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Maternal & Child Health

COBB & DOUGLAS PUBLIC HEALTH

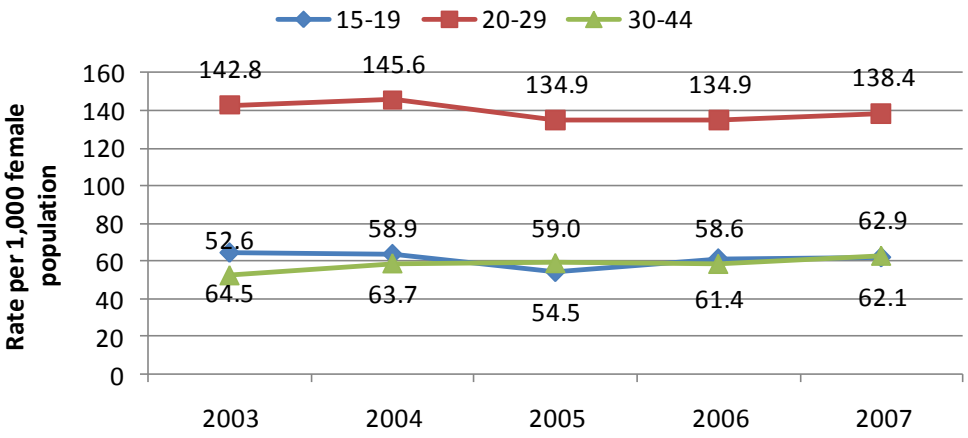
MATERNAL & CHILD HEALTH

At the beginning of the 20th century, for every 1,000 live births, six to nine women in the United States died of pregnancy-related complications. In 1900 in some U.S. cities, up to 30% of infants died before reaching their first birthday. From 1915 through 1997, the infant mortality rate declined greater than 90%. This remarkable decline is a result of: environmental interventions, improvements in nutrition, advances in clinical medicine and access to healthcare, improvements in surveillance and monitoring of disease, increases in education levels, and improvements in standards of living. Despite this dramatic decline, however, challenges remain. Perhaps the greatest is the persistent difference in maternal and infant health among various racial/ethnic groups, particularly between black and white women and infants (CDC). This chapter presents data on maternal and child health issues in Douglas County.

PREGNANCY

Pregnancy rates in the U.S. rose steadily from 1970 until reaching a peak in 1990. From 1990-2004, pregnancy rates were on the decline. In the young teens (15-17 years old) population, pregnancy rates declined 48% and rates for older teens (18-19 years old) fell by 30%. From 2005-2006, slight increases in teen pregnancy, births and abortions were seen across the U.S. Additionally, preliminary 2007 data suggests an increase in birth rate in both the teen and young adult populations. This data will be monitored to determine if the increases will continue. It is thought that increases in pregnancy rates are affected by changes in the minority populations, increases in poverty, abstinence-only sex education programs, and changes in attitude toward teenage and unintended pregnancy.

Figure 7-1: Pregnancy Rates by Age Group
Douglas County, 2003-2007

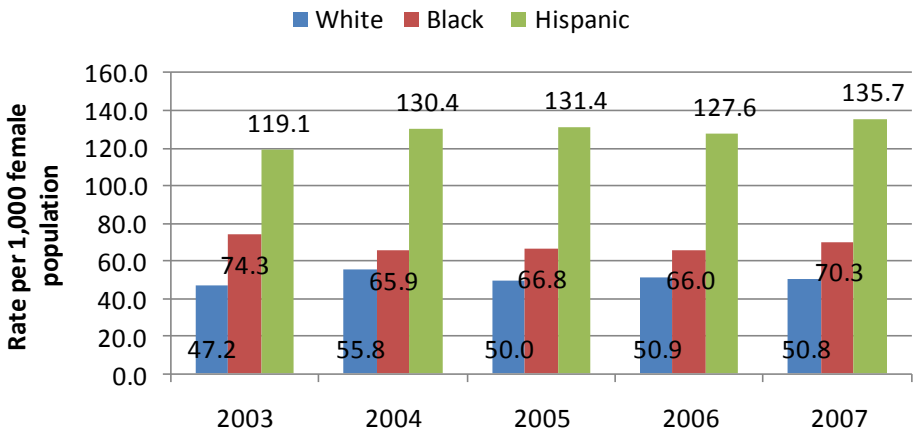


Source: OASIS

Pregnancy Facts

- The **overall** pregnancy rate for Douglas County from 2003-2007 was 56.9 per 1,000 female population, which was lower than the pregnancy rate in Georgia of 58.8.
- Compared with the 144 counties reporting in Georgia, Douglas ranked favorably (41st lowest) for the **teen** (15-17 year old) pregnancy rate in 2007.

Figure 7-2: Pregnancy Rate by Race/Ethnicity
Douglas County, 2003-2007



From 2003-2007, Hispanic women in Douglas County consistently had the highest rates of pregnancy.

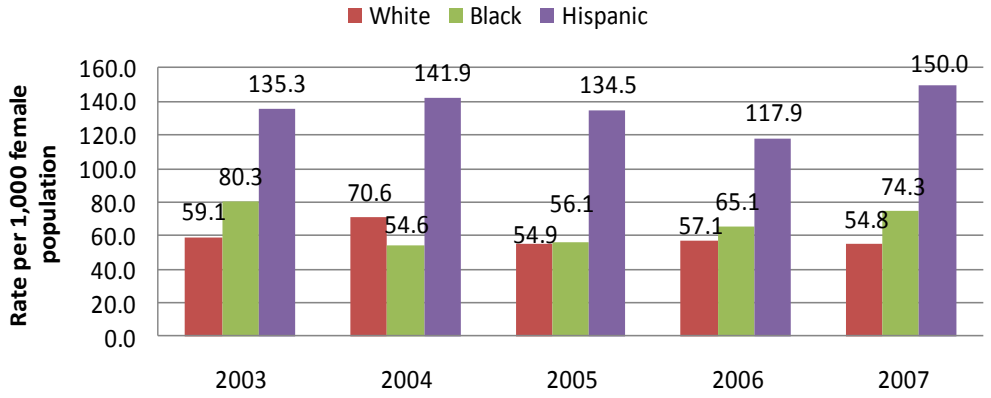
Source: OASIS

TEEN PREGNANCY

Teen (15-19 years old) pregnancy reached an all time low in the United States in 2005; however, in 2006, a 3% increase marked the 1st increase in teen pregnancies in over a decade. From 2005 to 2006 in the U.S. the rate of teen pregnancy increased from 69.5 per 1,000 females to 71.5. Teen mothers have higher rates of preterm babies, low birth weight babies, and infant mortality. They are also more likely to drop out of school and remain single compared to those who delay pregnancy. Children of teenage mothers are more likely to have developmental delays and poor physical and mental health.

- Teen (15-19 years old) pregnancy rates increased in both Douglas County and Georgia in 2006 and 2007, which follows the national trend. Douglas County went from a teen pregnancy rate of 54.5 per 1,000 female population in 2005 to 62.1 in 2007.
- Douglas County remains under the Georgia rate for teen pregnancy. From 2003-2007, the rate for teen pregnancy was 61.2 per 1,000 female population for Douglas compared to 68.8 for Georgia.

Figure 7-3: Teen (15-19 year old) Pregnancy Rate by Race/Ethnicity
Douglas County, 2003-2007



Source: OASIS

- From 2003-2007, Hispanic teens (15-19 years old) had the highest pregnancy rate.
- Increases in the Douglas County teen pregnancy rate were seen in whites and blacks in 2006 and in blacks and Hispanics in 2007; the white teen pregnancy rate decreased in 2007.

In Douglas County (2008), repeat teen births occurred most often in the 18-19 year old age group.

Table 7-1: Repeat Teen Births Douglas County, 2008

Age of Mother	Number of Births
10 to 14	0
15 to 17	15
18 to 19	53

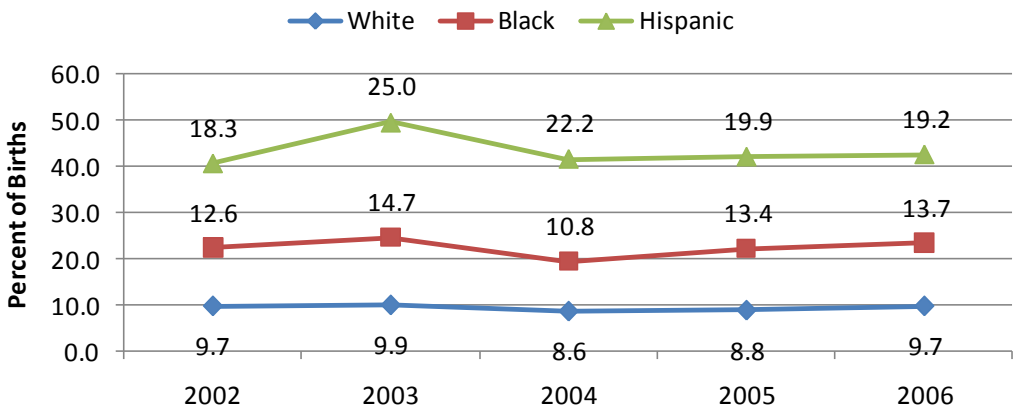
Source: OASIS

PRENATAL CARE

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

The Kotelchuck index, also called the Adequacy of Prenatal Care Utilization (APNCU) Index, uses two elements obtained from birth certificate data: (a) when prenatal care was initiated and (b) the number of prenatal visits from when prenatal care began until delivery. The final Kotelchuck index measure combines these two dimensions into a single summary score.

Figure 7-4: Percent of Births with Inadequate* Prenatal Care, Douglas County, 2002-2006



Between 2003-2007, Hispanic women had the highest number of births with an inadequate Kotelchuck index, followed by blacks and then whites.

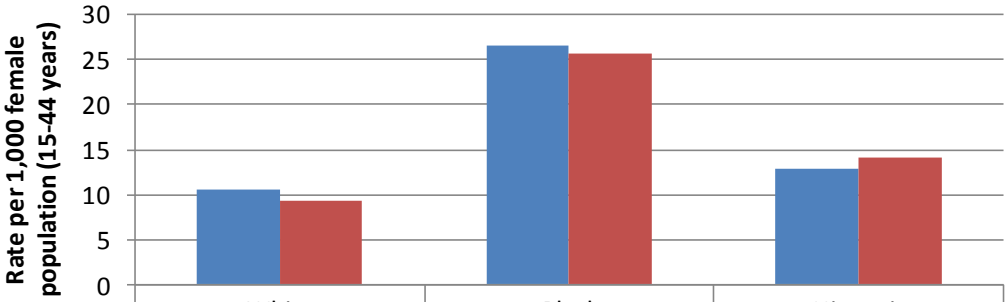
Source: OASIS

*Based on the Kotelchuck index. Inadequate prenatal care is defined by a score of 79% or less on the Kotelchuck Index.

ABORTIONS

The CDC began collecting abortion data in 1969 to document the number and characteristics of women who obtain a legal abortion. A legal abortion is defined as a procedure performed by a licensed clinician to induce the termination of a pregnancy.

Figure 7-5: Induced Terminations, 1998-2007



	White	Black	Hispanic
Douglas	10.5	26.5	12.9
Georgia	9.3	25.7	14.1

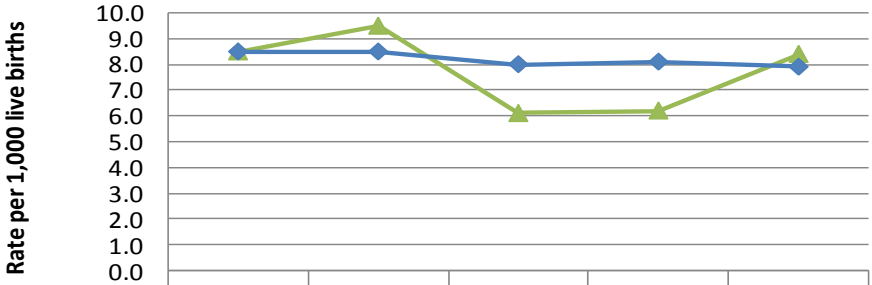
Source: The Georgia County Guide

- The number of abortions reported in Douglas County from 1998-2007 was 3,799 and the rate was 15.5 per 1,000 female population.
- Douglas County ranked 12th out of 157 counties in Georgia (2 counties did not have data) for the rate of induced terminations from 1998-2007.

INFANT MORTALITY

The infant mortality rate is the number of deaths among infants less than one year of age per 1,000 live births. Infant mortality is often used as an overall indicator of health in an area. It can reflect the health of the mother, the quality and access to care, socio-economic conditions and public health practices.
The most common causes of infant mortality in Georgia include prematurity, birth defects and sudden infant death syndrome (SIDS). Risk factors which contribute to infant mortality and low birth weight (<2500 grams) babies include pregnancy in adolescents, births with multiples, poor maternal health and nutrition, inadequate or late prenatal care, infections, drug use, alcohol and tobacco use, closely spaced pregnancies, poor prenatal care and positioning of sleeping babies.

Figure 7-6: Infant Mortality, 2003-2007

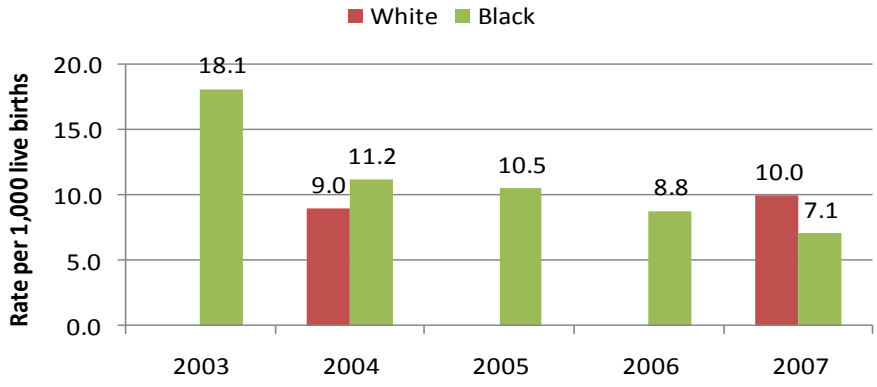


	2003	2004	2005	2006	2007
Douglas	8.5	9.5	6.1	6.2	8.4
Georgia	8.5	8.5	8.0	8.1	7.9

Source: OASIS

Douglas County ranked 25th out of the 50 more populated counties in Georgia for infant mortality in 2007.

Figure 7-7: Infant Mortality by Race Douglas County, 2003-2007



Source: OASIS

In Douglas County infant mortality rates (IMR) have been consistently higher in the black population from 2003 through 2006. In 2007, the IMR in whites was greater than blacks.

Rates were not calculated for years in which <5 infant deaths occurred.

Table 7-2: Top Causes of Infant Deaths Douglas County, 1998-2007	
Cause of Death	**Number of Deaths**
Birth Defects	16
Prematurity	12
SIDS	10
Digestive System	8
Major Cardiovascular Diseases	4
Total	111

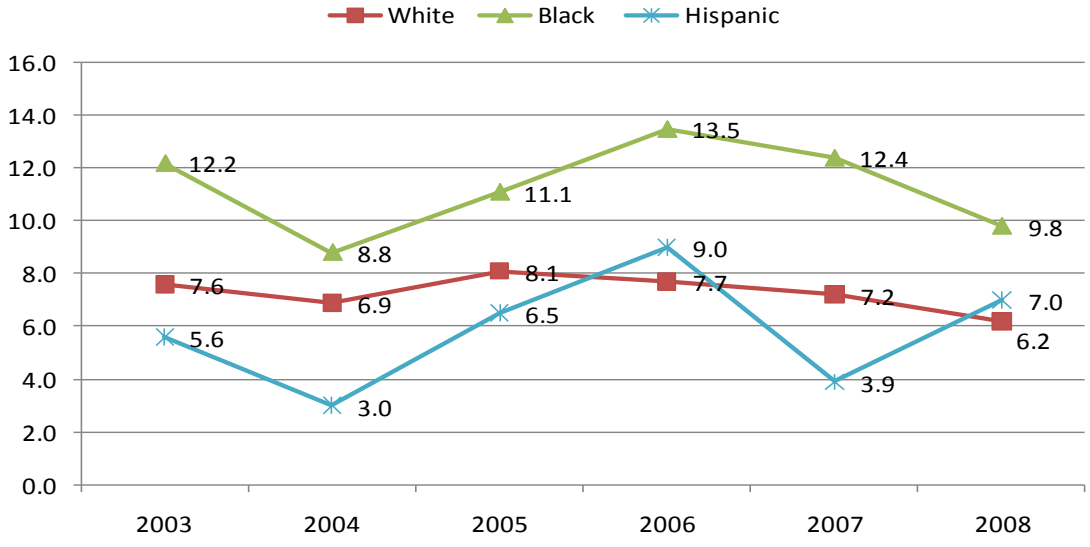
Source: OASIS

LOW BIRTH WEIGHT BIRTHS

Babies born weighing less than 5 pounds, 8 ounces (2,500 grams) are considered low birth weight. Low birth weight babies are at increased risk for serious health problems, lasting disabilities, and even death.

- In Douglas County, from 2003-2008, 9.0% of births were babies with low birth weights, compared to 9.4% for Georgia.
- In 2008, Douglas County ranked 39th lowest out of 151 counties reporting in Georgia for the percentage of babies with a low birth weight ("1" being the most favorable and "151" being the least favorable).

Figure 7-8: Percent of Low Birth Weight Babies by Race/Ethnicity
Douglas County, 2003-2008



Black females continue to give birth to low birth weight babies at a higher percentage than do whites and Hispanics.

Source: OASIS.

Why Are Prenatal Care and Low Birth Weight important?

Mothers who do not receive prenatal care are 3 times more likely to have low birth weight (less than 5 ½ lbs) babies and increase the risk for a poor maternal/infant medical outcome. Teenage mothers, women carrying multiples, and African American women are at higher risk for delivering low birth weight babies.

- Early and continued prenatal care can reduce or prevent medical risks for a mom and her baby.
- Early prenatal care can detect and treat existing medical conditions and reduce medical complications for a mom and her baby.
- Early lab testing can lead to early detection and treatment which can prevent and reduce medical complications.

WHAT YOU CAN DO ABOUT IT……

If you are pregnant:

- Start prenatal care early (by six weeks gestation) and continue it throughout the pregnancy.
- Don't use drugs, alcohol and tobacco products during the pregnancy.
- Eat 5-10 fruits and vegetables every day.
- Take prenatal vitamins and iron as prescribed.
- Gain an appropriate amount of weight during pregnancy.
- Become educated about pregnancy.
- Obtain a vaccination against the seasonal flu virus.
- Seek genetic counseling if maternal age is over age 35 yrs. or if there is a family history of genetic abnormalities.
- Brush your teeth regularly and see a dentist during pregnancy.

Uninsured or low income pregnant women can go to Cobb & Douglas Public Health for Pregnancy Medicaid, prenatal assessment and access to local medical providers, as well as for WIC vouchers and nutrition classes.

Call 770-514-2300.

WHY ARE PRENATAL CARE AND LOW BIRTH WEIGHT IMPORTANT?

HOW DO WE COMPARE?

- 192 (9.5%) of Douglas County infants were born with low birth weights (less than 2500 grams), the same percentage as Georgia at 9.5% (2007).
- 286 (14.2%) of Douglas County infants were born prematurely (before 37 weeks gestation), slightly higher than the percentage in Georgia at 14.1% (2007).
- 90 (5.7%) of Douglas County women had fewer than 5 prenatal care visits compared to Georgia at 6.0% (2007).
- 67 (3.7%) of Douglas women had late or no prenatal care compared to Georgia at 4.1% (2006).

TO LEARN MORE...

The following websites provide additional information.

1. http://www.cdc.gov
2. http://www.whattoexpect.com/what-to-expect/landing-page.aspx
3. http://www.marchofdimes.com/georgia/
4. http://www.pregnancy.com/

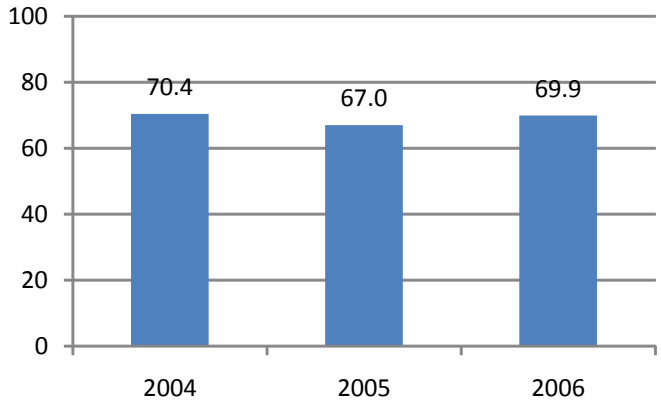
BREASTFEEDING

BREASTFEEDING FACTS

- From 2004-2006, Georgia consistently fell below the Healthy People 2010 goal for the percentage of mothers that breast-feed their infants.
- In 2006, the highest percentage of mothers who breastfeed their infants were Hispanics at 78.3% followed by whites at 75.1% and blacks at 58.2%.

The Pregnancy Risk Assessment Monitoring System (PRAMS) reports that from 2004-2006, 69.1% of mothers who delivered a live birth in Georgia breastfed their baby (for any length of time). The Healthy People 2010 goal is to increase the percentage of mothers who ever breastfeed their babies to 75%.

Figure 7-9: Percent of Mothers who Reported Ever Breastfeeding their Infant in Georgia, 2004-2006



Source: 2004-2006 PRAMS Survey Report

CHILDHOOD MORBIDITY (INJURY AND ILLNESS)

Injury is the leading cause of Emergency Department visits in children 1-19 years of age in Douglas County (2003-2009).

Table 7-3: Leading Causes of Emergency Department (ED) Visits in Children 1-19 Years of Age in Douglas County, 2003-2007

Major Disease Category	Number of ED Visits	ED Visit Rate per 100,000 population
External Causes	19,610	12,025.6
Falls	5,389	3,304.7
Motor Vehicle Accidents	2,008	1,231.4
Respiratory Diseases	10,507	6,443.3
Asthma	1,488	912.5
Pneumonia	911	558.7
Infectious and Parasitic Diseases	2,752	1,678.6
Digestive System Diseases	2,602	1,595.6
Reproductive and Urinary System Diseases	2,152	1,319.7

Source: OASIS

CHILDHOOD IMMUNIZATION

Vaccines are responsible for the control of many infectious diseases that were once common in this country, including polio, measles, diphtheria, Pertussis (whooping cough), rubella (German measles), mumps, tetanus, and Haemophilus influenzae type b (Hib). These diseases may lead to serious illness and death. It is important that vaccination levels remain high to prevent outbreaks.

The results of the 2008 Georgia Immunization Study indicates that District 3-1 (Cobb and Douglas counties) immunization coverage estimate for the 4:3:1:3:3:1* vaccination series is 76.0%. This rate is lower than the statewide immunization rate of 77.8%.

*The 4:3:1:3:3:1 vaccine series includes: four diphtheria, tetanus and pertussis (DTP/DTaP); three polio (OPV/IPV); one measles, mumps, rubella (MMR); three Haemophilus influenzae type b (Hib), three hepatitis B (HepB), and one varicella.

Table 7-4: Percent of Children Receiving Immunizations On Schedule by Study Year
District 3-1, 2004-2008

	2004	2005	2006	2007	2008
4 DTP/DTaP	78.8	79.0	75.2	83.6	86.0
3 OPV/IPV	83.5	86.2	83.5	90.7	93.9
1 MMR	86.3	82.1	87.2	88.5	91.1
3 Hib	82.1	84.1	86.2	86.7	86.0
3 HepB	83.0	83.6	86.7	90.7	91.6
1 Varicella	83.5	82.6	84.9	86.7	89.9

Source: Georgia Division of Public Health Immunization Study 2008 Final Report

YOUTH RISK BEHAVIORS

Health risk behaviors are often established during childhood and adolescence and can extend into adulthood. Therefore, encouraging the adoption of healthy behaviors during childhood is easier and more effective than trying to change unhealthy behaviors during adulthood. According to the CDC Youth Risk Behavior Survey, far too many youth nationally and in Douglas County are still engaging in risky behaviors, such as tobacco and alcohol use, that have a negative impact on their health.

YOUTH OBESITY

Obesity in children and adolescents continues to be a major public health concern in the U.S. Obesity in children is based on the 2000 CDC Growth Charts. These growth charts reflect age, sex and body mass index (BMI). BMI for children is calculated in the same manner as for adults (weight/(height)^2) but obesity in children is defined differently. Children are considered obese if they are ≥ 95th percentile (based on CDC Growth Charts) for BMI. Visit the following website for a BMI Calculator for children and teens: http://apps.nccd.cdc.gov/dnpabmi/

Children who are obese may experience immediate health issues. Obesity can lead to high blood pressure, cholesterol, type 2 diabetes, asthma, and sleep apnea. Children also may face emotional issues due to their weight.

In 2009, 12.4% of Georgia youth were estimated to be obese compared to the U.S. rate of 12.0%.

- Black youth had the highest percentage of obesity at 13.2%, compared to whites at 12.5% and Hispanics at 11.0%.

Georgia had significantly higher rates than the U.S. on a number of risk factors related to being overweight or obese. Of high school students in Georgia in 2009:

- 82.9% reported eating fruits and vegetables less than five times per week compared to 77.7% in the U.S.
- 56.4% reported not attending physical education classes in an average week (when in school) compared to 43.6% in the U.S.
- 39.2% reported watching television for 3 or more hours per day compared to 32.8% in the U.S.

WHY IS CHILDHOOD OBESITY IMPORTANT?

Obesity is a serious health concern for children and adolescents. Results from the 2007-2008 National Health and Nutrition Examination Survey (NHANES) indicate that an estimated 17% of children and adolescents ages 2-19 are obese. In Georgia, approximately 15% of children in the WIC (Women, Infants & Children) program, 24% of third graders, 15% of middle school students and 14% of high school students are obese (*2009 Georgia Data Summary: Obesity in Children and Youth).*

Obese children and adolescents are at risk for health problems during their youth and as adults. They are more likely to have risk factors associated with cardiovascular disease such as high blood pressure, high cholesterol, and type 2 diabetes. They are also prone to become inactive and obese as adults, leading to increased healthcare costs and decreased quality of life.

In Georgia in 2009...

55%	middle school students that met requirements for physical activity	**Recommended physical activity in Georgia**
44%	high school students that met requirements for physical activity	
52%	5th and 7th grade students who did not pass a cardiovascular health assessment	
22%	5th and 7th grade students who did not meet standards of muscular strength and flexibility	
39%	middle school students who attend daily physical education classes	**Policies and environments in schools and communities influence physical activity behaviors**
34%	high school students who attend daily physical education classes	
66%	middle schools that offer intramural activities to students	
54%	high schools that offer intramural activities to students	
19%	middle school students who live one mile or less from school and walk to school	
22%	high school students who live one mile or less from school and walk to school	
44%	middle school students who watch TV for 3 or more hours on a school day	**Poor diet and physical inactivity are reasons for the rise in childhood obesity**
43%	high school students who watch TV for 3 or more hours on a school day	
19%	high school students who consume 5 or more servings of fruits and vegetables daily	
*The percentage of high school students and adults who consume the minimum recommended servings of fruits and vegetables is **consistently low** across all sex, race, ethnic, and age groups.*		
12%	middle schools that have a policy to offer fruits and vegetables in school settings	**School policies and environments influence healthy eating behaviors**
10%	high schools that have a policy to offer fruits and vegetables in school settings	
Less nutritious snack foods and beverages are readily available in many middle school (39%-63%) and high school (75%-89%) vending machines.		

Source: Georgia Division of Public Health, *2009 Georgia Data Summary: Obesity in Children and Youth, Physical Activity in Youth, Healthy Eating*

WHY IS CHILDHOOD OBESITY IMPORTANT?

WHAT YOU CAN DO ABOUT IT…

At Home	In Schools	In the Community
• Reduce screen time (television, video games, computers) • Build physical activity into regular routines	• Adopt policies, environmental features, and provide programs supporting healthy diets and regular physical activity • Ensure school breakfast and lunch programs meet nutrition standards • Provide food options that are low in fat, calories, and added sugars • Provide all children, from Pre-K through grade 12, with quality daily physical education	• Create safe and supportive environments for healthy eating and physical activity • Promote healthier food choices including at least 5 servings of fruits and vegetables a day • Encourage the food industry to provide reasonable portion sizes for food and beverages • Encourage food outlets to increase the availability of low-calorie, nutritious food items • Create opportunities for physical activity in communities

TO LEARN MORE…

Please visit these websites to learn more.

http://health.state.ga.us/epi/cdiee/obesity.asp

http://www.cdc.gov/obesity/resources.html

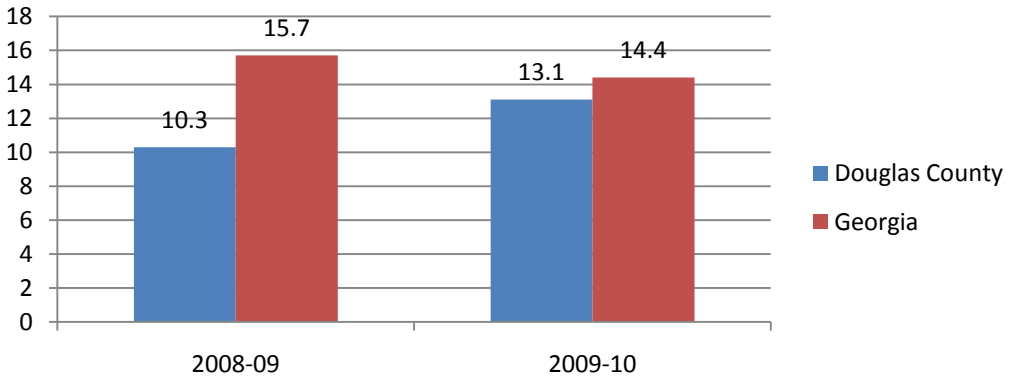
http://www.nhlbi.nih.gov/health/dci/Diseases/obe/obe_whatare.html

http://www.mypyramid.gov/

ALCOHOL USE

Across the U.S, it is illegal for youth under the age of 21 to purchase alcohol. Underage drinking (defined as having a drink in the past 30 days) in U.S. high school students decreased from 50% in 1999 to 42% in 2009. In 2009, 24% of students reported binge drinking (5 or more drinks within a couple of hours on one day) in the U.S. Douglas County data is not fully comparable to U.S. data due to the inclusion of middle school students in the county data.

Figure 7-10: Percent of Students who Reported Alcohol Use in the Past 30 days by School Year 2008-09 through 2009-10



In school years 2008-09 and 2009-10, Douglas County had a lower percentage of students reporting alcohol use compared to the state of Georgia.

Source: The Georgia Student Health Survey

Note: The Georgia Student Health Survey Report data from grades 6, 8, 10 and 12.

According to the Georgia Student Health Survey, the average age of onset use of alcohol in Douglas County schools in 12.6 for males and 12.8 for females.

Table: 7-5 Average Age of Onset Use of Alcohol School Year 2009-10

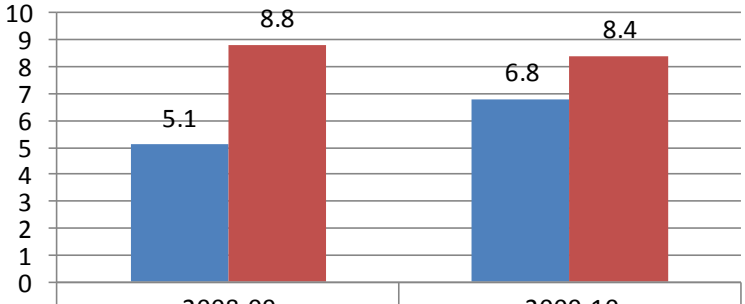
School System	Males	Females
Douglas	12.6	12.8
Georgia	12.7	13.1

Source: The Georgia Student Health Survey

BINGE DRINKING

On the Georgia Student Health Survey, binge drinking was defined as having 5 or more drinks during one sitting in the past 30 days.

Figure 7-11: Percent of Students who Reported Binge Drinking in the Past 30 days by School Year 2008-09 through 2009-10



	2008-09	2009-10
Douglas County	5.1	6.8
Georgia	8.8	8.4

Source: The Georgia Student Health Survey

Note: The Georgia Student Health Survey Report data from grades 6, 8, 10 and 12.

In 2009-10, 6.8% of the Douglas County students surveyed reported binge drinking within the past 30 days.

YOUTH SMOKING

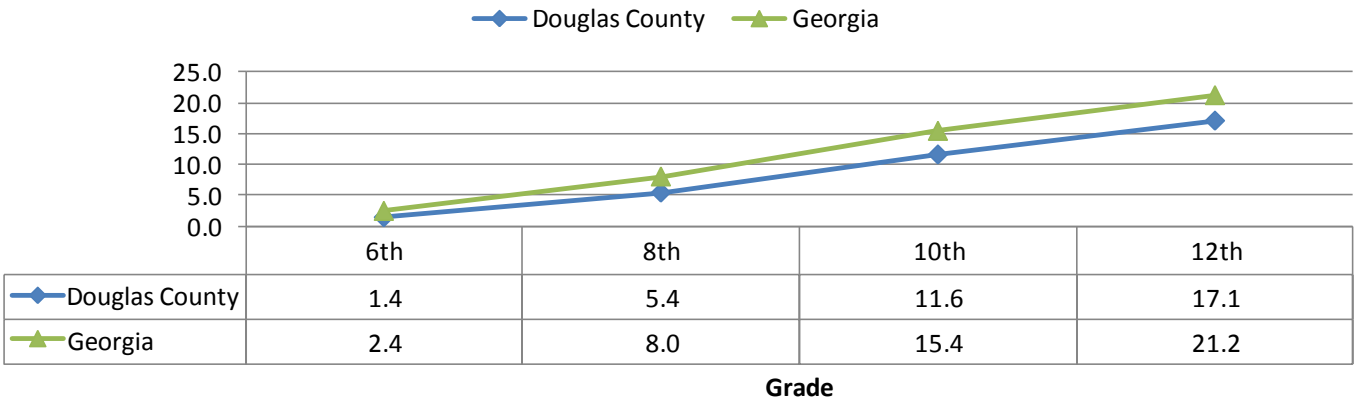
The Campaign for Tobacco Free Kids estimates that 90% of all tobacco use starts during adolescence. Two-thirds of adolescents who smoke will become addicted by the age of 20. National rates of youth smoking have remained stable over the past few years, and it is estimated that 20% of high school students in the U.S. are smokers.

Over the past few years, the reported rate of smokeless tobacco (chewing tobacco) use has increased. In 2009, 8.9% of high school students reported using smokeless tobacco within the past month; rates were higher among males.

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).

Smoking can cause bad breath, coughing, increased heartbeat 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.

Figure 7-12: Percent of Students Who Reported Yes to Tobacco Use Within the Past 30 Days School Year, 2009-10

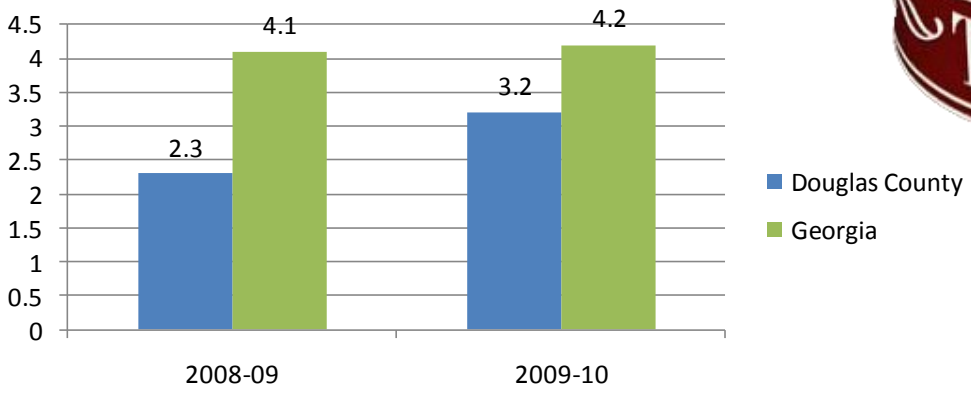


	6th	8th	10th	12th
Douglas County	1.4	5.4	11.6	17.1
Georgia	2.4	8.0	15.4	21.2

Source: The Georgia Student Health Survey

SMOKELESS TOBACCO

Figure 7-13: Percent of Students who Report Using Chewing Tobacco in the Past 30 Days School Year 2008-09 through 2009-10



Source: The Georgia Student Health Survey

Note: The Georgia Student Health Survey Report data from grades 6, 8, 10 and 12.