

## Cancer Takes Too Many Lives in North Carolina and in Guilford County

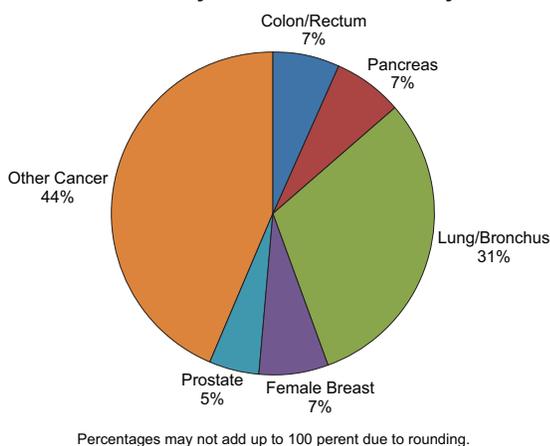
In 2011, cancer was the second leading cause of death in the United States according to the Centers for Disease Control and Prevention (CDC), while it was the leading cause of death in North Carolina.<sup>1</sup> In 2011, 18,201 persons in North Carolina died from cancer, 811 in Guilford County (Table 1).

**Table 1. 2011 Percent of Cancer Deaths in Guilford County Compared to 2011 Percent of Cancer Deaths in North Carolina**

Guilford County	North Carolina
20.8%	22.8%

Cancer is a group of more than 100 different diseases, but all are characterized by uncontrolled growth and spread of abnormal cells. Cancer risk increases with age, and varies by gender and race. As the average age of the population increases, the incidence of cancer will increase as well. In 2009, cancer surpassed heart disease as the leading cause of death in North Carolina. The majority of cancer deaths occur at five sites: colon/rectum, pancreas, lung/bronchus, female breast and prostate (Figure 1).

**Figure 1. Guilford County 2011 Cancer Deaths by Site**



It is generally recognized that a majority of cancers are related to personal lifestyle or environmental factors, such as smoking and diet, and are therefore preventable. Other factors such as age, gender and family history of a specific cancer are also associated with the development of cancer and aid in the identification of people at high risk.

For several cancers, effective treatment is available. For these cancers, early detection saves lives. For example, according to the Surveillance Epidemiology and End Results (SEER) website, almost 98 percent of women who are diagnosed with breast cancer in the earliest stage survive the disease, whereas only 24 percent survive if the disease is diagnosed in the most advanced stage.<sup>2</sup> The opportunity for disease control and for reducing the number

of cancer deaths rests with prevention and early detection so that treatment of the disease can be effective.

In 2010, 2,722 cancer cases were reported for Guilford County residents. These numbers are expected to increase as the population ages (Table 2).

For some cancers, prevention is more beneficial than early detection. For example, lung cancer is a disease that takes many years to develop and often metastasizes, or spreads, to other

**Table 2. 2013 Projected Cancer Cases for Guilford County and North Carolina**

	Guilford County	North Carolina
Lung/Bronchus	415	8,559
Colon/Rectum	239	4,852
Female Breast	469	9,339
Prostate	396	8,316
Pancreas	65	1,322
All Cancers	2,758	56,164

parts of the body before it is detected. This need not be the case, as lung cancer is one of the most preventable cancers. According to the 2010 Surgeon General's Report, it is estimated that more than 85 percent of lung cancers result from smoking.<sup>3</sup> According to the American Cancer Society (ACS), cigar and pipe smoking are almost as likely to cause lung cancer as cigarette smoking. Non-smokers who breathe in second-hand smoke are also at increased risk. The risk of lung cancer seems to increase with age.<sup>4</sup>

Stopping smoking at any age lowers the subsequent risk of developing lung cancer. The Behavioral Risk Factor Surveillance System's annual survey of adult North Carolinians examines risk factors such as these. For the 11,501 persons who indicated their age and smoking behaviors in the 2011 survey, the highest percentages of smokers were between 18 and 54 years of age (Table 3). According to this survey, adults 55 and older have the highest cessation rate, indicating that as North Carolinians age, the number of smokers appears to decrease.<sup>5</sup> A reduction in smoking will decrease the number of lung cancers that are diagnosed over time.

**Table 3. Smoking Status among Respondents in North Carolina by Age Groups**

Age Group	Total Respondents	Current Smoker	Former Smoker
18-34	1,428	24.0%	12.6%
35-44	1,551	20.0%	19.1%
45-54	2,089	24.6%	24.6%
55-64	2,469	18.7%	33.5%
65-74	2,118	12.7%	47.3%
75+	1,708	6.0%	41.2%
All Ages	11,501	17.6%	24.8%

*Data Source:* Behavioral Risk Factor Surveillance System, North Carolina 2011

## Risk Factors and Interventions

**Tobacco Use:** According to the ACS, smoking and the use of smokeless tobacco are responsible for the majority of all cancers of the lung, trachea, bronchus, larynx, pharynx, oral cavity and esophagus.<sup>4</sup> According to the 2012 Surgeon General's Report, tobacco use is the leading cause of preventable death in the United States.<sup>3</sup>

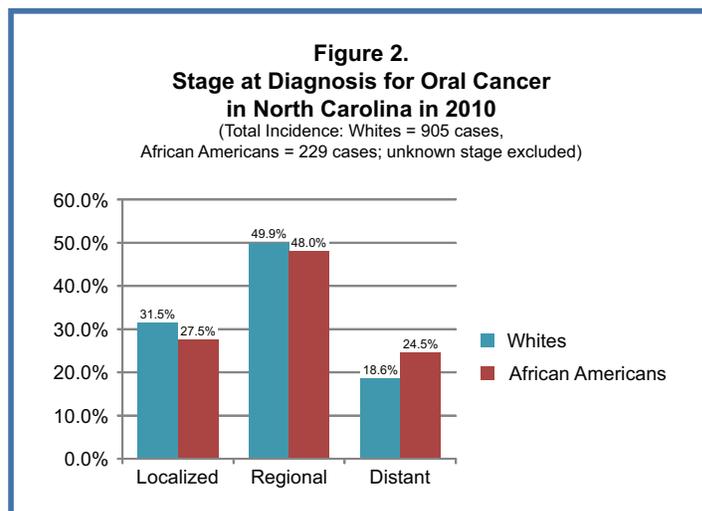
**Nutrition and Physical Activity:** Sustaining a healthy diet and being active can influence the risk of developing cancer. Eating a variety of healthful foods, with an emphasis on plant sources, adopting a physically active lifestyle, maintaining a healthy weight and limiting alcoholic consumption are recommended by the ACS for cancer prevention.<sup>4</sup>

**Sunlight and Ultraviolet Rays:** Exposure to intense sunlight and UV rays are risk factors in developing skin cancer. Sun safety tips for lowering this risk include limiting direct sun exposure during midday, covering up when outdoors, using sunscreen with a Sun Protection Factor of at least 30 and avoiding tanning beds and sunlamps.<sup>4</sup>

**Screening:** Early detection is extremely important for those cancers that can be cured and which can be discovered early. Breast cancer is a good example of this. Stage at diagnosis is the most important factor in determining chance of survival from breast cancer. In 2013, a projected 9,339 women in North Carolina will be diagnosed with breast cancer, 469 in Guilford County. Many of these women will survive because they were diagnosed early, but some will face premature death because they were diagnosed too late for effective treatment.

According to the ACS's recommendations, women 40 years and older should have a mammogram every year. A clinical breast exam (CBE) by a health care professional is also recommended annually after the age of 40. Women 20–39 years of age should have a CBE by a health care professional every three years. Monthly self-examinations are an option for women beginning in their 20s.<sup>4</sup>

Oral cancer is often overlooked because of its relatively low incidence (10.9 per 100,000 in 2009) and mortality (2.4 per 100,000 in 2009) in the United States according to the CDC Wonder website.<sup>6</sup> However, it is one of the most preventable cancers with high survival rates when treated at early stages. According to SEER, the five-year relative survival for those treated at localized stage was 82.4 percent but it was 57.3 percent when the cancer had already spread to lymph nodes. Unfortunately, the majority (>60%) of oral cancer cases in the United States were diagnosed at later stages.<sup>2</sup> It is also worth noting that the risk factors for oral cancer are: tobacco use, heavy alcohol use, Human Papillomavirus (HPV) infection, excessive sun exposure, lack of vegetables in the diet and Betel nut use.<sup>7</sup> These factors are mostly behavior-based; therefore, the risk of



oral cancer can be minimized via behavioral change and vaccination against HPV. In North Carolina, over 65 percent of the cases were diagnosed at later stages in 2010 and stages at diagnoses revealed racial disparity, in which higher proportions of late-stage cases were diagnosed among African Americans than whites (Figure 2). Efforts are necessary to reduce the incidence of oral cancer and to increase screening of oral cancers among at-risk populations.

### References

1. Centers for Disease Control and Prevention website: [www.cdc.gov/nchs/fastats/deaths.htm](http://www.cdc.gov/nchs/fastats/deaths.htm).
2. National Cancer Institute, Surveillance Epidemiology and End Results website: <http://seer.cancer.gov/statfacts>.
3. Reports of the Surgeon General website: [www.surgeongeneral.gov/library/reports](http://www.surgeongeneral.gov/library/reports).
4. American Cancer Society website: [www.cancer.org/cancer](http://www.cancer.org/cancer).
5. Behavioral Risk Factor Surveillance System website: [www.schs.state.nc.us/schs/brfss/2011/nc/all/\\_smoker3.html](http://www.schs.state.nc.us/schs/brfss/2011/nc/all/_smoker3.html).
6. Centers for Disease Control and Prevention, CDC Wonder website: <http://wonder.cdc.gov/cancer.html>.
7. National Cancer Institute website: [www.cancer.gov/cancertopics/wyntk/oral](http://www.cancer.gov/cancertopics/wyntk/oral).

### For More Information

American Cancer Society • 1-800-ACS-2345  
Website: [www.cancer.org](http://www.cancer.org)

Cancer Information Service • 1-800-4CANCER  
Sponsored by the National Cancer Institute

North Carolina Division of Public Health • State Center for Health Statistics  
North Carolina Central Cancer Registry (CCR) • 919-715-7289  
1908 Mail Service Center • Raleigh, NC 27699-1908  
Website: [www.schs.state.nc.us/SCHS](http://www.schs.state.nc.us/SCHS)

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