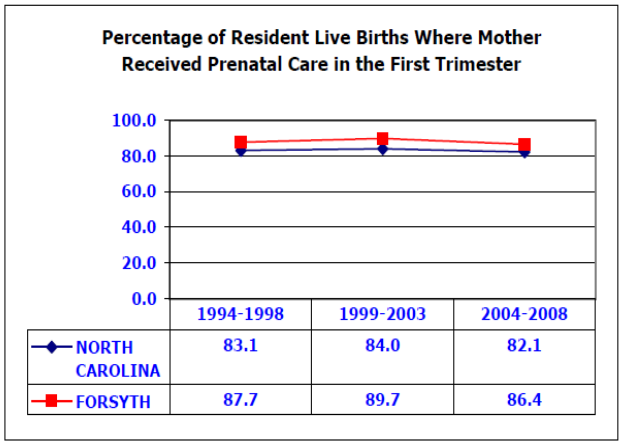
Maternal and Child Health

Prenatal Care

Prenatal Care during First Trimester:

Similar to the state average, the percentage of live births in Forsyth County where the mother received prenatal care during the first trimester remains about the same from 1994-2008.

The percentage is slightly greater for women in Forsyth County to receive prenatal care during the first trimester than the North Carolina average.

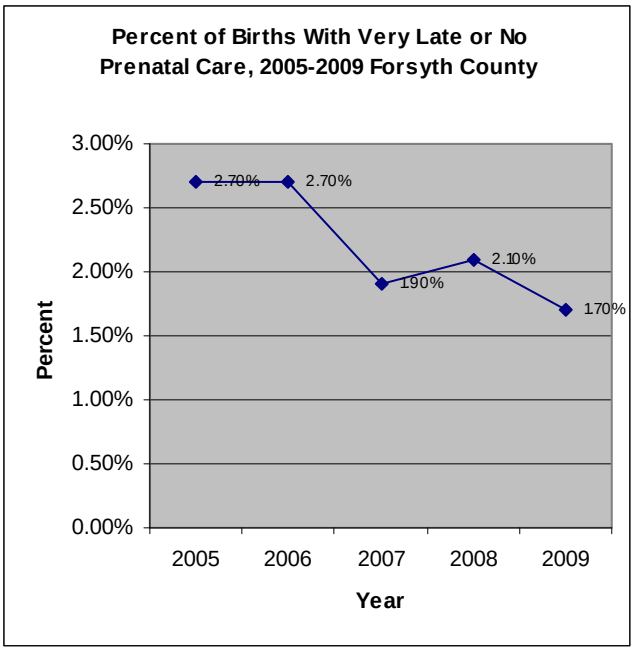


North Carolina County Trends Report
NC State Center for Health Statistics

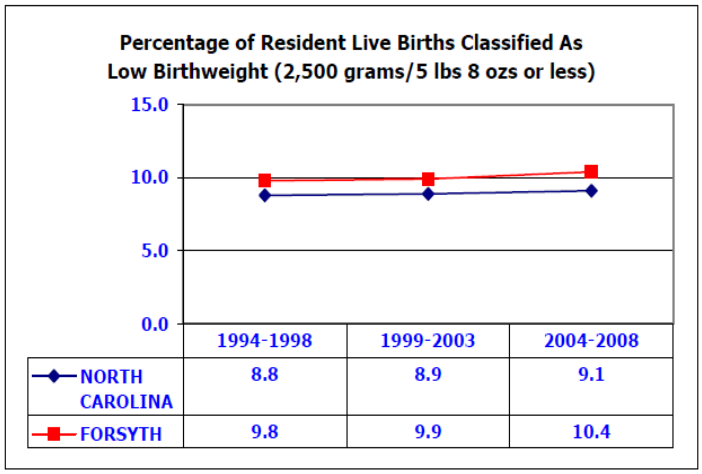
Little or No Prenatal Care:

Although the percent of mothers who receive prenatal care in the first trimester remains similar, the percent of women with very late or no prenatal care is decreasing.

The chart to the right shows the percent of births with very late or no prenatal care, and is calculated as the number of women with no prenatal care until the third trimester or none at all, divided by the total number of births.



Low Birth Weight Babies



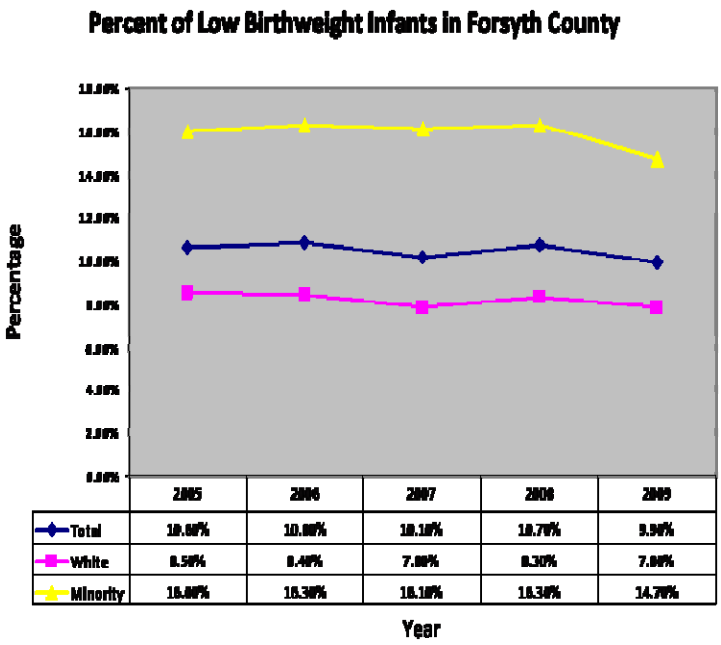
North Carolina County Trends Report
NC State Center for Health Statistics

Low Birth Weight Babies:

In Forsyth County, the percent of live birth classified as low birth weight is higher than the state average. The chart below compares live birth data in Forsyth County to that of the state. Since 1994, Forsyth County has had a higher percentage of low birth weight babies; and similar to the state, that percentage is increasing.

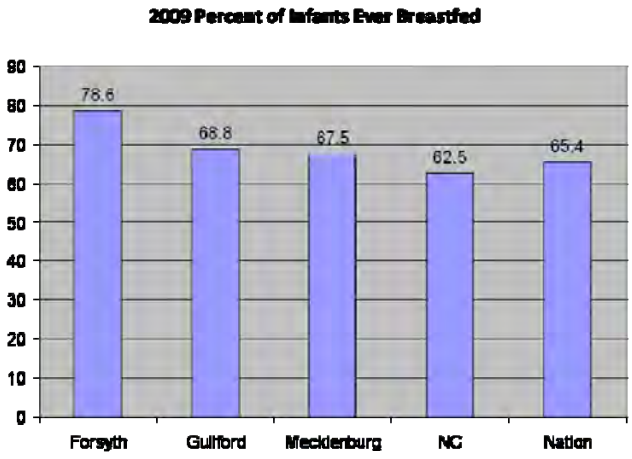
Low Birth weight Infants in Forsyth County:

The chart to the right shows the percent of infants born weighing less than 2,500 grams (5 lbs, 8 oz) at birth.
It is important to note that minority residents have a much higher percent of low birth weight infants than white residents in Forsyth County.



NC Department of Health and Human Services, State Center for Health Statistics.
"North Carolina Live Birth Data."

Breastfeeding



Data from 2009 CDC Pregnancy Nutrition Surveillance Report on Infant Health Indicators

Breastfeeding is the best source of infant nutrition and immunologic protection, and it provides remarkable health benefits to mothers as well. According to the US Surgeon General, "babies who are breastfed are less likely to become overweight and obese. Many mothers in the United States want to breastfeed, and most try. And yet within only three months after giving birth, more than two-thirds of breastfeeding mothers have already begun using formula. By six months postpartum, more than half of mothers have given up on breastfeeding, and mothers who breastfeed one-year olds or toddlers are a rarity in our society." The chart to the left shows the percent of infants ever breastfed in Forsyth County, peer counties, the state and the nation. Forsyth County ranks 12th in the state for infants ever breastfed, and the rate is higher than peer counties, the state, and the

Health Risks Associated with Not Breastfeeding:

The table to the right comes from the U.S. Surgeon Generals 2011 Call to Action to Support Breastfeeding report.

As shown in this table, compared with mothers who breastfeed, those who do not breastfeed experience increased risks for certain poor health outcomes. These poor health outcomes for infants include: ear infections, eczema, asthma, and childhood obesity.

In general, exclusive breastfeeding and longer durations of breastfeeding are associated with better maternal health outcomes.

Table 1. Excess Health Risks Associated with Not Breastfeeding

Outcome	Excess Risk* (%)
Among full-term infants	
Acute ear infection (otitis media)[2]	100
Eczema (atopic dermatitis)[11]	47
Diarrhea and vomiting (gastrointestinal infection)[3]	178
Hospitalization for lower respiratory tract diseases in the first year[4]	257
Asthma, with family history[2]	67
Asthma, no family history[2]	35
Childhood obesity[7]	32
Type 2 diabetes mellitus[6]	64
Acute lymphocytic leukemia[2]	23
Acute myelogenous leukemia[5]	18
Sudden infant death syndrome[2]	56
Among preterm infants	
Necrotizing enterocolitis[2]	138
Among mothers	
Breast cancer[8]	4
Ovarian cancer[2]	27

Chart from the 2011 Surgeon Generals Call to Action to Support Breastfeeding Report

The Centers for Disease Control and Prevention (CDC) began releasing national and state breastfeeding report cards in 2007. In the figure below, the Healthy People 2020 goals related to breastfeeding are listed along with breastfeeding trends in North Carolina from 2009-11.

North Carolina was very close to meeting the Healthy People 2010 goal of increasing the proportion of infants ever breastfed. Unfortunately, the other goals related to breastfeeding were not met. There is work to be done to meet the Healthy People 2020 goals for breastfeeding.

North Carolina Trends: CDC Report Card Results*

Objective	Healthy People 2010 Goal	North Carolina 2009 (%)	North Carolin 2010 (%)	Healthy People 2020 Goal	North Carolina 2011 (%)
Increase the proportion of infants ever breast-fed	**75%**	**66.9**	**73.5**	**81.90%**	**67.3**
Increase the proportion of infants breastfed at 6 months	50%	36.7	35.9	60.60%	37
Increase the proportion of infants breastfed at 1 year	**25%**	**18.9**	**19.4**	**34.10%**	**19.6**
Increase the proportion of infants who are breastfed exclusively through 3 months	40%	30.2	28.2	46.20%	28.1
Increase the proportion of infants who are breastfed exclusively through 6 months	**25%**	**13.1**	**8.7**	**25.50%**	**8.2**

***The CDC Report Card is based on data collected from the National Immunization Survey. This table is representative of provisional and final data collected from 2006-08. Chart from the NC DHHS Breastfeeding Blueprint.**

In addition to the previously listed Healthy People 2020 objectives for initiation, duration and exclusivity, three new breastfeeding objectives have been added.

New Healthy People 2020 Breastfeeding Goals:

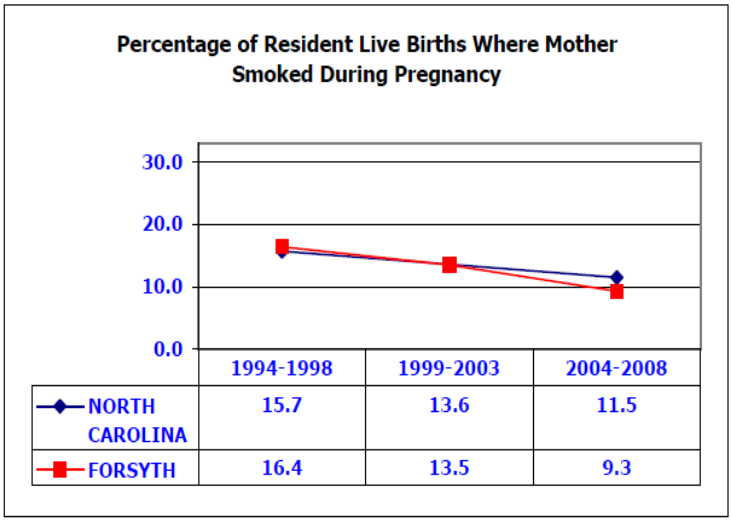
Objective	Goal
Reduce the proportion of breastfed newborns who receive formula supplementation within the first 2 days of life	**14.20%**
Increase the proportion of live births that occur in facilities that provide recommended care for lactating mothers and their babies.	**8.10%**
Increase the proportion of employers that have worksite lactation programs.	**38%**

***Chart from the NC DHHS Breastfeeding Blueprint**

Tobacco Use

Smoking During Pregnancy:

Smoking during pregnancy is one cause of low birth weight, and many other infant health issues. In 1994, Forsyth County had a higher percentage of women who smoked during pregnancy that the state average. In more recent data (2008), fewer Forsyth County women smoke during pregnancy than the state average. This decrease in smoking during pregnancy is a wonderful step towards health birth outcomes.



	1994-1998	1999-2003	2004-2008
NORTH CAROLINA	15.7	13.6	11.5
FORSYTH	16.4	13.5	9.3

North Carolina County Trends Report
NC State Center for Health Statistics

Children Exposed to Secondhand Smoke

Over half of all children in the United States breathe secondhand smoke at home, in cars, or in public places. According to the 2010 US Surgeon General's report, more than 300,000 children suffer each year from infections caused by secondhand tobacco smoke, including bronchitis, pneumonia and ear infections. Secondhand smoke (and maternal smoking while pregnant) also contributes to preterm birth, low birth weight and Sudden Infant Death Syndrome (SIDS).

The NC Youth Tobacco Survey is a public school based survey of students in grades 6-12. The following information about secondhand smoke is from the 2009 survey of schools in Central NC:

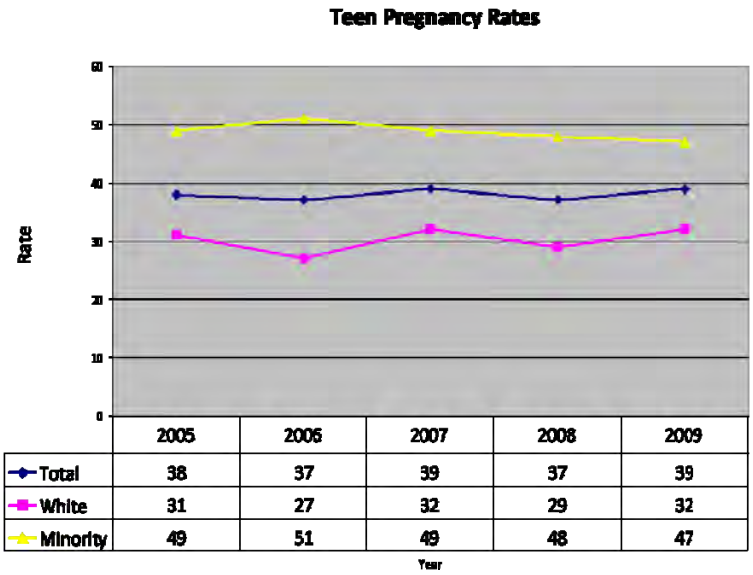
Middle School:

- 39.5% live in homes where others smoke
- 45.5% are in the same room as others who smoke during the week
- 86.5% think smoke from others is harmful to them

High School:

- 37.7% live in homes where others smoke
- 51.7% are in the same room as others who smoke during the week
- 90% think smoke from others is harmful to them

Teen Pregnancy & Sexual Activity



	2005	2006	2007	2008	2009
Total	38	37	39	37	39
White	31	27	32	29	32
Minority	49	51	49	48	47

NC Department of Health and Human Services, State Center for Health Statistics. "North Carolina Reported Pregnancies."

Teen Pregnancies:

In 2010*, teen pregnancy rates across the state dropped 11% to the lowest level in North Carolina's history. As a state average, fewer than 5% of girls age 15-19 got pregnant last year.

Historically, teen pregnancy has disproportionally affected minorities. State data shows that these disparities are shrinking; however they still exist. The chart to the left shows the teen pregnancy rates per 1,000 girls in NC from 2005-2009 for white and minority girls age 15-17.

*2010 information from the Adolescent Pregnancy Prevention Campaign of NC

In relation to teen pregnancies, highlights from the 2009 Youth Risk Behavior Survey of WSFCS System students show that:

- 72% of middle school students reported they have been taught about abstaining from sexual activity
- 10% of high school students had sexual intercourse for the first time before age 13
- 16% of high school students had sexual intercourse with 4 or more people during their lifetime
- 54% of male students and 47% of female students have had sexual intercourse; among the sexually active students, 63% reported using a condom
- 12% of female students and 5% of male students reported having been physically forced to have sexual intercourse

2009 Youth Risk Behavior Survey Data

In March 2009, schools in the WSFCS System participated in the Youth Risk Behavior Survey (YRBS). This survey identifies the prevalence of specific health risk behaviors and compares local youth behavior patterns to county and state data.

Alcohol, Tobacco & Other Drugs YRBS High School Data	2009 WSFCS	2008 Guilford	2009 Mecklenburg	2009 NC
Smoked cigarettes on one or more days in the past 30 days.	19%	21%	13%	20%
Had at least one drink of alcohol on one or more days in the past 30 days	37%	38%	33%	35%
Had 5 or more drinks of alcohol in a row, on at least 1 day during the past 30 days (binge drinking)	20%	26%	14%	19%
Used marijuana one or more times in the past 30 days	22%	23%	21%	20%
Been offered, sold or given illegal drugs on school property	30%	31%	38%	5%
Drove a car or other vehicle when they had been drinking alcohol in the past 30 days	8%	12%	6%	8%
Rode with a driver in a car or other vehicle who had been drinking alcohol in the past 30 days	21%	28%	23%	21%

Middle School Highlights

- 55% of students reported being physically active for a total of 60 minutes or more per day for the past 7 days
- 20% of students reported seriously considered attempting suicide, and 15.4% reported developing a suicide plan
- 41% reported watching 3 or more hours of TV on an average school night
- 47% were trying to lose weight

High School Highlights

- 46% of students reported being physically active for a total of 60 minutes on five or more days of the past seven days
- 29% of student have been in a physical fight, 10% on school property
- 14% considered attempting suicide and 12% had attempted suicide within the past year
- 43% were trying to lose weight

Violence-Related Behavior YRBS Middle School Data	2009 WSFCS	2008 Guilford	2009 Mecklenburg	2009 NC
Ever carried a weapon such as a gun, knife, or club	32%	32%	315	39%
Ever in a physical fight	53%	60%	60%	53%
Bullied on school property in past 12 months	34%	n/a	39%	n/a
Electronically bullied in past 12 months	19%	n/a	18%	21%
Someone stole or damaged student's property while at school	28%	29%	32%	28%

2009 Youth Tobacco Survey Data

In 2009 school sin the WSFCS System participated in the Youth Tobacco Survey as part of the Central Region. This survey identifies the prevalence of the use of cigarette and other tobacco products, as well as information on secondhand smoke, school tobacco prevention education, and access to tobacco products.

Middle School Highlights:

- Almost 3 in 10 students have tried
- tobacco; 10% currently use some form of tobacco
- Secondhand smoke exposure is high—nearly 5 in 10 students are exposed to secondhand smoke on a daily basis
- 6 in 10 current smokers want to quit smoking
- 6 in 10 students were not taught the dangers of tobacco at school in the past year
- An overwhelming majority (9 of every 10) say they have not smoked on school property

High School Highlights:

- 5 in 10 students have tried tobacco; 25% reported currently use some form of tobacco
- Secondhand smoke exposure is high-more than 5 in 10 students are exposed to secondhand smoke on a daily basis
- 40% of current smokers want to quit smoking
- Nearly three-quarters were not taught the dangers of tobacco at school in the past year
- An overwhelming majority (9 of every 10) say they have not smoked on school property

Access and Availability—Current Smokers Under Age 18

Middle School:

- 3.3% buy cigarettes in stores
- 46.8% get cigarettes via social sources (friends, family, and others)

High School:

- 17.5% buy cigarettes in stores
- 61.6% get cigarettes via social sources (friends, family, and others)

Schools & Tobacco

Middle School:

- 41.8% were taught the dangers of tobacco use
- 1.6% smoked on school property within the past month
- 4.2% said their school has a program to help students quit smoking

High School:

- 26.3% were taught the dangers of tobacco use
- 6.6% smoked on school property within the past month
- 7.1% said their school has a program to help students quit smoking

These results are from a combination of school districts within the central part of North Carolina. Counties included in this survey include Alamance, Anson, Cabarrus, Caswell, Chatham, Cumberland, Davidson, Davie, Durham, Forsyth, Franklin, Gaston, Granville, Guilford, Harnett, Hoke, Iredell, Lee, Lincoln, Mecklenburg, Montgomery, Moore, Orange, Person,

Children's Issues

Child Abuse and Neglect Reports Investigated (Rate per 1,000)				
2005	2006	2007	2008	2009
43	43.4	48.9	50.7	47.3

Duncan, D.F., Kum, H.C., Flair, K.A., and Stewart, C.J. (2010). Management Assistance for Child Welfare, Work First, and Food & Nutrition Services in North Carolina.

Child Abuse and Neglect Reports Investigated in Forsyth County:

The chart to the left shows the rate per 1,000 reports of child abuse and neglect investigated. In 2009, the rate of investigation was 47.3, this was down 3.4 from 2008.

Children in Foster Care:

Since 2006, Forsyth County has seen a decrease in the number of children ages 0-17 placed in foster care. In 2006, 480 children were placed into foster care, and in 2010 only 259 children were placed.

Children in Foster Care (Number)				
2006	2007	2008	2009	2010
480	432	398	337	259

Duncan, D.F., Kum, H.C., Flair, K.A., and Stewart, C.J. (2010). Management Assistance for Child Welfare, Work First, and Food & Nutrition Services in North Carolina.

Children without Health Insurance (Percent)		
2007	2008	2009
11.50%	14.30%	12.70%

The North Carolina Institute of Medicine and the Cecil G. Sheps Center for Health Services Research

Children without Health Insurance:

According to the NC Institute of Medicine, In 2008 Forsyth County saw an increase in the percent of children (0-17) without health insurance from 11.5% to 14.30%. In 2009, this percent went back down to 12.7%.

Obesity in low-income Children:

The chart to the right shows the percentage of children (aged 2-18) seen in public health clinics who are considered obese. Obese is defined as a body mass index equal to or greater than the 95th percentile using federal guidelines, prior to 2008 this was considered to be overweight.

*Please note the following terminology change for 2008 childhood data: 2008 - Obesity (>= 95th Percentile) & Overweight (>= 85th and < 95th Percentile) 2007 (and earlier) - Overweight: (>= 95th Percentile) & At Risk For

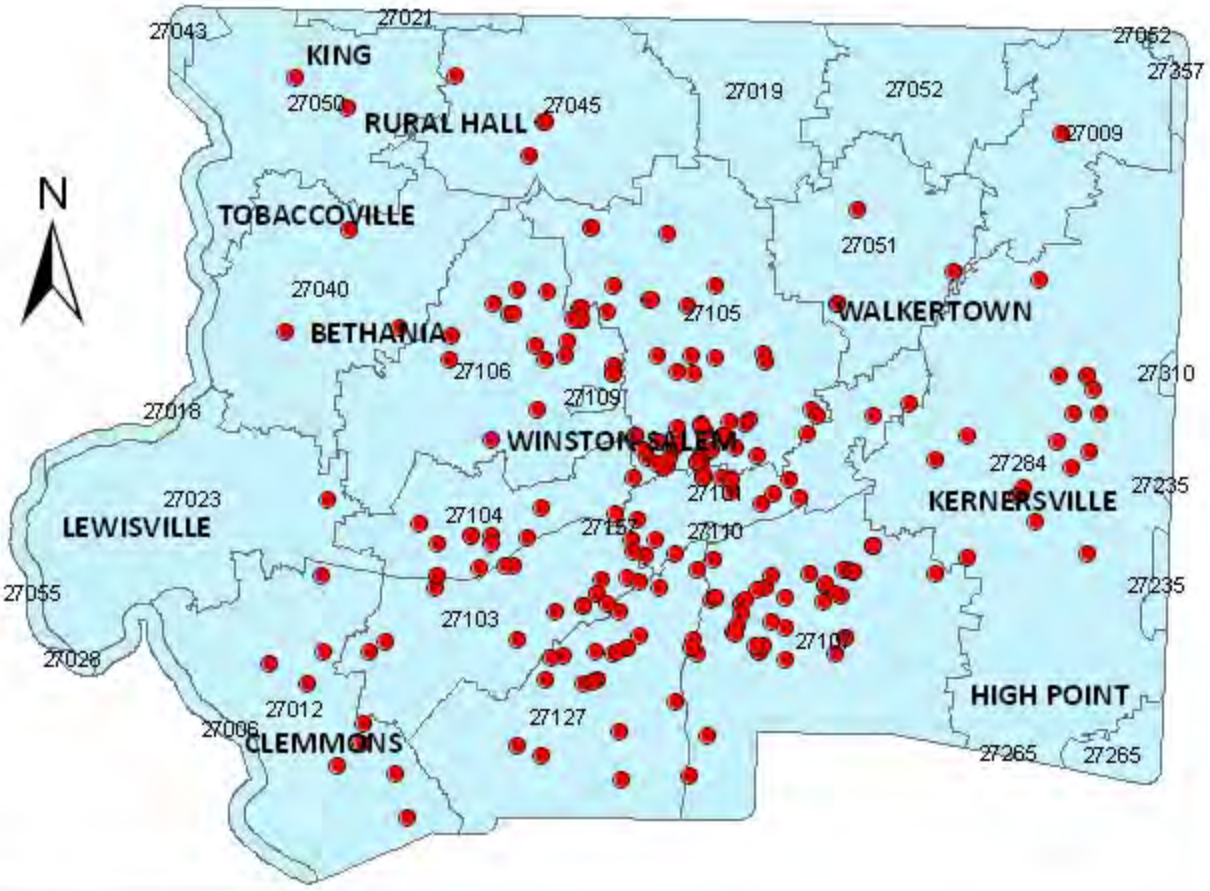
Obese: % low-income children who are obese				
2005	2006	2007	2008	2009
13.90%	20.10%	15.40%	15.50%	14.70%

North Carolina Nutrition and Physical Activity Surveillance System

Sources:

1. 2011 County Health Data Book, NC SCHS:
2. Behavioral Risk Factor Surveillance System, NC SCHS:
3. North Carolina Injury and Violence Prevention Branch
4. Annie E. Casey Foundation. Kids County Data Center.
5. NC DHHS, NC Oral Health. Measuring Oral Health
6. NC DHHS Tuberculosis Control Program.
7. NC DHHS NC 2009 HIV/STD
8. North Carolina County Trends Report, NC SCHS
9. 2009 CDC Pregnancy Nutrition Surveillance Report on Infant Health Indicators
10. 2011 Surgeon Generals Call to Action to Support Breastfeeding Report
11. National Immunization Survey, CDC Report Card
12. NC DHHS Breastfeeding Bluprint
13. North Carolina Reported Pregnancies."
14. Management Assistance for Child Welfare, Work First, and Food & Nutrition Services in North Carolina.
15. North Carolina Institute of Medicine
16. North Carolina Nutrition and Physical Activity Surveillance System

2006-2010 Infant Deaths by Zip Codes
Forsyth County, North Carolina



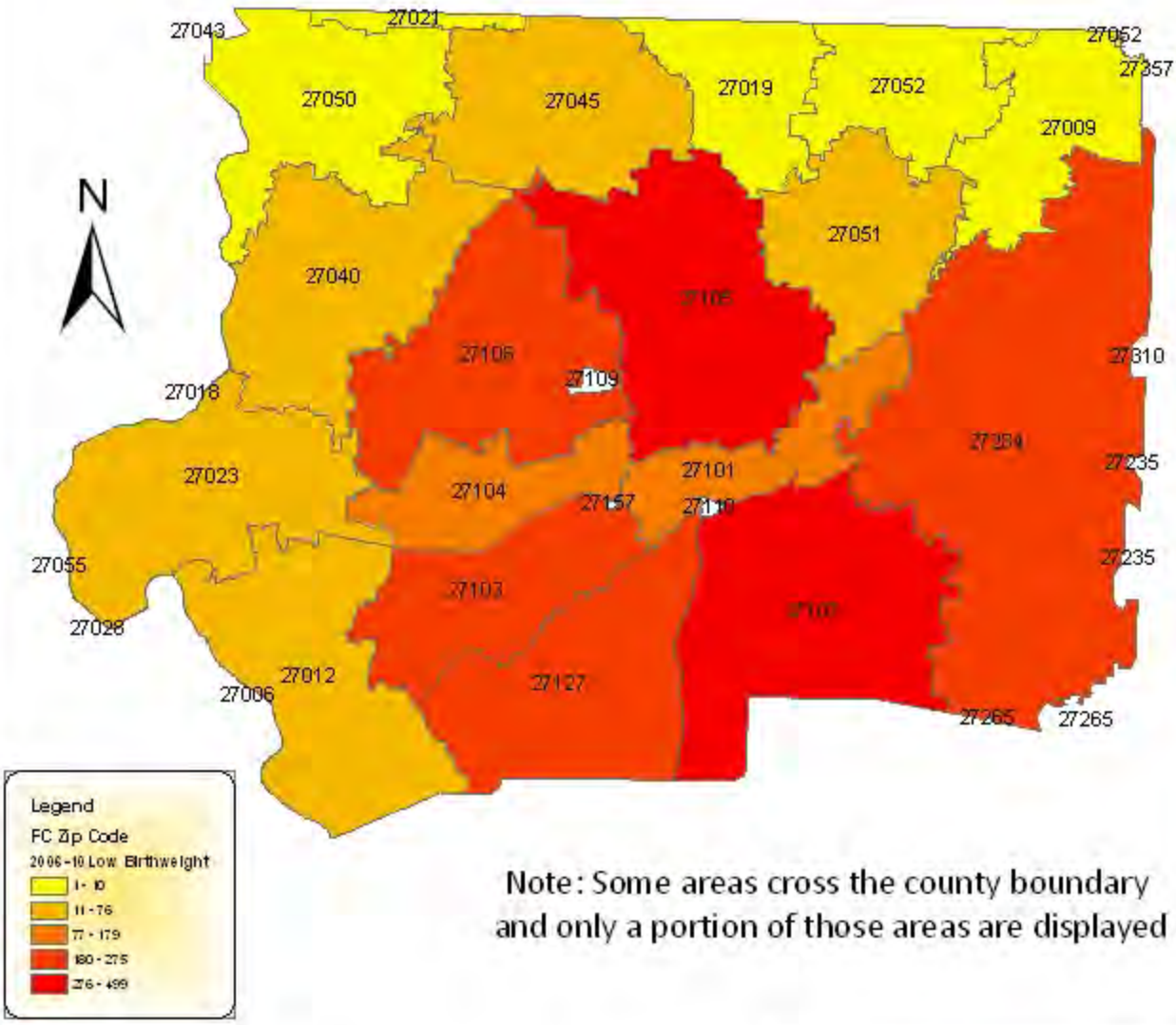
Legend

- 2006-10 Infant Deaths
- FC Zip Codes

Forsyth County
Department of Public Health
Promoting Health, Improving Lives

Prepared by Epidemiology Division, FCDPH July 2012

2006-2010 Low Birthweights by Census Zip Codes, Forsyth County

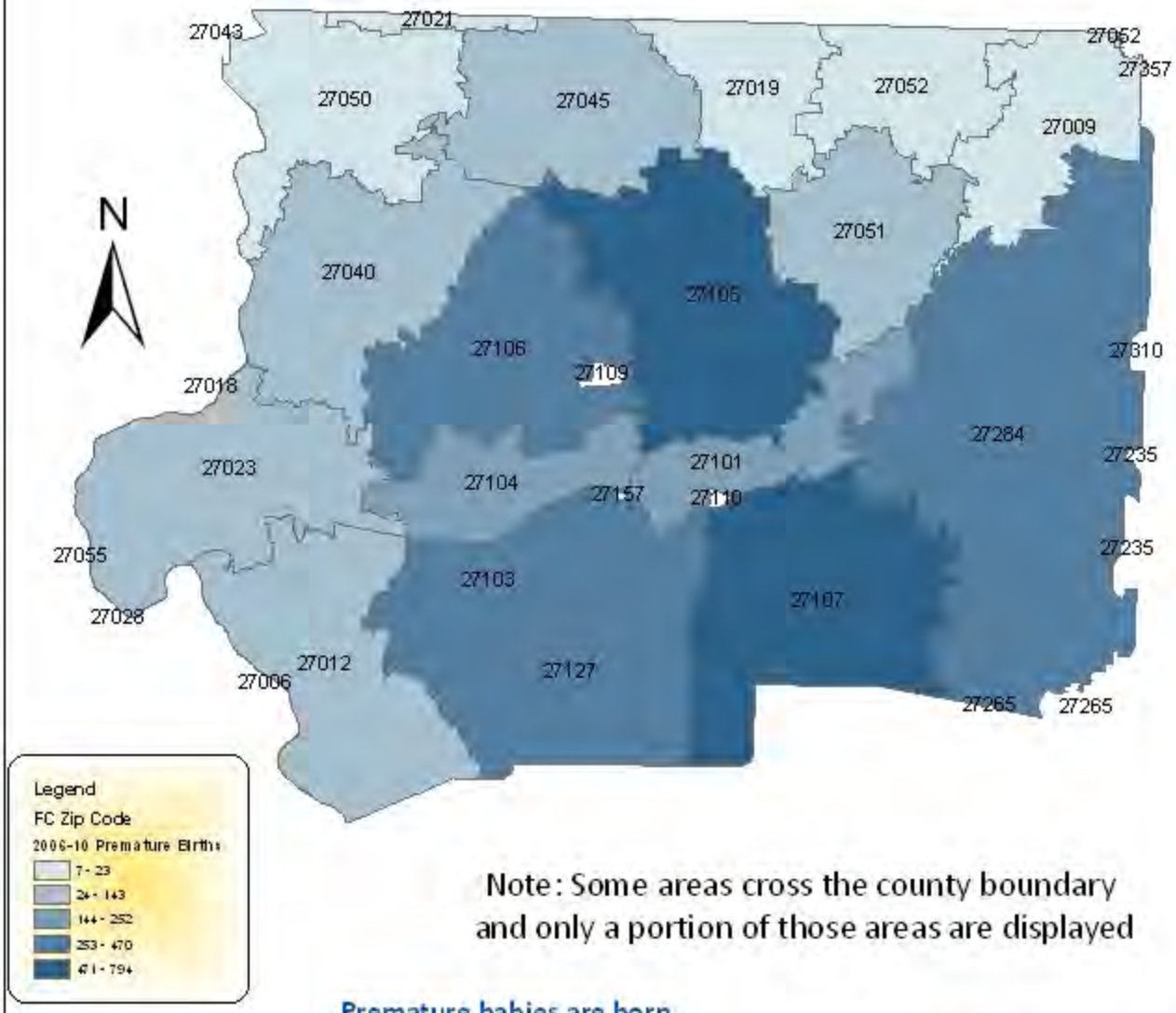


Note: Some areas cross the county boundary and only a portion of those areas are displayed

Forsyth County
Department of Public Health
Promoting Health, Improving Lives

Prepared by Epidemiology Division, FCDPH July 2012

2006-2010 Premature Births, by Census Zip Codes, Forsyth County



Note: Some areas cross the county boundary and only a portion of those areas are displayed

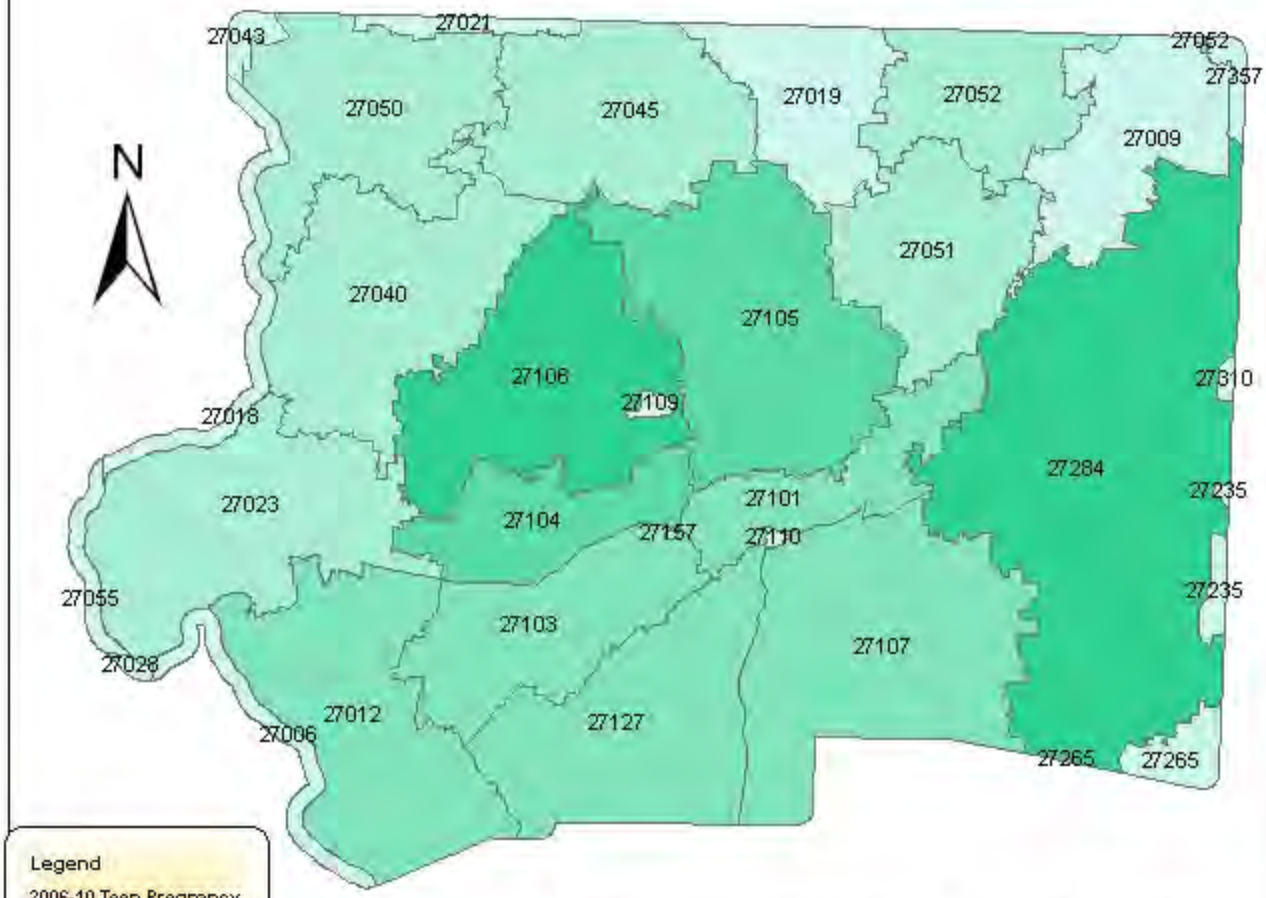
Premature babies are born before 37 weeks of pregnancy.

Forsyth County
Department of Public Health

Promoting Health, Improving Lives

Prepared by Epidemiology Division, FCDPH July 2012

2006-2010 Teen Pregnancy by Census Zip Codes, Forsyth County



Legend
2006-10 Teen Pregnancy
- 0 - 2
- 3 - 7
- 8 - 16
- 17 - 20
- 21 - 29

Note: Some areas cross the county boundary and only a portion of those areas are displayed

Forsyth County
Department of Public Health

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Prepared by Epidemiology Division, FCDPH July 2012