

Cancer Takes Too Many Lives in North Carolina

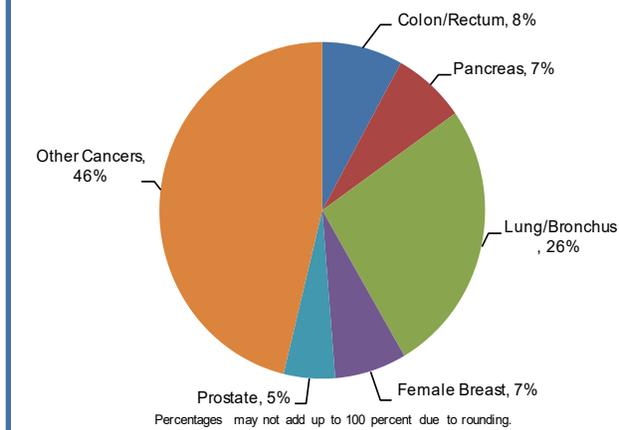
In 2018, cancer was the second leading cause of death in the United States according to the Centers for Disease Control and Prevention (CDC), while it was the leading cause of death in North Carolina.¹ In 2018, 19,693 individuals in North Carolina died from cancer (Table 1).

Table 1. 2018 Percent of Cancer Deaths in North Carolina Compared to 2018 Percent of Cancer Deaths in United States

North Carolina	United States
20.9%	21.1%

Cancer is a group of more than 100 different diseases, all 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 2018, 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 2018 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 99 percent of women who are diagnosed with breast cancer in the earliest stage survive the disease, whereas only 27 percent survive if the disease is diagnosed in the most advanced stage.² 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 2017, 58,939 cancer cases were reported for North Carolina residents.

These numbers will increase as the population ages (Table 2).

Table 2. 2020 Projected Cancer Cases for North Carolina and United States

	North Carolina	United States
Lung/Bronchus	9,375	228,820
Colon/Rectum	4,838	147,950
Female Breast	11,315	276,480
Prostate	7,739	191,930
Pancreas	1,774	57,600
All Cancers	64,274	1,806,590

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 2020 Surgeon General's Report, lung cancer due to smoking still accounts for the majority of lung cancer deaths.³ 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.⁴

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 4,562 individuals who indicated their age and smoking behaviors in the 2018 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.⁵ 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	958	17.5%	13.6%
35-44	597	22.8%	19.8%
45-54	743	19.9%	22.1%
55-64	814	18.4%	32.1%
65-74	844	13.6%	36.5%
75+	528	4.0%	43.2%
All Ages	4562	16.6%	26.9%

Data Source: Behavioral Risk Factor Surveillance System, North Carolina 2018

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.⁴ According to the 2020 Surgeon General’s Report, tobacco use is the leading cause of preventable death in the United States.³

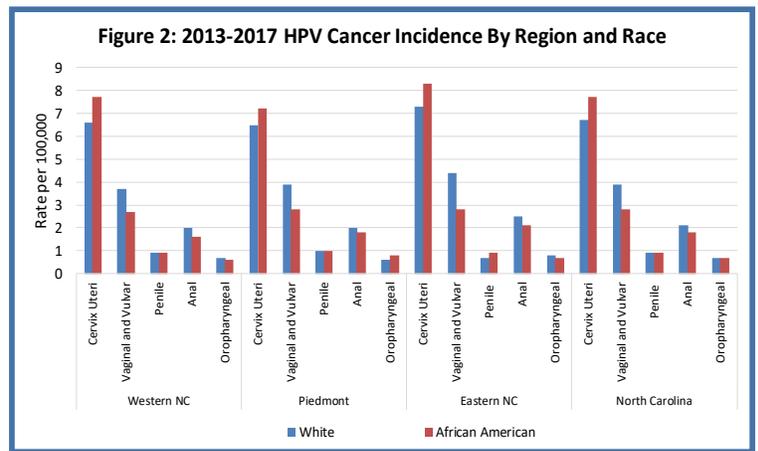
Nutrition and Physical Activity: Sustaining a healthy diet and being active can influence the risk of developing cancer. Eating a variety of healthful foods, with an emphasis on plant sources, adopting a physically active lifestyle, maintaining a healthy weight and limiting alcoholic consumption are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

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.⁴

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 2020, a projected 11,315 women in North Carolina will be diagnosed with breast cancer. 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 to 44 years have the option to start screening with a mammogram every year. Women 45 to 54 should get mammograms every year. Women 55 and older can switch to a mammogram every other year, or they can choose to continue yearly mammograms.⁴

An HPV-attributable cancer is an emerging cancer that is probably caused by HPV (Human Papilloma Virus) and highlighted in the Cancer Profiles. According to the CDC⁶, each year there are about 34,800 new cancer cases caused by HPV in the United States. In general, HPV is thought to be responsible for more than 90% of anal and cervical cancers, about 70% of vaginal and vulvar cancers, and 60% of penile cancers and about 70% of oropharyngeal cancers. The HPV vaccine was developed to prevent cervical and other cancers of the reproductive system. The vaccine protects against the types of HPV that can cause oropharyngeal cancers, so it may also prevent oropharyngeal cancers. CDC recommends HPV vaccination for 11- to 12-year-olds. CDC also recommends HPV vaccination for everyone through age 26 years, if not vaccinated already. Vaccination is not recommended for everyone older than ages 26 years. However, some adults ages 27 through 45 years who are not already



vaccinated may decide to get the HPV vaccine after speaking with their doctor about their risk for new HPV infections and the possible benefits of vaccination. HPV vaccination in this age range provides less benefit, as more people have already been exposed to HPV. The incidence of HPV-related cancers by regions (Eastern, Piedmont, and Western) and North Carolina is shown in Figure 2.

References

- Centers for Disease Control and Prevention website: www.cdc.gov/nchs/fastats/deaths.htm
- National Cancer Institute, Surveillance Epidemiology and End Results website: <https://seer.cancer.gov/statfacts>
- Reports of the Surgeon General website: <https://www.hhs.gov/sites/default/files/2020-cessation-sgr-full-report.pdf>
- American Cancer Society website: <https://www.cancer.org>
- Behavioral Risk Factor Surveillance System website: https://schs.dph.ncdhhs.gov/data/brfss/2018/nc/all/_smoker3.html
- Centers for Disease Control and Prevention website: <https://www.cdc.gov/cancer/hpv/index.htm>

For More Information

American Cancer Society

1-800-ACS-2345 / Website: 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)

919-733-4728

1908 Mail Service Center

Raleigh, NC 27699-1900

Website: <https://schs.dph.ncdhhs.gov/units/ccr/>

North Carolina Advisory Committee for Cancer Coordination and Control

919-707-5304

1922 Mail Service Center

Raleigh, NC 27699-1922

Cancer Profiles are produced by the Central Cancer Registry.

The CCR acknowledges the Centers for Disease Control and Prevention for its support of this publication, under cooperative agreement U58/DP006281-03.

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.



NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**
Division of Public Health

State of North Carolina • Roy Cooper, Governor

Department of Health and Human Services • Dr. Mandy K. Cohen, Secretary

Division of Public Health • State Center for Health Statistics

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