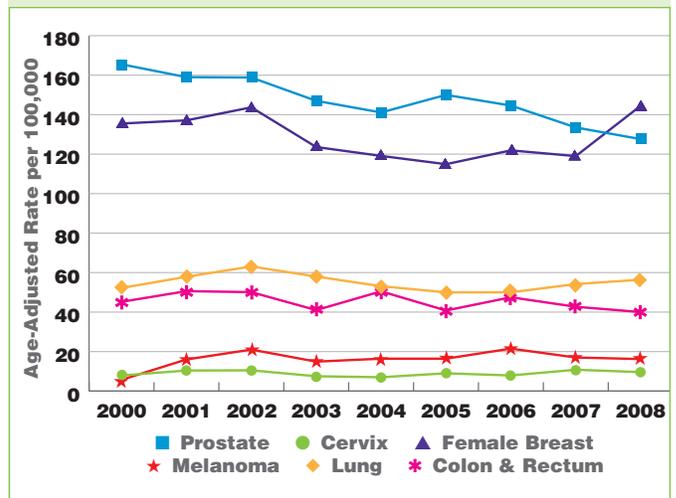# CANCER

Overview

Cancer is a collection of diseases that result from abnormal and uncontrolled growth of cells. Everyone is susceptible to cancer and it can occur in any part of the body. Cancer is the second most common cause of death in Denver.[11] Other than skin cancer (most forms of which do not spread or cause death), the most common forms of cancer in Denver involve the prostate, breast, lung, and colon (FIGURE 1). While there are various treatments for cancer, treatment response and effectiveness varies depending on the type of cancer. For example, most forms of lung cancer are diagnosed when the disease has spread outside the lung. As a result, treatment response to lung cancer is often poor. Therefore, lung cancer is the most common cause of cancer-related death (FIGURE 2), even though other forms of cancer (prostate, breast) are more frequently diagnosed.

Some of the most common types of cancer are preventable. Exposure to tobacco smoke is by far the leading cause of lung and other forms of cancer (including, throat, esophageal, and bladder cancers). Tobacco cessation and prevention of secondhand smoke exposure dramatically decrease the risk of cancer and death. Vaccines can also prevent some forms of cancer. A highly effective vaccine for human papillomavirus (HPV), which has been known to cause cervical, anal, and some cancers of the throat, was recently approved. Additionally, the hepatitis B vaccination can prevent some forms of liver cancer.

Other kinds of cancer can be detected at an early stage through use of screening tests. For example, the Pap test can detect early stage cervical cancer. If diagnosed early enough, there is an increased likelihood it can be completely cured. It is unknown whether screening tests (such as, the blood PSA test) improve the prognosis for prostate cancer. Effective screening tests are also available for breast cancer (mammogram), colon cancer (colonoscopy), and skin cancer (examination by a doctor). Treatment of these forms of cancer is much more effective when the diagnosis is made before the cancer has spread to other parts of the body (FIGURE 3).

FIGURE 1

New Cancer Diagnoses DENVER, 2000 - 2008

Legend: Prostate ■ Cervix ● Female Breast ▲ Melanoma ★ Lung ◆ Colon & Rectum ✳

This graph shows the rate of the more common cancers diagnosed in Denver residents from 2000-2008. Breast and prostate cancer are the most common cancers in Denver.
SOURCE: Colorado Central Cancer Registry

Cost Facts

Human papillomavirus (HPV) is a viral infection that can cause cervical cancer. HPV is one of the most common sexually transmitted infections, but can be prevented by vaccine. While cervical cancer from HPV can be detected early with a Pap smear, cost prevents many women from getting vaccinated or screened. The cost of screening is usually less than the cost of treatment and early detection is often associated with lower treatment costs. If all 12-year-old girls currently living in the United States were vaccinated, more than 1,300 deaths from cervical cancer would be prevented.[134]

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Some forms of cancer are more common among population subgroups. The risk of most cancers increases with age. Prostate cancer is more common among Black men (FIGURE 3). Lack of access to health care is associated with diagnosis of cancer at more advanced and less treatable stages. Denver has not achieved national goals for breast and colon cancer. Hispanics and persons with incomes of less than $25,000 per year have particularly low rates of cancer screening tests (FIGURES 5 AND 6).

Health care reform should improve quality and impact cost of health care for people with cancer and at risk for cancer. The federal program will eliminate copays for preventive services and require all health plans to cover cancer screening, treatment, and follow-up care.
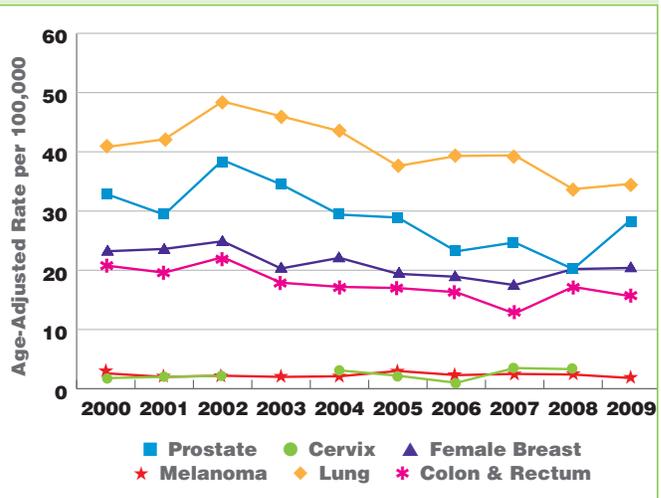
Local Story

Colorado Colorectal Screening Program

The Colorado Colorectal Screening Program (CCSP) screens for colorectal cancer, a cancer that starts in the large intestine (colon) or rectum. Screening tests are provided to lower income and uninsured individuals. Since the first test in January 2006, more than 13,300 colonoscopies (colorectal screening tests) have been completed. More than 110 cancers have been identified and it is estimated that 330 cancers have been prevented. Denver has eight partner sites in the program (SEE FIGURE 7 FOR LOCAL SCREENING RATES).[135]

CCSP is funded by tobacco tax funds. Since July 2011, state budget cuts reduced program funding by 78%. CCSP shifted program services and began an annual take-home stool testing program in urban areas of the state. CCSP and screening sites in Denver are working together to continue providing access to colorectal screening services.[135]
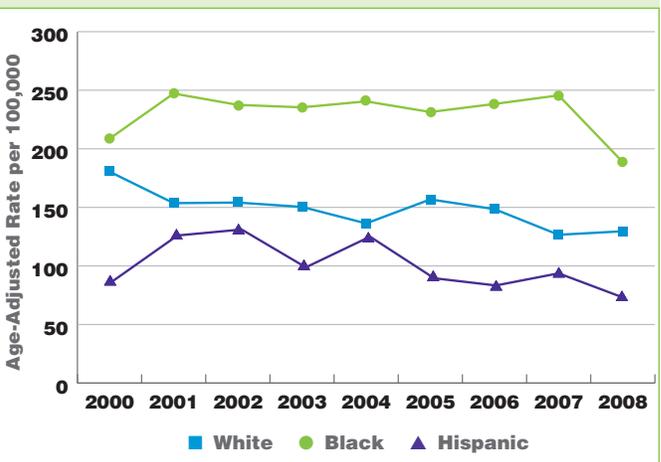
FIGURE 2

Cancer Death Rate DENVER, 2000 - 2009

Legend: Prostate, Cervix, Female Breast, Melanoma, Lung, Colon & Rectum

This graph shows the rate of cancer deaths in Denver from six of the most common cancer types from 2000 to 2009. A majority of cancer deaths in Denver are from lung cancer, caused most often by smoking.
SOURCE: Vital Records

FIGURE 3

Prostate Cancer Incidence by Race and Ethnicity
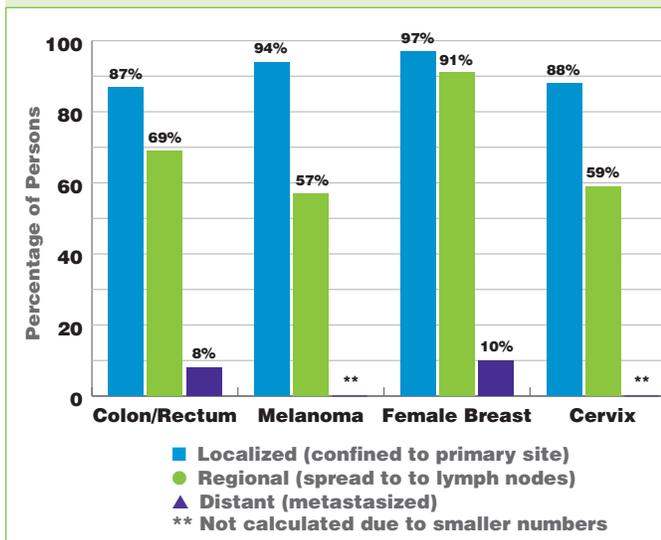DENVER, 2000 - 2008

Legend: White, Black, Hispanic

Black men continue to be at an increased risk for prostate cancer. This graph shows the rate of prostate cancer in White, Black, and Hispanic men in Denver.
SOURCE: Colorado Central Cancer Registry

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FIGURE 4

Five Year Survival Rate by Stage of Detection
DENVER, 2000 - 2005

Legend:
- ■ Localized (confined to primary site)
- ● Regional (spread to to lymph nodes)
- ▲ Distant (metastasized)
- ** Not calculated due to smaller numbers

Colon/Rectum: 87%, 69%, 8%
Melanoma: 94%, 57%, **
Female Breast: 97%, 91%, 10%
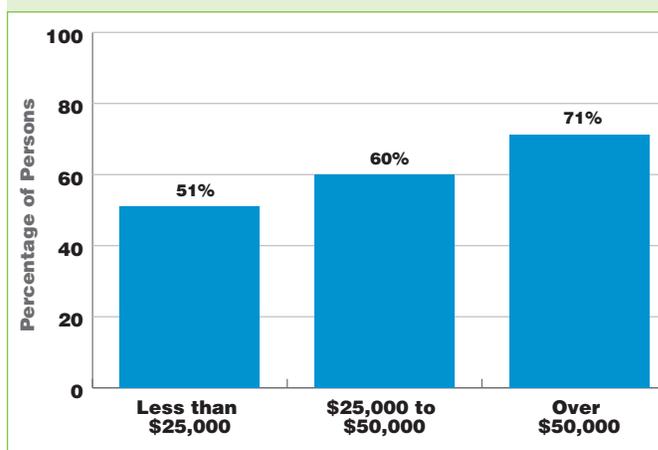Cervix: 88%, 59%, **

Cancers diagnosed at an early stage are often more treatable and are linked to higher survival rates. Survival to five years after diagnosis is affected by stage at diagnosis and how far the cancer has spread. Healthy People 2020 sets the goal that 72.8% of percent of persons with cancer are living five years after diagnosis.
SOURCE: Colorado Central Cancer Registry

FIGURE 5

Percentage of Persons Age 50 and Above Ever Screened for Colon Cancer* DENVER, 2010

Less than $25,000: 51%
$25,000 to $50,000: 60%
Over $50,000: 71%

Colorectal cancer screening rates differ by annual household income. Households with lower annual income are less likely to have received screening for colon cancer.
SOURCE: Behavioral Risk Factor Surveillance System
*Colon cancer screening includes a sigmoidoscopy or a colonoscopy

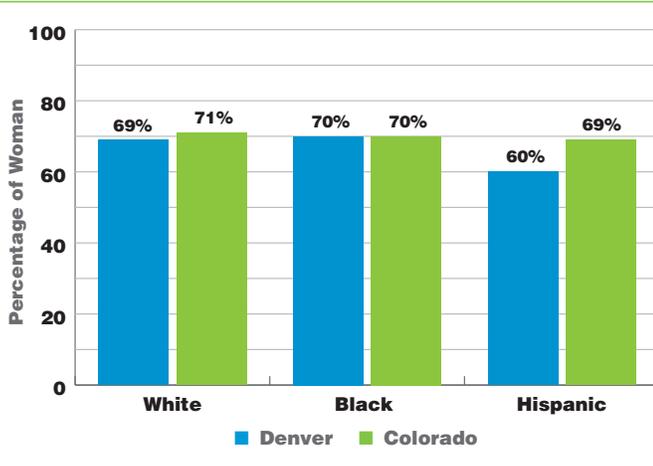Photo courtesy of Downtown Denver Partnership

Comparison Story

Survivorship

A "cancer survivor" is someone who is living, but previously diagnosed with cancer. Cancer affects family members, friends, and caregivers of survivors. Cancer survivors face many challenges. Often, physical, social, spiritual, and financial challenges surface during diagnosis and treatment. The California Chapter of the American Cancer Society funds the Young Cancer Survivor Scholarship Program (YCSSP).[136] YCSSP provides funding to cancer survivors in need of financial aid for college. It allows cancer survivors to attend college by reducing the financial burden on families. The program improves the quality of life for young cancer patients and their families.

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FIGURE 6

Percentage of Women Age 50 and Above Who Have Had Mammograms in the Past Two Years by Race and Ethnicity
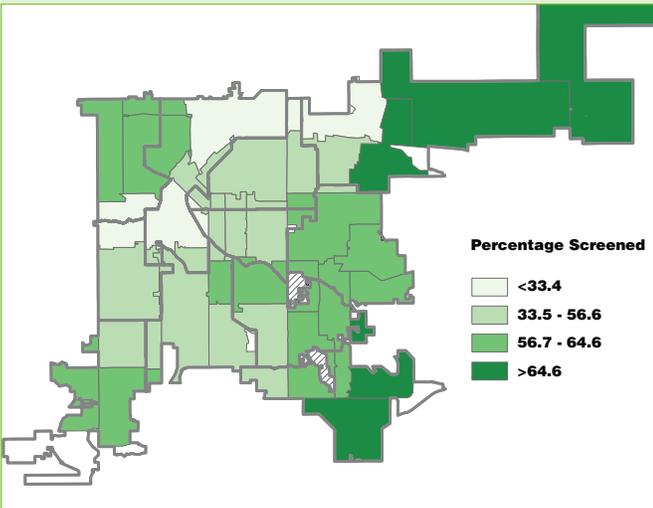DENVER AND COLORADO, 2010

Mammograms can detect many breast cancers early. It is recommended that women over 50 receive a screening exam every two years.
SOURCE: Behavioral Risk Factor Surveillance System

FIGURE 7

Percentage of Persons Age 50 and Above Screened for Colorectal Cancer DENVER, 2006 - 2010

Percentage Screened
- <33.4
- 33.5 - 56.6
- 56.7 - 64.6
- >64.6

This map shows the percentage of people over 50 years who have received a colonoscopy or sigmoidoscopy.
SOURCE: Behavioral Risk Factor Surveillance System

Did You Know

- The AMC Cancer Fund and 7News/Azteca channel are raising cancer awareness in Denver's Hispanic community. Through public service announcements, people learn about prevention and community services.[137]

- Smoking damages nearly every organ in the human body. It is linked to at least 15 different cancers and accounts for approximately 30 percent of all cancer deaths.[138]

- Today, a person who has been diagnosed with breast cancer in the earliest stages has a 98% chance of living at least five additional years, on average, compared to only 77% in 1982.[139]