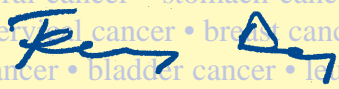
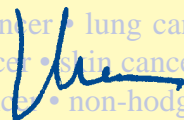


# SOUTH CAROLINA CANCER REPORT CARD



**Terry Day, MD**

**SCCA Council Chair**



**Mark Sanford**

**Governor**



**South Carolina Cancer Alliance**

*Working together, making the grade.*

**2004**





## State of South Carolina

### Office of the Governor

MARK SANFORD  
GOVERNOR

POST OFFICE BOX 12267  
COLUMBIA 29211

Dear Fellow South Carolinians,

It is with great pleasure that I introduce the first South Carolina Cancer Report Card. It paints a vivid picture of the cancer problem in South Carolina, as compared to the rest of the nation, and it clearly outlines where our strengths and deficiencies lie. The publication of the Cancer Report Card shows that we are not afraid of holding ourselves accountable and it serves to focus us all on one, all-important vision – to decrease the impact of cancer on ALL citizens in South Carolina.

The Cancer Report Card defines the problem. We must use this information to create solutions. We must develop a Comprehensive Cancer Plan that allows us to detect cancers early, to decrease cancer risks, to improve access to quality cancer care and, ultimately, to significantly reduce the number of people who suffer from cancer.

We can all look with pride at the A's on our Report Card and we must be disturbed and embarrassed by the F's. That, however, is only part of the picture. Many of us have experienced cancer through the eyes of a loved one and understand that cancer is just not about statistics; it's about people struggling to stay alive. We cannot allow ourselves to look at these grades and not understand the human suffering that they represent.

Through the efforts of the SCCA, we have seen that South Carolinians are not satisfied being at the bottom of the pack. We may be coming from behind, but through the committed efforts of all sectors – medicine, business, government and grass-roots survivors - we are poised to race toward the head of the class and take a leading role in improving the cancer statistics and the lives of citizens in this state. I invite you to partner with the South Carolina Cancer Alliance (SCCA) as it provides the driving force needed to move our state ahead. By working together, we can challenge all South Carolinians to become involved in their own health, to develop healthy lifestyles, and to avoid becoming one of the disturbing statistics we see reflected in this report.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Sanford".

Mark Sanford

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## Introduction

*“The cancer burden in our states is much higher than it should be based on what we have learned through science and practice. Despite our efforts, the discrepancy between what we know and what is happening continues to persist. Our goal must be to significantly reduce the burden of cancer, in terms of human suffering as well as economic drain ... and to bring the advances of medicine to the average citizen.”*

*Tom Kean M.P.H. - of C-Change and Strategic Concepts*

As a nation and as a state, we are confronted with the fact that many people are unnecessarily suffering and dying from cancer. If we could apply the knowledge we already have and develop effective ways to help people make changes in their behavior, we could save lives. It is encouraging to realize that many South Carolinians could remain cancer-free, even without any additional research advances or newly developed treatments. However, it is also disheartening because we are not doing enough to prevent and screen for cancer.

The South Carolina Cancer Alliance (SCCA) is a non-profit organization of more than 700 individuals, agencies, and businesses committed to decreasing the impact of cancer on all South Carolinians. It is the goal of the SCCA to change the cancer statistics in our state.

To that end, the SCCA has worked with its partners to develop the first ever South Carolina Cancer Report Card. Baseline data (grades) are presented for 19 different cancers. The focus is on rates of new cases, death rates, disparities, compliance with screening and early detection efforts, and the resources available to bring about change. The grades outlined in the Report Card will be used to help communities define the magnitude of the problem. Further, the information will be a rallying point for prioritizing specific statewide initiatives to be addressed in the South Carolina Cancer Plan, to be released in 2005.

It is our long-term goal to eliminate all avoidable suffering or death from cancer and to improve the quality of life for cancer survivors and their families. Our first step is to focus on how South Carolina compares to the rest of the nation. The publication of each future Cancer Report Card will begin to show the tremendous impact that a focused, collaborative effort can have in helping South Carolina make the grade.

stomach cancer • colorectal cancer • lung cancer • esophageal cancer • cervical cancer • breast cancer • prostate cancer • skin cancer • brain cancer • ovarian cancer • bladder cancer • leukemia • liver cancer • non-hodgkins lymphoma

## Grades for South Carolina Cancer Deaths

<b>Cancer</b>	<b>Grade*</b>
<b>All Cancers<sup>^</sup></b>	<b>F</b>
Bladder Cancer	<b>B</b>
Brain Cancer	<b>A</b>
Breast Cancer (Female)	<b>D</b>
Cervical Cancer	<b>F</b>
Colorectal Cancer	<b>F</b>
Esophageal Cancer	<b>F</b>
Kidney Cancer	<b>A</b>
Leukemia	<b>F</b>
Liver Cancer	<b>F</b>
Lung Cancer	<b>F</b>
Melanoma of the Skin	<b>A</b>
Multiple Myeloma	<b>F</b>
Non-Hodgkin's Lymphoma	<b>B</b>
Oral Cancer	<b>F</b>
Ovarian Cancer	<b>A</b>
Pancreatic Cancer	<b>F</b>
Prostate Cancer	<b>F</b>
Stomach Cancer	<b>F</b>
Uterine (Corpus) Cancer	<b>B</b>

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\* S.C. grades were calculated using standard deviations from the U.S. mean of the same year, 2001.

<sup>^</sup> Includes all cancer types

## Grades for South Carolina New Cancer Cases

<b>Cancer</b>	<b>Grade*</b>
<b>All Cancers<sup>^</sup></b>	<b>A</b>
Bladder Cancer	<b>A</b>
Brain Cancer	<b>A</b>
Breast Cancer (Female)	<b>A</b>
Cervical Cancer	<b>C</b>
Colorectal Cancer	<b>D</b>
Esophageal Cancer	<b>F</b>
Kidney Cancer	<b>F</b>
Leukemia	<b>A</b>
Liver Cancer	<b>A</b>
Lung Cancer	<b>F</b>
Melanoma of the Skin	<b>D</b>
Multiple Myeloma	<b>F</b>
Non-Hodgkin's Lymphoma	<b>A</b>
Oral Cancer	<b>F</b>
Ovarian Cancer	<b>A</b>
Pancreatic Cancer	<b>F</b>
Prostate Cancer	<b>F</b>
Stomach Cancer	<b>B</b>
Uterine (Corpus) Cancer	<b>A</b>

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\* S.C. grades were calculated using standard deviations from the U.S. mean of the same year, 2000.

<sup>^</sup> Includes all cancer types

## Grades for South Carolina Cancer Screening and Risk Factors

Screening	Grade*
<b>Breast Cancer</b> Mammogram	<b>B</b>
<b>Cervical Cancer</b> Pap test	<b>C</b>
<b>Colon Cancer</b> Sigmoidoscopy/Colonoscopy	<b>C</b>
	Fecal Occult Blood Test
<b>Oral Cancer</b> Oral exam	<b>A</b>
<b>Prostate Cancer</b> Prostate Specific Antigen (PSA)	<b>NA</b>
	Digital Rectal Exam
<b>Skin Cancer</b> Visual Exam	<b>NA</b>

Risk Factors	Grade*
Avoid smoking	<b>D</b>
Consume adequate fruits and vegetables <sup>^</sup>	<b>C</b>
Consume adequate micronutrients	<b>D</b>
Maintain adequate physical activity	<b>C</b>
Maintain healthy weight	<b>F</b>
Avoid binge drinking	<b>B</b>
Avoid high-risk sexual activity	<b>NA</b>
Limit exposure to UV rays (tanning)	<b>NA</b>
Improve access to care	<b>D</b>

\* Grades were assigned using S.C. and national BRFSS (telephone survey) data

<sup>^</sup> Question is slightly different (U.S. question specifies at least 1 green leafy or orange vegetable)

NA Data not available

## Newly Released Ranking of Cancer Deaths South Carolina 2002

Rank	Total Deaths	Male Deaths	Female Deaths
1	Lung - 2,481 (30%)	Lung - 1,562	Lung - 919
2	Colorectal - 807 (10%)	Prostate - 478	Breast - 627
3	Breast <sup>^</sup> - 630 (8%)	Colorectal - 428	Colorectal - 379
4	Prostate - 478 (6%)	Pancreatic - 214	Pancreatic - 243
5	Pancreatic - 457 (5%)	Leukemia - 169	Ovarian - 189
6	Leukemia - 311 (4%)	Esophageal - 157	Leukemia - 142
7	NHL* - 282 (3%)	NHL* - 150	NHL* - 132
8	Liver - 201 (2%)	Liver - 130	Brain - 92
9	Esophageal - 197 (2%)	Bladder - 115	Uterine - 90
10	Brain - 195 (2%)	Kidney - 113	Stomach - 80
	All Sites - 8,320 (100%)	All Sites - 4,539	All Sites - 3,781

\* Non-Hodgkin's Lymphoma

<sup>^</sup> Includes men and women

## Bladder Cancer

	New Cases*	Deaths <sup>+</sup>
<b>Overall</b>	<b>A</b>	<b>B</b>
Men, Black	<b>A</b>	<b>A</b>
Men, White	<b>A</b>	<b>F</b>
Women, Black	<b>A</b>	<b>B</b>
Women, White	<b>A</b>	<b>A</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

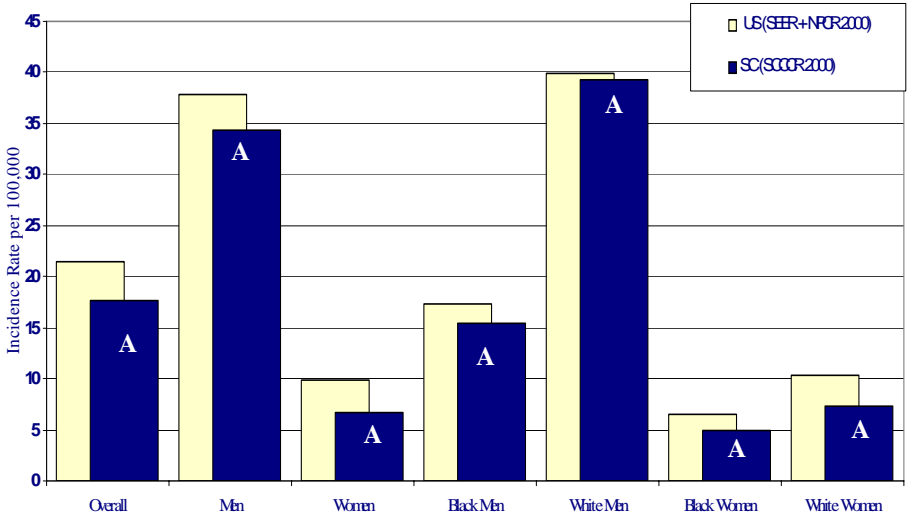
<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

Data include in situ bladder cancer cases

### Key Facts

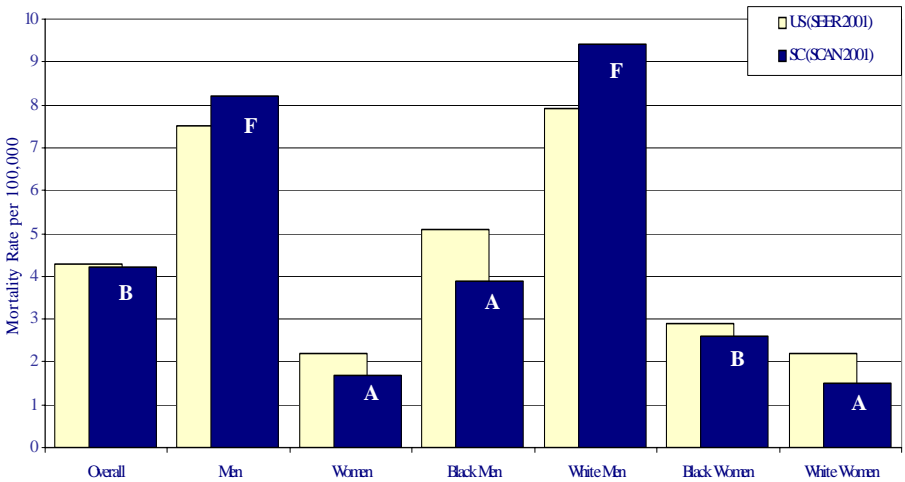
- It is the **fourth** most common cancer diagnosed in men (540 men diagnosed in 2000).
- It is the **fifth** most common cancer overall (689 people diagnosed in 2000).
- It is the **ninth** largest cause of cancer deaths among men (115 deaths among men in 2002).
- It is diagnosed more often in men than women.
- Women who have bladder cancer are more likely to die from the disease than males with bladder cancer.
- Smoking is estimated to account for 48 percent of the bladder cancer deaths occurring in men and 28 percent in women.
- Currently, there are no screening procedures for bladder cancer, however cystoscopies are often performed for high risk patients.

Rate of New Cases for Bladder Cancer



Source: US incidence data provided by NCR+SEER2000 incidence. SC incidence data provided by SCCC(2000).

Death Rate for Bladder Cancer



Source: US death data provided by SEER Program SEER\*Stat Database: Mortality - All COD, Public - Use With State, Total US for Expanded Races/Ethnics (1990-2001). South Carolina death data provided by DHHCAN

\* Sample size influences visual interpretation.

## Brain Cancer

	New Cases*	Deaths <sup>+</sup>
<b>Overall</b>	<b>A</b>	<b>A</b>
Men, Black	<b>C</b>	<b>D</b>
Men, White	<b>A</b>	<b>A</b>
Women, Black	<b>A</b>	<b>F</b>
Women, White	<b>A</b>	<b>A</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

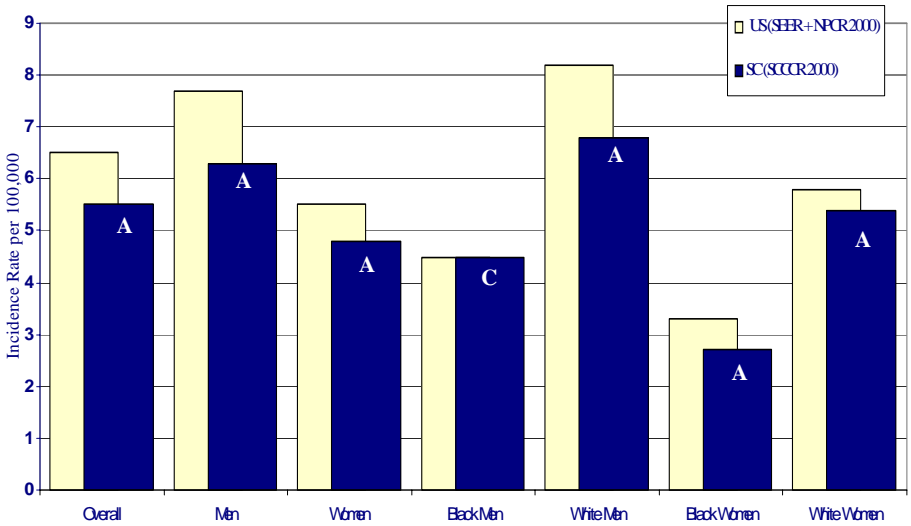
<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

Data exclude in situ cancer cases

### Key Facts

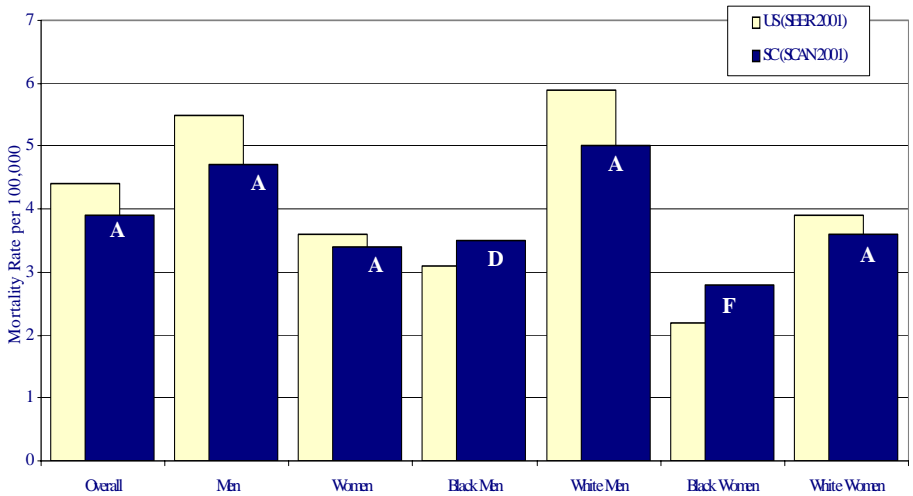
- It is the **tenth** leading cause of cancer deaths overall (195 deaths in 2002).
- It is the **eighth** leading cause of cancer death among women (92 deaths among women in 2002).
- Black men and women have a higher risk of dying from brain cancer despite an average rate of new cases for black men.
- Known risk factors include environmental exposure to radiation, immune deficiencies and a family history of central nervous system tumors.
- However, the majority of central nervous system tumors are not associated with known risk factors.
- Routine screening is not available for brain cancer.

### Rate of New Cases for Brain and Other Nervous System Cancer



Source: US incidence data provided by NPCR+SEER 2000 incidence. SC incidence data provided by SCCR (2000).

### Death Rate for Brain and Other Nervous System Cancer



Source: US death data provided by SEER Program SEER\*Stat Database: Mortality - All COD, Public - Use With State, Total US for Expanded Races/Hispans (1990-2001). South Carolina death data provided by DHEC/SCAN

\* Sample size influences visual interpretation.

## Breast Cancer (Female)

	New Cases*	Deaths <sup>†</sup>
<b>Overall</b>	<b>A</b>	<b>D</b>
Women, Black	<b>C</b>	<b>D</b>
Women, White	<b>A</b>	<b>A</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

† S.C. was graded in comparison to the U.S. death rates of the same year, 2001

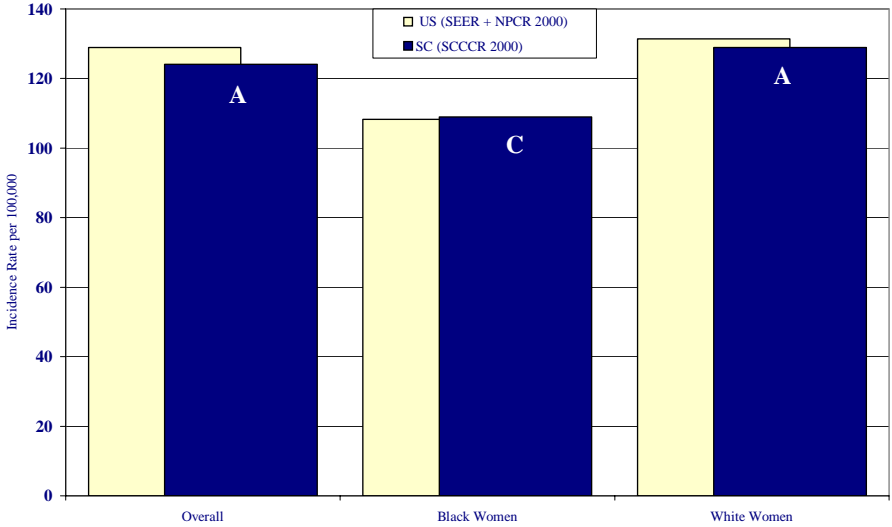
Data exclude in situ cancer cases

### Key Facts

- It is the **most commonly** diagnosed cancer among women (2,714 women diagnosed in 2000).
- It is the **second** largest cause of cancer deaths among women (627 deaths among women in 2002).
- It is the **third** largest cause of cancer deaths overall (630 deaths in 2002).
- Rate of new cases increases with age, with the majority of new cases occurring in women 40 years of age or older.
- Risk factors include age, family history, age at first birth, early menarche, and late menopause.
- Risk factors we can change include postmenopausal obesity, use of postmenopausal hormones, alcohol consumption and physical inactivity.
- Breast cancer can be detected in early stages through mammography, and clinical and self breast examinations.
- If diagnosed early, the five-year survival rate is 96 percent.

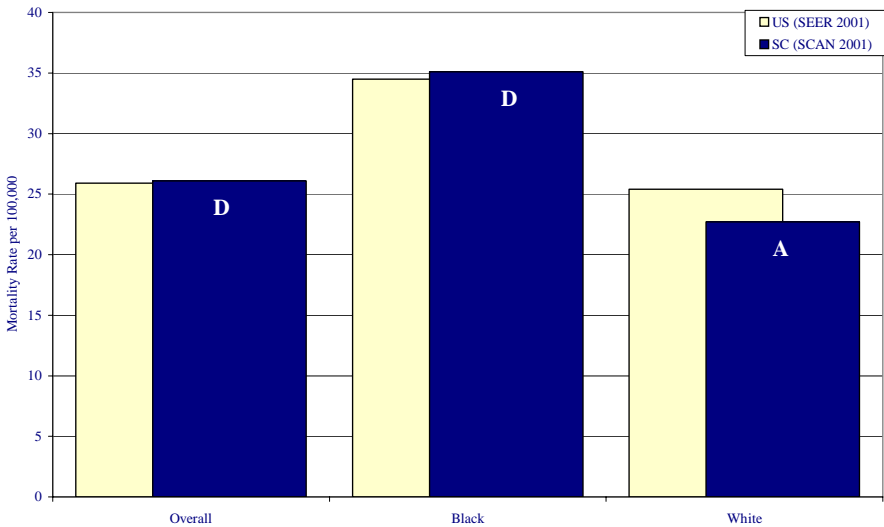
**ALERT** - see **Special Disparities** section

Rate of New Cases for Breast Cancer (Female)



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCR (2000).

Death Rate for Breast Cancer (Female)



Source: U.S. death data provided by SEER Program SEER\*Stat Database: Mortality - All COD, Public - Use With State, Total U.S for Expanded Races/Hispanics (1990-2001). South Carolina death data provided by DHEC SCAN.

\* Sample size influences visual interpretation.

## Cervical Cancer

	<u>New Cases*</u>	<u>Deaths<sup>+</sup></u>
<b>Overall</b>	<b>C</b>	<b>F</b>
Women, Black	<b>A</b>	<b>A</b>
Women, White	<b>A</b>	<b>F</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

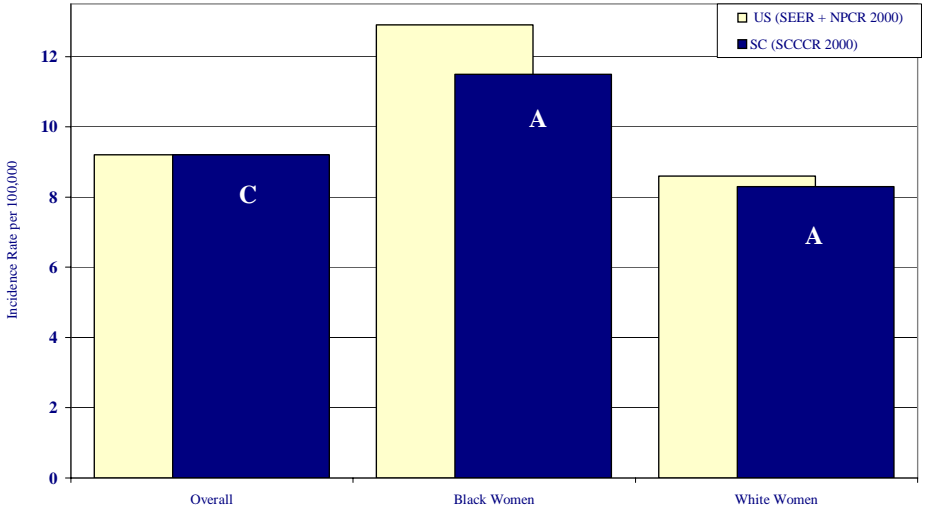
<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

Data exclude in situ cancer cases

### Key Facts

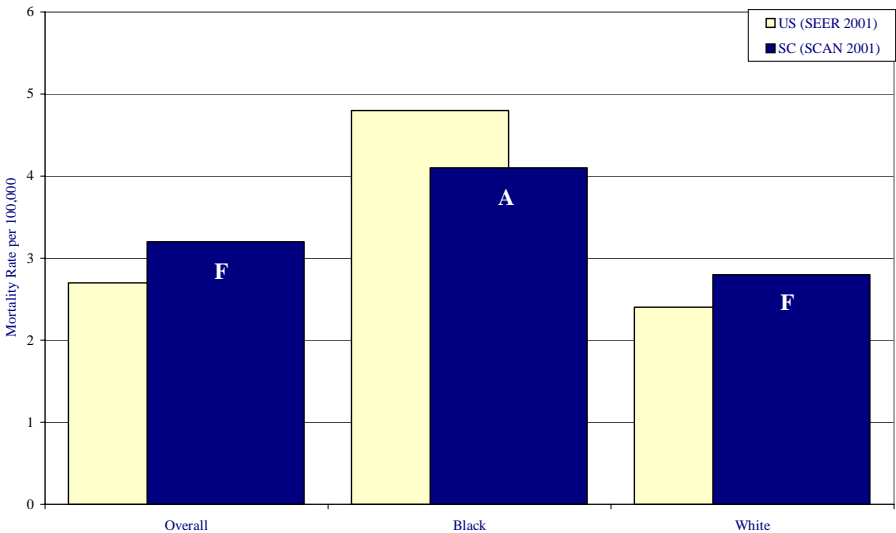
- It is the **ninth** most common cancer diagnosed among all women. (194 women diagnosed in 2000).
- 66 women died of cervical cancer in 2002.
- Both the number of cervical cancer cases and deaths are declining yearly in the United States.
- The risk of invasive cervical cancer increases with age for both white and black women, however the rate increases more rapidly in black women.
- Risk factors include HPV infection, multiple sex partners or partners with multiple sex partners, sex at an early age and cigarette smoking.
- Cigarette smoking is attributable for almost 31 percent of cervical cancer deaths.
- A routine Pap smear can detect the disease early.
- If caught early, the five-year relative survival rate for invasive cervical cancer is close to 100 percent.

Rate of New Cases for Cervical Cancer



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCR (2000).

Death Rate for Cervical Cancer



Source: U.S. death data provided by SEER Program SEER\*Stat Database: Mortality - All COD, Public - Use With State, Total U.S. for Expanded Races/Hispanics (1990-2001). South Carolina death data provided by DHEC SCAN.

\* Sample size influences visual interpretation.

## Colorectal Cancer

	<u>New Cases*</u>	<u>Deaths<sup>+</sup></u>
<b>Overall</b>	<b>D</b>	<b>F</b>
Men, Black	<b>F</b>	<b>C</b>
Men, White	<b>F</b>	<b>F</b>
Women, Black	<b>C</b>	<b>A</b>
Women, White	<b>A</b>	<b>A</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

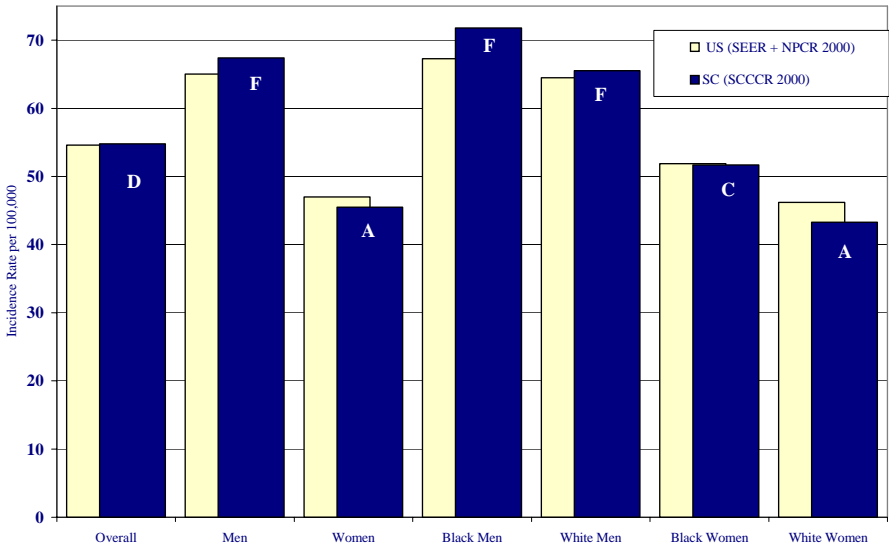
Data exclude in situ cancer cases

### Key Facts

- It is the **third** most common cancer among both men and women (1,120 men and 1,019 women diagnosed in 2000).
- It is the **fourth** most common cancer overall (2,139 people diagnosed in 2000).
- It is the **second** leading cause of cancer deaths for all South Carolinians (807 deaths in 2002).
- Age is the primary risk factor for this cancer, with more than 90 percent of cases diagnosed in people over age 50.
- Risk factors include family history of colorectal cancer, polyps, or inflammatory bowel disease, smoking, alcohol consumption, obesity, physical inactivity, diets high in fat and/or red meat, and diets low in fruit and vegetables.
- Screening is available through colonoscopy, fecal occult blood test (FOBT) or flexible sigmoidoscopy.
- If detected early, the five-year relative survival rate is 90 percent; however, only 38 percent of colorectal cases are diagnosed early.

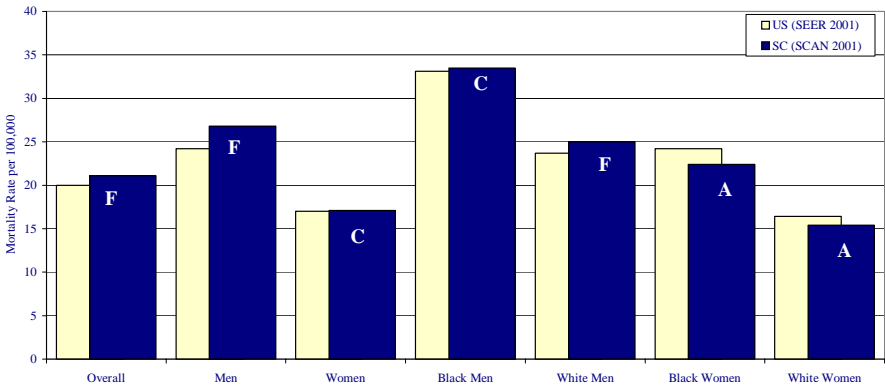
**ALERT** - see **Special Disparities** section

### Rate of New Cases for Colorectal Cancer



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCR (2000).

### Death Rate for Colorectal Cancer



Source: U.S. death data provided by SEER Program SEER\*Stat Database: Mortality-All COD, Public - Use With State, Total U.S. for Extended Race/Ethnicity (1990/2001). South Carolina death data provided by DHFC SCAN

\* Sample size influences visual interpretation.

## Esophageal Cancer

	<u>New Cases*</u>	<u>Deaths<sup>+</sup></u>
<b>Overall</b>	<b>F</b>	<b>F</b>
Men, Black	<b>F</b>	<b>F</b>
Men, White	<b>A</b>	<b>A</b>
Women, Black	<b>A</b>	<b>A</b>
Women, White	<b>F</b>	<b>A</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

Data exclude in situ cancer cases

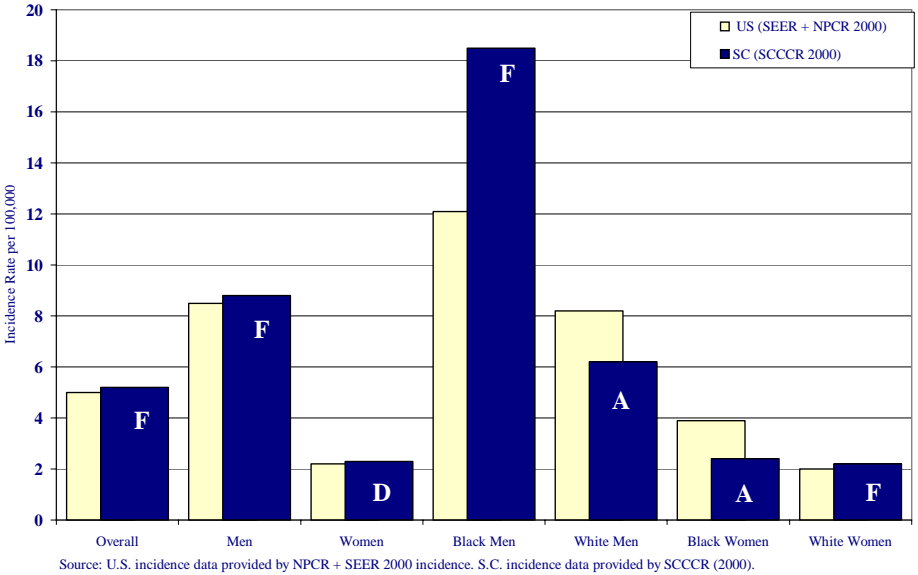
### Key Facts

- It is the **ninth** most common cause of cancer deaths overall, (197 deaths in 2002, 157 of those deaths were among men).
- There are two types of esophageal cancer, adenocarcinoma and squamous cell carcinoma.
- Common risk factors cannot explain the high mortality of this cancer among black men.
- To date, there are no screening tests available for esophageal cancer.

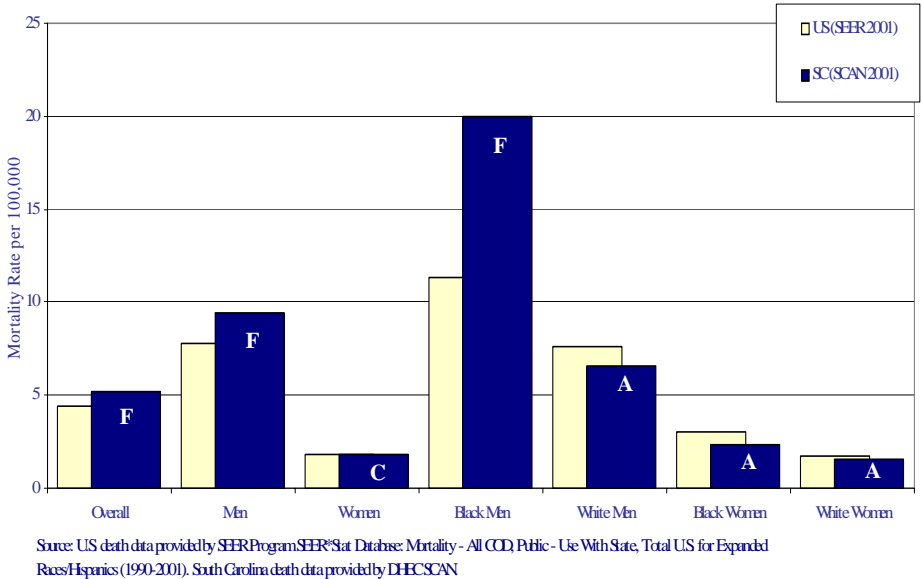
**ALERT-** see **Special Disparities** Section

stomach cancer • colorectal cancer • lung cancer • esophageal cancer • cervical cancer • breast cancer • prostate cancer • skin cancer • brain cancer • ovarian cancer • bladder cancer • leukemia • liver cancer • non-hodgkins lymphoma

Rate of New Cases for Esophageal Cancer



Death Rate for Esophageal Cancer



\* Sample size influences visual interpretation.

## Kidney Cancer

	<u>New Cases*</u>	<u>Deaths<sup>+</sup></u>
<b>Overall</b>	<b>F</b>	<b>A</b>
Men, Black	<b>D</b>	<b>C</b>
Men, White	<b>F</b>	<b>B</b>
Women, Black	<b>B</b>	<b>D</b>
Women, White	<b>A</b>	<b>B</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

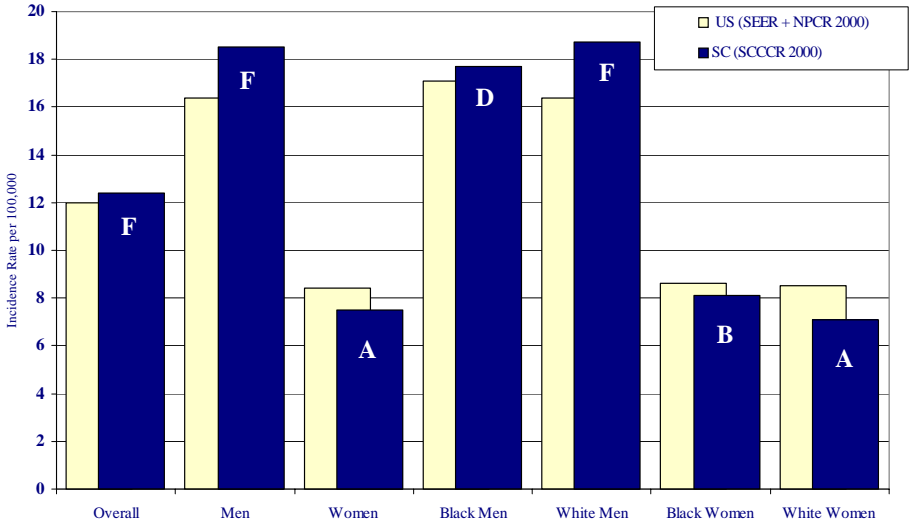
Data exclude in situ cancer cases

### Key Facts

- It is the **eighth** most common cancer diagnosed overall (492 people diagnosed in 2000).
- It is the **tenth** largest cause of cancer deaths among men (113 deaths among men in 2002).
- Most cases are diagnosed between the ages of 50 and 70.
- It is twice as common in men as it is in women.
- The risk of developing kidney cancer increases by 40 percent if you smoke cigarettes.
- Other risk factors include obesity, physical inactivity and occupational exposures (asbestos, cadmium, some herbicides, benzene and organic solvents).
- There are no screening tests available to detect this cancer in the early stage of the disease.

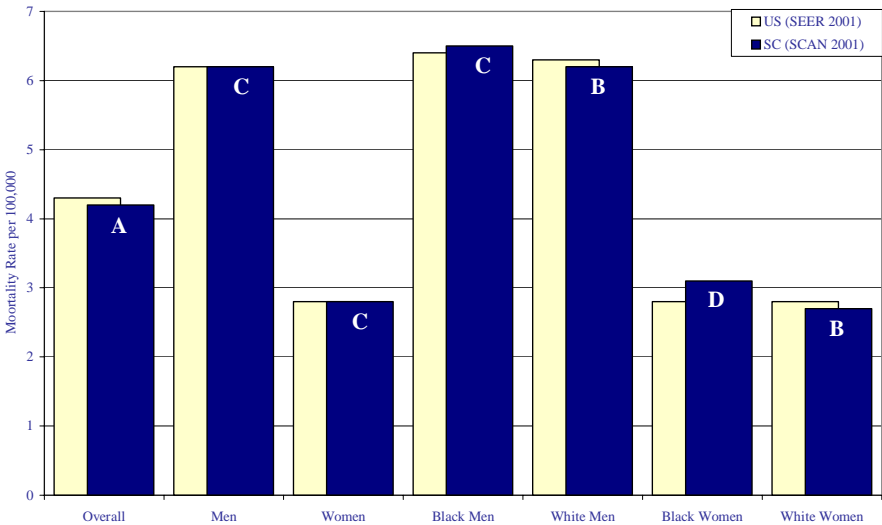
stomach cancer • colorectal cancer • lung cancer • esophageal cancer • cervical cancer • breast cancer • prostate cancer • skin cancer • brain cancer • ovarian cancer • bladder cancer • leukemia • liver cancer • non-hodgkins lymphoma

### Rate of New Cases for Kidney and Renal Pelvis Cancer



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCR (2000).

### Death Rate for Kidney and Renal Cancer



Source: U.S. death data provided by SEER Program SEER\*Stat Database: Mortality - All COD, Public - Use With State, Total U.S. for Expanded Races/Hispanics (1990-2001). South Carolina death data provided by DHEC SCAN.

\* Sample size influences visual interpretation.

## Leukemia

	New Cases*	Deaths <sup>+</sup>
<b>Overall</b>	<b>A</b>	<b>F</b>
Men, Black	<b>C</b>	<b>A</b>
Men, White	<b>A</b>	<b>F</b>
Women, Black	<b>F</b>	<b>B</b>
Women, White	<b>A</b>	<b>A</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

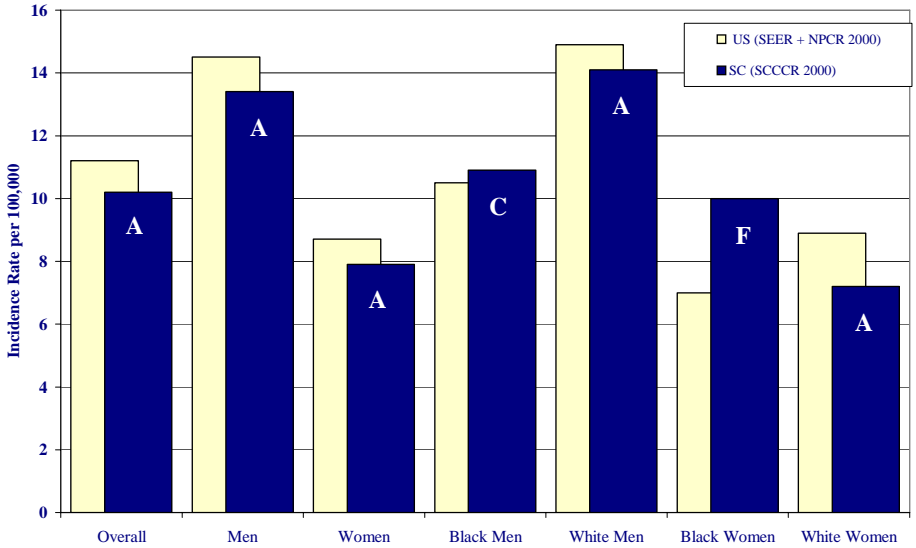
<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

Data exclude in situ cancer cases

### Key Facts

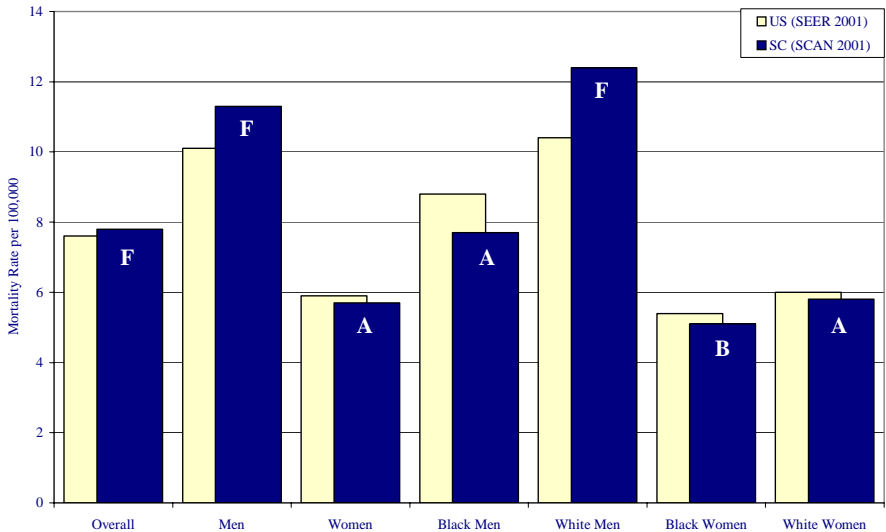
- It is the **sixth** leading cause of cancer deaths (311 deaths in 2002).
- It is diagnosed ten times more often in adults than children.
- It is more commonly diagnosed in males than females.
- Risk factors include exposure to cigarette smoke, chemicals such as benzene and ionizing radiation.
- A screening test is not available for leukemia.

Rate of New Cases for Leukemia



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCR (2000).

Death Rate for Leukemia



Source: U.S. death data provided by SEER Program SEER\*Stat Database: Mortality - All COD, Public - Use With State, Total U.S. for Expanded Races/Hispanics (1990-2001). South Carolina death data provided by DHEC SCAN.

\* Sample size influences visual interpretation.

## Liver Cancer

	New Cases*	Deaths <sup>+</sup>
<b>Overall</b>	<b>A</b>	<b>F</b>
Men, Black	<b>A</b>	<b>A</b>
Men, White	<b>F</b>	<b>F</b>
Women, Black	<b>A</b>	<b>A</b>
Women, White	<b>A</b>	<b>F</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

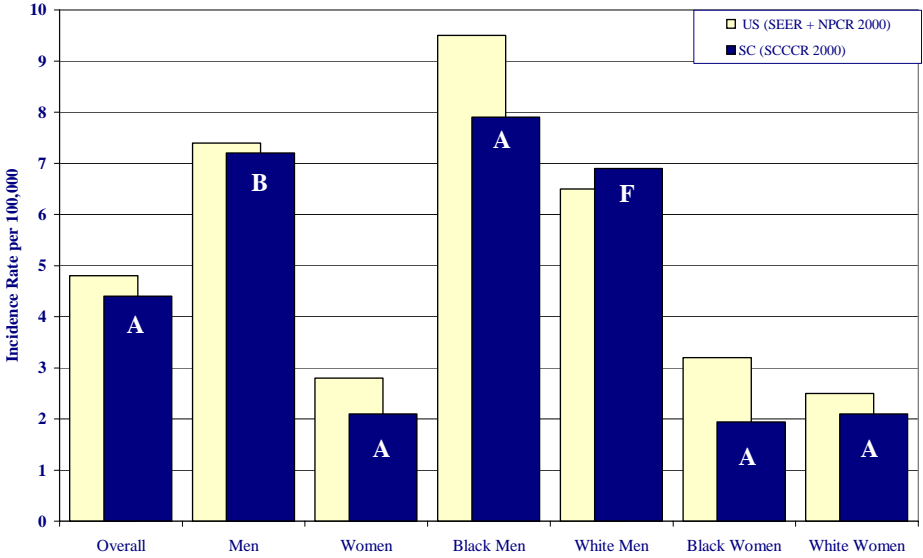
<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

Data exclude in situ cancer cases

## Key Facts

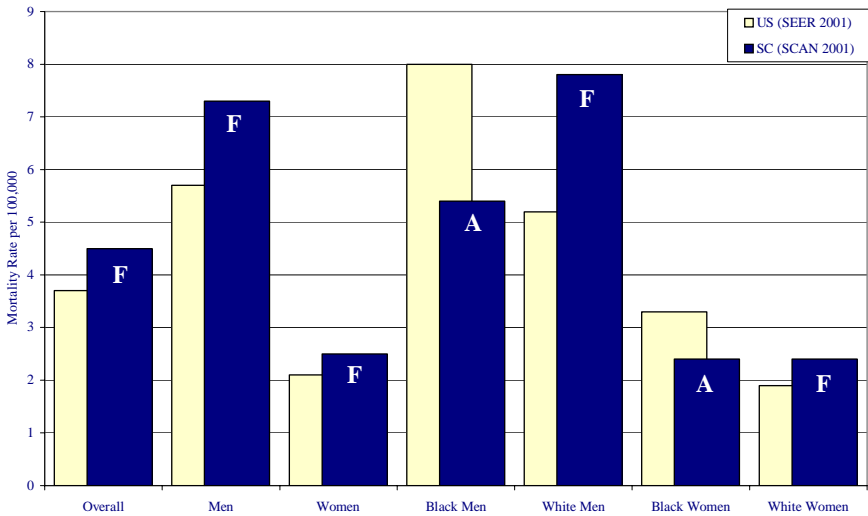
- It is the **eighth** leading cause of cancer deaths (201 deaths in 2002).
- Men are more likely to get this cancer than are women.
- Hepatitis B or C virus infection is the most significant risk factor; cirrhosis of the liver is another risk factor.
- White men are more likely to die from liver cancer than black men.
- There are no screening tests available to detect liver cancer.

Rate of New Cases for Liver Cancer



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCR (2000).

Death Rate for Liver Cancer



Source: U.S. death data provided by SEER Program SEER\*Stat Database: Mortality - All COD, Public - Use With State, Total U.S. for Expanded Races/Hispanics (1990-2001). South Carolina death data provided by DHEC SCAN.

\* Sample size influences visual interpretation.

## Lung Cancer

	New Cases*	Deaths <sup>+</sup>
<b>Overall</b>	<b>F</b>	<b>F</b>
Men, Black	<b>F</b>	<b>F</b>
Men, White	<b>F</b>	<b>F</b>
Women, Black	<b>A</b>	<b>A</b>
Women, White	<b>C</b>	<b>F</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

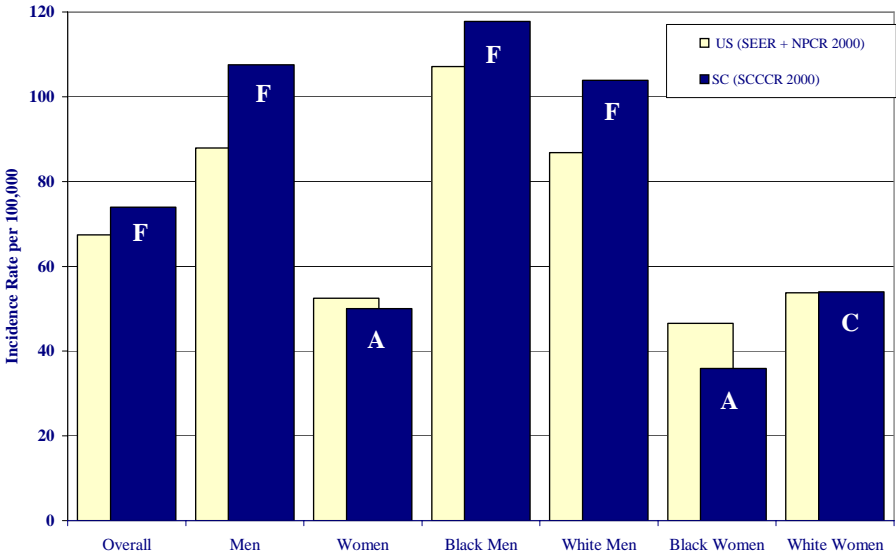
Data exclude in situ cancer cases

### Key Facts

- It is the **most common** cancer diagnosed in the state (2,940 people diagnosed in 2000).
- It is the **largest** cause of cancer deaths, accounting for 30 percent of all cancer deaths in 2002 (2,481 deaths).
- 87 percent of lung cancer deaths are attributable to smoking or secondhand smoke. Other risk factors include occupational exposure, arsenic, radon, asbestos, environmental exposure to air pollution, and tuberculosis.
- The mortality rate is declining in all men but increasing in white women.
- Common risk factors cannot explain the high mortality of this cancer in black men.
- CT scans and X-rays are available to detect lung cancer, but there are limitations to these tests.
- If detected in the localized stage of disease, the survival rate is 49 percent.

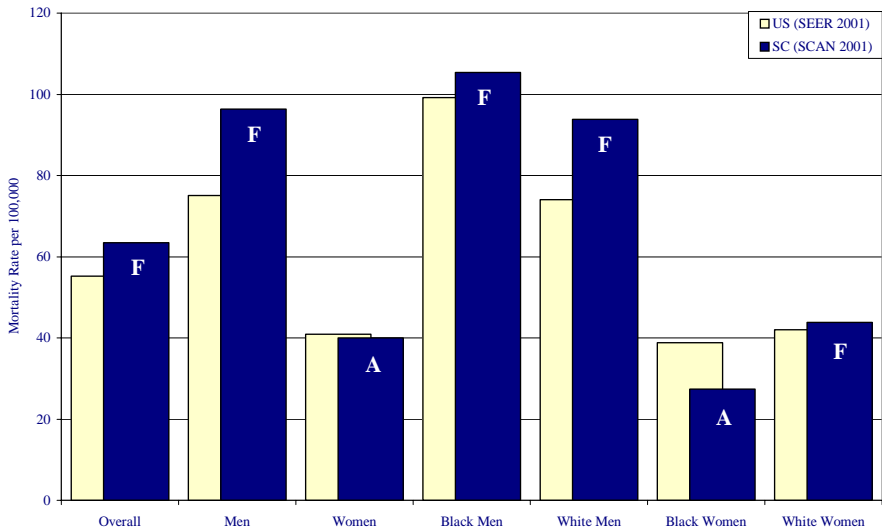
**Alert** see **Special Disparities** section

Rate of New Cases for Lung Cancer



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCR (2000).

Death Rate for Lung Cancer



Source: U.S. death data provided by SEER Program SEER\*Stat Database: Mortality - All COD, Public - Use With State, Total U.S. for Expanded Races/Hispanics (1990-2001). South Carolina death data provided by DHEC SCAN.

\* Sample size influences visual interpretation.

## Melanoma of the Skin

	New Cases*	Deaths <sup>+</sup>
<b>Overall</b>	<b>D</b>	<b>A</b>
Men, Black	<b>F</b>	<b>A</b>
Men, White	<b>F</b>	<b>F</b>
Women, Black	<b>F</b>	<b>F</b>
Women, White	<b>F</b>	<b>A</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

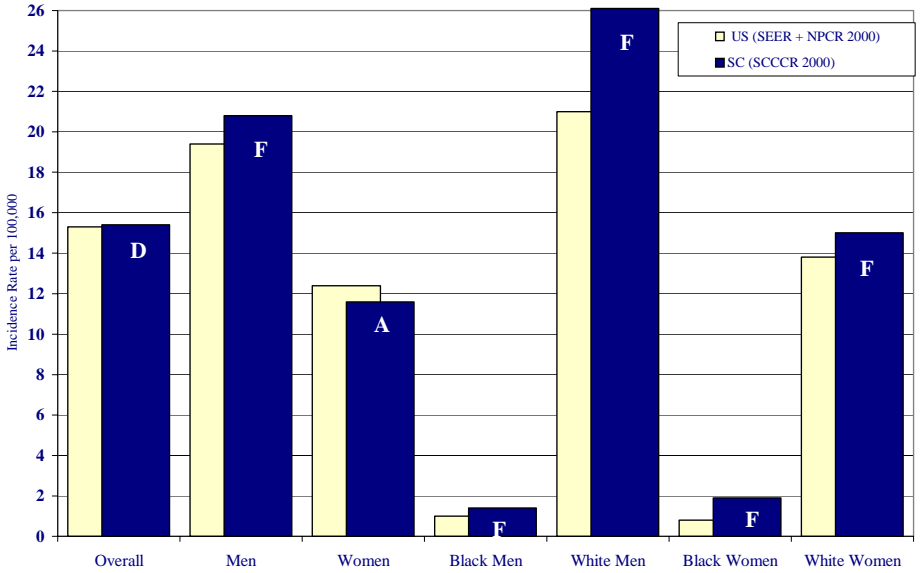
Data exclude in situ cancer cases

## Key Facts

- It is the **seventh** most common cancer diagnosed overall (612 people diagnosed in 2000).
- It is ten times more likely to occur in whites than blacks
- 102 people died of melanoma in 2002.
- Black women in South Carolina have a much greater risk of dying from melanoma than the national average.
- Risk factors include a prior melanoma, one or more family members who had melanoma, moles and exposure to the sun's ultraviolet rays.
- Melanomas are often visible as a change in a mole on the skin and are most frequently detected with a visual exam.
- About 16 percent of patients diagnosed with distant stage melanoma of the skin survive five years after diagnosis compared to a more than 95 percent survival rate for those with localized melanoma.

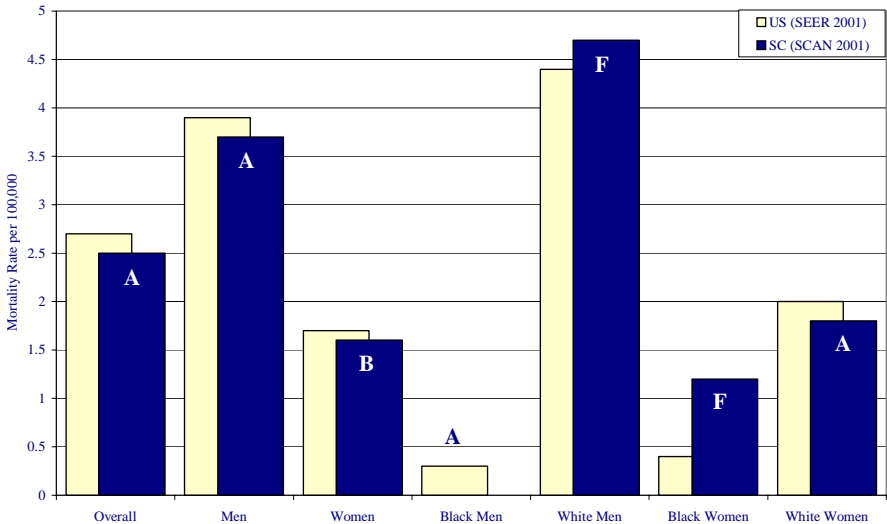
stomach cancer • colorectal cancer • lung cancer • esophageal cancer • cervical cancer • breast cancer • prostate cancer • skin cancer • brain cancer • ovarian cancer • bladder cancer • leukemia • liver cancer • non-hodgkins lymphoma

Rate of New Cases for Melanoma of the Skin



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCR (2000).

Death Rate for Melanoma of the Skin



Source: U.S. death data provided by SEER Program SEER\*Stat Database: Mortality-All COD, Public - Use With State, Total U.S. for Expanded Races/Hispanics (1990-2001). South Carolina death data provided by DHEC SCAN.

\* Sample size influences visual interpretation.

## Multiple Myeloma

	New Cases*	Deaths <sup>+</sup>
<b>Overall</b>	<b>F</b>	<b>F</b>
Men, Black	<b>D</b>	<b>A</b>
Men, White	<b>A</b>	<b>F</b>
Women, Black	<b>F</b>	<b>F</b>
Women, White	<b>A</b>	<b>F</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

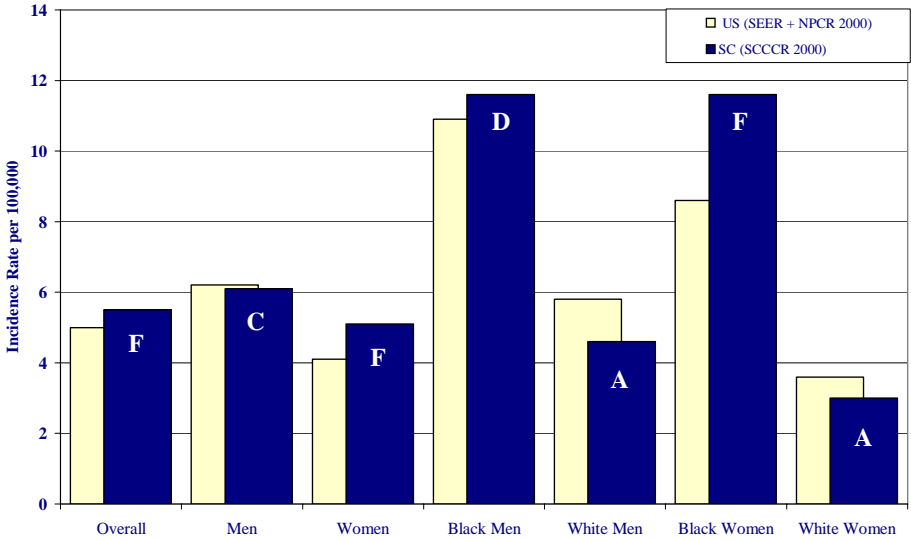
<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

Data exclude in situ cancer cases

### Key Facts

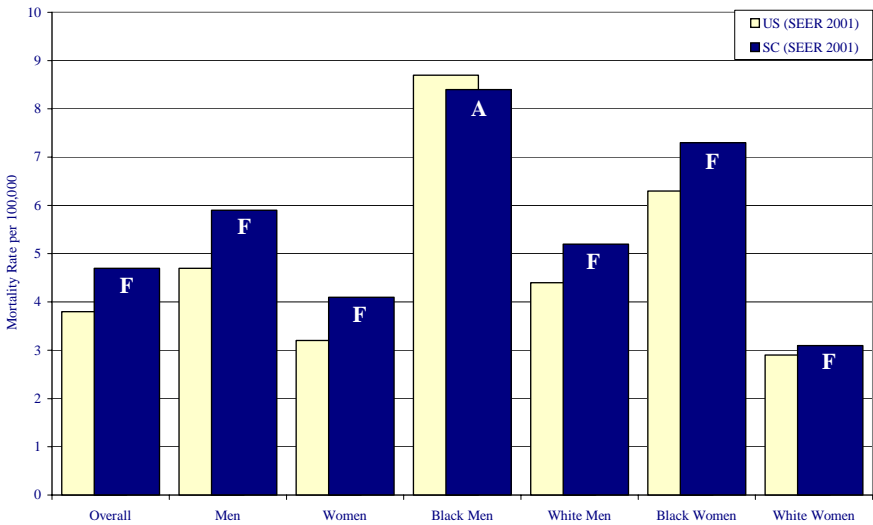
- SC is ranked **second** in the nation for mortality from multiple myeloma (169 deaths in 2002).
- Black men are twice as likely to develop the disease as white men.
- The average age at diagnosis is 68 years old.
- 1 percent of cases are diagnosed in people younger than age 40.
- Risk factors include radiation exposure, family history, obesity and having other plasma cell diseases.
- There are no screening procedures for multiple myeloma.

### Rate of New Cases for Multiple Myeloma



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCR (2000).

### Death Rate for Multiple Myeloma



Source: U.S. and S.C. death data provided by SEER Program SEER\*Stat Database: Mortality - All COD, Public - Use With State, Total U.S. for Expanded Races/Hispanics (1990-2001). SCAN currently groups multiple myeloma deaths with other unspecified cancer sites.

\* Sample size influences visual interpretation.

## Non-Hodgkin's Lymphoma

	New Cases*	Deaths <sup>+</sup>
<b>Overall</b>	<b>A</b>	<b>B</b>
Men, Black	<b>A</b>	<b>A</b>
Men, White	<b>D</b>	<b>A</b>
Women, Black	<b>C</b>	<b>F</b>
Women, White	<b>C</b>	<b>F</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

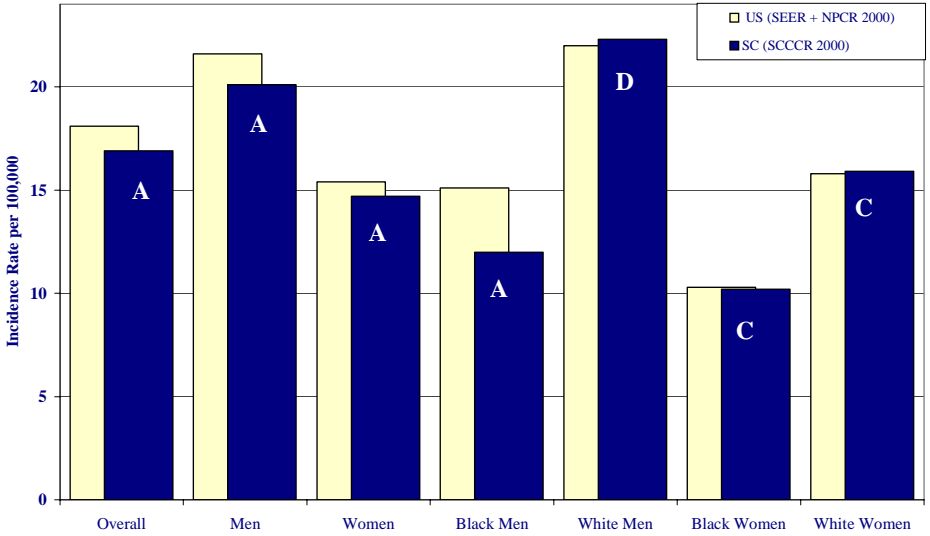
<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

Data exclude in situ cancer cases

### Key Facts

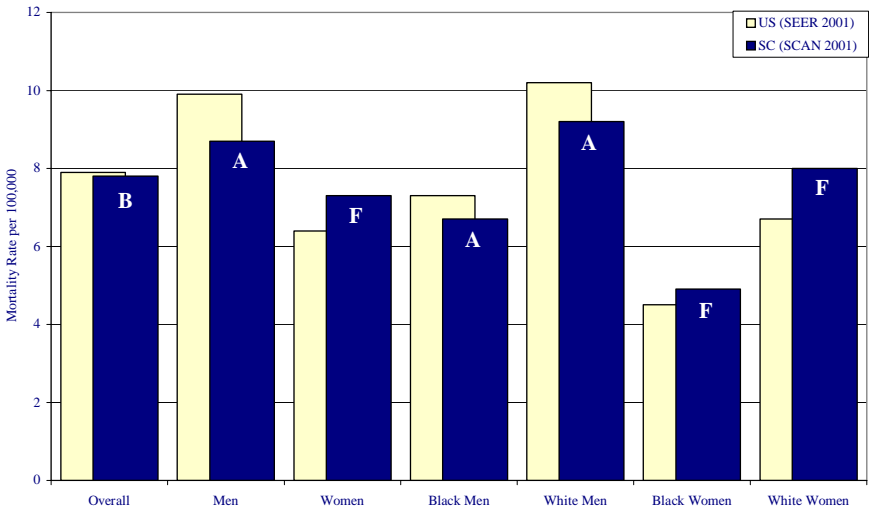
- It is the **sixth** most common cancer diagnosed for women and men (338 men and 326 women diagnosed in 2000).
- It is the **seventh** leading cause of cancer deaths (282 deaths in 2002).
- Women are more likely to die from Non-Hodgkin's Lymphoma than women in the United States.
- Known risk factors include reduced immune function, exposure to certain infectious agents and age.
- Screening is not available for this type of cancer.

### Rate of New Cases for Non-Hodgkin's Lymphoma



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCR (2000).

### Death Rate for Non-Hodgkin's Lymphoma



Source: U.S. death data provided by SEER Program SEER\*Stat Database: Mortality - All COD, Public - Use With State, Total U.S. for Expanded Races/Hispanics (1990-2001). South Carolina death data provided by DHEC SCAN.

\* Sample size influences visual interpretation.

## Oral Cancer

	<u>New Cases*</u>	<u>Deaths<sup>+</sup></u>
<b>Overall</b>	<b>F</b>	<b>F</b>
Men, Black	<b>F</b>	<b>F</b>
Men, White	<b>F</b>	<b>F</b>
Women, Black	<b>F</b>	<b>A</b>
Women, White	<b>A</b>	<b>B</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

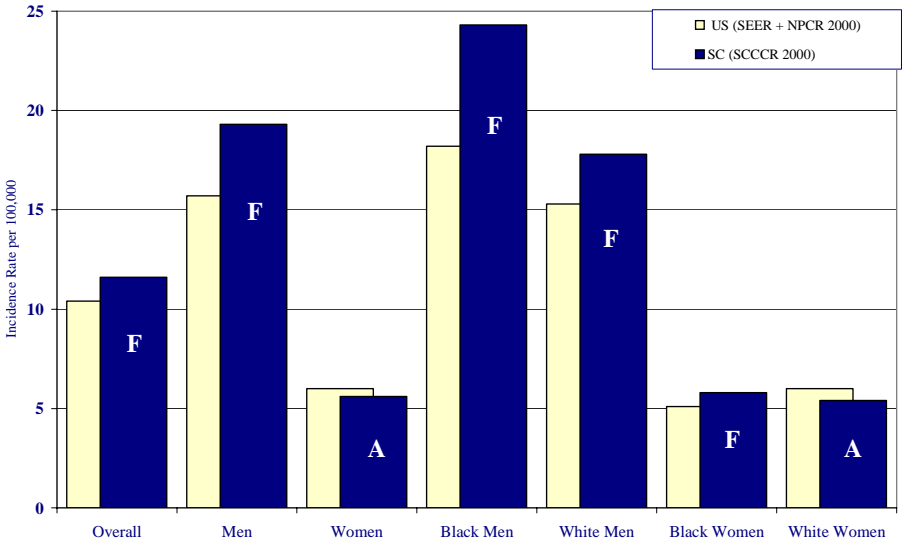
<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

Data exclude in situ cancer cases

### Key Facts

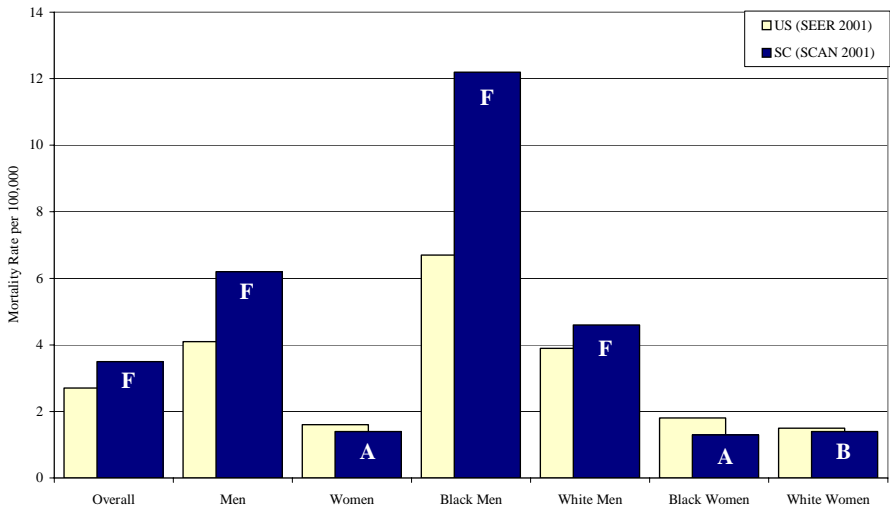
- South Carolina ranks **second** in the nation for mortality from oral cancer (131 deaths in 2002).
- The rate of new cases for oral cancer is twice as high in men and greatest in men over the age of 50.
- Risk factors include cigarette, cigar or pipe smoking, smokeless tobacco, and excessive alcohol consumption.
- Screening recommendations include an annual oral exam.
- About 84 percent of oral cancer patients survive one year after diagnosis for all stages combined.
- Oral cancers detected and treated in local stages have a greater than 80 percent five-year survival rate.

### Rate of New Cases for Oral Cancer



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCR (2000).

### Death Rate for Oral Cancer



Source: U.S. death data provided by SEER Program SEER\*Stat Database: Mortality - All COD, Public - Use With State, Total U.S. for Expanded Races/Hispanics (1990-2001). South Carolina death data provided by DHEC SCAN.

\* Sample size influences visual interpretation.

## Ovarian Cancer

	<u>New Cases*</u>	<u>Deaths<sup>+</sup></u>
Overall	<b>A</b>	<b>A</b>
Women, Black	<b>F</b>	<b>A</b>
Women, White	<b>A</b>	<b>A</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

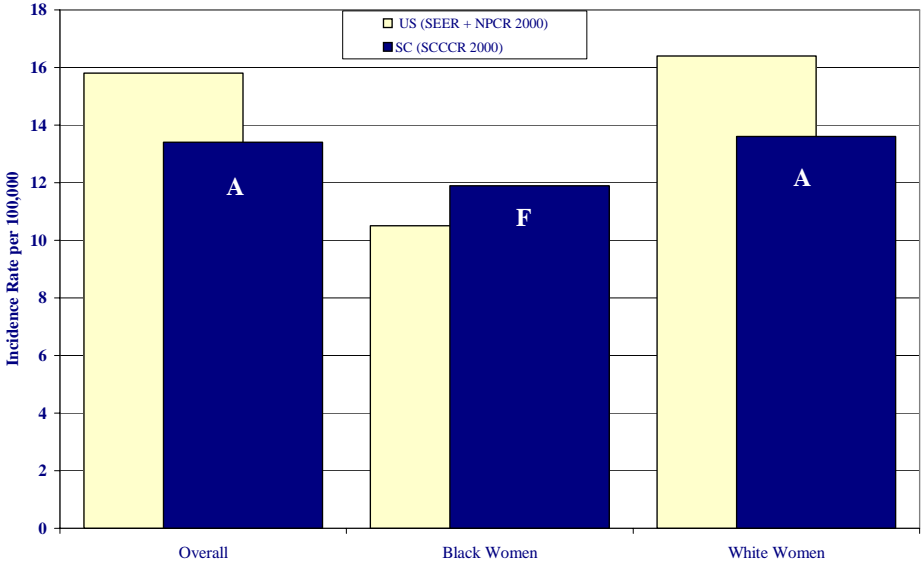
<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

Data exclude in situ cancer cases

### Key Facts

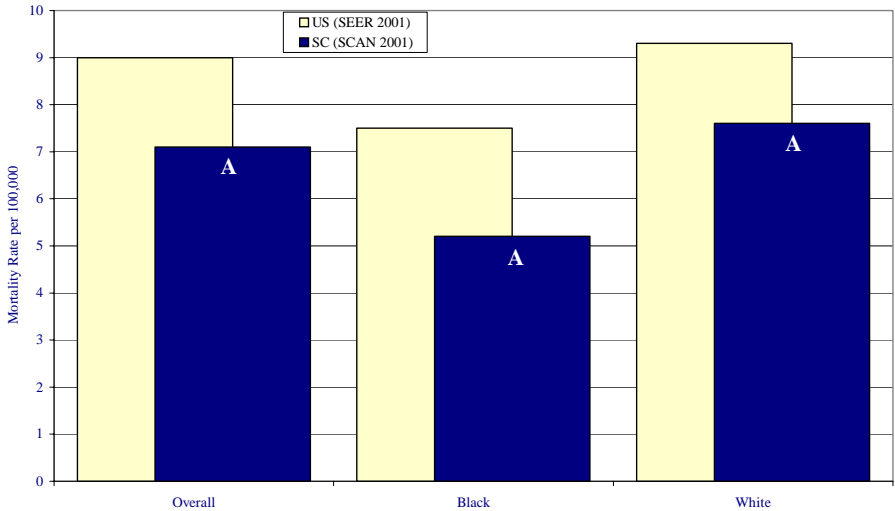
- It is the **seventh** most common cancer diagnosed in women (293 women diagnosed in 2000).
- It is the **fifth** largest cause of cancer deaths among women (189 deaths in 2002).
- The risk for ovarian cancer increases with age, peaking in the late 70s.
- The incidence rate for ovarian cancer has declined with the greatest decline occurring in women over the age of 65.
- Women under the age of 65 are twice as likely to survive five years following diagnosis than women age 65 and older.

Rate of New Cases for Ovarian Cancer



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCR (2000).

Death Rate for Ovarian Cancer



Source: U.S. death data provided by SEER Program SEER\*Stat Database: Mortality - All COD, Public - Use With State, Total U.S. for Expanded Races/Hispanics (1990-2001). South Carolina death data provided by DHEC SCAN.

\* Sample size influences visual interpretation.

## Pancreatic Cancer

	New Cases*	Deaths <sup>+</sup>
<b>Overall</b>	<b>F</b>	<b>F</b>
Men, Black	<b>F</b>	<b>B</b>
Men, White	<b>A</b>	<b>F</b>
Women, Black	<b>B</b>	<b>C</b>
Women, White	<b>F</b>	<b>A</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

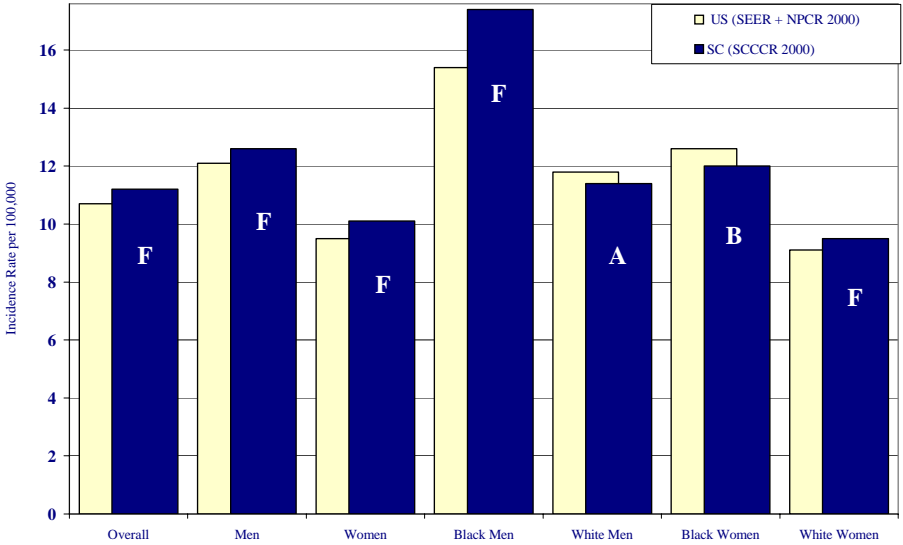
<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

Data exclude in situ cancer cases

### Key Facts

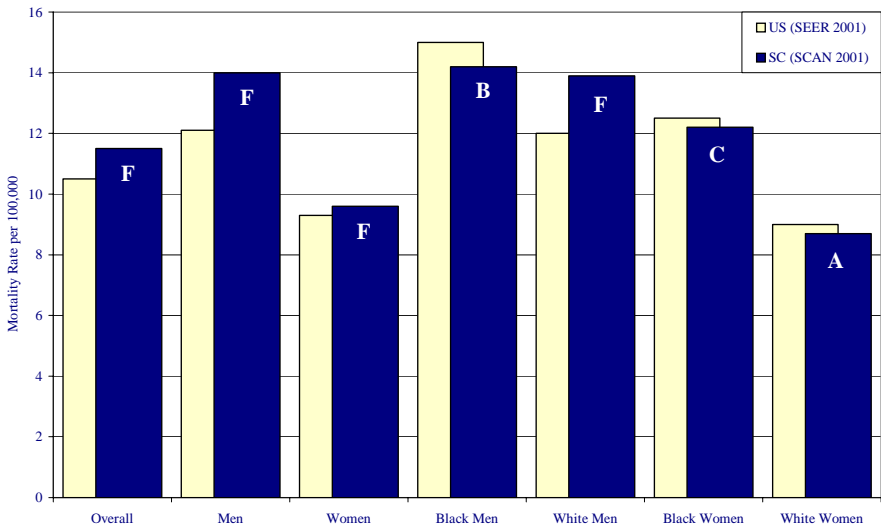
- It is the **eighth** most common cancer diagnosed in women (229 women diagnosed in 2000).
- It is the **fourth** largest cause of cancer deaths among men and women separately (214 men and 243 women died in 2002).
- It is the **fifth** largest cause of cancer death overall (457 deaths in 2002).
- SC ranks **fourth** in the nation for mortality from cancer of the pancreas.
- The rate of new cases is twice as high for smokers than for nonsmokers.
- Risk factors include cigarette or cigar smoking, obesity, physical inactivity, chronic pancreatitis, diabetes and cirrhosis.
- No screening tests are available for pancreatic cancer.

Rate of New Cases for Pancreatic Cancer



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCRC. (2000).

Death Rate for Pancreatic Cancer



Source: U.S. death data provided by SEER Program SEER\*Stat Database: Mortality - All COD, Public - Use With State, Total U.S. for Expanded Races/Hispanics (1990-2001). South Carolina death data provided by DHEC SCAN.

\* Sample size influences visual interpretation.

## Prostate Cancer

	<u>New Cases*</u>	<u>Deaths<sup>+</sup></u>
<b>Overall</b>	<b>F</b>	<b>F</b>
Men, Black	<b>F</b>	<b>F</b>
Men, White	<b>A</b>	<b>D</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

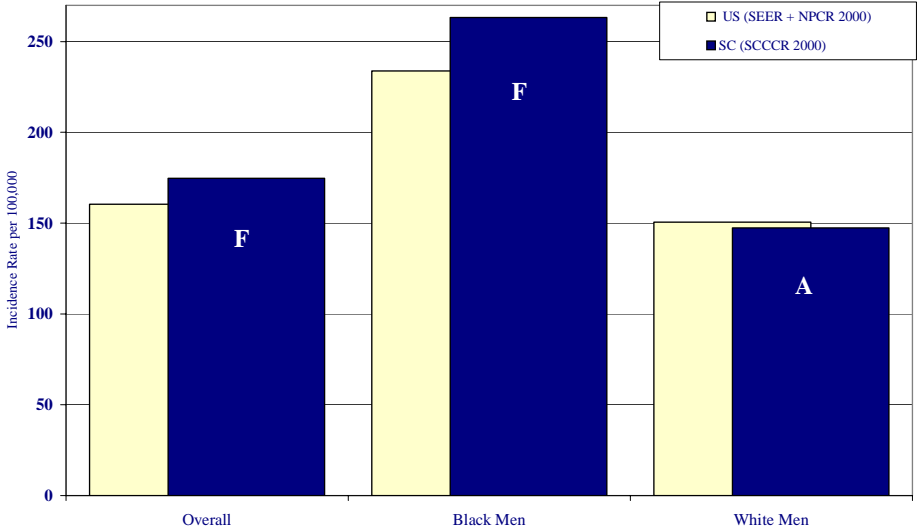
Data exclude in situ cancer cases

### Key Facts

- It is the **most common** cancer diagnosed in men (2,988 men diagnosed in 2000).
- It is the **second** largest cause of cancer deaths among men (478 deaths in 2002).
- South Carolina ranks **third** in the nation for mortality from prostate cancer.
- The risk of being diagnosed with prostate cancer increases with age, with 80 percent of diagnosis occurring in males over the age of 65.
- Black men have the highest rate of prostate cancer in the world.
- Well-established risk factors include age, ethnicity and family history. Additional risk factors include physical inactivity, diets high in fat and/or low in fiber and obesity.
- Screening is available for prostate cancer through the Digital Rectal Exam (DRE) and Prostate Specific Antigen (PSA).
- The majority of prostate cancer cases are detected at early stages.

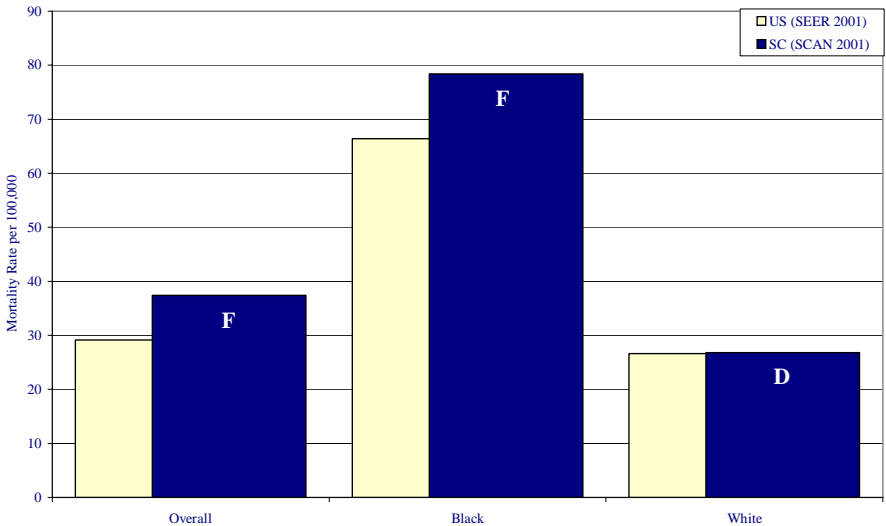
**ALERT** see **Special Disparities** section

### Rate of New Cases for Prostate Cancer



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCR (2000).

### Death Rate for Prostate Cancer



Source: U.S. death data provided by SEER Program SEER\*Stat Database: Mortality - All COD, Public - Use With State, Total U.S. for Expanded Races/Hispanics (1990-2001). South Carolina death data provided by DHEC SCAN.

\* Sample size influences visual interpretation.

## Stomach Cancer

	New Cases*	Deaths <sup>+</sup>
<b>Overall</b>	<b>B</b>	<b>F</b>
Men, Black	<b>F</b>	<b>F</b>
Men, White	<b>A</b>	<b>A</b>
Women, Black	<b>B</b>	<b>F</b>
Women, White	<b>A</b>	<b>B</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

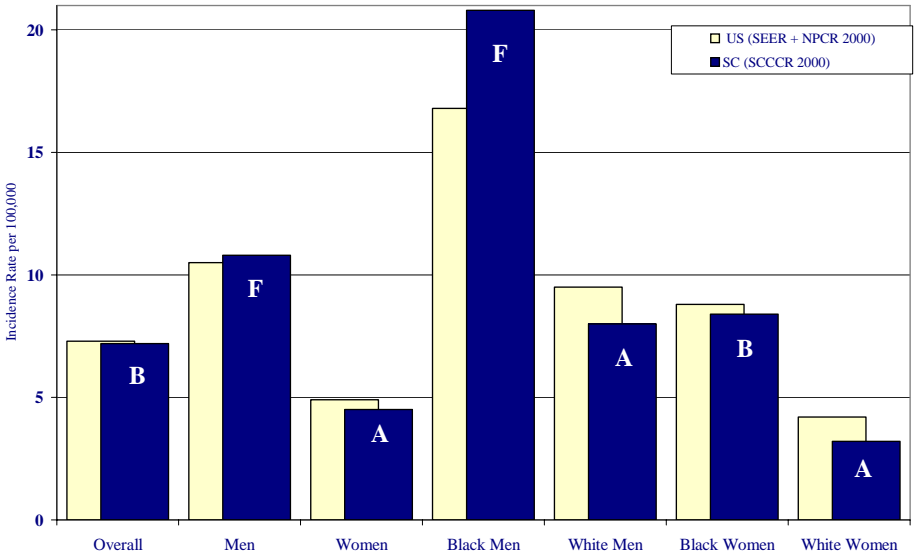
<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

Data exclude in situ cancer cases

### Key Facts

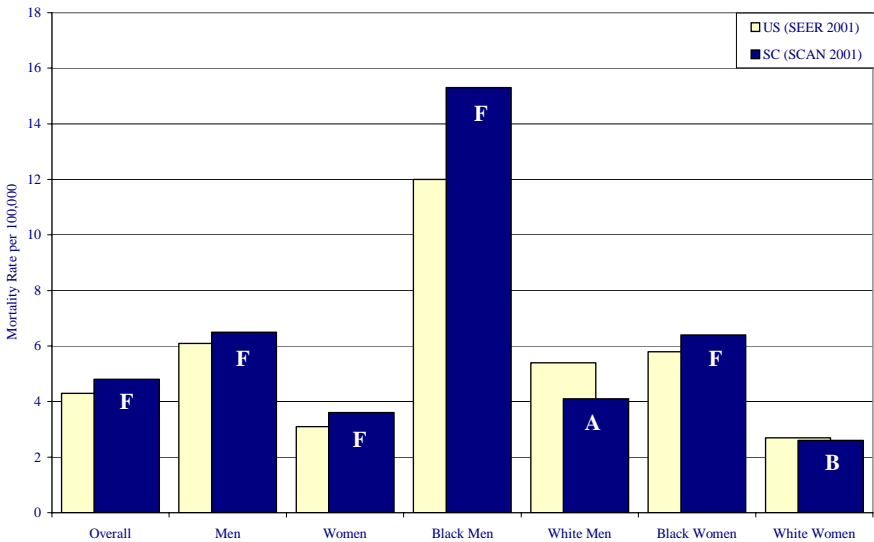
- South Carolina ranks **ninth** in the nation for mortality from stomach cancer (186 deaths in 2002)
- It is more than twice as common in men as it is in women.
- The incidence rate is higher in Hispanics and blacks than in non-Hispanic whites. The highest rates are seen in Asian/Pacific Islanders.
- Stomach cancer incidence increases sharply after the age of 50.
- Risk factors include H. pylori bacteria infection, diets high in smoked foods, pickled vegetables, salted fish and meat, smoking, and alcohol use.
- Stomach cancers are most frequently diagnosed in advanced stages.

Rate of New Cases for Stomach Cancer



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCRC (2000).

Death Rate for Stomach Cancer



Source: U.S. death data provided by SEER Program SEER\*Stat Database-Mortality - All COD, Public - Use With State, Total U.S. for Expanded Races/Hispanics (1990-2001). South Carolina death data provided by DHEC SCAN.

\* Sample size influences visual interpretation.

## Uterine (Corpus) Cancer

	New Cases*	Deaths <sup>+</sup>
<b>Overall</b>	<b>A</b>	<b>B</b>
Women, Black	<b>C</b>	<b>F</b>
Women, White	<b>A</b>	<b>A</b>

\* S.C. was graded in comparison to the U.S. rates of new cases of the same year, 2000

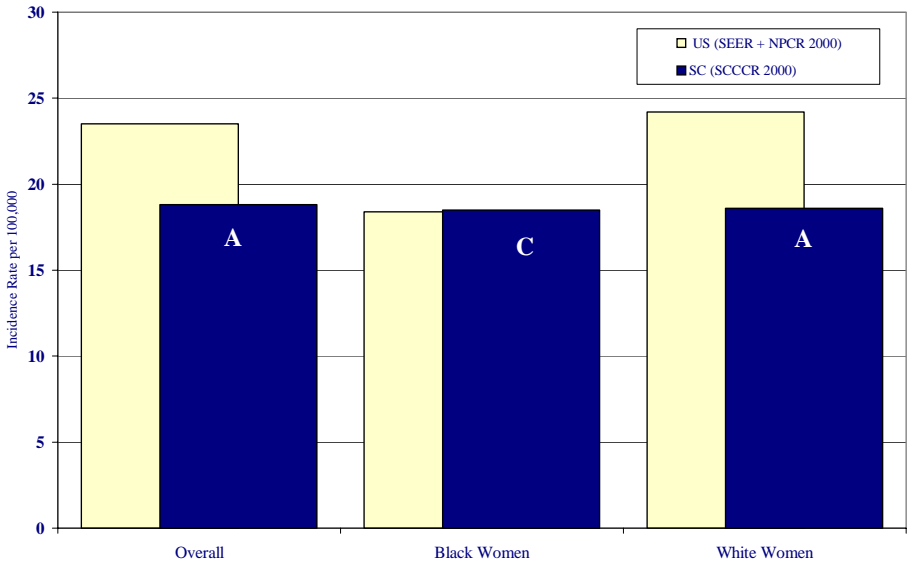
<sup>+</sup> S.C. was graded in comparison to the U.S. death rates of the same year, 2001

Data exclude in situ cancer cases

### Key Facts

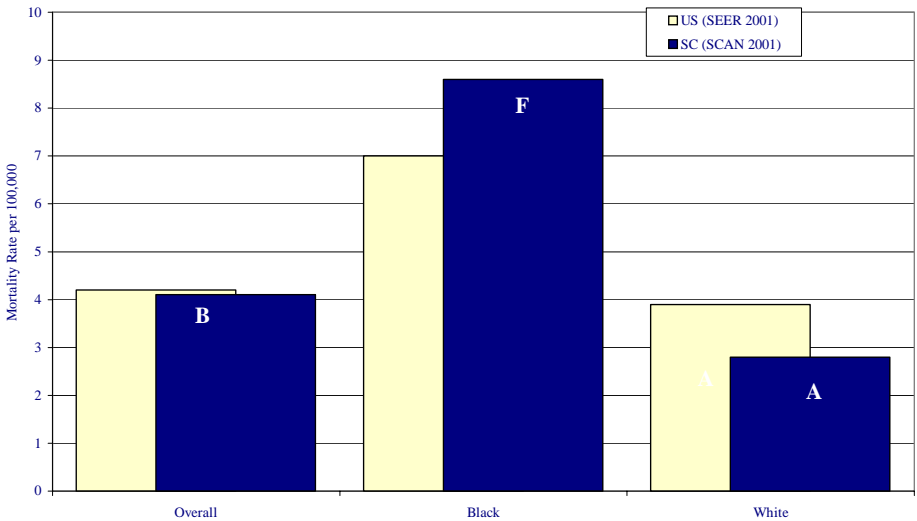
- It is the **fourth** most common cancer diagnosed among women (416 women diagnosed in 2000).
- It is the **ninth** largest cause of cancer deaths among women (90 deaths in 2002).
- Risk factors for endometrial cancer include obesity, certain types of estrogen replacement therapy, race, heredity, treatment with Tamoxifen, infertility, diabetes, early menarche and late menopause.
- Risk factors for uterine sarcoma include prior pelvic radiation therapy, race and age.
- There are no screening methods available to detect uterine cancers.

### Rate of New Cases for Uterine Cancer (Corpus)



Source: U.S. incidence data provided by NPCR + SEER 2000 incidence. S.C. incidence data provided by SCCCR. (2000).

### Death Rate for Uterine Cancer



Source: U.S. death data provided by SEER Program SEER\*Stat Database: Mortality - All COD, Public - Use With State, Total U.S. for Expanded Races/Hispanics (1990-2001). South Carolina death data provided by DHEC SCAN.

\* Sample size influences visual interpretation.

## SPECIAL SECTION

### Childhood Cancers

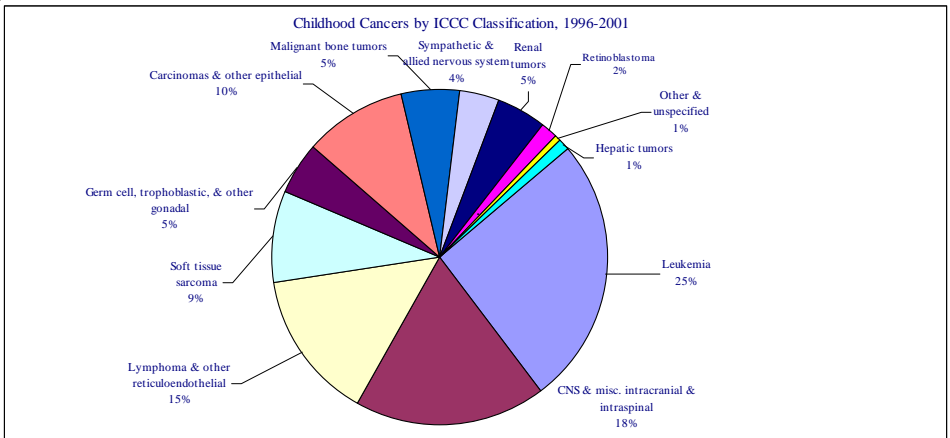
Cancers in children and young adults are only a small percentage (0.3 percent) of all cancers diagnosed in S.C. Although rare, cancer is still the leading cause of death from disease in children under 15, second only to accidents in most age groups. However, because of significant advances in treatment and supportive care, death rates have declined and five-year survival rates have increased almost 40 percent since the 1960s.

There were **153** childhood cancer cases diagnosed in South Carolina in 2001. One hundred and seven cancer cases were diagnosed among children ages 0-14, and forty-six cancer cases were diagnosed among young adults ages 15-19. Leukemia accounts for about 25 percent of childhood cancers diagnosed in this state.

Male children ages 0-14 were more likely to be diagnosed with cancer than female children of the same age in South Carolina. However, among young adults ages 15-19, females have a higher incidence rate than males.

White children in South Carolina are more likely to be diagnosed with cancer than black children or children of other minority races regardless of age. Overall, the number of new cases of childhood cancer is lower in South Carolina than in the nation.

stomach cancer • colorectal cancer • lung cancer • esophageal cancer • cervical cancer • breast cancer • prostate cancer • skin cancer • brain cancer • ovarian cancer • bladder cancer • leukemia • liver cancer • non-hodgkins lymphoma



The anatomical site of the primary tumor is used to categorize cancer among adults, while childhood cancers are classified primarily by tissues into twelve major categories using the International Classification of Childhood Cancers (ICCC).

## Key Facts

- ❖ Pre- and postnatal exposures can increase the risk of developing some childhood cancers, but many of the causes of childhood cancers remain unknown.
- ❖ Infrequently occurring chromosomal disorders and clinical syndromes place some children at a higher risk of developing cancer.
- ❖ Survivors of childhood cancer who received chemotherapy and/or radiation are at increased risk of subsequent cancers.

## Prevention

Tobacco use, physical inactivity, obesity, poor nutrition and high exposure to ultraviolet rays are preventable causes of cancer. Tobacco use alone is believed to be responsible for almost one-third of all cancer deaths and about 87 percent of lung cancer deaths. Nearly 90 percent of colorectal cancer cases and deaths are preventable with regular screening and a healthy lifestyle. Lung and colorectal cancers, the top two cancer killers, account for 40 percent of the cancer deaths in this state. We can prevent most of these cancers without new research or drugs, however, prevention is difficult because it often involves changing both attitudes and behaviors.

### SUBJECT

### SC GRADE

#### **Tobacco**

**D**

25.5 percent of adults reported smoking some days or everyday\* 36% of youth reported smoking cigarettes on one or more of the past 30 days\*\*\*

#### **Healthy Dietary Pattern**

**C**

22.3 percent of adults\* and 17.6% of youth\*\*\* reported eating 5 or more servings of fruits and vegetables a day\*

#### **Healthy Weight**

**F**

61.4 percent of adults are either overweight or obese\*\*

#### **Physical Activity**

**C**

23.3 percent of adults report no leisure time physical activity\*

#### **Binge Drinking**

**B**

14.4 percent of South Carolinians reported drinking at least five drinks on one occasion\*

#### **Exposure to Ultraviolet Rays (Tanning)**

**NA**

#### **Access to Care**

**D**

14.5% of South Carolinians reported having no medical insurance\*\*\*\*

## Early Detection

Early detection through screening tests, self-exams and routine medical exams provide the opportunity to detect cancers or precancerous conditions at an early stage. Many types of cancer (breast, cervical, colorectal, skin) are more successfully treated if detected early. For instance, cervical cancer is 100% treatable if detected early through routine Pap smears and if appropriate follow-up is provided. With increased emphasis on education and screening, many lives could be saved.

### SUBJECT

### SC GRADE

#### **Breast Cancer**

Mammograms

**B**

67.3 percent of women over the age of 50 have ever had a mammogram\*

#### **Cervical Cancer**

Pap smears

**C**

Over 96.4 percent of women have ever had a Pap smear\*

#### **Colorectal Cancer**

Sigmoidoscopy/Colonoscopy

**C**

49.2 percent of people have ever had a sigmoidoscopy or colonoscopy\*

Fecal Occult Blood Test

**C**

47.5 percent of people have ever had a fecal occult blood test\*

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\* SC BRFSS data 2002, NA Data not available for grading

## Early Detection (Continued)

### Oral Cancers

Oral Exam

A

24.6 percent of people have had an oral exam to detect cancer\*

### Prostate Cancer

Prostate Cancer Antigen (PSA)

NA

66.5 percent of men over the age of 50 have ever had a PSA test\*

Digital Rectal Exam (DRE)

NA

85.3 percent of men over the age of 50 have ever had a DRE test\*

### Skin (Melanoma) Cancer

Visual exam

NA

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\* SC BRFSS 2002

NA Data not available for grading

## SPECIAL SECTION

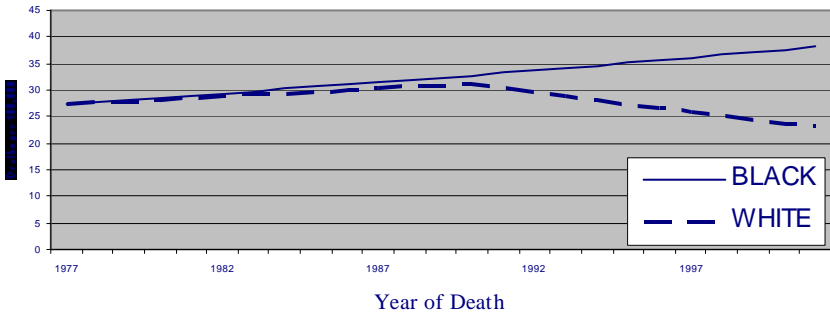
### Disparities

Closing the gap in health disparities is a national priority and a special task force has compiled a detailed report titled “Making Cancer Health Disparities History” (<http://www.chdprg.omhrc.gov/pdf/chdprg.pdf>). The report highlights that the unequal burden of diseases such as cancer is not only a scientific and medical challenge but also a moral and ethical one. It establishes 14 priority recommendations for the nation. The South Carolina Cancer Report Card highlights five cancer sites in which racial disparities in incidence or mortality are greatest . In some cases, these disparities in South Carolina far exceed those of the nation.

Certain U.S. populations experience significant disparities in risk, incidence, disease-stage diagnosis, care received and disease outcomes for cancer. Studies have identified society-wide quality, continuity and access problems experienced by the country’s medically underserved, low income and minority populations. Minority and underserved populations – distinguished by race/ethnicity, gender, age, socioeconomic status, geographic location, occupation and/or education bear a greater cancer burden than the rest of the nation. This special section focuses on racial disparities since data are most often collected using race as a surrogate for other markers.

## Breast Cancer (Females)

Historical Trends (1977-2001)  
Mortality, South Carolina

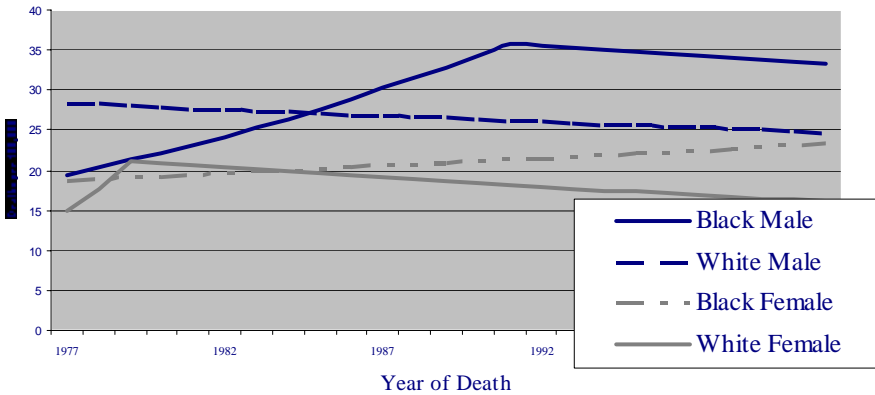


Death data provided by the National Vital Statistics public use datafile.  
Deaths rates were calculated by the National cancer Institute using SEER\*Stat.

- ❖ White women are more often diagnosed with the disease than black women.
- ❖ Black women with breast cancer are more likely to be diagnosed with late stage disease and are more likely to die.
- ❖ This racial disparity is larger in South Carolina than in the nation.

## Colorectal Cancer

Historical Trends (1977-2001)  
Mortality, South Carolina

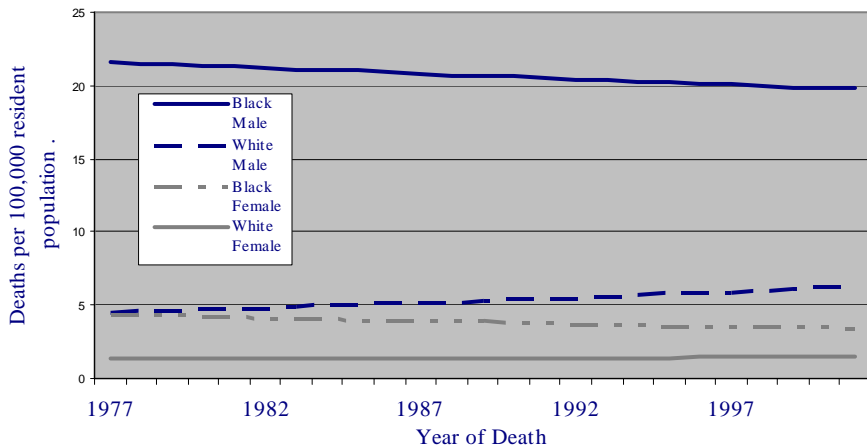


Death data provided by the National Vital Statistics public use datafile.  
Deaths rates were calculated by the National cancer Institute using SEER\*Stat.

- ❖ Racial differences in incidence of colorectal cancer among women are greater than those among men.
- ❖ Black men have about a 15.5 percent greater incidence rate than white men of getting the disease.
- ❖ Black women have more than a 22 percent greater incidence rate than white women.
- ❖ Black men are more likely to die from colorectal cancer than white men or women overall.
- ❖ Black women are more likely to die from colorectal cancer than white women.

## Esophageal Cancer

Historical Trends (1977-2001)  
Mortality, South Carolina

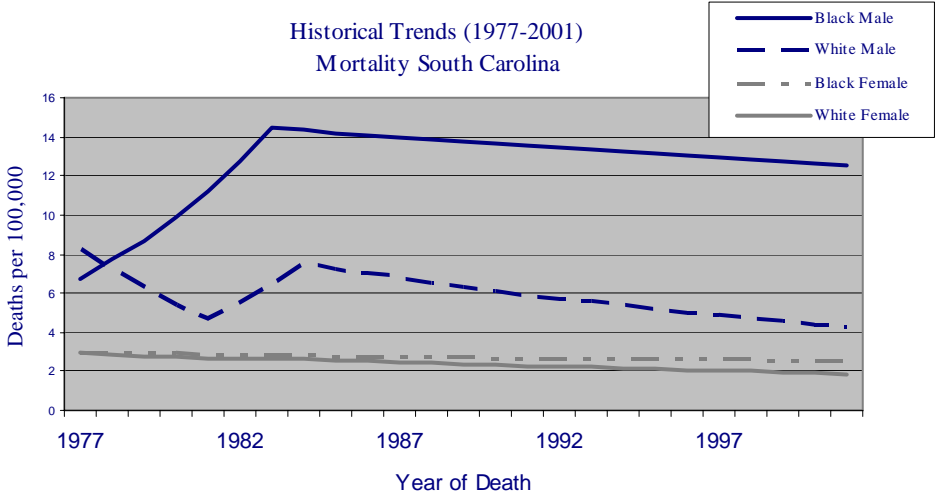


Death data provided by the National Vital Statistics public use datafile.

Deaths rates were calculated by the National cancer Institute using SEER\*Stat.

- ❖ There are two types of esophageal cancer, squamous cell carcinoma and adenocarcinoma of the esophagus. Squamous cell carcinoma of the esophagus is much more commonly diagnosed in blacks than in whites. Squamous cell carcinoma rates are over six times higher in blacks.
- ❖ Risk factors for squamous cell carcinoma of the esophagus include long-term tobacco use, heavy alcohol use, malnutrition (Plummer-Vison syndrome), and head and neck cancer. Common risk factors do not explain the very high mortality of this cancer among black men. Smoking and drinking seem to account for about 95 percent of the disease, but blacks actually drink and smoke less than whites in South Carolina.
- ❖ Risk factors for esophageal adenocarcinoma are not well known, however Gastroesophageal Reflux Disease (GERD) has been suggested as the major risk factor for esophageal adenocarcinoma.

## Oral Cancer



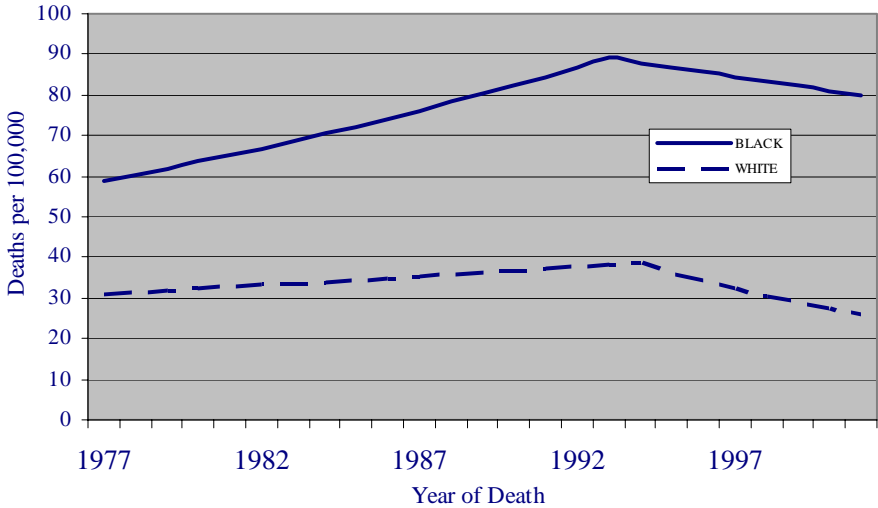
Death data provided by the National Vital Statistics public use datafile.

Deaths rates were calculated by the National cancer Institute using SEER\*Stat.

- ❖ Black men in South Carolina have higher rates of dying from cancers of the oral cavity than white men in South Carolina.
- ❖ This disparity is larger in South Carolina than in the Nation.
- ❖ Smoking and other risk factors for oral cancer do not explain this racial disparity.
- ❖ Further research to identify the cause and mechanisms involved are crucial to impact this population.

## Prostate Cancer

Historical Trends (1977-2001)  
Mortality, South Carolina



Death data provided by the National Vital Statistics public use datafile.

Deaths rates were calculated by the National cancer Institute using SEER\*Stat.

- ❖ Black males have a much higher mortality rate of prostate cancer than white men.
- ❖ The majority of these cancers diagnosed in South Carolina occurred in white males (1,998 cases in white males vs. 925 cases in black males during 2000).

## Measuring Progress

In future report cards we intend to describe cancer related resources in our state and assess our progress in engaging these resources, initiatives and policy change. South Carolina has many existing cancer resources in the private and public sectors. These include screening and statewide data collection programs, state and federal agencies and funding for comprehensive cancer planning and control, physicians, nurses, allied health professionals, numerous non-profit organizations (at least 68), and hospitals including 17 accredited by the American College of Surgeons (ACOS) Commission on Cancer.

The South Carolina Cancer Alliance (SCCA) has five task forces: Advocacy & Policy, Early Detection, Patient Care, Prevention and Research. Through these task forces, the SCCA will foster partnerships to assist individuals, agencies and businesses in strengthening and expanding their capacity to address cancer issues. We will track and grade our work together to reduce the impact of cancer on ALL people in South Carolina. Ultimately, we will be facilitating the development and dissemination of programs locally and statewide. For us to succeed, policy makers, individuals, organizations and other stakeholders must collaborate. We must address cancer prevention, research, early detection and diagnosis, treatment, and support for survivors and their families. Through improved communications, networking, cooperation and collaboration, the South Carolina Cancer Alliance will help us as a state to “make the grade.”

## Conclusion

There is little doubt that South Carolina is carrying a particularly high cancer burden. One out of five South Carolinians is likely to develop cancer in his or her lifetime. In certain high risk groups, the probability of developing cancer is even greater. Certain cancers, such as those associated with smoking (esophageal, lung and oral cancers) and several less common cancers (kidney, pancreatic and multiple myeloma) are diagnosed more frequently in South Carolinians than in the nation as a whole.

Even though the average South Carolinian's overall risk of developing cancer is lower than the rest of the nation (Grade = A), his or her risk of dying as a result of the disease is higher (Grade = F). In many cases, the higher death rates in South Carolina occur in cancers that can be either treated early when detected through routine screening methods (breast, cervical, colorectal, oral and prostate) or prevented by decreasing one's exposure to known risk factors such as smoking (esophageal, lung and oral cancers).

As noted within the report, there are several cancers in which there are large disparities among racial groups in incidence or mortality. Many of these disparities are even greater in South Carolina than across the nation. Statewide, black women are much more likely to die from breast cancer than white women. Black males are significantly more likely to die from colorectal, esophageal, oral and prostate cancers than are their white counterparts. In some cases, such as with breast cancer, the nationwide decrease in the number of new cases and deaths is not observed in all racial groups.

## Conclusion (Continued)

We now know that there are certain behaviors that either increase or decrease one's risk of developing cancer. Almost 90 percent of lung cancer is associated with tobacco use. Nearly 90 percent of colorectal cancers are preventable with screening and a healthy lifestyle. South Carolinians fall below the nation in adopting a healthy lifestyle and the data for South Carolina youth are even more disturbing (36% of youth reported smoking cigarettes on one or more occasion in the last 30 days). By encouraging individuals to avoid smoking, exercise regularly, chose a healthy diet, avoid obesity and follow cancer screening guidelines, we can significantly reduce the number of individuals who are diagnosed with cancer and diagnose more cancers in the early/treatable stages.

The cost of cancer treatment far exceeds the cost of screening and prevention. We should no longer accept failing grades or even average grades when that means South Carolinians are dying of cancer when we have the knowledge to prevent it. Together we can strengthen and sustain the capacity of community and state initiatives to move toward reducing the

## Methods

### I. Grades and Rates

#### A. Grades

Grades were calculated using standard deviations from the U.S. mean as follows:

A = Less than 2 standard deviations below the mean

B = 1 to 2 standard deviations below the mean

C = S.C. mean is within 1 standard deviation from the U.S. mean

D = 1 to 2 standard deviations above the mean

F = More than 2 standard deviations above the mean

Standard deviations are a measure of how average S.C. rates compared to the average rates for the nation.

#### B. Age-adjusted rates-All rates were age-adjusted

Adjusting for age enables us to control for the effect of age on cancer incidence or mortality across different populations with different age structures. Rates in this report have been adjusted to the 2000 U.S. standard population. The 2000 U.S. standard population was recently adopted by the U.S government for the calculation of age-adjusted rates because it is close in age structure to many contemporary U.S sub-group populations than earlier standards (McLaughlin CC et al.).

### II. Key Resources

American Cancer Society (**ACS**)

Division of Vital Registry, Division of Biostatistics, **DHEC**  
National Program of Cancer Registries (**NPCR**)

South Carolina Central Cancer Registry, DHEC (**SCCCR**)  
Surveillance Epidemiology and End Results (**SEER**)

Behavior Risk Factor Surveillance System (**BRFSS**)

United States Preventive Services Task Force (**USPSTF**)

## References and Related Documents

American Cancer Society <http://www.cancer.org>

Cancer Statistics <http://cancercontrolplanet.cancer.gov>

CDC Behavioral Risk Factor Surveillance System Home Page (with links to BRFSS Websites: questionnaires, public domain data, State Coordinators)- <http://www.cdc.gov>

Healthy People 2010 <http://www.health.gov/healthypeople/>

Jemal A, Clegg LX, Ward E, Reis LA, Wu X, Jamison PM, Wingo PA, Howe HL, Anderson RN, Edwards BK. Commentary: Annual Report to the Nation on the Status of Cancer, 1975-2001, with a Special Feature Regarding Survival. *Cancer*. 2004;101:1-27.

Making Cancer Health Disparities History <http://www.chdprg.omhrc.gov/pdf/chdprg>

McLaughlin CC, Hotes JL, XC Wu, Lake A, Fifth R, Roney D, Cormier M, Fulton JP, Holoway E, Kosary C, Chen VW, Howe HL (eds). *Cancer in North America, 1997-2001. Volume Two: Mortality*. Springfield, IL: North American Association of Central Cancer Registries, April 2004.

SEER [http://seer.cancer.gov/csr/1975\\_2001/](http://seer.cancer.gov/csr/1975_2001/), 2004.

United States Cancer Statistics 2000 Incidence <http://www.cdc.gov/cancer/npcr/uscs>

U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 2000 incidence*. Atlanta (GA): Department of Health and Human Services, Center for Disease Control and Prevention and National Cancer Institute; 2003.

U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Smoking. A Report of the Surgeon General*. Rockville (MD): U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Health Promotion and Education, Office on Smoking and Health, 1986. DHHS Publication No. (CDC) 87-8398.

U.S. Department of Health and Human Services. *Healthy People 2010: Understanding and Improving Health*. 2nd ed. Washington, DC: U.S. Government Printing Office, November 2000.

U.S. Preventive Services Task Force. <http://www.ahcpr.gov/clinic/uspstfix.htm>

stomach cancer • colorectal cancer • lung cancer • esophageal cancer • cervical cancer • breast cancer • prostate cancer • skin cancer • brain cancer • ovarian cancer • bladder cancer • leukemia • liver cancer • non-hodgkins lymphoma

This report was created by the **South Carolina Cancer Alliance (SCCA)**, a registered non-profit organization, with collaboration from DHEC's Division of Cancer Prevention and Control and S.C. Central Cancer Registry. Valuable assistance was also provided by Norton and Morris Strategic Design Consulting.

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To join the SCCA or for additional copies of the 2004 South Carolina Cancer Report Card, contact us at:

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