



### MAKING PROGRESS REPORT Physical & Mental Health 2012

**ORSYTH FUTURES' MAKING PROGRESS REPORTS (MPR)** serve as a tool to inform Forsyth County, N.C., residents about current issues, conditions, and trends in six areas; Educational Success, Economic Self-Sufficiency, Physical and Mental Health, Environmental Sustainability, Safety, and Community Engagement. A community that is physically and mentally healthy suggests that all residents have positive health outcomes, have access to health care, and practice health promoting behaviors.

The MAKING PROGRESS REPORT: PHYSICAL & MENTAL HEALTH includes seven indicators:

- Access to Health Care
- I Mental Health, Developmental Disabilities, and Substance Abuse
- Chronic Disease
- Healthy Lifestyles
- Sexually Transmitted Diseases
- I Teenage Pregnancy
- Infant Health

For each indicator, this report provides a description of the indicator, indicates data points used to measure the indicator, identifies key findings, and offers recommendations on how progress is made.

UNIQUE TO THE MAKING PROGRESS REPORT IS THE TREND STATUS. Certain measures are further labeled as showing a trend moving toward a desired outcome — indicated by the green positive trend icon — or moving away from a desired outcome as indicated by the red negative trend icon —.

### **REPORT HIGHLIGHTS**

Since 2001, the number of active health professionals has increased.
In 2008 - 2009 approximately 20 percent of non-elderly were uninsured.

CenterPoint Human Services provided nearly 15,000 adults and children with mental health, developmental disability and/or substance abuse services in 2010 - 2011.

The teenage pregnancy rate has decreased by almost 36 percent between 2001 and 2010.

# **ACCESS TO HEALTH CARE**

### DESCRIPTION

The indicator Access to Health Care examines what health care resources are available to Forsyth County residents, and how they are utilizing these resources. Understanding what current resources are available can assist with planning for additional resources.

### **TREND STATUS/MEASURES**

The measures below are meant to provide a picture of health care components in Forsyth County. The measure "Access to Insurance" examines the percent of the population that is uninsured or enrolled in government-funded health insurance, while "Safety Net Utilization" is a snapshot of the number of uninsured or underinsured persons utilizing the "health care safety net." The "health care safety net" is defined as "those providers that organize and deliver a significant level of health care and other related services to uninsured, Medicaid and other vulnerable patients."<sup>1</sup> For the purposes of this report the "health care safety net" in Forsyth County includes HealthCare Access, the emergency departments at Forsyth Medical Center and Wake Forest Baptist Health and other primary health and dental clinics that serve uninsured and underinsured patients.

#### **HOW WE MEASURED**

Access to Insurance
Safety Net Utilization

Data available from the N.C. Health Professions Data System allowed for a trend analysis of the number of health professionals in Forsyth County. Since 2001 the number of active physicians, physician assistants, registered nurses, and pharmacists per capita has steadily increased. The number of active dentists per capita has remained stable since 2001.

#### **TREND STATUS**

#### HOW WE MEASURED

Number of Health Professionals\* per Capita (per 10,000 residents)

\* Health professionals include physicians, physician assistants, registered nurses, pharmacists and dentists. Mental health providers are included under the indicator Mental Health, Developmental Disabilities, and Substance Abuse. This number includes physicians with an active license, and some physicians with an active license might not have a current practice. The data does not include physicians with an inactive license.

\*\* Health Care Access is a non-profit organization that manages a network of donated and volunteer medical services

\*\*\* This is a duplicated count and includes visits by the same person.

<sup>1</sup> America's Health Care Safety Net: Intact but Endangered. Institute of Medicine. 2000. Washington, DC: National Academy Press, p. 3-4.

### **KEY FINDINGS**

#### Access to Insurance

- During Fiscal Year (FY)2008 2009, an estimated 20 percent of non-elderly (under age 65) residents in Forsyth County were uninsured. The percent of non-elderly, uninsured has increased by about four percent since FY2006 – 2007.
- Durham, Guilford, and Mecklenburg counties also have an uninsured rate of 20 percent. Wake County's uninsured population is slightly lower at 18 percent. As a whole, the state of North Carolina's uninsured rate is similar to Forsyth's.
- The percent of uninsured children under age 18 has decreased by 12 percent between FY2006 – 2007 and FY2008 – 2009, from an estimated 15 percent to 13 percent respectively.
- Approximately 15.1 percent of persons in Forsyth County were authorized and eligible for Medicaid in 2011. Also in 2011 an estimated 5,000 children were eligible for Health Choice.

### **Safety Net Utilization**

- Between 2008 and 2009, the number of persons who were referred to HealthCare Access\*\* because they don't have health insurance more than doubled, increasing from 1,454 to 3,579. In 2010 the referral number was around 3,700, and as of June 2011 there were already 1,700 referrals.
- The number of new patients enrolling in HealthCare Access has also more than doubled from 625 in 2008 to 1,550 in 2010.
- Between the two emergency departments in Forsyth County, Forsyth Medical Center and Wake Forest Baptist Medical Center, an estimated 50.9 percent of emergency visits were by persons with out insurance or using Medicaid from January 2010 to May 2011.\*\*\*



### **Health Professionals**

- The number of physicians per capita has increased from 39 to 45 per 10,000 residents from 2001 to 2010. Over the same time period the number of primary care physicians per capita has increased from 13 to 16 per 10,000 residents. On average about 34 percent of physicians in Forsyth County are primary care physicians.
- Registered nurses (RNs) in Forsyth County have become more common since 2001. The number of registered nurses per capita has increased by approximately 23 percent, from 149 per 10,000 residents in 2001 to 184 per 10,000 in 2010.
- Also on the rise is the number of physician assistants in Forsyth County. According to available data, beginning in 2002 the number of physician assistants has increased by 32 percent.
- The number of dentists per capita has remained constant between 2001 and 2010. Since 2001 the rate remained between five and six dentists per 10,000 residents.
- Pharmacists are another growing health profession in Forsyth County. The number of pharmacists per 10,000 has increased by about 20 percent from 2001 to 2010.

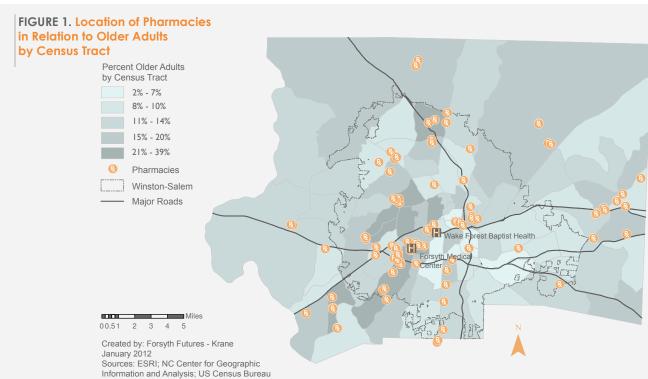
Figure 1. demonstrates the location of pharmacies in Forsyth County relative to the older adult population. While older adults within the city limits of Winston-Salem have a number of pharmacies located within five miles, census tracts with higher adult populations outside of Winston-Salem have more limited access.

### **HOW DO WE MAKE PROGRESS?**

One measure where there is the potential to make progress in access to health care is the percent of the non-elderly population that is uninsured. Healthy North Carolina 2020 sets a target to decrease the percentage of non-elderly uninsured to eight percent by 2020.

The Health Resources and Services Administration, a division of the U.S. Department of Health and Human Services, sets guidelines for primary care, dental care, and mental health professional shortage areas (HPSA). A standard ratio for determining if a county has a primary care physician shortage is if there are more than 3,500 residents to one physician, for dental health professionals the ratio is 5000 residents to one dentist. In 2010, Forsyth County had a ratio of 3,500 residents to 6 primary care physicians, and 5,000 residents to 3 dentists. While the County as a whole may not have a shortage of primary care physicians or dentists residents might not have equal access to health professionals.

	WHEI	RE WE ARE	WHERE WE COULD BE		
MEASURE	CURRENT 2008 - 2009	CURRENT ANNUAL CHANGE	NEEDED ANNUAL CHANGE	TO GET TO TARGET 2020	
Percent of Non-Elderly Uninsured	19.5%	N/A	1.05%	8.0%	



### MENTAL HEALTH, DEVELOPMENTAL DISABILITIES, & SUBSTANCE ABUSE

### DESCRIPTION

The indicator Mental Health, Developmental Disabitlies and Substance Abuse addresses the service needs of Forsyth County residents to have the capacity to learn, communicate, and sustain relationships to achieve their academic, social and/ or employment potential and a good quality of life. In the state of North Carolina, these services are managed under the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (MH/DD/SA) which is part of the NC Department of Health and Human Services (DHHS).<sup>2</sup>

### **TREND STATUS/MEASURES**

Through CenterPoint Human Services, the Local Management Entity responsible for delivery of publiclyfunded mental health (MH), developmental disabilities (DD), and substance abuse (SA) services in Forsyth County, data is available on the number of persons using public funds to receive mental health, developmental disability, and substance abuse services. Information on developmental disability services to children is also available through the Winston-Salem Forsyth County Schools. However, determining an exact number of persons in need of and receiving mental health, developmental disability, and/or substance abuse services is a challenge because data from other delivery agencies that accept private funding are not required to make data public. As a result the measures used in this report do not include a total number of persons in need of or receiving MH, DD, and/or SA service.

### HOW WE MEASURED

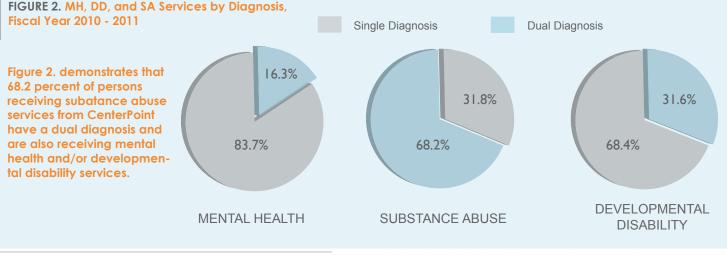
Number of Persons Receiving Mental Health, Developmental Disabilities and/or Substance Abuse Services The number of mental health professionals (psychologists and psychiatrists) per capita is a measurement of the services available to residents of Forsyth County, and the suicide rate measures a potential outcome of mental health, developmental disability, and substance abuse needs. Since 2001 the number of psychologists and psychiatrists in Forsyth County has decreased. The number of suicides per 100,000 residents has fluctuated between 2001 and 2010, but overall the rate has increased.

TREND STATUS	HOW WE MEASURED
ff	Number of Mental Health Professionals per Capita (per 100,000 residents)
tf?	Suicide Rate (per 100,000 residents)

### **KEY FINDINGS**

### Mental Health, Developmental Disability, and Substance Abuse Services

- During the 2010 2011 fiscal year, CenterPoint Human Services served nearly 11,000 adults and approximately 4,200 children who are receiving Medicaid and/or state funds\* for mental health, developmental disabilities, and/or substance abuse needs.
- Of the children\*\* receiving services 93 percent needed mental health services alone, 4.2 percent needed developmental disability services alone, and 0.3 percent needed substance abuse services alone. The remaining 2.4 percent of persons had a dual diagnosis and received more than one service.



<sup>2</sup> North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse, About Us. Retrieved from

http://www.ncdhhs.gov/mhddsas/services/abouthesystem/index.htm.

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\* State funds are distributed through the Integrated Payment and Reporting System (IPRS) \*\* Children = Ages <18 for IPRS and < 21 for Medicaid

\*\*\* Totals by diagnosis will add up to more than total number of persons served by CenterPoint Human Services because of dual diagnoses.

- Adults have a higher percent of dual diagnosis than children. Nearly 19 percent of adults received services for more than one diagnosis. The majority of adults who received services from CenterPoint, 66.1 percent, received only mental health services, while 7.3 percent received only developmental disability services and 7.3 percent received only substance abuse services.
- The total number of persons receiving mental health services from CenterPoint in FY2010-2011 was 13,363. There were 2,560 persons who received substance abuse services, and 1,426 received developmental disability services.\*\*\*
- The five Winston-Salem/Forsyth County Schools' exceptional children programs that serve the most students are 1) specific learning disabled, 2) speech-language impaired, 3) other health impaired, 4) intellectually disabled – mild, and 5) autism.
- Between Academic Year (AY) 2004 2005 and AY 2010 2011, the average numbers of students served by each of the top five programs are: 2,247 in Specific Learning Disabled programs, 1,928 in Speech-Language Impaired, 693 in Other Health Impaired, 601 in Educable Mentally Handicapped, and 229 in Autism.

### **Mental Health Providers**

- In 2010 there were approximately 41 psychologists and psychiatrists with active licenses per 100,000 residents in Forsyth County. This rate has decreased from 46 per 100,000 in 2001, a decrease of 11.1 percent.
- Both the numbers of psychologists and psychiatrists per capita have decreased since 2001; each has decreased by 13 percent.
   Psychologists have decreased from 28 per 100,000 in 2001 to 25 per 100,000 in 2010 and psychiatrists have decreased from 19 to 17 per 100,000 residents.
- At the time of this report, Forsyth County is served by approximately 450 other mental health providers, including licensed clinical social workers, certified school social workers and therapists, professional counselors, marriage and family therapists, and clinical addiction specialists.

### Suicide Rate

In 2001 there were 10 suicides per 100,000 residents in Forsyth County, and that total increased to 12 per 100,000 in 2010.



Among counties comparable to Forsyth, only Mecklenburg has also experienced an increase in the suicide rate. The rates for Durham and Guilford counties have decreased from 11 suicides to 9 per 100,000 and from 12 to 9 per 100,000 respectively. The rate in Wake County has remained stable at 8 suicides per 100,000, and the rate for all of North Carolina has remained at 12 per 100,000.

### **HOW DO WE MAKE PROGRESS?**

In Forsyth County the ratio of residents to psychiatrists is an estimated 6,000 to 1. According to the HPSA guidelines one criterion for a mental health professional shortage area is a ratio greater than or equal to 30,000 residents to 1 psychiatrist. Using this criteria Forsyth County does not have a shortage of psychiatrists. However, the number of psychiatrists per capita is decreasing, and as previously mentioned, all residents might not have equal access to health professionals.

One indication of progress made in mental health is a decrease in suicide rates. Healthy North Carolina 2020 has set a target to reduce the suicide rate to 8.3 per 100,000 by 2020. Since the suicide rate has increased over the last 10 years, it would need to start decreasing by 0.34 a year to reach the target.

	WHERE	WE ARE	WHERE WE COULD BE		
MEASURE	CURRENT 2010	CURRENT ANNUAL CHANGE 2001 - 2010	NEEDED ANNUAL CHANGE		TARGET 2020
Suicide Rate (per 100,000 residents)	12	0.19	-0.34		8.3

# **CHRONIC DISEASE**

### DESCRIPTION

The leading causes of death in the United States have shifted from infectious diseases to chronic (long lasting or recurrent, often treatable but not-curable) diseases. Chronic diseases are the most common, most expensive and most preventable of all health problems. The chronic disease indicator includes measurements of the top three leading causes of death in Forsyth County: cancer (all forms), heart disease, and cerebrovascular disease. It is only through a better understanding of chronic disease mortality trends that health resources are more strategically placed for effective prevention.

### **TREND STATUS/MEASURES**

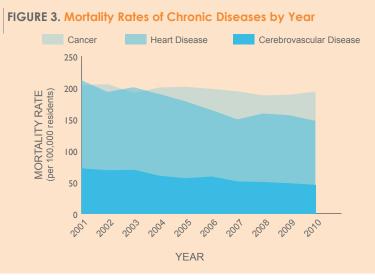
Trend data on chronic disease rates indicate that mortality from cancer, heart disease, and cerebrovascular disease have decreased from 2001 to 2010.

TREND STATUS	HOW WE MEASURED
	Cancer Mortality Rate (per 100,000 residents)
677	Heart Disease Mortality Rate (per 100,000 residents)
	Cerebrovascular Disease Mortality Rate (per 100,000 residents)

### **KEY FINDINGS**

- Between 2001 and 2009 the three leading causes of death were 1) cancer, 2) heart disease, and 3) cerebrovascular disease. In 2010, chronic lower respiratory disease became the third leading cause of death, moving ahead of cerebrovascular disease.
- Of the three chronic diseases, cerebrovascular disease has decreased the most since 2001, decreasing by 37 percent from 71 deaths to 45 deaths per 100,000.
- Deaths from heart disease have decreased by 31 percent over 10 years, and death from cancer has only decreased by about 5 percent. In 2010, the mortality rates of cancer and heart disease were 194 deaths and 146 per 100,000 residents respectively.

### THE CEREBROVASCULAR MORTALITY RATE HAS DECREASED BY 37 PERCENT SINCE 2001.



### HOW DO WE MAKE PROGRESS?

Healthy North Carolina 2020 set a target to reduce the mortality rate of heart disease to 161.5 deaths per 100,000 residents. In 2010 the heart disease mortality rate for Forsyth County at 146 per 100,000, was already below the target rate. Although a target for the cancer mortality rate was not set by Healthy North Carolina, Healthy People 2020 aims to reduce the cancer mortality rate by 10 percent by 2020. In order to reach this goal the mortality rate would need a rate change of -1.93 per year. A 10 percent decrease in the cerebrovascular mortality rate by 2020 would indicate continued progress in this area.

	WHERE WE ARE		WHERE WE COULD BE		E
MEASURE	CURRENT 2010	CURRENT ANNUAL CHANGE 2001 - 2010	NEEDED ANNUAL T CHANGE	O GET TO	TARGET 2020
Cancer Mortality Rate (per 100,000 residents)	193.6	-1.16	-1.93		174.2
Cerebrovascular Disease Mortality Rate (per 100,000 residents)	44.97	-2.9	-0.45		40.47

# **HEALTHY LIFESTYLES**

### DESCRIPTION

In many cases, changes in lifestyle habits can decrease chronic disease rates. For example the largest preventable cause of some cancers is tobacco use or smoking, and the risk of heart disease and cerebrovascular disease drops after a person stops using tobacco products. An unhealthy Body Mass Index (BMI) also has a relationship with health problems such as heart disease, cerebrovascular disease, cancer and diabetes. Understanding the extent of tobacco use and unhealthy BMIs among the population can help the community target behavioral and environmental prevention and intervention strategies.

### TREND STATUS/MEASURES

Data collected over the past 10 years (2001 through 2010) indicates that smoking rates are decreasing among adults 18 and over. Body Mass Index studies from the Winston-Salem/Forsyth County Schools suggest that the percent of students at a healthy weight has remained stable from AY2006 – 2007 to AY2009 – 2010. Behavioral Risk Factor Surveillance System (BRFSS) data indicates that the percent of adults 18 and over with a BMI in the recommended range is decreasing.

#### TREND STATUS HOW WE MEASURED

Ref	Percent of Persons 18 and Over who are Smokers
tt	Percent of Children with a BMI in the Healthy Weight Percentile
-	Percent of Adults with a BMI in the Recommended Range

### **KEY FINDINGS**

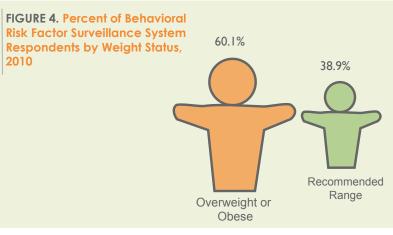
### Tobacco Use

- Results from the BRFSS survey show that on average over a 10 year period, 22 percent of survey respondents described themselves as smokers.
- From 2001 to 2010, the percent of respondents who said they currently smoked decreased by almost 20 percent, from 24.1 percent to 19.8 percent respectively. Among those respondents who described themselves as smokers, the majority responded that they smoked everyday versus just some days.
- In 2010 only four percent of respondents reported using chewing tobacco, snuff or snus.

\* The Behavioral Risk Factor Surveillance System calculates BMI from survey questions that ask respondents their weight and height. \*\*Weight status categories for children are based on percentiles which relate a child's BMI number with other children the same sex and age. The percentile range for a healthy weight is from the 5th to less than the 85th percentile. BMI measurements in 2010 come from the FITNESSGRAM<sup>TM</sup> Fitness Assessment program; measurements from previous years come from the WS/FC schools BMI study with the Sara Lee Center for Women's Health.

### **Body Mass Index**

- As seen in Figure 4, in 2010 approximately 39 percent of BRFSS survey respondents were classified\* as having a healthy weight (a BMI between 18.5 and 24.9). The percent of adults falling in this recommended range has decreased by 6.3 percent since 2001.
- Of all respondents classified as overweight (a BMI between 25.0 and 29.9) or obese (a BMI greater than 30.0), 34.5 percent were overweight and 25.3 percent were obese in 2010.



- The percent of overweight or obese respondents in Forsyth County is about five percent lower than the percent for North Carolina as a whole.
- On average male respondents were more likely to be overweight or obese than females. Between 2001 and 2010, an average of 67.4 percent of male respondents and an average of 54.3 percent of female respondents were classified as overweight or obese.
- During AY2010 2011 an estimated half of Winston-Salem/ Forsyth County Schools' students in grades 3 through 8 were categorized as falling into a healthy weight category\*\*. The percent of students at a healthy weight ranged between 51 percent and 56 percent for each grade.
- A similar trend in BMI numbers was found between AY2006 2007 and AY2009 2010 for students in grades 1, 4, 7 and 9.
- For children, a BMI at the 85<sup>th</sup> percentile or above is an indication the child has a possible weight problem. Between AY2006 – 2007 through AY2009 – 2010 an average of 37.4 percent of children in grade 1 had a BMI in the 85<sup>th</sup> or above percentile, as did 44 percent in both grades 4 and 7, and 39.8 percent in grade 9.

### **HOW DO WE MAKE PROGRESS?**

Since data on tobacco use and adult BMI levels are based on survey results and the inability to ensure accuracy of this data target goals were not set. At the time of this report a realistic target for weight status among children was not available.

# **SEXUALLY TRANSMITTED DISEASES**

### **DESCRIPTION**

Sexually transmitted diseases (STDs) can impact the health and economy of a community. STDs diminish the quality of life of residents and can add a cost burden to the healthcare system. Understanding the current incidence rate can help determine which prevention efforts might need more resources. The indicator Sexually Transmitted Diseases measures four common STDs: HIV/AIDS, gonorrhea, syphilis, and chlamydia.

### **TREND STATUS/MEASURES**

Data available from the N.C. State Center for Health Statistics allow for a trend analysis between 2001 and 2010 of HIV disease\* and syphilis incidence rates in Forsyth County. The rate of persons diagnosed with HIV disease has decreased between 2001 and 2010. The rate of early syphilis cases has increased over the same time.

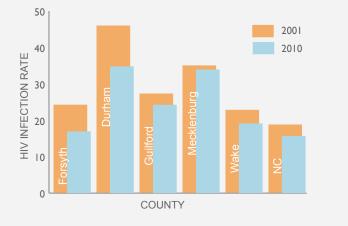
# TREND STATUS HOW WE MEASURED Image: Constraint of the state of t

Due to changes implemented to the N.C. STD Surveillance data system in 2008, data on gonorrhea and chlamydia incidence cannot be compared between years.

#### HOW WE MEASURED

Rate of Gonorrhea Incidence (per 100,000 residents)
Rate of Chlamydia Incidence (per 100,000 residents)





<sup>1</sup> Epidemiologic Profile for HIV/STD Prevention & Care Planning, December 2011. Division of Public Health. North Carolina Department of Health & Human Services.

### **KEY FINDINGS**

### **HIV/AIDS**

- <sup>1</sup> The average number of persons diagnosed with HIV infection in Forsyth County was around 87 between 2001 and 2010.
- The rate of HIV infection in Forsyth County has dropped 43 percent between 2001 and 2010, from 24 cases per 100,000 to 17 cases per 100,0000. Figure 5. demonstrates the decrease in the HIV infection rate compared with Durham, Guilford, Mecklenburg, Wake counties, and North Carolina.
- On average the progression of HIV to AIDs has occured at a rate of 11 cases per 100,000.

### Chlamydia, Gonorrhea, and Syphilis

- In 2010, chlamydia was the most common STD in Forsyth County with a reported 712 new cases per 100,000 residents. The rate of new gonorrhea cases in Forsyth County was 220 per 100,000.
- Reports of early syphilis have fluctuated since 2001, the lowest rate of early syphilis reports was in 2004 when a rate of 2 per 100,000 cases was reported.
- One reason attributed to the decline of syphilis rates between 2001 and 2003 is the enhanced intervention efforts that were provided to six counties in North Carolina, including Forsyth, Durham, Guilford, Mecklenburg, and Wake counties. In 1999 the Center for Disease Control (CDC) implemented the Syphilis Elimination Project (now Syphilis Elimination Effort) to increase funding towards syphilis elimination and prevention efforts in high morbidity counties.<sup>1</sup>
- After 2004 syphilis rates began to rise again and peaked in 2009 at a rate of 54 per 100,000 residents.
- Forsyth County's chlamydia rate was higher than rates reported in Durham, Guilford, Mecklenburg, Wake and North Carolina as a whole. Forsyth also has a higher syphilis rate than the four comparable counties and North Carolina, as well as a higher gonorrhea rate than Guilford, Mecklenburg, Wake and North Carolina.

### HOW DO WE MAKE PROGRESS?

Healthy North Carolina set a target to reduce the rate of new HIV infections to 22.2 new infections per 100,000 by 2020. Because Forsyth's HIV infection rate is already lower than the target — at 17 per 100,000 — making progress would mean continuing with this trend.

Given the nature of reporting mechanisms for chlamydia and gonorrhea, and the impact of intervention efforts on syphilis rates there is an inability to ensure accuracy of the data set for target goals and comparisons between years.

\* HIV Disease includes all newly diagnosed HIV infected individuals by the date of first diagnosis regardless of status (HIV or AIDS).

### **TEENAGE PREGNANCY**

### DESCRIPTION

Teenage pregnancy can have long term effects on teenage parents and their children. Teenage moms are more likely to drop out of school, live in poverty, rely on financial assistance, and have long term health problems. Children of adolescent parents are more likely to suffer health problems, experience abuse and neglect, struggle academically, and also have children as adolescents.

### TREND STATUS/MEASURES

According to data from the N.C. State Center for Health Statistics the number and rate of teenage pregnancies in Forsyth County have decreased from 2001 to 2010.

#### **TREND STATUS**

HOW WE MEASURED

	Number of Teenage Pregnancies, Ages 15 - 19
<u>ff</u>	Teenage Pregnancy Rate, Ages 15 - 19 (per 1,000 girls)

An outcome measurement of teenage pregnancies is the number of births to teenage girls. Understanding the birth rate of teenage girls helps a community plan for resources teenage mothers might require.

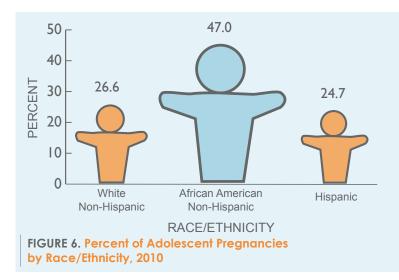
#### HOW WE MEASURED

Teenage Birth Rate, Ages 15 - 19 (per 1,000 girls)

### **KEY FINDINGS**

### **Teenage Pregnancy**

- From 2001 to 2010 the number of pregnancies in girls ages 15 to 19 in Forsyth County has decreased from 781 to 636. The most dramatic decrease in teen pregnancies occurred between 2009 and 2010 with a 20 percent decrease, from 794 to 636.
- In 2010 about one percent of teen pregnancies occurred in girls ages 10 to 14, a decrease from almost four percent in 2001.
- The teen pregnancy rate has decreased from 78.5 per 1,000 girls in 2001 to 50.2 per 1,000 in 2010.
- As seen in Figure 6. among pregnant girls age 15 to 19 in 2010, about half were African American non-Hispanic; 27 percent were white non-Hispanic, and 25 percent were Hispanic. Of the nine pregnant girls ages 10 to 14 more than half were Hispanic.



The rate of adolescent pregnancies in Forsyth County is slightly higher than in Guilford, Mecklenburg, and Wake counties, and lower than in Durham County. Between 2009 and 2010, Forsyth County experienced the second highest decline in teenage pregnancies of the four comparable counties, second only to Durham.

### **Teenage Birth Rate**

- About 76 percent of pregnant teens gave birth to live babies in 2010, resulting in 548 babies.
- The remaining 24 percent of pregnancies resulted in abortions (about 22.5 percent) or fetal deaths (1 percent).
- Adolescent pregnancies resulting in live births have increased from 66.8 percent in 2001 to 76.7 percent in 2010.

### THE TEEN PREGNANCY RATE HAS DECREASED FROM 78.5 IN 2001 TO 50.2 IN 2010.

### **HOW DO WE MAKE PROGRESS?**

The Adolescent Pregnancy Prevention Campaign of North Carolina (APPCNC), a statewide adolescent pregnancy advocacy and education organization, has a set of goal of decreasing adolescent pregnancies by 30 percent by 2020. The adolescent pregnancy rate would need to decrease to 35.1 by 2020 in order to reach the target set by APPCNC.

half were Hispanic.	WHERE WE ARE		WHERE WE COULD BE	
MEASURE	CURRENT 2010	CURRENT ANNUAL CHANGE (2001-2010)	NEEDED ANNUAL CHANGE	TARGET 2020
Teenage Pregnacy Rate	50.2	-3.1	-1.5	35.1

### **INFANT HEALTH**

### DESCRIPTION

Infant health is often a leading indicator not only of children's health overall, but also of a community's health because infant health is associated with factors such as maternal health, quality and access to medical care, socioeconomic conditions and public health practices.<sup>3</sup> Measures included in the analysis of infant health are the infant mortality rate, fetal mortality rate, and percent of low birthweights. The infant mortality rate examines the number of deaths of children under the age of one per 1000 live births, while the fetal mortality rate is a measure of deaths before birth. An infant with a low birthweight is a live-born baby who weighs less than five pounds and eight ounces (2500 grams) at birth

### **TREND STATUS/MEASURES**

All measures of infant health have fluctuated between 2001 and 2010. The infant mortality and fetal mortality rates have both experienced an overall decrease from 2001 to 2010. In contrast, rates of low birthweight have increased since 2001.

# TREND STATUS HOW WE MEASURED Infant Mortality Rate (per 1000 live births) Fetal Mortality Rate (per 1000 live births and fetal deaths) Image: Percent of Low Birthweights

### **KEY FINDINGS**

### **Infant Mortality Rate**

- Over a 10-year period the infant mortality rate has decreased from 9.3 deaths per 1000 live births in 2001 to 7.7 deaths per 1000 in 2010.
- The highest number of infant deaths in the 10-year period occurred in 2008 when there were 61 infant deaths, a rate of 12 deaths per 1,000 live births.
- In 2010 the infant mortality rate in Forsyth County (7.7 percent) was slightly higher than the rate for North Carolina as a whole (7.0 percent).
- African American (non-Hispanic) residents have the highest rate of infant mortality in the county with a rate of 17.1. In 2010, the infant mortality rate for non-Hispanic, African American residents was more than three times as high as for non-Hispanic, white residents.
- Hispanic residents experienced the lowest infant mortality rate in 2010, at 1.8 deaths per 1000.

### **Fetal Mortality Rate**

- In 10 years from 2001 to 2010, the number of fetal deaths in Forsyth County decreased by almost half, dropping from 32 fetal deaths to 17.
- The most progress in reducing fetal mortality rates was made between 2008 and 2009 when the number of deaths decreased by about 44 percent.
- The fetal mortality rate decreased from 6.8 in 2001 to 3.6 in 2010, resulting in a 47 percent decrease in the rate.
- In 2010 the fetal mortality rate of non-Hispanic African American babies was almost three times as high as for non-Hispanic white babies.

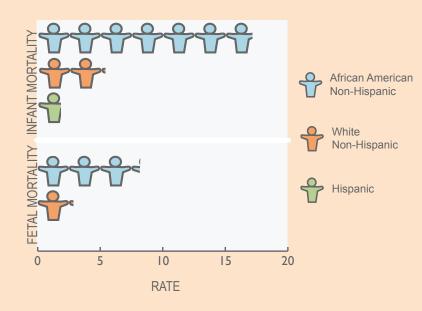
### **Percent of Low Birthweights**

- Although the infant and fetal mortality rates have decreased during the past decade, the percentage of babies born at a low birthweight has increased in Forsyth County.
- The percent of babies born under 2500 grams increased from 9.9 percent in 2001 to 10.3 percent in 2010, a 3.7 percent increase.
- Similar to the infant and fetal mortality rates, non-Hispanic, African American babies are more likely to have a low birthweight when compared with non-Hispanic, white babies or Hispanic babies. Approximately 17 percent of African American babies had a low birthweight; only 7 percent of white babies and 8 percent of Hispanic babies suffered from a low birthweight.



<sup>&</sup>lt;sup>3</sup> MacDorman, M. F., Rowley, D. L., Iyasu, S., Kiely, J. L., Gardner, P. G., & Davis, M. S. (n.d.). Infant Mortality. Retrieved 07 26, 2011, from CDC's Public Health Surveillance for Women, Infants, and Children.

FIGURE 7. Fetal and Infant Mortality Rates by Race/Ethnicity, 2010



### **HOW DO WE MAKE PROGRESS?**

The infant mortality rate would need, at a minimum, to continue to decrease at the current annual change in order to make progress. The percent of babies born at a low birthweight needs to start decreasing by about 0.25 percent a year to make progress by 2020.

The most recent fetal mortality rate in Forsyth County was 3.6, which is about 1.5 times lower than the national target set by Healthy People 2020. Since Forsyth County is already below the target rate, making progress would mean continuing the current annual decrease in the rate.

	WHERE W	E ARE	WHERE WE COULD BE		
MEASURE	CURRENT 2010	CURRENT ANNUAL CHANGE 2001 - 2010	NEEDED ANNUAL T CHANGE	O GET TO TARGET 2020	
Infant Mortality Rate (per 1000 live births)	7.7	-0.17	-0.14	6.3	
Percent of Low Birthweight	10.3%	0.04%	-0.25%	7.8%	

#### **Making Progress Reports: Technical Notes**

**TREND STATUS**: For the purposes of this project Trend Status is defined as a positive or negative trend based on a trend of 10 years, if available. Positive meaning the trend is going in the desired direction, and negative meaning the trend is moving away from the desired direction. If data for 10 years past was not available, the trend was based on available years.

**TARGET GOALS:** In most cases target goals and years were set based on the Healthy North Carolina 2020 Objectives, or the federal Healthy People 2020 objectives if a state objective did not exist. In some cases a state or federal entity, related to the indicator, set a target goal and year. If so, this is the goal used. When there was not a set target goal or year the target is based on a 10 percent improvement by 2020.

**DEMOGRAPHIC INDICATORS:** For indicators that have demographic measures, data that defines characteristics of Forsyth County, trend status and target goals were not set due to the nature of these data sets.

**RATE CALCULATIONS:** Forsyth Futures calculates rates based on Vintage 2009 Bridged-Race Population Estimates, produced by the U.S. Census Bureau and the National Center for Health Statistics. As a result, calculated rates in this report might differ from other common sources of rates.

### SOURCES

	SOURCE		
HOW WE MEASURED	OF TARGET GOAL	CURRENT DATA SOURCE	
Number of Health Professionals per Capita (per 100,000 residents)	N/A	Health Professions Tables. NC Health Professions Data System. Cencil G. Sheps Center for Health Services Research. http://www.shepscenter.unc.edu/hp/profiles.htm	
Percent of Population Eligible for Medicaid	N/A	Authorized Medicaid Eligible Reports 2001 – 2012. Division of Medical Assis- tance, NC Department of Health and Human Services. http://www.ncdhhs. gov/dma/elig/index.htm	
Number of Children Eligible for Health- Choice	N/A	Active NC Health Choice Clients. Division of Medical Assistance, NC Depart- ment of Health and Human Services. http://www.ncdhhs.gov/dma/elig/ index.htm	
Percent of Population Uninsured	Healthy North Carolina 2020	Percent of Uninsured. NC County-Level Estimates of the Uninsured. Uninsured Snapshots. NC Institute of Medicine. http://www.nciom.org/nc-health-data/ uninsured-snapshots/	
Number Enrolled in HealthCare Access	N/A	Personal communication with Mary Anne Squire, Health Care Access	
Emergency Department Visits by Payor	N/A	Personal communication with Andrea McDonald, Forsyth Medical Center Personal communication with Robert Jones and Kay Hiatt NC Baptist Hospi- tals Outpatient Clinics	
Number of Persons receiving mental health, developmental disabilities, and/ or substance abuse services	N/A	Personal communication with Lawrence Alford, Quality Management Super- visor. CenterPoint Human Services. 5 January 2012	
Number of Psychologists per Capita	N/A	Health Professions Tables (2001 – 2010). NC Health Professions Data System. Cecil G. Sheps Center for Health Research. http://www.shepscenter.unc. edu/hp/profiles.htm	
Number of Psychiatrists per Capita	Health Professional Shortage Area Guildelines	Health Professions Tables (2001 – 2010). NC Health Professions Data System. Cecil G. Sheps Center for Health Research. http://www.shepscenter.unc. edu/hp/profiles.htm	
Other Mental Health Providers	N/A	Cross reference of CenterPoint Human Services Independent Practitioners & Providers List, Carolina Behavioral Health Alliance Provider Search, NC Psychology Association Referral, and AllTherapist.com search	
Suicide Rate	Healthy North Carolina 2020	Detailed Mortality Statistics, NC Vital Statistics Volume 2 (2001 – 2009). NC State Center for Health Statistics. http://www.schs.state.nc.us/SCHS/data/ vitalstats.cfm	
Cancer Mortality Rate	Healthy North Carolina 2020	– Volume 2: Leading Causes of Death (2001 – 2010). North Carolina Vital Stc	
Heart Disease Mortality Rate	Healthy People 2020	tics. NC State Center for Health Statistics. http://www.schs.state.nc.us/SCHS/ data/vitalstats.cfm	
Cerebrovascular Disease Mortality Rate	10% Improvement		
Percent of the Population 18 and Over who Smoke	N/A	Smoking Status. Behavioral Risk Factor Surveillance System. (2001 - 2010) http://www.schs.state.nc.us/SCHS/brfss/2010/fors/topics.html#rf	
Percent of Adults Classified Overweight or Obese	N/A	Body Mass Index Grouping. Behavioral Risk Factor Surveillance System. (2001 - 2010) http://www.schs.state.nc.us/SCHS/brfss/2010/fors/topics.html#rf	
Percent of Children Classified as Over- weight or Obese	N/A	WS/FC Schools Body Mass Index Study & FITNESSGRAM™ Results for K - 8 Grades. Person Communication with Nancy Sutton, WS/FCS Program Spe- cialist Physical Education/Health. 11 January 2012	
Rate of HIV infection			
Rate of Early Syphilis Reports			
Rate of Gonorrhea Incidence	N/A	HIV/STD Surveillance Report. Department of Health and Human Services. http://epi.publichealth.nc.gov/hiv/stats.html	
Rate of Chlamydia Incidence			
Number of Adolescent Pregnancies, Ages 15 – 19	N/A		
Adolescent Pregnancy Rate, Ages 15 - 19	Adolescent Preg- nancy Prevention Campaign of NC	Total Resident Pregnancies by County of Residence (2000 – 2010). Reported Pregnancies. NC State Center for Health Statistics. http://www.schs.state. nc.us/SCHS/data/pregnancies/2010/	
Adolescent Birth Rate, Ages 15 - 19	N/A		
Adolescent Birth Rate, Ages 15 - 19	N/A Healthy North Carolina 2020	Infant Mortality Statistics (2001 – 2010). Vital Statistics. NC State Center for Health Statistics. http://www.schs.state.nc.us/SCHS/data/vitalstats.cfm	
	Healthy North		
	Number of Health Professionals per Capita (per 100,000 residents)         Percent of Population Eligible for Medicaid         Number of Children Eligible for Health- Choice         Percent of Population Uninsured         Number Enrolled in HealthCare Access         Emergency Department Visits by Payor         Number of Persons receiving mental health, developmental disabilities, and/ or substance abuse services         Number of Psychologists per Capita         Other Mental Health Providers         Suicide Rate         Cancer Mortality Rate         Heart Disease Mortality Rate         Percent of the Population 18 and Over who Smoke         Percent of the Population 18 and Over who Smoke         Percent of Adults Classified overweight or Obese         Rate of HIV infection Rate of Early Syphilis Reports         Rate of Conorrhea Incidence         Rate of Chalarydia Incidence         Number of Adolescent Pregnancies, Ages 15 – 19	HOW WE MEASUREDOF TARGET GOALNumber of Health Professionals per Capita (per 100,000 residents)N/APercent of Population Eligible for MedicaidN/ANumber of Children Eligible for Health- ChoiceN/APercent of Population UninsuredHealthy North Carolina 2020Number Enrolled in HealthCare AccessN/AEmergency Department Visits by PayorN/ANumber of Persons receiving mental health, developmental disabilities, and/ or substance abuse servicesN/ANumber of Psychologists per CapitaN/ANumber of Psychologists per CapitaN/ASuicide RateHealthy North Carolina 2020Cancer Mortality RateHealthy North Carolina 2020Cancer Mortality RateHealthy North Carolina 2020Percent of the Population 18 and Over who SmakeN/APercent of Children Classified Overweight or ObeseN/ARate of Gonorhea IncidenceN/ARate of Chamydia IncidenceN/ANumber of Adolescent Pregnancies, Ages 15 - 19Adolescent Pregnancies, Adolescent Pregnancy Rate, Ages 15 - 19	