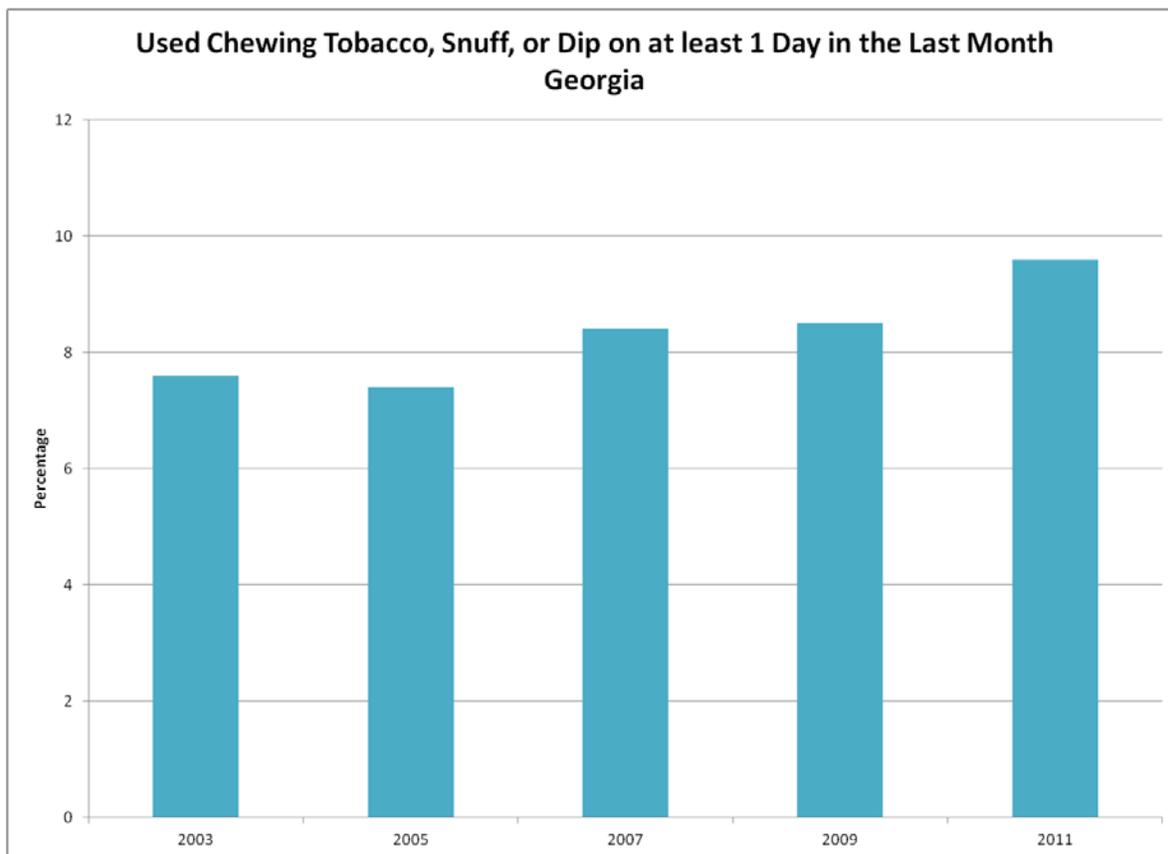
**Figure 36: Teens currently using cigarettes**



Source: YRBSS

- **47.1 %** of Georgia high school and **26.1%** of Georgia middle school students **have tried cigarette smoking**, even one or two puffs, during their lifetime.
- Among those that currently smoke, **51.4%** of Georgia high school students **did not try to quit smoking within the past year.**

**Figure 37: Teens currently using chewing tobacco, snuff, or dip**



Source: YRBSS

- Use of smokeless tobacco products has increased in Georgia over the past 10 years.
  - **9.6%** of Georgia high school and **4.7%** of Georgia middle school students are **currently using smokeless tobacco products.**

## BEHAVIORAL AND MENTAL HEALTH

Mental health disorders are common in the United States and can begin at any age without respect to gender or sex. They are thought to be caused by a variety of biochemical, genetic, and environmental risk factors and many individuals suffer from more than one disorder at a time.

According to the National Institute of Mental Health:

- It is estimated that in any given year **25% of adults** are diagnosable for one or more mental health disorders.
- **Women are no more or less likely than men** to experience any disorder over their lifetime.
- Non-Hispanic **blacks are 30% less likely** than non-Hispanic whites to experience any disorder during their lifetime.
- **Average age of onset is 14 years old.**
- Among all Americans, 36.2 million people paid for mental health services totaling **\$57.5 billion in 2006**. This means the average expenditure per person was \$1,591. Within this group, 4.6 million children received mental health services totaling \$8.9 billion. The average expenditure per child was higher than that for the average American at \$1,931.
- **36% of those with a disorder are receiving treatment.**

**Table 20: Immunization Coverage by 24 months of age**

Prevalence Estimates for Mental Disorder in U.S. Adults (18+)	
Type of Disorder	Estimated 12-Month Prevalence (%) of U.S. Population
Any Anxiety Disorder	18.1
Generalized Anxiety Disorder	3.1
Any Mood Disorder	9.5
Bipolar Disorder	2.6
Major Depression	6.7
Any Personality Disorder	9.1
Attention-Deficit/Hyperactivity Disorder	4.1
Schizophrenia	1.1

Source: NIMH

## CRIME AND SAFETY

Violence is a serious public health problem in the United States. From infants to the elderly, it affects people in all stages of life. Injuries—including unintentional injuries, homicide, and suicide, are the leading cause of death for people ages 1 to 44.

### Crime

**Table 21: Number of Violent and Property Crimes by Offense**

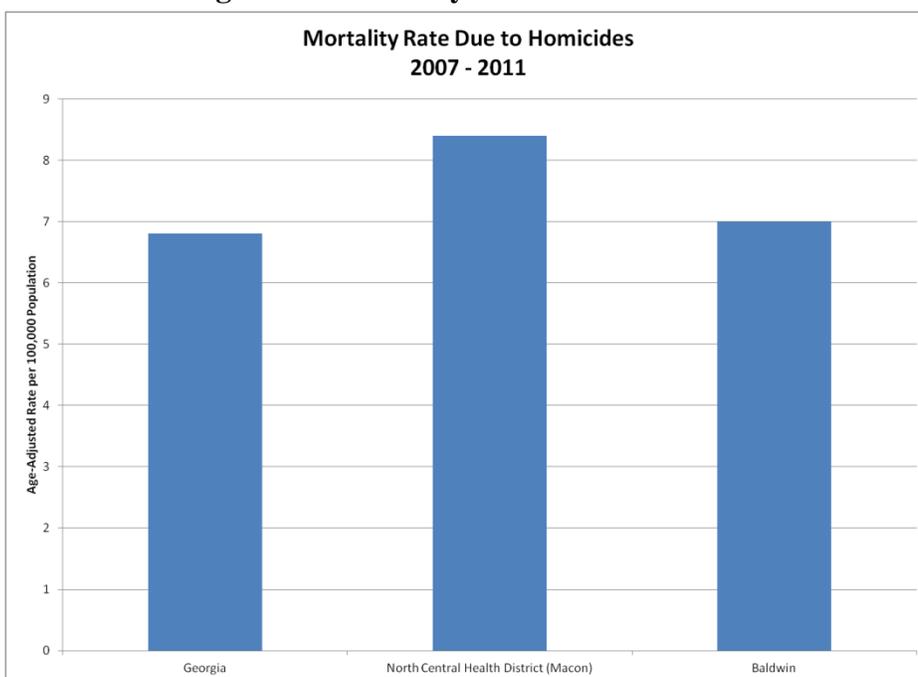
Crime Statistics, Baldwin County (2008 - 2012)							
	Murder	Rape	Robbery	Assault	Burglary	Larceny	Vehicle Theft
2008	0	10	50	353	517	1367	72
2009	4	12	33	370	591	1239	40
2010	3	14	35	298	721	1231	49
2011	1	9	22	78	480	1295	43
2012	2	18	15	195	357	1040	40

Source: GBI

- From 2008-2012, **Larceny was the most frequently** committed crime in Baldwin County.
- The **violent crime rate of Baldwin County in 2012 was 515.5 per 100,000 populations, higher than the Georgia** rate of 366.4.
- The rate of property crimes in Baldwin County for 2012 was 3,214.8 per 100,000 populations, lower than the Georgia rate of 3,575.9.

### Homicide

**Figure 38: Mortality Rate due to Homicide**



From 2007-2011, the homicide rate for Baldwin County in **the black population was 9.3 per 100,000**, almost 2 times higher than the white population which had a rate of 5.1.

The age group with the **highest homicide rate was 20-29 year olds** with a rate of 13.5 per 100,000.

*Family Violence*

**Table 22: Number of Family Violence Incidents By Type and Aggressor**

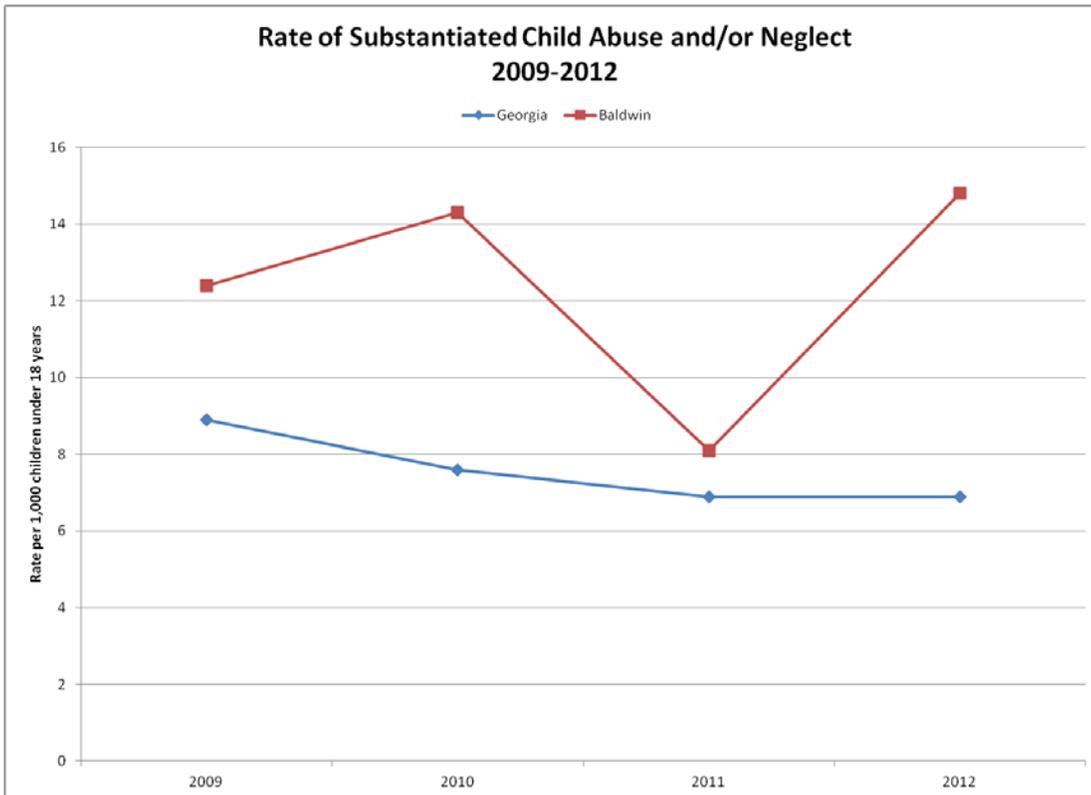
- According to GBI, the most common type of family violence incidents is superficial wounds.
- The most common weapon used in occurrences of domestic violence is a person’s hand/fist and most of the incidents the aggressor was a family member or member of the same household.

Number of Family Violence Incidents By Type and Aggressor, Baldwin County 2012		
Abuse Type	Male	Female
PERMANENTLY DISABLED	1	0
TEMPORARILY DISABLED	2	0
BROKEN BONES	1	1
GUN/KNIFE WOUNDS	3	5
SUPERFICIAL WOUNDS	119	57
PROPERTY DAMAGE	25	11
THREATS	24	5
ABUSIVE LANGUAGE	23	7
SEXUAL ABUSE	2	0
OTHER ABUSE	32	9

Source: GBI

*Child Maltreatment*

**Figure 39: Child Abuse and Neglect Rate**



In 2012, Baldwin County ranked **20<sup>th</sup> highest** of the 159 counties reporting in Georgia for the rate of child abuse and or neglect with **14.8** per 100,000 compared to Georgia’s rate of 6.9 per 100,000.

Source: KIDS COUNT

## Injuries

**Injuries due to external causes account for 20.1% of all emergency department visits** in Baldwin County from 2006 to 2010 **and falls are the number one cause of emergency department visits** due to injury. During this time period, the rate of emergency department visits for **falls was highest in the elderly**, over age 75, with a rate of 5,957 per 100,000 visits compared to all other age groups, 2,188.10 per 100,000 visits.

**Table 23: Emergency Department Visit Rate due to External Causes**

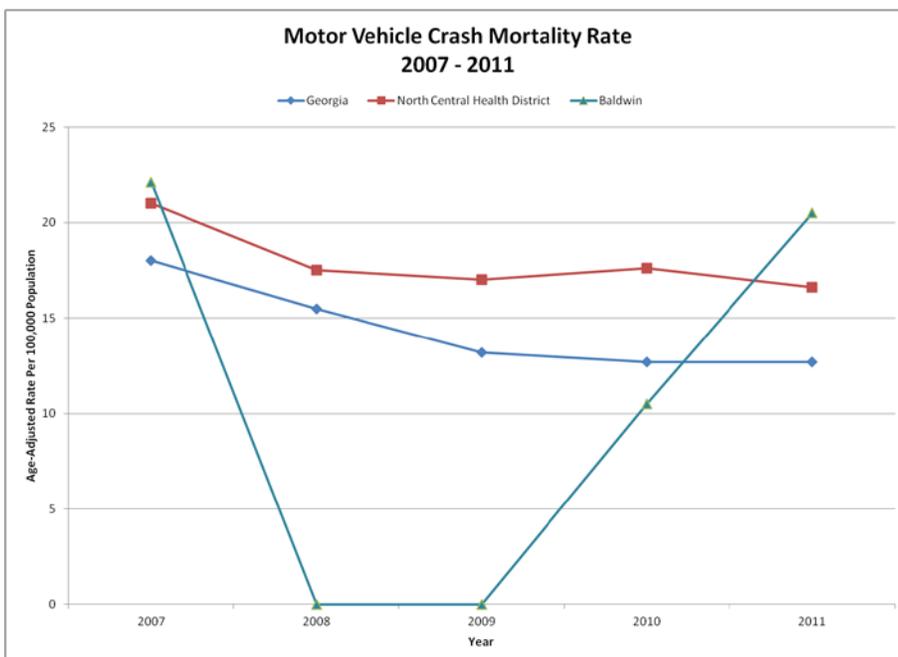
ER Visits Age Adjusted Rate, Baldwin County, 2006-2010	
Falls	2,188.10
Motor Vehicle Crashes	1,105.50
Homicide	507.9
Suicide	107.4
Poisoning	95.6
Fire and Smoke Exposure	26.2
Accidental Shooting	15.8
Legal Intervention	4.5
Suffocation	2.3

Source: OASIS

### Motor Vehicle Crashes

The emergency department visit rate for motor vehicle crashes (MVCs) from 2006-2010 in Baldwin County was 1,162.7 per 100,000 visits higher than the state rate of 1,081.8.

**Figure 40: Mortality Rates due to Motor Vehicle Crashes**



The mortality rate for MVCs in Baldwin County accounts for a large amount of deaths, especially in 2007 and 2011. In 2008, Baldwin County ranked **40<sup>th</sup> highest out of 159 counties in Georgia for the number of crash fatalities.**

Source: OASIS

**Table 24: Number of Motor Vehicle Crashes by Person/ Crash Type**

Number of Motor Vehicle Crashes by Person/ Crash Type in Crawford County, 2003 - 2008	
Passenger Vehicles	12,151
Intersection Related	7,988
Child Passenger (Ages 0-15)	1,961
Young Adult Driver (Ages 15-20)	3,228
Elderly Driver (Ages 65 and older)	1,561
At Least 1 Unrestrained Driver	724
Motorcycles	109
Pedestrians	85
Speeding Involved	55
Bicyclist (or other cyclist)	28

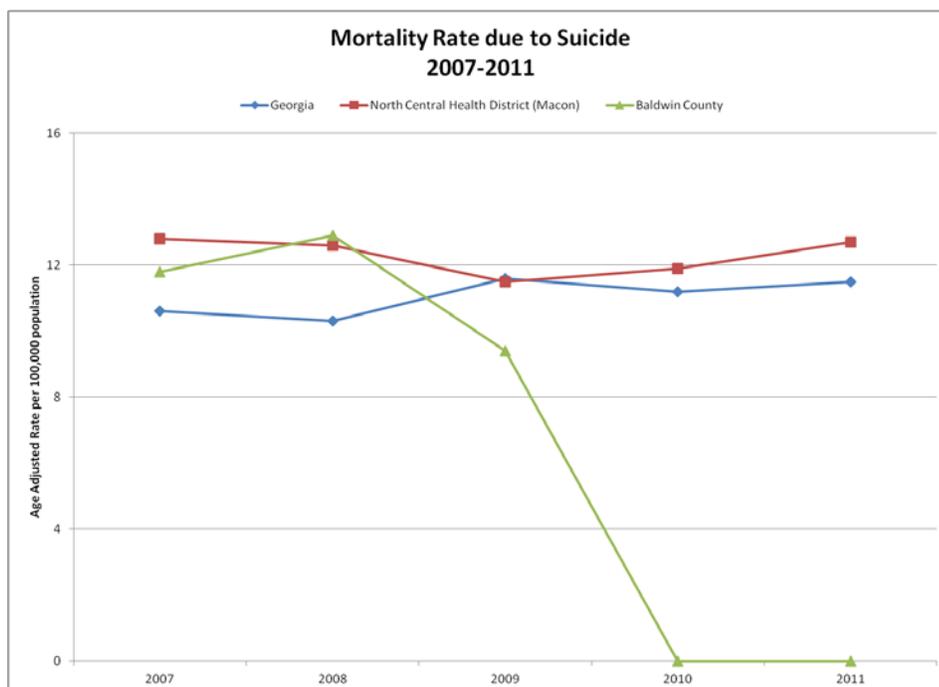
**Most MVCs occurred with passenger vehicles and in intersections.**

Source: OASIS

*Suicide*

The suicide rate in Baldwin County is lower than the state and district rates from 2007-2011 and it is higher for whites (20.3 per 100,000 populations) than for blacks (0). Males have a higher mortality rate (44.7 per 100,000 populations) compared to females (0). In Baldwin County, males have a higher rate of suicide related emergency department visits than females (Males: 154 per 100,000 populations, Females: 69.5 per 100,000 populations). According to the High School Youth Risk Behavior Survey in 2011 (covering grades 9-12), 15.5% of high school students have seriously considered attempting suicide during the last year and 10.8% have attempted suicide one or more times in the last year.

**Figure 41: Mortality Rates due to Suicides**



Source: OASIS

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**Contact Us**

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(478) 445 – 4274 Office  
(478) 445 - 6525 Fax  
(478) 445 – 1591 Environmental Health  
Hours of Operation:  
8:00 a.m. to 4:30 p.m. Monday, Wednesday, Thursday and Friday  
8:00 a.m. to 6:00 p.m. Tuesday

County Nurse Manager:  
Wendy Harris, RN

Environmental Health County Manager:  
Colin G. Duke

*North Central Health District*

201 Second Street, Suite 1100  
Macon, GA 31201  
478-751-6303 Office  
478-751-6099 Fax  
Hours of Operation:  
7:30 a.m. - 5:00 p.m.

District Health Director:  
David N. Harvey, M.D.

District Administrator:  
Curt Reynolds, CPA (through 2013)  
Morris Hutcheson (2014 - present)

Deputy District Health Director:  
Karen Ebey-Tessendorf, MPH

District Child Health Coordinator:  
Evans Ward

District Epidemiologist:  
Amber Erickson, MPH

District Infectious Disease Unit Supervisor:  
Ronald Boone

District Public Health Nursing & Clinical  
Director:  
Debbie Liby, RN

District Public Information Officer:  
Jennifer Jones

District Environmental Health Director:  
Carla Coley

District Human Resources Director:  
Marsha Stone

District Emergency Preparedness  
Coordinator: Laurice Bentley