

## Cancer Takes Too Many Lives in North Carolina

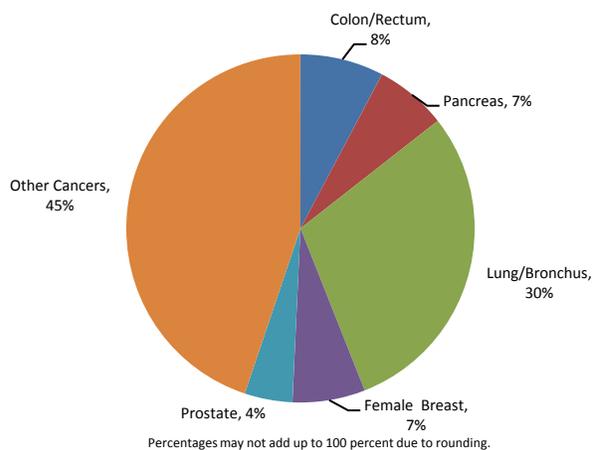
In 2013, cancer was the second leading cause of death in the United States according to the Centers for Disease Control and Prevention (CDC), while it was the leading cause of death in North Carolina.<sup>1</sup> In 2013, 584,881 persons in the United States died from cancer, 18,615 persons in North Carolina (Table 1).

**Table 1. 2013 Percent of Cancer Deaths in North Carolina Compared to 2013 Percent of Cancer Deaths in United States**

North Carolina	United States
22.3%	22.5%

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 2013, cancer was 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. North Carolina 2013 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 25 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 2012, 50,031 cancer cases were reported for North Carolina residents. These numbers will 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 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 2014 Surgeon General's Report, it is estimated that more than 87 percent of lung cancer death 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 8,702 persons who indicated their age and smoking behaviors in the 2013 survey, the highest percentages of smokers were 18 to 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 2. 2015 Projected Cancer Cases for North Carolina and United States**

	North Carolina	United States
Lung/Bronchus	8,669	221,200
Colon/Rectum	4,633	132,700
Female Breast	9,772	231,840
Prostate	7,998	220,800
Pancreas	1,391	48,960
All Cancers	57,624	1,658,370

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

Age Group	Total Respondents	Current Smoker	Former Smoker
18-34	1,353	24.1%	12.1%
35-44	1,147	20.1%	18.6%
45-54	1,451	25.5%	22.8%
55-64	1,780	18.5%	35.7%
65-74	1,609	13.1%	45.8%
75+	1,278	5.4%	43.1%
All Ages	8,702	17.7%	25.0%

Data Source: Behavioral Risk Factor Surveillance System, North Carolina 2013

## 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>

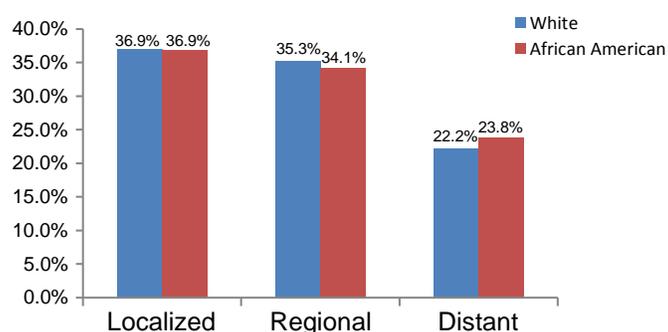
**Screening:** Early detection is extremely important for those cancers that can be cured and which can be discovered early. Breast cancer is a good example of this. Stage at diagnosis is the most important factor in determining chance of survival from breast cancer. In 2015, a projected 231,840 women in the United States will be diagnosed with breast cancer, 9,772 women in North Carolina. 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 to 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>

Colorectal cancer was the fourth most common type of cancer and the second leading cause of cancer-related deaths in North Carolina from 2008 to 2012. Colorectal cancer occurs most frequently in both women and men over the age of 50 and is generally slow to develop. For this reason, yearly screening tests such as the fecal occult blood test (FOBT) are suggested. In addition to the yearly screening, it is recommended to receive a flexible sigmoidoscopy every five years or a colonoscopy every 10 years. African American men have the highest colorectal cancer incidence and mortality rates and have a greater percentage of cases diagnosed in the advanced stages (Figure 2). Thus, it is suggested that they, along with those with a family history of colorectal cancer, talk with their doctors about starting screenings at a younger age and in more frequent intervals.

**Figure 2. Stage of Disease at Diagnosis for Colon/Rectum Cancer in North Carolina Diagnosed in 2012**

(Total Colon/Rectum Incidence: White=2,933 cases, African American=827 cases; cases with unknown stage not included in chart)



### References

- Centers for Disease Control and Prevention website: [www.cdc.gov/nchs/fastats/deaths.htm](http://www.cdc.gov/nchs/fastats/deaths.htm).
- National Cancer Institute, Surveillance, Epidemiology, and End Results website: <http://seer.cancer.gov/statfacts>.
- Reports of the Surgeon General website: [www.surgeongeneral.gov/library/reports/index.html](http://www.surgeongeneral.gov/library/reports/index.html).
- American Cancer Society website: [www.cancer.org/cancer](http://www.cancer.org/cancer).
- Behavioral Risk Factor Surveillance System website: [www.schs.state.nc.us/data/brfss/2013/nc/all/\\_smoker3.html](http://www.schs.state.nc.us/data/brfss/2013/nc/all/_smoker3.html).

### 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 27699-1900

Website: [www.schs.state.nc.us](http://www.schs.state.nc.us)

#### North Carolina Advisory Committee for

#### Cancer Coordination and Control

919-707-5304

1922 Mail Service Center

Raleigh, NC 27699-1900

*Cancer Profiles* are produced by the Central Cancer Registry.

State of North Carolina • Pat McCrory, Governor

Department of Health and Human Services • Richard O. Brajer, Secretary

Division of Public Health

State Center for Health Statistics • Eleanor Howell, M.S., Director

The Department of Health and Human Services does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in or in the provision of services.



The CCR acknowledges the Centers for Disease Control and Prevention for its support of this publication, under cooperative agreement CDC-RFA-DP12-1205/DP003933-01.

The content is solely the responsibility of the authors and does not necessarily represent the official views of the Centers for Disease Control and Prevention.