

## 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<sup>1</sup>

- ✓ 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 (from building materials), secondhand smoke, asbestos, organic chemicals, radiation, and air pollution.

## Signs and symptoms<sup>1</sup>

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

## Early detection<sup>1</sup>

- Currently there are no recommendations for lung cancer screening in the general population.

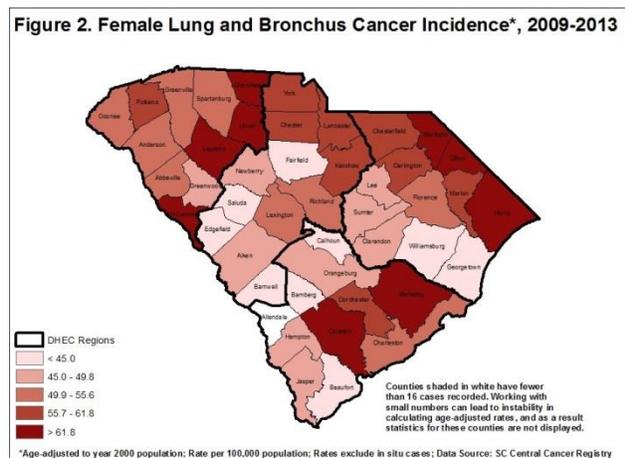
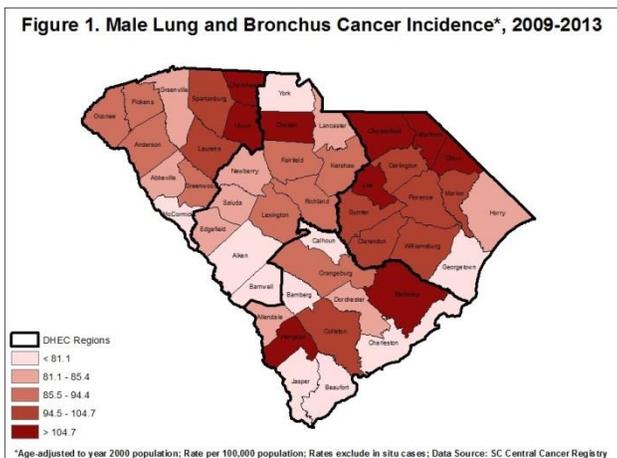
## Lung cancer facts in South Carolina

- 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.<sup>1</sup>

## Incidence (rate of new cases):

### South Carolina Quick Facts

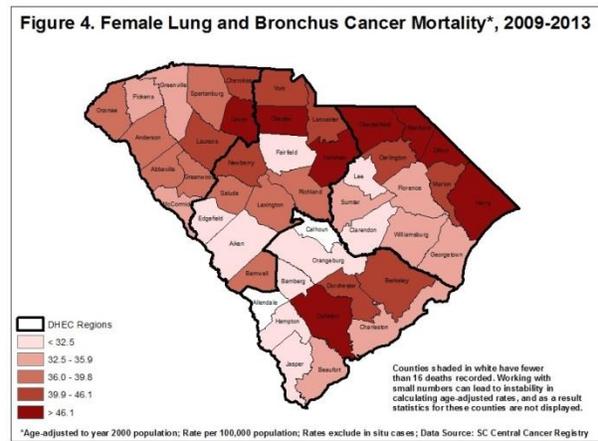
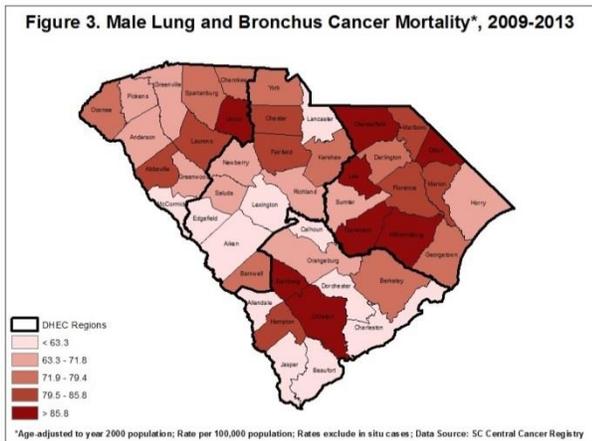
- Lung cancer is the *most commonly* diagnosed cancer overall.
- It is *also the most common* cause of cancer deaths.
- Men are *nearly twice as likely* to get lung cancer *and die from it than women*.
- White women are *34% more likely* to get lung cancer *and 35% more likely* to die from it than black women.
- The mortality rate for men has declined by 33% since the mid 1990's. For women, the rate has remained fairly steady over the same time period.



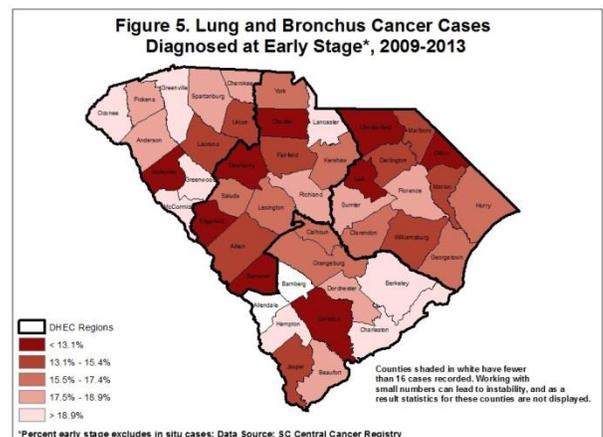
- The South Carolina lung cancer incidence rate is higher than the national rate (68.8 vs 61.9, respectively). South Carolina ranks 16<sup>th</sup> nationally.<sup>2,3</sup>
- Compared to the US, incidence rates for lung cancer in South Carolina are higher for men (87.9 vs. 73.9 cases/100,000) and about the same for women (~54 cases/100,000).<sup>2,3</sup>
- Figures 1 & 2 display lung cancer incidence rates among men and women in South Carolina's 46 counties.<sup>2</sup> Counties in dark red have the highest incidence rates of lung cancer. Union (138.9/100,00), Cherokee (115.6/100,000), and Chesterfield (113.0/100,000) counties have the highest incidence rates among men. Colleton (84.2/100,000), Marlboro (71.3/100,000), and Cherokee (70.1/100,000) have the highest incidence rates for lung cancer among women.<sup>2</sup>
- In South Carolina, black men experience higher incidence rates for lung cancer than white men (2009-2013: 92.7 cases vs. 86.8 cases per 100,000 men, respectively). Conversely, lung cancer incidence rates are higher for white women compared to black women (2009-2013: 58.1 cases vs. 43.3 cases per 100,000 women, respectively) (Figure 6).

**Mortality:**

- The South Carolina lung cancer mortality rate is higher than the national rate (51.8 vs 46.0, respectively). South Carolina ranks 14<sup>th</sup> nationally.<sup>2,3</sup>
- The lung cancer mortality rate (2009-2013) among men is higher in South Carolina when compared to the U.S. (69.5 vs. 57.8/100,000).<sup>3</sup> The lung cancer mortality rate for South Carolina women is slightly higher than the U.S. rate (38.6 vs. 37.0/100,000).<sup>3</sup>



- Figures 3 & 4 display lung cancer mortality rates for men and women among South Carolina's 46 counties.<sup>2</sup> Counties in dark red have the highest mortality rates. Lee (103.1/100,000), Williamsburg (97.9/100,000), and Dillon (95.9/100,000) counties have the highest mortality rates among men. Marlboro (66.0/100,000), Colleton (60.6/100,000), and Dillon (58.8/100,000) have the highest mortality rates among women.<sup>2</sup>
- Black men experience higher lung cancer mortality rates than white men (2009-2013: 74.8 cases vs. 68.0 cases per 100,000 men, respectively). White women experience higher lung cancer mortality rates than black women



(2009-2013: 40.9 cases vs. 30.4 cases per 100,000 women, respectively) (Figure 7).

### **Survival:**

- Nationally, the five-year relative survival rate for lung cancer is 54% when diagnosed in the earliest stages of the disease.<sup>1</sup> In South Carolina, approximately 18% of all lung cancers are diagnosed in the earliest stages of this disease.<sup>2</sup>
- Figure 5 shows percentage of lung cancers diagnosed at early stage in each of the 46 counties in South Carolina. Berkeley, Lancaster, and Charleston counties have the highest percentage of early stage lung cancers.<sup>2</sup>
- Whites are *more likely* to be diagnosed with early stage lung cancer than blacks (19% and 15%, respectively) (Figure 8).<sup>2</sup>

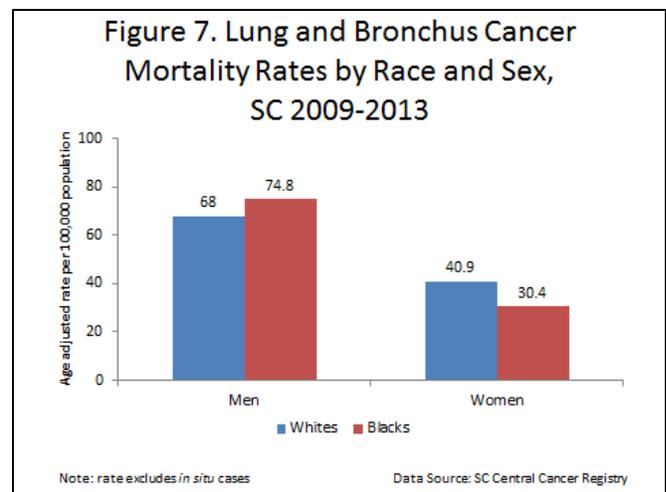
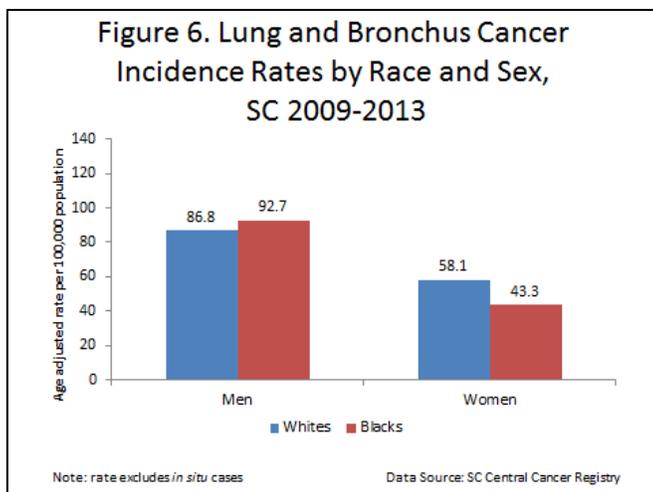
### **Tobacco use:**

- In 2014, Centers for Disease Control and Prevention reported about 21.5 percent of adults in South Carolina were current smokers (U.S. average = 17.4%).<sup>4,5</sup>
- 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 (Figure 9).<sup>4</sup>

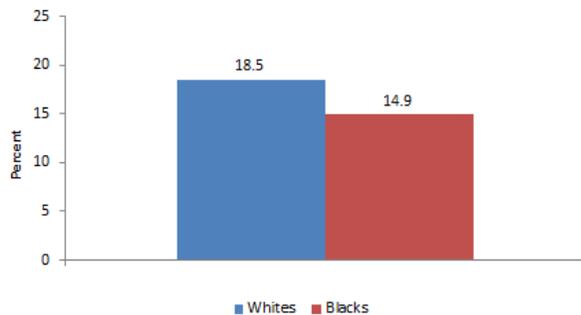
### **Economic burden:**

- Primary diagnoses of lung cancer for inpatient hospitalizations cost more than \$140.6 million dollars in South Carolina during 2014:
  - ✓ Inpatient hospitalizations: 1,911 people
  - ✓ Average length of stay: 7.4 days
  - ✓ Average charge per stay: \$73,599.<sup>6</sup>

### **Racial differences:**



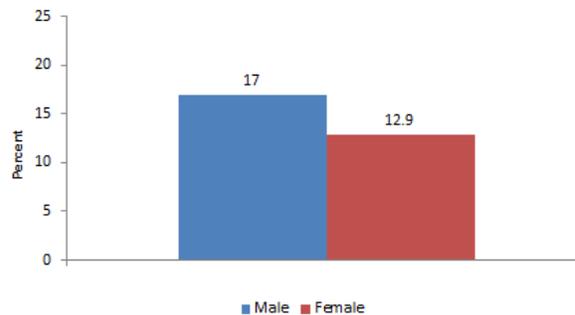
**Figure 8. Lung and Bronchus Cancer Cases Diagnosed at Early Stage by Race, SC 2009-2013**



Note: rate excludes *in situ* cases

Data Source: SC Central Cancer Registry

**Figure 9. Prevalence of Current Smoking among Adults (ages 18+) by Sex, SC 2014**



Data Source: SC BRFSS, PHSIS, DHEC

<sup>1</sup> American Cancer Society, Cancer Facts & Figures 2015. Atlanta: American Cancer Society; 2015.

<sup>2</sup> South Carolina Central Cancer Registry, Office of Public Health Statistics and Information Services, Dept. of Health & Environmental Control, based on combined data from 2009-2013.

<sup>3</sup> Surveillance, Epidemiology, and End Results (SEER) Program ([www.seer.cancer.gov](http://www.seer.cancer.gov)) SEER\*Stat Database: NPCR and SEER Incidence - State RAD file - 1999-2013 - jbk 060816, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released June 2016.

<sup>4</sup> South Carolina Behavioral Risk Factor Surveillance System, Office of Public Health Statistics and Information Services, Dept. of Health & Environmental Control, 2014.

<sup>5</sup> Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2014.

<sup>6</sup> South Carolina Revenue and Fiscal Affairs Office, Hospital Discharge Patient-Level Dataset

**For more information on cancer prevention and management, please contact:**

**Division of Cancer Prevention and Control (DHEC):** <http://www.scdhec.gov/Health/DiseasesandConditions/Cancer/>

**American Cancer Society:** [www.cancer.org](http://www.cancer.org) | 1.800.227.2345

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