What is lung cancer?

The lungs are spongy organs in the chest that bring air into the body through special airways. Lung cancer occurs when cells in the lungs or the airways of the lungs grow out of control. Cancer cells within the lungs may grow into surrounding tissues or spread to other parts of the body.

Risk factors

- Cigarette smoking is the number one risk factor for lung cancer. Other forms of tobacco use (cigar, pipe, etc.) also increase risks for developing the disease. Quitting smoking at any age can lower the risk of lung cancer.
- Additional risk factors include: occupational and environmental exposure to radon gas, secondhand smoke, asbestos, organic chemicals, radiation, and air pollution.

Signs and symptoms

- Symptoms of lung cancer may include: persistent cough, blood in sputum, chest pain, change in voice, and recurrent respiratory infections.

Early detection

- The only recommended screening test for lung cancer is low-dose computed tomography (also called a low-dose CT scan, or LDCT). The U.S. Preventive Services Task Force (USPSTF) recommended yearly lung cancer screening with LDCT for people who have a history of heavy smoking, smoke now or have quit within the past 15 years, and are between 55 and 80 years old.

Lung cancer facts in South Carolina

- Lung cancer is the most commonly diagnosed cancer and the leading cause of cancer death among both men and women in South Carolina, as well as nationally.

Incidence (rate of new cases):

Figure 1. Male Lung & Bronchus Cancer Incidence*, 2013-2017

Figure 2. Female Lung & Bronchus Cancer Incidence*, 2013-2017
• The South Carolina lung cancer incidence rate is higher than the national rate (64.4 vs 56.4, respectively). South Carolina ranks 16th nationally.\textsuperscript{2,3}

• Compared to the US, incidence rates for lung cancer in South Carolina are higher for men (80.1 vs. 65.0 cases/100,000) and for women 52.3 vs. 49.8 cases/100,000).\textsuperscript{2,3}

• Figures 1 & 2 display lung cancer incidence rates among men and women in South Carolina’s 46 counties.\textsuperscript{2} Counties in dark red have the highest incidence rates of lung cancer. Williamsburg (126.1/100,000), Union (119.5/100,000), and Bamberg (111.2/100,000) counties have the highest incidence rates among men. Kershaw (66.0/100,000), Chester (65.9/100,000), and Colleton (62.9/100,000) have the highest incidence rates for lung cancer among women.\textsuperscript{2}

• In South Carolina, black men experience higher incidence rates for lung cancer than white men (2013-2017: 86.2 cases vs. 78.9 cases per 100,000 men, respectively). Conversely, lung cancer incidence rates are higher for white women compared to black women (2013-2017: 56.5 cases vs. 40.3 cases per 100,000 women, respectively) (Figure 6).

\textit{Mortality:}

• The South Carolina lung cancer mortality rate is higher than the national rate (44.8 vs 40.2, respectively). South Carolina ranks 17th nationally.\textsuperscript{2,3}

The lung cancer mortality rate (2013-2017) among men is higher in South Carolina when compared to the U.S. (58.8 vs. 49.3/100,000).\textsuperscript{3} The lung cancer mortality rate for South Carolina women is slightly higher than the U.S. rate (34.0 vs. 33.2/100,000).\textsuperscript{3}

• Figures 3 & 4 display lung cancer mortality rates for men and women among South Carolina’s 46 counties.\textsuperscript{2} Counties in dark red have the highest mortality rates. Bamberg (93.1/100,000), Marlboro (90.2/100,000), and Union (83.5/100,000) counties have the highest mortality rates among men. Marlboro (50.9/100,000), Colleton (47.7/100,000), and Chesterfield (42.3/100,000) have the highest mortality rates among women.\textsuperscript{2}

• Black men experience higher lung cancer mortality rates than white men (2013-2017: 64.6 cases vs. 57.8 cases per 100,000 men, respectively). White women experience higher lung cancer mortality rates than black women.
(2013-2017: 36.7 cases vs. 26.0 cases per 100,000 women, respectively) (Figure 7).

**Survival:**

- Nationally, the five-year relative survival rate for lung cancer is 57% when diagnosed in the earliest stages of the disease.\(^1\) In South Carolina, approximately 22% of all lung cancers are diagnosed in the earliest stages of this disease, and the five-year relative survival is 55%.\(^2\)

- Figure 5 shows percentage of lung cancers diagnosed at late stage in each of the 46 counties in South Carolina. Oconee, Anderson, and McCormick counties have the highest percentage of late stage lung cancers.\(^2\)

- Blacks are more likely to be diagnosed with late stage lung cancer than whites (72% and 68%, respectively) (Figure 8).\(^2\)

**Tobacco use:**

- In 2019, Centers for Disease Control and Prevention reported about 17.6 percent of adults in South Carolina were current smokers (U.S. average = 16.0%).\(^4,5\)

- Current smoking was more prevalent among men and those who were less educated or had lower income levels. There were no significant differences in smoking prevalence among whites and blacks. Current smoking was more prevalent among males than females (Figure 9).\(^4\)

**Economic burden:**

- Primary diagnoses of lung cancer for inpatient hospitalizations cost more than $140.6 million dollars in South Carolina during 2018:

  ✓ Inpatient hospitalizations: 1,899 people
  ✓ Average length of stay: 5.5 days
  ✓ Average charge per stay: $69,616.\(^6\)

**Racial differences:**
6 South Carolina Revenue and Fiscal Affairs Office, Hospital Discharge Patient-Level Dataset

For more information on cancer prevention and management, please contact:
American Cancer Society: www.cancer.org | 1.800.227.2345

For more information on cancer data and statistics for South Carolina, please contact:
South Carolina Central Cancer Registry, SC DHEC. 2600 Bull Street, Columbia, SC 29201 | 803.898.8000 | cancer.registry@dhec.sc.gov
Centers for Disease Control and Prevention: https://www.cdc.gov/cancer/lung/

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