CANCER
IN
CENTRAL COLORADO
1997-1999

Prepared by the
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The publication of *Cancer in Central Colorado: 1997-1999* is a continuation of a series of Colorado regional reports on cancer. This report may be useful to policy makers, health care professionals, and community groups to assist in developing and evaluating prevention and intervention strategies, identifying high risk populations, and prioritizing resource allocations for cancer-related services.

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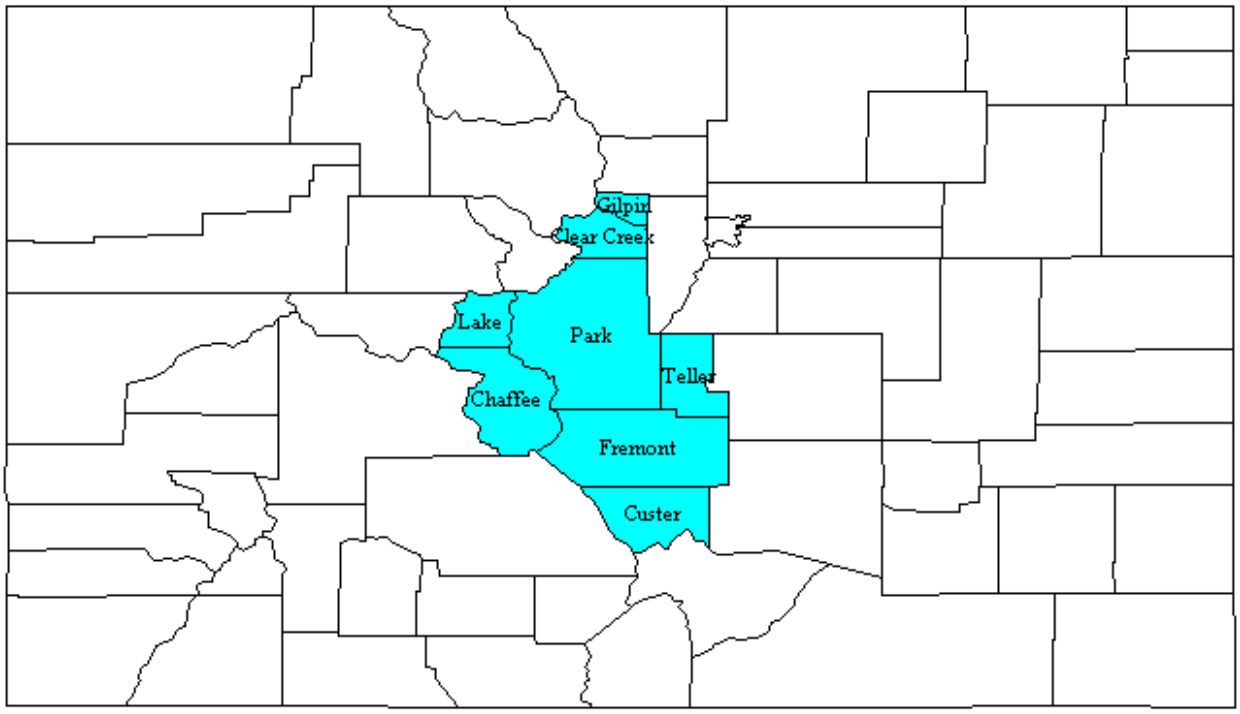
CENTRAL COLORADO COUNTIES



EXECUTIVE SUMMARY

This report, *Cancer in Central Colorado: 1997-1999*, was written by the Colorado Comprehensive Cancer Prevention and Control Program to assist with the development and evaluation of cancer prevention and intervention strategies in central Colorado. It is the third in a series of reports covering different regions of Colorado that utilizes county-specific data. The first report, *Cancer in Eastern Colorado: 1995-1997*, was published in 1999, and the second report, *Cancer in Western Colorado: 1996-1998*, was published in 2000. All three reports are available on the internet: www.cdphe.state.co.us/pp/ccpc/ccpchom.asp. *Cancer in Central Colorado: 1997-1999* incorporates data from three sources within the Colorado Department of Public Health and Environment: cancer-related behavior data from the 2000 Colorado Behavioral Risk Factor Surveillance System (BFRSS) survey, cancer incidence and stage data from the Colorado Central Cancer Registry, and cancer mortality data from the Health Statistics Section.

It is widely held that most kinds of cancer can be prevented and/or detected at an early stage. Studies suggest that 75 to 80 percent of cancer deaths are attributable to health behaviors, including smoking, diet, obesity, physical inactivity, excessive alcohol intake, and reproductive and sexual history. A change to healthy behaviors and/or a cancer-related check-up is recommended to reduce the chance of getting cancer. Detailed risk factors and prevention information for each cancer are described in the report. The following is a summary of the major findings of the report.

Behavioral Risk Factor Surveillance System survey findings:

- Central Colorado had a significantly higher proportion of current smokers compared to the remainder of the state, particularly for males and for people ages 18-34.
- Almost half of the people in Colorado reported being overweight or obese. The group with the highest proportion of overweight people was males in central Colorado.
- People in central Colorado were more likely to use smokeless tobacco than people in the rest of the state. Males were much more likely than females to use smokeless tobacco.
- Women age 50 and over in central Colorado were slightly less likely to have had a mammogram and clinical breast exam in the last 2 years than women in the rest of the state.

- Women in central Colorado were as likely as women in the rest of the state to have received a Pap smear in the last three years.
- People in central Colorado were less likely to have had a blood stool test in the past year than people in the remainder of the state were. People in central Colorado also reported fewer sigmoidoscopies or colonoscopies for colorectal cancer screening in the last five years than people in the remainder of the state reported.
- People in the central Colorado region generally had better sun protection behaviors than people in the remainder of the state.

Cancer data comparisons between central Colorado and the state by selected cancer sites:

- **All cancers combined:** The incidence rates for all cancers combined for both males and females were similar between central Colorado and the state. Male cancer incidence rates in Clear Creek, Custer, and Gilpin counties were lower than the state rate, and the male cancer incidence rate in Teller County was higher than the state rate. The female cancer incidence rates in Custer and Park counties were lower than the state rate. Early detection percentages were the same between the central region and the state. Clear Creek County had a higher early detection percentage while Gilpin and Lake counties had lower early detection percentages than the state. Male and female cancer mortality rates were similar between central Colorado and the state. The male cancer mortality rate in Chaffee County was lower than the state rate.
- **Colon and rectal cancer:** The central region male colorectal cancer incidence rate was 10 percent higher than the state rate while the central region female colorectal cancer incidence rate was similar to the state rate. The male colorectal cancer incidence rates in Fremont and Teller counties were higher than the state rate. The central region early detection percentages were similar to the state percentages. Chaffee and Park counties had better early detection percentages. The male colorectal cancer mortality rates were similar between central Colorado and the state, while the central region female colorectal cancer mortality rate was higher.
- **Lung cancer:** The lung cancer incidence rate for central Colorado males was higher than the state rate while the female lung cancer incidence rate was similar. Chaffee, Fremont, and Teller counties had higher male lung cancer incidence rates. The female lung cancer incidence rate was higher in Chaffee county than in the state, but was lower in Fremont County. Early detection percentages were quite low but similar between central Colorado and the state. Lung cancer mortality rates were similar between central Colorado and the state.

- **Melanoma:** Melanoma incidence rates in the central region were higher for both males and females compared with the state rate. All publishable county rates were higher than the state rate as well. Early detection percentages were similar between central Colorado and the state.
- **Female breast cancer:** The breast cancer incidence rate in central Colorado was similar to the state rate. Custer, Gilpin, and Teller counties had higher incidence rates than the state while the Park County incidence rate was lower. Early detection percentages were similar between central Colorado and the state. Custer, Gilpin, and Lake counties had early detection percentages lower than the state while Clear Creek had a higher early detection percentage. Breast cancer mortality rates were similar between central Colorado and the state.
- **Invasive cervical cancer:** The invasive cervical cancer incidence rate in central Colorado was lower than the state rate.
- **Prostate cancer:** The prostate cancer incidence rates were similar between central Colorado and the state. Clear Creek and Park counties had higher prostate cancer incidence rates than the state. The early detection percentage in central Colorado was slightly higher than in the state. Clear Creek and Teller counties had better early detection percentages. Chaffee and Park counties had lower early detection percentages. The prostate cancer mortality rate in central Colorado was lower than the state rate, particularly in Fremont and Chaffee counties.

Though the analysis did not find large differences in cancer rates or cancer-related behaviors between central Colorado and the state, improvements can still be made. Central Colorado residents had higher percentages of smoking and smokeless tobacco use. Efforts should also be made to improve screening practices, such as the use of mammograms, Pap smears, blood stool tests, and sigmoidoscopy. Further, because much of the central region is at higher elevations, improving sun protection behaviors may be of particular benefit. A healthy lifestyle is the primary key to a healthy life.

Section I

Introduction

Introduction

Cancer is the second leading cause of death in Colorado, according to the *1999 Annual Report of Vital Statistics Colorado* summary data published by the Health Statistics Section of the Colorado Department of Public Health and Environment. During the period from 1940 to 1990, Colorado saw a substantial increase in cancer mortality rates. However, since 1990, some progress has been made in reducing cancer mortality rates, and Colorado mortality rates rank among the lowest in the United States.

Although cancer cells can be lethal, most types of cancer can be prevented or detected at an early stage by:

- Adopting healthy behaviors, such as stopping smoking, improving dietary habits, and increasing physical activity;
- Using early detection methods, such as mammography, Pap tests, prostate-specific-antigen (PSA) tests, and sigmoidoscopy;
- Implementing comprehensive health education programs.

A number of public agencies and private organizations have made great efforts to reduce cancer incidence and mortality throughout Colorado. The Colorado Comprehensive Cancer Prevention and Control Program is a project funded by the Centers for Disease Control and Prevention (CDC) to coordinate this effort. The goal of this program is to improve preventive behaviors by collaborating with public and private agencies to set priorities for interventions, conducting public awareness campaigns, establishing cancer prevention and control policies, and supporting community-based projects.

One of the program's activities is to produce a series of reports on specific regional cancer data. This report, *Cancer in Central Colorado: 1997-1999,* is the third of this series. The first report, *Cancer in Eastern Colorado: 1995-1997*, was published in September 1999, and the second report, *Cancer in Western Colorado: 1996-1998* was published in September 2000. All three reports are available on the internet at: www.cdphe.state.co.us/pp/ccpc/ccpchom.asp. Included in this central Colorado cancer report are the following counties: Chaffee, Clear Creek, Custer, Fremont, Gilpin, Lake, Park, and Teller (see map on page ix).

This report is organized into five sections. Section I is this introduction. Section II describes data and data sources and defines terminology used in this report. Section III summarizes the findings of the 2000 Behavioral Risk Factor Surveillance System (BRFSS)

survey in central Colorado. Section IV discusses and compares cancer incidence and mortality rates in central Colorado and the state. Section V, the Appendix, displays detailed county-specific incidence, staging, and mortality data.

Section II

Data and Definitions

Data and Definitions

Data Sources

Data used for this report came from several sources in the Colorado Department of Public Health and Environment (CDPHE). The cancer incidence and staging data were provided by the Colorado Central Cancer Registry (CCCR), which collects data on all cancers diagnosed in Colorado. The cancer mortality data were provided by the CDPHE Health Statistics Section, which compiles and analyzes data from birth and death records. The BRFSS data were provided by the CDPHE Survey Research Unit, which conducts health-related surveys.

Data Limitations

It is important to note that rates for a limited time period are not always reflective of true incidence or mortality rates. This effect can be even more pronounced when county rates are calculated based on small numbers of cases, as one number can change the rate considerably. This caveat is particularly important for this report because the highlighted individual counties have small populations with attendant small case counts in many categories.

Since the *all cancers combined* incidence and mortality rates were much higher than individual cancer incidence and mortality rates, the *all cancers combined* rates were displayed graphically on a larger scale in the bar chart than the scale used for individual cancer rates. Individual cancer incidence and mortality rates were displayed on different scales. It is important to note the differences in scales when comparing rates of different cancer sites.

To assure the confidentiality of individuals, this report does not present data with fewer than three events in each category. However, in some tables with multi-county displays, when a small number could be inferred by subtraction, additional suppression was required to protect confidentiality.

The 2000 BRFSS survey for Colorado did not contain questions on alcohol use. Consequently, there are no data in this report for this particular cancer risk factor.

Definitions

The Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing statewide telephone survey designed to monitor the prevalence of health behaviors and preventive health

practices associated with the leading causes of death in Colorado. Each year, approximately 1,800 Colorado residents aged 18 and older are surveyed. While the Colorado BRFSS provides reliable estimates of cancer-related risk factors and behaviors for the state as a whole, estimates are not routinely available for less populated areas. In order to achieve reliable estimates for less populated areas, those areas must be over-sampled. In 2000, the BRFSS survey over-sampled in the eight central Colorado counties for a total of 644 respondents from that area.

Cancer Incidence Rates are a measure of the number of new cancer cases diagnosed over a defined time period divided by a specified population. Age-adjusted incidence rates were used in this report in order to compare rates of different populations. Any observed differences in age-adjusted rates will not be due to different ages of the populations being compared. The incidence rates in this report were adjusted to the 1970 U.S. standard population.

Cancer Mortality Rates are a measure of the number of deaths due to cancer over a defined period divided by a specified population. The mortality rates in this report were age-adjusted to the 1970 U.S. standard population.

Cumulative Risk is an estimate of the chances of an individual being diagnosed with cancer by a certain age based on age-specific rates within a certain time period. This risk can be expressed as a percentage or probability, i.e., for men the cumulative risk to age 85 for all cancers combined is about 52 percent, or 1 in 2.

Stage of Cancer is typically defined by size and containment, or spread, of the tumor. Initially, the cancerous cells do not invade surrounding tissues. This very early condition is called the in-situ stage. Next, the cancer cells infiltrate the organ where they originated. This is the localized stage. The regional stage is when cancer cells have spread to adjacent tissues or to nearby lymph nodes. Eventually, cancer cells may become disseminated throughout the body, usually by invasion of the circulatory system. This level of cancer spread is called the distant stage.

The stage of cancer at the time of diagnosis is a very important factor in determining the potential effectiveness of treatment and its potential for cure. At the in-situ stage, cancer is usually highly curable. Some cancer cells, such as lung and melanoma, spread more rapidly than others do, and the potential to be life-threatening is greater. For these cancers, the best prevention is to avoid risk factors that may cause the disease.

Early Detection of Cancer is defined in this report as the percent of cases diagnosed at in-situ and localized stages, excluding unknown staged cases. Mathematically, the early detection percentage is the number of in-situ cases plus the number of localized cases divided by the total number of staged cancer cases, multiplied by 100.

Statistical Significance in this report was evaluated using a Z-test (alpha = 0.05) for testing differences between the state incidence and mortality rates and regional incidence and mortality rates, including county-specific data. Only rates based on six or more cases were tested. A statistically significant result means that there is likely a real difference in rates between the two populations, a difference that cannot be explained by chance alone. All statistically significant results are discussed in this report. Some higher or lower county rates, though not statistically significant, may be discussed if they are more than 20 percent different from the state rate.

BRFSS data for the central Colorado region were compared to the remainder of the state. Z-tests (alpha = 0.05) were used to determine statistical significance for the risk factor prevalence differences.

Section III

Cancer-Related Behaviors

Cancer-Related Behaviors

Eight counties in central Colorado comprise the region described in this report. The number of respondents in less populated areas from the statewide Colorado BRFSS is usually too small to produce reliable estimates of health-related behaviors. Consequently, in 2000, an additional 590 respondents were interviewed for a total of 644 respondents from the eight counties in order to provide the information for this report. A total of 3058 interviews were conducted statewide. This section summarizes the selected findings of the 2000 survey. Detailed BRFSS data are listed in tables at the end of the section.

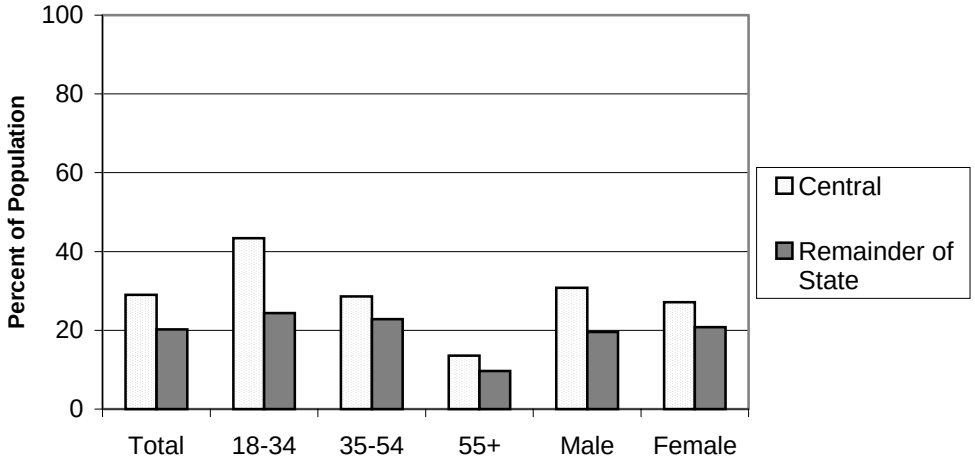
Population by Age Group

The population distributions of the central region and the state were similar. The highest percentage of people are in the 35-44 age group. The 18-24 age group represents the smallest percentage of population in the central region, and the 55-64 age group is the smallest proportion of the population in the remainder of the state (see Table 3.1).

Current Smoker

Cigarette smoking increases risk for both heart disease and lung cancer, and has been linked as well to oral, esophageal, pancreatic, cervical, kidney, colon, and bladder cancer. Current smokers were identified as those respondents who had smoked at least 100 cigarettes in their lives and were currently smoking at the time of the survey. As seen in Figure 3.1, the 2000 BRFSS survey found that the prevalence of current smoking among people in central Colorado was higher than the state prevalence overall, in all age groups, and for males and females. The higher smoking prevalence in central Colorado was statistically significant overall, in the 18-34 age group, and in males compared to the remainder of the state. The highest reported prevalence in both the central region and the remainder of the state was in the 18-34 age group, at 43.4 percent and 24.4 percent, respectively.

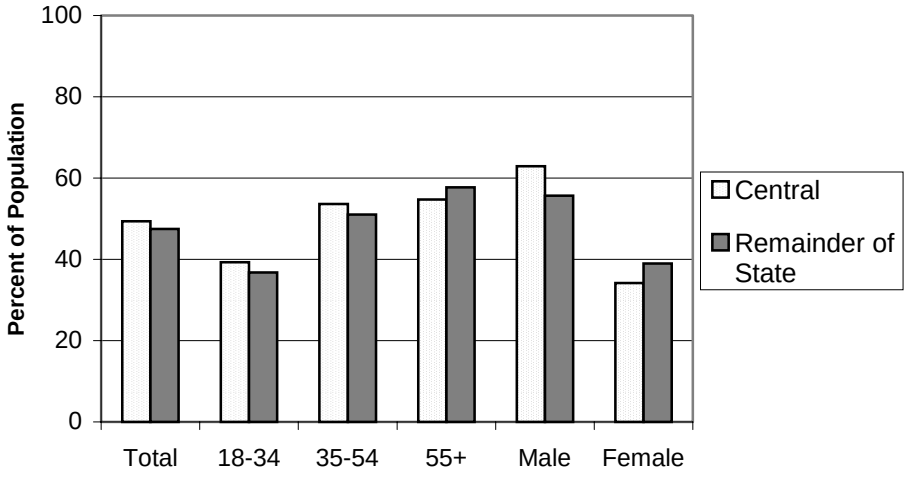
Figure 3. 1 Percent Current Smoker
By Region, Age Group, and Gender



Overweight

Being overweight is considered a risk factor for heart disease, diabetes, and some cancers, such as breast, endometrium, colon, and kidney. Overweight is defined as a body mass index (BMI) of greater than or equal to 25.0. The formula for calculating BMI is $\frac{(weight\ in\ kilograms)}{(height\ in\ meters)^2}$. Figure 3.2 depicts the percentages of overweight or obese people in central Colorado and the remainder of the state. A comparison of central Colorado with the state data shows that central Colorado had overweight percentages similar to the state. People aged 55 and over were more likely to report being overweight than people of other age groups. Males in central Colorado reported higher overweight percentages than did women (see Table 3.2).

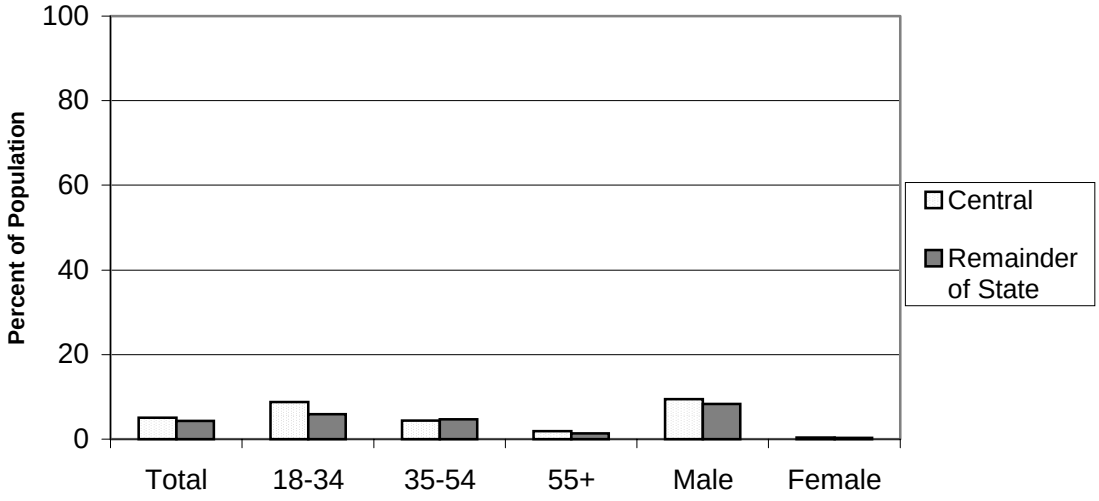
Figure 3. 2 Percent Overweight or Obese (BMI >=25.0)
By Region, Age Group, and Gender



Current User of Smokeless Tobacco

In 1986, the U.S. Surgeon General concluded that the use of smokeless tobacco can cause cancer as well as a number of non-cancerous oral conditions, and can lead to nicotine addiction and dependence (Cancer Facts & Figures 2001, ACS). A current user of smokeless tobacco is one who currently uses any smokeless tobacco products such as chewing tobacco or snuff. Figure 3.3 shows that while the prevalence of smokeless tobacco use was generally low, the highest rates were found in the 18-34 age group, and in men. Generally, the prevalence of using smokeless tobacco decreased with increasing age (see Table 3.2).

Figure 3. 3 Percent Smokeless Tobacco User
By Region, Age Group, and Gender



Mammogram Screening and Pap Test

Regular cancer screening is recommended as the major prevention method for breast and cervical cancers. As shown in Figure 3.4, the BRFSS survey found that women aged 40 and over in central Colorado were as likely as women statewide to have ever had a mammogram and a clinical breast exam. Women in the remainder of the state exceeded the Year 2000 Health Objective of 80 percent or greater. Women aged 50 and over in central Colorado were slightly less likely than women statewide to have had both a mammogram and a clinical exam in the prior two years. However, both groups exceeded the Year 2000 Health Objective of 60 percent or greater.

Women in central Colorado were as likely as women statewide to have ever had a Pap test. Women in central Colorado were also as likely as women statewide to have had a Pap test in the past three years. All women aged 35-54 in central Colorado reported ever having a Pap test (see Figure 3.5 and Table 3.2).

Figure 3. 4 Percent of Women Having Both Mammograms and CBE's By Age Group

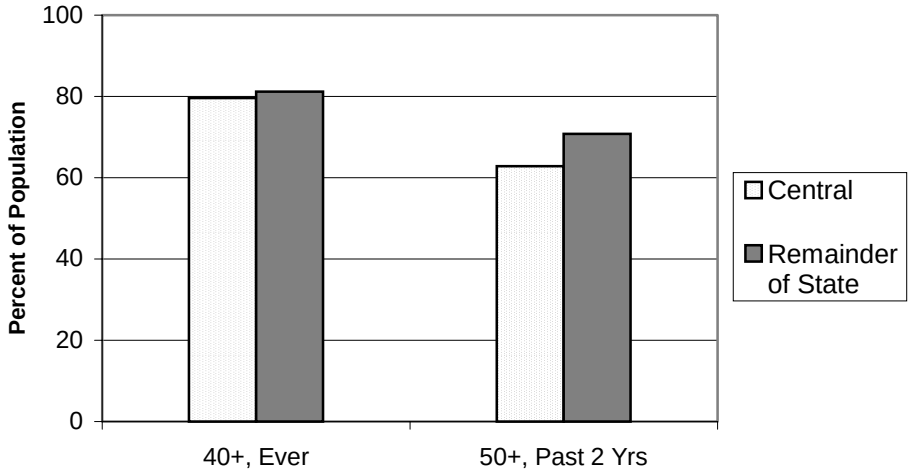
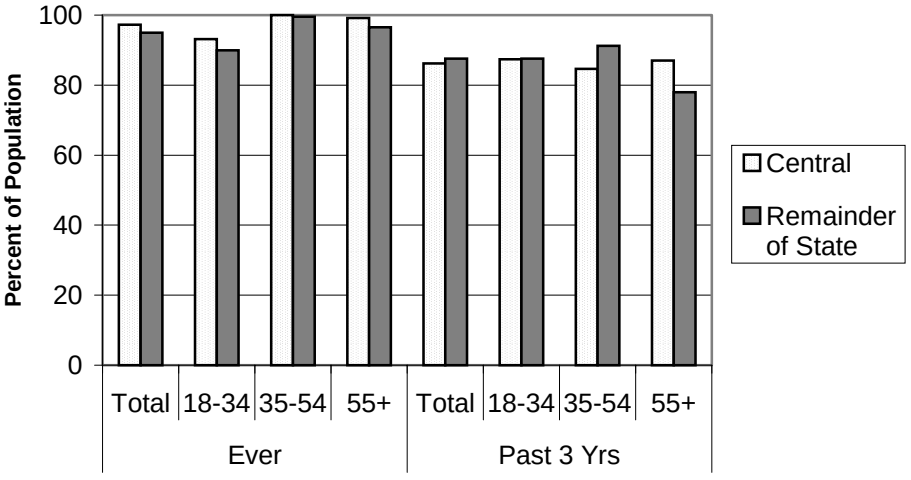


Figure 3. 5 Percent of Women Having Pap Smears By Age Group



Colorectal Cancer Screening

The American Cancer Society recommends that individuals aged 50 and over have a yearly fecal occult blood test (FOBT) and a sigmoidoscopy every 5 years. Figure 3.6 shows that overall, central Coloradoans aged 50 and over did as well as people in the remainder of the state

in getting blood stool tests. However, women in central Colorado were less likely to have ever had a blood stool test, and significantly less likely to have had a blood stool test in the past year.

Individuals in central Colorado reported ever having a sigmoidoscopy at a percentage comparable to individuals in the remainder of the state (see Figure 3.7), and in both cases the percentage exceeded the Year 2000 Health Objective of 40 percent or greater. Men were more likely to report ever having had a sigmoidoscopy than women in the remainder of the state, but men in central Colorado were slightly less likely than women in central Colorado to have ever had a sigmoidoscopy. Central Coloradoans were generally less likely to have had a sigmoidoscopy in the last five years than people in the remainder of the state (see Table 3.2).

Figure 3. 6 Percent Having Blood Stool Test Age 50 and Older By Gender

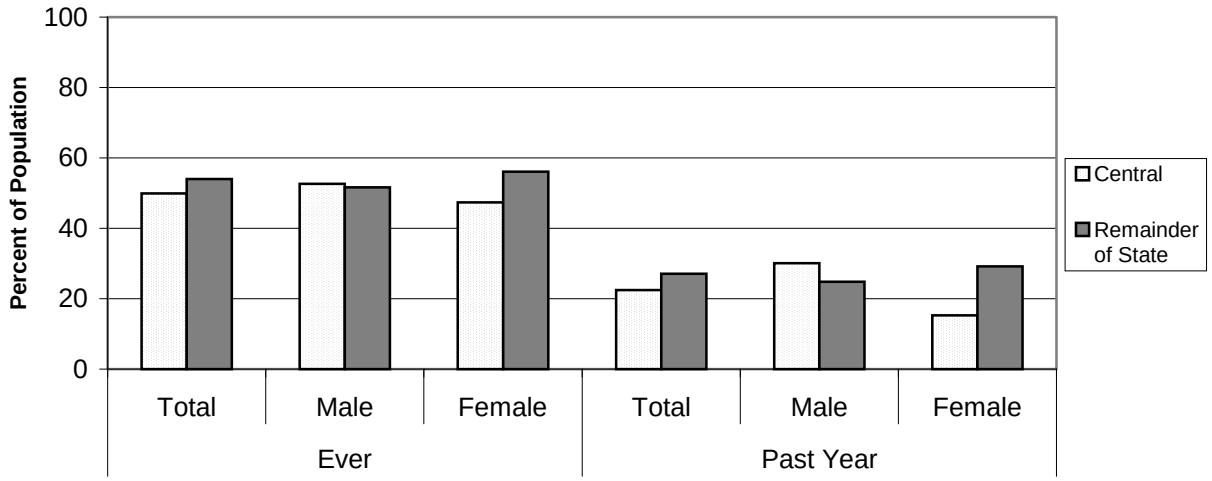
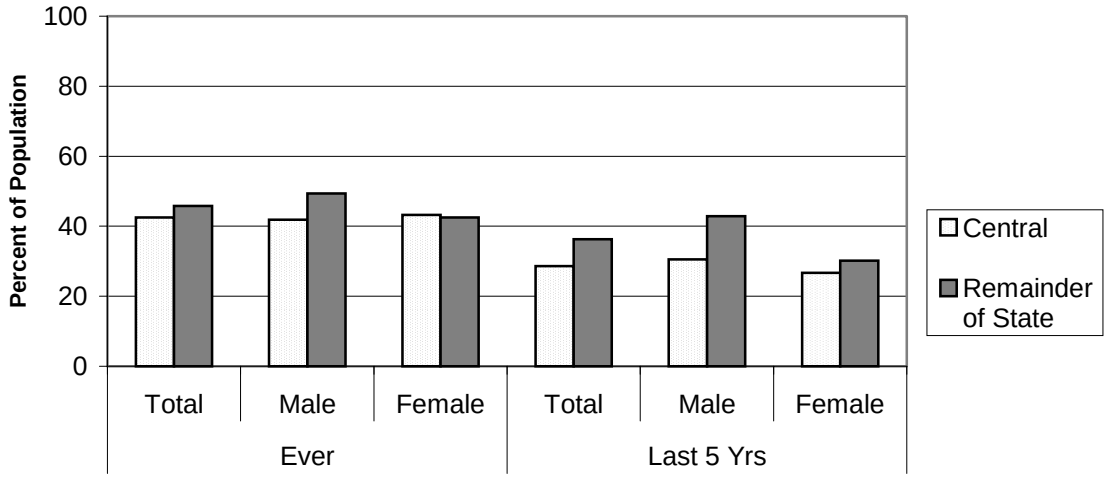


Figure 3. 7 Percent Having Sigmoidoscopy/Colonoscopy Age 50 and Older By Gender



Sun Protection

The principal cause of skin cancer is overexposure to sunlight, especially overexposure that results in sunburn and blistering. Melanoma is the most serious type of skin cancer, and in Colorado, the melanoma incidence rate is increasing more rapidly than for any other major cancer. The American Cancer Society and the Centers for Disease Control and Prevention both recommend that when outdoors, individuals use a sunscreen SPF 15 or higher and wear protective clothing such as a wide-brimmed hat, a long-sleeved shirt, and long pants.

Figures 3.8-3.11 depict the sun protection behavior data. The 2000 BRFSS survey showed that 33.2 percent of people in the remainder of the state reported that they always or nearly always used SPF 15 or higher sunscreen when being out for more than an hour on a sunny summer day. Individuals in central Colorado reported similar sunscreen use. Females were more likely to use sunscreen than males in each of the regions, and women in central Colorado reported the highest use of sunscreen among all groups at 45.8 percent. Men were the least likely to use SPF 15 or higher sunscreen.

Central Coloradoans reported higher percentages of always or nearly always wearing both hats and protective clothing when being out on a sunny summer day for more than an hour than the state percentage. These percentages were statistically significant in the overall percentage, as well as in the 35-54 age group, and in women. Use of protective clothing

increases with age, and people aged 55 and over were more likely to cover themselves with wide-brimmed hats and protective clothing than younger people, regardless of region. A higher percentage of men than women wore wide-brimmed hats in each of the regions (see Table 3.2).

Figure 3. 8 Percent Using Sunscreen SPF 15 or Higher
By Region, Age Group, and Gender

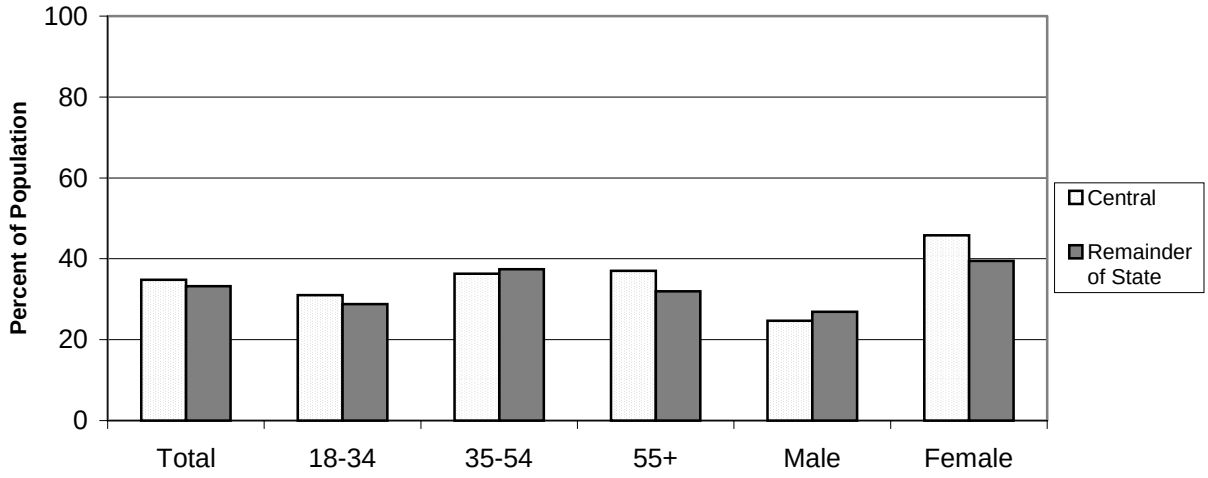


Figure 3. 9 Percent Wearing Wide-Brimmed Hat
By Region, Age Group, and Gender

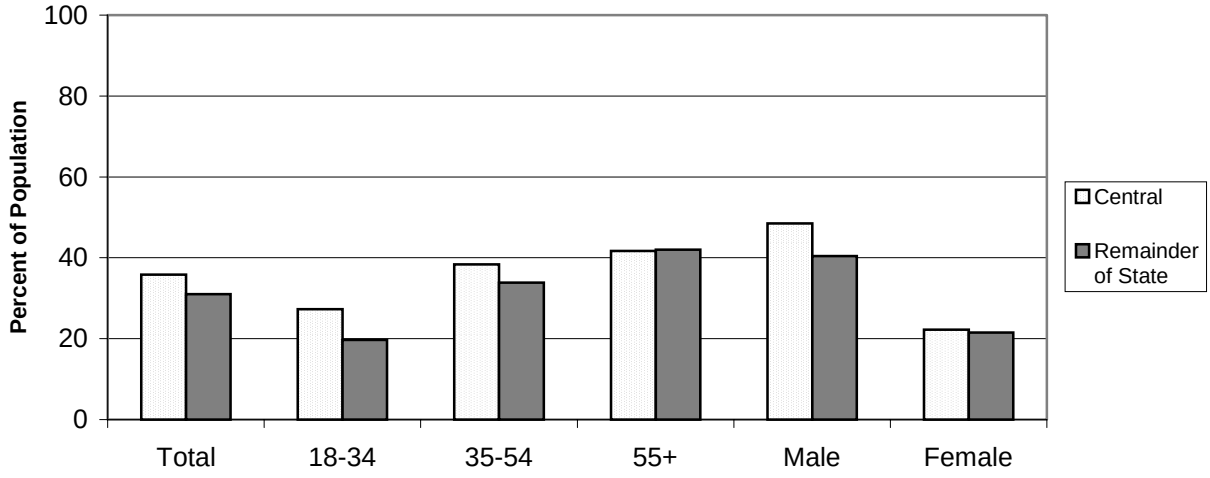


Figure 3. 10 Percent Wearing Protective Clothing
By Region, Age Group, and Gender

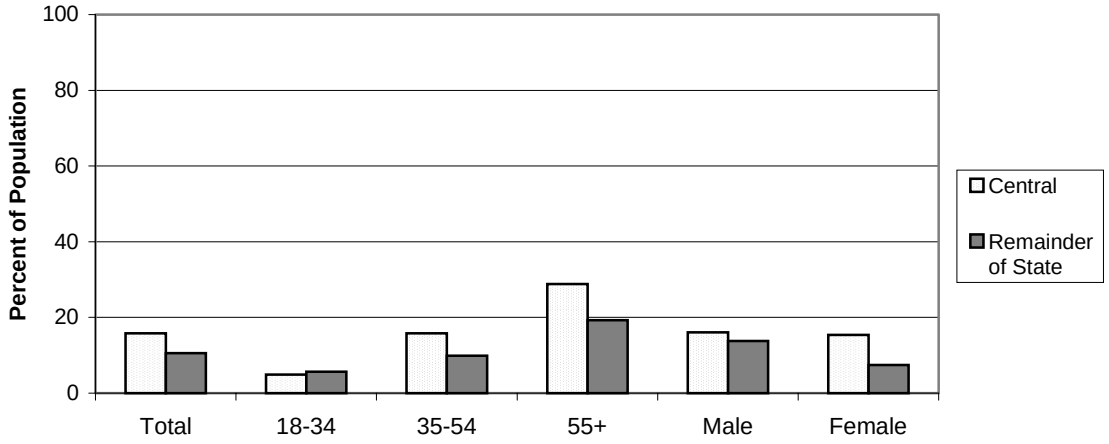


Figure 3. 11 Percent Wearing Wide-Brimmed Hat and Protective Clothing
By Region, Age Group, and Gender

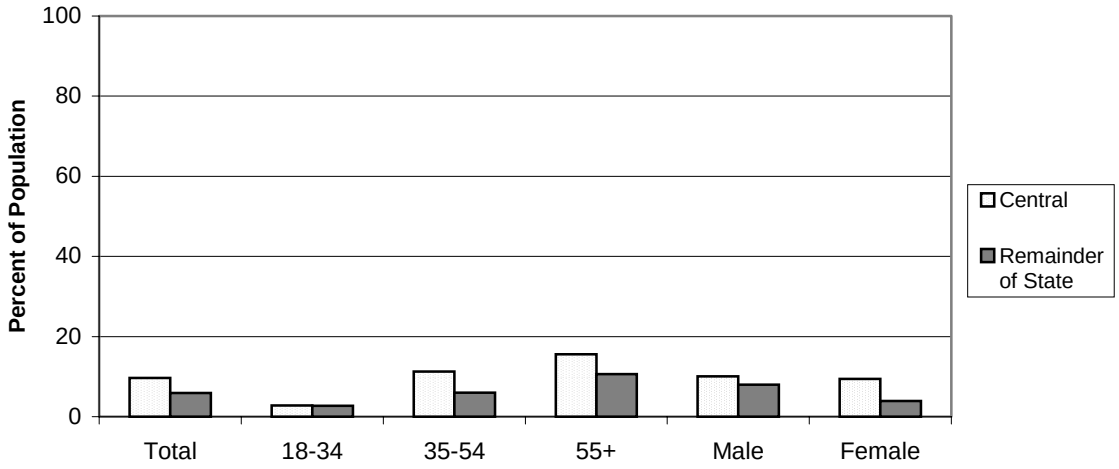


Table 3. 1 Age Groups by Region: Colorado, 2000

	18-24	25-34	35-44	45-54	55-64	65+
Central Colorado	10.9	19.6	22.6	20.2	12.3	14.5
Remainder of State	13.5	20.7	23.0	19.3	10.6	12.9

Table 3. 2 Cancer-Related Behaviors by Region, Gender, and Age Group: Colorado BRFSS 2000

	Total	18-34	35-54	55+	Male	Female
Percent overweight or obese (BMI >= 25.0)						
Central Colorado	49.4	39.3	53.6	54.7	62.9	34.2
Remainder of state	47.5	36.8	51.0	57.7	55.7	39.0
Percent current smoker						
Central Colorado	**29.0**	**43.4**	28.6	13.6	**30.8**	27.1
Remainder of state	20.2	24.4	22.8	9.7	19.6	20.8
Percent current use of smokeless tobacco						
Central Colorado	5.1	8.8	4.4	1.9	9.5	0.4
Remainder of state	4.3	5.9	4.7	1.4	8.3	0.3
Percent of women ever having mammogram and clinical breast exam, 40 and older						
Central Colorado	79.6	–	–	–	–	–
Remainder of state	81.2	–	–	–	–	–
Percent of women having mammogram and clinical breast exam in past 2 years, 50 and older						
Central Colorado	62.8	–	–	–	–	–
Remainder of state	70.8	–	–	–	–	–
Percent of women ever having had a Pap test						
Central Colorado	97.3	93.1	100.0	99.2	–	–
Remainder of state	95.0	89.9	99.5	96.5	–	–
Percent of women having had a Pap test in past 3 years						
Central Colorado	86.2	87.4	84.6	87.0	–	–
Remainder of state	87.6	87.6	91.2	78.0	–	–

Bold = difference between central Colorado and the remainder of the state is significant at $p < 0.05$

Table 3.2 continued

	Total	18-34	35-54	55+	Male	Female
Percent ever having blood stool test, 50 and older						
Central Colorado	49.9	–	–	–	52.6	47.4
Remainder of state	54.0	–	–	–	51.6	56.1
Percent having blood stool test in the past year, 50 and older						
Central Colorado	22.5	–	–	–	30.1	**15.3**
Remainder of state	27.1	–	–	–	24.8	29.2
Percent ever having sigmoidoscopy/colonoscopy, 50 and older						
Central Colorado	42.5	–	–	–	41.9	43.2
Remainder of state	45.8	–	–	–	49.4	42.5
Percent having sigmoidoscopy/colonoscopy in past 5 years, 50 and older						
Central Colorado	28.6	–	–	–	30.5	26.7
Remainder of state	36.3	–	–	–	42.9	30.2
Percent always/nearly always using sun block SPF 15 or higher when out for more than an hour on a sunny summer day						
Central Colorado	34.8	31.0	36.3	37.0	24.7	45.8
Remainder of state	33.2	28.8	37.4	32.0	26.9	39.5
Percent always/nearly always wearing a wide-brimmed hat when out for more than an hour on a sunny summer day						
Central Colorado	35.8	27.3	38.4	41.7	48.5	22.2
Remainder of state	31.0	19.7	33.9	42.0	40.4	21.5
Percent always/nearly always wearing protective clothing when out for more than an hour on a sunny summer day						
Central Colorado	**15.8**	4.9	**15.8**	**28.8**	16.1	**15.4**
Remainder of state	10.6	5.7	9.9	19.3	13.8	7.4
Percent always/nearly always wearing a wide-brimmed hat and protective clothing when out for more than an hour on a sunny summer day						
Central Colorado	**9.7**	2.8	**11.3**	15.6	10.1	**9.4**
Remainder of state	5.9	2.7	6.0	10.6	8.0	3.9

Bold = difference between central Colorado and the remainder of the state is significant at $p < 0.05$

Section IV

Selected Findings by Cancer Site

Selected Findings by Cancer Site

All Cancers Combined

According to the Cancer Registry annual report, the cumulative risk of being diagnosed with cancer before age 85 in Colorado is 1 in 2 for men, and 1 in 3 for women.

Risk Factors

Factors contributing to cancer can be classified into three major groups: genetic, environmental, and behavioral (Colorado Cancer Prevention and Control Plan Advisory Committee, 1996). This report focuses mainly on behavioral factors. Studies suggest that 75-80 percent of cancer deaths are attributable to health behaviors, including diet, smoking, excessive alcohol intake, and reproductive and sexual history (National Cancer Advisory Board, 1994). Behaviors that contribute to late diagnosis of cancer, and thus a poorer prognosis, include delay in seeking medical care when cancer signs are present, and not participating in recommended screening protocols.

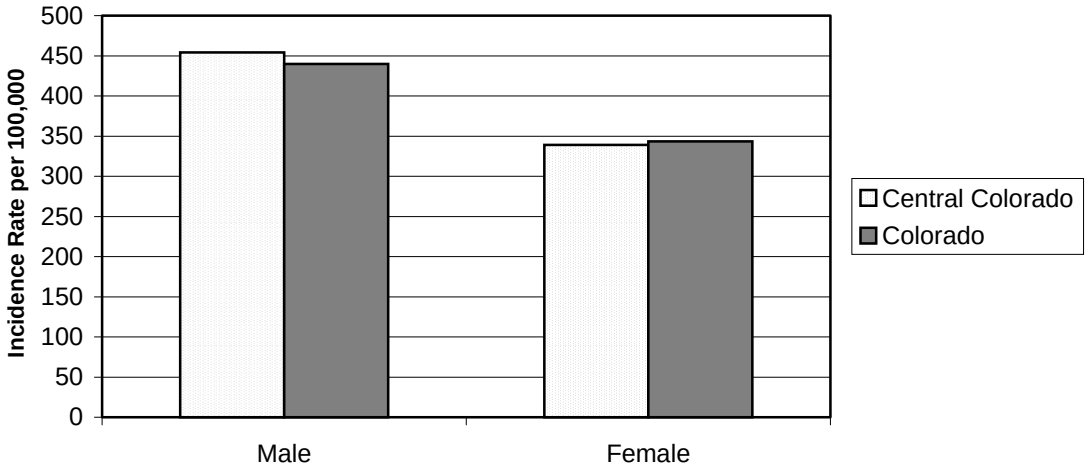
Prevention

The American Cancer Society (ACS) recommends a cancer-related checkup every three years for people aged 20-40 and every year for people aged 40 and over. Regular screening examinations can detect many cancers at earlier stages, improving the chances of treatment success. Adopting healthy behaviors, such as quitting smoking, eating healthier foods, and increasing physical activity may reduce one's chance of getting cancer. The ACS estimates that in 2001, approximately 172,000 cancer deaths will be due to tobacco use, and about one-third of all cancer deaths in 2001 will be related to nutrition, physical activity, and other lifestyle factors.

Incidence

During 1997 and 1998, 15,428 male and 15,181 female cancer cases were diagnosed in Colorado. Comparable statistics for central Colorado were 514 male cases and 445 female cases. Both male and female cancer incidence rates in central Colorado were about the same as the overall Colorado state rates for men and women (see Figure 4.1).

Figure 4. 1 All Cancers Combined – Average Age-Adjusted Incidence Rate per 100,000 by Region and Sex, 1997-1998

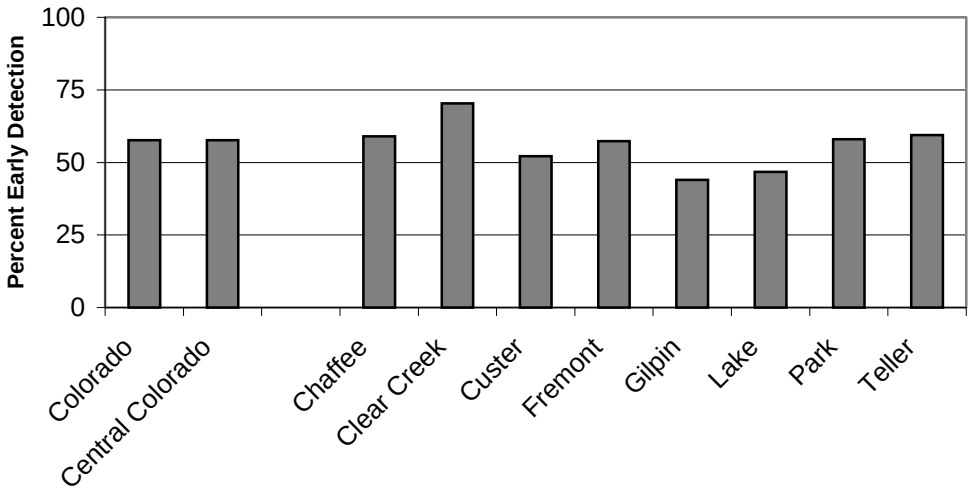


While individual county rates within the central region ranged from 36 percent lower to 45 percent higher than state rates, all of the differences were within expected statistical variation except for the female incidence rate in Park County. That rate was 32 percent lower than the state rate, which was statistically significant (see Table 5.1).

Early Detection

Early cancer detection leads to better survival. In Colorado, during the 1997-1998 time period, 57.7 percent of cancer cases were detected early. As shown in Figure 4.2, the early detection percentage for central Colorado was the same as the state percentage. Clear Creek County had an early detection percentage of 70.3. The percentages for Gilpin and Lake counties were 44.0 and 46.7, respectively. The percentages for other counties in the central region are similar to the state percentage, however, due to low case counts, these early detection percentages can fluctuate greatly over time (see Table 5.2).

Figure 4. 2 All Cancers Combined – Percent "Early" Detection By County, 1997-1998

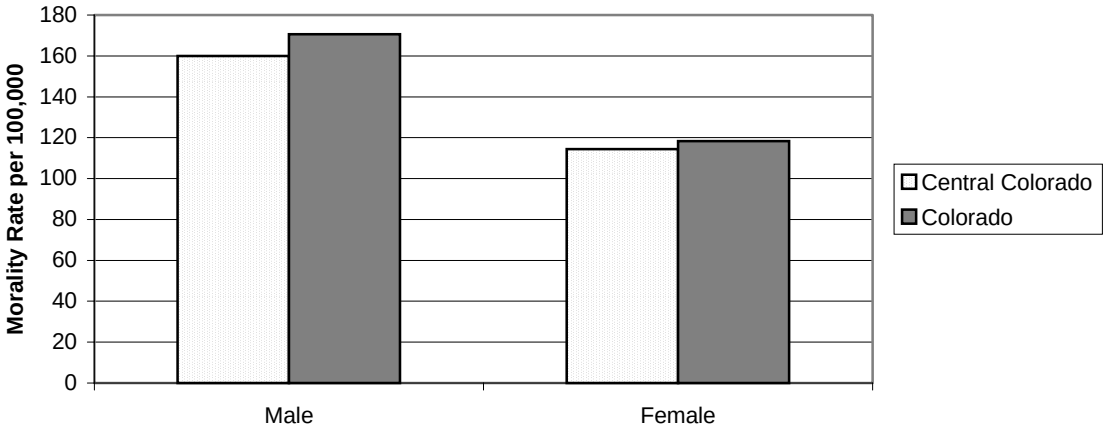


Mortality

During the 1997-1998 period there were 5,920 male cancer deaths and 5,516 female cancer deaths in Colorado, and 186 male cancer deaths and 152 female cancer deaths in central Colorado. The cancer mortality rates for males and females in the central region were similar to the state rates (see Figure 4.3).

The county specific mortality rates in the central region ranged from 43 percent lower to 33 percent higher. However, these rates were based on very small numbers of cases, and all were within expected statistical variation (see Table 5.3).

Figure 4. 3 All Cancers Combined – Average Annual Age-Adjusted Mortality Rate per 100,000 by Region and Sex, 1997-1998



Colon and Rectal Cancer

The cumulative risk for Colorado men to be diagnosed with colon and rectal cancer before age 85 is 1 in 13, and the risk for Colorado women is 1 in 17. Colon and rectal cancer ranked third among the most commonly diagnosed cancers in Colorado men during the 1994-1998 time period, and second among Colorado women.

Risk Factors

Risk factors for colorectal cancer include a personal or family history of cancer or adenomas (a type of polyp) of the colon or rectum, a personal history of endometrial, ovarian, or breast cancer, and a personal history of longstanding ulcerative colitis. Additionally, smoking and characteristics of the average American diet (high fat and/or low fruit and vegetable consumption) are also associated with increased risk (Guide to Clinical Preventive Services).

Prevention

The American Cancer Society recommends that individuals over 50 years old have a yearly fecal occult blood test (FOBT), plus flexible sigmoidoscopy and digital rectal examination every five years, or colonoscopy and digital rectal examination every 10 years, or double-contrast barium enema and digital rectal examination every five to 10 years. The U.S.

Preventive Services Task Force recommends screening for all persons aged 50 and older with annual FOBT and/or flexible sigmoidoscopy (time interval between exams unspecified). The Colorado Clinical Guidelines Collaborative suggests that persons with a higher than average risk for colorectal cancer, based on a family history, should have more intensive screening. Consumption of a diet low in meat, combined with a high fruit and vegetable diet, may decrease the risk of developing colorectal cancer. Some studies suggest that regular exercise can also decrease one's risk for developing colorectal cancer (Pate RR, et al.).

Incidence

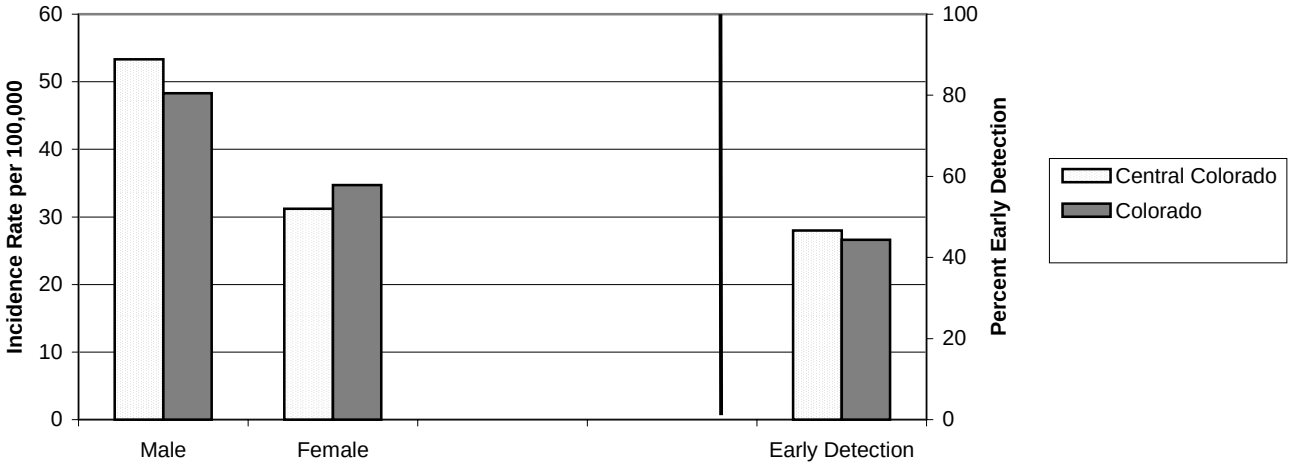
During the period of 1997-1998, 1,672 males and 1,592 females in Colorado were diagnosed with colon and rectal cancer. Comparable statistics for central Colorado were 61 males and 45 females in the same time period. The male colorectal cancer incidence rate for central Colorado was 10 percent higher than the state rate, while the female colorectal cancer incidence rate for central Colorado was 10 percent lower than the state rate.

Rates for Custer, Gilpin, and Lake counties could not be displayed in this report due to low case counts. In the remaining central region counties, the incidence rates ranged from 43 percent lower (Teller County females) to 77 percent higher (Clear Creek females), however, no rates were statistically different from state rates. Case counts in these remaining counties were quite small (see Table 5.4).

Early Detection

During the 1997-1998 period, 44.3 percent of colorectal cancers statewide and 46.7 percent in central Colorado were detected early. The data were suppressed for Custer, Gilpin, and Lake counties due to small case counts. Chaffee, Clear Creek, and Park counties had better early detection percentages than the state, and Fremont and Teller counties had percentages similar to the state (see Table 5.5).

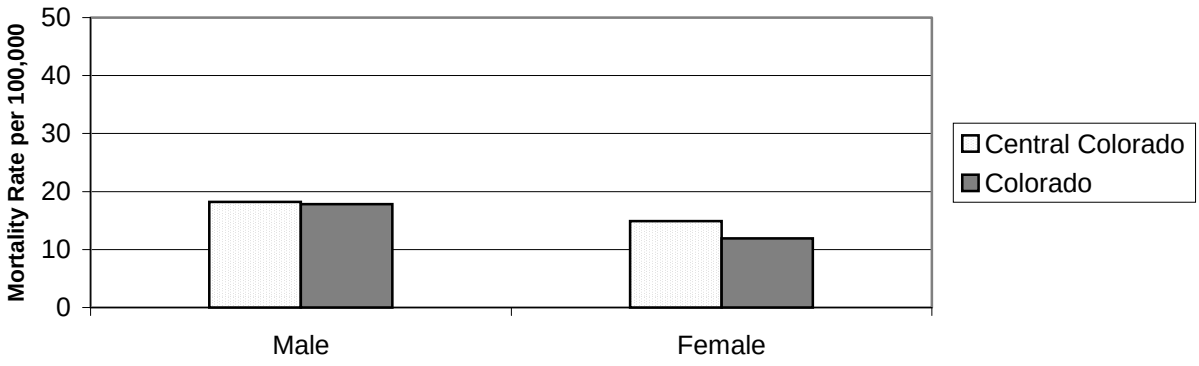
Figure 4. 4 Colon and Rectal Cancer Average Annual Incidence Rate and Percent "Early" Detection by Region, 1997-1998



Mortality

During the 1997-1998 period, Colorado had 619 male and 589 female deaths from colorectal cancer. Central Colorado had 21 male and 22 female colorectal cancer deaths in the same period. The Colorado colorectal cancer mortality rate was 17.8 for males and 11.9 for females. The central region colorectal cancer mortality rate was 18.2 for males, which was 2 percent higher than the state rate, and 14.9 for females, which was 25 percent above the state rate. Both of these rates were based on small case counts (see Table 5.6).

Figure 4. 5 Colon and Rectal Cancer – Average Annual Age-Adjusted Mortality Rate per 100,000 by Region and Sex, 1997-1998



Lung Cancer

The cumulative risk of Colorado men being diagnosed with lung cancer before age 85 is 1 in 10, and the risk for Colorado women is 1 in 17. Lung cancer ranked second among the most commonly diagnosed cancers in Colorado men during the 1994-1998 time period, and third among Colorado women.

Risk Factors

The Colorado Cancer Prevention and Control Plan states that cigarette smoking is the predominant risk factor for lung cancer. Approximately 90 percent of lung cancer cases in men and 80 percent of cases in women are attributable to cigarette smoking. Individuals who smoke more than two packs a day have lung cancer mortality rates 15 to 25 times greater than do those individuals who have never smoked. Passive exposure to cigarette smoke increases the risk for nonsmokers. Other risk factors thought to be important in the development of lung cancer include exposure to industrial substances such as arsenic, certain organic chemicals, asbestos (especially for persons who smoke), and radiation exposure from occupational, medical, and environmental sources. Residential radon exposure may increase risk, especially in cigarette smokers.

Prevention

Lung cancer is largely preventable. An estimated 85 percent of all lung cancers in Colorado could be prevented if cigarette smoking were eliminated (Colorado Cancer Prevention and Control Plan Advisory Committee). Because symptoms often do not appear until the disease is in advanced stages, early detection of lung cancer is difficult. Precancerous cellular changes in bronchial tissues often return to normal in smokers who stop smoking. Chest x-rays, analysis of cell types in sputum, and fiber-optic examination of the bronchial passages assist diagnosis, but have not been shown to be useful as widespread screening procedures to detect early stage disease.

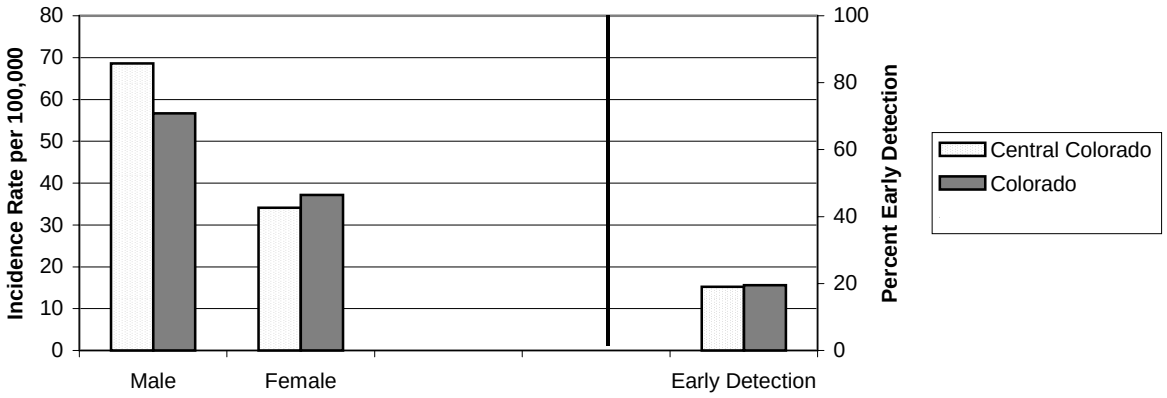
Incidence

During 1997-1998 in Colorado, 1,925 men and 1,576 women were diagnosed with lung cancer; in central Colorado 75 men and 44 women were diagnosed with lung cancer. The male lung cancer incidence rate for central Colorado was 21 percent higher than the state rate, and the female lung cancer incidence rate was similar to the state rate. Custer and Gilpin counties' rates could not be published due to low case counts. In Fremont County, the female incidence rate was 43 percent lower than the state rate, which was statistically significant (see Table 5.7).

Early Detection

Because symptoms often do not appear until the disease is in an advanced stage, early detection of lung cancer is very difficult. In 1997-1998, only 19.5 percent of cases were detected early in Colorado, 19 percent in central Colorado. Chaffee and Fremont counties had better early detection percentages than the state, 26.1 and 23.5 percent, respectively. The percentages for Clear Creek, Park, and Teller were lower, but these counties had smaller numbers of cases (see Table 5.8).

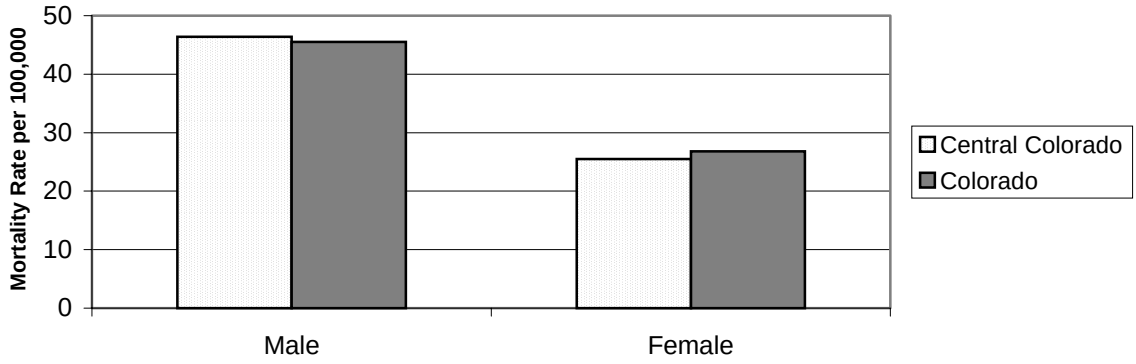
Figure 4. 6 Lung Cancer – Average Annual Incidence Rate and Percent "Early" Detection by Region, 1997-1998



Mortality

Lung cancer is the leading cause of cancer death in Colorado for both men and women. During the 1997-98 time period, 1,545 men and 1,188 women died of lung cancer in Colorado, and 53 men and 31 women died of lung cancer in central Colorado. Figure 4.7 shows that the lung cancer mortality rates in central Colorado for men and women were similar to the state rates. Individual county rates were all within expected statistical variation (see Table 5.9).

Figure 4. 7 Lung Cancer – Average Annual Age-Adjusted Mortality Rate per 100,000 by Region and Sex, 1997-1998



Melanoma

Melanoma is the most deadly type of skin cancer. Other types of skin cancer, basal or squamous cell cancers, are highly curable. Although representing only less than 5 percent of all skin cancers, melanoma accounts for the majority of deaths caused by skin cancer. The melanoma incidence rate in Colorado is increasing faster than most other major cancers. The cumulative risk of being diagnosed with melanoma before age 85 is 1 in 36 for men and 1 in 65 for women. Melanoma ranked fifth among the most commonly diagnosed cancers in Colorado men and women combined during the 1994-1998 time period.

Risk Factors

Excessive exposure to ultraviolet radiation (including natural sunlight and tanning booths) is the major risk factor for all skin cancers (U.S. Preventive Services Task Force, American Academy of Dermatology, Colorado Cancer Prevention and Control Plan Advisory Committee). Severe sunburn in childhood, fair complexion, and occupational exposure to coal tar, pitch, creosote, arsenic compounds, or radium are also considered risk factors for skin cancer.

Prevention

The U.S. Preventive Services Task Force recommends that the primary prevention of skin cancer involve limiting sun exposure especially during midday, avoiding tanning facilities, wearing protective clothing, and applying sunscreen preparations. The American Cancer Society recommends a monthly skin self-examination for all adults and a skin examination by a physician every three years in persons 20-39 years old, and annually in persons 40 years and older.

Early detection of melanoma is critical. Over 90 percent of melanomas that arise in the skin can be recognized with the naked eye. Melanomas often start as small, mole-like growths that increase in size, change color, become ulcerated, and bleed easily. Skin changes described in the "ABCD" rule require further diagnostic evaluation:

- A is for Asymmetry - one-half of the mole does not match the other.
- B is for Border - the edges are ragged, notched, or blurred.
- C is for Color - the pigmentation is not uniform.
- D is for Diameter - greater than 6 millimeters, about the size of a pencil eraser.

Any sudden or progressive increase in the size of a mole is also a cause for concern.

Incidence

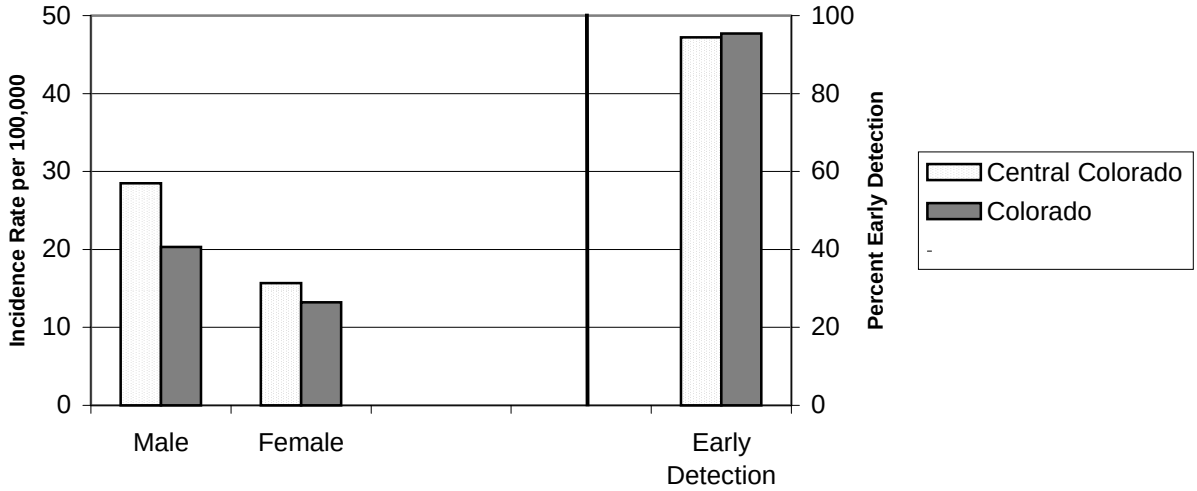
During the 1997-1998 time period, 789 Colorado men and 603 Colorado women were diagnosed with melanoma. The comparable statistics for central Colorado were 35 men and 20 women. The male melanoma incidence rate in central Colorado was 40 percent higher than the state rate, and the female incidence rate was 19 percent higher.

Many of the county level incidence rates could not be displayed due to small numbers. In Fremont County, the male incidence rate was 31 percent higher than the state, and the female rate was 54 percent higher than the state. Other county rates were higher than the state rate, but the rates were based on small case counts and all were within expected statistical variation (see Table 5.10).

Early Detection

During the 1997-1998 time period, 95.3 percent of melanoma cases were detected early in Colorado; central Colorado showed a similar percentage. Although case counts are small, four counties detected 100 percent of melanomas in the earliest stages (see Figure 4.8). Fremont County showed a 96.6 percent early detection percentage. Lake County had four melanoma cases, none of which were detected early (see Table 5.11).

Figure 4. 8 Melanoma – Average Annual Incidence Rate and Percent "Early" Detection By Region, 1997-1998



Mortality

Due to the small numbers of deaths from melanoma in the central Colorado region, no comparison rates are available with the exception of males in central Colorado. That rate is identical to the state mortality rate of 3.8 per 100,000 (see Table 5.12).

Female Breast Cancer

The cumulative risk for Colorado women being diagnosed with breast cancer before age 85 is 1 in 7. Breast cancer ranked first among the most commonly diagnosed cancers in Colorado women during the 1994-1998 time period.

Risk Factors

Breast cancer risk increases with age. A personal or family history of breast cancer is the most established risk factor. Increased risk for breast cancer has been associated with first full-term pregnancy after age 30, and also with early menarche and late menopause (the Colorado Cancer Prevention and Control Plan Advisory Committee, U.S. Preventive Service Task Force, the American Cancer Society). Obesity, heavy alcohol use, high-fat diets, and estrogen replacement therapy have been suggested as possible risk factors for breast cancer (Clinical Oncology). Despite the large number of known and potential risk factors, few are strongly associated with the development of breast cancer, and no single factor or combination of factors can predict the occurrence of breast cancer in any one individual. The key to reducing breast cancer mortality is early detection through screening (the American Cancer Society).

Prevention

The American College of Radiology, the American Medical Association, and the American College of Obstetricians and Gynecologists recommend that women aged 40 and over have a screening mammogram every one to two years, and an annual clinical breast exam. The American Cancer Society recommends that women aged 20-39 do a breast self-exam each month and have a clinical breast exam by a health care professional every three years; and that women aged 40 and over do a breast self-exam each month and have a mammogram and a clinical breast exam every year.

Incidence

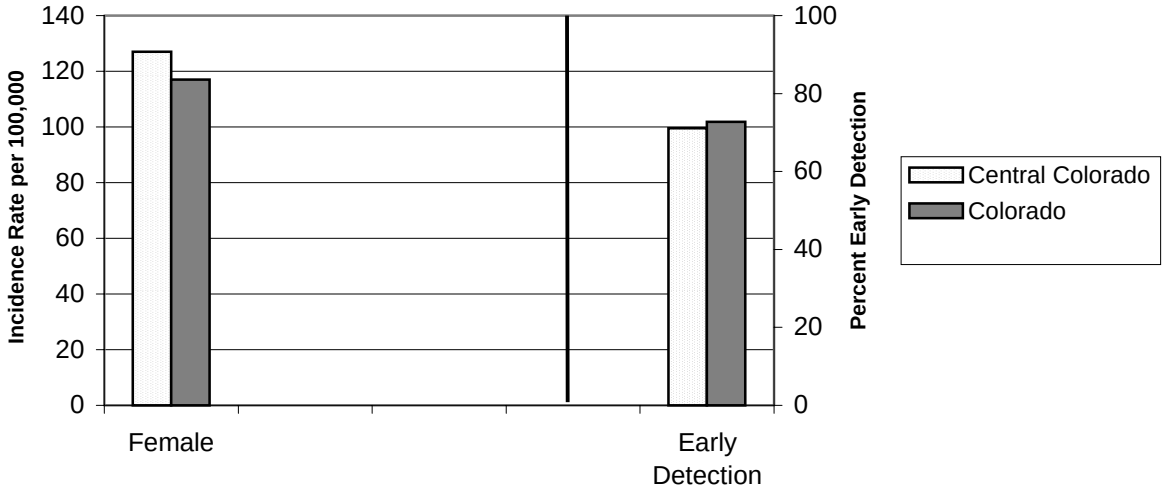
In Colorado during the 1997-1998 time period, 5,118 new female breast cancers were diagnosed; 170 were diagnosed in central Colorado women. The female breast cancer incidence rate for central Colorado was similar to the state rate (see Figure 4.9).

Five of the eight central Colorado counties had incidence rates higher than the state. The largest differences were: Custer was 69 percent higher; Gilpin was 137 percent higher; and Teller was 32 percent higher. These rates were based on small case counts and all of these differences were within expected statistical variation. Park County had an incidence rate 30 percent lower than the state which is also within expected statistical variation (see Table 5.13).

Early Detection

Figure 4.9 shows that in Colorado during the 1997-1998 time period, 72.7 percent of female breast cancers were detected early. In central Colorado, 71.1 percent of female breast cancer cases were detected early. Chaffee, Fremont, and Teller counties had early detection percentages similar to the state percentage. Two counties had better early detection percentages: Clear Creek (85.7 percent) and Park (76.9 percent). The three remaining counties had small case counts and worse early detection percentages: Custer (50 percent), Gilpin (60 percent), and Lake (37.5 percent).

Figure 4. 9 Female Breast Cancer – Average Annual Incidence Rate and Percent "Early" Detection By Region, 1997-1998

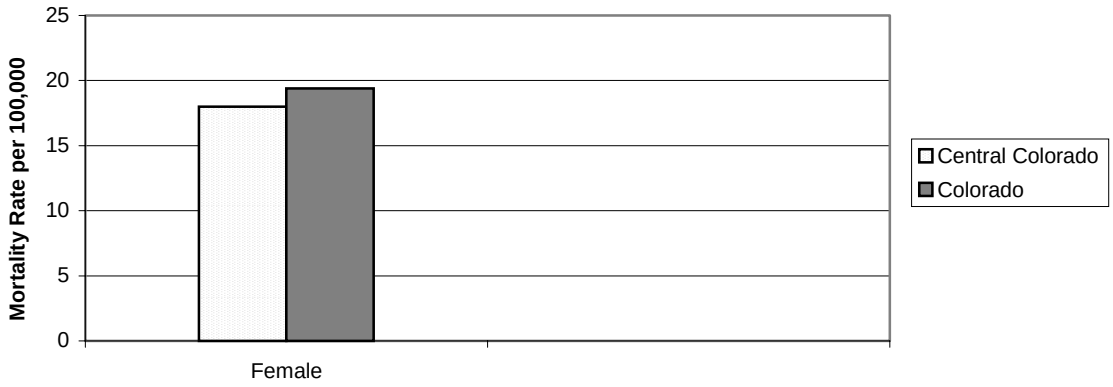


Mortality

During the 1997-1998 time period, 903 Colorado women died of breast cancer while 23 central Colorado women died of breast cancer in the same time period. The female breast cancer mortality rate in central Colorado was similar to the state rate (see Figure 4.10).

Rates in four of the eight central Colorado counties could not be displayed due to small case counts. In the other four counties, Chaffee County had a rate similar to the state rate, Fremont was 12 percent lower, Park was 86 percent higher, and Teller was 30 percent lower. All of these rates were based on 10 or fewer cases and were within expected statistical variation (see Table 5.15).

Figure 4. 10 Female Breast Cancer – Average Annual Age-Adjusted Mortality Rate per 100,000 by Region, 1997-1998



Invasive Cervical Cancer

The cumulative risk of Colorado women being diagnosed with invasive cervical cancer before age 85 is 1 in 121. Invasive cervical cancer ranked ninth among the most commonly diagnosed cancers in Colorado women during the 1994-1998 time period.

Risk Factors

Multiple sex partners, younger age at first intercourse, a higher number of pregnancies, sexually transmitted infections with certain types of human papilloma virus, and maternal use of diethylstilbestrol (DES) during pregnancy raise the risk for cervical cancer. Smoking and long-term use of oral contraceptives may also increase risk (Colorado Cancer Prevention and Control Plan Advisory Committee).

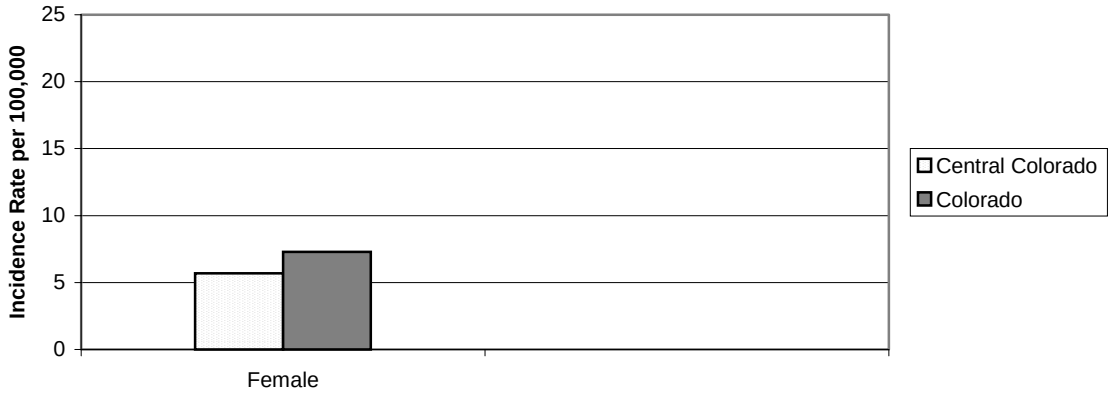
Prevention

The American Cancer Society and the National Cancer Institute recommend pelvic exams every one to three years for women aged 18 to 40 and for sexually active women younger than age 18. Annual exams are recommended for women after age 40. Women should have Papanicolaou tests (Pap) at least every one to three years after three negative annual tests. The U.S. Preventive Services Task Force recommends that Pap tests should begin with the onset of sexual activity and should be repeated every one to two years at the physician's discretion. Because cervical cancer has been linked to sexually transmitted infections, use of barrier methods of contraception and involvement with fewer sex partners may decrease the risk of developing cervical cancer.

Incidence

In Colorado there were 346 invasive cervical cases diagnosed during the 1997-98 time period; eight cases were diagnosed in central Colorado. The central Colorado cervical cancer incidence rate was 22 percent lower than the state rate (see Figure 4.11). Fremont County had the only publishable rate, 8.4 per 100,000, which is 15 percent higher than the state rate but still within expected statistical variation (see Table 5.16).

Figure 4. 11 Invasive Cervical Cancer – Average Annual Age-Adjusted Incidence Rate per 100,000 by Region, 1997-1998



Early Detection

Early detection percentages were not calculated for cervical cancer because in-situ cervical cancer is not reportable to the Colorado Central Cancer Registry.

Mortality

Region and county rates of cervical cancer mortality could not be displayed due to small case counts.

Prostate Cancer

The cumulative risk of Colorado men being diagnosed with prostate cancer before age 85 is 1 in 5. Prostate cancer ranked first among the most commonly diagnosed cancers in Colorado men during the 1994-1998 time period.

Risk Factors

Incidence increases with age (especially after age 60). Both familial and environmental factors may contribute to increased risk for prostate cancer. Studies suggest that a family history of prostate cancer in a first-degree relative doubles one's risk. Suspected environmental risk factors include occupational exposure to cadmium, work in rubber manufacturing, and farming. Epidemiologic evidence also suggests that a diet high in fat, particularly animal or saturated fat, increases the risk of prostate cancer (the American Cancer Society).

Prevention

The American Cancer Society recommends that men age 50 and older that have at least a 10-year life expectancy should talk with their health care professional about having a digital rectal exam of the prostate gland and a prostate-specific antigen (PSA) blood test every year. Men who are at high risk for prostate cancer (black men or men who have a history of prostate cancer in close family members) should consider beginning these tests at an earlier age. The PSA test measures the blood levels of prostate specific antigen, a protein secreted by prostate cells. In conjunction with a digital rectal exam, the PSA test is a valuable tool for detecting prostate cancer at a very early stage.

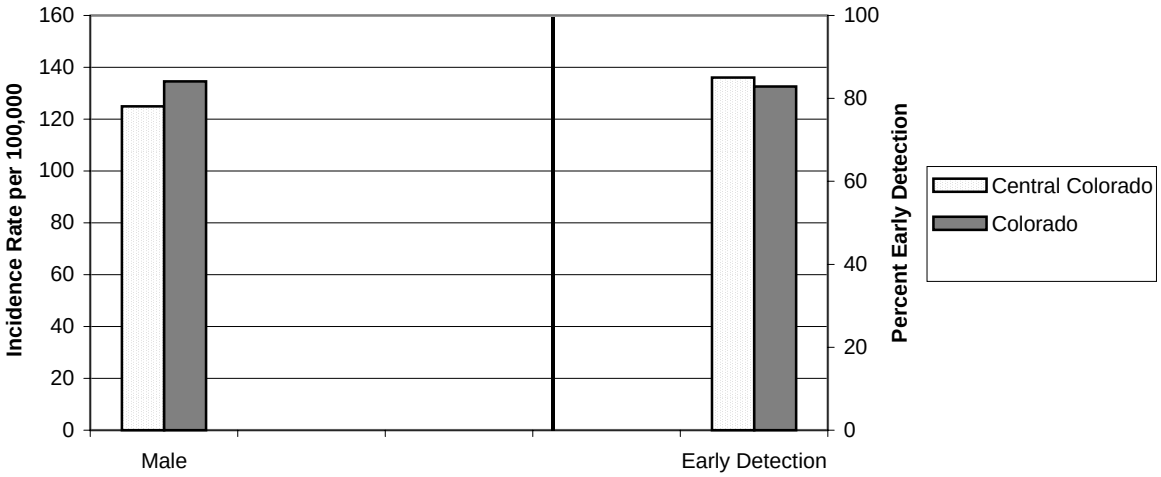
Incidence

According to the Cancer Registry annual report, prostate cancer incidence rose sharply in Colorado from the late 1980's to 1992, with a similarly sharp drop in rates from 1992 to 1998. This phenomenon has been attributed to changes in PSA screening rates. As the PSA test was widely adopted in the late 1980's, more prostate cancer cases were diagnosed at an earlier stage

than they otherwise would have been. Once this pool of cases was detected, the incidence rate decreased to its earlier level.

During the 1997-1998 time period, 4,515 new cases were detected in Colorado with 136 cases diagnosed in central Colorado. The prostate cancer incidence rate in central Colorado was similar to the state rate (see Figure 4.12 and Table 5.19).

Figure 4. 12 Prostate Cancer – Average Annual Age-Adjusted Incidence Rate and Percent Early Detection by Region, 1997-1998



Early Detection

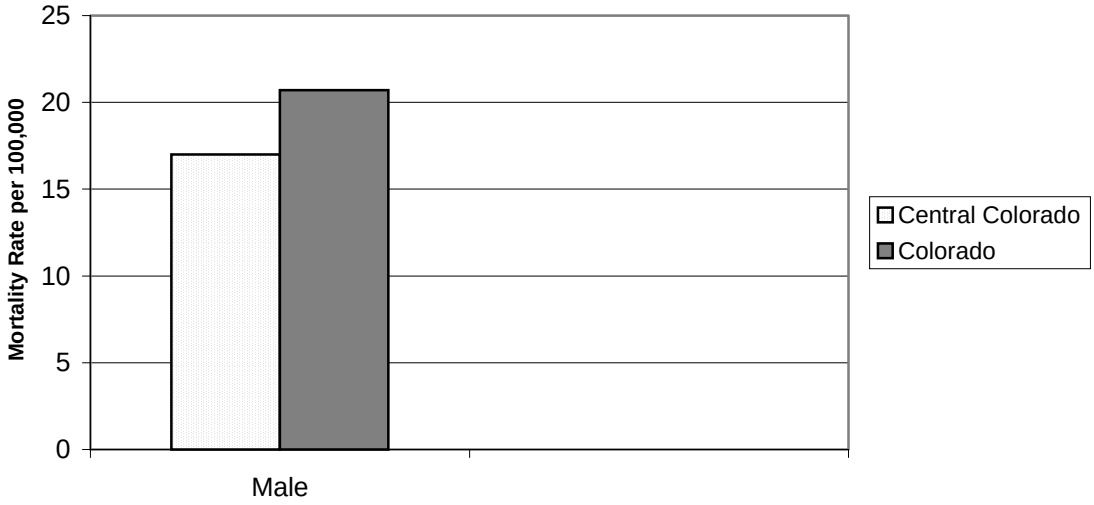
In Colorado during the 1997-1998 time period, 82.9 percent of prostate cancers were detected at early stages, and 85.0 percent of the cancers were detected early in central Colorado. As with the other individual cancer sites, case counts in each county were low. Two of the eight counties had worse early detection percentages: Chaffee (75.0 percent) and Park (78.6 percent). Clear Creek County's early detection rate was 100 percent and the Teller County percentage was high at 91.7 percent. Fremont and Lake counties had percentages slightly higher than the state percentage, and Custer and Gilpin counties' rates were not published due to small case counts.

Mortality

Figure 4.12 shows that the central Colorado prostate cancer mortality rate was 18 percent lower than the state rate for 1997-1998. Only two individual county rates could be published: Chaffee County's rate was 12.6 per 100,000. Although this rate is 40 percent lower than the

state, it was calculated on the basis of only 3 deaths and is within expected statistical variation. Fremont County had a 17.8 per 100,000 mortality rate which is 14 percent lower than the state rate (see Table 5.21).

Figure 4. 13 Prostate Cancer – Average Annual Age-Adjusted Mortality Rate per 100,000 by Region, 1997-1998



Section V

Appendix

Incidence, Staging, and Mortality Data by County

Appendix

Table 5. 1 All Cancers Combined – Incidence Rates

Number of Diagnosed Cancers and Average Annual Age-Adjusted Incidence Rates per 100,000 by Sex and Place, 1997-1998

Place	Male		Female	
	N	Rate	N	Rate
Colorado	15428	440.0	15181	343.6
Central Colorado	514	454.0	445	338.9
Chaffee	92	481.9	80	340.4
Clear Creek	27	350.6	26	331.6
Custer	10	281.9	11	279.0
Fremont	230	480.2	184	336.4
Gilpin	11	310.6	14	499.2
Lake	23	426.9	28	417.0
Park	41	433.6	27	**232.7** Low
Teller	80	527.6	75	387.6

Table 5. 2 All Cancers Combined – Stage at Diagnosis

Stage of Disease at Diagnosis and Early Detection by Place, 1997-1998

	In-Situ %	Local %	Regional %	Distant %	Unknown %	Cases N	% "Early" Detection
Colorado	7.3	43.5	17.9	19.4	11.9	33598	57.7
Central Colorado	7.6	42.4	17.0	19.7	13.3	1047	57.7
Chaffee	8.5	42.0	13.8	21.3	14.4	188	59.0
Clear Creek	11.9	52.5	13.6	13.6	8.5	59	70.3
Custer	4.2	45.8	29.2	16.7	4.2	24	52.1
Fremont	7.9	40.3	16.7	19.2	15.6	454	57.3
Gilpin	3.9	38.5	30.8	23.1	3.9	26	44.0
Lake	3.6	34.6	21.8	21.8	18.2	55	46.7
Park	6.9	48.0	16.4	23.3	5.5	73	58.0
Teller	7.1	45.2	16.7	19.1	11.9	168	59.4

Bold = difference between region or county and the state is significant at $p < 0.05$

* = data could not be displayed due to small case counts

Table 5. 3 All Cancers Combined – Mortality Rates

Number of Deaths and Average Annual Age-Adjusted Mortality Rates per 100,000 by Sex and Place, 1997-1998

Place	Male		Female	
	N	Rate	N	Rate
Colorado	5920	170.6	5516	118.3
Central Colorado	186	160.0	152	114.4
Chaffee	28	139.1	29	123.0
Clear Creek	12	148.7	7	96.2
Custer	3	96.6	*	*
Fremont	95	178.4	70	118.7
Gilpin	4	104.1	*	*
Lake	11	226.2	7	136.5
Park	12	127.5	12	114.5
Teller	21	159.9	20	108.2

Bold = difference between region or county and the state is significant at $p < 0.05$

* = data could not be displayed due to small case counts

Table 5. 4 Colon and Rectal Cancer – Incidence Rates

Number of Diagnosed Cancers and Average Annual Age-Adjusted Incidence Rates per 100,000 by Sex and Place, 1997-1998

Place	Male		Female	
	N	Rate	N	Rate
Colorado	1672	48.3	1592	34.7
Central Colorado	61	53.3	45	31.2
Chaffee	8	44.2	9	30.1
Clear Creek	3	44.7	4	61.3
Custer	*	*	*	*
Fremont	30	57.1	21	30.4
Gilpin	*	*	*	*
Lake	*	*	*	*
Park	5	61.6	5	52.1
Teller	12	78.9	4	19.6

Table 5. 5 Colon and Rectal Cancer – Stage at Diagnosis

Stage of Disease at Diagnosis and Early Detection by Place, 1997-1998

	In-Situ %	Local %	Regional %	Distant %	Unknown %	Cases N	% "Early" Detection
Colorado	6.1	35.2	34.1	17.9	6.6	3511	44.3
Central Colorado	6.9	35.3	32.8	15.5	9.5	116	46.7
Chaffee	10.5	42.1	10.5	31.6	5.3	19	55.6
Clear Creek	0.0	42.9	42.9	0.0	14.3	7	50.0
Custer	*	*	*	*	*	*	*
Fremont	8.9	30.4	39.3	12.5	8.9	56	43.1
Gilpin	*	*	*	*	*	*	*
Lake	*	*	*	*	*	*	*
Park	0.0	50.0	16.7	25.0	8.3	12	54.5
Teller	5.9	35.3	41.2	11.8	5.9	17	43.7

Bold = difference between region or county and the state is significant at $p < 0.05$

* = data could not be displayed due to small case counts

Table 5. 6 Colon and Rectal Cancer – Mortality Rates

Number of Deaths and Average Annual Age-Adjusted Mortality Rates per 100,000 by Sex and Place, 1997-1998

Place	Male		Female	
	N	Rate	N	Rate
Colorado	619	17.8	589	11.9
Central Colorado	21	18.2	22	14.9
Chaffee	3	13.6	5	17.2
Clear Creek	*	*	*	*
Custer	*	*	*	*
Fremont	10	20.8	10	13.1
Gilpin	*	*	*	*
Lake	*	*	*	*
Park	*	*	*	*
Teller	3	29.9	3	10.6

Bold = difference between region or county and the state is significant at $p < 0.05$

* = data could not be displayed due to small case counts

Table 5. 7 Lung Cancer – Incidence Rates

Number of Diagnosed Cancers and Average Annual Age-Adjusted Incidence Rates per 100,000 by Sex and Place, 1997-1998

Place	Male		Female	
	N	Rate	N	Rate
Colorado	1925	56.7	1576	37.2
Central Colorado	75	68.6	44	34.1
Chaffee	15	80.6	14	56.6
Clear Creek	3	31.5	5	48.3
Custer	*	*	*	*
Fremont	30	64.3	13	**21.2** Low
Gilpin	*	*	*	*
Lake	5	98.5	4	78.7
Park	6	71.4	3	34.4
Teller	13	88.9	4	25.8

Table 5. 8 Lung Cancer – Stage at Diagnosis

Stage of Disease at Diagnosis and Early Detection by Place, 1997-1998

	In-Situ %	Local %	Regional %	Distant %	Unknown %	Cases N	% "Early" Detection
Colorado	0.0	16.9	19.8	50.0	13.2	3503	19.5
Central Colorado	0.0	16.0	21.9	46.2	16.0	119	19.0
Chaffee	0.0	20.7	13.8	44.8	20.7	29	26.1
Clear Creek	0.0	12.5	37.5	50.0	0.0	8	12.5
Custer	*	*	*	*	*	*	*
Fremont	0.0	18.6	27.9	32.6	20.9	43	23.5
Gilpin	*	*	*	*	*	*	*
Lake	0.0	0.0	11.1	55.6	33.3	9	0.0
Park	0.0	11.1	33.3	55.6	0.0	9	11.1
Teller	0.0	17.7	5.9	70.6	5.9	17	18.8

Bold = difference between region or county and the state is significant at $p < 0.05$

* = data could not be displayed due to small case counts

Table 5. 9 Lung Cancer – Mortality Rates

Number of Deaths and Average Annual Age-Adjusted Mortality Rates per 100,000 by Sex and Place, 1997-1998

Place	Male		Female	
	N	Rate	N	Rate
Colorado	1545	45.5	1188	26.8
Central Colorado	53	46.4	31	25.5
Chaffee	10	49.3	7	32.0
Clear Creek	5	57.0	*	*
Custer	*	*	*	*
Fremont	26	48.3	12	24.9
Gilpin	*	*	*	*
Lake	*	*	3	61.0
Park	4	47.4	3	21.0
Teller	5	33.7	3	18.4

Bold = difference between region or county and the state is significant at $p < 0.05$

* = data could not be displayed due to small case counts

Table 5. 10 Melanoma – Incidence Rates

Number of Diagnosed Cancers and Average Annual Age-Adjusted Incidence Rates per 100,000 by Sex and Place, 1997-1998

Place	Male		Female	
	N	Rate	N	Rate
Colorado	789	20.3	603	13.2
Central Colorado	35	28.5	20	15.7
Chaffee	5	28.9	3	15.6
Clear Creek	4	54.4	*	*
Custer	*	*	*	*
Fremont	13	26.6	10	20.3
Gilpin	*	*	*	*
Lake	3	46.1	*	*
Park	*	*	*	*
Teller	8	35.9	5	24.7

Table 5. 11 Melanoma – Stage at Diagnosis

Stage of Disease at Diagnosis and Early Detection by Place, 1997-1998

	In-Situ %	Local %	Regional %	Distant %	Unknown %	Cases N	% "Early" Detection
Colorado	27.3	63.9	2.1	2.4	4.3	1918	95.3
Central Colorado	24.7	67.1	1.4	4.1	2.7	73	94.4
Chaffee	42.9	57.1	0.0	0.0	0.0	14	100.0
Clear Creek	0.0	100.0	0.0	0.0	0.0	5	100.0
Custer	*	*	*	*	*	*	*
Fremont	20.7	75.9	0.0	3.5	0.0	29	96.6
Gilpin	*	*	*	*	*	*	*
Lake	0.0	0.0	25.0	50.0	25.0	4	0.0
Park	66.7	33.3	0.0	0.0	0.0	3	100.0
Teller	23.5	70.6	0.0	0.0	5.9	17	100.0

Bold = difference between region or county and the state is significant at $p < 0.05$

* = data could not be displayed due to small case counts

Table 5. 12 Melanoma – Mortality Rates

Number of Deaths and Average Annual Age-Adjusted Mortality Rates per 100,000 by Sex and Place, 1997-1998

Place	Male		Female	
	N	Rate	N	Rate
Colorado	145	3.8	79	1.7
Central Colorado	4	3.8	*	*
Chaffee	*	*	*	*
Clear Creek	*	*	*	*
Custer	*	*	*	*
Fremont	*	*	*	*
Gilpin	*	*	*	*
Lake	*	*	*	*
Park	*	*	*	*
Teller	*	*	*	*

Bold = difference between region or county and the state is significant at $p < 0.05$

* = data could not be displayed due to small case counts

Table 5. 13 Female Breast Cancer – Incidence Rates

Number of Diagnosed Cancers and Average Annual Age-Adjusted Incidence Rates per 100,000 by Place, 1997-1998

Place	Female	
	N	Rate
Colorado	5118	117.0
Central Colorado	170	127.0
Chaffee	25	109.2
Clear Creek	8	106.3
Custer	8	198.0
Fremont	66	124.2
Gilpin	9	277.8
Lake	9	120.2
Park	12	82.2
Teller	33	154.6

Table 5. 14 Female Breast Cancer – Stage at Diagnosis

Stage of Disease at Diagnosis and Early Detection by Place, 1997-1998

	In-Situ %	Local %	Regional %	Distant %	Unknown %	Cases N	% "Early" Detection
Colorado	16.6	52.6	23.1	2.9	4.8	6158	72.7
Central Colorado	16.3	50.3	24.6	2.5	6.4	203	71.1
Chaffee	10.7	53.6	25.0	0.0	10.7	28	72.0
Clear Creek	42.9	42.9	14.3	0.0	0.0	14	85.7
Custer	0.0	50.0	37.5	12.5	0.0	8	50.0
Fremont	19.5	47.6	20.7	3.7	8.5	82	73.3
Gilpin	10.0	50.0	40.0	0.0	0.0	10	60.0
Lake	10.0	20.0	50.0	0.0	20.0	10	37.5
Park	7.7	69.2	23.1	0.0	0.0	13	76.9
Teller	13.2	57.9	23.7	2.6	2.6	38	73.0

Bold = difference between region or county and the state is significant at $p < 0.05$

* = data could not be displayed due to small case counts

Table 5. 15 Female Breast Cancer – Mortality Rates

Number of Deaths and Average Annual Age-Adjusted Mortality Rates per 100,000 by Place, 1997-1998

Place	Female	
	N	Rate
Colorado	903	19.4
Central Colorado	23	18.0
Chaffee	4	19.3
Clear Creek	*	*
Custer	*	*
Fremont	10	17.0
Gilpin	*	*
Lake	*	*
Park	4	36.1
Teller	3	13.6

Bold = difference between region or county and the state is significant at $p < 0.05$

* = data could not be displayed due to small case counts

Table 5. 16 Invasive Cervical Cancer – Incidence Rates

Number of Diagnosed Cancers and Average Annual Age-Adjusted Incidence Rates per 100,000 by Place, 1997-1998

Place	Female	
	N	Rate
Colorado	346	7.3
Central Colorado	8	5.7
Chaffee	*	*
Clear Creek	*	*
Custer	*	*
Fremont	5	8.4
Gilpin	*	*
Lake	*	*
Park	*	*
Teller	*	*

Table 5. 17 Invasive Cervical Cancer – Stage at Diagnosis

Stage of Disease at Diagnosis by Place, 1997-1998

	Local	Regional	Distant	Unknown	Cases
	%	%	%	%	N
Colorado	60.1	29.2	6.7	4.1	346
Central Colorado	62.5	25.0	0.0	12.5	8
Chaffee	*	*	*	*	*
Clear Creek	*	*	*	*	*
Custer	*	*	*	*	*
Fremont	60.0	20.0	0.0	20.0	5
Gilpin	*	*	*	*	*
Lake	*	*	*	*	*
Park	*	*	*	*	*
Teller	*	*	*	*	*

Bold = difference between region or county and the state is significant at $p < 0.05$

* = data could not be displayed due to small case counts

Table 5. 18 Invasive Cervical Cancer – Mortality Rates

Number of Deaths and Average Annual Age-Adjusted Mortality Rates per 100,000 by Place, 1997-1998

Place	Female	
	N	Rate
Colorado	85	1.8
Central Colorado	*	*
Chaffee	*	*
Clear Creek	*	*
Custer	*	*
Fremont	*	*
Gilpin	*	*
Lake	*	*
Park	*	*
Teller	*	*

Bold = difference between region or county and the state is significant at $p < 0.05$

* = data could not be displayed due to small case counts

Table 5. 19 Prostate Cancer – Incidence Rates

Number of Diagnosed Cancers and Average Annual Age-Adjusted Incidence Rates per 100,000 by Place, 1997-1998

Place	Male	
	N	Rate
Colorado	4515	134.6
Central Colorado	136	124.9
Chaffee	24	121.6
Clear Creek	13	179.0
Custer	*	*
Fremont	55	115.2
Gilpin	*	*
Lake	7	150.8
Park	14	159.7
Teller	17	130.4

Table 5. 20 Prostate Cancer – Stage at Diagnosis

Stage of Disease at Diagnosis and Early Detection by Place, 1997-1998

	In-Situ	Local	Regional	Distant	Unknown	Cases	% "Early"
	%	%	%	%	%	N	Detection
Colorado	0.0	68.3	9.6	4.5	17.6	4518	82.9
Central Colorado	0.0	70.6	6.6	5.9	16.9	136	85.0
Chaffee	0.0	62.5	12.5	8.3	16.7	24	75.0
Clear Creek	0.0	76.9	0.0	0.0	23.1	13	100.0
Custer	*	*	*	*	*	*	*
Fremont	0.0	69.1	9.1	3.6	18.2	55	84.4
Gilpin	*	*	*	*	*	*	*
Lake	0.0	85.7	0.0	14.3	0.0	7	85.7
Park	0.0	78.6	7.1	14.3	0.0	14	78.6
Teller	0.0	64.7	0.0	5.9	29.4	17	91.7

Bold = difference between region or county and the state is significant at $p < 0.05$

* = data could not be displayed due to small case counts

Table 5. 21 Prostate Cancer – Mortality Rates

Number of Deaths and Average Annual Age-Adjusted Mortality Rates per 100,000 by Place, 1997-1998

Place	Male	
	N	Rate
Colorado	697	20.7
Central Colorado	20	17.0
Chaffee	3	12.6
Clear Creek	*	*
Custer	*	*
Fremont	12	17.8
Gilpin	*	*
Lake	*	*
Park	*	*
Teller	*	*

Bold = difference between region or county and the state is significant at $p < 0.05$

* = data could not be displayed due to small case counts

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