Cancer Plan Advisory Committee (CPAC)

Virginia Cancer Plan

for 2001-2005

The Cancer Plan Advisory Committee
and
Virginia Department of Health
Office of Family Health Services
Division of Chronic Disease and Prevention/Nutrition
Chronic Disease Prevention Program

June 2000

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COMMONWEALTH of VIRGINIA

Department of Health
P O BOX 2448
RICHMOND, VA 23218

E. ANNE PETERSON, M.D., M.P.H.
STATE HEALTH COMMISSIONER

TDD 1-800-828-1120

Dear Colleagues:

I am pleased to present you with a copy of the *Virginia Cancer Plan for 2001-2005*. This Plan for cancer prevention and control in the Commonwealth is the culmination of an 18-month effort by the Cancer Plan Advisory Committee (CPAC), a group of representatives from public and private cancer prevention and control organizations and spokespersons for target populations.

The Plan outlines recommendations for a statewide effort to reduce the burden of cancer in Virginia. Cancer has been the second leading cause of death in Virginia since 1950, accounting for nearly 24 percent of all deaths in 1998. From 1990-1996, there were 161,766 reported cases of invasive cancer in Virginia, and in 1996, 347 out of every 100,000 Virginians were newly diagnosed with cancer. The impact of the disease on Virginia is pervasive, but with statewide coordination of cancer control initiatives and the commitment of public and private organizations, comprehensive cancer control can be achieved in the Commonwealth.

Sections of the Plan address the following areas: Prevention, Early Detection, Treatment, Rehabilitation, Palliation, and Surveillance of cancer in Virginia. Experts from each of these areas came together through CPAC to develop the goals, objectives, and strategies that are outlined in the Plan. While the goals set forth are ambitious, the Plan provides a practical framework for action. I invite you to join us in the adoption of the Plan and the collaborative efforts required to make comprehensive cancer control a reality in Virginia.

Sincerely,

E. Anne Peterson, MD, MPH

E. Anne Peterson, MD, MPH
State Health Commissioner

Virginia Cancer Plan for 2001-2005

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Executive Summary

The development of the Virginia Cancer Plan for 2001-2005 began in November 1998 with the creation of the Cancer Plan Advisory Committee (CPAC), a committee consisting of representatives from organizations and agencies concerned about the prevention and control of cancer in Virginia. The CPAC adopted many of the components of the Centers for Disease Control and Prevention's comprehensive cancer control model in developing the goals, recommendations, and strategies that this Plan proposes. In this Plan, the reader will find a more detailed description of the CPAC's origin and maturation, and the development and intended uses of the Plan. An overview of the burden of cancer on the Commonwealth's residents is presented through vital statistics and risk assessment. These data, combined with the experiences and expertise of CPAC members, provided a preliminary needs assessment upon which the Plan's goals and recommendations were based.

The Virginia Cancer Plan for 2001-2005:

- proposes goals and recommendations that reveal a strong emphasis on prevention, early detection and surveillance, with lesser emphasis on treatment, rehabilitation and palliation. This prioritization is a reflection of the CPAC membership in its early years, and of the Virginia Department of Health, the agency that initiated the Plan's development. It does not imply that some areas of comprehensive cancer control are more important than others.
- includes goals, recommendations, strategies, and evaluation plans for not only the five nationally recognized sub-components of comprehensive cancer control (prevention, early detection, treatment, rehabilitation, and palliation), but also for the growth and functioning of the CPAC as it transitions itself from a Plan-writing organization to a Plan-implementing organization.

- includes goals, recommendations, and strategies for surveillance due to the necessity for quality surveillance as a foundation for the planning, implementation, and evaluation of the Plan's cancer prevention and control strategies.
- addresses statewide disparities in cancer care due to race/ethnicity and geography.
- includes, throughout all areas of comprehensive cancer control, strategies that affect public policy and other forms of environmental support for the prevention and control of cancer.
- identifies a wide variety of potential as well as existing partnerships and resources that are necessary for implementing the proposed strategies, and acknowledges the necessity for sustaining and nurturing existing partnerships and collaborations as well as initiating new ones.

The Virginia Cancer Plan for 2001-2005 is ambitious in proposing the following goals:

I. Prevention Goals

- Reduce the use of tobacco among Virginians.
- Reduce Virginians' exposure to second-hand smoke.
- Reduce the number of youth in Virginia who begin using tobacco products.
- Improve the quality of indoor air for Virginians.
- Increase skin cancer prevention knowledge and behaviors among Virginians.
- Reduce the cancer risk in Virginians through physical activity and diet.
- Reduce the number of Virginians who practice risky sexual behavior.

II. Early Detection Goals

- Increase the knowledge of health care providers and the general public regarding early detection guidelines and the importance of screening.
- Ensure access to cancer screening, adequate referral, and timely follow-up for all Virginians.
- Promote policies and environmental support for the early detection of cancer.

III. Treatment Goals

- Reduce the percentage of Virginians who do not have adequate access to cancer care.
- Increase public and health professional access to best practices in the treatment of cancer.
- Develop working partnerships between public health and managed care to increase availability of comprehensive cancer control services in managed care organizations.

IV. Rehabilitation and Palliative Care Goals

- Ensure that every individual with cancer is assured the highest level of function possible through the course of illness.
- Ensure that every individual with untreatable or incurable cancer is assured optimal comfort care until death.

V. Surveillance Goals

- Collect complete, accurate, and timely data on cancer in Virginia.
- Analyze data on cancer and cancer-related behaviors in Virginia.
- Make cancer surveillance data available in Virginia.
- Evaluate the efficacy of cancer surveillance activities.

VI. Cancer Plan Advisory Committee (CPAC) Goals

- Be accountable in proposing and implementing the Virginia Cancer Plan.
- Provide leadership in promoting cancer prevention and control in Virginia.
- Demonstrate effective organizational development, maintenance, growth, and flexibility over time.

With the completion of this Plan, it is CPAC's intent to establish consensus on which goals and recommendations are of highest priority, and to develop a strategic plan for their implementation. The Plan will be revisited on a yearly basis, to not only monitor progress toward achievement of prioritized goals and recommendations, but also to modify the Plan as needed if priorities change.

List of Acronyms and Terms

ACS	American Cancer Society
ACOS	American College of Surgeons
AICR	American Institute for Cancer Research
AHEC	Area Health Education Center
ARHCQ	Agency for Research and Health Care Quality
BCCEDP	Breast and Cervical Cancer Early Detection Program
BRFSS	Behavioral Risk Factor Surveillance Survey
CDC	Centers for Disease Control and Prevention
CHALIC	Central Highlands Appalachia Leadership Initiative on Cancer
CIS	Cancer Information Service
CPAC	Cancer Plan Advisory Committee
CQHCS & CP	Center for Quality Health Care Services and Consumer Protection
EPA	Environmental Protection Agency
HEDIS	Health Plan Employer Data and Information Set
HPSA	Health Professional Shortage Area
LINC	Legal Information Network for Cancer
MCHIP	managed care health insurance plan
MSV	Medical Society of Virginia
MCO	managed care organization
NCI	National Cancer Institute
NCNN	National Comprehensive Cancer Network
NCQA	National Committee for Quality Assurance
OFHS	Office of Family Health Services (VDH)
SEER	Surveillance Epidemiology and End Results
TUCP	Tobacco Use Control Programs
VaNBLIC	Virginia National Black Leadership Initiative
VBCF	Virginia Breast Cancer Foundation
VCR	Virginia Cancer Registry
VICA	Virginia Indoor Clean Air
VCPI	Virginia Cancer Pain Initiative
VDH	Virginia Department of Health
YPLL	years of potential (or productive) life lost

List of Figures and Tables

Members of the Cancer Plan Advisory Committee

William L. Banks, Jr., Ph.D.,FACN
National Delegate
American Cancer Society

Pat Baughman
Sr. VP, Field Operations
American Cancer Society,
Mid-Atlantic Division

Joy Bechtold
Government Relations Manager
American Cancer Society

Barbara S. Brown, PhD, RN
Virginia Hospital & HealthCare Association

Kimberly M. Carswell, MPH
BRFSS Coordinator
Virginia Department of Health

Diane D. Cole, MPH
Education Coordinator
UVa Cancer Center

Deborah R. Correll, R.N., MSA
Training & Development Coordinator
Virginia Department of Medical
Assistance Services

Patrick J. Coyne, RN, MSN, CS, CHPN
Clinical Nurse Specialist
Medical College of Virginia

Penelope Christiansen
Evaluation & Development Analyst
IQ Health of Virginia

Gail DeCosta, RN, CGRN
Medical College of Virginia

Sandra K. Doffelmeyer
Specialist, Virginia Department of Education

Mary Ella Douglas
American Lung Association

Elizabeth Fries, PhD,
Director, Cancer Prevention
Massey Cancer Center

R. Neal Graham, MSEd
Director, Tobacco Use Control Programs
Virginia Department of Health

Ron Hyman
Director, Center for Health Statistics
Virginia Department of Health

James B. Johnson II, EdD
Breast & Cervical Cancer Early
Detection Program
Virginia Department of Health

Walter Lawrence, Jr., M.D., FACS
Director Emeritus
Massey Cancer Center, VCU

Terri Levandoski, MSW
Cancer Control Manager
American Cancer Society

Delaine P. Lewis, RNC, NP
Family Planning Projects Coordinator
Virginia Department of Health

Myra L. Lovvorn, NP
Bon Secours Hospice

Jennifer J. Lucas, MPH, RD
Community Nutritionist
UVa Cancer Center

Elizabeth McGarvey, Ph.D.
Psychiatric Medicine
University of Virginia

Becky Hartt Minor, MA
Partnership Coordinator
Cancer Information Service

Mary Ann Mugel
Oncology and Medicine
St. Mary's Hospital

Henry C. Murdaugh, MPH
Office of Minority Health
Virginia Department of Health

Sarah Norris, MPH
Statistical Analysis Coordinator
Virginia Cancer Registry

Wendy Novicoff, PhD
Health Evaluation Sciences
University of Virginia

Gwendolyn G. Parker, RN, MS
Clinical Research Coordinator
Massey Cancer Center

Beblon G. Parks
Virginia Education Association

Lynne Penberthy, MD, MPH
MCV/VCU

Roger Perry, M.D., FACS
Department of Surgery
Eastern Virginia Medical School

Donna M. Proctor, MS., CHES.
Virginians Working Well

Amy M. Pugh, MA
Director, Virginia Cancer Registry

Patti Ragsdale, RN
Carilion Giles Memorial Hospital

Rebecca Reeve, PhD, CHES
Health Promotion Program Manager
IQ Health Virginia

Calvin Reynolds
Center for Health Statistics
Virginia Department of Health

Donna Reynolds
American Lung Association

Ramona Dawn Schaeffer, MSEd., CHES
Director, Chronic Disease Prevention Program

Kathleen Stadler, PhD
Virginia Cooperative Extension

Carol Stanley
Health Education Manager
Virginia Health Quality Center

S. Carter Steger
Advocacy Director
American Cancer Society

Cathie Stivers, Ph.D.
Manager, Cancer Prevention & Control Project
Virginia Department of Health

Vivian Sullivan, RN, MS
HealthSouth Cancer Support Group

Lynn Warren, RN, MPH
Virginia Association of Health Plans

D. Cal. Whitehead, III
Associate Director, Policy & Planning
Medical Society of Virginia

Ann Wolford, PhD
Director, Institute for Community Health
VA Tech

C. Diane Woolard, PhD, MPH
Director, Division of Surveillance & Investigation
Virginia Department of Health

INTRODUCTION

Comprehensive Cancer Prevention and Control

Comprehensive cancer control is defined by the Centers for Disease Control and Prevention (CDC) as "an integrated and coordinated approach to reduce [cancer] incidence, morbidity and mortality through prevention, early detection, treatment, rehabilitation, and palliation." The National Cancer Institute and the World Health Organization also recognize and promote these components of comprehensive cancer control. Implementation of a state-level comprehensive cancer control effort requires: a systematic process based on data and science; an active and broad coalition of stakeholders; a population-based approach to service delivery; a whole-person approach to service delivery; a focus on infrastructure development; a long-term view of costs and benefits (Battelle, 1998).

The goals, recommendations, and strategies in this Virginia Cancer Plan for 2001-2005 are consistent with CDC's definition and operational requirements of comprehensive cancer control described above.

Development of the Virginia Cancer Plan for 2001-2005

Meissner, *et. al.* (1992) identify an established cancer control plan as a contributing factor to success in controlling cancer in the public health setting. Accordingly, the Virginia Department of Health's (VDH) Division of Chronic Disease Prevention/ Nutrition spearheaded the development of a state plan for the prevention and control of cancer. The Cancer Plan Advisory Committee (CPAC) was formed and held its first meeting in November 1998. The CPAC's membership includes representatives from public and private cancer prevention and control organizations, as well as spokespersons for target

populations, all of whom have common goals in cancer prevention and control (see Appendix A for organizational membership). In January 1999, the CPAC divided into subcommittees corresponding with the following areas of comprehensive cancer control: prevention, early detection, treatment, rehabilitation and palliative care, and surveillance and evaluation. By July 1999, the subcommittees drafted goals, recommendations and strategies for inclusion in the state plan.

During the next year, the CPAC continued to work on finalizing the state cancer plan, but also devoted much time and energy to planning for CPAC's future role in developing partnerships and implementing the plan once it was completed. In October 1999, the CPAC began development of a new organizational model, a mission statement and vision, and guiding principles for the new structure. The drafting and discussion of these items continued through the March and June 2000 CPAC meetings. The adopted mission statement, vision statement, and guiding principles are found in Appendix B.

Purpose and Intended Audiences

The overall purpose of the Virginia Cancer Plan for 2001-2005 is to guide cancer prevention and control planning, implementation, and evaluation efforts within the state. More specifically, the Plan will be used internally (within VDH) by the Chronic Disease Prevention Program to:

- plan, implement, and evaluate cancer prevention and control strategies that coordinate with and complement the risk-reduction strategies in the other chronic disease prevention projects (Diabetes Control Project, Cardiovascular Health Project, Tobacco Use Control Project, Arthritis Project); and
- foster collaboration and compatibility of cancer prevention and control initiatives with other VDH programs and initiatives (such as the Virginia Cancer Registry, the Breast and Cervical Cancer Early Detection Program, and the Office of Minority Health).

Externally, the Plan will:

- promote the formation and nurturing of new partnerships between VDH and outside

agencies;

- serve as a guide for all of the organizations represented on the CPAC to advocate for cancer prevention and control strategies and policies in a collective voice;
- encourage those same organizations to build and enhance collaborative relationships; and,
- raise the 'cancer IQ' among policy makers at all levels of decision-making statewide through the CPAC's promotion of the Virginia Cancer Plan for 2001-2005.

THE BURDEN OF CANCER IN VIRGINIA

State Profile

Demographics

The Commonwealth of Virginia, a mid-Atlantic state, encompasses 40,767 square miles. It is bordered by the District of Columbia, as well as five other states: Maryland, Kentucky, West Virginia, Tennessee, and North Carolina. Local jurisdictions are comprised of 95 counties and 40 independent cities totaling 135 localities. The Virginia Department of Health has grouped these localities into 35 health districts.

Population

Virginia is ranked as the 12th most populated state with more than 6,791,000 residents in 1998. This is a 15.8 percent increase since 1990, according to U.S. Census Bureau estimates. A large part of this growth to date has occurred in Northern Virginia.

The population in Virginia is 48.9 percent male and 51.1 percent female and is multiculturally diverse (especially in Northern Virginia), including the following groups: African American, Bosnian, Cambodian, Central American, Chinese, Ethiopian, Filipino, Korean, Laotion, Russian/Ukrainian, Somalian, Sierra Leonian, South American, Thai, and Vietnamese (Virginia Department of Health, Multicultural Health Task Force, 1999). Other relevant special populations include migrant workers, homeless persons, and incarcerated youth and adults. Many of these groups are not specifically identified in the Virginia Census data. Table 1 provides Virginia's race and age population estimates and projections for 1998 and 2025 respectively.

Table 1: Virginia Population Estimates and Projections By Race and Age

	Estimates	Projection
	1998	**2025**
Race[1]	**% of Total Virginia Population**	**% of Total Virginia Population**
Non-Hispanic White	72.8	64.7
African-American	20.1	22.8
American Indian	0.2	0.2
Asian/Pacific Islander	3.6	5.9
Hispanic	3.7	6.4
	1998	**2010**
Age[2]	**% of Total Virginia Population**	**% of Total Virginia Population**
<18	24.2	22.6
18-44	42.8	37.5
45-64	21.7	27.5
65+	11.3	12.4

[1]Source: Multicultural Health Task Force, Virginia Department of Health
[2]Source: U.S. Census Bureau, Statistical Abstract of the U.S., 1999

Virginia's population density varies greatly between its urban and rural areas. Twenty-five communities have densities of less than 50 persons per square mile. Half of Virginia communities have total populations under 20,000 persons, with 24 of those having less than 10,000 persons. However, more than three fourths of the state population lives within metropolitan areas, according to the U.S. Census.

Education

At the 1990 U.S. Census, three-fourths (75.2 percent) of state residents had achieved at least a high school diploma or equivalency. At the latest Census update on educational attainment in 1998, the percentage of high school graduates had risen to 82.5 percent. Overall Virginia education data compares favorably to the nation as more adults in the Commonwealth hold bachelor's degrees or have completed higher education than over two-thirds of the country's residents. However, percentages of educational attainment vary greatly by race and location. Blacks and Hispanics fared worse than the total state figure of high

school graduates. Out of the 135 localities in the state, 103 (75.7 percent) had rates worse than the state average level of education. In 48 localities, one out of five persons had not completed the 9th grade.

Socio-economic Status

Unemployment in Virginia has fallen to the lowest it has ever been since measurements were begun in the 1970s. In 1998, the average annual unemployment fell to 2.9 percent, a drop of 1.1 percent from the prior year's rate. Virginia had a significantly lower unemployment rate than the 4.5 percent observed nationwide for 1998. Ten years ago, state unemployment was still low at 3.9 percent. Unemployment rose to a peak of 6.4 percent in 1992, and has declined ever since (Virginia Employment Commission, 1999).

The current poverty rate in Virginia is below the U.S. figure of 12.7 percent. Based on 1998 data, Virginia ranks 47th, having the 3rd lowest statewide poverty rate in the country. However, poverty rates reveal that in Virginia, 13.3 percent of women ages 15-44 were below 100 percent Federal Poverty Level (FPL) and 18.6 percent of children under age 18 were below 100 percent FPL in 1997, according to information provided by the March of Dimes from special Census tabulations. Furthermore, Virginia minority women showed higher rates of poverty.

In 1996, 29 percent of families with children were single parent households, up 4 percent from the previous year. In this indicator, Virginia fared worse than the U.S. (27 percent) and ranked 40th among the states.

The median household income in 1996 was $39,211 (in 1996 constant dollars) which placed Virginia 14th among the states in this indicator. Median household income, however, actually fell from the 1990 Census figure of $42,104 (in constant dollars).

Considerations/Implications for Cancer Prevention and Control in Virginia

A variety of factors exist in Virginia that affect, either positively or negatively, the success of statewide cancer prevention and control efforts. Several of these are briefly described on the following pages.

Tobacco Economy

For more than a decade, tobacco (smoking, specifically) has been identified as the single greatest preventable risk factor for multiple chronic and acute conditions, primarily cancer and cardiovascular disease. Unfortunately, the significance of the tobacco industry in Virginia's history and economy, as illustrated in Table 2 below, have impeded local and statewide cancer prevention and control efforts for years.

Table 2: Tobacco Economy Indicators – Virginia vs. the U.S.

Tobacco Economy - Indicators	Virginia	United States
Number of cigarette packages sold and taxed, per capita, 1997	108.0	86.9
Acres of tobacco harvested, 1997	53,080	811,840
Production of tobacco in pounds, 1997	117,576,000	1,786,065,000
Cash receipts from tobacco, 1997	$190,781,000	$2,885,663,000
Tobacco as a percentage of cash receipts from crops and all farm commodities	7.948%	1.383%
Overall tobacco manufacturing, 1996	$6,132,000,000	$23,930,000,000

Source: Centers for Disease Control and Prevention, 1999; "State Tobacco Control Highlights, 1999"

Fortunately, Virginia will be a recipient of the outcome of the 1998 multi-state tobacco settlement. According to the Campaign for Tobacco-Free Kids (1999), it is estimated that Virginia will receive an initial amount of $49.1 million from the tobacco industry, followed by yearly amounts ranging between $131.1 and $171.6 million. Of that amount, ten percent will be earmarked for youth tobacco-use prevention, and fifty percent will be allocated for economic assistance programs for Virginia tobacco farmers. While these funds will contribute greatly to reducing the burden of cancer in Virginia, they will fall far short of CDC's estimated costs of an effective, comprehensive tobacco prevention program in Virginia.

Barriers to Access to Care – The Health Policy Tracking Service, an information organization within the National Conference of State Legislatures, identified the following barriers to accessing health care in Virginia (1998):

- "Of Virginia's 95 counties, 47 are federally designated as health professional shortage areas (HPSAs). In addition, the state has developed its own state designated medically underserved areas, of which there currently are 42."

- Approximately 11 percent of the state's population live in HPSAs.

- Lack of transportation is a barrier in certain geographical regions and rural areas, especially in the mountains of western Virginia.

- Cultural and language differences present barriers between patients and providers. These are especially true in northern Virginia where more than 60 different languages may be heard in the public schools, and in Appalachian Virginia where "the mountain-dweller culture instills a wariness of outsiders or 'flatlanders'."

- Race differences often present barriers, resulting in a lack of confidence in, if not mistrust of, white health care providers by people of color. This has led to voluntary segregation in some health care delivery systems.

- Approximately 12 percent of the state's population is uninsured. With a 1998 estimated population of 6,791,300, that means that approximately 815,000 Virginians are uninsured.

Cancer Prevention and Control Infrastructure

An established cancer prevention and control infrastructure exists within the state that includes these primary players:

The Mid-Atlantic Division of the American Cancer Society (ACS)

I. **The Mid-Atlantic Division of the American Cancer Society (ACS)** is a voluntary, community-based, non-profit organization. Based on local needs, American Cancer Society volunteers and staff conduct early detection and prevention programs for the major cancers: breast, prostate, lung and colon. The ACS focuses on interventions that are scientifically based and result in changes in awareness, behavior, policy or systems. For cancer survivors and their families and caregivers, the ACS offers a range of services and programs from the time of diagnosis for the balance of life. ACS grassroots advocacy efforts promote cancer control through the legislative and executive branches of government.

The Virginia Breast Cancer Foundation (VBCF)

II. **The Virginia Breast Cancer Foundation (VBCF)** is a non-profit organization that promotes the eradication of breast cancer through research support, education, and advocacy. In just several years, the VBCF has established local chapters statewide, successfully advocated for the

passage of three breast cancer related bills in the 1998 Virginia Legislative Assembly, sponsored a variety of educational seminars and conferences, and conducted public awareness campaigns during Breast Cancer Awareness Month.

The National Cancer Institute's Cancer Information Service (CIS)

III. **The National Cancer Institute's Cancer Information Service (CIS),** located in the Massey Cancer Center in Richmond, provides cancer information by telephone, the Internet, through media, in partnership with other organizations, and through a wealth of printed and audiovisual materials. CIS also assists with coalition building and networking; program planning, implementation, and evaluation; media assistance; identification of cancer resources and experts; and training assistance. Virginia is in the Mid-Atlantic Region of CIS, which also includes West Virginia, Maryland, and the District of Colulmbia.

The Virginia Cancer Pain Initiative (VCPI)

IV. **The Virginia Cancer Pain Initiative (VCPI)** is an organization with statewide membership and recognition, whose mission is to promote and educate patients and their families and health care providers about cancer pain management. VCPI's newsletter *Initiative* has received national recognition, and their educational interventions have drawn participants from all around the state. VCPI

advocates for legislation promoting the availability of effective pain management for all cancer patients.

The Legal Information Network for Cancer (LINC)

V. **The Legal Information Network for Cancer (LINC)** is an organization of volunteers that provides information, education, counseling and referral services for legal assistance that many people living with cancer often need.

The Virginia Chapter of the Leukemia Society of America

VI. **The Virginia Chapter of the Leukemia Society of America** offers patients with leukemia and related disorders financial help, transportation, and consultation service for referrals.

Central Highlands Appalachia Leadership Initiative on Cancer (CHALIC)

VII. Virginia has participated in the **Central Highlands Appalachia Leadership Initiative on Cancer (CHALIC)** with Kentucky, West Virginia, and Tennessee since 1993. The Department of Community Health Education at Virginia Polytech Institute and State University (VA Tech) is one of the four university-based programs comprising CHALIC's foundation. The goals of CHALIC are to achieve reductions in cancer incidence and mortality, increases in cancer survival, and increases in the diagnosis of cancers at earlier stages within the Appalachian region. Achievement of these goals relies on the mobilization of community lay and

professional leaders to develop and support community cancer control coalitions.

Virginia National Black Leadership Initiative on Cancer (VaNBLIC)

VIII. Beginning in 1998, the **Virginia National Black Leadership Initiative on Cancer (VaNBLIC)** has grown to a coalition of four project sites. The Office of Minority Health serves as the umbrella organization that provides administrative and fiscal support for the VaNBLIC. The four sites include NAACP-Northampton on the Eastern Shore; Tabernacle of Zion Church in Lawrenceville; the Umbrella of Support in Tidewater; and Helping Other People Cope with Cancer in Remington. The VaNBLIC's primary goal is to conduct health promotion and health education activities targeting African-Americans. Examples include health fairs, speaking engagements, support groups, and one-to-one counseling.

Area Health Education Center (AHEC)

IX. The first **Area Health Education Center (AHEC)** in Virginia was incorporated in 1979 in Eastern Virginia. By 1995, seven more AHECs became incorporated statewide, with a mission of promoting health careers and access to primary care for medically underserved populations through community-academic partnerships. Partners have included Eastern Virginia Medical School, the University of Virginia, Virginia Commonwealth University and other colleges

and universities, as well as the Virginia Department of Health.

44 Approved Cancer Programs

X. Virginia has 44 cancer programs that have been approved by the American College of Surgeons (ACOS) Commission on Cancer. Half (22) are community hospital cancer programs (CHCPs) that offer a full range of services for diagnosis and treatment of cancer, but patients may need a referral for a portion of treatment. Ten are teaching hospital cancer programs (THCPs), and ten are community hospital comprehensive cancer programs (COMPs; similar to CHCPs).

Massey Cancer Center and University of Virginia Cancer Center

XI. The two National Cancer Institute (NCI) designated cancer centers in Virginia are **Massey Cancer Center** at the Medical College of Virginia at Virginia Commonwealth University in Richmond, and the **University of Virginia Cancer Center** in Charlottesville. Both cancer centers conduct basic and clinical research, provide professional and patient education, and provide the full range of cancer treatment services.

The Virginia Tobacco Settlement Foundation

XII. The **Virginia Tobacco Settlement Foundation (VTSF)** was formed as a result of Virginia's participation in the Master Settlement Agreement (MSA). In 1999, the Virginia General Assembly passed legislation

designating ten percent of the funds the commonwealth would receive from the MSA to establish the institution. The legislation was signed into law by Governor James S. Gilmore, III and became effective July 1, 1999. The Foundation's purpose is to determine the appropriate recipients of moneys in the Settlement Fund, including using moneys to assist in financing efforts to restrict the use of tobacco products by minors through educational and awareness programs on the health effects of tobacco use on minors and enforcement of laws restricting the distribution of tobacco products to minors. An Executive Director for the VTSF was appointed in January, 2000.

The Virginia Department of Health (VDH)

XIII. **The Virginia Department of Health (VDH)** manages a number of cancer prevention and control related programs and functions:

***Tobacco Use Control Program* (TUCP)**

- The goals of the ***Tobacco Use Control Program*** **(TUCP)** are to reduce the initiation of tobacco use by youth in Virginia and to inform adults of the ill health effects of tobacco use. The purpose of the project is to build the capacity of existing organizations and community groups by offering assistance and support for prevention and cessation programs. To date, one statewide and 17 local coalitions focus on tobacco use prevention and

control in Virginia.

***Virginia Breast & Cervical Cancer Early Detection Program* (BCCEDP)**

- With the theme of "Mammograms and Pap Tests: Part of Every Woman's Life," the ***Virginia Breast & Cervical Cancer Early Detection Program*** (BCCEDP) aims to create a statewide health delivery system to screen low income women, particularly those in hard-to-reach areas of the Commonwealth. The program places special emphasis on those of racial/ethnic minority. The program has expanded its service to over 250 provider sites serving every region of the state.

The 5 A Day for Better Health Program

- ***The 5 A Day for Better Health Program*** is a nationwide nutrition education campaign to increase consumption of fruits and vegetables to an average of 5 or more servings a day. The National Cancer Institute and the Produce for Better Health Foundation jointly sponsor the program. VDH is the agency licensed to conduct 5 A Day activities in Virginia, and is currently sublicensing to 34 health agencies around the state.

The Cancer Prevention and Control Project

- ***The Cancer Prevention and Control Project,*** in the Chronic Disease Prevention Program, has facilitated the formation of the Cancer Plan Advisory Committee and provided key leadership in the development of this Cancer Plan. The project manager also collaborates with other projects in the Chronic

Disease Prevention Program (Diabetes Control Project, Cardiovascular Health Project, 5 A Day, and Tobacco Use Control Programs) in planning, implementing, evaluating, and managing chronic disease prevention strategies and initiatives.

Behavioral Risk Factor Surveillance Survey (BRFSS)

- Since 1989, VDH has conducted the ***Behavioral Risk Factor Surveillance Survey*** (BRFSS), funded through a cooperative agreement with CDC and the Preventive Health and Health Services (PHHS) Block Grant. Complete data for the state have been collected each year since 1989. By increasing the sample size, health district level data are available from 1997 through 1999. The BRFSS was developed to monitor the prevalence of risk factors of chronic diseases, including cancer.

***Virginia Cancer Registry* (VCR)**

- The ***Virginia Cancer Registry*** (VCR) compiles, maintains, and analyzes the state's cancer surveillance database in order to understand the incidence and survival of cancer among Virginians. State law requires hospitals, clinics, pathology laboratories, and physicians to report each cancer diagnosed or treated within the state to the VCR. Additionally, the VCR receives information for residents receiving care in several neighboring states. Enhancement funding from the CDC's National Program of Cancer

Registries has supported the VCR in these efforts. Just some of the current uses of VCR data and reports include academic research, program planning by both non-profit and public health programs, certificates of need for proposed medical services, hospital comparison data, public and provider education, citizen concerns of cancer excess, and national data compilation.

Virginia Center for Health Statistics

❑ The ***Virginia Center for Health Statistics*** collects and disseminates vital records data, conducts research and produces reports which help guide health policy issues affecting the Commonwealth. The Center's *Annual Reports* and *Supplements* provide statistics on teen pregnancies, births, deaths, induced terminations of pregnancy, and fetal deaths.

District Health Departments

❑ Each of the **35 Health Districts** in Virginia (see Appendix D) contains a local health department, which identifies disease early, monitors trends and introduces preventive strategies to reduce the occurrence of infectious and chronic disease. To improve access to and quality of their health services, local health departments have focused on developing partnerships with business leaders, public school systems, private medical providers, community health centers, hospitals, managed care organizations, and

community organizations. Additionally, some of these local health departments are the sites for the TUCP, BCCEDP, and Diabetes Control Project's community-based coalitions, as well as various cardiovascular disease and cancer risk reduction projects that are funded by VDH.

Cancer Trends in Virginia

Cancer has been the second leading cause of death in Virginia since 1950, accounting for 23.7% of total deaths in 1998. From the period 1990 to 1996, there were 161,766 reported cases of invasive cancer in Virginia. In 1996, 347 out of every 100,000 Virginians (approximately 1 in 300) were newly diagnosed with cancer. A comparison of Virginia to the United States on several cancer indicators can be found in Appendix D.

Incidence

The incidence of cancer is one way to measure the burden of this disease on the population in the state. Virginia law requires hospitals, clinics, pathology labs, and physicians to report cases of cancer to the Virginia Cancer Registry (VCR). From this information, the incidence of cancer can be described. However, these VCR figures reflect a conservative account of the actual occurrence of cancer, due to underreporting of cases across the state. This is especially true for patients diagnosed and treated in an outpatient setting. Furthermore, the VCR does not yet receive interstate exchange information on residents in southwestern Virginia who receive care in Tennessee.

Figures 1 and 2, based on data from the Virginia Cancer Registry (1999), show the age-adjusted rates for invasive cancers in Virginia based on race and gender. Total invasive cancer incidence has risen from a rate of 321.0 per 100,000 people in 1990 to a rate of 347.0 per 100,000 people in 1996, based on cases reported to the VCR. This increase may be due to an increase in reporting rather than a true increase in disease. There are notable differences in rates among races and genders in cancer incidence. Blacks have higher incidence rates than whites, and males have higher incidence rates than females. The differences are even more apparent for the gender-race groupings. Black males have much higher incidence rates than any other group.

Figure 1: Age-Adjusted Invasive Cancer Incidence Rates per 100,000 People By Race and by Gender, Virginia 1990-1996

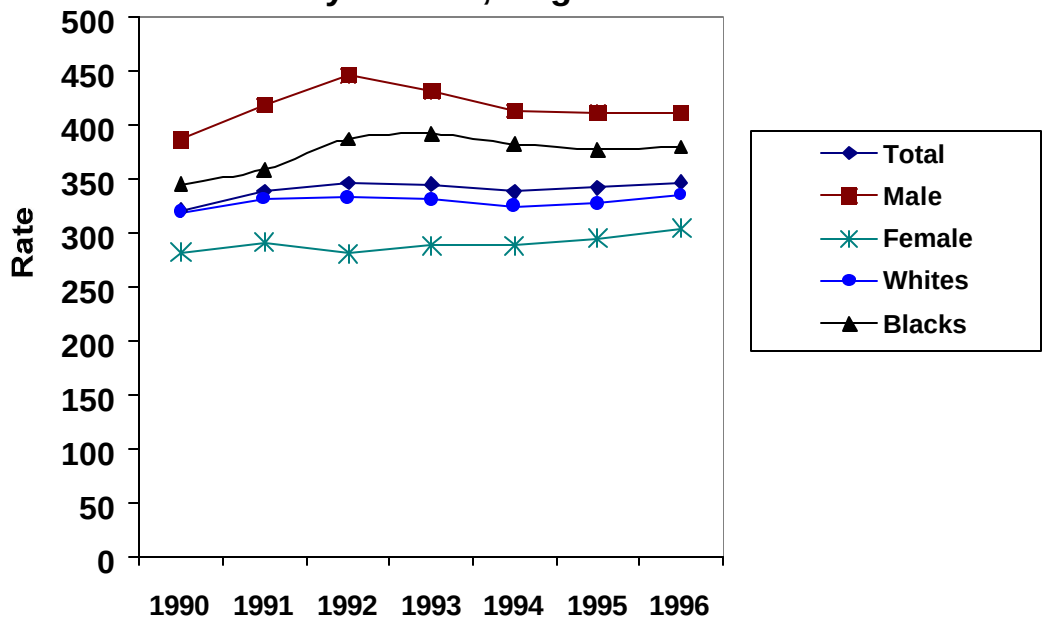
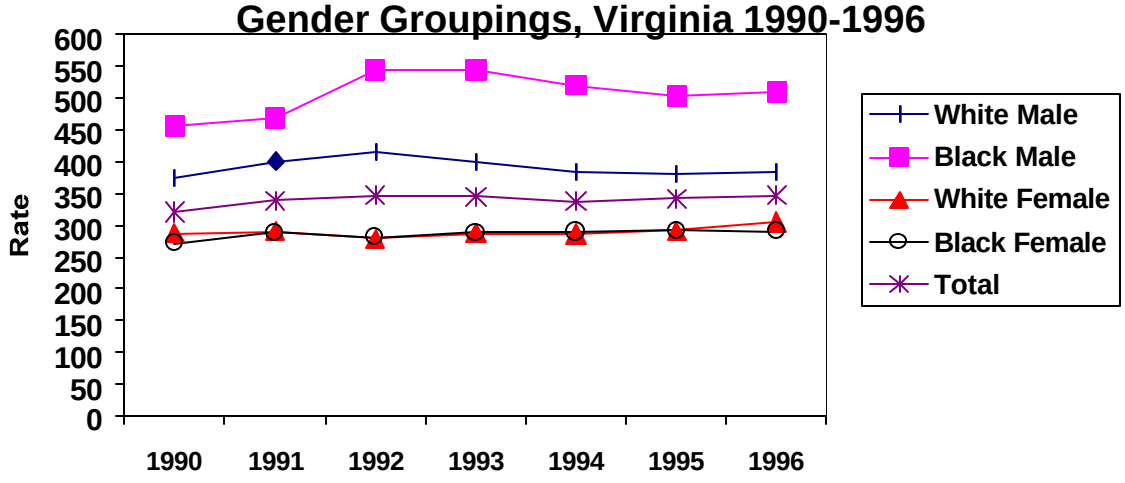


Figure 2: Age-Adjusted Invasive Cancer Incidence Rates per 100,000 People By Specific Race and Gender Groupings, Virginia 1990-1996



Nationally, cancer incidence rates are based on the Surveillance, Epidemiology, and End Results (SEER) Program's registries and interpreted by the National Cancer Institute at the National Institutes for Health. Virginia incidence rates are lower than those extrapolated from national databases (as shown in Table 3), but this may be due to reporting differences rather than true differences in incidence rates.

Table 3: Comparison of National and Virginia Cancer Age-Adjusted Incidence Rates Based on Race and Gender, 1996

Population	National Rates[1]	Virginia Rates[2]
White Males	445.8	384.0
Black Males	563.1	509.6
White Females	347.1	304.7
Black Females	336.1	290.9

[1]SEER Database, NCI 1999
[2]Virginia Cancer Registry, 2000

The incidence of site-specific cancers is also important in determining the burden of a disease in a population. Certain cancers are diagnosed at higher rates, and some cancers have higher resulting mortality rates than others do. Tables 4-9 show the age-adjusted site-specific cancer incidence rates (per 100,000 people) specific to race and gender.

Table 4: Breast Cancer[1] Incidence Rates in Virginia, 1990-1996

Population	1990	1991	1992	1993	1994	1995	1996
Total Males	0.6	0.7	1.0	0.8	0.8	0.8	1.3
White Males	0.6	0.6	0.8	0.8	0.8	0.8	1.1
Black Males	*	*	*	*	*	*	2.0
Males – Other Races	*	*	*	*	*	*	*
Total Females	94.3	100.5	95.2	93.2	94.0	97.0	100.6
White Females	97.6	101.3	95.7	94.5	94.8	97.1	102.3
Black Females	84.1	96.6	91.8	89.2	92.2	94.5	94.6
Females – Other Races	37.3	47.2	42.9	53.7	46.8	64.1	48.5

* Insufficient number of cases to compute rates
[1] Invasive only

Breast cancer incidence among males, although very low compared to incidence rates for females, increased slightly from 1990 through 1996. For white and black females, the overall trend has been roughly a five-percent increase in breast cancer incidence from 1990 through 1996, with the highest incidence rates reported in 1991 for black females, and 1996 for white females. While not indicative of a causal effect, CDC's National Breast and Cervical Cancer Early Detection Project (BCCEDP) began in 1990, and the Virginia BCCEDP began in 1993. With goals of increased awareness of the importance of breast cancer screening, and increased availability of screening services, the BCCEDP's expansion from 1990 through 1996 may have affected the gradual climb in breast cancer incidence rates in Virginia.

For females of other races, the pattern is sporadic, which may be due more to reporting than to true incidence.

Table 5: Cervical Cancer Incidence Rates in Virginia, 1990-1996

Population	1990	1991	1992	1993	1994	1995	1996
Total Females	8.7	7.8	7.4	7.7	7.0	7.9	8.3
White Females	7.8	7.0	6.5	6.7	6.5	6.8	7.4
Black Females	13.2	10.5	10.7	11.8	8.4	11.5	9.9
Females: Other Races	*	*	12.3	*	13.0	17.4	20.9

* - Insufficient number of cases to compute rates

Cervical cancer incidence rates among white and black females were the highest in 1990, followed by fluctuations for several years, until they began to rise again in 1995 and 1996. While the data are incomplete for females of other races, incidence rates were substantially higher among these women during 1994 -1996, compared to white and black women.

Table 6: Colorectal Cancer Incidence Rates in Virginia, 1990-1996

Population	1990	1991	1992	1993	1994	1995	1996
Total Males	47.1	48.4	47.3	47.8	44.5	44.6	45.8
White Males	46.7	48.5	44.7	45.9	42.7	42.5	45.0
Black Males	50.6	45.1	58.3	55.6	55.2	54.7	51.3
Males: Other Races	22.3	31.9	33.3	52.7	26.8	30.2	28.0
Total Females	34.7	33.4	32.4	34.8	33.8	33.3	34.8
White Females	34.3	31.5	30.5	33.8	31.9	31.5	33.9
Black Females	37.7	41.5	40.9	40.0	41.5	39.9	37.6
Females: Other Races	16.5	22.5	19.1	26.0	18.9	26.5	26.2

Colorectal cancer incidence rates, as seen in Table 6, have held steady from 1990 through 1996 for the total male population and the total female population. While similar trends exist for gender-specific and race-specific groups, the rates are higher for blacks than whites (for both males and females). For males of other races, there is a dramatic spike in the 1990-1996 trend line during the year 1993. This one-year increase was probably due to screening and/or reporting changes, rather than a true dramatic increase in incidence. Similarly, the yearly fluctuation in the incidence rates among females of other races is unexplainable. The small number of cases and small sample size may be the reason.

Table 7: Lung Cancer Incidence Rates in Virginia, 1990-1996

Population	1990	1991	1992	1993	1994	1995	1996
Total Males	81.0	84.0	80.7	80.0	78.0	81.0	77.8
White Males	77.2	79.6	74.6	76.2	73.4	77.6	74.2
Black Males	106.9	108.8	111.7	101.2	105.6	101.2	98.0
Males: Other Races	37.4	54.7	72.9	49.5	38.3	53.1	61.9
Total Females	35.1	36.8	36.2	37.0	37.8	39.4	39.4
White Females	36.0	37.7	36.4	39.2	38.5	40.2	40.0
Black Females	32.8	34.0	35.8	28.4	37.3	37.3	38.2
Females: Other Races	11.5	*	22.6	16.1	*	15.9	20.6

* - Insufficient number of cases to compute rates

Lung cancer incidence rates are dramatically higher among men than among women, for all races. The incidence rates for black males are substantially higher than for white males in the 1990-1996 time period. The race differential among females is reversed, and less significant: white females have a consistently albeit slightly higher lung cancer incidence rate over time than black females. Lung cancer incidence rates remain the lowest among males and females of other races, but the gap between their rates and the rates of the black and white sub-populations has narrowed from 1990-1996.

Table 8: Melanoma Incidence Rates in Virginia, 1990-1996

Population	1990	1991	1992	1993	1994	1995	1996
Total Males	10.0	9.8	10.8	9.9	12.5	13.6	13.0
White Males	11.8	10.9	11.9	10.9	12.9	13.4	13.4
Black Males	*	*	*	*	*	*	*
Males – Other Races	*	*	*	*	*	19.8	*
Total Females	6.2	8.0	7.1	6.7	7.5	7.7	9.8
White Females	7.6	9.0	8.0	7.4	7.9	7.7	10.3
Black Females	*	*	*	*	*	*	*
Females – Other Races	*	*	*	*	*	*	*

* - Insufficient number of cases to compute rates

There has been a slight increase in melanoma incidence rates over time among white males and white females. The incidence is higher among males than females. Increases in incidence are most likely due to increases in screening and disease awareness, as is the case nationally.

Table 9: Prostate Cancer Incidence Rates in Virginia, 1990-1996

Population	1990	1991	1992	1993	1994	1995	1996
Total Males	95.0	127.2	158.9	143.7	125.6	119.8	116.4
White Males	89.4	116.3	141.8	121.4	106.6	100.1	99.9
Black Males	128.3	150.7	204.2	213.8	184.9	175.5	178.1
Males – Other Races	*	28.8	72.2	84.4	55.6	79.9	55.5

* - Insufficient number of cases to compute rates

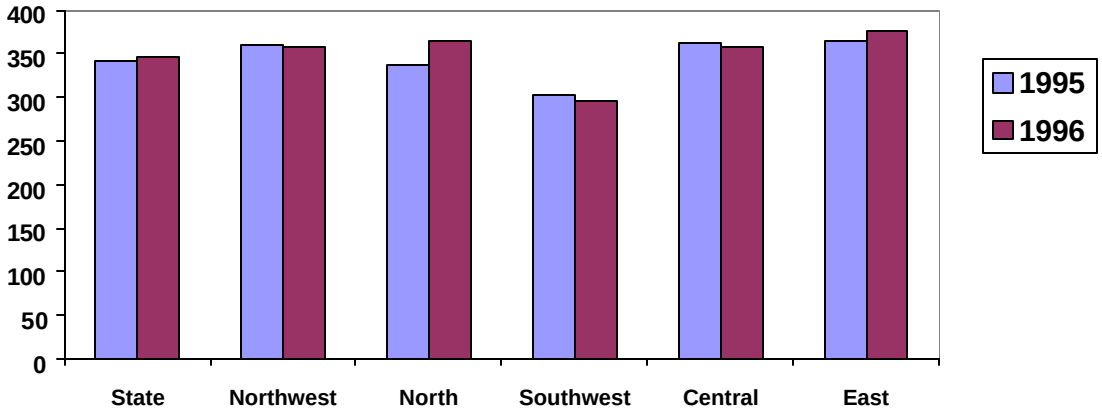
For all male groups, prostate cancer incidence rates peaked in 1992 or 1993, and then decreased each year afterwards through 1996. This may be due to an increase in awareness of the importance of prostate cancer screening and/or the introduction of the new prostate specific antigen (PSA) screening method and recommendations. As with several other types of cancer, black males have substantially higher prostate cancer incidence rates than whites, and males of other races have substantially lower rates.

Geographic variation can also be important in determining cancer incidence. Figure 3 shows how the Virginia Department of Health divides the state into geographical regions.

Figure 3: Geographical Regions of the Commonwealth of Virginia
Source: Virginia Cancer Registry, Virginia Department of Health, 1999.

There are variations in age-adjusted incidence rates among geographic areas of the state, as shown in Figure 4. Some of the possible reasons for these variations include under-reporting of incidence from various areas as well as access to care issues.

Figure 4: Age-Adjusted Cancer Incidence Rates per 100,000 People By Region, Virginia 1995-1996



Source: Virginia Department of Health, 1999.

These geographic variations are also seen when site-specific incidence rates are compared across regions for the year 1996:

Table 10: Site-Specific Cancer Incidence Rates* by Region in Virginia, 1996

Region	Breast	Cervix	Colon/ Rectum	Lung/ Bronchus	Melanoma	Prostate
Entire State	55.1	4.4	39.5	55.7	11.0	50.6
Northwest Region	48.6	4.2	42.8	61.4	13.4	50.3
Northern Region	63.2	4.2	37.7	49.4	12.3	63.9
Southwest Region	45.2	4.4	37.0	46.3	11.4	34.1
Central Region	54.4	4.4	41.0	61.5	9.7	53.5
Eastern Region	64.2	5.0	42.1	64.4	9.1	55.1

Source: Virginia Cancer Registry, Virginia Department of Health, 1999.
*Per 100,000 population

There are some striking differences between rates of some cancers among regions of the Commonwealth. For example, the incidence of prostate cancer, breast cancer, and colorectal cancer is lower in the Southwest Region of the state than in all other regions. More than

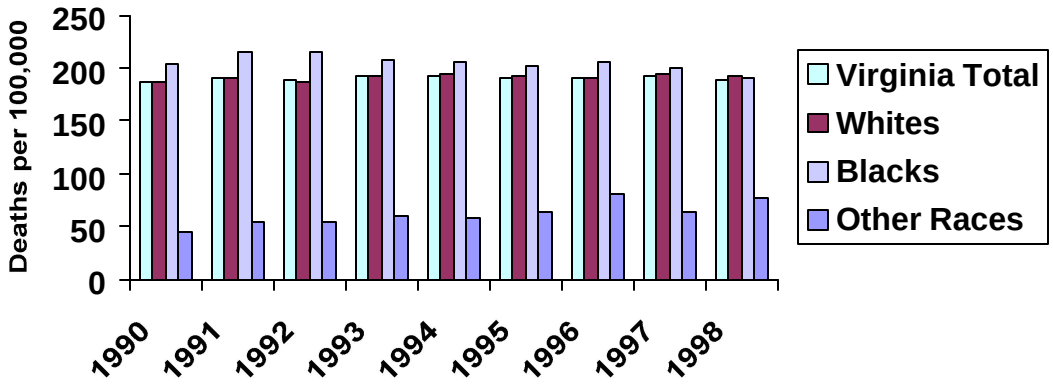
likely, this may be explained by: (a) greater access to screening in the other areas, leading to earlier diagnosis; and (b) under-reporting of cases due to border crossings for health care.

Mortality

Cancer is the second leading cause of death in Virginia, resulting in 12,719 deaths in 1998 (Virginia Department of Health, Center for Health Statistics, 2000). The American Cancer Society projected that there would be 29,300 new cases of cancer diagnosed and 13,300 deaths due to cancer in Virginia in 2000 (American Cancer Society, 2000). In Virginia in 1998, the age-adjusted death rate for all cancer-related deaths (cancer as the underlying or contributing cause of death) was 126.7 per 100,000 people.

The total mortality rate from cancer in the United States has been declining over the last decade, but has held steady in Virginia. Furthermore, Figure 5 shows that the overall cancer mortality rate among blacks is significantly higher than the rate among whites in Virginia. Table 9 summarizes the rates of cancer deaths by site, race, and gender, in 1998. Mortality rates tend to be higher in the black sub-population, except for lung cancer and skin cancer.

Figure 5: Cancer Mortality Rates per 100,000 People by Race, Virginia 1990-1998



Source: Virginia Department of Health, Center for Health Statistics, 1999

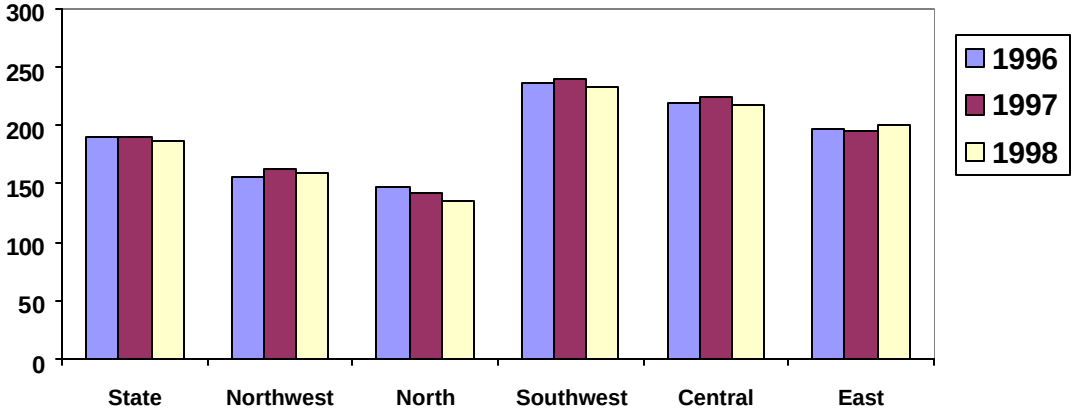
Table 11: Site-Specific Cancer Mortality Rates by Race and Gender in Virginia, 1998
Per 100,000 population

Cancer Site	Total Death Rate	White		Black		Other	
		Male	Female	Male	Female	Male	Female
All Sites	187.3	203.5	183.1	211.6	169.9	65.9	55.0
Breast	28.2	*	28.8	*	30.4	*	6.4
Cervical	2.9	*	2.5	*	4.6	*	2.1
Colorectal	20.2	20.4	20.9	21.5	21.7	5.6	3.6
Lung/Bronchus	55.4	72.2	45.3	69.6	35.5	12.7	12.1
Prostate	23.0	20.6	*	36.5	*	1.6	*
Skin/Melanoma	2.7	4.8	2.2	*	0.3	0.8	*

* - Insufficient number of cases to compute rates
Source: Virginia Department of Health, Center for Health Statistics, 2000

Cancer mortality also varies by geographic region, as illustrated in Figure 6 and Table 12 below. The southwest region suffers the greatest mortality from cancer.

Figure 6: Cancer Mortality Rates per 100,000 People By Region, Virginia 1996-1998



Source: Virginia Department of Health, Center for Health Statistics 2000.

Table 12: Site-Specific Cancer Mortality Rates by Region in Virginia, 1998

Age-Adjusted Per 100,000 population

Region	Breast	Cervix	Colon/ Rectum	Lung/ Bronchus	Melanoma	Prostate
Entire State	14.4	1.5	20.4	55.4	2.7	11.2
Northwest Region	13.6	1.2	15.3	49.2	2.2	10.3
Northern Region	10.7	1.5	15.7	36.3	2.8	7.8
Southwest Region	16.9	1.5	25.6	68.4	3.5	13.6
Central Region	17.2	2.0	23.4	68.9	2.6	12.6
Eastern Region	15.0	1.4	22.1	59.1	2.4	12.6

Source: Virginia Department of Health, Center for Health Statistics, 2000.

As with incidence, there are data reporting and collecting issues that affect the accuracy of mortality rates. A drawback of death certificate data is that the cause of death is sometimes reported as the end event (i.e., cardiac/respiratory arrest) rather than the underlying cause of death which, in this case, may be complications of a particular cancer. Bias may also exist in the reporting practices of one or more physicians from rural areas resulting in mortality data that do not truly reflect the underlying cause of death (Percy et al, 1981). In spite of these potential biases, cancer mortality data in Virginia are considered to be accurate and reliable.

Stage at Diagnosis

Stage at diagnosis is an important indicator of the burden of cancer for several reasons. Cancer stage has been identified as the most important predictor of survival. That is, cancers detected early have a greater chance of favorable treatment and cure. Secondly, it is also a potential predictor of adverse events. Thirdly, evaluating the distribution in stage over time may provide indicators of the utilization of secondary prevention measures such as mammography.

NCI's SEER program defines cancer stage as "the categorization of malignant tumors based on how far they have spread from the site of origin at diagnosis" (Virginia Cancer

Registry, Cancer Incidence in Virginia, 1990-1994, p. 10), and defines the following stages:

In situ – a malignant tumor that does not invade or penetrate surrounding tissue

Local – an invasive tumor confined to the site of the origin

Regional – a tumor that has spread by direct extension to immediately adjacent organs or tissues and/or metastasized (spread through the bloodstream) to regional lymph nodes, but appears not to have spread any further

Distant – a tumor that has spread by direct extension beyond the immediately adjacent organs or tissues, and/or metastasized to distant lymph nodes or other distant tissues.

Unknown – insufficient information available to determine the stage of disease at diagnosis.

Table 13 below provides a 1996 summary of the stage at diagnosis for the six primary cancers addressed in this Plan.

Table 13: Stage at Cancer Diagnosis in Virginia, 1996

(percentage of total number of site-specific cases)

Cancer Site	In Situ	Local	Regional	Distant	Unknown
Breast	15	52	25	4	4
Cervical	73	15	8	2	2
Colon/ Rectum	9	23	44	17	7
Lung	<1	21	28	42	9
Skin (Melanoma)	26	48	3	3	20
Prostate	<1	65	13	6	16

Source: Virginia Cancer Registry, 1999

Risk Factors

The Behavioral Risk Factor Surveillance System (BRFSS) has been used to measure incidence and prevalence of cancer and its associated risk factors in Virginia since 1989. Data are collected by telephone survey, which is likely to under-represent individuals of lower socioeconomic status who do not have telephones. However, most estimates suggest that only 5% of Americans do not have phones. In a survey the size of the BRFSS, a 5% omission, even with significantly different traits,

would not be large enough to bias the end results. Therefore, BRFSS does provide a reliable and standardized statewide estimate of cancer risk.

Several behaviors, such as cigarette smoking, can be linked to cancer rates. Other behaviors, such as having regular Pap Tests, are linked to early detection of cancer, therefore increasing the chance for successful treatment. Rates for certain behaviors vary among geographic regions of the state. Table 14 lists the rates of some of the behavioral factors associated with cancer by region.

Table 14: Regional Responses to Cancer-Related BRFSS Questions in Virginia, 1997

(percentage of respondents answering "yes")

BRFSS Question	State	North-west	North	South-west	Central	Eastern
Current Smoker	24	26	16	28	27	28
Overweight (based on BMI)	29	30	20	33	34	30
Ever had a Pap smear[1]	95	96	90	97	98	96
Had a Pap smear within the last 3 years[1]	87	83	85	86	90	89
Women aged 40 and older who have ever had a mammogram[2]	85	82	88	82	83	88
Women aged 50 and older who have ever had a mammogram[3]	88	88	91	88	85	91
Respondents 50 and older who have ever had a proctoscopic exam[4]	47	41	63	36	44	49
Respondents 50 and older who have ever had blood stool testing[4]	40	41	49	37	40	35

Source: Virginia Department of Health, 1999

[1]Denominator = number of female respondents who have not had a hysterectomy
[2]Denominator = number of female respondents aged 40 and older
[3]Denominator = number of female respondents aged 50 and older
[4]Denominator = number of respondents aged 50 and older

Costs

"The National Institutes of Health estimate overall annual costs for cancer at $107 billion: $37 billion for direct medical costs (total of all health expenditures), $11 billion for indirect morbidity costs (cost of lost productivity due to illness), and $59 billion for indirect mortality costs (cost of lost productivity due to premature death)" (American Cancer Society, 2000). If these costs were equally divided by all fifty states, it would mean that the overall annual costs for cancer in Virginia would be at least $2 billion. Because Virginia is the 12th highest populated state in the U.S., the cancer costs in Virginia may well exceed $2 billion.

Another indicator of the burden of cancer is an estimation of the years of potential life lost (YPLL) due to premature death. According to the National Cancer Institute, "in the United States, the average age at diagnosis is 68 years and the average years of life lost is 15 years" (Stat Bite, NCI Journal, 1999). Table 15 compares Virginia to the United States on the median age at diagnosis and average years of life lost for six of the leading cancers, for both genders and for all races:

Table 15: Median Age (in Years) at Diagnosis and Average Years of Life Lost by Cancer Site, 1996

Cancer Site	Median Age at Diagnosis 1992-1996		Avg. Years of Productive Life Lost 1996	
	US[1]	VA[2]	US[3]	VA[4]
Breast	63	60.0	20	18.0
Lung/Bronchus	69	68.0	15	14.0
Colon/Rectum	72	70.0	14	15.4
Cervix uteri	47	34.0[5]	27	20.7
Prostate	70	69.0	9	11.5
Melanoma	56	55.5	20	21.9
All Cancers	68	65.0	15	16.7

[1]SEER data based on cases diagnosed in 1992-1996; SEER Cancer Statistics Review, 1973-1996, National Cancer Institute. Bethesda, MD, 1999.
[2]Virginia data based on cases diagnosed in 1992-1996 and reported to the Virginia Cancer Registry as of 02/2000.
[3] SEER Cancer Statistics Review, 1973-1996, National Cancer Institute. Bethesda, MD, 1999.
[4] Virginia Department of Health, Center for Health Statistics, 2000.
[5] includes *in situ*; median age at diagnosis for invasive only was 47.0 years

Compared to the national median age at diagnosis (based on SEER data), Virginians are diagnosed at slightly younger ages (based on Virginia Cancer Registry data). Virginia's average YPLL is slightly higher than the national average YPLL for three of the six cancers, and is slightly lower for the other three. For all cancers, Virginia has a higher average YPLL than the national average.

In 1998, the total number of years of potential life lost to cancer in Virginia exceeded 50,000 years (Virginia Department of Health, Center for Health Statistics, 1999).

Summary of Cancer Trends

Virginia cancer data through 1998 reveal the following trends:

- In 1995, Virginia exceeded the U.S. in incidence rates of breast, colorectal, and lung cancers (see Appendix C).
- Incidence rates and mortality rates generally are higher for males than females and higher for blacks than whites.
- Breast cancer incidence among women has increased approximately 5 percent over the 1990-1996 time period.
- Cervical cancer incidence is significantly higher among females of "other" (non-white and non-black) races, although incidence rates among all races are on the rise.
- Colorectal cancer incidence rates have held steady from 1990 to 1996.
- Lung cancer incidence rates are dramatically higher among men than among women for all races, and the incidence rates for black males are substantially higher than for white males.
- There has been a slight increase in melanoma incidence rates over time among Whites.
- Black males have substantially higher prostate cancer incidence rates than whites do, and males of "other" races have substantially lower rates.
- The southwest region of the state has significantly lower incidence rates than other geographic regions, possibly due to reporting artifacts.
- Virginia has not experienced the decline in cancer mortality rates that has occurred at the national level over the past decade. In Virginia, cancer mortality has held steady from 1990 to 1996.
- In 1995, Virginia exceeded the U.S. in mortality rates of breast, cervical, colorectal, lung, and prostate cancers.

- The cancer mortality rate of blacks has remained higher than the mortality rate for whites, but the gap has been closing gradually from 1990 to 1998.

- Lung cancer remains the leading cause of cancer death, followed by colorectal, breast, prostate, skin, and cervical cancers, in descending order.

- Trends in stage of diagnosis by cancer site are consistent with site-specific mortality. That is, the cancers with the greater percentages of distant staging at diagnosis are causing the highest number of deaths.

- For all cancers, Virginia has a higher than average years of potential life lost than the national average.

- In 1998, the total number of years of potential life lost to cancer in Virginia exceeded 50,000 years.

Comprehensive Cancer Control - Definitions

Comprehensive Cancer Control – "an integrated and coordinated approach to reduce cancer incidence, morbidity and mortality through prevention, early detection, treatment, rehabilitation, and palliation" (Centers for Disease Control and Prevention).

Prevention – the collection of individual- or group-centered behaviors and interventions that reduce ones risk of developing cancer. Prevention of cancer includes following specific dietary recommendations (primarily high-fiber, low-fat food choices); being physically active; non-use of tobacco products; and reduction of exposure to tobacco smoke, ultraviolet radiation, and other carcinogens.

Early Detection – detection of a disease in asymptomatic individuals; also known as 'screening.'

Treatment – the broad spectrum of curative modalities used to eradicate or at least halt the progression of cancer, including primarily surgical radiation, and drug interventions.

Rehabilitation – care directed toward the results of the disease rather than the disease itself; focusing on maximizing the quality of life for people living with cancer as well as survivors of cancer who suffer long-term or permanent side effects from the disease.

Palliation – also known as 'comfort care;' focuses on maximizing the comfort of people who are dying of cancer. It includes pain and respiratory management, control of infection, and tending to the emotional and spiritual needs of the dying patient.

Prevention

The national decline in cancer rates has been primarily influenced by prevention efforts.

A steady rise in cancer rates in the United States between 1973 and 1990 (1.2 percent per year) was followed by a 0.7 percent decline from 1990 and 1995 for both men and women in most age and ethnic groups (National Institutes of Health, National Cancer Institute, 1998). This decline in cancer rates has been primarily influenced by prevention efforts, since there have been no major treatment initiatives to which the data can be attributed. The American Institute for Cancer Research (AICR) estimated that 30-40 percent of cancer incidence could be avoided through better nutrition (1998). The American Cancer Society (ACS) claims that 87 percent of lung cancer could be prevented by avoiding tobacco smoke, and 90 percent of skin cancer could be prevented by protecting the skin from the sun's rays. Collectively, 60-70 percent of cancers in the U.S. could be prevented through positive dietary change, weight control, physical activity, and not smoking (AICR, 1998). The following goals, objectives, and strategies focus on the promotion of behavioral and environmental cancer prevention methods to achieve continued decreases in cancer rates.

Tobacco

Cigarette smoking is the single-most preventable cause of death in the United States.

"Tobacco use has to be the highest priority for cancer prevention" (Miller, 1999). Cigarette smoking is the single-most preventable cause of death in the United States (NCI, 2000), causing one of every five deaths in the United States every year (CDC, 1993). More than one fourth of all cancer-related deaths each year are from lung cancer (Wingo, et al, 1999), due overwhelmingly to smoking.

According to the Tobacco Use Control Program of the Virginia Department of Health, over 25,000 Virginians begin smoking each year (approximately 70 per day); 90 percent are under the age of 18; and the average age of smoking initiation is 12.7 years old. The 1993 Youth Risk Behavior survey, which was the last year the survey was conducted in Virginia, indicated that 13.2 percent of middle school students and 23.2 percent of high school students reported having smoked cigarettes regularly (one cigarette every day for 30 days).

In addition to being a direct cause of cancer of the lung, larynx, mouth, esophagus, and bladder, smoking is associated with a variety of cardiovascular diseases, obstructive lung diseases and prenatal complications. These diseases accounted for over 14 percent of all state Medicaid expenditures in 1993 (Miller et al, 1994). In addition to smoking, the use of smokeless tobacco and the exposure to environmental tobacco smoke also contribute to preventable disability and death.

Prevention Goal I

Reduce the number of youth in Virginia who begin using tobacco products

❑ ***Tobacco use prevention in K-12 Curricula***

Recommendation I.1: Increase the adoption of tested and efficacious tobacco use prevention education into the K-12 school curricula.

Strategies:

a. Purchase, disseminate and implement tobacco use prevention curricula and evaluate such programs annually.

b. Provide technical assistance on a variety of subjects related to tobacco control/prevention, best practices, and model programs to those associated with school settings, such as the Virginia Department of Education Standards of Learning (SOLs).

❑ ***Tobacco prevention and control in higher education curricula***

Recommendation I.2: Promote the adoption of a tobacco prevention and control educational component into the credit curriculum in Virginia institutes of higher education.

Strategies:

a. Identify and compile information on existing college-level tobacco education curricula and their effectiveness in reducing use of tobacco by youth.

b. Collect data on tobacco-free policies in institutions of higher education.

c. Using information from 1 and 2 above, select or develop a tobacco education and control component for curricula in Virginia institutes of higher education.

- ***Culturally sensitive tobacco prevention and control materials***

Recommendation I.3: Increase the percentage of community outreach programs to diverse populations in Virginia with culturally sensitive tobacco use control and prevention materials.

Strategies:

a. Provide and support faith-oriented tobacco/pro-health information through education of religious leaders and congregates.
b. Ensure the inclusion of tobacco use prevention and control information in the program plan of local cultural events.

- ***Anti-tobacco messages in sports settings***

Recommendation I.4: Increase the percentage of stadiums, arenas, and sports events that include no-tobacco messages on message boards, during sports media broadcasts and/or Kids' Clubs Activities.

Strategies:

a. Implement counter advertising campaigns in sports venues across Virginia.
b. Develop and disseminate model no-smoking policies for stadiums, arenas, and other sports event facilities.
c. Provide technical assistance as needed in developing and maintaining no-smoking policies for these settings and facilities.

Prevention Goal II

Reduce the use of tobacco among Virginians

- ***Smoking Cessation***

Recommendation II.1: Increase the rate of smoking cessation among adults and youth that want to quit.

Strategies:

a. Partner with managed care organizations to ensure provision of smoking cessation interventions and support through incentives and pilot program initiatives.
b. Develop and disseminate a comprehensive guide of effective tobacco cessation programs to health professionals, insurers, hospitals and other health-related entities.
c. Conduct trainings for primary health care professionals on Agency for Research and Health Care Quality (ARHCQ) and National Cancer Institute (NCI) cessation guidelines.
d. Promote new, innovative smoking cessation programs to K-12 school systems and other youth-focused entities.

- ***Anti-tobacco messages***

Recommendation II.2: Increase the number of anti-tobacco messages directed toward the public to raise the awareness that tobacco use is a serious public health problem.

Strategies:

a. Conduct an ongoing statewide anti-tobacco public awareness campaign.
b. Recruit youth groups and other community organizations to design anti-tobacco messages.

- ***Increased sales tax***

Recommendation II.3: Educate stakeholders about the public health impact of an increased sales tax on all tobacco products sold in Virginia.

Strategies:

a. Compile evidence of the impact of increased

sales tax on tobacco products in other states.

b. Determine public health, economic, and other impacts of an increased sales tax on tobacco in Virginia.

c. Provide information (from first two strategies) to individuals and organizations who share the common goal of the reduction of tobacco use among Virginians.

Prevention Goal III

Reduce Virginians' exposure to environmental tobacco smoke

- ***Smoke-free restaurants***

Recommendation III.1: Reduce children's exposure to environmental tobacco smoke by increasing the percentage of smoke-free family restaurants in Virginia.

Strategies:

a. Identify and promote public policies for restaurants to adopt to become smoke-free.

b. Conduct a public awareness and incentive campaign for restaurants that permit smoking to encourage them to adopt smoke-free policies.

c. Offer technical assistance to localities/communities in establishing community-wide smoke-free policies in restaurants.

- ***Smoke-free worksites***

Recommendation III.2: Increase the percentage of public and private worksites that are smoke-free.

Strategies:

a. Review and promote policies that create smoke-free workplaces in order to protect employees from secondhand smoke.
b. Review and promote incentive and reward programs that encourage worksites to become smoke-free.

- ***Smoke-free public facilities***

Recommendation III.3: Increase the percentage of public facilities that are smoke-free.

Strategies:

a. Identify the categories and numbers of public facilities by category not presently covered under the Virginia Indoor Clean Air (VICA) Act.
b. Identify merchants and principal clientele by language group.
c. Develop and distribute culturally relevant and language appropriate information and training materials on smoke-free policies.
d. Develop and provide promotional items for public events that adopt a smoke-free policy.
e. Compile and distribute a list of media outlets organized by audiences and market areas for promotion of smoke-free events.
f. Promote the benefits of smoke-free environments to owners and managers of facilities currently not covered by the VICA Act.

- ***Smoke-free areas on campus***

Recommendation III.4: Increase the number of institutes of higher education in Virginia providing

smoke-free public areas and dormitories.

Strategies:

a. Convene annually a network of college and university representatives to discuss issues related to tobacco use among students and no-smoking policies on campuses.
b. Develop and disseminate to colleges and universities in Virginia a model policy guide and "How to go Smoke-Free" manual.
c. Offer technical assistance in the development and maintenance of smoke-free campus programs.

- ***Smoke-free K-12 public schools***

Recommendation III.5: Ensure that all public Virginia K-12 schools are smoke-free. (Currently, about 1/3 are smoke-free.)

Strategies:

a. Collect and compile date on smoke-free policies in schools as they relate to compliance and enforcement.
b. Educate stakeholders about policies that ensure smoke-free environments in Virginia K-12 schools.
c. Provide technical assistance for policy adoption and enforcement to schools and/or school districts as requested.

- ***Smoke-free homes***

Recommendation III.6: Increase the percentage of homes in which children live in a smoke-free environment. (Currently about 26% of children live in a home where at least one adult smokes in the home, according the Commonwealth Poll.)

Strategies:

a. Conduct a campaign to raise awareness that secondhand smoke is a serious threat to children's health.
b. Develop and disseminate informational packets for residential childcare, Headstart and parents on the health consequences of tobacco use including asthma, the dangers of secondhand smoke, and the importance of providing a tobacco-free home environment.

Radon

Radon is the 2nd leading cause of lung cancer in the U.S.

Radon, the 2nd leading cause of lung cancer in the U.S., is responsible for as many as 20,000 lung cancer deaths in the U.S. per year (Radon Information Center). Smokers who are exposed to radon appear to be at even greater risk for lung cancer because the effects of smoking and radon are more powerful when the two factors are combined.

Most people are exposed to radon daily, from the building materials of their homes, the ground on which their homes are built, and the groundwater they consume. A 1986 study by the Virginia Department of Health found that 12 percent of the 800 homes surveyed statewide had elevated levels of radon above 4 picoCuries/liter (pCi/l), the Environmental Protection Agency's (EPA) recommended action level (Bureau of Radiological Health, Virginia Department of Health). The radon level in a home varies depending on geology, soil,

house characteristics, and temperature/pressure differential. Radon can also be released to air in a home through domestic water use, particularly if the home is served by an on-site well.

The greater the exposure, the greater the risk. According to the Radon Information Center (2000):

Radon carries approximately 1000 times the risk of death as any other EPA carcinogens.

> "Most scientists agree that the risk of death for radon at 4 pCi/l is approximately 1 in 100. At the 4 pCi/l EPA action guideline level radon carries approximately 1000 times the risk of death as any other EPA carcinogens."
>
> "A family whose home has radon levels of 4 pCi/l is exposed to approximately 35 times as much radiation as the Nuclear Regulatory Commission (NRC) allows if they were standing next to the fence of a radio-active waste site."
>
> "An elementary school student that spends 8 hours per day and 180 days per year in a classroom with 4 pCi/l of radon will receive nearly 10 times as much radiation as the NRC allows at the edge of a nuclear power plant."

Installation of a radon reduction system is recommended whenever properly-conducted testing finds the radon level in a home that exceeds the U.S. EPA's action level of 4 picoCuries/liter (Environmental Protection Agency, 1993).

Prevention Goal IV

Improve the quality of indoor air for Virginians

- ***Public awareness about radon***

Recommendation IV.1: Increase the public's awareness of the health risk posed by radon exposure.

Strategies:

a. Identify and compile existing educational information on radon exposure, and determine the reach and effectiveness of the information available.

b. Implement a campaign that promotes home radon testing concurrently with changing batteries in smoke detectors twice a year (when clocks are changed).

c. Conduct a radon awareness campaign targeting Zone 1 and 2 (highest risk) counties that includes billboard advertisements co-sponsored by the Virginia Department of Health and the business community.

- ***High radon potential counties***

Recommendation IV.2: Reduce exposure to radon in homes built in high radon potential counties.

Strategies:

a. Seek re-instatement of Appendix F (Radon Control) of the Council of American Building Officials (CABO) One and Two Family Dwelling Code into the Virginia Uniform Statewide Building Code.

b. Disseminate information to new homebuilders (via contractors, hardware stores, etc.) about how

to design a new house to be radon resistant.

- ***Radon exposure in K-12 schools***

Recommendation IV.3: Reduce radon exposure in K-12 schools.

Strategies:

Test and, as necessary, mitigate all K-12 schools.

- ***Radon exposure in public housing***

Recommendation IV.4: Reduce radon exposure in publicly funded housing.

Strategies:

a. Increase the awareness level of public housing officials about radon exposure.
b. Assist in identifying sources of funding for a targeted radon awareness/testing campaign.
c. Test and mitigate housing as necessary.

- ***Information on indoor air quality***

Recommendation IV.5: Provide easy access to information about indoor air quality to all Virginians.

Strategies:

a. Research and compile currently available information sources, and identify gaps.
b. Hire a statewide Indoor Air Quality Coordinator.
c. Conduct a public information campaign.
d. Put information on the Virginia Department of Health web page.

Sun Protection

Skin cancer is the most common form of cancer in the United States.

Skin cancer is the most common form of cancer in the United States (Centers for Disease Control,

1998). There are three main types of skin cancer: basal cell carcinoma, squamous cell carcinoma and melanoma. Basal cell and squamous cell carcinomas are so frequent that cancer registries do not often register them. Melanoma is the most serious form of skin cancer. Although it is rare, melanoma is increasing in incidence in the U.S. at a more rapid rate than any other cancer, and the increase in mortality is second only to lung cancer (Wingo et al, 1998). People at highest risk for melanoma include those with a high number of moles, those with red or fair hair, blue eyes, fair skin and freckles, those who tan with difficulty and burn in the sun, and those with a history of the disease in two or more family members. As a result of damage to the planet's ozone layer, the amount of harmful ultraviolet radiation that reaches the skin has increased. Individuals whose occupations expose them to the sun, x-rays or ultraviolet light for long periods of time are at risk. Youth are especially vulnerable as 50-80 percent of lifetime exposure to sun occurs before age eighteen (Skin Cancer Foundation, 1992).

Melanoma is increasing in incidence in the U.S. at a more rapid rate than any other cancer.

Most cases of skin cancer are highly curable, with the exception of malignant melanoma. The key preventive action for skin cancer is to avoid the sun's ultraviolet rays during peak exposure periods (10 a.m. to 3 p.m.). Skin cancer prevention requires simple behavior modifications such as avoiding the mid-day sun, wearing protective clothing, and using sunscreen or sunblock.

Prevention Goal V

Increase skin cancer prevention knowledge and behaviors among Virginians

- ***Knowledge about skin cancer***

Recommendation V.1: Increase Virginians' knowledge of cancer risk associated with sun exposure.

Strategies:

a. Conduct an annual mass media campaign designed to reach specified target populations during periods of peak vulnerability (such as college students during spring break, families during summer, skiers during winter, etc.).
b. Conduct periodic skin cancer screening clinics for the public.
c. Create and disseminate educational messages for use in all medical settings.
d. Implement continuing medical education programs for health care providers on skin cancer prevention techniques for patients.

- ***Preventive and protective behaviors***

Recommendation V.2: Increase sun protective behaviors among youth and adults.

Strategies:

a. Encourage daycare facilities, pre-schools, and K-12 schools to discourage prolonged outdoor activities during peak periods of ultraviolet radiation and set policies on sunscreen use and protective clothing for children.
b. Develop and implement a media campaign promoting reduction of exposure to the sun, as well as the use of sunscreens/sunblocks and

photoprotective clothing.

c. Develop and implement a school-based campaign designed to increase the use of sunscreens and photoprotective clothing during peak exposure periods and beach activities.
d. Distribute sunscreen and sunblock samples at outdoor activities.
e. Partner with the Women, Infants, and Children (WIC) Program to reach mothers of young children with skin cancer prevention education.
f. Partner with Virginia Beach Tourism Office, Parks and Recreation, the Hotel and Motel Association, and other local businesses and organizations to implement skin cancer prevention campaigns in the Virginia Beach area.
g. Partner with major tourist attractions in Virginia (such as Kings Dominion and Busch Gardens) to implement skin cancer prevention strategies at their locations.

- ***Dangers of tanning machines***

Recommendation V.3: Disseminate information on the dangers of tanning machines.

Strategy: Develop and disseminate targeted mass media messages to youths and adults on the dangers of tanning machines.

Nutrition and Physical Activity

It is estimated that as many as one-third of all cancer deaths are attributable to dietary behaviors.

Although the specific details of dietary carcinogenesis are not as well established as desired, researchers estimate that as many as one-third of all cancer deaths are attributable to dietary

behaviors, accounting for over 186,000 cancer deaths in the United States (ACS, 1997). The National Research Council, the American Cancer Society, and the National Cancer Institute continually reviewed results from research studies conducted during the past half century and have concluded that changing dietary practices is a strategic way to reduce cancer rates in the United States (World Cancer Research Fund, 1997).

While dietary causes of cancer are numerous, overall dietary patterns of micronutrient and macronutrient consumption appear to be more important factors than the ingestion of carcinogens (Doll and Peto, 1981). Specifically, high intakes of dietary fat and low consumption of fiber, fruits, and vegetables have been correlated with increased risk of cancers of the lung, colon, rectum, stomach, mouth, pharynx, and esophagus (AICR, 1999).

Nutrition education recommendations

Nutrition education recommendations to decrease risk of cancer have included: reducing fat intake to less than 30 percent of total calories, increasing fiber consumption from an average of 10-12 grams per day to 20-30 grams per day, and increasing fruit and vegetable consumption to five servings daily (Greenwald & Sondik, 1986; U.S. Dept. of Health and Human Services, 1992; AICR, 1999). Many surveys and studies have revealed that most people are not getting the recommended five fruits and vegetables each day. In addition, average fiber intake is estimated to be between 10-15 grams per day. Research has consistently revealed that as

income and educational levels decrease with a population, people are less likely to perceive that increasing fruit and vegetable consumption is beneficial to health, and more likely to perceive barriers to consuming recommended intakes (Patterson, Kristal, Lynch, & White, 1995).

Physical activity is "one of The few potentially modifiable breast cancer risk factors."

Physical activity has been identified as "one of the few potentially modifiable breast cancer risk factors" (Dorgan, 1998) and is recommended for the reduction of risk of other types of cancers as well. Physical activity may affect ovarian hormones in ways that prevent breast cancer, and it also lowers the risk of developing colon cancer (AICR, 1999). Physical activity contributes to maintaining a healthy body weight, which also reduces cancer risk. Overweight and obesity increase the risk of some types of cancer, particularly for digestive and respiratory cancers (NCI, 2000). Furthermore, caloric expenditure that results from physical activity may have an inhibitory effect on the development of tumors. Recent studies have shown that caloric restriction seems to reduce the spontaneous generation of tumors (Miller, 1998; Bosland et al, 1999).

Nutrition and lifestyle recommendations

The U.S. Preventive Services Task Force recommends counseling of patients to limit dietary intake of fat (especially saturated fat) and cholesterol, maintain caloric balance in their diet, and emphasize food containing fiber. The ACS in 1999 updated its nutrition and activity

recommendations on the basis of new research. To decrease risk of cancer from dietary factors, the ACS recommends: (1) choosing most foods from plant sources; (2) limiting intake of high-fat foods, particularly from animal sources; (3) being physically active, and achieving and maintaining a healthy weight; and (4) limiting or abstaining from consumption of alcoholic beverages (ACS, 1999).

Prevention Goal VI

Reduce cancer risk in Virginians through healthy diet and physical activity

- ***Dietary guidelines for cancer prevention***

Recommendation VI.1: Increase the percentage of Virginians who follow dietary guidelines for reducing cancer risk.

Strategies:

a. Continue to disseminate information about the benefits of a healthful diet for prevention of cancer through existing channels (i.e., 5 A Day, ACS and AICR campaigns, etc.)

b. Develop a celebrity media campaign promoting cancer prevention dietary practices.

c. Explore the development of a "stamp of approval" program for restaurants offering and promoting menu choices that reflect the ACS nutrition guidelines.

- ***5 A Day campaigns***

Recommendation VI.2: Promote 5 A Day campaigns in traditional and non-traditional settings statewide.

Strategies:

a. Form a statewide 5 A Day Committee, initiated

by the state 5 A Day Coordinator.

b. Identify 5 A Day resources available for statewide use.

c. Identify missing resources or pieces of information that need to be developed or researched.

d. Determine how resources will be compiled and disseminated.

e. Identify how resources can be used in schools, worksites, industries, and other specific community settings.

f. Partner and share resources with programs in each of these four settings to implement 5 A Day activities.

❑ ***Physical activity for cancer prevention***

Recommendation VI.3: Increase Virginians' knowledge and behaviors regarding physical activity as a cancer prevention method.

Strategies:

a. Adopt and implement the Virginia Department of Education Standards of Learning (SOLs) that require health and physical education in Virginia Schools.

b. Promote policies requiring physical education five days per week.

c. Increase participation in the Governor's Physical Activity Award Program, a program that rewards Virginia school personnel for the amount of time they spend being physically active.

d. Increase physical activity awareness programs in federal and state government workplaces.

Risky Sexual Behaviors

Virginia's cervical cancer incidence increased in 1995 and 1996.

Cervical cancer incidence rates among white and black females in Virginia showed a slight decline in the early 1990's, but began to rise again in 1995 and 1996. The 1996 incidence rate for females of other races (20.9/100,000) was more than twice that of black females (9.9/100,000), and nearly three times that of white females (7.4/100,000). The most significant risk factor of cervical cancer is infection with the human papilloma virus (HPV) (ACS, 2000). HIV infection is also a risk factor because it weakens the immune system's defense against HPV. Another risk factor is smoking, which produces chemicals that alter DNA in the cervical cells.

Activities that prevent cervical cancer include delayed age of first intercourse, monogamous relationships, and abstinence from partners that have had multiple sexual partners. Education about these risk factors is important to promote healthy lifestyle decisions at a young age. Sexually active persons should be encouraged to reduce the number of sexual partners and use barrier contraceptives. Additionally, women who are or have been sexually active should obtain routine Pap smears.

Prevention Goal VII

Reduce the number of Virginians who practice risky sexual behavior

- ***Increase knowledge and practice of safe behaviors***

Recommendation VII.1: Increase Virginians' knowledge and practice of safe behaviors regarding cancer risk associated with risky sexual behavior.

Strategies:

a. Identify and compile existing educational materials for use in secondary schools, institutes of higher education, health departments, doctors' offices, and other facilities.
b. Determine gaps in educational services for hard-to-reach audiences (minorities, multicultural groups speaking different languages, low-income residents, geographically remote areas, etc.) and develop services accordingly.
c. Include information on the relationship between high-risk sexual behavior and cancer in secondary school and higher education curricula.
d. Have health care providers assess for risky practices and provide information and counseling at check-ups.
e. Promote campaigns and initiatives that encourage postponing sexual activity until marriage.

(See Appendix E for a list of Potential Partners and Resources for implementing these Prevention recommendations.)

Early Detection

The annual report to the nation on the status of cancer (Wingo, *et al*, 1999) states that, from 1990 through 1996, there was a steady and statistically significant decrease in cancer death rates for all sites combined. However, as stated earlier, Virginia has not enjoyed this same reduction in cancer death rates over the same time period. This fact makes the promotion of early detection even more critical in Virginia.

A variety of screening recommendations and guidelines exist, including those from the U.S. Preventive Services Task Force (USPSTF), the American Cancer Society, and the National Cancer Institute (NCI). Our recommendation is that, at a minimum, USPSTF screening guidelines are followed (See Appendix F). The guidelines presented by USPSTF are evidence-based and recommend screening tests that have been proven to improve health outcomes in clinical trials. As more research becomes available, we anticipate that additional screenings may be recommended. The American Cancer Society and the National Cancer Institute currently recommend cancer screenings in addition to those recommended by the USPSTF. Their recommendations can also be found in Appendix F.

It is important to note that screening guidelines are not intended to replace the judgement of individual clinicians. Patients are encouraged to speak with their physicians about the different screening tests and which ones are appropriate for their personal needs.

Although they are not stated specifically by site, the Goals and Recommendations proposed apply primarily to early detection of cancers of the breast, cervix, and colon/rectum. These cancers contribute the most to the overall cancer morbidity and mortality in Virginia as well as the U.S. Furthermore, with the exception of lung cancer, which is very difficult to detect early, survival is greatly enhanced when these cancers are detected early. In order to maintain and even enhance early detection initiatives statewide, objectives and strategies are proposed

in the areas of public and professional education; policy and environmental support for early detection; and access to screening services, referral and follow-up.

Early Detection Goal I

Increase the knowledge of health care providers and the general public regarding early detection guidelines and the importance of screening.

- ***Increase health care providers' knowledge***

Recommendation I.1: Increase health care providers' access to and knowledge of the latest, most accurate cancer early detection recommendations.

Strategies:

a. Disseminate cancer screening guidelines and information to all health professionals performing or recommending diagnostic screening for cancer.
b. Develop and provide appropriate training sessions on cancer screening for health care professionals.
c. Identify effective intervention strategies for providers that would increase utilization of cancer early detection services.

- ***Protocols for cancer screening, referral, and follow-up***

Recommendation I.2: Encourage medical and nursing schools, and continuing education programs, to teach health care professionals about appropriate protocols for cancer screening, referral, and follow-up methods.

Strategies:

a. Collaborate with schools and continuing

education programs in the development of curricula related to recommended cancer screening, referral, and follow-up.

b. Provide appropriate training sessions for students.

- ***Early-detection awareness activities***

Recommendation I.3: Plan and implement activities for the public that are designed to increase awareness, knowledge, and application of cancer early detection recommendations and guidelines.

Strategies:

a. Use U.S. Preventive Services Task Force guidelines as minimum standards for the early detection of cancer.

b. Use existing data sources to focus cancer prevention initiatives on high-risk population groups.

c. Recommend programs and provide educational and promotional materials on early detection of cancer.

d. Provide information to screening participants regarding the need and importance of re-screening, diagnostic care, and follow-up, when appropriate.

- ***Publicize early detection programs***

Recommendation I.4: Publicize early detection programs via print, broadcast, and Internet media.

Strategies:

a. Contact media outlets in areas of high-risk populations and develop partnerships.

b. Provide and/or support media advocacy training for communities.
c. Establish an Internet website that contains links with other Virginia and national sites, general information about cancer, cancer surveillance data, an opportunity to sign up for contact or mailing list, and a "hit" counter to document and monitor use and relevancy of website.
d. Provide support to OFHS "webmaster" to maintain current information about cancer in Virginia on the OFHS Web page.

Early Detection Goal II

Ensure access to cancer screening, adequate referral, and timely follow-up for all Virginians.

- ***Accessibility and availability***

Recommendation II.1: Increase accessibility and availability of cancer early detection activities, particularly within underserved areas and/or among underserved populations.

Strategies:

a. Identify channels for reaching individuals, i.e. worksites, schools, faith communities, clinics, and community groups.
b. Identify "gatekeepers" and leaders, especially in minority communities, to endorse and promote early detection among hard-to-reach populations.
c. Provide or increase awareness of affordable cancer screening for all residents of Virginia.

d. Use successes and lessons learned from the Breast and Cervical Cancer Early Detection Program, as well as other successful community-based early detection programs, as guides in implementing these strategies.

- ***Reduce barriers***

Recommendation II.2: Reduce barriers to early detection screening programs in Virginia.

Strategies:

a. Coordinate for the provision of transportation when necessary to screening sites, or mobile screening units.
b. Adjust screening site hours to improve accessibility.
c. Develop and/or support cancer screening programs in non-traditional settings that provide greater access to larger numbers of people.
d. Partner with community-based public health initiatives (health fairs; "Race for the Cure," and other fund raisers; etc.) to promote early detection as part of a comprehensive approach to cancer prevention and control.
e. Use successes and lessons learned from the Breast and Cervical Cancer Early Detection Program as guides in implementing these strategies.

- ***Referrals by health care providers***

Recommendation II.3: Increase health care provider recommendations and/or referrals for cancer early detection screening programs.

Strategies:

a. Emphasize to providers the importance of their

role in recommending cancer screening to their patients.

b. Develop and distribute patient education materials for physicians to provide to patients.

- ***Appropriate follow-up care***

Recommendation II.4: **Promote the provision of appropriate follow-up care and counseling to all referrals for early detection of cancer.**

Strategies:

a. Promote currently accepted clinical guidelines or medical protocols for providing follow-up care for all types of cancer early detection screening.

b. Recommend notification of participants regarding screening results in a timely manner and in a form that is comprehensible at the fifth grade literacy level.

c. Recommend adequate patient counseling on treatment options and next steps based on screening results.

d. Continue and improve the system of reporting and tracking cancer early detection services in order to determine if appropriate follow-up is occurring.

Early Detection Goal III

Promote policies and environmental support for the early detection of cancer.

- ***Track early detection practices***

Recommendation III.1: Develop targeted and innovative ways to implement and track early detection practices.

Strategies:

a. Study the feasibility of establishing a cancer early detection registry to collect data on cancer screening in Virginia and develop an appropriate action plan.
b. Develop and maintain a specific plan for appropriate cancer screening targets by geographical and demographic as well as socioeconomic factors.
c. Establish a process to incorporate state-of-the-art methodologies and new opportunities for cancer early detection into existing systems.

- ***Create public awareness of laws***

Recommendation III.2: Create public awareness of laws that mandate insurance coverage for regular and appropriate cancer early detection screening.

Strategies*:*

a. Establish a legislative task force to coordinate with the Cancer Plan Advisory Committee (CPAC) to follow state cancer legislation.
b. Identify methods for informing the general public about cancer-related legislation (newsletters, website, fact sheets, etc.) and use those methods to disseminate information.

(See Appendix E for a list of Potential Partners and Resources for implementing these Early Detection recommendations.)

Treatment

In 1999, a survey of over 300 cancer specialists in Virginia was conducted to determine the greatest cancer treatment needs in the state. Recipients of the survey were asked to give a priority rating to 19 different treatment recommendations (see Appendix G). The items that received the most "High Priority" or "Medium Priority" ratings identified early detection, access to care, and public and professional education as the greatest areas of need. Early detection goals and recommendations have been listed earlier in this section. Improving access to care for under-served (under-insured, hard-to-reach) populations, and public and professional education on treatment-related issues are the focus of the first two Treatment goals.

The third Treatment goal focuses on the collaboration between public health and managed care to promote the provision of comprehensive cancer control (i.e., prevention, early detection, rehabilitation and palliation as well as treatment) by managed care organizations (MCOs). Two of the recommendations under this goal are made in light of the passage of Senate Bill 712 in the Virginia 1998 General Assembly. Effective July 1, 1998, the Center for Quality Health Care Services and Consumer Protection (CQHCS&CP) was charged with establishing a quality assurance certification program for managed care health insurance plan (MCHIP) licensees. The CQHCS&CP has developed and promulgated rules and regulations for this certification process which include criteria the MCHIPs must meet to become certified. Of the ten criteria, two are pertinent to public health:

- MCHIPs must evaluate their quality improvement programs and must measure patient outcomes; and
- MCHIPs must demonstrate how they successfully integrate their program activities with public and community health goals.

By July 1, 2000 MCOs must petition to CQHCS&CP for review in order to secure a certificate of quality assurance from the Virginia Department of Health. In addition to the ten criteria, the Center will also investigate how the MCHIPs are securing public health input toward meeting the criteria.

The performance of the managed care industry is measured primarily by the Health Plan Employer Data and Information Set (HEDIS), which is developed and maintained by the National Committee for Quality Assurance (NCQA). HEDIS data are obtained from MCO administrative data (claims, encounters, enrollment), medical records, and surveys. HEDIS results are reported separately for each MCO, defined by NCQA for purposes of accreditation and HEDIS (NCQA, 2000). Senate Bill 533, passed in the Virginia 2000 General Assembly, requires health maintenance organizations (HMOs) to submit HEDIS information or other quality of care or performance information sets approved by the Board of Health to the Commissioner of Health.

The most current HEDIS measures (known as "HEDIS 2000") that pertain to the treatment of cancer are summarized in Appendix H. The four HEDIS measures of primary interest in this Plan correspond with breast cancer screening; cervical cancer screening; advising smokers to quit; and arrangements with public health, educational and social services organizations.

Collectively, the Goals and Recommendations listed below are directed toward the identification of traditional and non-traditional methods to enhance the delivery of cancer care.

Treatment Goal I

Reduce the percentage of Virginians who do not have adequate access to cancer care.

- ***Determine specific barriers to accessing cancer treatment***

Recommendation I.1: Conduct a geographical analysis to determine specific barriers to accessing cancer treatment per region of the state.

Strategies:

a. Review existing data sources from VDH (OMH, OFHS Multicultural Health Task Force, VCR, BRFSS, and vital statistics) and from the 44 ACOS cancer treatment programs statewide.

b. Review existing analyses and reports already conducted and written by these same sources listed above.
c. Determine if the barriers to receiving cancer treatment are due to:
    1. shortage of needed treatment (true availability of services);
    2. financial or other inaccessibility to available treatment; and/or
    3. dissatisfaction or discomfort with available treatment services (perceived availability of services).

- ***Non-traditional avenues for primary care delivery***

Recommendation I.2: Identify and pursue non-traditional avenues for delivery of primary care, such as churches and other faith organizations, mobile care units, etc.

Strategies:

a. Collaborate with variety of VDH programs that are currently nurturing partnerships with, and conducting activities in, faith-based organizations.
b. Identify other non-traditional settings in which high-risk, hard-to-reach populations may be accessed.
c. Explore the feasibility of using mobile care units to reach populations whose access to cancer care is limited.

- ***Accessibility to clinical trials***

Recommendation I.3: Determine availability and accessibility to clinical trials, especially for under-represented groups.

Strategies:

a. Identify primary sites in the state where clinical trials are conducted (such as cancer centers, medical schools/ universities, etc.).
b. Compile information from these sites on what trials are being conducted, how study subjects are selected, and if there is adequate representation regarding gender, race, and age of subjects.
c. Determine extent to which the studies and the subject selection are announced and made public.
d. Partner with local health districts, OMH and the Multicultural Health Task Force in increasing hard-to-reach, under-represented groups' access to information about clinical trials.

- ***Publicize directory of cancer support services***

Recommendation I.4: Compile and publicize a directory of cancer support services specializing in offering financial or other resource assistance.

Strategies:

a. Include links to these services on website (see *Early Detection* Recommendation I.4).
b. Make the directory available to cancer care centers around the state, either via website or print media.

Treatment Goal II

Increase public and health professional access to best practices in the treatment of cancer.

- ***Inform the general public and health care providers***

Recommendation II.1: Inform the general public and health care providers, using a variety of media sources, about:

1. the purpose of, availability of, and access to clinical trials;
2. the availability and purpose of support groups for people living with cancer;
3. patients' rights regarding cancer treatment, including explanation of treatment options and freedom from restrictions on choice of health care provider; and
4. the risks and benefits of alternative and complementary treatments for cancer.

Strategies:

a. Survey existing consumer information on these topics, such as NCI's "Cancer Facts" question and answer sheets, and the PDQ/Cancerlit Service Center that provides customized computer searches of databases to health professionals.
b. Compile an inventory or listing of these resources.
c. Put this information on the Cancer website (see *Early Detection* Recommendation I.4) as well as other CPAC websites.

- ***Disseminate publications that describe the NCCN Oncology Practice Guidelines in lay terms***

Recommendation II.2: Disseminate, through a variety of channels, the National Comprehensive Cancer Network (NCCN)/American Cancer Society (ACS) publications (as they become available) for cancer patients and their families that describe the NCCN Oncology Practice Guidelines in lay terms.

Strategies:

a. Partner with ACS and the Medical Society of Virginia (MSV) in obtaining copies of these publications as they become available.
b. Partner with ACS and MSV to promote and encourage health care providers to provide these publications to their patients with cancer.

- ***Professional school curricula***

Recommendation II.3: Evaluate medical, nursing, and dental school curricula for oncology content and training to identify areas of need for enhancement and updates.

Strategies:

a. Partner with ACOS and the State Council on Higher Education in Virginia (SCHEV) to assess the need and develop the rationale for curricular changes.
b. Partner with ACOS and SCHEV in exploring the feasibility of curriculum review and revisions, and in developing specific revisions accordingly.

- **ACOS *approved cancer programs***

Recommendation II.4: Evaluate costs and benefits of expanding the number of American College of Surgeons (ACOS) approved cancer programs in the state.

Strategies:

a. Conduct needs assessment to determine need for additional approved cancer programs statewide.
b. Compare Virginia with bordering states regarding number of programs per capita, and location of cancer programs.
c. Determine distribution of cancer programs across the state, especially in HPSAs.

Treatment Goal III

Develop working partnerships between public health and managed care to increase availability of comprehensive cancer control services in MCOs.

- ***Treatment Subcommittee of the CPAC***

Recommendation III.1: Establish an active Treatment Subcommittee of the CPAC, including (but not limited to) members of the Medical Society of Virginia, representatives of managed care organizations (MCOs), and representatives from the two designated cancer centers in Virginia.

Strategies:

a. Initiate dialogue with the two designated cancer centers in Virginia and the MSV to determine common goals in cancer treatment, and to invite their participation on CPAC.

b. Develop an effective system of communication and cooperation that does not require medical professionals to leave their practice in order to participate in CPAC initiatives and meetings (such as conference calls).

c. Develop systematic plan for informing the medical community about CPAC and the Virginia Cancer Plan.

- ***Assistance to MCOs***

Recommendation III.2: Offer assistance to MCOs in meeting the CQHCS & CP's criteria for receiving a certificate of Quality Assurance.

Strategies:

a. Develop proposal to MCOs describing how public health organizations in Virginia can help MCOs meet their HEDIS objectives related to cancer treatment.

b. Submit to an MCO as a pilot project.

c. Determine educational materials that already exist (such as ACS, NCI, CDC) that inform about any aspect of comprehensive cancer care.

d. Address gaps in information or adaptations to be made to existing materials for use in MCO settings.

e. Work with partners across the comprehensive cancer control spectrum (prevention through palliation) to develop educational materials for MCOs and health care providers to share with their patients.

f. Partner with MCOs in providing those

educational materials to patients.

g. Encourage MCHIPs to incorporate comprehensive cancer control services into patient care plans.

(See Appendix E for Potential Partners and Resources for implementing these Treatment recommendations.)

Rehabilitation and Palliative Care

Nearly 200,000 Virginians are living with cancer. Most will require rehabilitative services to enhance the quality of their lives. For those who will not survive, palliative care is needed to focus on quality of life and providing for a dignified death. Rehabilitation and palliative care both attend to a patient's psychological, social, and spiritual needs as well as physical needs; and both focus more on symptom management (especially pain management) than length of life.

Rehabilitation and Palliation Goal I

Ensure that every individual with cancer is assured the highest level of function possible through the course of illness.

- ***Availability of cancer rehabilitation services***

Recommendation I.1: Ensure that cancer rehabilitation services (physical and occupational therapy, and psychosocial services) are available to Virginians with a diagnosis of cancer so that function will be maintained or improved throughout the course of their disease.

Strategies:

a. Conduct needs assessment of rehabilitation and palliation services that are currently available.
b. Identify gaps in service and barriers to accessing services.
c. Develop plan of action based on Strategies a and b.

- ***Pain medications available***

Recommendation I.2: Make pain medications available to all Virginians with a diagnosis of cancer.

Strategies:

a. Ensure widespread understanding and utilization of two bills passed by the 1999 Virginia Legislature (standing referral for cancer pain management; and utilization review and coverage of cancer pain medication, respectively).

b. Identify monetary and other resources to help provide medications which will promote improvement of pain and other symptoms in this population.

c. Inform Virginians with cancer, and their health care providers, of the availability of pain medications.

- ***Public awareness of pain and symptom control***

Recommendation I.3: Make the public, patients with cancer and their families aware that pain/symptoms can be controlled and they should expect comfort measures as part of their care.

Strategies:

a. Initiate a public relations campaign to provide factual information about cancer pain management. Repeat as needed with appropriate modifications based on effectiveness.

b. Hold town hall meetings at regional sites to provide information, distribute appropriate literature, answer questions, and dispel myths about cancer pain management.

c. Add pain management information to the Virginia Cancer website (see *Early Detection* Recommendation I.4).

- ***Professional education in pain management/ palliative care***

Recommendation I.4: Teach pain management/ palliative care educational courses in all medical, nursing and pharmacy schools in the state.

Strategies:

a. Meet with representatives from the institutions of higher education that offer medical, nursing, and/or pharmacology degree programs to discuss incorporation of pain management into existing curricula.
b. Meet with representatives from the 44 American College of Surgeons' approved cancer programs in the state to discuss pain management/palliative care education.
c. Research current standards and requirements for certification and/or licensure that affect medical, nursing and pharmacology curricula.
d. Investigate status of 1995 Senate Joint Resolution #368 (regarding professional education on pain management) to determine impact on medical education. Develop action steps as needed.

Rehabilitation and Palliation Goal II

Ensure that every individual with untreatable or incurable cancer is assured optimal comfort care until death.

- ***Hospice care***

Recommendation II.1: Promote the provision of hospice care.

Strategies:

a. Conduct analysis of current availability of hospice care to Virginians.
b. Determine barriers to access to hospice care.
c. Partner with Virginia Hospice Association and related organizations in informing public of hospice service.

- ***Palliative care clinical trials***

Recommendation II.2: Develop palliative care clinical trials related to end stage cancer.

Strategies:

a. Seek and identify sources of research funding for trials.
b. Identify specific research questions (pharmaceuticals, other modalities) to implement studies at research sites.
c. Help to secure appropriate funding.

- ***Conferences on end-of-life issues***

Recommendation II.3: Offer annual ethical/clinical conferences related to end of life issues to cancer health care providers.

Strategies:

a. Meet with representatives from the institutions of higher education that offer medical, nursing, and/or pharmacology degree programs.
b. Meet with representatives from the 44 American College of Surgeons' approved cancer programs in the state to discuss end-of-life issues education.
c. Research current standards and requirements for certification and/or licensure that affect medical, nursing and pharmacology curricula.

(See Appendix E for Potential Partners and Resources for implementing these Rehabilitation and Palliation recommendations.)

Cancer Surveillance

"Analysis of data for planning cancer prevention and control efforts provides a foundation for (1) defining the cancer problem within each state, (2) guiding planning efforts to ensure that intervention activities are focused on issues and areas of greatest importance, (3) guiding policy development, (4) monitoring changes, and (5) evaluating intervention efforts" (Alciati, 1996). The goals and objectives in this section are aimed at solidifying the necessary foundation for cancer prevention and control in Virginia. The proposed surveillance activities will be used for estimating and monitoring the burden of cancer in Virginia, and for evaluating and updating the state plan on a regular basis.

Surveillance Goal I

Collect complete, accurate, and timely data on cancer in Virginia.

- ***Cancer mortality data***

Recommendation I.1: Collect complete, accurate, and timely data on cancer mortality.

Strategies:

a. Ensure that data are collected on all cancer deaths occurring among Virginia residents.

b. Ensure that cancer mortality data accurately ascertain age, race, ethnicity, gender, locality, and specific cause of death by cleaning and editing the data and comparing frequencies with other state cancer statistics and national data.
c. Ensure that cancer mortality data are available for analysis within twelve months of the close of each calendar year

- ***Cancer incidence data***

Recommendation I.2: Collect complete, accurate, and timely data on cancer incidence.

Strategies:

a. Ensure that data are collected on at least 95% of all cancer cases diagnosed and/or treated among Virginia residents. This may be accomplished through activities such as having interstate data exchange agreements with other state registries, conducting casefinding reviews at reporting facilities, and increasing training of cancer reporters.
b. Ensure that cancer incidence data accurately ascertain age, race, ethnicity, gender, locality, specific type of cancer, and stage of cancer at diagnosis by cleaning and editing the data, comparing frequencies with other state cancer statistics and national data, and conducting validation studies in a sample of hospitals and other reporting facilities.
c. Ensure that cancer incidence data are available for analysis within twelve months of the close of each calendar year.

- ***Cancer risk data***

Recommendation I.3: Collect complete, accurate, and timely data on behaviors that affect the risk of the development of cancer or the late detection of cancer (cancer-related behaviors).

Strategies:

a. Ensure that data are collected on cancer-related behaviors occurring among Virginia residents.

b. Ensure that data on cancer-related behaviors accurately ascertain age, race, ethnicity, gender, health district, and specific behavior practiced by cleaning and editing the data and comparing frequencies with other state cancer statistics and national data.

c. Ensure that data on cancer-related behaviors are available for analysis within twelve months of the close of each calendar year.

d. Identify other plausible sources of data on cancer-related behaviors, such as HEDIS data from managed care organizations.

- ***Cancer impact data***

Recommendation I.4: Collect complete, accurate, and timely data on the impact of cancer on the health care system.

Strategies:

a. Ensure that data are collected on all cancer hospitalizations occurring among Virginia residents.

b. Ensure that cancer hospitalization data accurately ascertain age, race, ethnicity, gender, locality, specific diagnosis and procedure codes, and cost of care by comparing statistics with other state databases and with national data.

c. Ensure that cancer hospitalization data are available for analysis within twelve months of the close of each calendar year.

- ***Population data for Virginia***

Recommendation I.5: Collect accurate detailed population data for Virginia.

Strategies:

a. Support a state demographer to be placed in the State Data Center.

b. Ensure that timely annual population estimates are available by defined age groups, gender, and specific racial and ethnic groups for each locality.

Surveillance Goal II

Analyze data on cancer and cancer-related behaviors in Virginia.

- ***Describe the epidemiology of cancer mortality in Virginia***

Recommendation II.1: Describe the epidemiology of cancer mortality in Virginia.

Strategies:

a. For all cancers combined (lung cancer, breast cancer, colorectal cancer, cervical cancer, and others as identified by CPAC):

1. identify age groups at increased risk for cancer deaths by analyzing cancer mortality data to create age-specific and age-adjusted rates for Virginia.

2. identify racial and ethnic groups at increased risk for cancer deaths by analyzing cancer mortality data to create race and ethnicity-specific rates for Virginia.

3. identify the difference in risk for cancer deaths for males and females by analyzing cancer mortality data to create gender-specific rates for Virginia.
4. identify geographic areas at increased risk for cancer deaths by analyzing cancer mortality data to create rates for the health districts in Virginia. To the extent possible, analyze the separate demographic groups identified in Strategies 1a-c within each health district.
5. Identify trends in cancer mortality over time. Monitor changes in the high risk populations and geographic areas identified above.

- ***Describe the epidemiology of cancer incidence in Virginia***

Recommendation II.2: Describe the epidemiology of cancer incidence in Virginia.

Strategies:

a. For all cancers combined (lung cancer, breast cancer, colorectal cancer, cervical cancer, and others as identified by CPAC):
   1. Identify age groups at increased risk for cancer by analyzing cancer registry data to create age-specific and age-adjusted rates for Virginia.
   2. Identify racial and ethnic groups at increased risk for cancer by analyzing cancer registry data to create race- and ethnicity-specific rates for Virginia.
   3. Identify the difference in risk for cancer for males and females by analyzing cancer registry data to create sex-specific rates for Virginia.

4. Identify geographic areas at increased risk for cancer by analyzing cancer registry data to create rates for the health districts in Virginia. To the extent possible, analyze the separate demographic groups identified in Strategies 1a-c within each health district.
5. Identify trends in cancer incidence over time. Monitor changes in the high risk populations and geographic areas identified above.
6. Identify demographic and/or geographic populations at risk for late stage cancer diagnoses by analyzing cancer registry data to assess the distribution of stage of cancer at diagnosis for each population subgroup identified above.

- ***Describe the cancer-related behavior patterns of Virginians***

Recommendation II.3: Describe the cancer-related behavior patterns of Virginians.

Strategies:

a. For smoking, smokeless tobacco use, fruits and vegetables intake, alcohol use, clinical breast examination and mammography, pap tests, colorectal screening, and other behaviors for which data may become available:

1. Identify age groups at increased risk for the development of cancer or the late detection of cancer by analyzing BRFSS and other identified available data to calculate proportions engaged in cancer-related behaviors by age group for Virginia.

2. Identify racial and ethnic groups at increased risk for the development of cancer or the late detection of cancer by analyzing BRFSS and other identified available data to calculate proportions engaged in cancer-related behaviors by racial and ethnic categories for Virginia.
3. Identify the difference in risk for the development of cancer or the late detection of cancer for males and females by analyzing BRFSS and other identified available data to calculate proportions engaged in cancer-related behaviors by gender for Virginia.
4. Identify geographic areas at increased risk for the development of cancer or the late detection of cancer by analyzing BRFSS and other identified available data to calculate proportions engaged in cancer-related behaviors by health district.
5. Identify trends in cancer-related behaviors over time. Monitor changes in the high risk populations and geographic areas identified above.

- ***Analyze and monitor hospitalization data***

Recommendation II.4: Analyze and monitor data on hospitalization due to cancer.

Strategies:

a. For all cancers combined (lung cancer, breast cancer, colorectal cancer, cervical cancer, and others as identified by CPAC):
   1. Analyze cancer hospitalization data for Virginia as a whole and for different age groups. Calculate the percent of admissions

for each age group that is due to cancer as well as outcomes of and charges for care by age.

2. Analyze cancer hospitalization data for Virginia for different racial and ethnic groups. Calculate the percent of admissions for each race and ethnicity that is due to cancer as well as outcomes of and charges for care by race/ethnicity.
3. Analyze cancer hospitalization data for Virginia for males and females. Calculate the percent of admissions for each gender that is due to cancer as well as outcomes of and charges for care by gender.
4. Analyze cancer hospitalization data for Virginia for each health district. Calculate the percent of admissions for each district that is due to cancer as well as outcomes of and charges for care by district
5. Analyze trends in cancer hospitalization data for Virginia as a whole, for different age and racial groups, both genders, and the health districts. Monitor changes over time in the percent of admissions for each population group that is due to cancer as well as outcomes of and charges for care.

- ***Compile summary measures of information***

Recommendation II.5: Compile summary measures that take into account the information analyzed from the different data sources.

Strategies:

a. Compare and contrast the results from the

various data sources analyzed in the previous 4 Recommendations. Compile summary measures that illustrate the overall epidemiology of cancer in Virginia. Include the demographic and geographic subpopulations analyzed above.

b. Compare data on incidence, mortality and stage at diagnosis of Virginia cancer patients with the degree of screening activity in different population groups.

c. Produce summary reports for distribution to appropriate/interested audiences (see next Goal).

Surveillance Goal III

Make Virginia cancer surveillance data available, accessible, and useful.

- ***Identify audiences' needs for specific cancer data***

Recommendation III.1: Identify appropriate audiences for cancer data and their specific data needs.

Strategies:

a. Compile a master list of current users of each VDH cancer–related program's data and resources.

b. Solicit mailing addresses from CPAC members (e.g., community groups).

c. For each identified potential customer, determine particular data needs and interests as well as access to electronic forms of data dissemination.

d. Annually re-evaluate comprehensiveness of list and update needs/interests.

- ***Access to cancer statistics***

Recommendation III.2: Ensure adequate access to cancer statistics.

Strategies:

a. Add to Cancer website (see *Early Detection* Recommendation I.4) descriptive statistics for cancer mortality, incidence, and behavioral data, and other data as generated and analyzed.

b. Publish highlights in newsletters, or quarterly or annual reports or newsletters of CPAC members' organizations (such as the OFHS Data Newsletter or the Chronic Disease Burden Report).

- ***Technology for data dissemination***

Recommendation III.3: Increase use of available technology for data dissemination.

Strategies:

a. Create public use data sets of morbidity and mortality data and make them available in a user-friendly form on the Internet.

b. Create an interactive map of Virginia on the Cancer Website which can be exploded by health district illustrating the geographic distribution of relevant cancer statistics. These geographic profiles shall also be published annually for use by local planners, legislators, health departments, and citizen groups.

Surveillance Goal IV

Evaluate the efficacy of cancer surveillance activities.

- ***Cancer data collection functions***

Recommendation IV.1: Evaluate the cancer data collection functions in Virginia.

Strategies:

a. Assess current methods of cancer data collection and the relevance and usefulness of each mandated data element.

b. Propose modifications to current systems if data elements are inconsistent, lack specificity, or are not used. Make recommendations on features or systems that need to be added to increase or create capacity for important cancer information that is not currently collected.

c. Identify groups in need of training, such as those not supplying data or not meeting quality or timeliness standards. Include in the training information about what data need to be reported, the policies and procedures to follow for reporting, and the rationale for reporting.

d. Identify areas of significant morbidity and mortality for which cancer data are not available. For example, compare cancer cases reported to the Virginia Cancer Registry with the statewide hospital discharge database.

e. Identify means of improving case ascertainment.

f. Review recommendations by Joint Commission on Health Care's Study of the Virginia Cancer Registry, conducted April-June 1999. Develop action steps accordingly.

- ***Cancer data analysis activities***

Recommendation VI.2: Evaluate the cancer data analysis activities in Virginia.

Strategies:

a. Assess the ability of current databases to assess the problem of cancer in population subgroups of interest (age, gender, race/ethnicity, geographic). Make adjustments in methods of analysis as needed based on the results of the assessment.
b. Ensure that all analyses, particularly age-adjustment, are performed using the same methodology and standard.
c. Ensure that all definitions are applied consistently and that all analyses use the same definitions of the populations, behaviors, and types of cancer assessed.

- ***Utility of disseminated data***

Recommendation IV.3: Evaluate the utility of disseminated surveillance data to provider, community and health organizations.

Strategies:

a. Ensure that confidentiality is maintained by the use of consistent procedures to mask small numbers in public use data sets and statistics.
b. Assess the ability of customers to understand and use cancer data by surveying provider, health and community groups/agencies as to the readability and utility of available cancer statistics as well as satisfaction with the means of information dissemination that were used.
c. Conduct an annual evaluation of electronic data dissemination, including the number of "hits" on the website, number of requests for information, etc.

d. Revise structure of data products and methods of dissemination as necessary.

- ***Administrative features of cancer data collection***

Recommendation IV.4: Evaluate the administrative features of the Virginia Department of Health's cancer data collection programs.

Strategies:

a. Compare the resources consumed to the outcomes achieved in the collection and dissemination of data on cancer-related behaviors.

b. Compare the resources consumed to the outcomes achieved in the collection and dissemination of data on cancer incidence.

- ***Feasibility of new surveillance activities***

Recommendation IV.5: Evaluate the feasibility of adding new cancer surveillance activities.

Strategies:

a. Conduct a cost-benefit study of implementing an early detection registry (see *Early Detection* Recommendation III.1). Include an assessment of start-up and continued fixed and variable costs. Also assess the mechanisms of program implementation.

b. Conduct a feasibility study of reinstating the Youth Risk Behavior Survey. Include an assessment of continued fixed and variable costs.

(See Appendix E for a list of Potential Partners and Resources for implementing these Surveillance recommendations.)

Cancer Plan Advisory Committee (CPAC)

As part of the planning process which focused on the upcoming transition from a Plan-writing committee to a Plan-implementation committee, CPAC members identified criteria that they would use in creating a new organizational model to accomplish implementation of the Plan. It was the consensus of CPAC members that the new organizational model must:

- use the Virginia Cancer Plan as the foundation for its mission, goals, and activities;
- encourage and support initiatives and activities that add distinct and unique value to current cancer prevention and control efforts in Virginia;
- be flexible, modular, and sustainable;
- have staff, resources, and authority needed to achieve sustainability;
- be inclusive, with diverse participation;
- clearly define the roles of stakeholders and partners;
- have a good leadership structure;
- have a defined progress-reporting structure and a concrete decision-making process;
- require and promote accuracy through the tracking and distribution of reliable and valid information; and
- demand accountability and expertise.

The recommendations following each of the three CPAC Goals below will help CPAC to actualize these criteria. Furthermore, they will require that CPAC regularly evaluates its own sustainability, effectiveness in achieving its mission, and flexibility to adapt to changes in needs and resources over time. Finally, these recommendations will help to pose CPAC as a respected force in reducing the burden of cancer in Virginia.

CPAC Goal I

Be accountable in proposing and implementing the Virginia Cancer Plan.

- ***Determine baseline data***

Recommendation: Determine/establish baseline data for the Plan's Goals and Recommendations.

Strategies:

a. Identify existing data sources related to each goal and recommendation.
b. Identify gaps in data sources, and explore feasibility of and procedures needed to develop new data collection methods as needed.
c. Maintain and expand the cancer surveillance system as needed so that proposed objectives are consistently driven by data.

- ***Prioritize recommendations***

Recommendation: Prioritize recommendations based on baseline data and available resources and expertise.

Strategies:

a. Organize and implement the 2nd annual CPAC Planning Retreat with prioritization of the Virginia Cancer Plan's recommendations the main agenda item.
b. Develop measurable objectives for implementing the recommendations of highest priority.
c. Begin implementation of highest priority strategies.

- ***Monitor the feasibility and measurability of proposed objectives***

Recommendation I.2: Continuously monitor the feasibility and measurability of proposed objectives.

Strategies:

a. Maintain and expand the cancer surveillance system as needed so that proposed objectives are consistently driven by data.
b. Whenever possible, use public databases that are on-going with data that can be verified.
c. Whenever possible, use databases for which there are corresponding national databases and/or definitions.

CPAC Goal II

Provide leadership in promoting cancer prevention and control in Virginia.

- ***Market the Virginia Cancer Plan and the CPAC***

Recommendation II.1: Market the Virginia Cancer Plan and the CPAC to decision-makers at all levels of policy-making.

Strategies:

a. Put the Plan on the VDH website, and other CPAC members' websites.
b. Include the Plan with proposals for funding.
c. Develop Executive Summary with contact information for mass distribution.

- ***Seek and manage funding and resources***

Recommendation II.2: Seek and manage funding and resources to reach the Virginia Cancer Plan's goals.

Strategies:

a. Identify funding sources and requirements/eligibility for receiving funding.
b. Establish structure and mechanism within

CPAC (such as 501c.3 status) whereby funding can be obtained and managed.

c. Develop structure and mechanism within the new CPAC organizational model whereby decisions are made on allocation of funds.

- ***Monitor and revise Plan as needed***

Recommendation II.3: Revisit the Virginia Cancer Plan annually and revise as needed based on changing and/or met needs over time.

Strategies:

a. Include this task as an agenda item during the CPAC annual planning retreat.
b. Use multiple information sources when considering revisions:
    1. prior year's progress in meeting objectives;
    2. surveillance of cancer burden in Virginia; and
    3. CPAC organizational and functional capacity (see next Goal).

- ***Disseminate annual report***

Recommendation II.4: Prepare and disseminate an annual report on the accomplishments of CPAC and of progress towards reducing the burden of cancer in Virginia.

Strategies:

a. Review samples of newsletters and annual reports from other statewide organizations.
b. Write report.
c. Put on the Cancer and other CPAC websites.
d. Distribute to stakeholders/decision makers according to currents needs and support.

CPAC Goal III

Demonstrate effective organizational development, maintenance, growth, and flexibility over time.

- ***Inventory of cancer organizations and programs***

Recommendation III.1: Maintain current inventory of cancer prevention and control organizations and programs statewide.

Strategies:

a. Collect names and information from CPAC members.
b. Add the list to the Cancer website and other CPAC websites.
c. Update list annually.

- ***Foster and initiate partnerships***

Recommendation III.2: Continuously foster existing partnerships as well as initiate new ones.

Strategies:

a. Seek additional organizations' support of CPAC's mission for forming partnerships.
b. Attend meetings of those other organizations, as well as invite them to CPAC activities.
c. Explore non-traditional partnerships.
d. Maximize potential use of local health departments in implementing the Plan's strategies, serving on and advising CPAC, and generating support for CPAC and the Plan at the local level.

- ***Organizational effectiveness***

Recommendation III.3: Identify and measure indicators or characteristics of organizational effectiveness.

Strategies:

a. Use Butterfoss' "Coalition Effectiveness Inventory."
b. Use list of Operating Procedures that CPAC created for itself in its early organization (see Appendix I).

- ***Recognize CPAC members' contributions***

Recommendation III.4: Annually recognize CPAC members' contributions toward achieving goals and share with member organizations they represent.

Strategies:

a. Solicit names/nominations from CPAC throughout the year.
b. Recognize achievements and contributions at annual planning retreat or one of the other quarterly meetings.
c. Share announcements with the organizations that the honored CPAC member is affiliated with.

(See Appendix E for a list of Potential Partners and Resources for implementing these CPAC recommendations.)

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Appendix A

Organizational Membership of CPAC

Organizations Represented on the Cancer Plan Advisory Committee

American Cancer Society, Mid Atlantic Division

American Lung Association

Bon Secours

Carilion Giles Memorial Hospital

Eastern Virginia Medical School

IQ Health Virginia

Medical Society of Virginia

National Cancer Institute's Cancer Information Service

The University of Virginia: Cancer Center, Department of Psychiatric Medicine, and Department of Health Evaluation Sciences

Virginia Association of Health Plans

Virginia Breast Cancer Foundation

Virginia Cancer Pain Initiative

Virginia Commonwealth University (VCU) Massey Cancer Center

VCU Medical College of Virginia and Hospitals (MCVH)

Virginia Cooperative Extension

Virginia Department of Education

Virginia Department of Medical Assistance Services

Virginia Department of Health: Breast & Cervical Cancer Early Detection Program, Center for Health Statistics, Cervical Cancer Program, Chronic Disease Prevention Program, Office of Minority Health, Tobacco Use Control Programs, and the Virginia Cancer Registry

Virginia Education Association

Virginia Health Quality Center

Virginia Hospital & Health Care Association

Virginians Working Well Resource Centers

Virginia Tech Institute for Community Health

Appendix B

Vision, Mission Statement, and Guiding Principles of the Cancer Plan Advisory Committee (CPAC)

Cancer Plan Advisory Committee

Vision Statement

Joining Forces for Cancer Control in Virginia

Mission

"The mission of CPAC is to eliminate preventable cancers and minimize the burden of cancer in Virginia."

Guiding Principles

We operate with clear expectations of members, including what is required to become a member and to remain a member.

We believe that a key to success is the ability to operate in an ethical manner.

We will conduct the business of the Committee/Organization in an open and inclusive manner.

We are respectful of honest disagreement and will strive for consensus on all decisions.

We value optimal communication among committee members and with resource and consumer groups.

We seek to create collaborative efforts that result in mutually beneficial return on the investment of time and resources for all partners.

We seek to add value to the existing cancer prevention and control infrastructure in Virginia through our organization's unique contributions.

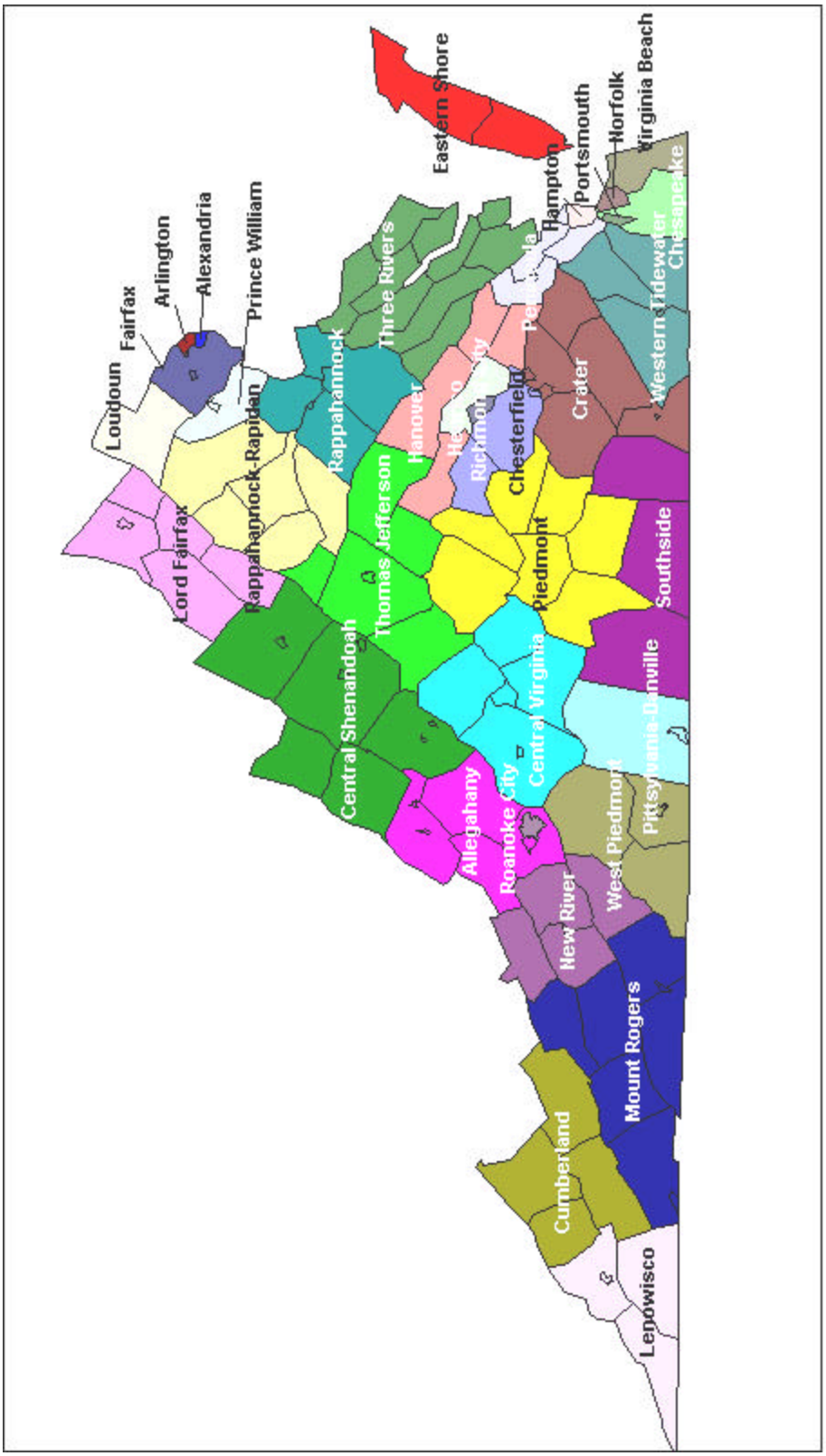
We will pursue resources to create sustainable activities in the areas of prevention, early detection, treatment, palliation and rehabilitation, and surveillance of cancer in Virginia.

Our implementation and evaluation plans will be grounded in sound biomedical and social sciences.

Our commitment to accountability requires an evaluation plan that focuses on both our processes and outcomes.

Appendix C

Map of Local Health Districts In Virginia


Eastern Shore
Hampton
Portsmouth
Norfolk
Virginia Beach
Loudoun
Fairfax
Arlington
Alexandria
Prince William
Three Rivers
Rappahannock
Rappahannock-Rapidan
Lord Fairfax
Thomas Jefferson
Chesterfield
Crater
Western Tidewater
Piedmont
Southside
Central Shenandoah
Central Virginia
Pittsylvania-Danville
Allegahany
Roanoke City
West Piedmont
New River
Mount Rogers
Cumberland
Lenowisco

Appendix D

Virginia vs. U.S.:
Comparison of Cancer Data

Mean and Range for Virginia with Total US Comparative Data for 1995 for Breast, Cervical, Colorectal, Lung, & Prostate Cancers

Age-Adjusted Incidence and Mortality, Percent Local/Regional Stage Disease, and Cancer Site-Specific BRFSS Risk Factor Prevalence

BREAST	Incidence/ 100,000	% L/R stage	Mortality/ 100,000	Behavioral Risk Factor Prevalence (%)
Low	27.6	24.1	17.2	29.4
High	230.6	80.3	59.0	78.6
Mean	127.1 (111.3*)	63.6	34.3(25.2**)	54 (62@)
Standard Deviation	36.7	11.7	10.5	13.0
Difference	203.1	56.2	41.8	49.2

US Rank=14

CERVICAL	Incidence/ 100,000	% L/R stage	Mortality/ 100,000	Behavioral Risk Factor Prevalence (%)
Low	14.7	66.7	0.0	50
High	98.3	100.0	7.9	90.9
Mean	38.98 (N/A)	87.0	3.67 (2.7**)	68.1[1]
Standard Deviation	15.8	6.9	2.1	7.8
Difference	83.6	33.3	7.9	40.9

US Rank=28

COLORECTAL	Incidence/ 100,000	% L/R stage	Mortality/ 100,000	Behavioral Risk Factor Prevalence (%)
Low	9.7	14.4	8.7	14.0
High	102.2	47.4	35.7	46.0
Mean	46.59 (42.7*)	30.0	22.13 (17.4**)	30.4 (34@)
Standard Deviation	17.8	7.7	7.1	8.1
Difference	92.6	33.0	27.0	32.0

US Rank=22

LUNG	Incidence/ 100,000	% L/R stage	Mortality/ 100,000	Behavioral Risk Factor Prevalence (%)
Low	9.7		27.1	66.7
High	120.2		120.5	31.0
Mean	62.2 (58.1*)		65.22 (49.3**)	49.3(N/A)
Standard Deviation	27.1		22.5	8.2
Difference	110.5		93.3	35.7

US Rank=18

continued

PROSTATE	Incidence/ 100,000	% L/R stage	Mortality/ 100,000	Behavioral Risk Factor Prevalence (%)
Low	34.62	33.3	8.82	
High	213.64	97.3	66.36	
Mean	107.98 (137.2*)	75.10	29.85 (24.9**)	
Standard Deviation	46.3	13.30	12.40	
Difference	64.0	179.02	57.54	
			US Rank=8	

* A comparison of 1995 SEER age-adjusted incidence rates. Cervical cancer incidence for SEER based on invasive disease. For VA, based on total incidence.
** A comparison of 1995 age-adjusted mortality rates for the US (Rank 1-50; low rank = high risk)
@ A comparison of 1995 US BRFSS prevalence estimates. Lung cancer prevalence estimates based on current smoking status for USBRFSS compared with estimates based on smoking in past year.
[1] Median for US = 68.6%; median for VA = 75.6 (1995)

Appendix E

Potential Partners and/or Resources to Implement Recommendations

Potential Partners and/or Resources to Implement Prevention Recommendations:

(*Italicized = CPAC Organizational Member)*

- Agency for Research and Health Care Quality
- Alliance of Black Churches
- Alliance for the Prevention & Treatment of Nicotine Addiction
- *American Cancer Society, Mid-Atlantic Division*
- American Dermatology Association
- American Heart Association, Virginia Affiliate
- American Lung Association of Virginia
- Americans for Non-smokers' Rights
- Association of Worksite Health Promotion
- Baptist General Convention
- boys' and girls' clubs
- Centers for Disease Control Division of Cancer Prevention and Control
- college and university health educators in Virginia
- cities' Parks and Recreation programs
- Commonhealth
- Day Care Councils
- Ethiopian Community Development Center
- Department of Housing and Urban Development
- local growers, marketers, and grocery stores
- local health departments
- local Tobacco Use Control coalitions
- *Medical Society of Virginia*
- minor league sports teams in Virginia (7 baseball, 2 soccer, 1 basketball)
- Minority Business League
- minority organizations, including fraternities and sororities
- National Association for the Advancement of Colored People
- *National Cancer Institute, Cancer Information Service*
- owners of smoke-free restaurants and other businesses
- student organizations in schools, colleges, and universities
- U. S. Environmental Protection Agency
- Urban League
- Vietnamese Resettlement Association
- Virginia advertising companies
- Virginia Association of Health, Physical Education, Recreation, and Dance
- *Virginia Association of Health Plans*
- Virginia Asthma Coalition
- Virginia Black Nurses Association
- Virginia Board of Pharmacy
- Virginia Chambers of Commerce
- *Virginia Cooperative Extension*
- Virginia Department of Conservation and Recreation
- *Virginia Department of Education*
- Virginia Department of Health –
  - *Cancer Prevention Project*
  - *Office of Minority Health*
  - Radiologic Health Programs
  - *Tobacco Use Control Project*
  - *Virginians Working Well Resource Centers*
  - Virginia Fatherhood Campaign
  - Virginia Abstinence Education Initiative
  - 5 A Day Program
- *Virginia Education Association*
- Virginia Hospitality Association
- Virginia Indoor Air Quality Coalition
- *Virginia Hospital and Health Care Association*
- Virginia Nurses Association
- Virginia Oncology Nurses Society
- Virginia Parent Teacher Association
- Virginia Pediatrics Society
- Virginia Public Health Association
- Virginia School Nurses Association
- Virginia State Council of Higher Education
- Virginia Thoracic Society
- Virginia Tobacco Settlement Foundation
- voluntary health agencies
- Wellness Councils of America
- Salvation Army

Potential Partners and/or Resources to Implement Early Detection Recommendations:

(*Italicized = CPAC Organizational Member)*

- *American Cancer Society, Mid-Atlantic Division*
- *American Lung Association of Virginia*
- American College of Surgeons' Commission on Cancer
- Association of Medical Schools
- hospitals and other organizations with mobile screening units
- Joint Commission on Health Care
- Local health departments
- *Medical Society of Virginia*
- *National Cancer Institute, Cancer Information Service*
- *Virginia Association of Health Plans*
- Virginia Board of Nursing
- *Virginia Breast Cancer Foundation*
- Virginia Broadcasters Association
- Virginia Department of Health –
- *Breast and Cervical Cancer Early Detection Program*
- *Cancer Prevention Project*
- *Office of Minority Health*
- *Virginians Working Well*
- Virginia Department of Health Professions
- *Virginia Health Quality Center* and other HCFA/Medicare Agencies
- *Virginia Hospital and Health Care Association*
- Virginia Oncology Nurses Society
- Virginia Press Association
- Virginia State Council of Higher Education

Potential Partners and/or Resources to Implement Treatment Recommendations:

(*Italicized = CPAC Organizational Member*)

- *American Cancer Society, Mid-Atlantic Division*
- Legal Information Network for Cancer
- managed care organizations, including managed care health insurance plans
- *Massey Cancer Center*
- *Medical Society of Virginia*
- *National Cancer Institute, Cancer Information Service*
- National Comprehensive Cancer Network
- National Institutes of Health Center for Complementary and Alternative Medicine
- State Council of Higher Education in Virginia
- *University of Virginia Cancer Center*
- US Preventive Health Task Force
- *Virginia Association of Health Plans*
- Virginia Department of Health –
  - *Chronic Disease Prevention Program*
  - Office of Family Health Services Managed Care Team
  - Center for Quality Health Care Services and Consumer Protection
- *Virginia Hospital and HealthCare Association*
- Virginia Oncology Nurses Society

Potential Partners and/or Resources to Implement Rehabilitation and Palliative Care Recommendations:

(*Italicized = CPAC Organizational Member)*

- *American Cancer Society, Mid-Atlantic Division*
- American College of Surgeons' Commission on Cancer
- Area Health Education Centers
- Legal Information Network for Cancer
- *Massey Cancer Center*
- Medical College of Virginia cancer rehabilitative services
- *Medical Society of Virginia*
- *National Cancer Institute, Cancer Information Service*
- National Institutes of Health
- pharmaceutical companies
- physical therapy and occupational therapy associations
- State Council of Higher Education in Virginia
- *University of Virginia Cancer Center*
- *Virginia Association of Health Plans*
- Virginia Association of Social Workers
- Virginia Bioethical Consortium
- Virginia Board of Pharmacy
- Virginia Board of Medicine
- Virginia Board of Nursing
- *Virginia Breast Cancer Foundation*
- *Virginia Cancer Pain Initiative*
- Virginia Department of Rehabilitative Services
- Virginia Health Care Foundation
- Virginia Hospice Association
- *Virginia Hospital and HealthCare Association*

Potential Partners and/or Resources to Implement Surveillance Recommendations:

(*Italicized = CPAC Organizational Member)*

- *American Cancer Society, Mid-Atlantic Division*
- American College of Surgeons' Commission on Cancer
- *National Cancer Institute, Cancer Information Service*
- *Virginia Department of Education*
- Virginia Department of Health
    - *Center for Health Statistics*
    - *Office of Family Health Services*
    - Office of Information Management
    - *Office of Minority Health*
    - *Virginia Cancer Registry*
    - Virginia Health Information
- Virginia Employment Commission
- *Virginia Hospital and Healthcare Association*
- *Virginia institutions of higher education*

Potential Partners and/or Resources to Implement CPAC Recommendations:

(*Italicized = CPAC Organizational Member)*

- *American Cancer Society, Mid Atlantic Division*
- Coalition Effectiveness Inventory (Butterfoss, 1994; Goldstein, 1997)
- Community Toolbox (http://ctb.lsi.ukans.edu/)
- Local health departments
- Local media
- Public Health Foundation
- *National Cancer Institute, Cancer Information Service*
- Virginia Department of Health
  - *Center for Health Statistics*
  - *Chronic Disease Prevention Program*
  - *Office of Family Health Services, Research and Analysis Unit*
  - *Virginia Cancer Registry*
  - *Breast and Cervical Cancer Early Detection Program*

Appendix F

Cancer Screening Guidelines

Screening Guidelines Recommended by the U.S. Preventive Services Task Force

Type of Cancer	Recommended Screening	Frequency
Breast	1. Mammography 2. Clinical Breast Exam	1. Every 1-2 yrs. if 50 yrs. or older 2. Every 1-2 yrs. if 50 yrs. or older
Cervical	Pap test	Routine screening is recommended for all women who are or have been sexually active. Pap tests should begin with onset of sexual activity and should be repeated at least every 3 years.
Colorectal	1. Fecal occult blood tests 2. Sigmoidoscopy	1. Annually if 50 years or older 2. Periodicity unspecified

Screening Guidelines Recommended by the American Cancer Society and the National Cancer Institute

Type of Cancer	Recommended Screening	Frequency
Breast	1. Mammography 2. Clinical Breast Exam 3. Self-breast Exam+	1. Every 1-2 yrs. if over 40 yrs. old 2. Annually if over 40 yrs. old 3. Monthly, if 20 yrs. or older
Cervical	Pap test and Pelvic exam	Annually, beginning as soon as women become sexually active OR age 18 yrs. and older. After three or more consecutive normal annual examinations, the Pap test may be performed less frequently at the discretion of a physician.
Colorectal (for normal risk individuals; and if annual FOBT results are normal)	1. Fecal occult blood tests 2. a. Sigmoidoscopy and Digital Rectal Exam (DRE) ***or*** b. Colonoscopy ***or*** c. Barium enema	1. Annually if 50 years or older 2. a. Every 5 yrs., if 50 yrs. or older b. Every 10 yrs. if 50 yrs. or older c. Every 5-10 yrs.
Prostate	DRE and Prostate Specific Antigen (PSA) blood test+	Annually, for men 50 yrs. and older Earlier than age 50 if male: a. is African American b. has a family history of prostate cancer
Skin	1. Clinical Examination 2. Self Examination+	1. Annually 2. Monthly

+ = Recommended by ACS only

Appendix G

Treatment Needs Assessment Survey

Cancer Treatment in Virginia
Needs Assessment Survey

Instructions:

(a) For Recommendations 1-9 below, place a check-mark or "X" in the box that best indicates the level of priority you would give the listed recommendation for improving cancer treatment in Virginia.

(b) For Recommendation 10 ("Other"), please add your own recommendations for improving cancer treatment in Virginia.

(c) A "Comments" section is provided for additional comments on cancer treatment in Virginia.

(d) Please return the completed survey in the provided envelope **by July 9th**. Thank you very much for your time and expert feedback!

Treatment Recommendations	High Priority	Medium Priority	Low Priority	Not a Priority
1. Increase the number of oncology nurses statewide				
2. Recruit more students into oncology nursing programs				
3. Establish regional clinics and develop a visiting schedule for oncology nurses				
4. Recruit under-represented groups (minorities) into cancer treatment professions				
5. Recruit under-represented groups (women, minorities, etc.) into clinical trials				
6. Improve access to care for under-served (underinsured, hard-to-reach) patients				
7. Develop and provide telemedicine conferences to reach outlying/smaller hospitals				
8. Increase ***public*** education/awareness on:				
- clinical trials (availability; funding source)				
- available support groups				
- treatment options and guidelines				
- screening guidelines for breast, cervical, prostate, and colo-rectal cancers				
- alternative/complimentary treatments				
- chemo-prevention				

Treatment Recommendations, cont.	High Priority	Medium Priority	Low Priority	Not a Priority
9. Increase ***professional*** (health care provider) education/awareness on:				
- clinical trials (availability; funding source)				
- available support groups				
- treatment options and guidelines				
- screening guidelines for breast, cervical, prostate, and colo-rectal cancers				
- alternative/complimentary treatments				
- chemo-prevention				

10. "Other" (What additional recommendations do you have for improving cancer treatment in Virginia?)

Comments:

Thank you for your participation. If you have any questions about this survey, contact: Dr. Cathie Stivers, Cancer Prevention Project Manager with the Virginia Department of Health, at (804) 786-6527.

Appendix H

HEDIS Measures Related to Cancer

HEDIS Measures Related to Cancer Care

Directly-Related Measures

- *Breast Cancer Screening* – the percentage of the MCO's female members between the ages of 52 and 69 who have had at least one mammogram during the past two years.

- *Cervical Cancer Screening* – the percentage of women in the MCO age 21 - 64 who have had at least one Pap test during the past three years.

- *Advising Smokers to Quit* – the percentage of adult smokers or recent quitters who received advice from a health professional in the MCO to quit smoking.

Indirectly-Related Measures

- *The Medicare Health Outcomes Survey* – keeping senior citizens healthy with a high health-care-related quality of life.

- *Adults' Access to Preventive/Ambulatory Health Services* – whether adult members are getting preventive and ambulatory services from MCO providers.

- *Frequency of Selected Procedures* – procedures (mostly surgical) that are frequently performed and that contribute substantially to overall costs (list of procedures includes hysterectomy, prostatectomy, and partial excision of large intestine)

- *Impatient Utilization* – General Hospital/acute care, and non-acute care

- *Ambulatory Care* – outpatient visits, emergency room visits, outpatient surgery/procedures, observation room stays

- *Arrangements with Public Health, Educational and Social Service Organizations* – measures the ways in which the MCO provides and coordinates services from public health, educational, and social service agencies.

(Source: National Committee for Quality Assurance (NCQA) (2000). HEDIS 2000, Volume 1 – Narrative: What's In It and Why It Matters. Washington, D.C.)

Appendix I

Founding Operating Procedures

Founding Operating Procedures for CPAC Committee and Subcommittee Meetings

Because this process is a public process and involves many people, we thought a few operating procedures would be helpful.

Please consider these and if you wish, others can be added in the future.

- Commit to the Process: accept that this will take time, we won't be finished at the end of the day or next month. It takes time to develop strategies and after the strategies are developed some one has to implement them.
- Participate in the process and in the discussions.
- Stay on Task and keep focused on mission.
- Respect timelines and time constraints both among group members and for the task at hand.
- Develop a mechanism for communication and use this mechanism to reach other task group members.
- Use an established way to prioritize recommendations.
- Develop a way to resolve conflicts within the group(s).

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- Share: if you have information or experiences that apply, please contribute.
- Ask for clarification if you don't understand something.
- Listen: try to leave your other responsibilities behind so that you can concentrate on the task at hand and listen to the people of the committee or subcommittee.
- Respect your colleagues and the confidentiality of information or material that may be presented or shared.
- Dare to dream! Remain open-minded. Try not to be trapped by the experiences you've had in the past or of limitations your individual agency experiences. Part of the magic is that by working together we can accomplish much more than just one of us working alone.
- Relax and enjoy the experience. Consider this a time to really contribute, make a difference and work with others with whom you usually do not work.