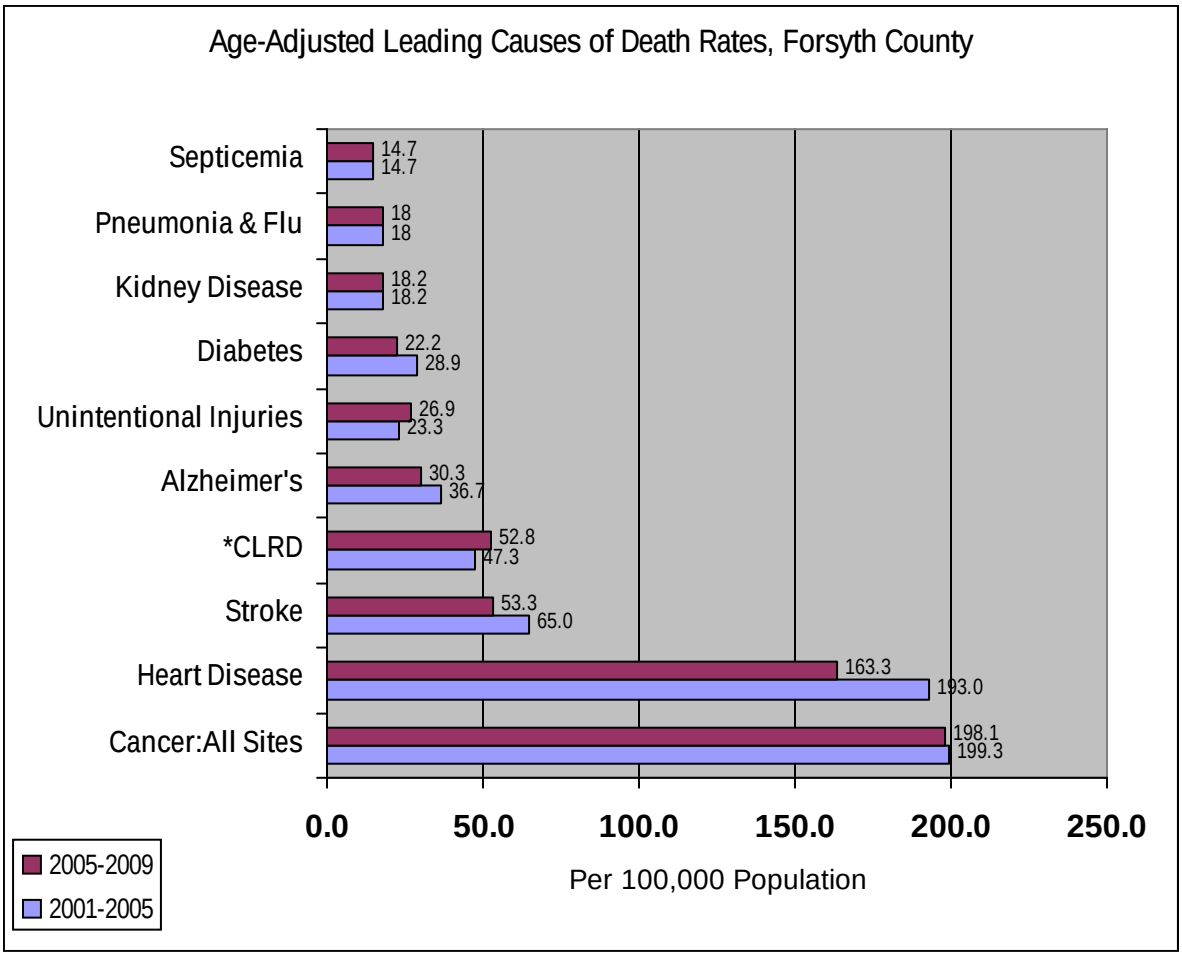
Mortality

Leading Causes of Deaths

In comparison to the ten leading causes of death in the 2007 Community Health Assessment, the causes remain the same: cancer, heart disease, cerebrovascular disease, chronic lower respiratory disease, Alzheimer's, unintentional injuries, diabetes, kidney disease, pneumonia and influenza, and septicemia.

The chart below compares the age adjusted leading causes of death data from the 2007 assessment (2001-2005 data) with the current (2005-2009) data. The rates of most causes of death decreased or remained constant, with the exception of chronic lower respiratory disease and unintentional injuries, which increased.



*CLRD-Chronic Lower Respiratory Disease

NC State Center for Health Statistics

Leading Causes of Death by Age, Gender & Race

2005-09 Leading Causes of Death by Age, Forsyth County			
Age	*Cause of Death*	*Number of Deaths*	*Death Rate*
0-19	Conditions originating in the perinatal period	137	27.7
20-39	Other Unintentional injuries	84	18
40-64	Cancer - All Sites	971	174.9
65-84	Cancer - All Sites	1818	976.2
85+	Diseases of the heart	867	3045.4

North Carolina County Health Data Book - 2011 NC Department of Health and Human Services

In 2005-2009, among ages 0-19years,the leading cause of death was Conditions originating in the perinantal period. The leading cause of death among ages 20-39 was Other unintentional injuries which includes falls, exposure to smoke, fires or flame, accidental drowning, and accidental poisoning. Cancer was the leading cause of deaths among residents ages 40-84 and Heart disease for those over the age of 84.

Leading Causes of Death in Forsyth County by Age Group, 2009		
Infants (<1year)	**Ages 1-14 Years**	**Ages 15-24 Years**
1. Congenital Defects	1. Cancer	1. Motor Vehicle Injuries
2. Prematurity & Low Birth Weight	2. Other Unintentional Injuries	2. Suicide
3. Maternal Complication or SIDS	3. Influenza & Pneumonia	3. Other Unintentional Injuries
Ages 25-44 Years	**Ages 45-64 Years**	**Ages 65+ Years**
1. Heart Disease	1. Cancer	1. Cancer
2. Cancer	2. Heart Disease	2. Heart Disease
3. Other Unintentional Injuries	3. Other Unintentional Injuries	3. Chronic Lower Respiratory Disease

In 2009, the leading causes of death for infants was Congenital defects; Cancer for residents 1-14 years ; Motor Vehicle injuries for residents 15-24; Heart Disease for residents 25-44 and Cancer for ages 44 and older.

Leading Causes of Death by Age, Gender & Race

2005 - 2009 Forsyth County Resident Race and Sex-Specific Age-Adjusted Death Rates
Standard = Year 2000 U.S. Population ; *Rates Per 100,000 Population

	White				African American				Other			
	Male		Female		Male		Female		Male		Female	
Cause of Death:	**Deaths**	**Rate**	**Deaths**	**Rate**	**Deaths**	**Rate**	**Deaths**	**Rate**	**Deaths**	**Rate**	**Deaths**	**Rate**
All Causes	4,977	858	5,676	627	1,718	1,251.40	1,786	823	46	524	26	275
Diseases of Heart	1,048	182	990	104	368	275.3	345	160	14	N/A	5	N/A
Cerebrovascular Disease	248	44.9	410	42	88	73.8	151	70.9	4	N/A	3	N/A
Cancer	1,288	214	1,255	149	408	308.2	391	175	8	N/A	10	N/A
Diabetes Mellitus	98	16.4	111	12.7	83	55.8	82	38.9	1	N/A	2	N/A
Pneumonia and Influenza	113	21	139	14.7	20	16.1	31	14.7	2	N/A	0	N/A
Chronic Lower Respiratory Diseases	341	59.7	439	49.8	60	51.6	56	26.6	0	N/A	0	N/A
Chronic Liver Disease and Cirrhosis	66	10	51	6.3	22	13.8	15	N/A	0	N/A	0	N/A
Septicemia	84	14.5	87	9.9	35	24.9	42	19.5	0	N/A	1	N/A
Nephritis, Nephrotic Syndrome, and Nephrosis	107	19.5	93	10.1	46	36.8	62	29.9	1	N/A	0	N/A
Unintentional Motor Vehicle Injuries	114	18.8	52	7.4	32	15.9	11	N/A	2	N/A	0	N/A
All Other Unintentional Injuries	215	36.9	161	19.7	43	26.6	34	15.6	3	N/A	0	N/A
Suicide	124	19.4	44	6.8	22	11.1	3	N/A	1	N/A	0	N/A
Homicide	39	6.6	12	N/A	54	25.5	7	N/A	0	N/A	1	N/A
Alzheimer's disease	100	19.7	333	32.1	15	N/A	66	32.6	0	N/A	0	N/A
Acquired Immune Deficiency Syndrome	7	N/A	4	N/A	45	23	34	14	0	N/A	0	N/A

- Both White and African American women continue to experience higher death rates for Alzheimer's disease compared to men.
- African American continue to experience higher death rates for Diabetes, Heart disease, Stroke and Kidney Disease compared to Whites
- Whites experience higher death rates for Chronic Lower Respiratory Disease and Suicide compared to African Americans.
- Homicide deaths are 3.1 times higher among African American than Whites and 5.0 times higher among males compared to females ..

Mortality: Leading Causes of Death by Gender & Race

Leading Causes of Death by Race in Forsyth County, 2009			
Rank	Whites	Non-Whites	Hispanics
1	Cancer	Cancer	Homicide
2	Heart Disease	Heart Disease	Heart Disease
3	Chronic Lower Respiratory Disease	Cerebrovascular Disease	Cancer
4	Cerebrovascular Disease	Diabetes Mellitus	Congenital Anomalies
5	Other Unintentional Injuries	Chronic Lower Respiratory Disease	Motor Vehicle Injuries
6	Alzheimer's Disease	Kidney Disease	Perinatal Conditions
7	Pneumonia & Influenza	Other Unintentional Injuries	Other Unintentional Injuries
8	Septicemia	Alzheimer's Disease	Suicide
9	Suicide	Perinatal Conditions	Septicemia
10	Kidney Disease	HIV Disease	Cerebrovascular Disease

- In 2009, Cancer, Heart Disease, Chronic Lower Respiratory Diseases and Stroke are the leading causes of death in Forsyth County, North Carolina and the United States.
- Homicide is leading cause of death among Hispanics.
- Whites continue to experience higher death rates due to Alzheimer's Disease, Pneumonia & Influenza, Suicide and Septicemia compared to Non-Whites
- Non-whites continue to experience higher death rates due to Diabetes , Perinatal Conditions, HIV Disease compared to Whites.
- Males continue to experience higher death rates due to Suicide and Other Unintentional injuries compared to females
- Females continue to experience higher death rates due to Alzheimer's Disease compared to males.

Leading Causes of Death in Forsyth County by Gender, 2009		
Rank	Males	Females
1	Cancer	Cancer
2	Heart Disease	Heart Disease
3	Chronic Lower Respiratory Disease	Cerebrovascular Disease
4	Other Unintentional Injuries	Chronic Lower Respiratory Disease
5	Cerebrovascular Disease	Alzheimer's Disease
6	Suicide	Other Unintentional Injuries
7	Kidney Disease	Pneumonia & Influenza
8	Diabetes Mellitus	Diabetes Mellitus
9	Pneumonia & Influenza	Septicemia
10	Septicemia	Kidney Disease

Top Ten Leading Causes of Death for Forsyth County, North Carolina, and the United States, 2009			
	Forsyth	NC	US
Cancer	1	1	2
Heart Disease	2	2	1
Cerebrovascular Disease	3	3	4
Chronic Lower Respiratory Disease	4	4	3
Alzheimer's Disease	5	6	6
Other Unintentional Injuries	6	5	5
Diabetes Mellitus	7	7	7
Kidney Disease	8	8	9
Pneumonia & Influenza	9	9	8
Septicemia	10		
Motor Vehicle Injuries		10	
Suicide			10

Mortality: Health Disparities

Health Disparities in Forsyth County, 2005-2009 Adjusted Death Rates				
	White	Black	Black Ratio to White	White Ratio
Prostate Cancer	7.6	17.4	2.3	1
Diabetes	14.1	45.9	3.3	1
Heart Disease	136.2	203.0	1.5	1
Stroke	43.7	72.2	1.7	1
Chronic Lower Respiratory Disease	53	35	1	1.5
Kidney Disease	13.5	32.3	2.4	1
Suicide	12.9	5.4	1	2.4
Homicide	4.3	13.1	3.1	1

Ratio: A ratio is calculated by dividing the group with the higher death rate by the group with the lower death rate. Example the prostate cancer ration would read: 2.3 black people die from prostate cancer for every 1 white person that dies from the same disease.
Rate per 100,000 Population

Healthy People 2020 defines health disparities as "a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion."

Persistent health disparities in the United States, North Carolina and Forsyth County are unacceptable and correctable. The problem must be addressed with dual strategies– both universal interventions available to everyone and targeted interventions for populations with special needs.
Health Disparities can lead to concerns about:

- Cultural beliefs and attitudes/ trust
- Culturally competent providers
- Effective messages
- Navigating the health care system

Health Outcomes– Mortality & Morbidity

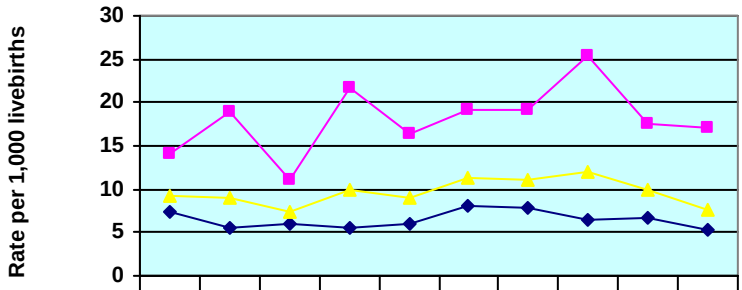
- *Infant deaths*– Since 2005 to 2009, the non-Hispanic black babies die at a rate of almost 3 times that of white babies.
- *Prostate Cancer deaths* among African Americans are about 2.3 times that of White men.
- African American experience higher death rates for *Diabetes, Heart Disease, Stroke and Kidney Disease* compared to Whites.
- *Homicide deaths* are 3.1 times higher among African American than White and 5.0 times higher among males compared to females.
- Whites experience higher death rates for *Chronic Lower Respiratory Disease* and *Suicide* compared to African Americans.
- Prevalence of *Obesity is* twice higher among non-Whites compared to Whites.

Infant Mortality Rates

Forsyth County's infant mortality rate (IMR) declined significantly in 2010, reaching its lowest level in seven years. The rate, 7.7 infant deaths for every 1,000 live births, represents a 22.2 percent drop from 2009 rate of 9.9 deaths.

According to information from the North Carolina State Center for Health Statistics, there were 36 infant deaths and 4,693 live births in Forsyth County in 2010; compared to 48 infant deaths and 4,834 live births in 2009. There has been a decrease in live births in Forsyth County, North Carolina and the nation over the past four years. **Forsyth County has the second highest overall infant mortality rate of the five (5) urban North Carolina counties**. The State's overall infant mortality rate was 7.0 deaths per 1,000 live births; a decline of 11.4 percent from its 2009 rate of 7.9.

2001-2010 Forsyth County Infant Mortality Rates by Race



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
White	7.5	5.5	5.9	5.5	5.9	8	7.9	6.4	6.6	5.3
Non-White	14	18.9	11.1	21.6	16.4	19.2	19.2	25.3	17.5	17.1
Total	9.3	9.1	7.3	10	8.9	11.4	11.1	12	9.9	7.7

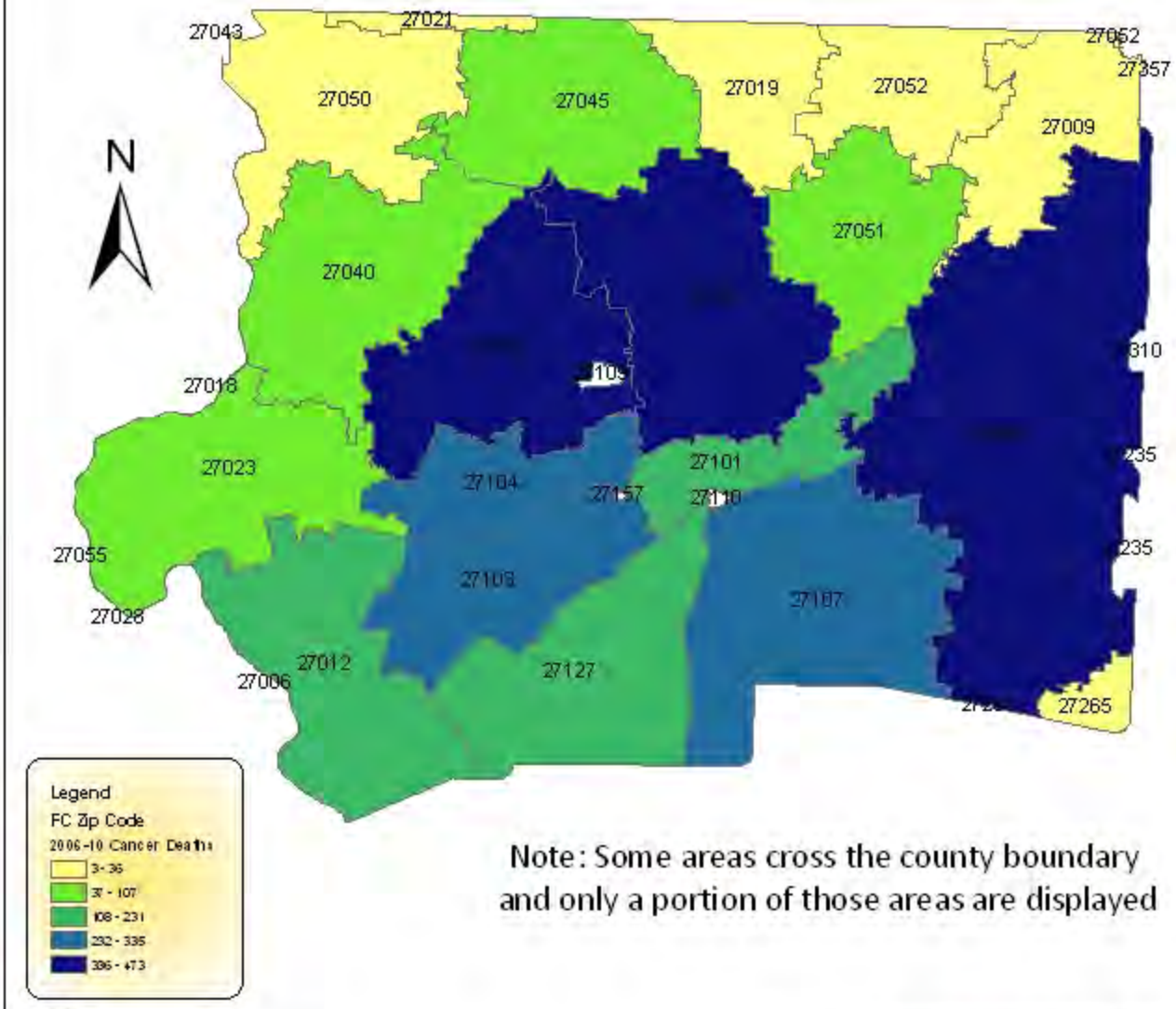
Forsyth County Infant Mortality Facts:

- Forsyth County has the second highest overall infant mortality rate of the five most populated NC counties in 2010.
- Forsyth County continues to have a persistent inequity in birth outcomes. In 2010, African American infants in Forsyth County died at a rate of over three (3.2) times that of white infants.
- For North Carolina as a whole, total infant mortality rates dropped 11.4% between 2009 and 2010.
- North Carolina ranks 44th in the nation for infant death.
- The U.S. ranks 29th in the world in infant mortality, tied with Poland and Slovakia.

Sources:

1. North Carolina State Center for Health Statistics: 2011 County Health Data Book
2. North Carolina State Center for Health Statistics: 2009 Leading Causes of Death
3. North Carolina State Center for Health Statistics: 2001-2010 Infant Mortality Statistics
4. Centers for Disease Control and Prevention: National Center for Health Statistics-FastStats

2006-2010 Cancer Deaths, by Census Zip Codes, Forsyth County



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

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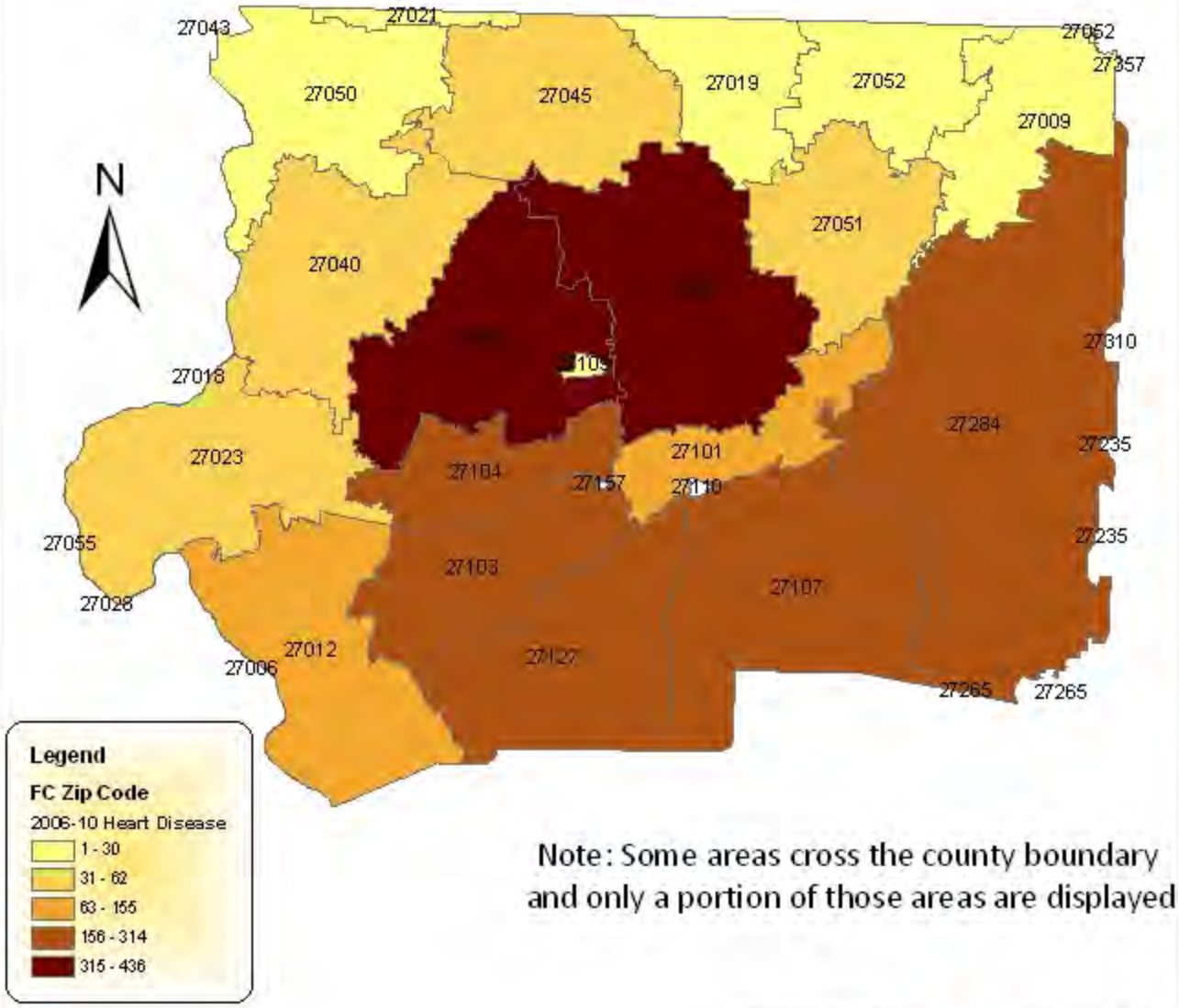
2006-2010 Heart Disease Deaths, by Census Zip Codes, Forsyth County



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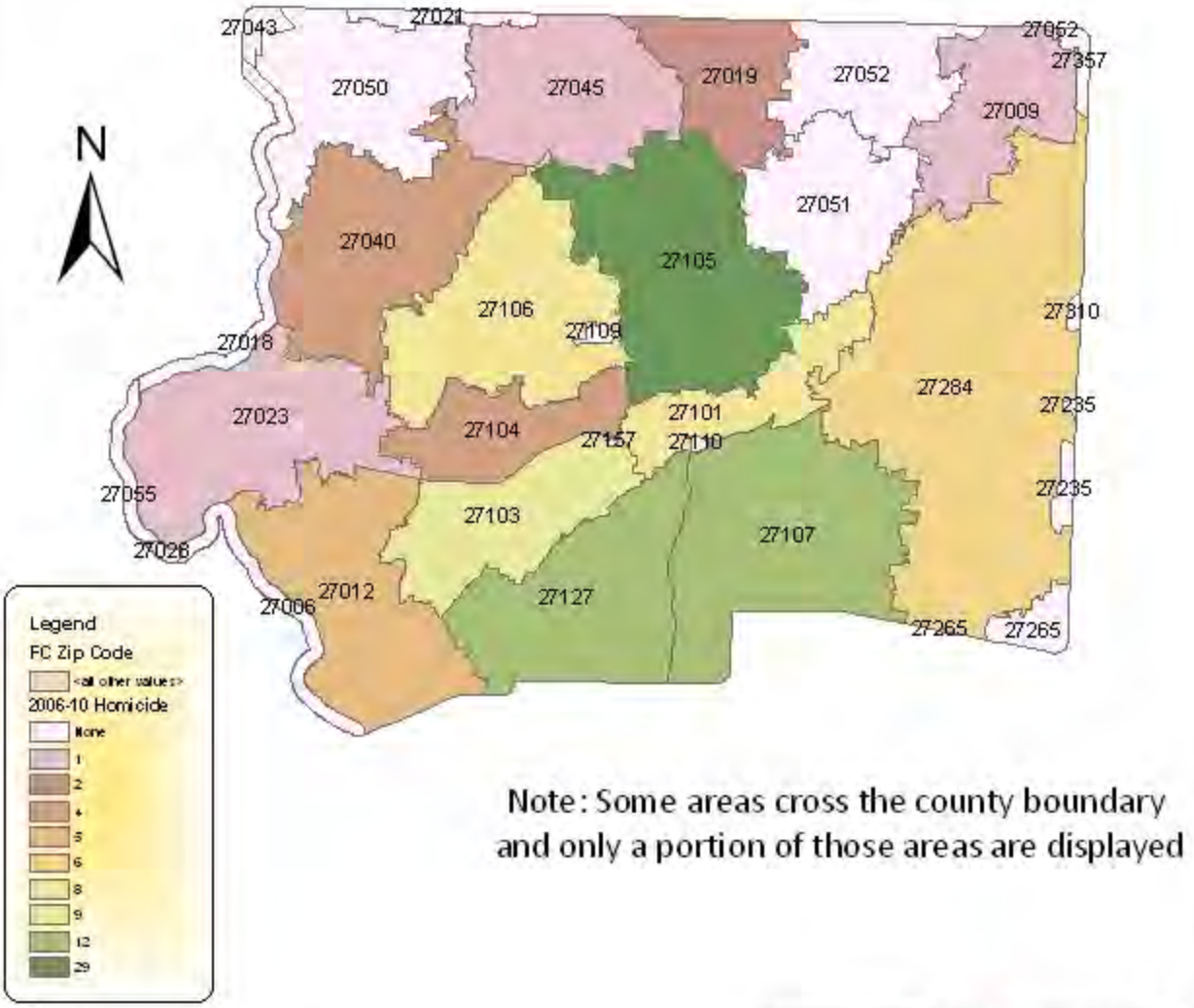
2006-2010 Homicide Deaths, by Census Zip Codes, Forsyth County



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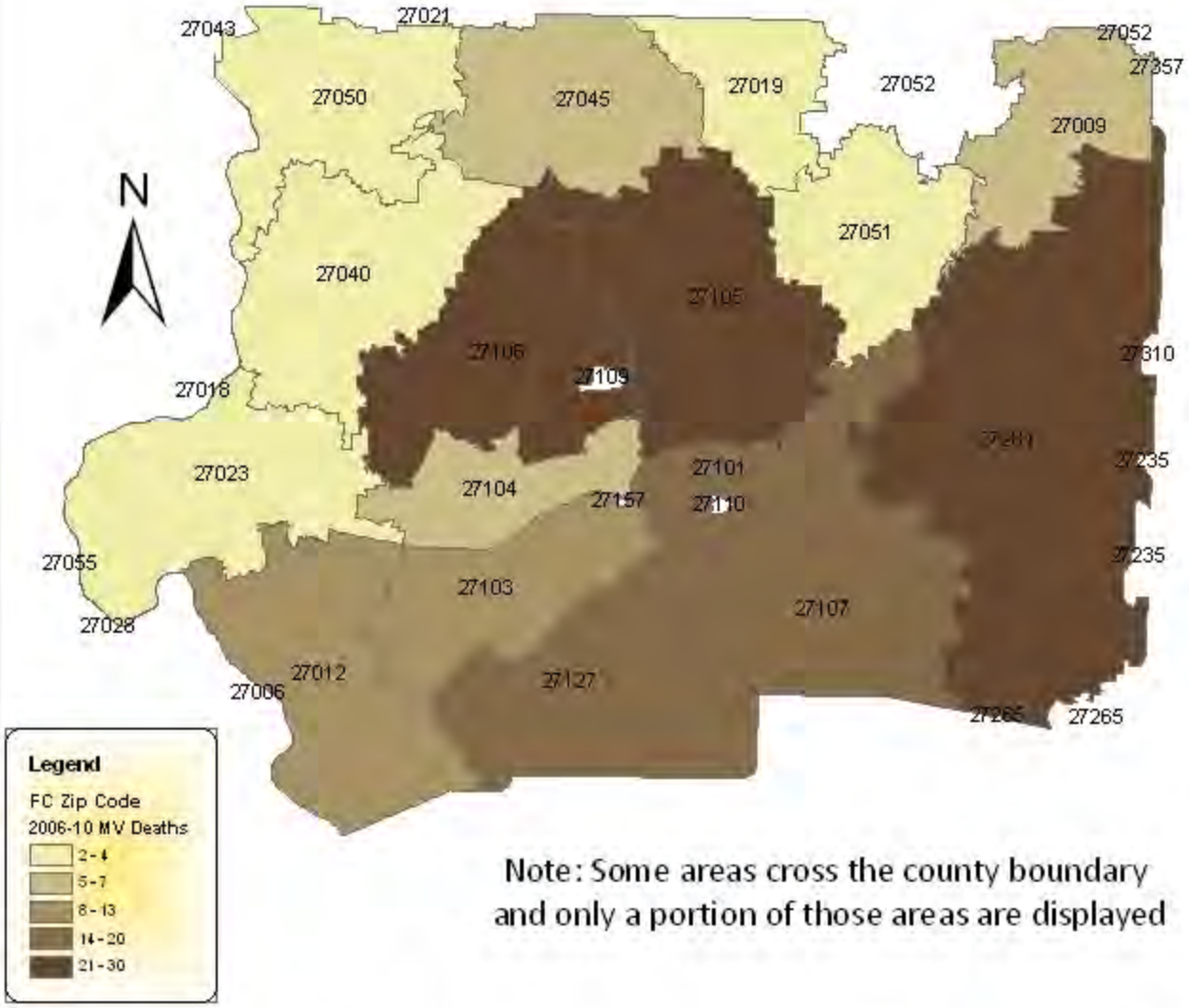
2006-2010 Motor Vehicles Injuries Deaths, by Census Zip Codes, Forsyth County



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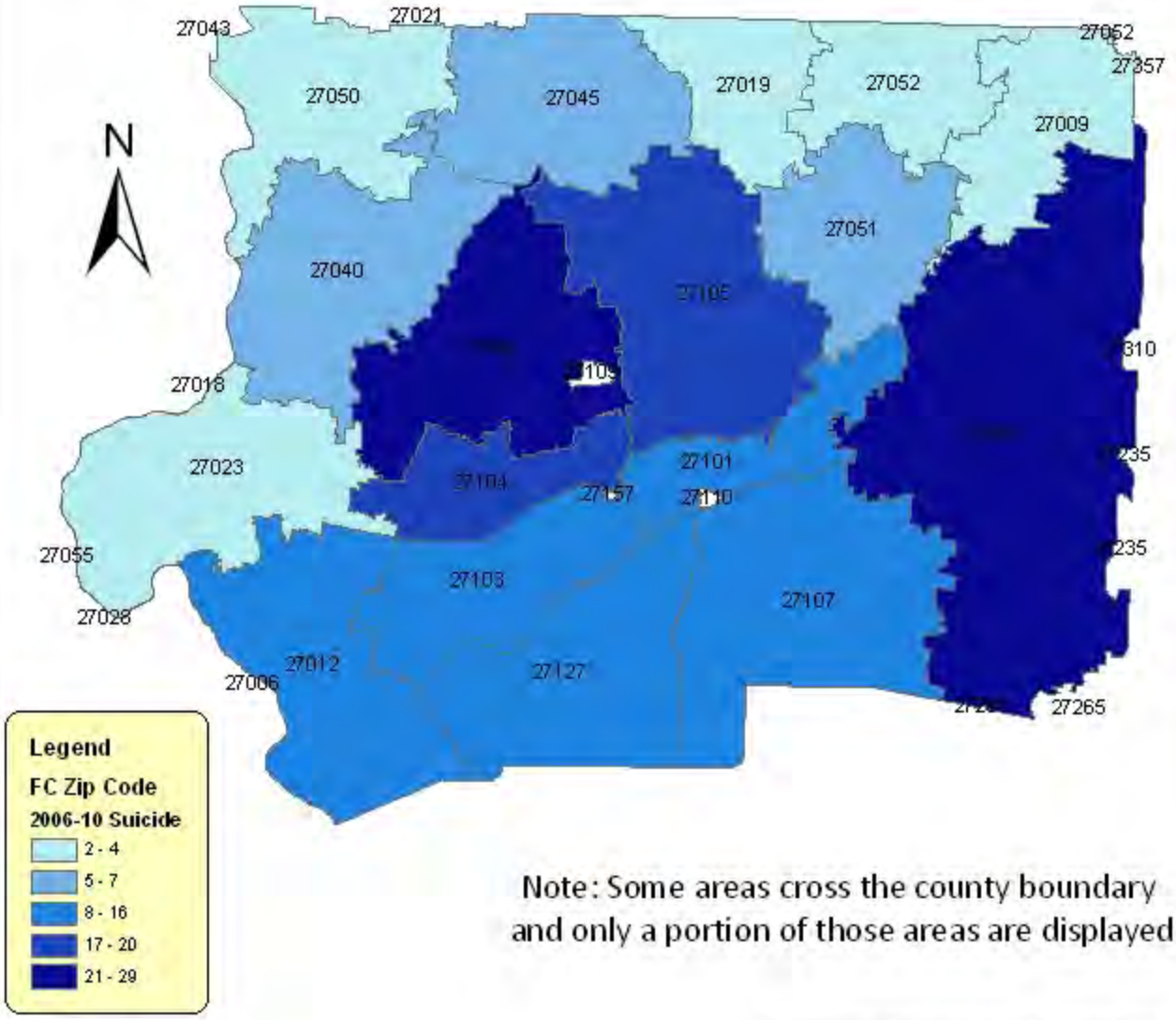
2006-2010 Suicide
by Census Zip Codes, Forsyth County



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