Colorado Cancer Plan 2005

Colorado Cancer Coalition

Bringing together and coordinating cancer prevention, early detection, treatment, support, and research efforts to improve the quality of life for everyone in Colorado.

Colorado Department
of Public Health
and Environment

To Obtain additional copies or for further information, please contact

Comprehensive Cancer Prevention and Control Program
Health Promotion and Disease Prevention Division
Colorado Department of Public Health and Environment
HPDP-CCPC-A5
4300 Cherry Creek Drive South
Denver, CO 80246-1530
303 - 692-2520
800 - 866-7689 ext. 2520

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A Letter to Coloradans:

Cancer death rates are falling in Colorado, but cancer remains the second leading cause of death in our state. During this year alone, more than 6,000 Coloradans will die from cancer. We now know how to prevent a substantial proportion of these deaths. Over the past 10 years, we have begun to make good progress on cancer prevention and control in Colorado, but there is much more that can be done.

Effective cancer prevention and control requires planning and coordination. The Colorado Cancer Coalition is pleased to present to you the Colorado Cancer Plan 2005. This Plan outlines the goals and strategies to make even further progress in reducing the burden of cancer in Colorado in the coming years. The Plan describes how we will keep cancer death rates falling by new efforts to prevent tobacco use, improve diet and exercise, detect cancers early, and make sure that state-of-the-art treatment and support are available to everyone diagnosed with cancer in Colorado.

To produce this Plan, the Colorado Cancer Coalition examined the current burden of cancer and risk factors for cancer in Colorado, evaluated programming, and established priorities for the coming years. The work of developing this Plan is not complete, however. As science and practical experience grow, new challenges, new tools, and new strategies will emerge. This plan is intended to be a dynamic document, used by organizations and communities both big and small to create, implement, and sustain activities to reduce the cancer burden throughout Colorado. Colorado's Cancer Plan will involve many sectors of our society, including diverse interests of state government, local public health, nursing, medicine, education, religious and social groups, voluntary organizations, and many individuals across our state.

Thank you for using the Colorado Cancer Plan. The Colorado Cancer Coalition invites you to join us in our ongoing efforts to further reduce the impact of cancer here in Colorado.

Deb Hood, M.B.A.
Director, Penrose Cancer Center, Centura Health

Chair, Colorado Cancer Coalition, 2002-2003

Tim Byers, M.D., M.P.H.
Professor of Preventive Medicine, University of Colorado School of Medicine

Chair, Colorado Cancer Coalition, 1998-2002

Sara Miller, M.P.A.
Director, Comprehensive Cancer Prevention and Control Program, Colorado Department of Public Health and Environment

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COLORADO CANCER PLAN 2005

Developed by the:
Colorado Cancer Coalition

Bringing together and coordinating cancer prevention, early detection, treatment, support, and research efforts to improve the quality of life for everyone in Colorado.

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ACKNOWLEDGEMENTS

The Colorado Cancer Coalition acknowledges the following individuals and organizations for their time and energy in preparing the Colorado Cancer Plan.

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Advanced Health Directions

AMC Cancer Research Center

American Association of Retired People, Rocky Mountain

American Cancer Society

American Cancer Society Breast Cancer Task Force

American Lung Association

Asian Pacific Development Center

Cancer Information Service, NCI

Cancer League of Colorado

Centennial Radiation Oncology, PC

Centers for Medicare and Medicaid Services

Colorado Action for Healthy People

Colorado Cancer Research Program

Colorado Community Health Network

Colorado Department of Public Health and Environment:

- Adolescent and School Health
- Chronic Disease Section
- Colorado Central Cancer Registry
- Colorado Women's Cancer Control Initiative (CWCCI)
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- Women's Health

Colorado Dermatologic Society

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Colorado Foundation for Public Health and Environment

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Colorado State University, Cooperative Extension

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Full Circle Intergenerational Project

Jefferson County Health Department

Kaiser Permanente

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Latino Cancer Prevention/Control Network

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Mercy Medical Cancer Center

Native American Cancer Initiatives, Inc.

Northeast County Health Department

Oncology Nursing Society

PacifiCare

Penrose Cancer Center

Planned Parenthood of Rocky Mountains

Poudre Valley Radiation Oncology, LLC

Prowers County Health Department

Qualife Wellness Center

ROCHE Oncology

Rocky Mountain Cancer Centers

Rocky Mountain Cancer Rehabilitation Institute

St. Mary Corwin Medical Center, Cancer Program

Summit County Public Health

Susan G. Komen Breast Cancer Foundation

Tri-County Health Department

University of Colorado Comprehensive Cancer Center

University of Colorado Health Sciences Center, Department of Family Medicine, Department of Preventative Medicine

University of Northern Colorado:

Food Science and Human Nutrition

U.S. Public Health Service, Region VIII

Visiting Nurse Association

Women's Imaging Center

Zion Baptist Church Health Ministry/Black Churches Health Initiative

CANCER PLAN STEERING COMMITTEE

Barbara Baldwin
Rocky Mountain Region Cancer Information Service

Alacey Berumen, Ph.DC., M.N.M.
American Cancer Society Rocky Mountain Division

Robin Bott, C.T.R.
Colorado Department of Public Health and Environment, Cancer Registry

Alice Bradley, M.A.
Rocky Mountain Region Cancer Information Service

David Brand, M.S.P.H.
Colorado Department of Public Health and Environment, Chronic Disease

Tim Byers, M.D., M.P.H.
University of Colorado Cancer Center

Ned Calonge, M.D., M.P.H.
Colorado Department of Public Health and Environment, Administration

Greg DeCuir
American Cancer Society Mile High Unit

Joe Deuschle
Rocky Mountain Cancer Centers

Paula Espinoza, Ph.D.
Latino Cancer Prevention/ Control Network

Jack Finch, M.S.
Colorado Department of Public Health and Environment, Central Cancer Registry

Kris Gonzalez, R.N., B.S.
9Health Fair

Stephanie Haberkorn
American Cancer Society Rocky Mountain Division

Deb Hood, M.B.A.
Penrose Cancer Center

Jillian Jacobellis, Ph.D., M.S.
Colorado Department of Public Health and Environment, Health Promotion and Disease Prevention Division

Kathy Kennedy, Ph.D., Dr.PH.
Colorado Foundation for Public Health and Environment

Ginny Keppler, R.N., O.C.N.
Rocky Mountain Cancer Centers

Linda Krebs, Ph.D., R.N.
University of Colorado Health Sciences Center

Gloria Latimer, Ed.S.
Colorado Department of Public Health and Environment, State Tobacco Education Partnership Program

Sara E. Miller, M.P.A.
Colorado Department of Public Health and Environment, Comprehensive Cancer Prevention and Control Program

Jeanette Minniti
American Cancer Society Southern Colorado Unit

Normie Morin-Voillequé, Ph.D., M.P.H.
Colorado Department of Public Health and Environment, Chronic Disease Section

Nancy Morton, M.S.P.H.
Kaiser Permanente

Judy Mouchawar, M.D., M.S.P.H.
Kaiser Permanente of Colorado

Mary Kay Myers, M.A.
Colorado Department of Public Health and Environment, Colorado Women's Cancer Control Initiative

Kyle Osborn, B.S.
University of Colorado

Peter Raich, M.D.
AMC Cancer Research Center

Beverley Reddick-Jenkins, M.A.
Colorado Department of Public Health and Environment, Health Disparities Chronic Disease

Alyson Shupe, Ph.D., M.S.W.
Colorado Department of Public Health and Environment, Health Statistics Section

Naomi Sullivan, M.A.M., H.R.O.B.
Qualife Wellness Center

Tomiko Takeda, M.Ed.
Colorado Cancer Research Program

Martha Tenney, M.P.H.
Colorado Action for Healthy People

Heather Tolby, B.A.
Colorado Department of Public Health and Environment, Comprehensive Cancer Prevention and Control Program

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Dennis Ahnen, M.D.
Denver Veterans Affairs Medical Center

Martha Barton
Pikes Peak Hospice and Palliative Care

Corey Bebarta, M.P.H.
Colorado Department of Public Health and Environment, State Tobacco Education Partnership Program

Amy Bode, M.D.
University of Colorado, Department of Preventative Medicine and Biometrics

Alan Canner, J.D.
Colorado Hospice Organization

Lori Crane, Ph.D., M.P.H.
University of Colorado

David Huffman, M.D.
Rocky Mountain Cancer Centers

R. Lee Jennings, M.D.
Retired

Nancy Joy, M.D.
American Cancer Society Breast Cancer Task Force/Volunteer

Christine Mandl, M.S., C.N.M.
Colorado Department of Public Health and Environment, Women's Health

Jo-Ann Owen, R.N., B.S.N.
Denver Veterans Affairs Medical Center

Rachel Oys, M.P.P.
Colorado Department of Public Health and Environment, Cardiovascular Health

John Sable, M.D.
South Denver Gastroenterology

Carole Schneider, Ph.D.
University of Northern Colorado

Terrance Shea, M.P.A., R.N.
Denver Health Medical Center

Vicki Tosher
Day of Caring

EXECUTIVE SUMMARY

Cancer is the second leading cause of death in Colorado. The Colorado Cancer Plan is the cornerstone of work of the Colorado Cancer Coalition.

The Colorado Cancer Coalition is dedicated to bringing together and coordinating cancer prevention, early detection, treatment, support, and research efforts to improve the quality of life for everyone in Colorado. The Centers for Disease Control and Prevention developed the following definition in an effort to help states address cancer on a comprehensive scale:

Comprehensive cancer control is an integrated and coordinated approach to reducing cancer incidence, morbidity, and mortality through prevention, early detection, treatment, rehabilitation and palliation.

Colorado has been committed to following this model since the early 1990s, which has led to increased coordination and collaboration among programs, reduction of duplication, and increased opportunities for cancer prevention and control that may have been missed historically.

The Colorado Cancer Plan contains what Colorado cancer prevention and control experts believe are the top priorities and actions to be undertaken in Colorado for the reduction of cancer mortality and morbidity in Colorado.

The Colorado Cancer Plan focuses on the following components:

- Mission and Goals
- Objectives and Strategies covering the following areas:
  - Prevention
  - Early Detection
  - Data Collection and Reporting
  - Quality of Life, Rehabilitation, Treatment, and Palliation
  - Implementation, Coordination, and Evaluation

The Colorado Cancer Coalition will continue its work to implement and maintain this plan. This plan provides a set of specific action items to be conducted over the next several years. It is the hope of the Colorado Cancer Coalition that through collaborative and coordinated efforts, the plan's goals and objectives will be achieved, and the burden of cancer in Colorado will be reduced.

INTRODUCTION

The Colorado Cancer Coalition (CCC) is a consortium of organizations and individuals with interests in the prevention and control of cancer in Colorado.

Important activities of the CCC are identifying risk factors, defining long-term goals for reducing cancer death rates, setting targets to find cancer early, and increasing healthy behaviors. In 1996, the CCC published the original "Colorado Cancer Prevention and Control Plan 2000." Statewide goals for reductions in cancer death rates for the Year 2000 were defined in the mid-1990s by the CCC based on cancer death rates and trends from the late 1980s to the early 1990s.

This earlier publication assisted cancer prevention and control partners with focusing agreed-upon goals to reduce cancer mortality for all Colorado citizens. The plan included Year 2000 objectives and suggested strategies to reduce cancer mortality, increase surveillance activities, increase primary and secondary prevention efforts, and to address the availability of appropriate cancer treatments.

Most of those goals were met or exceeded by the successes in cancer prevention, early detection, and improved treatment across Colorado. Reductions in death rates between 1991 and 1998 for the major cancer sites were striking. In that seven-year period, breast cancer death rates declined by 29.3 percent, prostate cancer death rates declined by 27.5 percent, colorectal cancer death rates declined by 15.7 percent, and lung cancer death rates declined by 8.8 percent.

The goals of the Colorado Cancer Plan are to target risk factors and further reduce mortality. In addition, these goals aim to lessen, and eventually eliminate, the disparities in cancer in Colorado. In 2000, the Colorado Cancer Coalition established goals for the year 2010, which led the effort to update the Colorado Cancer Plan for 2005 (see Appendix A: Cancer Goals for the Year 2010). This 2005 report includes data on cancer incidence and mortality, and describes risk factors, screening guidelines, prevention strategies, and treatment recommendations.

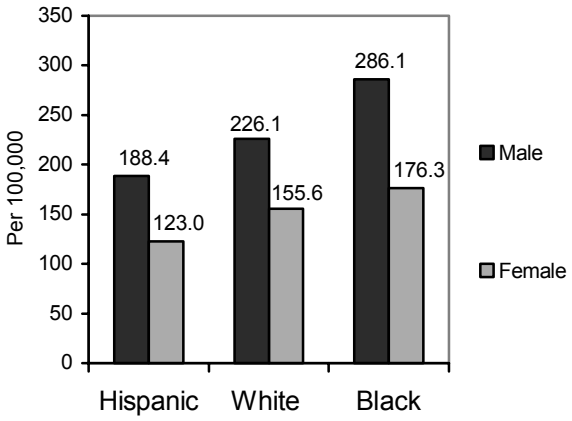
The Colorado Cancer Plan 2005 objectives for reducing the cancer burden in Colorado are based on Colorado surveillance data and the national objectives from Healthy People 2010, as well as issues unique to Colorado. Objectives and their recommended strategies cover cancer mortality, primary prevention, secondary prevention, treatment, rehabilitation, quality of life, and surveillance. Although declines in cancer rates are multifaceted, the efforts of the Colorado Cancer Coalition play an integral part. The Colorado Cancer Plan goals are to both reduce cancer mortality and to influence selected behaviors that relate to cancer mortality. This new set of goals, objectives, and strategies is intended as a framework for continued improvements by Year 2005, and through Year 2010.

Goal setting has been created by consensus among the Colorado Cancer Coalition members. These goals and objectives take into account the history and experiences of cancer control in Colorado. The Colorado Cancer Coalition believes that defining these cancer goals, objectives and strategies will help to empower all of us in Colorado's fight against cancer.

RISK REDUCTION

Cancer is the second leading cause of death in Colorado. Lifestyle, genetic and non-genetic factors, independently or in combination, can increase an individual's risk of developing cancer. Changes in lifestyle, including reduction in tobacco use and modification of the diet to reduce fat and increase fiber consumption, and early detection and intervention, can significantly reduce mortality from some cancers. Reductions in cancer incidence achieved through risk factor interventions may also reduce cancer morbidity and mortality.

CANCER: Age-Adjusted Death Rates by Race/Ethnicity and Gender, Colorado Annual Average, 1995 - 1999



Source: Colorado Department of Public Health and Environment, Health Statistics Section, Denver, June 2001. Rates are age-adjusted to 2000 U.S. population standard.

Screening interventions that result in early detection will have a proportionally greater impact upon cancer mortality, since cancer, when detected at an early stage, is more likely to respond to treatment.

The Colorado Cancer Coalition would like to ensure that the Colorado public is aware of the beneficial impact that lifestyle changes have in reducing cancer.

Eliminating tobacco use can decrease the risk for pancreatic, kidney and urinary bladder cancer, as well as for the more familiar lung, colorectal, head and neck, and cervical cancers. Higher-than-moderate alcohol intake can increase the risk for breast, esophageal, and head and neck cancer.

High dietary fat can increase the risk for colon and breast cancer. Increased fiber, fruit and vegetable consumption may decrease the risk for colon cancer. Regular exercise may decrease the risk of breast and colon cancer. An individual's genetic background can certainly be a powerful determinant of cancer risk as well.

An increased risk for colorectal, breast, prostate, ovarian, and thyroid cancers, as well as malignant melanoma, exists for persons with first-degree relatives with a history of these respective types of cancer. Women who have BRCA1 and BRCA2 gene mutations are at an increased risk for breast and ovarian cancer. The CCC would like to heighten general awareness of these factors. Monitoring and abatement of radon exposure, because of its affect on lung cancer risk, are ongoing processes in the state.

Exposure to ultraviolet radiation is a risk factor for skin cancer and public awareness campaigns are ongoing. The CCC supports existing efforts, as well as those examining other potential environmental carcinogens.

Screening interventions continue to need support. Mammography screening has led to increased early detection and treatment of breast cancer. Endoscopic and fecal occult blood testing, if more widely used, could further decrease mortality from colorectal cancer. The Papanicolaou (Pap) smear has been, and continues to be, a powerful tool for detection of early cervical cancer or even pre-malignant lesions in women.

MORTALITY

Each day, 16 Coloradans die from cancer. There were a total of 5,830 cancer deaths in 1999. The cancer mortality rate for Colorado in 1999 was 175.6 per 100,000 population, considerably lower than for the nation, which was 202.6 deaths per 100,000 population (both rates age-adjusted to the 2000 U.S. population).

By gender, males have a considerably higher mortality rate than females, with 216.4 deaths versus 150.1 per 100,000 population respectively. There are racial differences as well, as blacks have higher cancer mortality rates than non-Hispanic whites, and Hispanics have lower cancer mortality rates than non-Hispanic whites.

For specific cancer sites, there also are gender and racial differences. For lung cancer in women from 1993-1997, rates for white non-Hispanics and blacks were similar, while for men, the black mortality rate was 40 percent higher than for white non-Hispanics.

The cervical cancer mortality rate for white Hispanic women was more than twice that for white non-Hispanic women. Black men had almost twice the mortality rate for prostate cancer as white non-Hispanic men.

INCIDENCE

In 1999, 15,878 Coloradans were diagnosed with cancer. Colorado continues to have a lower rate of cancer diagnosis than the nation.

Language Use

Labels of racial/ethnic groups are used throughout this plan. The term “white” refers to the standard data collection category of white/non-Hispanic.

The term “Hispanic” refers to the standard data collection category of white/Hispanic. The term “black” refers to Blacks, Black/Hispanics, and others who identify themselves in this manner.

The Colorado Cancer Coalition recognizes the difficult issue of using labels with regard to racial/ethnic groups.

It is difficult to gain a consensus on the preference of categories such as “people of color/minority community,” “American Indian/Native American,” “Black/African-American,” “Hispanic/Latino (a),” and “caucasian/white.”

We acknowledge that not everyone identifies himself or herself with these categories, and we very much respect the importance of cultural differences in how communities prefer to be defined.

In this plan, many health indicators will be categorized by race and ethnicity. In accordance with the Centers for Disease Control and Prevention, the Colorado Cancer Coalition also recognizes that race and ethnicity are social constructs representing distinct histories and cultures of groups within the United States, and that they are not necessarily distinct biological or genetic categories.

The cancer incidence rates for Colorado and the nation have been decreasing since 1992. The population of Colorado has been getting older, with a median age of 26.2 in 1970, 32.5 in 1990, and 34.3 years in 2000. Among men and women, men have a higher incidence of cancer (514.0/100,000) than women (397.8/100,000).

The incidence of lung cancer in males is almost 60 percent higher than that of females. Among racial groups, from 1993-1997, black men had the highest cancer incidence rate followed in order by white non-Hispanic men, white Hispanic men, white non-Hispanic women, white Hispanic women, and black women.

The incidence of prostate cancer in white Hispanic men was two-thirds of the incidence for black men, while white non-Hispanics had three-quarters the incidence of black men.

The incidence of cervical cancer in Hispanic women was more than twice that for white non-Hispanic women and 2.5 times that for black women. Colorectal cancer was diagnosed in Hispanic men almost twice as often as in Hispanic women.

Top Cancers in Colorado

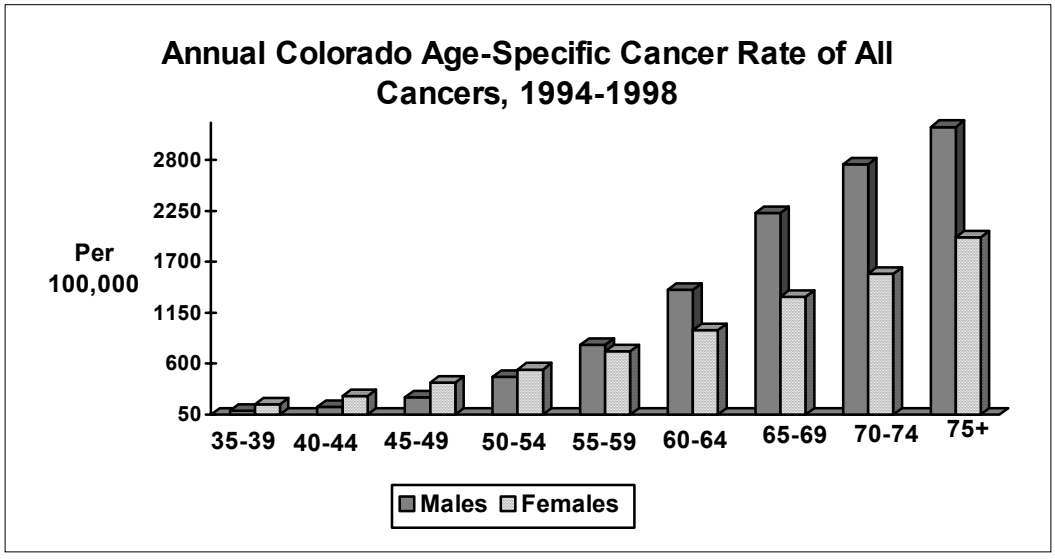
By Mortality: (2000)	By Incidence: (1994-1998)
1. Lung	1. Breast
2. Colorectal	2. Prostate
3. Breast	3. Lung
4. Prostate	4. Colorectal
5. Pancreas	5. Melanoma
6. Non Hodgkin's Lymphoma	6. Bladder
7. Leukemia	7. Non Hodgkin's Lymphoma
8. Ovarian	8. Corpus Uteri, Uterus
9. Brain	9. Leukemia
10. Multiple Myeloma	10. Other and Ill-defined

Source: Colorado Central Cancer Registry

Across groups, the lung cancer incidence rate in black males was almost twice the rate for black women, and Hispanic men had twice the lung cancer incidence than Hispanic women.

PREVALENCE

There are approximately 150,000 Coloradans alive with cancer or a history of cancer. For individuals recently diagnosed with cancer, 6 out of 10 will live five years or longer. Among cancer sites, however, there are major differences in five-year relative survival rates, as of 1994 estimates. For men with prostate cancer, 95 percent are expected to survive 5 years, while 85 percent of women with breast cancer will live at least that long. Only 52 percent of women with ovarian cancer are expected to live five years or longer.



Source: Colorado Central Cancer Registry. Rates are age-adjusted to 2000 U.S. population standard.

INFORMATION

The activities of the Colorado Cancer Coalition are coordinated through the Comprehensive Cancer Prevention and Control Program at the Colorado Department of Public Health and Environment. For more information, please contact:

Sara E. Miller, M.P.A.
Director, Comprehensive Cancer Prevention and Control Program
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South-A5
Denver, Colorado 80246
(303) 692-2519
sara.miller@state.co.us

MISSION AND GOALS

The mission of the Colorado Cancer Coalition is to bring together and coordinate cancer prevention, early detection, treatment, support, and research efforts to improve the quality of life of everyone in Colorado.

GOALS

1) Promote the collection and use of information to increase professional and public understanding and education about cancer, and its impact on Colorado citizens.
2) Improve the healthy behaviors of Colorado citizens in order to prevent cancer.
3) Increase the proportion of Colorado citizens who access and utilize screening services to diagnose cancer at early stages.
4) Increase the proportion of Colorado citizens who have access to state-of-the-art cancer diagnosis, treatment, follow-up, rehabilitation, and palliative care services.
5) Increase the support of policies that enable cancer prevention and control, and that improve the health and environment in Colorado.
6) Ensure programs and activities are developed and sustained to eliminate disparities in cancer incidence and mortality in Colorado according to gender, race, ethnicity, insurance status, socioeconomic status, age, and place of residence.

1.0
PREVENTION

GENERAL CANCER RISK AND RISK REDUCTION

Cancer is the second leading cause of death in Colorado. Lifestyle, non-genetic and genetic factors, independently or in combination, can increase an individual's risk of developing cancer.

Changes in lifestyle (including reduction in tobacco use, and modification of the diet to reduce fat consumption and increase fiber consumption), as well as early detection and intervention, can significantly reduce cancer mortality for some cancers. Reductions in cancer incidence achieved through risk factor interventions will reduce cancer morbidity as well as mortality. Screening interventions, that result in early detection, will have a proportionally greater impact on cancer mortality since early stage disease is more likely to be cured by treatment.

OBJECTIVE 1.1

Increase knowledge of the benefits of screening for the early detection of cancer.

Strategies:

- Disseminate information on the benefits of screening for early detection of cancer using:
  - Mammography for breast cancer
  - Endoscopy and/or fecal occult blood testing for colorectal cancer
  - Papanicolaou smears for cervical cancer
  - Skin self-exam and physical examination for skin cancer
  - Other screening tests as developed
- Emphasize screening education in communities with identified disparities; and,
- Disseminate any new information, including screening methods, to health care providers and the general public.

OBJECTIVE 1.2

Increase knowledge of cancer risk due to selected preventable factors.

Strategies:

Disseminate information on increased risk of:

- Lung cancer with radon exposure;
- Skin cancer with ultraviolet exposure;
- All cancers with diets low in fruits and vegetables;

- Breast, esophageal, and head and neck cancer with more-than-moderate alcohol use;
- Lung, breast, cervical, kidney, head and neck, pancreas, colorectal and bladder cancer with tobacco use, from both primary and second-hand smoke exposure; and,
- Colon and breast cancer with high dietary fat.

OBJECTIVE 1.3

To increase knowledge of the significance of a family history of cancer and the usefulness of genetic testing.

Strategies:

- Provide education and increased use of appropriate assessment tools;
- Disseminate information about increased risk of:
  - Colorectal cancer in persons with first-degree relatives with colorectal cancer, especially at age less than 60
  - Breast cancer in women with first-degree relatives with breast cancer, especially under age 50 and/or ovarian cancer at any age
  - Prostate cancer in men with first-degree relatives with prostate cancer
  - Melanoma in persons with first-degree relatives with melanoma
  - Breast and ovarian cancer in women with BRCA1 and BRCA2 gene mutations
  - Thyroid cancer in persons with first-degree relatives with thyroid cancer or multiple endocrine neoplasia type II;
- Support programs increasing the general population's knowledge regarding genetic testing and counseling, options and best practices; and,
- Increase knowledge of hereditary syndromes and various cancers.

OBJECTIVE 1.4

To increase knowledge of ongoing clinical trials in chemopreventive measures for persons at high risk of cancer.

Strategies:

- Disseminate information on clinical trials, e.g., via the National Institutes of Health website on clinical trials of cancer chemoprevention;
- Promote how to access clinical trials in Colorado through:
  - University of Colorado Comprehensive Cancer Center
  - Colorado Cancer Research Program; and,
- Support training mechanisms, which will increase public and health care providers' knowledge about clinical trials.

TOBACCO USE

Lung cancer is the most common cause of cancer death for both men and women. About 1,400 cases of lung cancer are diagnosed in Colorado each year.

Cigarette smoking far outweighs all other risk factors in the development of lung cancer; the disease rarely occurs in individuals who have never smoked. Approximately 90 percent of lung cancer cases in men and 80 percent of cases in women are attributable to cigarette smoking, both active and passive.

The risk of developing lung cancer is proportional to the number of cigarettes smoked daily and the number of years one has smoked. Individuals who smoke more than two packs per day have lung-cancer mortality rates 15 to 25 times greater than those who have never smoked. Cessation of cigarette smoking results in a gradual decrease in lung cancer risk. Ten to 20 years after cessation, lung cancer rates for former smokers approach the rates of those who have never smoked.

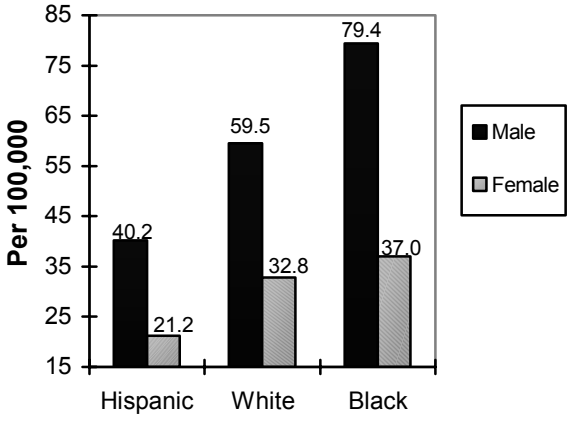
Black males have the highest death rate from lung cancer, which is twice as high as Hispanic males and 1.3 times higher than white males.

No effective curative treatment for lung cancer is available. Nearly 90 percent of lung cancer patients die within five years of diagnosis. Survival improves modestly when lung cancer is detected at an early, localized stage, but few cases are detected early.

Avoidance of tobacco use is the key to reducing lung cancer morbidity and mortality. Morbidity and mortality from heart disease and cancer will be reduced significantly if the prevalence of smoking is decreased. Despite the known adverse effects of tobacco use, approximately 640,000 adult Coloradans still smoke.

In addition to its association with deaths due to lung cancer, heart disease and stroke, cigarette smoking also is a risk factor for the development of cancers of the lung, larynx, esophagus, colon/ rectum, pancreas, kidney, bladder, and cervix.

LUNG CANCER: Age-Adjusted Death Rates by Race/Ethnicity and Gender, Colorado Annual Average, 1995 - 1999



Source: Colorado Department of Public Health and Environment, Health Statistics Section, Denver, June 2001. Rates are age-adjusted to 2000 U.S. population standard.

If encouraged by their health care provider, nearly 70 percent of current adult smokers are more likely to quit. Most adult smokers begin to smoke regularly before age 20.

Experimentation with smoking is occurring at younger and younger ages, and initiation now occurs almost entirely during adolescence. Preventing young people from starting to smoke should be a major focus of efforts to reduce the prevalence of cigarette smoking.

Approximately 275,000 youth are current smokers in Colorado. Oral cancer has been shown to occur several times more frequently among smokeless tobacco users than among non-users, and may be 50 times as frequent among long-term snuff users. The consumption of smokeless tobacco in the United States increased 40 percent between 1970 and 1986. Most new users of smokeless tobacco products are adolescent males. Approximately 140,000 adults are current smokeless tobacco users. Environmental tobacco smoke, commonly known as second-hand smoke, also contributes to lung cancer risk.

In August 1999, the Centers for Disease Control and Prevention (CDC) released a guidance document, which outlines minimum and maximum funding ranges, and programmatic recommendations for state tobacco-control initiatives.

The funding required for implementing programs varied depending on state characteristics, demographics, tobacco use prevalence, and other factors. CDC's recommended standards for Colorado ranged from $24.5 million to $63.2 million. Colorado, in 2002, has a budget of approximately $15 million for tobacco control, which is below CDC's lowest recommendation.

OBJECTIVE 1.5

By 2005, institute a statewide program that meets the mid-range CDC programmatic funding standards to reduce the impact of tobacco and second-hand smoking in Colorado.

(Baseline: Mid-range standard for Colorado in 2002 is approximately $43.8 million. Current Colorado funding is approximately $15 million.)

Strategies:

- Educate Colorado legislators and other policy makers on the efficacy of comprehensive tobacco prevention and education in reducing health care costs, increasing tourism and business revenue, and creating a healthy, more desirable state in which to live and do business;

- Advocate specifically for increased funding for comprehensive tobacco control programming at the state level; and,
- Utilize data collection and evaluation techniques to educate policy makers on the success of current comprehensive tobacco control programming in Colorado, and the continued good stewardship and vital necessity of supportive funding.

OBJECTIVE 1.6

By 2005, reduce to 15 percent the prevalence of current adult regular smokers.

(Baseline: 20%, Colorado Behavioral Risk Factor Surveillance System (BRFSS), 2000.)

Strategies:

- Promote governmental and voluntary policies to promote clean indoor air;
- Increase public knowledge of the need to increase Colorado's tobacco tax as a method by which to reduce smoking prevalence;
- Promote policies that cover treatment of tobacco use under public and private insurance;
- Support and promote "train-the-trainer" programs to teach health care providers how to offer tobacco cessation interventions and referrals to their patients who use tobacco;
- Support the efforts of the Colorado State Tobacco Education Prevention Partnership (STEPP) project, which has developed tobacco-use reduction objectives targeted to community groups, worksites, schools, and health care settings;
- Promote the use of the Colorado QuitLine and QuitNet, free telephone and Internet resources for individualized cessation counseling;
- Support initiatives of the Colorado Women and Tobacco Coalition to increase cessation and knowledge of the special effects of tobacco use on Colorado women;
- Support and promote a statewide, targeted media campaign to counteract the messages that encourage Coloradans to use tobacco products;
- Increase enforcement and monitor compliance with existing clean indoor air laws and ordinances; and,
- Increase the awareness of cessation resources available in the state.

OBJECTIVE 1.7

By 2005, reduce to 5.1 percent the prevalence of youth, grades 9-12, who are reporting smokeless tobacco use.

(Baseline: 9%, Colorado Youth Tobacco Survey (YTS), 2001.)

Strategies:

- Increase public support for policies that eliminate youth access to tobacco and the tobacco industry's access to youth;
- Support and promote the activities of the local American Lung Association, American Cancer Society, and the STEPP to reduce tobacco use by adolescents;
- Support the activities of the Advisory Council on Adolescent Health at the Colorado Department of Public Health and Environment to create and implement effective cessation programs targeting adolescents, and to monitor and enforce tobacco access laws for minors;
- Increase the number of schools with grades K-12 that are in full compliance with the Colorado Tobacco-Free Schools Bill;
- Increase public support for policies that ban advertising and promotion of tobacco products aimed at adolescents; and,
- Increase the number of schools with grades K-12 that offer a comprehensive school health-education program, including tobacco use prevention.

OBJECTIVE 1.8

By 2005, reduce to 19 percent the prevalence of youth, grades 9-12, who report being a current smoker.

(Baseline: 25%, Colorado YTS, 2001.)

Strategies:

- Support and promote the activities of the local American Lung Association, American Cancer Society, and STEPP to reduce tobacco use by adolescents;
- Support the activities of the Advisory Council on Adolescent Health at the Colorado Department of Public Health and Environment to create and implement effective cessation programs targeting adolescents, and to monitor and enforce tobacco access laws for minors;
- Increase support for policies that eliminate youth access to tobacco and the tobacco industry's access to youth;
- Increase public support for policies that ban advertising and promotion of tobacco products aimed at adolescents;
- Increase the number of schools with grades K-12 that offer a comprehensive school health-education program, including tobacco use prevention; and,
- Increase the number of schools with grades K-12 that are in full compliance with the Colorado Tobacco-Free Schools Bill.

OBJECTIVE 1.9

By 2005, reduce cigarette smoking among pregnant women in the last three months of pregnancy to 10 percent.

(Baseline: 12.6%, Pregnancy Risk Assessment Monitoring System (PRAMS), 2000.)

Strategies:

- Implement health care provider-based education and patient counseling programs to increase usage of QuitLine and QuitNet resources available to pregnant women;
- Continue to support QuitLine and QuitNet, and other programs that provide accessible, affordable, and proven cessation programs statewide for pregnant women and women of childbearing age;
- Support education and awareness campaigns, and organizations such as the Colorado Women and Tobacco Coalition; and,
- Promote free, phone and Internet-based cessation and counseling services such as the Colorado QuitLine and QuitNet to expectant mothers and women of childbearing age who use tobacco products.

NUTRITION AND PHYSICAL ACTIVITY

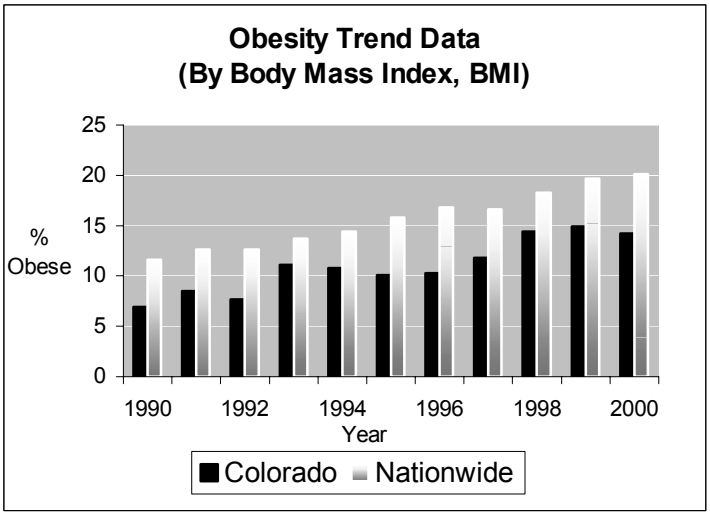
Studies suggest that 30 to 35 percent of cancers are diet-related. Risk varies with the type of diet.

Recent reports indicate that populations consuming diets rich in vegetables, fruits, and grain products have significantly lower rates of cancer of the colon, breast, lung, oral cavity, larynx, esophagus, stomach, bladder, uterine cervix, and pancreas.

Vegetables (including legumes such as beans and peas), fruits and grains generally are low in fat, and are good sources of antioxidants, vitamins, minerals, complex carbohydrates and dietary fiber. Phyto-chemicals in plant foods, such as carotenoids, indoles, and flavonoids, also may contribute to the observed protective effect.

In 2000, 25 percent of Colorado adults age 18 and over exercised for at least 30 minutes, five or more times per week. White, non-Hispanic adults were more likely to exercise than were Hispanic adults (27 percent and 16 percent respectively).

Lower income adults, and those with a high school degree or less education, were less likely to exercise than their higher-income or more highly educated peers.



Source: Colorado Behavioral Risk Factor Surveillance System.

OBJECTIVE 1.10

By 2005, reduce the rate of increase in obesity to 15 percent.

(Baseline: 18.9% increase per year, 1990-2000 Colorado BRFSS.)

Strategies:

- Ensure that cancer and nutrition messages are incorporated into existing and newly created campaigns;
- In conjunction with the Colorado Physical Activity and Nutrition (CO-PAN) Coalition and Colorado Cardiovascular (CVD) Coalition, set objectives for physical activity and obesity resulting in consistent messages for the public; and,
- The Colorado Cancer Coalition, and its partners, will work with the CVD Coalition, the CO-PAN Coalition, and the Colorado 5-A-Day Program to disperse appropriate physical activity, nutrition, and obesity messages to the public.

OBJECTIVE 1.11

By 2005, increase to at least 35 percent the proportion of young people grades 9-12, and to at least 30 percent the proportion of people age 18 and over, who have engaged in moderate physical activity for at least 30 minutes on five or more of the previous seven days.

(Baseline: Grades 9-12 to be established; U.S. Baseline: 27%; 18 and over, 25%, 2000 Colorado BRFSS.)

Strategies:

- Promote 10,000 steps program in schools, worksites and communities;
- Develop and distribute community-specific physical activity resource guides to increase residents' knowledge of existing facilities and opportunities to be more active;
- Work with employers, schools, churches, and civic groups to provide physical activity education; sponsor teams and walking clubs; and provide facilities for members to be physically active;
- Promote large-scale, high-intensity, community-wide campaigns with sustained high visibility. Promote messages regarding physical activity behavior;
- Promote programs tailored to the person's readiness for change or specific interests. Design programs to help participants incorporate physical activity into their daily routines by teaching them behavior skills, specifically:
    - goal setting and self-monitoring
    - behavioral reinforcement through self-reward and positive talk
    - structured problem solving
    - relapse prevention;
- Work to have physical activity advocates represented in municipal planning processes; and,

- Work with transportation planners and elected officials to improve the compatibility for walking and bicycling on existing and proposed thoroughfares.

OBJECTIVE 1.12

By 2005, increase to 50 percent the proportion of the population over 18 who eat at least five servings of fruits and vegetables per day.

(Baseline: 23.4%, 2000 Colorado BRFSS.)

Strategies:

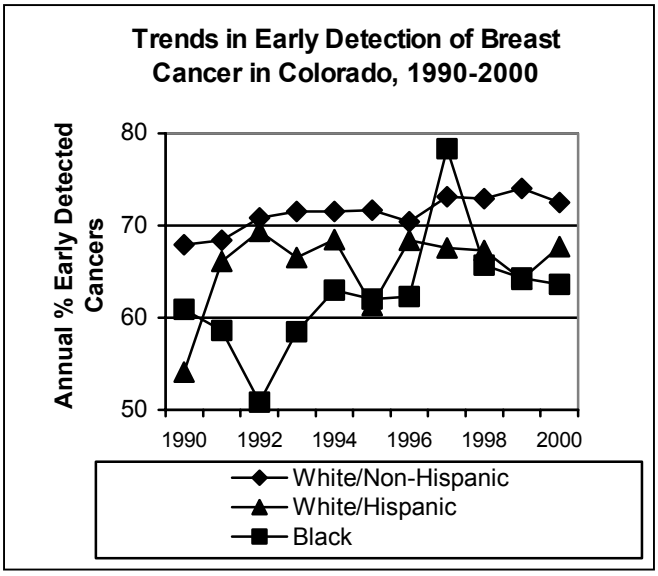
- Incorporate the importance of the 5-A-Day Program and cancer prevention;
- Promote 5-A-Day at worksites, schools, churches and other community groups;
- Develop collaborative efforts to establish nutritional programs to promote a healthy diet;
- Work with the 5-A-Day Program to meet established goals; and,
- Use information created by the 5-A-Day Program in cancer programming and media events.

2.0
EARLY DETECTION

BREAST CANCER

Breast cancer is the single most common life-threatening cancer diagnosed in Colorado women and the second leading cause of cancer deaths among women in the state.

Breast cancer mortality can be reduced by about one-third by annual mammography with clinical breast examination and treatment for women age 50 and older. Mammography leads to early diagnosis and treatment, which results in decreased mortality. Mammograms also may be effective for women age 40-49.



Mammography has become widely used in Colorado during the past 25 years. The U.S. Preventive Services Task Force recommends screening mammography, with or without clinical breast examination, every one-to-two years for women age 40 and older.

Scientific controversy remains regarding the benefit versus the risk of screening women age 40 to 49. Studies suggest there may be a benefit for women in this age group. Women are urged to discuss the issue with their physicians and make a personal decision about frequency of screening during their forties.

From several studies, women eligible for screening mammography report they did not get a mammogram because either they did not know they needed it, or their health care provider did not recommend it. Other barriers to routine compliance with mammography screening include:

- belief that the exams are not necessary in the absence of breast changes;
- belief that the individual patient is not personally at risk for breast cancer;
- cost of the mammogram;
- concerns about radiation exposure;
- discomfort from the test;
- embarrassment; and,
- patient uncertainty about the effectiveness of the exam in the detection of breast cancer.

Female Breast 5-Year Survival Rates by Stage and Race/Ethnicity for Colorado Females, 1992-1995

Stage and Race/Ethnicity	5-Year Survival Rate
All Stages	
All Races	**86%**
White/Non-Hispanic	**87%**
White/Hispanic	**82%**
Black	**70%**
Localized	
All Races	**95%**
White/Non-Hispanic	**96%**
White/Hispanic	**92%**
Black	**83%**
Regional	
All Races	**79%**
White/Non-Hispanic	**80%**
White/Hispanic	**75%**
Black	**74%**
Distant	
All Races	**16%**
White/Non-Hispanic	**16%**
White/Hispanic	*
Black	*

*=Less than 10 cases or standard error of rate over 10%.

In addition, low educational attainment, low income, lack of resources, advanced age, and lack of a regular source of health care have been associated with lower rates of mammography utilization.

Since the late 1980s, the number of women receiving regular breast screening exams, including mammography and clinical breast exams, has risen dramatically. This increase is the result of aggressive public education and outreach efforts conducted by many different Colorado Cancer Coalition agencies, private mammography centers, and individual physicians.

However, these efforts need continued support in order to attain the year 2005 goals. Breast cancer incidence rates have risen in Colorado over the last two decades. Despite the improved rates of mammography, there are disparities, which are of concern and need to be addressed with regard to mammography.

It is critical that all women in Colorado have access to state-of-the-art mammography. The quality of mammography is affected by four primary factors:

- the mammography unit and film processor equipment;
- the skill of the technologist performing the exam;
- the skill of the radiologist interpreting the exam; and,
- the physician conducting follow-up for any screen-detected abnormalities.

The Colorado Women's Cancer Control Initiative
Colorado Department of Public Health and Environment

A comprehensive effort to increase compliance with routine breast cancer screening exams must ensure that every mammogram adheres to the highest possible standards for these four parameters.

OBJECTIVE 2.1

By 2005, increase to 85 percent the proportion of women age 50 and older reporting having had a mammogram in the past two years.

(Baseline: 80%, 2000 Colorado BRFSS.)

Strategies:

- Continue public education and outreach about the Colorado Women's Cancer Control Initiative (CWCCI), to increase mammography in low-income women, and to provide services for uninsured women between 40 and 64 years of age;
- Increase public knowledge of the availability of Medicare coverage for payment of mammography screening for eligible parties;
- Continue low-cost/free mammography screening programs throughout the state;
- Continue outreach efforts to all women in Colorado about the importance of regular mammography screening;
- Promote the provision of access to community-based transportation services;
- Establish baseline data for the number of women who have knowledge of breast cancer screening guidelines;
- Work with clinics to offer extended and non-traditional hours of operation, and encourage clinics to extend clinical hours beyond traditional business hours. Compile a directory of those clinics with extended hours;
- Educate primary care providers on strategies for informing women of the need for breast cancer screening and the importance of their role in recommending screening to women;
- Study the feasibility of providing breast cancer screening services in mobile vans to women in rural areas and at the workplace; and,
- Develop partnerships with correctional, domestic abuse, homelessness and mental health systems, and advocates to promote screening.

OBJECTIVE 2.2

By 2005, close the gap of disparity for minority/ethnic/rural and other certain subgroups of women age 50 and over who have received a mammogram in the past two years.

(Baseline: Hispanic women: 81.4%; Rural counties: 72.3%, 2000 Colorado BRFSS.)

Strategies:

- Continue providing programs such as the annual Diversity Outreach Conference, educating diverse populations of women on breast health and the importance of mammography screening;
- Provide culturally and linguistically appropriate educational/ marketing materials;

- Identify marketing streams specific to the intended populations;
- Support community-based organizations to promote screening;
- Promote dissemination of clinical guidelines for follow-up to all clinicians who conduct mammograms;
- Promote mechanisms that ensure prompt notification about mammogram results in a form comprehensible at the fifth-grade literacy level;
- Conduct a study on patient and system barriers to follow-up care. Develop protocol to address identified barriers that can be implemented in varying health-care settings and systems;
- Increase the use of aggressive notification follow-up for abnormal mammogram results; and,
- Promote the use of reminder and tracking systems to inform women of their need for follow-up and/or re-screening.

OBJECTIVE 2.3

Determine current state of mammography access, i.e., capacity, miles from service, and hours of operation in the state of Colorado, as well as to fully describe what "access" means in Colorado.

(Baseline: To be established.)

Strategies:

After determination of current state of access:

- Maintain referral resources at diverse geographic locations to provide comprehensive information on diagnostic and treatment services to women with breast abnormalities;
- Endorse the establishment of networks or linkages among rural providers and urban centers so that optimal care is more accessible to rural cancer patients; and,
- To support American Cancer Society efforts to make transportation services, such as Road to Recovery, more readily available to cancer patients, particularly in non-metropolitan areas.

OBJECTIVE 2.4

Develop resources and access for women age 40-49 who desire to be screened for breast cancer.

(Baseline: To be established.)

Strategy:

- Explore potential funding sources for access to mammography for women age 40-49.

CERVICAL CANCER

Use of the Pap test to screen for cervical cancer significantly reduces the risk of death from invasive cervical cancer.

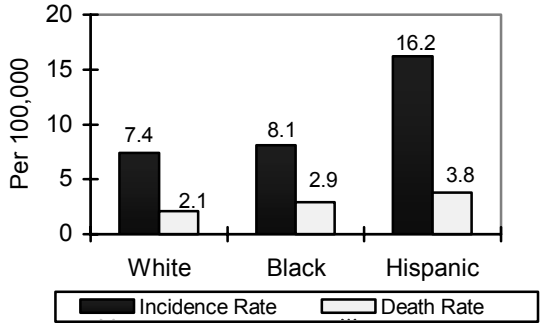
The decline in cervical cancer mortality in the 1970s, 1980s, and 1990s is thought to be due primarily to the widespread use of the Papanicolaou test for early detection of cervical cancer. Increased use of the smear (Pap test) has the potential to further reduce morbidity and mortality due to invasive cervical cancer. A number of studies have found that the Pap test is effective in screening for cervical cancer and can reduce mortality by as much as 75 percent.

Age influences both cervical cancer incidence and survival. While younger women are more frequently diagnosed with cervical cancer, older women are more often diagnosed at later stages of the disease and are more likely to die from it than younger women. These results emphasize the need for continued screening of women after age 65. Women who have low-income, low educational attainment, and advanced age are less likely to receive a Pap test.

Additionally, the incidence of cervical cancer varies between certain ethnic groups. For example, the cervical cancer rate for Hispanics is double that of non-Hispanic whites. The needs of these target populations must be addressed in order to increase the number who are screened regularly.

In Colorado, more than two-thirds of the cases of invasive cervical cancer are diagnosed in women age 20 to 54. However, 30 percent of cases (approximately 50 per year) are diagnosed in women age 55 and older. Results from the 2000 Behavioral Risk Factor Surveillance System indicate that only 76.8 percent of Colorado women age 50 and older had a Pap test within the past three years. These surveys also indicate that only 50 percent of women age 65 and older have had a Pap test in the past one-to-three years. Continued screening of women age 65 and older should be encouraged.

Cervical Cancer: Age-Adjusted Death Rates by Race/Ethnicity, Colorado Annual Average, 1995-1999



Sources: Colorado Department of Public Health and Environment: Colorado Central Cancer Registry (incidence data) Denver, June 2001: Health Statistics Section (mortality data), Denver, June 2001. Rates are age-adjusted to 2000 U.S. population standard.

OBJECTIVE 2.5

By 2005, increase to 92 percent the number of women, age 18 and older, reporting having had a Pap smear in the prior three years.

(Baseline: 87.6%, 2000 Colorado BRFSS.)

Strategies:

- Establish baseline data for the number of women who have knowledge of cervical cancer screening guidelines;
- Educate primary care providers on strategies for informing women of the need for screening and the importance of their role in recommending screening to women;
- Encourage clinics to extend clinical hours beyond traditional business hours. Compile a directory of those clinics with extended hours;
- Continue support for the Colorado Women's Cancer Control Initiative (CWCCI) to provide services for low-income, uninsured women between 40 and 64 years of age;
- Study the feasibility of providing cervical cancer screening services in mobile vans to women in rural areas and at the workplace; and,
- Develop partnerships with correctional, domestic abuse, homelessness and mental health systems, and advocates to promote screening.

OBJECTIVE 2.6

By 2005, decrease the rate of localized cervical cancer in minority/ethnic women by increasing the rate of early detection.

(Baseline: Hispanic 47.6% localized, Colorado Central Cancer Registry (CCCR) 1993-1997; Black 47.4% localized.)

Strategies:

- Identify marketing streams specific to the intended populations;
- Provide culturally and linguistically appropriate educational/marketing materials;
- Support community-based organizations in promoting cervical cancer screening;
- Promote mechanisms that ensure prompt notification about Pap smear results in a form comprehensible at the fifth grade literacy level;
- Conduct a study on patient and system barriers to follow-up care. Develop protocol to address identified barriers that can be implemented in varying health care settings and systems;
- Increase the use of aggressive notification follow-up for abnormal Pap test results;

- Promote dissemination of clinical guidelines for follow-up to all clinicians who collect Pap smears; and,
- Promote the use of reminder and tracking systems to inform women of their need for follow-up and/or re-screening.

OBJECTIVE 2.7

Support the Colorado Coalition for STD Prevention (CCSP) Plan recommendations.

(Baseline: Plan established October 2001.)

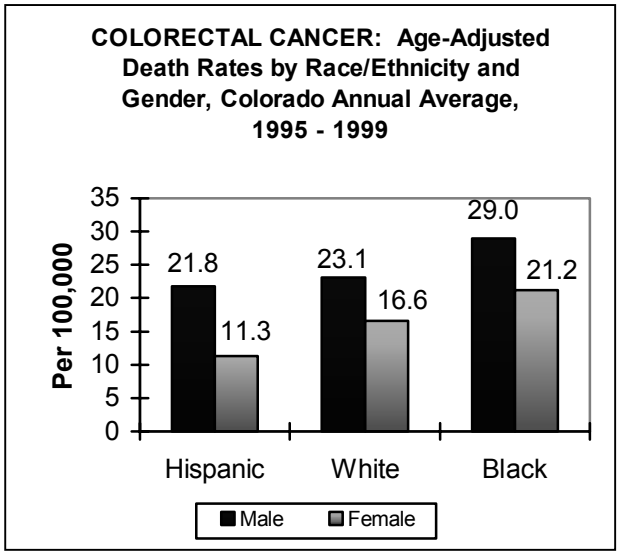
Strategy:

- Collaborate with existing STD prevention programs to coordinate current interventions that effectively prevent cervical cancer.

COLORECTAL CANCER

Colorectal cancer is the second most common cause of cancer death in Colorado for men and women combined.

Genetic susceptibility (a family history of colorectal cancer), dietary factors (high fat and/or low fruit and vegetable consumption), and smoking are all thought to significantly contribute to the risk of developing colorectal cancer. Colonoscopy, flexible sigmoidoscopy, barium enema, and the fecal occult blood test (FOBT) are recommended as effective screening modalities for the disease. Nationally and in Colorado, the age-adjusted mortality rate has decreased and the proportion of early diagnosed colorectal cancers has increased. These changes appear to be due to both early detection and improvements in treatment.



Source: Colorado Department of Public Health and Environment, Health Statistics Section, Denver, June 2001. Rates are age-adjusted to 2000 U.S. population standard.

Survival for patients with colorectal cancer varies considerably with the extent of disease at diagnosis. In Colorado, five-year survival is 83 percent with the earliest invasive stage of cancer (localized stage); 63 percent if the cancer has spread to adjacent organs or lymph nodes (regional stage); and, 8 percent if the tumor has spread to distant organs or lymph nodes (distant stage). Research indicates that screening for colorectal cancer can lead to detection and diagnosis at earlier stages; thus, improving the chances of successful treatment. Screening tests actually can prevent colorectal cancer through the removal of pre-cancerous polyps, or can find cancers early.

Despite this, many people are still not following recommended guidelines for screening. Preliminary data indicate that an annual fecal occult blood test can reduce the mortality from colorectal cancer by up to 30 percent. Lack of appropriate work-up of a positive FOBT has been identified as a serious problem in using this screening test. People with a family or personal history of colorectal cancer or polyps, or history of chronic inflammatory bowel disease, may need to begin screening at a younger age and be screened more frequently. These individuals should talk with their physician regarding their individual screening needs.

OBJECTIVE 2.8

By 2005, for adults age 50 and over, increase the proportion who have been screened for colorectal cancer using colonoscopy, sigmoidoscopy, or FOBT.

(Baseline: 31% in past five years for sigmoidoscopy and colonoscopy; 27% in the past year using FOBT, 2000 Colorado BRFSS.)

Strategies:

- Conduct public information activities to encourage individuals to have FOBT and sigmoidoscopy at recommended intervals;
- Promote use of colonoscopy, sigmoidoscopy, and FOBT for Medicaid/Medicare eligible individuals;
- Support efforts to encourage insurance programs to reimburse for the cost of colorectal cancer screening;
- Promote the development of subsidized screening for colonoscopy, sigmoidoscopy, and FOBT for age and income-eligible persons;
- Work with policy makers to include screening and diagnostic services as benefits covered in emerging health care plans;
- Work with health fairs to educate consumers on the need to discuss screening options with their primary care physician;
- Develop sources of free or low-cost diagnostic endoscopy for indigent and uninsured patients;
- Utilize existing information strategies and programs (e.g., television shows) to educate disparate populations, e.g., blacks, on the need for increased screening; and,
- Create and implement a targeted awareness campaign through seniors' organizations to increase public awareness that screening payment is available through Medicare.

OBJECTIVE 2.9

Determine current availability of endoscopic services in Colorado, and promote the increase of these services where needed.

(Baseline: To be established.)

Strategies:

Use the existing Colorado Colorectal Cancer Task Force to determine current availability and to explore the following strategies to increase availability:

- Increase access to routine flexible sigmoidoscopy by training physician and non-physician health care professionals to perform this exam;
- Work with organizations tracking such information to determine baseline capacity for conducting endoscopic exams;

- Educate health care providers (via Internet, lectures and direct mail) about state-of-the-art diagnostic evaluation for patients found to have a positive FOBT or an abnormality detected by sigmoidoscopy;
- Educate and encourage health care providers to recommend and/or provide routine colonoscopies, or annual FOBT and routine flexible sigmoidoscopies on individuals age 50 and older; and,
- Work with professional insurance carriers, such as CoPIC Insurance Co., to publicize availability of screening procedures and encourage primary care provider training.

MELANOMA AND NON-MELANOMA SKIN CANCERS

Skin cancer (including squamous cell, basal cell, and malignant melanoma) is the most common form of cancer in the United States, accounting for nearly one-third of all new cancer cases.

Most skin cancers are basal cell and squamous cell carcinomas that are highly treatable and rarely metastasize. The most serious form of skin cancer is malignant melanoma. The 1993-1997 Colorado melanoma incidence rate for males was 31 percent higher, and for females was 43 percent higher, than U.S. rates.

Mortality rates for melanoma in Colorado also have been generally higher than U.S. rates. Exposure to solar radiation appears to be the chief preventable risk factor for non-melanoma skin cancer and may be responsible for more than 90 percent of skin cancer cases.

Data indicate that non-melanoma skin cancer is related to cumulative exposure. The association is strongest for squamous cell carcinoma, but also is strong for basal cell carcinoma. The development of melanoma is associated with exposure to high-intensity

Mortality rates for melanoma in Colorado have been generally higher than U.S. rates.

ultraviolet (UV) radiation (e.g., sunburns) or exposure to solar radiation at young age. Sun exposure in childhood has been implicated as a risk factor for the development of melanoma and non-melanoma skin cancers. Studies indicate a single severe sunburn, before the age of 18, may increase the risk of malignant melanoma two-fold.

For this reason, it is important to reduce the proportion of children who have had severe sunburn (blistering or painful burn lasting more than three days) in the first five years of life. Many authorities have recommended that people of all age, and especially those with light complexions, limit sun exposure.

Parents and caregivers should limit sun exposure for infants and children. Special care should be taken in warmer climates, at higher altitudes, during the summer months, and during mid-day. Coloradans should be aware of the dangers of sun exposure year round and take appropriate precautions.

Sunscreens can block UV rays; therefore, many authorities advocate the use of sunscreen preparations rated 15 or higher Sun Protection Factor (SPF). In addition, individuals should avoid unnecessary UV exposure from artificial

sources such as sunlamps and tanning booths. Screening for skin cancers with skin examinations has been recommended by several national organizations and agencies. Skin examinations may be particularly beneficial in the early detection of malignant melanoma. Survival varies substantially by stage, with a five-year survival of 90 percent for localized disease and 12 percent for metastatic disease. Recent data suggest that screening programs may be effective in reducing mortality from malignant melanoma.

OBJECTIVE 2.10

By 2004, establish a workgroup to explore areas of policy change with regard to sun exposure and protection.

Strategies:

Establish a workgroup to explore the following:

- Encourage designers of school playgrounds and outdoor recreation areas to provide adequate shade, set policies on sunscreen use and protective clothing for children, and discourage prolonged outdoor activities during the hours when UV radiation is highest (between 10:00 AM and 2:00 PM standard time);
- Advocate for the U.S. Consumer Product Safety Commission's "Handbook for Public Playground Safety" to acknowledge UV as a hazard and work to have the revised handbook adopted by the state of Colorado; and,
- Work with policy makers to include screening and diagnostic services as benefits covered in health care plans.

OBJECTIVE 2.11

By 2005, reduce to 39 percent the percentage of adults who report having had a sunburn in the past year.

(Baseline: 44%, 2000 Colorado BRFSS.)

Strategies:

- Implement educational programs and information, which educate about sunburns and melanoma;
- Create a focused campaign on outdoor workers and sun safety; and,
- Distribute sun protection products at sporting and other outdoor events, especially to skiers.

OBJECTIVE 2.12

By 2005, increase to 50 percent the percentage of Colorado adults reporting use of some form of sun protection method.

(Baseline: 35.7%, 2000 Colorado BRFSS.)

Strategies:

- Promote existing, proven sun-safety education programs;
- Encourage sunscreen manufacturers to include prevention and screening information with their products;
- Promote public education about the hazards of mid-day sun exposure and the importance of sun protection through the use of sunscreens, wide brimmed hats, and protective clothing;
- Target educational efforts to specific populations at daycare centers, pediatricians' offices, clinics, schools, worksites, health fairs, tanning salons, sporting events, ski areas, airports, tourism boards, chambers of commerce, medical schools, national parks, visitor centers, sporting goods stores, outdoor workers, groceries, and family practice offices;
- Encourage the reporting of UV indices in media weather reports; and,
- Identify, clearly define, and distribute best practices for skin cancer prevention.

OBJECTIVE 2.13

By 2005, increase the proportion of parents who regularly use some form of sun protection for their children.

(Baseline: To be established.)

Strategies:

- Develop and disseminate messages to parents and caregivers about the necessity of protecting their children through the use of sunscreens and photo-protective clothing;
- Starting in 2002, monitor these data through BRFSS;
- Work with school districts to educate parents and caregivers on the importance of sun safety; and,
- Establish programs and educational avenues in summer camps, recreation leagues, childcare centers, recreation centers, and pediatricians' offices regarding sun safety.

OBJECTIVE 2.14

By 2005, increase the rate of early detection of melanoma.

(Baseline: To be established.)

Strategies:

- Create and promote knowledge of skin self-exams; and,
- Increase the knowledge of what to look for in skin changes that need professional involvement.

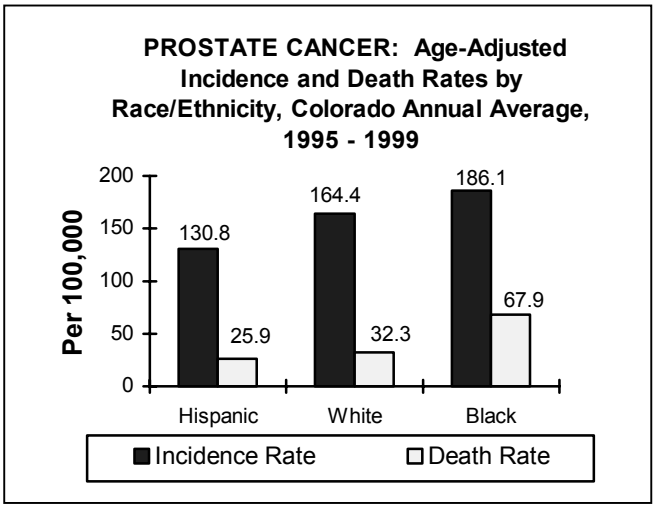
PROSTATE CANCER

Nationally, prostate cancer accounts for 30 percent of all male cancers and 11 percent of male cancer-related deaths.

Among Colorado men, prostate cancer is by far the most commonly diagnosed cancer and the second most common cause of cancer death. A steep rise in prostatic cancer incidence rates in Colorado from the late 1980s to 1992 was followed by almost as steep a drop in rates through 1998.

From 1998 to 1999, though, the incidence rate for prostate cancer increased 17 percent. Mortality rates decreased 26 percent from 1990 to 1999 in Colorado, possibly due to improvements in early detection. Age, race, ethnicity, and family history are factors that affect the risk for prostate cancer.

About 80 percent of all men with clinically diagnosed prostate cancer are age 65 years or older. Because prostate cancer usually occurs at an age when conditions such as heart disease and stroke cause death, many more men die with prostate cancer rather than because of it. Fewer than 10 percent of men with prostate cancer die of the disease within five years of diagnosis. Effective measures to prevent prostate cancer have not been determined. Many physicians recommend screening to their patients, and in recent years, a substantial proportion of men in the U.S. have been screened. Although the screening detects some prostate cancers early in their growth, it is not yet known whether it saves lives or whether treatment reduces disability and death from this disease.



Sources: Colorado Department of Public Health and Environment: Colorado Central Cancer Registry (incidence data) Denver, June 2001; Health Statistics Section (mortality data), Denver, June 2001. Rates are age-adjusted to 2000 U.S. population standard.

Black men develop prostate cancer at a higher rate than men in any other racial or ethnic group, and are more likely than other men to die of this disease.

Further, there are concerns that for some men, screening and treatment may do more harm than good. Current medical tests cannot predict the growth of prostate cancers. Slower-growing cancers might not require treatments (surgery or radiation), which commonly causes impotence and incontinence. Thus, the harms of treatment may outweigh the benefits. Moreover, it is unclear how well treatment works for faster-growing prostate cancers. Studies now underway will tell us more about the effectiveness of screening and treatment.

OBJECTIVE 2.15

By 2005, increase to 65 percent the proportion of men over age 50 who report being fully informed about and offered screening by Prostate-Specific Antigen (PSA)/Digital Rectal Exam (DRE) in the preceding two years.

(Baseline: 41% discussed with doctor, 51% recommended, 2000 Colorado BRFSS.)

Strategies:

- Educate and encourage health care providers to perform DRE and offer PSA screening during physical exams of men age 50 and older;
- Provide public education to increase awareness about the possible benefits of annual prostate screening for men 50 and older;
- Support collaborative efforts that provide free screenings, such as the American Cancer Society's Prostate Cancer Screening Campaign;
- Create a targeted awareness campaign aimed at dispelling myths and correcting misinformation regarding prostate cancer treatment;
- Support programs offering free screenings for uninsured and underinsured men; and,
- Provide subsidized screening for PSA and DRE for age and income-eligible individuals.

OBJECTIVE 2.16

By 2005, increase the proportion of minority/ethnic men over the age of 50 who report being fully informed about and offered screening by PSA/DRE in the preceding two years.

(Baseline: To be established.)

Strategies:

- Create a targeted awareness campaign specifically for black males;
- Create educational programs for black males starting at 45 years, due to evidence showing earlier onset;
- Support specific screening programs for underserved and high-risk populations; and,
- Add prostate questions to 2001 BRFSS to establish baseline.

3.0
DATA COLLECTION AND REPORTING

DATA COLLECTION AND REPORTING

By regulation from the Colorado Board of Health, cancer is a reportable disease in Colorado. The Colorado Central Cancer Registry (CCCR) at the Colorado Department of Public Health and Environment collects information from local hospital tumor registries, private pathology laboratories, death certificates, Colorado physicians, and surrounding states about cancer cases among Colorado residents.

Current surveillance activities in Colorado are grouped into main categories: morbidity and mortality information, and risk behavior information. Surveillance of cancer morbidity and mortality, conducted by the CCCR and the Health Statistics Section at the Colorado Department of Public Health and Environment, provides information on the occurrences and deaths due to cancer in Colorado.

Routine reports and special studies are produced by the CCCR to keep policy makers and planners informed of changes in cancer incidence trends. In addition to following trends over time, assessment of cancer risk behaviors for the population as a whole, and for selected groups, provides information used in designing focused interventions.

Data from the CCCR are used to describe the incidence of various cancers, stage at diagnosis, and relative survival rates. Statistics on mortality from cancer are produced routinely by the Health Statistics Section and published in conjunction with the CCCR. Determination of cancer incidence and mortality rates permit trend analysis and comparison with national cancer incidence and mortality rates. Regional differences within

Data from the CCCR are used to describe the incidence of various cancers, stage at diagnosis, and relative survival rates.

Colorado also can be determined. Health risk behaviors have been monitored in Colorado since January 1990 by the Colorado Behavioral Risk Factor Surveillance System (BRFSS), funded by the Centers for Disease Control and Prevention. The annual random telephone survey of adults in Colorado has collected information on a number of health behaviors, including tobacco use, diet, and cancer-screening behaviors.

Since 1988, the Comprehensive Cancer Prevention and Control (CCPC) Program at the Colorado Department of Public Health and Environment has used a variety of surveys to collect information specific to screening behaviors for breast, cervical and prostate cancer. The purpose of these surveys is to monitor changes in the public's knowledge, attitudes, and behaviors relevant to screening and treatment, as well as to monitor penetration of public education and outreach efforts.

Other cancer control programs and organizations throughout the state gather information through surveys and special studies of the populations they serve. Several sources collect information on cancer risk factors and preventive behaviors among Colorado residents.

Additional studies on risk behaviors, physician and patient attitudes on cancer screening and practice, and other special topics have been conducted by such groups as the American Cancer Society (ACS), the University of Colorado Cancer Center, the AMC Cancer Research Center, and other professional societies.

OBJECTIVE 3.1

Promote the collection and use of information to increase professional and public understanding and education about cancer and its impact on Colorado citizens.

Strategies:

- Continuously collect and maintain data on cancer incidence, stage at diagnosis, treatment, survival, rehabilitation, race/ethnicity, insurance status and mortality, and annually publish rates, trends, and other pertinent studies related to these data;
- Promote recruitment and training of certified tumor registrars in Colorado;
- Support the collection of data on cancer risk factors and preventive behavior, and annually publish prevalence rates, trends, and other pertinent studies related to these data;
- Continue funding and support for the following existing data collection mechanisms:
    - Behavioral Risk Factor Surveillance System (BRFSS)
    - Colorado Mammography Advocacy Project (CMAP)
    - Colorado Central Cancer Registry (CCCR)
    - Colorado Women's Cancer Control Initiative (CWCCI)
    - Tobacco Attitudes and Behavior Survey (TABS)
    - Youth Risk Behavioral Survey (YRBS)
    - Youth Tobacco Survey (YTS)
    - Pregnancy Risk Assessment Monitoring System (PRAMS)
    - Vital Statistics;
- Continue funding and planning to incorporate the above data sets into reports through mechanisms such as the Colorado Health Information Dataset (COHID);
- Establish plans and implement the training of potential users to appropriately use available data sets, particularly non-traditional users;
- Disseminate reports and information in a meaningful manner to appropriate audiences; and,

- Advocate to continue these well-established data and surveillance mechanisms.

OBJECTIVE 3.2

Periodically collect and report data on the knowledge, attitudes and practices of health care providers on issues related to cancer prevention and control.

Strategies:

- Identify existing data sources and systems; and,
- Set up mechanisms to collect ongoing data and consistently implement these systems.

OBJECTIVE 3.3

Increase the scope of data on cancer risk factors and preventative behavior throughout the person's lifetime, and annually publish prevalence rates, trends, and other pertinent studies related to these data.

Strategies:

- Explore development of data collection to capture this information;
- By 2004, establish a plan to gather information on children and cancer-related behavior; and,
- Add questions to the Behavioral Risk Factor Surveillance System (BRFSS), which inquire about behavioral issues with children in the household, e.g., second-hand smoke exposure.

OBJECTIVE 3.4

By 2003, develop a plan to monitor the impact of cancer diagnosis, treatment, and rehabilitation on the quality of life of individuals in Colorado with cancer.

Strategies:

- Establish a workgroup of experts who will develop this plan; and,
- Develop a plan that is all inclusive of quality-of-life issues.

OBJECTIVE 3.5

By 2002, have baseline information established for second-hand smoke exposure through BRFSS, and establish objectives for reducing second-hand smoke exposure.

Strategies:

- Ensure that questions are developed and incorporated into the Colorado BRFSS; and,

- Establish a plan for continued future monitoring and assessment of second-hand smoke using the BRFSS.

OBJECTIVE 3.6

By 2004, establish a plan to review current data and collect any new data related to ovarian cancer.

Strategies:

- Establish a task force concentrating on ovarian cancer to identify any surveillance needs;
- Develop special studies to disseminate information gathered to health providers and the general public; and,
- Ensure that questions are developed and incorporated into the Colorado BRFSS.

4.0
QUALITY OF: LIFE, REHABILITATION, TREATMENT, AND PALLIATION

QUALITY OF: LIFE, REHABILITATION, TREATMENT, AND PALLIATION

In addressing the needs of cancer patients, quality-of-life issues frequently have been ignored. Quality of life includes: decreasing the rate of cancer mortality through early detection, effective treatment, practical rehabilitation services, and better palliative and end-of-life care for those diagnosed with cancer.

As the cancer mortality rate is significantly decreasing, there are increasing numbers of cancer survivors. According to the National Cancer Institute (NCI), 72-95 percent of cancer patients receiving cancer treatments experience debilitating side effects, such as depression and diminished functional capacity leading to reduced quality of life.

Each year in Colorado, more than 16,000 men, women and children are diagnosed and treated for cancer.

In addressing the needs of cancer patients, quality-of-life issues frequently have been ignored. Quality-of-life issues can involve pre-cancer diagnostic strategies, such as early detection and effective treatments, and post-cancer diagnostic strategies, such as rehabilitative and complementary therapies for effective recovery and better palliative care.

These issues include, but are not limited to: psycho-emotional support for the individual, family/caregiver support and/or respite care, rehabilitative recovery treatment options, health insurance and reimbursement issues, job security, and enhanced functional capacity to effectively perform activities of daily living. With improvements in diagnosis and treatment, the number of cancer survivors is increasing and their needs must be considered in planning for long-range provision of services.

As Colorado continues to emphasize the importance of screening as a primary method to reduce cancer morbidity and mortality, standards of care and expected screening outcomes must be developed to assure that individuals receive timely, cost-effective, and state-of-the-art diagnostic evaluation.

These standards will require routine monitoring to be responsive to changes in screening protocols and procedures, as well as the development of new screening and diagnostic modalities. Data from the Colorado Central Cancer Registry (CCCR) and other appropriate data sets can be used to monitor the percent of patients receiving state-of-the-art treatment for some cancers.

For example, using state-of-the-art treatment as defined in the Physician Data Query (PDQ) and data from the CCCR for 1989-1993, it was determined that 40 percent of 607 patients in Colorado with Stage II or Stage III rectal cancer received recommended

treatment. Another study, using CCCR data from 1994 and 1995, was a collaboration between the CCCR, the University of Colorado Comprehensive Cancer Center, and the Colorado Foundation for Medical Care. The study found that only 72 percent of women age 65+ received adjuvant radiotherapy following lumpectomy for Stage I and Stage II breast cancer, and only 52 percent of individuals 65+ who were treated surgically for Stage III colon cancer received adjuvant chemotherapy.

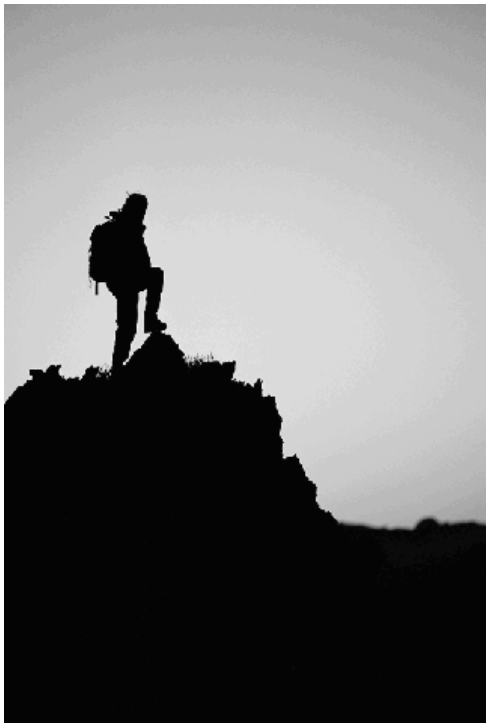
The proportion of patients receiving recommended treatment varied with age and geographic region. Similar analyses could be done for other cancers using standardized treatment protocols. This information could be monitored over time to determine if there were changes in the proportion of individuals receiving state-of-the-art treatment in Colorado.

Each year in Colorado, more than 16,000 men, women and children are diagnosed and treated for cancer. Responding to the physical needs of cancer patients, including access to state-of-the-art treatment and cutting-edge rehabilitative therapies, is the first priority. However, it is important to consider the psychological and emotional well-being of both the patient and family members.

Complementary and alternative therapies are used in an effort to prevent illness, reduce stress, prevent or reduce side effects and symptoms, or control or cure disease. Some commonly used methods of complementary or alternative therapy include mind/body control interventions such as visualization or relaxation; manual healing, including acupressure and massage; homeopathy; vitamins or herbal products; and acupuncture. Changes and limitations in lifestyle, interpersonal relationships, self and body image, and employment also should be addressed. Legal issues associated with estate planning and wills, arranging for respite and hospice care, and establishing connections with support groups should be considered.

Responding to the physical needs of cancer patients, including access to state-of-the-art treatment, is the first priority.

The availability of services to respond to these diverse needs varies throughout the state. Currently, there is no centralized source of information to facilitate access to services for cancer patients. Such a centralized directory of services, from screening to end-of-life care, would serve as a mechanism to respond to those needs.



Resource information in this centralized directory should include sources of medical care, ancillary medical services, cancer rehabilitative services, psychological and emotional support, meals, transportation, hospice care, family/caregiver support and/or respite care, educational materials and other services. Health care providers, patients, family members, and other individuals involved personally or professionally with the care of cancer patients could use this inventory as a reference. Utilization of these ancillary services would be increased, and the quality of life might be enhanced for cancer patients and their families. Depending on the extent of disease at diagnosis, treatment recommendations and survival of cancer patients can vary considerably. Hospitals that maintain cancer programs approved by the American College of Surgeons (ACoS) must participate in patterns-of-care audits by the ACoS. All hospitals can and many do submit data annually to the National Cancer Data Base (NCDB), also sponsored by ACoS. NCDB provides summarized state and national comparisons of hospital staging and treatment information to the submitting institutions.

OBJECTIVE 4.1

Promote analysis of cancer treatment results and avoidable mortality through hospital cancer registries.

Strategies:

The Colorado Central Cancer Registry will:

- Provide scheduled training on use of the Rocky Mountain Cancer Data Systems (RMCDS) software to hospital registrars throughout the state;
- Perform site-specific audits on the state database and share results with hospital registrars. Local registrars can use this information to correct staging errors and to analyze referral patterns, stage of disease at diagnosis, and treatment; and,
- Provide scheduled training on interpretation and use of the results from the ACoS and the National Cancer Data Base (NCDB) data submissions.

OBJECTIVE 4.2

Increase the amount of resource information, and access to this information, that is available in Colorado regarding cancer treatment, care, support, rehabilitation, and end-of-life services.

Strategies:

- Gather resource information from groups including, but not limited to:
  - Cancer programs at hospitals
  - Oncology social workers
  - American Cancer Society
  - AMC Cancer Research Center
  - Rural health providers

  - Health facilities division
  - Support organizations
  - Colorado Hospice Organization
  - Rocky Mountain Cancer Rehabilitation Institute
- Develop and routinely update an inventory of resources available to cancer patients in Colorado, and when possible, monitor patterns of utilization and changes in quality of life;
- Continue to distribute the "Colorado Breast Cancer Resources Directory," distributed by Day of Caring;
- Continue to update and distribute "A Colorado Resource Guide for End-of-Life Care," made available by the Colorado Department of Public Health and Environment, Health Facilities Division;
- Develop technological mechanisms to link resource information and effectively disseminate this information;
- Continue to update and distribute "A Cancer Resource Guide for Colorado," distributed by the Comprehensive Cancer Prevention and Control Program;
- Provide information to communities to assist in the identification of gaps in local service resources; and,
- Establish and monitor the use of the Colorado Cancer Coalition members' websites (i.e., American Cancer Society, Comprehensive Cancer Prevention and Control Program) as resource tools.

OBJECTIVE 4.3

Improve the quality of life of cancer survivors by reversing or eliminating treatment-related side effects during and following cancer treatments through rehabilitative interventions.

(Baseline: To be established.)

Strategies:

- Educate health care providers throughout Colorado on the negative side effects of cancer treatments, and establish the importance of rehabilitative interventions;
- Provide educational seminars and materials on rehabilitative and complementary therapies used to minimize cancer treatment side effects;
- Provide current research findings on non-invasive rehabilitative and complementary therapies, such as exercise and nutrition;
- Develop prescriptive exercise intervention and dietary guidelines for cancer survivors during and following treatment;
- Coordinate exercise intervention programs in the state;

- Offer a cancer exercise certification for individuals working with cancer survivors that includes information on exercise screening, assessment, prescription, and exercise program design;
- Increase the number of Colorado cancer survivors who have access to comprehensive state-of-the-art rehabilitative services; and,
- Encourage insurance companies to provide reimbursement for rehabilitative services for cancer survivors.

OBJECTIVE 4.4

Increase the proportion of patients receiving state-of-the-art treatment.

(Baseline: To be established.)

Strategies:

- Convene a panel of local experts to review current treatment guidelines and define state-of-the-art treatment;
- Periodically analyze the status of state-of-the-art treatment in Colorado using data from the Colorado Central Cancer Registry and the Colorado Mammography Advocacy Project (CMAP);
- Communicate to health care providers trends in state-of-the-art treatment, complementary rehabilitation and palliation interventions;
- Identify barriers to receiving state-of-the-art treatment and develop strategies to overcome them; and,
- Encourage managed care organizations and federal medical programs to accommodate and reimburse for participation in clinical trials.

OBJECTIVE 4.5

Facilitate participation in clinical trial protocols.

(Baseline: To be established.)

Strategies:

- Ensure ready access to cancer treatment, prevention, and control clinical trials through the NCI-affiliated clinical trials organizations in Colorado, the Colorado Cancer Research Program (CCRP) and the University of Colorado Comprehensive Cancer Center (UCCC);
- Review current health insurance legislation and insurance efforts for provisions that promote coverage of the National Cancer Institute-approved clinical trials and state-of-the-art therapies;
- Promote the advantages of clinical trials participation; and,
- Enhance awareness of the clinical trials through the Colorado Cancer Research Program (CCRP), a National Cancer Institute (NCI)-supported Community Clinical Oncology Program (CCOP), the University of

Colorado Comprehensive Cancer Center (UCCC), an NCI-supported comprehensive cancer center, and the NCI Cancer Information Service.

OBJECTIVE 4.6

Promote awareness and adoption of the Agency for Health Care Policy and Research Cancer Pain Management practice guidelines as a standard of care for pain control.

Strategies:

- Measure success via CoPIC Insurance Co. surveys;
- Ensure dissemination of copies of these guidelines to appropriate providers; and,
- Ensure dissemination of information on appropriate management of cancer pain to the public.

OBJECTIVE 4.7

Determine how rehabilitation services in Colorado affect the quality of life for cancer survivors and their families.

Strategies:

- Identify what rehabilitation services are; and,
- Assess the extent to which rehabilitation services are offered and utilized.

OBJECTIVE 4.8

Promote awareness of cancer pain and other physical symptom-management issues among practicing health care professionals, with particular emphasis on community-based primary care physicians.

Strategies:

- Increase the capability and use of palliative care principles with all physical symptom management; and,
- Increase utilization and distribution of the Institute of Medicine report.

OBJECTIVE 4.9

Facilitate the process for comfortable dying with preservation of autonomy and grieving support for the family.

Strategies:

- Support programs that assist the health care professionals who work with the cancer and dying patients;
- Increase the appropriate and timely referral of cancer patients to the state's hospice programs;

- Increase the capability and use of palliative care principles for cancer patients in all care settings;
- Increase the number of cancer patients who achieve self-determined life closure;
- Increase safety and comfort during the process of dying; and,
- Assist cancer patients and families to effectively grieve.

5.0 IMPLEMENTATION, COORDINATION, AND EVALUATION

IMPLEMENTATION, COORDINATION, AND EVALUATION

Over the years, Colorado has continued to increase and enhance the number and quality of the cancer-related programs. Although Colorado has a strong infrastructure for public-private collaborations, a formal plan to continue these efforts is crucial for the Colorado Cancer Plan success.

OBJECTIVE 5.1

Continue efforts of the Colorado Cancer Coalition, a public-private collaboration that focuses on comprehensive cancer prevention and control.

(Baseline: The CCC has met formally on a quarterly basis since 1993.)

Strategies:

- Seek funding sources to support the Colorado Cancer Coalition (CCC) and to implement priority strategies of the Colorado Cancer Plan;
- Share programs, resources, and best practices among CCC members; and,
- Hold an annual Colorado Cancer Conference to share best practices, increase skills, and commence new initiatives throughout the state.

OBJECTIVE 5.2

Identify and develop an inventory of organizations and programs that engage in or support cancer control and quality of life-related activities.

(Baseline: Colorado Cancer Resource Directory, 2000.)

Strategies:

- Identify, on a continuing basis, cancer control and quality-of-life organizations and activities in Colorado;
- Continue to recruit emerging and existing cancer control and quality-of-life organizations into the Colorado Cancer Coalition; and,
- Continue the update and printing of the "Comprehensive Cancer Prevention and Control Resource Guide for Colorado," originally published in 2000.

OBJECTIVE 5.3

Monitor and coordinate cancer control and quality-of-life activities in Colorado.

Strategies:

- Establish an online information service for cancer control in Colorado;
- Continue to maintain and expand the Colorado Cancer Coalition, enhancing its value, membership and efficacy;
- Continue to monitor screening guidelines, and influence prompt dissemination and incorporation of science-based recommendations;
- Continue to influence content of cancer-related guidelines to match current evidence; and,
- Keep apprised of, and disseminate information on, the activities of organizations engaged in implementing or supporting cancer control and quality-of-life activities in Colorado.

OBJECTIVE 5.4

Evaluate the implementation of the Colorado Cancer Plan.

Strategies:

- Conduct evaluation of the Plan annually; and,
- Disseminate evaluation information on an annual basis at the Colorado Cancer Conference and revise the Plan as needed.

OBJECTIVE 5.5

Develop and implement an evaluation plan for the Colorado Cancer Plan.

Strategies:

- Recruit and convene a planning and implementation committee experienced and knowledgeable in evaluation techniques;
- Assess and evaluate the efficacy of the Colorado Cancer Plan's strategies by determining its impact on the knowledge and behavior of the citizens of Colorado, and by measuring the resulting changes in cancer-related outcomes;
- Develop an evaluation plan and receive approval for its content by majority vote of the Colorado Cancer Coalition; and,
- Perform an annual evaluation and avail the community of its outcomes in a written report.

6.0
APPENDICES

APPENDIX A: CANCER GOALS FOR THE YEAR 2010

The following "Cancer Goals for the Year 2010" contains the Colorado Cancer Coalition's targets for continuing progress in cancer prevention and control.

An important activity of the Coalition is the setting of long-term goals and targets for cancer rates and risk factors. This set of new objectives is intended as a framework for continued improvements by Year 2010. The Coalition hopes that the setting of these Year 2010 cancer goals will help to empower even more progress in Colorado's fight against cancer.

APPENDIX B: COMMON ACRONYMS AND TERMINOLOGY

ACRONYMS

AcoS	American College of Surgeons
ACS	American Cancer Society
BRFSS	Behavioral Risk Factor Surveillance System
CAM	Complementary and Alternative Medicine
CCCR	Colorado Central Cancer Registry
CCOP	Community Clinical Oncology Program
CCRP	Colorado Cancer Research Program
CCSP	Colorado Coalition for STD Prevention
CDC	Centers for Disease Control and Prevention
CDPHE	Colorado Department of Public Health and Environment
CMAP	Colorado Mammography Advocacy Project
COHID	Colorado Health Information Dataset
CO-PAN	Colorado Physical Activity and Nutrition Coalition
CVD	Colorado Cardiovascular Coalition
CWCCI	Colorado Women's Cancer Control Initiative
DRE	Digital Rectal Exam
FOBT	Fecal Occult Blood Test
NCDB	National Cancer Data Base
NCI	National Cancer Institute
PDQ	Physician Data Query
PRAMS	Pregnancy Risk Assessment Monitoring System
PSA	Prostate-Specific Antigen
RMCDS	Rocky Mountain Cancer Data Systems
SPF	Sun Protection Factor
STEPP	State Tobacco Education Prevention Partnership
TABS	Tobacco Attitudes and Behavior Survey
UCCC	University of Colorado Comprehensive Cancer Center
UV	Ultraviolet

YRBS Youth Risk Behavioral Survey

YTS Youth Tobacco Survey

TERMINOLOGY

Age-adjustment: Facilitates comparison of rates between two or more populations that have different age distributions (the percent of individuals in each age group). Age-adjustment may be accomplished by the direct method (by applying rates from the study population to a defined standard population), or the indirect method (by applying standard rates to the study population distribution).

Cancer: A term for diseases in which abnormal cells divide without control. Cancer cells can invade nearby tissue and can spread through the bloodstream and lymphatic system to other parts of the body.

Cancer screening: Checking for changes in tissue, cells, or fluids that may indicate the possibility of cancer when there are no symptoms.

Carcinoma: Cancer that begins in the epithelial tissue that lines or covers an organ.

Clinical trials: Research studies that evaluate the effectiveness of new treatment or disease prevention methods on patients.

Colonoscopy: An examination of the rectum and entire colon using a lighted instrument called a colonoscope. A colonoscope allows the physician to remove polyps or other abnormal tissue for examination under a microscope.

Complementary and alternative medicine (CAM): Also referred to as integrative medicine, CAM includes a broad range of healing philosophies, approaches, and therapies. A therapy is generally called complementary when it is used in addition to conventional treatments; it is often called alternative when it is used instead of conventional treatment (conventional treatments are those that are widely accepted and practiced by the mainstream medical community.) Depending on how they are used, some therapies can be considered either complementary or alternative.

Digital rectal exam (DRE): A test in which the health care provider inserts a lubricated, gloved finger into the rectum to feel for abnormal areas of the prostate.

Fecal occult blood test (FOBT): A test to check for small amounts of hidden blood in stool.

Grade: A system for classifying cancer cells in terms of how abnormal they appear under a microscope. The grading system provides information about the probable growth rate of the tumor and its tendency to spread. The systems used

to grade tumors vary with each type of cancer. Grading plays a role in treatment decisions.

Incidence Rate: The number of new cases of cancer diagnosed in one year per 100,000 persons in the population.

Invasive cervical cancer: Cancer that has spread from the surface of the cervix to tissue deeper in the cervix or to other parts of the body.

Malignant: Cancerous.

Mammogram: An x-ray of the breast.

Melanoma: Cancer of the cells that produce pigment in the skin.

Mortality Rate: The number of people who died from a specific cancer in one year, expressed as the number of deaths per 100,000 persons in the population.

Papanicolaou (Pap) test: Microscopic examination of cells collected from the cervix. The Pap test is used to detect cancer, changes in the cervix that may lead to cancer, and non-cancerous conditions, such as infection or inflammation.

PSA (Prostate-Specific Antigen) test: A test that measures the level of an enzyme (PSA) in the blood that increases due to diseases of the prostate gland, including prostate cancer.

Relative Survival Rate: The ratio of the calculated observed survival rate for patients with a particular cancer to the expected survival rate for the general population. An assumption in using this statistic is that the presence of cancer is the only factor that is different for the two groups (all other characteristics are identical).

Risk factor: Something that increases a person's chance of developing a disease.

Sigmoidoscopy: A procedure in which the physician or health care provider looks inside the rectum and the lower part of the colon (sigmoid colon) through a flexible lighted tube. During the procedure, the physician or health care provider may collect samples of tissues or cells for closer examination.

Squamous cells: Flat cells that look like fish scales. These cells are found in the tissue that forms the surface of the skin, the lining of the hollow organs of the body, and the passages of the respiratory and digestive tracts.

Stage at Diagnosis: Tumors are categorized according to the extent of spread of disease. Tumors also are described as carcinoma in situ, non-invasive, or high-grade dysplasia. These categories include neoplastic changes that precede the spread of fully developed cancers. Traditionally, cancers are staged as:

- Local: the tumor is confined to the organ of origin;
- Regional: the tumor has extended beyond the organ of origin or involves local lymph nodes; and,
- Distant: the tumor has spread to other vital organs.

Years of Potential Life Lost: The number of potential years of life lost by each cancer death occurring before age 75.

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