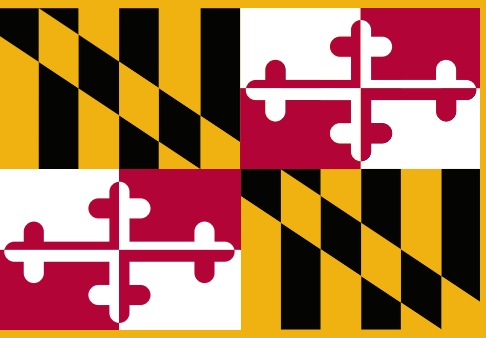
Maryland Comprehensive Cancer Control Plan



Executive Summary

MARYLAND COMPREHENSIVE CANCER CONTROL PLAN

EXECUTIVE SUMMARY

Statement of Funding

This publication was supported by CDC Cooperative Agreement Number 5U58DP000827-04. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention.

INTRODUCTION

The Maryland Comprehensive Cancer Control Plan (MCCCP) is a resource for all Marylanders—individuals, healthcare providers, and organizations. It is also a guide for health professionals who are involved in planning, directing, implementing, evaluating, or performing research on cancer control in Maryland.

This Executive Summary is meant to be an overview of the information that is presented in the MCCCP, including a concise summary of the all of the goals, objectives, and strategies contained in the plan.

Development Process

The MCCCP represents the coordinated effort of nearly 250 individuals across the state who came together through 14 committees to develop a document that reflects the needs of Marylanders. It was developed by a broad partnership of public and private stakeholders whose common mission is to reduce the burden of cancer in Maryland. The plan was developed by Marylanders for Marylanders.

During the creation of the plan, a committee was formed for each chapter. In general, committees consisted of no more than 25 members including epidemiologists, healthcare providers, researchers, cancer survivors, the general public and other representatives from local and state health departments, governmental agencies, community-based organizations, academic health centers, hospitals/other healthcare facilities, and cancer support groups. Over the course of several meetings, the committees reviewed materials and employed a variety of methods to accomplish their goal: to revise or write a new chapter and develop a set of recommendations to improve cancer control.

Target Setting

Some of the Goals and many of the Objectives in the Plan give specific data targets to be met by the year 2015. In most cases, trend data through the most recently available data years were used to establish these targets. Through this method, known data values were used to predict a future value for the year 2015 by using the statistical method of linear regression. If the trend was moving in the desired direction to control cancer, the 2015 target was set according to this trend. If the trend was not moving in the direction desired to control cancer, the target was set at a rate that would reflect the reversal of this undesired trend. More information on this methodology is available in the Appendix of the full MCCCP.

In a few cases, this method was not used. Rather, targets were set to mirror those previously set by another plan or program. When this is the case, the source of the target is described in a footnote.

Plan Implementation

Each chapter of the MCCCP contains chapter specific information along with goals, objectives, and strategies. These goals, objectives, and strategies serve as a guide to all stakeholders in the state interested in reducing the burden of cancer in Maryland.

Collectively, the goals, objectives, and strategies are far-reaching and complex. No one organization can carry out all of these activities. Rather, these goals, objectives, and strategies are listed as our call to action to encourage any individual or organization involved in any aspect of cancer control to address one or more of these goals and objectives and to apply the appropriate strategies as resources and opportunities arise. The implementation of the MCCCP will be further facilitated by committees that will meet to select priorities and create specific action plans.

For more information or to view the full MCCCP, visit www.marylandcancerplan.org.

The Maryland Comprehensive Cancer Control Plan was directed by the Department of Health and Mental Hygiene with broad input from a partnership of public and private stakeholders. The purpose of the Plan is to set forth measurable objectives and strategies to reduce the burden of cancer in Maryland. The Plan fulfills grant requirements for the Centers for Disease Control and Prevention.

1 BURDEN OF CANCER IN MARYLAND

Improvements in the prevention, early detection, and treatment of many types of cancer have led to a decline in cancer incidence and death rates in Maryland and the nation.[1,2] Despite these declines, the cancer burden in Maryland remains large when measured by human suffering, loss of life, loss of quality of life, and expenditure for medical care.

Cancer Incidence (New Cases)

- The 2006 age-adjusted cancer incidence rate for Maryland was 426.3 per 100,000, which was lower than the 2006 US SEER incidence rate of 450.5.[3]
- The most commonly diagnosed cancers among Marylanders are prostate (15.5%), breast (15.1%), lung and bronchus (14.2%), and colon and rectum (10.2%) cancers.[4]

Cancer Mortality (Deaths)

- Maryland's age-adjusted overall cancer mortality rate of 186.9 per 100,000 in 2006 was higher than the 2006 US cancer mortality rate of 180.7.[5]
- For the period 2002-2006 lung cancer was the leading cause of cancer deaths in Maryland (28.5%), followed by colorectal cancer (10.0%), breast cancer (8.2%), pancreatic cancer (5.9%), and prostate cancer (5.3%).[6]
- Maryland's rank in the nation for overall cancer mortality has been steadily improving. For 2002-2006, Maryland dropped to having the 20th highest cancer mortality rate in the nation.[7]
- Overall cancer mortality rates in Maryland are higher in males than females, with black or African American males having higher overall cancer mortality rates than white males, and black or African American females having higher overall cancer mortality rates than white females.[5]

Stage of Disease and Survival

- The five-year survival rate for many cancers has been improving in the US (survival data is not available for Maryland). Five-year relative survival rates for all cancers increased from 50% in 1975-1977 to 68% in 1999-2005.
- For nearly every cancer type, blacks or African Americans have lower five-year relative survival rates than whites.[1]

Childhood Cancer

- Leukemia accounts for 31% of cancers in children, with acute lymphocytic leukemia being the most common type. Cancers of the brain and nervous system account for an additional 21% of childhood cancers.
- From 2002-2006, there were 1,110 cases of cancer diagnosed in Maryland children younger than 20.[4]

Risk Factors

- Cancer can be attributed to a variety of factors. Studies estimate that about one-third of cancer deaths are caused by tobacco, while another third are related to excess body weight, physical inactivity, and poor nutrition.[8,9]

Infectious Agents

- Growing knowledge of the nature of carcinogenesis and the role of cell injury and repair has led to a better understanding of why some infectious agents play an important role in cancer causation.
- Research and education on the role of infectious agents in cancer causation could lead to better cancer controls through the development of interventions such as vaccines, antibiotics, and changes in personal behavior to avoid infection.

Costs for Cancer Care

- The National Institutes of Health estimates the overall cost for cancer in the US in the year 2006 to be $206.3 billion.[10]
- A rough estimate for the cost for cancer in Maryland in 2006 is $3.9 billion (based on the assumption that in 2006 Maryland represented 1.88% of the US population).

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2 CANCER SURVEILLANCE

Public health surveillance—the ongoing, systematic collection, analysis, and interpretation of health data—is essential to the planning, implementation, and evaluation of public health practice. Surveillance involves the collection of data and monitoring of trends, and is closely tied to the timely dissemination of data to those who need it. Cancer surveillance is key to improving cancer control in Maryland.

Components of Cancer Surveillance

- Collection of data on cancer occurrence (incidence and cancer stage) and cancer deaths (mortality).
- Monitoring prevalence of risk factors for development of cancer (e.g., smoking, overweight, fruit and vegetable intake).
- Tracking cancer-screening behaviors (e.g., use of mammography, colonoscopy, Pap tests).
- Collecting data and information on medical services provided for cancer diagnosis and treatment.

Uses of Cancer Surveillance Data

- Planning (e.g., planning services or education for groups identified by surveillance as being in need).
- Policymaking activities such as resource allocation and program evaluation.
- Applied research examining cancer control (e.g., cancer risk factors, cancer prevention, disparities).

Cancer Surveillance Activities in Maryland

- Cancer cases (incidence) are reported to the Maryland Cancer Registry (MCR) within six months of diagnosis.
- Cancer deaths (mortality) are reported to the Maryland Vital Statistics Administration.
- The MCR reports Maryland incidence data to the North American Association of Central Cancer Registries (NAACCR) and the Centers for Disease Control and Prevention (CDC) National Program of Cancer Registries (NPCR).
- Cancer case and death data are age-adjusted, standardized for comparison, and analyzed by gender, race, and county of residence.
- Cancer cases are geocoded for spatial analysis using latitude and longitude, county of residence, and ZIP code.
- DHMH conducts active surveillance on cancer screening and risk behaviors through population-based statewide surveys such as the Behavioral Risk Factor Surveillance System (BRFSS), the Maryland Cancer Survey (MCS), and the Maryland Adult and Youth Tobacco Surveys (MATS and MYTS).

Needs for Cancer Surveillance in Maryland

DATA COLLECTION

- Timely and accurate MCR data including all reportable cancers diagnosed among Marylanders.
- More complete information on ethnicity.
- Certified Tumor Registrars (CTRs) to report cancer data from hospitals in Maryland and know the latest standards.
- Additional surveillance for cancer risk factors and enhanced quality assurance.
- Better mortality data collection systems.
- Additional data on environmental and occupational exposures.
- Complete and accurate first course of treatment data on cancers reported to the MCR.
- Follow-back to physicians to collect treatment and staging information for cases reported only by laboratories.

ACCESS TO CANCER DATA

- Greater public awareness and access to cancer surveillance data on incidence, mortality, and behavioral risk factors.
- Consistent agreements with other states for data exchange and data rerelease policies.

DATA ANALYSIS

- Expansion of proactive or reactive analysis of cancer surveillance data and statistical methods for analysis of cancer in small areas or rare cancers.
- Technical assistance to local health departments in cancer surveillance and analysis.
- Expansion of research into cancer risk factors, etiology, outcomes, and knowledge, attitudes, and behaviors of the public and of providers.
- Evaluation of the quality of care provided to cancer patients.
- Ongoing or increased funding to meet surveillance needs.

INFORMATION DISSEMINATION

- Enhanced dissemination of existing cancer surveillance data.

GOALS OBJECTIVES STRATEGIES

GOAL 1

Collect, analyze, develop, and disseminate Maryland cancer information.

OBJECTIVE 1

Through 2015, implement solutions to address at least three of the gaps in cancer surveillance data collection identified in the Surveillance Chapter of the Maryland Cancer Plan.

STRATEGIES

1. **MEET NATIONAL STANDARDS** for accuracy, timeliness, and completeness of Maryland Cancer Registry (MCR) data needed for cancer prevention and control including:
   - National Program of Cancer Registries (NPCR) data standards for US cancer statistics and multi-year data for NPCR Web site.
   - North American Association of Central Cancer Registries (NAACCR) data standards for one-year incidence data.
   - Cancer in North America (CINA) plus data standards (NAACCR Web-based and research data file) for multi-year incidence data.
2. **PROVIDE ONGOING, ADEQUATE STAFFING, FUNDING, AND SYSTEMS** to obtain, maintain, and support high quality, timely, and accessible cancer incidence and surveillance data.
3. **MAINTAIN THE MARYLAND CANCER REGISTRY ADVISORY COMMITTEE** to provide ongoing multidisciplinary advice to the MCR on cancer incidence data quality, release, use, timeliness, and reporting.

OBJECTIVE 2

Through 2015, analyze cancer data and develop reports to assist with meeting the needs of the public and researchers.

STRATEGIES

1. **PERFORM ONGOING ANALYSES** of Maryland cancer data including small area analyses that address cancer cluster concerns and disparities among subgroups. Document results and findings in published reports.
2. **ESTABLISH METHODS** to measure the extent to which cancer data and information needs are being met.
3. **DEVELOP THE LEADING CANCER INDICATORS** (e.g., mortality, incidence, stage at diagnosis, treatment, risk behaviors, avoidable cancer events, and events that are sentinels of problems in cancer prevention and control services) that are used to monitor cancer control in Maryland.
4. **COLLABORATE WITH OTHER ENTITIES** to standardize collection, analysis, and reporting of cancer-related data necessary for cancer surveillance. Explore opportunities for linking cancer databases with other cancer-related or non-cancer related databases to facilitate answering questions of interest.

OBJECTIVE 3

Through 2015, increase public availability and awareness of Maryland cancer mortality, incidence, and risk factor information.

STRATEGIES

1. **EXPAND PUBLIC ACCESS** to Maryland cancer data by inclusion on the Internet sites such as:
   - State Cancer Profiles
   - Cancer Control P.L.A.N.E.T.
   - NPCR
   - CINA Plus Cancer Inquiry System
   - CDC WONDER
   - Maryland BRFSS
   - Maryland Environmental Public Health Tracking
2. **EXPAND DISSEMINATION** of Maryland cancer data to the public by
   - Producing Maryland incidence and mortality reports and posting to the DHMH Web site.
   - Preparing Maryland Cigarette Restitution Fund Program biennial cancer reports and posting to the DHMH Web site.
   - Publishing information of interest such as leading indicators and data to answer research questions.
3. **INCREASE PUBLIC AWARENESS** of Maryland cancer publications through various forms of communications (e.g., memos, letters, Internet postings, news media).

3 CANCER DISPARITIES

Health disparities include cancer disparities and are defined as differences in the illness, injury, disability, or mortality experienced between one population group and another. The "population groups" are based on gender, race or ethnicity, education or income, disability, geographic location, or sexual orientation. These population groups face obstacles that prevent them from accessing and receiving effective health services including health promotion, disease prevention, early detection, and high-quality medical treatment and as such are faced with poorer health outcomes.

Social Determinants of Health

- The World Health Organization defines social determinants of health as the conditions in which people are born, grow, live, work, and age, including the health system. These social determinants include:
  - Socioeconomic status.
  - Poverty and income inequality.
  - Occupational and residential environments.
  - Racial injustice.
- Recent evidence suggests that social determinants of health play a far more pivotal role in health disparities than biological factors.[1]

Factors Associated with Racial and Ethnic Disparities

- Poverty is associated with lack of resources, information, and knowledge; substandard living conditions; risk-promoting lifestyles; and less access to healthcare. Sixty percent of the Marylanders living below poverty are minorities.
- Low socioeconomic status and not having health insurance is believed to contribute to minorities being more likely to present with advanced stage cancer at diagnosis.
- Cultural beliefs have a role in seeking healthcare such as cancer screening services.
- Social injustice, including institutional racism, is believed to play an important role in racial and ethnic cancer disparities.
- Racial bias is believed to influence patient-provider communication and the patient-provider relationship.

Emerging Populations of Concern for Cancer Disparities

- Cancer disparities in ethnic minorities have been documented and continue to be investigated, but other population groups are also experiencing poor health outcomes.
- Lesbian, gay, bisexual, or transgender persons are more likely to have poor health due to reluctance to seek care from health providers; gay men and lesbian women are at an increased risk for certain cancers due to a higher prevalence of smoking and inadequate risk assessments.
- Immigrants are at an increased risk for some cancers because of risk factors that they are exposed to from their countries of origin in addition to potential language and cultural barriers to some cancer screening.

Cancer Disparities in Maryland

- In Maryland, data indicate that cancer disparities exist by race and ethnicity, gender, and geographic location.
- These disparities are seen in cancer incidence, mortality, and stage at diagnosis and also exist in access and use of cancer screening tests such as mammograms, Pap tests, colonoscopy, and fecal occult blood test (FOBT).
- While the availability of data for cancer disparities by language and sexual orientation are almost nonexistent in Maryland (mostly due to inadequate data collection and reporting) studies done nationally and in other states have shown that they exist.

New Interventions and Promising Practices to Eliminate Cancer Disparities

- Literature suggests that any efforts to reduce or eliminate cancer disparities without addressing social issues such as poverty, culture, and social injustice are likely to be unsuccessful.[2,3,4]
- Important factors for the success of interventions to eliminate cancer disparities include:
  - The use of intensive recruitment and follow-up methods.
  - Ensuring community commitment and input from community leaders and stakeholders.
  - Ensuring that the intervention is culturally competent by assuring the use of culturally competent intervention staff and educational materials.
  - Employing the use of multidisciplinary teams and multiple strategies.
  - Conducting a prior needs assessment that helps to define the specific areas of concentration.
  - Providing resources that help the intervention to be sustainable.

GOALS OBJECTIVES STRATEGIES

GOAL

Reduce cancer disparities in Maryland.

OBJECTIVE 1

Reduce racial/ethnic minority vs. white cancer disparities in Maryland to reach the following:

- **By 2015, reduce the black or African American vs. white all-cancer mortality disparity by achieving the all-cancer mortality rates listed below.**

ALL-CANCER MORTALITY TARGETS (2011-2015)

BLACK OR AFRICAN AMERICAN	164 per 100,000 (2002-2006 baseline: 221 per 100,000)
WHITE	161 per 100,000 (2002-2006 baseline: 189 per 100,000)

Source: CDC WONDER, NCHS Compressed Mortality files.

- **By 2015, reduce the Asian/Pacific Islander vs. white liver cancer and stomach cancer mortality disparities by achieving the liver cancer and stomach cancer mortality rates listed below.**

LIVER CANCER MORTALITY TARGETS (2011-2015)

ASIAN/ PACIFIC ISLANDER	Less than 4.2 per 100,000 (2002-2006 baseline: 7.9 per 100,000)
WHITE	Less than 4.2 per 100,000 (2002-2006 baseline: 4.2 per 100,000)

STOMACH CANCER MORTALITY TARGETS (2011-2015)

ASIAN/ PACIFIC ISLANDER	6.4 per 100,000 (2002-2006 baseline: 7.8 per 100,000)
WHITE	2.4 per 100,000 (2002-2006 baseline: 3.1 per 100,000)

Source: CDC WONDER, NCHS Compressed Mortality files.

Note: Current Maryland data systems are unable to define cancer disparities and/or develop targets for Maryland's Hispanic/Latino and American Indian/Alaska Native populations.

STRATEGIES

1. **INCREASE COMMUNITY ENGAGEMENT** to provide further outreach and education to minority populations on cancer risk, community cancer screening services, and tools to overcome barriers to cancer screening and follow-up. (This may include promotion of obesity prevention, healthy diets, physical activity, and reduction of exposures to environmental carcinogens, such as second-hand smoke.)
2. **ENHANCE MARYLAND'S SAFETY-NET INSURANCE PLANS** and safety-net healthcare systems to supply cancer screening and follow-up services to a greater proportion of minority populations who are eligible for and/or enrolled in these plans and systems.
3. **INCREASE DIVERSITY IN THE HEALTHCARE WORKFORCE** and build healthcare provider cultural and linguistic competency and understanding of health disparities to improve cancer prevention practices and experiences among minority population patients.
4. **INCREASE PROVISION OF CANCER SCREENING SERVICES** targeted to minority populations with an emphasis on timely follow-up for abnormal screening results to improve rates of cancer detection and timely treatment.
5. **INCREASE RIGOROUS PUBLIC HEALTH RESEARCH** at the state and local levels to develop, test, and implement effective interventions for reducing cancer disparities. At the local level, utilize a community-based participatory research model to engage community stakeholders, including healthcare providers with minority population patients.

OBJECTIVE 2

By 2015, conduct an assessment and create and implement a plan to improve data systems to better identify and track cancer disparities defined by race, ethnicity, language, disabilities, sexual orientation, and other factors.

STRATEGIES

1. **PARTNER WITH MARYLAND BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEMS** (BRFSS) to ensure accuracy and completeness of individual data and inclusion of all segments of Maryland's population.
2. **PARTNER WITH THE MARYLAND CANCER REGISTRY** to ensure accuracy and completeness of individual data and inclusion of all segments of Maryland's population.
3. **PARTNER WITH THE VITAL STATISTICS ADMINISTRATION** to ensure accuracy and completeness of individual data and inclusion of all segments of Maryland's population.

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4 PATIENT ISSUES AND CANCER SURVIVORSHIP

The term "cancer survivor" refers to someone living with, through, or beyond cancer from the moment of diagnosis. Because family members, friends, and caregivers are also impacted by the survivorship experience, they are included in this definition. The issues confronting cancer survivors cut across all diagnoses, cultures, demographics, and situations. Empowering survivors is of utmost importance. Survivors must be advocates for their own health and work together with healthcare providers, insurers, employers, and other relevant institutions throughout the cancer journey.

Access to Care, Information, and Resources

- Accessing life-saving and evidence-based cancer care is a major concern to newly diagnosed cancer survivors and their families.
- Qualified Patient Navigators assist patients with access to timely diagnosis and treatment, advocate for the patient, and teach the patient to advocate for him- or herself.
- It is recommended that healthcare providers develop a survivorship care plan for each of their cancer patients which describes treatment and post-treatment care including:[1]
  - A record of the cancer care services received (e.g., screening and diagnostic tests, information about the cancer, type of treatment and its duration, contact information of all physicians involved in treatment).
  - Post-treatment standards of care including the health and personal effects of treatment, the possibility of recurrence, suggestions for healthy lifestyle, and resources for supportive services.

Psychosocial Issues

- Cancer survivors deal with many stresses that could be partially or completely alleviated with the help of psychosocial support services including:
  - Mental health, legal, and financial counseling.
  - Peer support networks.
  - Patient education conferences.
- It is imperative to directly address each survivor's psychosocial issues and needs in order to provide the most comprehensive cancer care.[2]

Long-Term Survivorship

- As advances in research are helping to slow the progress or impede recurrence of cancer, more individuals are living longer as survivors.
- Resources and support are necessary for long-term survivorship to help individuals adjust to life after cancer.
- In addition to addressing long-term health issues, other aspects of long-term cancer survivorship inclusive of the "whole person" should be supported, including issues of self-esteem, sexuality, employment, and healthy lifestyle.

Financial Issues

- The National Institutes of Health (NIH) estimates overall costs for cancer in 2010 at $263.8 billion.[3]
- In addition to the direct cost of medical care and wages lost due to illness, the financial burden on cancer patients (those recently out of treatment and even long-term survivors) is exacerbated significantly by out-of-pocket expenses.
- Cancer survivors may also experience long-term financial and legal difficulties stemming from disability and other problems associated with returning to work.

GOALS OBJECTIVES STRATEGIES

GOAL

Enhance the quality of life of cancer survivors in Maryland through information and supportive services.

OBJECTIVE 1

By 2015, create an annual awareness campaign during the National Cancer Survivors Day to educate cancer survivors, the general public, policymakers, media, and healthcare providers about the needs of cancer survivors (including access to care, information and resources, psychosocial issues, long-term survivorship, and financial issues).

STRATEGIES

1. Develop awareness campaign publications (e.g., proclamation fact sheets on elements of a Survivorship Care Plan and advocacy skills for cancer survivors, press releases, and public service announcements).
2. Utilize existing partners and collaborate with local health departments, community health coalitions, support groups, and other community-based organizations to assist with the awareness campaign.

3. Host one statewide event during the National Cancer Survivors Day.
4. Post awareness publications on the Maryland Cancer Plan Web site: www.marylandcancerplan.org.

OBJECTIVE 2

By 2015, develop a Web-based resource guide in English and Spanish for cancer survivors seeking support groups, financial/legal services, and psychosocial support services at no cost.

STRATEGIES

1. Identify existing support groups and legal and counseling services available to cancer survivors at no cost. Include in the resource guide a brief summary of their services and contact information.
2. Utilize existing partners and collaborate with local health departments, community health coalitions, support groups, and other community-based organizations to assist with the distribution of the resource guide to local cancer care providers.
3. Post the resource guide on the Maryland Cancer Plan Web site: www.marylandcancerplan.org.

OBJECTIVE 3

By 2015, utilize the recommendations of the Institute of Medicine to develop and disseminate a fact sheet on elements of a Survivorship Care Plan for cancer survivors and healthcare providers.

STRATEGIES

1. Identify the necessary information and develop a fact sheet with the elements of a Survivorship Care Plan.
2. Utilize existing partners and collaborate with local health departments, community health coalitions, support groups, and other community-based organizations to assist with the dissemination of the elements of a Survivorship Care Plan to their respective cancer care providers.
3. Post the fact sheet on the Maryland Cancer Plan Web site: www.marylandcancerplan.org.

OBJECTIVE 4

By 2015, develop and disseminate materials to educate policy- and decision-makers, community leaders, and educators about the role and value of providing long-term care and support services to cancer survivors.

STRATEGIES

1. Identify the necessary long-term care and supportive services information and develop the materials.
2. Utilize existing partners and collaborate with local health departments, community health coalitions, support groups, and other community-based organizations to assist with the dissemination of the materials to their respective policy- and decision-makers, community leaders, and local educators.
3. Post the materials on the Maryland Cancer Plan Web site: www.marylandcancerplan.org.

OBJECTIVE 5

By 2015, develop and disseminate materials such as a financial resource manual, fact sheet, and PowerPoint slide presentation, to teach and empower cancer survivors the advocacy skills to protect their financial and legal rights at work and within the healthcare system.

STRATEGIES

1. Research and identify financial resources and state and federal laws that protect cancer survivors and include this information in the materials.
2. Utilize existing partners and collaborate with local health departments, community health coalitions, support groups, and other community-based organizations to distribute the materials.
3. Post the materials on the Maryland Cancer Plan Web site: www.marylandcancerplan.org.

OBJECTIVE 6

By 2015, create a workgroup to explore methods to educate decision-makers on, and reduce, the economic and insurance barriers related to healthcare for cancer survivors in Maryland.

STRATEGIES

1. Utilize existing partnerships to create a workgroup.
2. Research and explore methods such as implementing a "Maryland Supports Cancer Survivors" license plate program and drafting recommendations for insurers.

OBJECTIVE 7

By 2015, create a workgroup to explore the need for and feasibility of providing formal training and/or certification for healthcare providers in the area of cancer survivorship, including psychosocial issues.

STRATEGIES

1. Utilize existing partnerships to create a workgroup.

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5 TOBACCO-USE PREVENTION/ CESSATION AND LUNG CANCER

Tobacco use is the single most preventable cause of death and disease in the United States and Maryland. Smoking cigarettes increases the risk of dying from at least ten types of cancer and a variety of heart and respiratory diseases. Smokers have shorter lives and higher medical expenses as compared to non-smokers.

Burden of Tobacco-Related Disease

- The Centers for Disease Control and Prevention (CDC) estimates an average of 6,861 Maryland adults die prematurely every year as a result of cigarette smoking. Of these, 2,339 (34.1%) die prematurely as a result of cancers of the lung, bronchus, and trachea.[1]
- Almost 8.5% of all medical care expenditures in Maryland are avoidable, the direct result of treatment for cancers and other diseases caused by cigarette smoking.[2]

Cancers of the Lung, Bronchus, and Trachea

- Cigarette smoking at an early age increases the risk for lung, bronchus, and trachea cancers at any age, and the increased risk continues throughout the life of the smoker.
- The incidence rate for cancers of the lung, bronchus, and trachea in Maryland is higher than the US rate.
- Historically, the prevalence of cigarette smoking among males has been higher than for females (although in the recent past smoking rates have been equivalent). This is consistent with finding higher incidence of these cancers in the male population.

High-Risk Populations

- Cigarette smoking increases as grade level increases, with 12th-grade youth having the highest rates of cigarette smoking (20.7%).[3]
- The largest relative increase in the proportion of students smoking occurs between the eighth and ninth grades (a 103.5% increase), which in Maryland coincides with the transition from middle to high school.[3]
- Smoking rates are generally higher when household income is less than $50,000 as compared to households earning $50,000 or more.[4]
- Cigarette smoking is inversely related to educational attainment; that is, the higher the education level, the lower the prevalence of cigarette smoking.[4]

CDC "Best Practice Recommendations"

- The CDC has published evidence-based state specific recommendations for implementation of comprehensive tobacco use prevention and cessation programs. The program components recommended by the CDC include: State and Community Interventions; Health Communication Interventions; Cessation Interventions; Surveillance and Evaluation; and Administration and Management.

GOALS OBJECTIVES STRATEGIES

GOAL 1

Substantially reduce tobacco use and exposure to secondhand smoke by high-risk Maryland adults and youth.

OBJECTIVE 1

By the end of 2015, adopt and implement statewide and local public policies that combat tobacco-industry marketing strategies used to promote and sustain the use of existing and emerging tobacco products.

STRATEGIES

1. **AMEND MARYLAND'S DEFINITION OF "CIGARETTES"** to include so-called "brown cigarettes" now classified as little cigars.
2. **REQUIRE THAT LICENSED TOBACCO RETAILERS** (a) display effective health warnings about the use of tobacco products; (b) display information on where to get help if you want to quit using tobacco; (c) ban so-called "power walls" (large display of tobacco products and ads) at all licensed tobacco outlets; and (d) ban the distribution of "free samples" of all tobacco products.
3. **ESTABLISH A STATEWIDE CIVIL FRAMEWORK** that does not pre-empt existing local civil frameworks that are at least as stringent for the purpose of enforcing Maryland's restrictions on the sale and distribution of tobacco products to minors, and require a photo identification check consistent with existing Food and Drug Administration (FDA) requirements that does not pre-empt local civil frameworks.
4. **STRENGTHEN TOBACCO-LICENSURE LAWS** so repeated violations on the sale of tobacco to minors result in mandatory suspension/revocation of licenses to sell tobacco products.

5 **ADOPT STATE AND LOCAL POLICIES** that restrict the sale, advertising, and promotion of tobacco products by (a) prohibiting the sale of menthol and any other flavored tobacco products; (b) require sale of non-premium cigars in packages of at least five cigars; and (c) adopt additional restrictions on the time, manner, and place of tobacco sales consistent with the First Amendment and in support of this objective.

OBJECTIVE 2

By 2015, reduce current tobacco use by 10%* among:

- **Maryland adults who do not have a four-year college degree to 14.5% (2008 Baseline: 16.1%)**
  Source: Maryland Adult Tobacco Survey.
- **Maryland high school youth to 21.8% (2008 Baseline: 24.2%)**
  Source: Maryland Youth Tobacco Survey.

STRATEGIES

1 **EXPLORE AN INCREASE OF THE EXCISE TAX ON CIGARETTES** and all other tobacco products by an amount that corresponds to a 10% reduction in tobacco use by 2015, based on evidence cited in the Community Guide to Preventive Services. It is recommended that:
- Each increase is in an amount of no less than the equivalent of $1.00 per pack of 20 cigarettes.
- All other tobacco products are taxed at an equivalent rate.
- No discounts on excise tax rates are available for any reason.

2 **IMPLEMENT AND SUSTAIN EVIDENCE-BASED HEALTH COMMUNICATION INTERVENTIONS** through the Counter-Marketing and Media Component of the Tobacco Program in accordance with CDC recommendations, targeting high-risk youth and adult populations.

3 **ENSURE MEANINGFUL ONGOING ACCESS** to the Maryland Tobacco Quitline and other tobacco-use cessation counseling and widely promote such services. Support services through nicotine replacement therapy and/or pharmacotherapy. Provide coverage of services and therapies for all Maryland tobacco users through privately and publicly sponsored health insurance and direct provision of services for those without health insurance.

4 **ENGAGE WITH COLLEGE AND UNIVERSITY ADMINISTRATORS** to ensure that all school campuses are tobacco-free at all times and that tobacco use by youth or adults is prohibited while engaged with all school-related activities.

5 **ADOPT POLICIES IN MARYLAND HOSPITALS** to provide inpatient counseling and treatment for patients that use tobacco.

6 **PROMOTE AND ENHANCE THE STATEWIDE AND LOCAL ENFORCEMENT** of Maryland's restrictions on the sale of tobacco products to youth under 18 years of age.

7 **IMPLEMENT EVIDENCE-BASED PUBLIC HEALTH MESSAGING** that increases the demand for tobacco cessation and promotes awareness of the availability of cessation services.

OBJECTIVE 3

By 2015, increase the percentage of youth not exposed to secondhand smoke indoors and in motor vehicles by 10%* from 2008 rates to reach the following targets:

- **Indoors: 77.6% (2008 Baseline: 70.6%)**
- **Motor vehicles: 79.6% (2008 Baseline: 72.4%)**
  Source: Maryland Adult Tobacco Survey.

STRATEGIES

1 **ADOPT STATE AND LOCAL POLICIES** that prohibit the smoking of tobacco products inside multi-unit housing (including townhouses and rowhouses sharing common walls) in Maryland.

2 **ADOPT STATE POLICIES** that prohibit the smoking of tobacco products inside motor vehicles when young children who are required by state law to be in child-safety restraint seats are present in the vehicle.

3 **ADOPT STATE AND LOCAL POLICIES** that prohibit the smoking of tobacco products inside of any daycare facility (including private homes licensed as such) at all times, and regardless of whether children are present.

4 **INCREASE AWARENESS** of the health dangers from secondhand and third-hand smoke, and encourage voluntary adoption of smoke-free rules in all households.

5 **PROMOTE THE CESSATION OF TOBACCO USE,** ensure access to the Maryland Tobacco Quitline and other cessation services, and promote awareness of the dangers of secondhand smoke and available cessation services.

**This target was developed based upon the recommendations by the Governor's Task Force to End Smoking in Maryland (1999) and updated by the Tobacco-Use Prevention/Cessation and Lung Cancer committee.*

GOAL 2

Implement the CDC's Best Practice recommendations (2007) for Maryland's Comprehensive Tobacco Control Program.

OBJECTIVE 1

If funding for Maryland's Tobacco Comprehensive Control Program remains at FY 2011 levels, focus efforts on the most impactful, evidence-based programs.

STRATEGIES

1 **INCREASE REIMBURSEMENT** from insurance providers and third party payers to ensure ongoing access to services provided by Maryland Tobacco Quitline (1-800-QUIT-NOW).

2 **IMPLEMENT A SUSTAINED,** effective statewide health communication Counter-Marketing and Media Component intervention.

3 **BROADEN THE SCOPE** of Maryland's youth and adult surveys beyond tobacco to include physical activity, nutrition, obesity, and use of other substances such as alcohol and drugs in order to maximize resources and integrate surveillance efforts of risk factors for cancer and other chronic diseases. Accurate and reliable county-level data should be available to local health departments for use in community health indicator reports.

4 **AWARD COMPETITIVE GRANTS** to organizations and local health departments that use best practices to target high-risk populations and educate physicians and other healthcare providers.

5 **ENSURE THAT GRANTS** targeting high-risk youth and young adults include only evidence-based or Centers for Disease Control and Prevention recommended interventions.

REFERENCES

1 US Centers for Disease Control and Prevention. Smoking-caused deaths in Maryland: smoking-attributable mortality, morbidity, and economic costs (SAMMEC) online application [Internet]. Atlanta (GA): US Centers for Disease Control and Prevention; 2004 [cited 2010 Jul 8]. Available from: https://apps.nccd.cdc.gov/sammec/five_yr_sam.asp?year=2004&state=MD

2 American Institutes for Research and Optimal Solutions Group, LLC. Comprehensive report: evaluation of Maryland's Cigarette Restitution Fund Program, Silver Spring (MD): American Institutes for Research and Optimal Solutions Group, LLC; 2007 May.

3 Maryland Department of Health and Mental Hygiene (US). Maryland Youth Tobacco Survey, 2008. Baltimore (MD): Maryland Department of Health and Mental Hygiene (US); 2008.

4 Maryland Department of Health and Mental Hygiene (US). Behavioral Risk Factor Surveillance System Survey Data, 2004-2008. Baltimore (MD): Maryland Department of Health and Mental Hygiene (US); 2009.

6 NUTRITION, PHYSICAL ACTIVITY, AND HEALTHY WEIGHT

A fourth of all cancers are preventable through healthy lifestyles including healthy diet, physical activity, and healthy weight.[1]

Comprehensive cancer control strategies include improved nutrition, increased physical activity, and achievement and maintenance of healthy weight. These steps, along with tobacco prevention and cessation, are the major cancer prevention measures as well as prevention measures for other chronic diseases.

Obesity, Nutrition, and Physical Activity Factors that Promote or Prevent Cancer

OBESITY

- Obesity, or excess body fat, increases the risk of cancer of the esophagus, pancreas, colorectum, breast, endometrium, and kidney and may increase the risk of cancer in general.[1]
- The leading cause of obesity is the result of an energy imbalance, meaning too many calories taken in or too few calories expended in activity.
- The prevalence of obesity has increased dramatically in recent decades. In 2008, nearly two-thirds of Maryland adults were either overweight or obese.

NUTRITION

- Consumption of fruits and vegetables is promoted to prevent cancer and other chronic diseases like obesity, diabetes, and cardiovascular disease.
- Foods high in dietary fiber are highly recommended for obesity prevention.[1]
- Some studies have found that consumption of red meat, salt, and processed foods is associated with a higher risk of some cancers.[1]
- The consumption of alcohol increases the risk of developing some cancers including pharynx, larynx, esophagus, liver, and colorectal and breast cancers.[1]

PHYSICAL ACTIVITY

- Physical activity is an important determinant of overall health and specifically of cancer risk, since physical activity can help maintain a healthy weight and reduce obesity.

GOALS OBJECTIVES STRATEGIES

GOAL

Reduce the burden of cancer in Maryland by improving the nutrition and physical activity and promoting the healthy weight of Marylanders across the lifespan.

TARGETS (2016)

- **Increase the proportion of Maryland adults consuming at least five fruits and vegetables per day to 32%* (2008 Baseline: 27%).**
  Source: Maryland BRFSS.
- **Maintain the proportion of Maryland adults engaging in moderate physical activity for 30 minutes or more per day, five or more days per week at 36%* (2008 Baseline: 36%).**
  Source: Maryland BRFSS.
- **Reduce the proportion of Maryland adults engaging in no leisure time physical activity to 19%* (2008 Baseline: 24%).**
  Source: Maryland BRFSS.
- **Increase the proportion of Maryland adults who are at a healthy weight (18.0>= BMI<=25.0) to 44%* (2008 Baseline: 35.5%).**
  Source: Maryland BRFSS.
- **Reduce the proportion of low-income children (ages 2-4) who are obese to 14.1% (2008 Baseline: 15.7%).**
  Source: Maryland Pediatric Nutrition Surveillance Survey, 2008.

**(The target for 2016 is taken from the Maryland Nutrition and Physical Activity Plan, published in May 2006 (http://fha.maryland.gov/pdf/cdp/npaplan.pdf).*

OBJECTIVE 1

By 2015, ensure that Maryland has a team of personnel and dedicated resources sufficient to implement and evaluate cancer prevention strategies related to nutrition, physical activity, and obesity prevention and treatment.

STRATEGIES

1. **EXPLORE MECHANISMS** (including identifying novel funding sources and/or leveraging other public and private initiatives with similar goals) to provide dedicated funding to support nutrition and physical activity policy implementation and environmental changes.
2. **IMPLEMENT A STATEWIDE SURVEILLANCE SYSTEM** that can be used to measure the reach and impact of the strategies for Objectives 2-6.

OBJECTIVE 2

By 2015, ensure that at least 25% of Maryland businesses have policies and supports for promoting healthy eating and physical activity.

STRATEGIES

1. **ESTABLISH MECHANISMS** for obtaining a baseline and tracking the healthy eating and physical activity policies of workplaces and business, and for providing technical assistance to interested workplaces and businesses on improving workplace policies, programs, and support for nutrition, physical activity, and lactation support for workers.
2. **ASSESS AND ADDRESS BARRIERS** for Maryland workplaces and businesses to establish worksite wellness programs that encourage healthier behaviors and meet their workers' health and wellness needs.
3. **ENCOURAGE WORKPLACE WELLNESS INITIATIVES** through a recognition program for businesses with model policies and practices.
4. **ESTABLISH STATE-LEVEL POLICIES** and supports to promote healthy eating and physical activity for state employees.

OBJECTIVE 3

By 2015, ensure that 50% of Maryland licensed childcare facilities will have policies to promote healthy eating and physical activity.

STRATEGIES

1. **INCORPORATE NUTRITION** and physical activity wellness policy standards in the voluntary Quality Rating Improvement System assessment for licensed childcare in order to measure and track the proportion of licensed childcare facilities meeting Objective 3.
2. **INCLUDE NUTRITION** and physical activity-related educational requirements in childcare-provider credentialing and continuing education.
3. **EXPLORE POTENTIAL STATE POLICIES** for promoting healthy eating and physical activity in licensed childcare, before and after school care programs, and summer camp including maximizing implementation and utilization of the Supplemental Nutrition Assistance Program (SNAP); Supplemental Nutrition Program for Women, Infants, and Children (WIC); Child and Adult Care Food Program; At Risk Afterschool Meals Program; and Summer Food Service Program.

OBJECTIVE 4

By 2015, ensure that 100% of Maryland public school systems will have policies to promote healthy eating and physical activity.

STRATEGIES

1. **RECRUIT SCHOOL LEADERSHIP** to complete an assessment of their wellness policies in order to measure and track the progress of Objective 4.
2. **ENHANCE THE INFRASTRUCTURE** for providing nutrition and physical activity technical assistance to schools.
3. **ENCOURAGE THE IMPLEMENTATION** of school wellness policies through a recognition program for schools with model policies and practices.
4. **ASSESS AND ADDRESS BARRIERS** to implementation of nutrition and physical activity policies in schools.
5. **PROMOTE MAXIMUM IMPLEMENTATION AND UTILIZATION** of subsidized food programs such as School Breakfast and Lunch, SNAP, WIC, Child and Adult Care Food Program, At Risk Afterschool Meals Program, and Summer Food Service Program.

OBJECTIVE 5

By 2015, create policies that promote access to healthy food and opportunities for physical activity in 75% of Maryland jurisdictions.

STRATEGIES

1. **RECRUIT LOCAL CIVIC LEVEL LEADERS** to complete assessments of current policies that promote community health in order to measure and track progress on Objective 5.
2. **IMPLEMENT PROGRAMS** to promote access to healthy foods for high-risk communities (i.e.: virtual supermarkets, healthy corner stores, and use of Electronic Benefits Transfer for WIC, SNAP participants at farmers' markets).
3. **IMPLEMENT PROGRAMS** to promote opportunities for physical activity in high-risk communities with county park and recreation programs.
4. **DEVELOP MODELS AND GUIDELINES** for built environment policies that promote nutrition and physical activity through PlanMaryland, the state's comprehensive plan for growth and development.
5. **ESTABLISH A MECHANISM** to provide nutrition and physical activity technical assistance to local jurisdictions to draft and implement these policies.
6. **ENCOURAGE LOCAL GOVERNMENT** and community-based nutrition and physical activity promotion through a recognition program for local governments and community organizations with model policies and practices.

OBJECTIVE 6

By 2015, implement a communications strategy to encourage Marylanders to be aware of their weight status and steps they can take to achieve a healthy weight.

STRATEGIES

1. **CROSS-PROMOTE CANCER PREVENTION** and health eating, physical activity, and healthy weight messages from public health service providers and community health partnerships.
2. **EXPLORE A METHOD TO COLLABORATE WITH MARYLAND INSURANCE COMPANIES** and the Maryland Insurance Commission to improve/increase provider reimbursement rates for providing evidence-based prevention, assessment, and treatment for children and adults who are overweight and obese.
3. **IMPLEMENT A SOCIAL MARKETING CAMPAIGN** targeting at-risk Marylanders to empower them to take advantage of the policies and programs being implemented throughout Maryland and in local communities that make it easier to make healthier choices.

REFERENCES

1 World Cancer Research Fund/American Institute for Cancer Research (US). Food, nutrition, physical activity, and the prevention of cancer: a global perspective. Washington (DC): AICR; 2007

7 ULTRAVIOLET RADIATION AND SKIN CANCER

Skin cancer is the most commonly diagnosed cancer in the United States, affecting more than 1 million Americans annually and accounting for about 2% of all cancer deaths.[1] There are three major types of skin cancer: basal cell carcinoma, squamous cell carcinoma, and malignant melanoma. Medical professionals agree that exposure to the sun's ultraviolet rays appears to be the most important factor in the development of skin cancer.

Risk Factors

NONMELANOMA SKIN CANCER

- Being exposed to natural sunlight (ultraviolet radiation or UVR) or artificial sunlight (such as from tanning beds) over long periods of time.
- Having a fair complexion, which includes the following:
  - Fair skin that freckles and burns easily, does not tan, or tans poorly.
  - Blue or green or other light-colored eyes.
  - Red or blond hair.
- Having actinic keratosis.
- Having past treatment with radiation.
- Having a weakened immune system.
- Being male.

MELANOMA SKIN CANCER

- Having a fair complexion, which includes the following:
  - Fair skin that freckles and burns easily, does not tan, or tans poorly.
  - Blue or green or other light-colored eyes.
  - Red or blond hair.
- Being exposed to natural sunlight or artificial sunlight (such as from tanning beds) over long periods of time.
- Having a history of many blistering sunburns as a child.
- Having several large or many small moles.
- Having a family history of unusual moles (atypical nevus syndrome).
- Having a family or personal history of melanoma.
- Being white and male.

Burden in Maryland

- The incidence and mortality of melanoma skin cancer has been increasing in Maryland over the last ten years.
- Fifty percent of Maryland counties exceed the national melanoma incidence rate for the time period 2002-2006 by 25% or more.
- Nonmelanoma skin cancer comprises 95% of skin cancers; therefore, they pose a healthcare problem in the state of Maryland.[2]

Disparities

- Heightened incidence and mortality rates of melanoma in some Maryland counties may be attributed to Maryland's diverse geography, ranging from coastlines to mountains, which allows residents to partake in a wide variety of outdoor activities and sun-exposure-based occupations.
- The melanoma mortality rate for Maryland males is more than twice as high as for females. In 2006, the male mortality rate was 4.8 per 100,000 population compared with 1.8 per 100,000 for females.
- Blacks or African Americans have lower five-year survival rates than whites after diagnosis of melanoma (US data only).

Primary Prevention

- Both the American Academy of Dermatology and the American Cancer Society strongly recommend sun avoidance and sun protection as forms of primary prevention of skin cancer.
- Sun-protective measures include avoiding midday sun between the hours of 10:00 a.m. and 4:00 p.m., wearing protective clothing, and applying sunscreen within an SPF of 15 or higher.
- Primary prevention also includes avoiding artificial sources of ultraviolet radiation produced by tanning beds.

GOALS OBJECTIVES STRATEGIES

GOAL 1

Increase awareness of skin safe behaviors.

OBJECTIVE 1

By 2015, increase the proportion of Maryland adults who

- **Can name two sources and two dangers of UV radiation.**
- **Can name three sun-safe behaviors.**
- **Are aware of early detection options for skin cancer.**

STRATEGIES

1. **CONTINUE TO USE MEDIA OUTLETS** such as Web sites; print, radio, and television PSAs; billboards; and press releases to provide messages on sun-safe behaviors, the dangers of ultraviolet radiation, and early detection.
2. **PROMOTE SKIN CANCER PREVENTION AND DETECTION EDUCATION** through community events, health fairs, and continued partnerships with medical, outdoor occupational, and beauty industry members.
3. **PROMOTE MULTIDISCIPLINARY AND CONSISTENT AWARENESS** messages when addressing issues of vitamin D, sunscreen use, and nutrition and physical activity recommendations.
4. **DEVELOP METHODS** for obtaining baseline measurements and monitoring progress on Objective 1, for example:
   - Promote inclusion of questions on awareness of sun-safe behaviors in the Maryland BRFSS.
   - Create/implement a survey to measure awareness of sun-safe behaviors among Maryland adults.

OBJECTIVE 2

By 2015, increase skin cancer prevention and detection education for Maryland healthcare providers and beauty industry providers.

STRATEGIES

1. **COLLABORATE WITH MARYLAND MEDICAL AND BEAUTY INDUSTRY** providers to offer CMEs or other types of training in skin cancer recognition and education of patients on skin cancer prevention and detection.
2. **DISCUSS/PRESENT INFORMATION** on skin cancer prevention and detection at dermatological and other medical and nursing association conferences.
3. **FORM PARTNERSHIPS** with researchers to increase the number of written publications on skin cancer prevention and detection.
4. **DEVELOP METHODS** to obtain baseline measurement and monitor progress on Objective 2. For example, conduct a statewide assessment of educational opportunities available to and participated in by healthcare providers.

OBJECTIVE 3

By 2015, increase the proportion of childcare facilities, schools, and youth-focused organizations that provide education on skin safety to Maryland children and adolescents.

STRATEGIES

1. **PROMOTE/INTEGRATE THE USE** of sun safety educational curricula in elementary and middle schools through Web sites, mass media, and community events.
2. **EDUCATE CHILDCARE PROVIDERS** on sun-safe behaviors and the dangers of ultraviolet radiation for children and adolescents through in-person trainings, Web sites, mass media, and community events.
3. **FORM PARTNERSHIPS** with youth service, recreation, and sports organizations such as Girl Scouts, 4H, Little League, swimming leagues, etc. to provide opportunities for education on skin cancer prevention.
4. **CREATE/IMPLEMENT SURVEYS** of childcare facilities, schools, and youth-focused organizations regarding their use of educational curricula on sun safety.

GOAL 2

Increase the utilization of skin safe behaviors.

OBJECTIVE 1

By 2015:

- **Increase the percentage of Maryland adults to 44% who always or nearly always do at least two of the following (2006 Baseline: 36%):**
  - **Limit sun exposure between 10:00 a.m. and 4:00 p.m.**
  - **Use sunscreen with SPF of 15 or higher when outdoors for an hour or more on a sunny day.**
  - **Wear a hat with a broad brim when outdoors for an hour or more on a sunny day.**
  - **Wear sun-protective clothing when outdoors for an hour or more on a sunny day.**

  Source: Maryland BRFSS.
- **Increase the percentage of Maryland children (under age 13) who always or nearly always use sun-protection measures (including sunscreen and protective clothing) to 73% (2006 Baseline: 68%).**
  Source: Maryland BRFSS.

STRATEGIES

1. **ENCOURAGE FUNDING** for the building of covered structures and implementing signage at public beaches and parks reminding people to wear sunscreen.
2. **DEVELOP PROGRAMS** encouraging sun-safe behaviors for outdoor workers.
3. **DECREASE THE USE OF TANNING BEDS** while promoting alternate, safe sunless tanning options.
4. **INCREASE THE USE OF SUN-PROTECTIVE METHODS** for outdoor activities.
5. **REQUEST THE ADDITION OF QUESTIONS** on the Maryland Behavioral Risk Factor Surveillance Survey regarding avoiding artificial UVR, and on the Maryland Youth Risk Behavior Surveillance System regarding the use of sun-safe behaviors (as listed in Objective 1) along with avoiding artificial UVR.

OBJECTIVE 2

By 2015, decrease the percentage of Maryland minors who use artificial sources of ultraviolet light (i.e., tanning beds).

STRATEGIES

1. **INCREASE AWARENESS** of the Maryland law regarding parental consent for minors' use of tanning beds.
2. **ENSURE CONTINUED DISSEMINATION** of the DHMH Parental Consent Form for minors to use tanning booths.
3. **MODEL LEGISLATION** in Maryland based on the Howard County policy that prohibits minors from using tanning beds.
4. **REQUEST THE ADDITION OF QUESTIONS** on the Maryland Behavioral Risk Factor Surveillance Survey and the Maryland Youth Risk Behavior Surveillance Survey regarding tanning bed use by minors.

OBJECTIVE 3

By 2015, improve the early detection of skin cancer by increasing the percentage of melanoma cancers in Maryland diagnosed at the local stage to 74.1% (2006 Baseline: 59.1%).

Source: Maryland Cancer Registry.

STRATEGIES

1. **DECREASE THE NUMBER** of unstaged melanoma cases reported in the Maryland Cancer Registry in order to obtain more accurate data of melanoma stage at diagnosis.
2. **ENCOURAGE RESEARCH** on skin cancer detection, stage, mortality, and morbidity.

REFERENCES

1 American Cancer Society. Cancer facts & figures 2009. Report. Atlanta (GA): The Society; 2009.

2 Ibid.

8 ENVIRONMENT/ OCCUPATIONAL ISSUES AND CANCER

The relationship between cancer and environmental and occupational factors is complex. Some hazards are well-known causes of cancer; in other cases, the relationship between occupational or environmental exposures, and any specific type of cancer, may be very much in question. This summary outlines the current state of knowledge regarding environmental and occupational hazards and cancer, and also highlights the roles that cancer surveillance and research contribute to either improved understanding or improved management/prevention of cancer related to environmental and occupational factors.

Occupational Hazards

- There has been improvement in the control of many occupational chemical exposures, but exposures to carcinogens in many industries remain.
- Patterns of employment have changed, but there is still a need for surveillance for occupational cancer, as well as collection and analysis of information about both current and former employment as potential risk factors.

Outdoor Air Pollution

- Air pollution is a complex mixture of chemicals, many of which are known or suspect carcinogens, from a variety of mobile (mainly vehicles) and stationary (factories) sources.
- It is difficult to calculate the risks associated with individual chemical hazards in air, so risks are estimated using models such as the US Environmental Protection Agency's National-Scale Air Toxics Assessment. However, these are only estimates, and there is a need for more detailed monitoring in certain areas of the state (including the Eastern and Western regions).

Waterborne Exposures

- Drinking water can contain contaminants that occur naturally, are manmade, or are formed when water is disinfected to make it suitable for drinking.
- Contaminants can also be concentrated in aquatic species such as fish, which can be another potential source of exposure.
- While public water supplies are well regulated, private drinking water wells are generally not subject to the same regulations or testing requirements.

Foodborne Hazards

- The sources of carcinogens in food may be naturally occurring (such as mycotoxins; that is, toxins from fungi) or related to human activity (such as industry, agricultural practices, food cooking methods, food additives, and food preservation).
- Only a limited number of chemicals in food have been adequately assessed as to their cancer-causing potential.

Physical Agents

- Physical agents include radiation (such as radon, ultraviolet radiation from sun exposure, and personal radiation from medical imaging technologies) and particles such as asbestos.
- The EPA estimates that radon is the most important risk factor for lung cancer in people who do not smoke, so measuring and eliminating radon is very important.
- There is increasing concern about cancers related to sunlight exposure (ultraviolet radiation), including melanoma and basal and squamous cell carcinomas.

Household/Personal Exposures

- Indoor air pollution is a mixture of pollutants entering from the outdoors and those from sources within the home.
- Indoor sources of potential carcinogens include building materials, furniture, household cleaning products, and sources of combustion gases such as wood stoves and fireplaces.

Data Sources and Research

- Research and data collection are essential for understanding and reducing cancer from exposure to carcinogens in the environment and workplace.
- Use of cancer surveillance data for evaluating environmental causation or association is challenging for a number of reasons:
  - Cancer is usually caused by more than one factor, including a combination of genetics, environment, and personal lifestyle factors.
  - Cancer has a long incubation period (latency) from initiation (the starting event) to the development symptoms and disease.
  - Cases are classified by their address at diagnosis, rather than where they lived when

they might have been exposed to particular environmental agents.
- Environmental exposures may occur at a place of work; however, occupational information is often missing in cancer registries.
- Personal risk factors such as tobacco use, body mass index, diet source/composition, water source/intake, exercise, UV exposure, prior screening for cancer, etc., are typically not collected by cancer surveillance systems.
- Some cancers are often diagnosed in an outpatient setting, particularly skin cancer and urologic cancers. This limits the reporting of full data on these cancers to state registries.

GOALS OBJECTIVES STRATEGIES

GOAL 1

Reduce cancer incidence in Maryland by minimizing exposures to known environmental and occupational carcinogens.

OBJECTIVE 1

By 2015, identify a limited set of up to five priority hazards to address during the course of the cancer plan.

STRATEGIES

1. **UTILIZE EXISTING DATA** on environmental hazards from multiple sources to identify the priority hazards based on the following criteria: known hazards, population potentially exposed, public health impact, vulnerability of the exposed populations, environmental justice considerations.
2. **DEVELOP A STRATEGY** to reduce exposures to these priority hazards by 2015.

OBJECTIVE 2

By 2015, develop and implement within state regulatory agencies a coordinated approach to reduce the priority hazards.

1. **INVENTORY STATUTES, REGULATIONS, AND NON-REGULATORY MECHANISMS** related to the priority hazards and examine them for regulatory gaps and non-regulatory opportunities available to Maryland.

OBJECTIVE 3

By 2015, create state policies that address levels of risk, disparities, community vulnerability, and the precautionary principle* when addressing environmental and occupational factors in cancer.

STRATEGIES

1. **COLLABORATE WITH APPROPRIATE AGENCIES** and councils to establish specific goals within existing state agencies to move the agencies to explore relationships between environment, occupation, and cancer.
2. **PUBLIC HEALTH AND ENVIRONMENTAL AGENCIES** will develop educational messages and outreach, in conjunction with academic partners, targeted towards improving public understanding of the complex relationship(s) between environmental/occupational factors and cancer.

GOAL 2

Improve Maryland-specific data and strengthen research and education related to environmental and occupational factors and cancer.

OBJECTIVE 1

By 2015, create more integrated state systems for the surveillance and prevention of environmental and occupational carcinogen exposures and outcomes.

STRATEGIES

1. **COLLABORATE WITH APPROPRIATE AGENCIES** and councils to develop a strategy related to how healthcare reform and the institution of health information exchanges may affect current surveillance efforts.
2. **COLLABORATE WITH APPROPRIATE AGENCIES** and councils to identify priorities for data related to environmental and occupational factors and cancer in all of its surveillance systems including vital records, the Maryland Cancer Registry, death certificates, and the new occupational disease surveillance program at DHMH.

OBJECTIVE 2

By 2015, develop a state strategy on education and outreach associated with environmental and occupational factors and cancer.

STRATEGIES

1. **IMPROVE AND PROMOTE THE USE OF DATA PRESENTATION TOOLS** such as Environmental Public Health Tracking, the Maryland Assessment Tool for Community Health, and other systems that allow the public and decision-makers to better understand the complex relationship(s) between environmental and occupational factors and cancer.
2. **PROMOTE STATE AGENCY EDUCATION** and outreach aimed at improving public understanding of relationships between exposures and associated health outcomes.

** Precautionary Principle: When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. (1998 Wingspread Consensus Statement on the Precautionary Principle)*

9 COLORECTAL CANCER

Cancer of the colon and rectum, called colorectal cancer (CRC), is the second leading cause of cancer deaths and the third most common cancer in both men and women in Maryland and in the US. CRC incidence and mortality rates have decreased over the past eight years in Maryland and CRC screening has increased. Significant progress has been made due in part to local, state, and national efforts.

Risk Factors

- Age: Of the 2,322 cases of CRC diagnosed in Maryland in 2006, 88.3% were diagnosed in people ages 50 years or older.
- Family history: Family history of CRC or adenomas increases a person's risk of CRC.[1]
- Personal history: Those with a history of CRC, familial adenomatous polyposis, hereditary non-polyposis colon cancer, adenomas, hyperplastic polyposis, inflammatory bowel disease (ulcerative colitis or Crohn's colitis), or women with prior ovarian or endometrial cancer before age 50 are at an increased risk.
- Other lifestyle factors: Diets high in total fat and meat, sedentary lifestyle, physical inactivity (some studies), and cigarette smoking increase the risk for CRC.

Burden in Maryland

- In 2006, 2,322 Marylanders were diagnosed with CRC and 1,105 persons died of CRC.
- From 1999 to 2006, age-adjusted incidence and mortality rates have declined in Maryland.
- In 2006, 36.9% of CRC cases in Maryland were reported as local stage at the time of diagnosis, 34.2% were regional stage, 17.4% were distant stage, and 11.5% were unstaged.

Disparities

- Blacks or African Americans have a higher rate of incidence, higher mortality, a higher percentage of their tumors reported in late stage, and a shorter five-year survival rate after diagnosis than do whites.
- Marylanders who are ages 50 to 64 and those with low income, less education, or without health insurance are less likely to be up-to-date with CRC screening by any method.

Early Detection and Barriers

- CRC screening is important for those who are ages 50 and older and those of any age who are at increased risk.
- Many of the barriers to screening for CRC may be overcome through evidence-based strategies that have been demonstrated as effective. Major barriers to screening include:
  - Lack of knowledge about CRC risk factors and screening recommendations.
  - No source of routine medical care (lack of a "medical home").
  - Failure of a healthcare provider to recommend CRC screening.
  - Cost of screening for the uninsured or cost of co-pays and deductibles for those with insurance.
  - Inability to take time off from work or lack of transportation.
  - Fear of the procedure or fear of knowing the screening results.
  - Misconception that cancer is a uniformly fatal diagnosis and that screening is therefore not useful.
  - Lack of consistent message by provider about the screening recommendations and follow-up.
  - Lack of provider knowledge about best practices of CRC screening.
  - Insufficient number of providers for sigmoidoscopy or colonoscopy in some areas of Maryland.
  - Language and cultural barriers in some provider offices.
  - Limited number of providers who accept uninsured patients or patients who have Medical Assistance or Medicare.
  - Lack of access to medical care.
  - Insufficient funding to pay for diagnosis and treatment for all people with CRC who do not have health insurance coverage.
  - Limited availability of endoscopists in underserved areas.

GOALS OBJECTIVES STRATEGIES

GOAL 1

Reduce colorectal cancer incidence and mortality.

TARGETS (2015)

INCIDENCE	**29.4 per 100,000** **(2006 Baseline: 41.3 per 100,000)** Source: Maryland Cancer Registry.
MORTALITY	**11.0 per 100,000** **(2006 Baseline: 18.4 per 100,000)** Source: CDC WONDER.

OBJECTIVE 1

By 2015, increase the percentage of Marylanders ages 50 years and older who are up-to-date with screening per ACS/Multi Society Task Force guidelines to 80%. (2008 Baseline: 73%)
Source: Maryland Cancer Registry.

STRATEGIES

1. **PROVIDE TARGETED EDUCATIONAL INFORMATION** to the public regarding CRC screening recommendations (including but not limited to primary care provider offices, pharmacies, public locations).
2. **CONVENE A "BENEFITS UTILIZATION" WORKGROUP/ SUBCOMMITTEE** to devise and oversee implementation of a plan for CRC screening benefits utilization, including encouraging insurers in Maryland to promote benefit utilization and the insured to utilize their benefits.
3. **INCREASE THE PROPORTION OF PRIMARY CARE PROVIDERS** and specialists who utilize evidence-based approaches such as physician recommendation for screening, client reminders, and chart review to identify patients appropriate for screening (recalling patients for screening and surveillance testing to increase CRC screening in their practices).
4. **REDUCE BARRIERS TO CRC SCREENING** by utilizing strategies that
   - Facilitate primary care referral to specialists for screening.
   - Facilitate screening by use of patient navigators, community health workers, or lay health advisors.
   - Encourage improved coordination between primary care providers and specialists to increase patient convenience, assure completion of endoscopy screening, and promote sharing of results with primary care practitioners.
5. **MAINTAIN PUBLIC HEALTH FUNDING** for CRC screening for low-income and uninsured Marylanders (e.g., funding from the Cigarette Restitution Fund, the Maryland Cancer Fund, and the Centers for Disease Control and Prevention).

OBJECTIVE 2

By 2015, increase the percentage of Marylanders receiving site- and stage-appropriate treatment for CRC.
Source: Maryland Cancer Registry.

STRATEGIES

1. **EDUCATE PRIMARY CARE PROVIDERS** to refer patients initially diagnosed with CRC to high-volume surgeons and centers that have multidisciplinary cancer treatment teams, when possible.
2. **DECREASE THE NUMBER OF UNSTAGED CRC CANCER REPORTED** to the Maryland Cancer Registry (MCR).
3. **DEVELOP METHODS** to measure "site- and stage-appropriate treatment."
4. **ANALYZE EXISTING MCR DATA** and present findings to the DHMH CRC Medical Advisory Committee to arrive at a consensus definition of "site- and stage-appropriate treatment."
5. **MEASURE THE PERCENTAGE** of all CRC patients reported to the MCR who are reported from hospitals with multidisciplinary teams.

OBJECTIVE 3

By 2015, improve provider adherence to the following recommendations:

- **Colonoscopists: Follow national guidelines for colonoscopy CRC screening intervals.**
- **Colonoscopists: Report colonoscopy results using Colonoscopy Reporting and Data Standards (CoRADS).**
- **Pathologists: Report colon/rectum pathology results (including high-grade dysplasia, serrated lesions, number of nodes, and positive nodes on resection specimens) according to national guidelines.**

STRATEGIES

1. **DEVELOP METHODS** to measure adherence to standards and national guidelines.
2. **EDUCATE ENDOSCOPISTS** through nurse managers at endoscopy centers/units on national guidelines for CRC screening/surveillance colonoscopy intervals and on the use of the Colonoscopy Reporting and Data System (CoRADS).
3. **EDUCATE PRIMARY CARE PROVIDERS** (PCPs) about CoRADS so that PCPs expect to receive colonoscopy reports on their patients that follow CoRADS.
4. **ENCOURAGE QUALITY ASSURANCE MONITORING** of colonoscopy by hospitals and ambulatory surgical centers.
5. **EDUCATE PATHOLOGISTS** on national guidelines and consensus standards for identifying lymph nodes in CRC surgical specimens and for reading neoplastic lesions in the colon and rectum.

OBJECTIVE 4

By 2015, among those 18 years and older in Maryland, decrease the prevalence of risk factors for cancer, including CRC, such as smoking, obesity, low physical activity, and diets low in vegetables and fruits.

See the Nutrition, Physical Activity, and Healthy Weight, Tobacco-Use Prevention/Cessation, and Lung Cancer chapters for specific objectives and strategies.

GOAL 2

Reduce disparities in the incidence and mortality of CRC.

INCIDENCE TARGETS (2015)

WHITE	29.5 per 100,000 (2006 Baseline: 40.2 per 100,000)
BLACK	32.0 per 100,000 (2006 Baseline: 42.7 per 100,000)
MALE	31.2 per 100,000 (2006 Baseline: 48.1 per 100,000)
FEMALE	28.2 per 100,000 (2006 Baseline: 36.2 per 100,000)

Source: Maryland Cancer Registry.

MORTALITY TARGETS (2015)

WHITE	11.1 per 100,000 (2006 Baseline: 17.6 per 100,000)
BLACK	13.5 per 100,000 (2006 Baseline: 22.7 per 100,000)
MALE	13.8 per 100,000 (2006 Baseline: 21.8 per 100,000
FEMALE	9.0 per 100,000 (2006 Baseline: 16.1 per 100,000)

Source: CDC WONDER.

OBJECTIVE 1

By 2015, increase the rates of up-to-date CRC screening for the following groups age 50 and older:

BLACK OR AFRICAN AMERICAN FEMALE	80% or higher* (2008 Baseline: 75%)
WHITE FEMALE	80% or higher* (2008 Baseline: 73%)
BLACK OR AFRICAN AMERICAN MALE	80% or higher* (2008 Baseline: 68%)
WHITE MALE	80% or higher* (2008 Baseline: 76%)

Source: MD BRFSS.

**Target of 80% was determined based on the overall goal of 80% CRC screening rates in the CDC Colorectal Cancer Control Program.*

STRATEGIES

1. **ENCOURAGE HEALTHCARE PROVIDERS** and health departments to present and distribute targeted age/literacy/culturally appropriate information regarding CRC screening recommendations.
2. **LINK POPULATIONS** without primary care providers to sources of preventative care.
3. **SUPPORT UNIVERSAL HEALTH CARE COVERAGE** that includes the benefit of CRC screening.
4. **EDUCATE TARGET POPULATIONS** by working through primary care providers that serve the uninsured, emergency departments, as well as faith-based, community, and civic/social/service organizations (e.g., sororities, fraternities, Rotary Club).
5. **UTILIZE NONTRADITIONAL METHODS** such as navigators, community health workers, and lay health advisors to educate target populations.
6. **ENCOURAGE PRIMARY CARE PROVIDERS** to refer insured patients for screening and to refer uninsured patients to publicly funded CRC screening programs.

OBJECTIVE 2

By 2015, produce an epidemiology report of CRC data highlighting CRC disparities including differences in histology, site in the colon, stage at diagnosis, and treatment by race, gender, and age.

STRATEGIES

1. **OUTLINE THE CONTENT** of the report and the sources of data.
2. **PRODUCE AND DISTRIBUTE** the report.

REFERENCES

1 Lynch HT, de la Chapelle A. Hereditary CRC. N Engl J Med. 2003 Mar 6;348(10): 919-32.

10 BREAST CANCER

Breast cancer is a broad term for many different types of breast cancer. The most common type, ductal carcinoma, makes up 70% to 80% of the breast cancer that occurs, followed by lobular carcinoma. Breast cancer may present as in situ cancer, meaning that the cells do not invade the local tissue, or present as invasive forms of breast cancer where the cancer cells have begun to invade the local breast tissue. Across the continuum of cancer control from prevention to end-of-life care, there are many opportunities to apply interventions that will lead to decreased incidence, mortality, and morbidity from breast cancer. The panel continues to support ongoing efforts in screening and treatment and recommends strategies to continue to reduce the burden of breast cancer in the state of Maryland.

Established Risk Factors

- Age.
- Family history of breast cancer, especially in close relatives with an early age at diagnosis.
- Nodular densities on the mammogram involving most of the breast tissue (dense breast tissue often described as "heterogeneously dense.")
- Breast biopsy showing atypical hyperplasia.
- Early age at menarche.
- Late age at menopause.
- Late age at first birth (>30).
- Radiation to chest, especially at early ages.
- Being overweight or obese after menopause.
- High socioeconomic status.
- Drinking one to two alcoholic beverages every day.

Burden in Maryland

- Since 1999, breast cancer incidence rates have declined in Maryland as well as nationally among all races. The overall age-adjusted breast cancer incidence rate for Maryland in 2006 was 112.8 per 100,000 women compared to 120.8 per 100,000 women nationally.
- Mortality rates from breast cancer have been decreasing nationally as well as in Maryland. For 2006, the Maryland mortality rate was 25.0 per 100,000 and the national mortality rate was 23.5 per 100,000.

Disparities

- White women ages 45 and over have consistently higher age-specific incidence rates than black or African American women. Between the ages of 20 and 44, black or African American women have higher incidence rates than white women.
- Although breast cancer mortality is declining in Maryland among all race groups, declines are less among blacks or African Americans than whites. Black or African American women continue to have significantly higher breast cancer mortality rates compared to white women, both nationally and in Maryland.

Continuum of Cancer Control

- **PREVENTION:** Estimating a woman's risk of developing breast cancer, based on her personal risk factor profile, should be a part of routine primary care so that tailored prevention recommendations can be made.
- **EARLY DETECTION:** Mammography and clinical breast examination are the primary methods of screening for breast cancer for the general population of women 40 years and older. In 2008, 77% of Maryland women ages 40 and older reported having a mammogram in the past two years.
- **DIAGNOSIS:** Once an abnormality is detected, additional testing is needed to make the appropriate diagnosis.
- **TREATMENT OPTIONS:** Choosing the optimum treatment is best achieved by a multidisciplinary approach including surgery, medical oncology, radiation oncology, nursing, and the patient.
- **SURVIVORSHIP:** To improve the health-related quality of life of cancer patients, the Institute of Medicine recommends that all patients have a Survivorship Care Plan as part of standard care.
- **PALLIATIVE AND HOSPICE CARE:** While metastatic breast cancer is not curable, long-term survival is still possible with treatment. Treatment is available with the goals of both relief of symptoms and extension of life.

GOALS OBJECTIVES STRATEGIES

GOAL 1

Reduce the incidence of breast cancer in Maryland.

TARGETS (2015)

OVERALL	96.5 per 100,000 (2006 Baseline: 112.8 per 100,000)
BLACK OR AFRICAN AMERICAN	97.7 per 100,000 (2006 Baseline: 109.7 per 100,000)
WHITE	97.7 per 100,000 (2006 Baseline: 115.0 per 100,000

Source: Maryland Cancer Registry.

OBJECTIVE 1

By 2015, improve healthy behaviors of Marylanders including decreasing the number of women who are overweight or obese and increasing physical activity.

See the Nutrition, Physical Activity, and Healthy Weight chapter for specific objectives and strategies.

OBJECTIVE 2

By 2015, increase the proportion of Maryland women breastfeeding to reach the following targets:

- **Increase the percentage ever breastfed to 85% (2006 Baseline: 75%).**
- **Increase the percentage breastfeeding at six months to 67% (2006 Baseline: 46%).**
- **Increase the percentage breastfeeding at 12 months to 42% (2006 Baseline: 26%).**

Source: CDC National Immunization Survey.

STRATEGIES

1. **SUPPORT WORKPLACE INITIATIVES** to encourage continued breastfeeding after return to work.
2. **INCREASE AWARENESS AND SUPPORT** the implementation of legislation requiring employers with more than 50 employees to provide break time and facilities (other than the bathroom) for breast pumping at work.
3. **ENCOURAGE THE ADOPTION** of the Ten Steps to Successful Breastfeeding (outlined by UNICEF/WHO) by Maryland hospitals.

OBJECTIVE 3

By 2015, incorporate breast cancer risk assessment as a part of routine healthcare for all women and conduct appropriate risk-based counseling for breast cancer prevention and screening.

STRATEGIES

1. **ASSESS THE NUMBER OF WOMEN COUNSELED** regarding their risk of breast cancer through surveys such as the Behavioral Risk Factor Survey or Maryland Cancer Survey to establish a baseline and appropriate target goals.
2. **DISSEMINATE AVAILABLE TOOLS** for cancer risk assessment to primary healthcare providers to assist in determining who is at risk.
3. **PROMOTE COVERAGE** for and increase awareness of individual counseling for risk reduction strategies (lifestyle factors such as weight management and exercise, genetic counseling and testing when appropriate, chemoprevention, avoiding or reducing combination hormone therapy after menopause, risk-reducing surgery, minimizing radiation exposure, and other strategies as they develop).

GOAL 2

Reduce the morbidity and mortality from breast cancer in Maryland.

MORTALITY TARGETS (2015)

OVERALL	22.0 per 100,000 (2006 Baseline: 25.0 per 100,000)
BLACK OR AFRICAN AMERICAN	25.1 per 100,000 (2006 Baseline: 30.3 per 100,000)
WHITE	20.7 per 100,000 (2006 Baseline: 23.7 per 100,000)

Source: CDC WONDER.

OBJECTIVE 1

By 2015, increase the percentage of females in Maryland ages 40 and above who have received a mammogram in the past two years to greater than 77% (2008 baseline: 77%).

Source: MD BRFSS.

STRATEGIES

1. **PROMOTE ADEQUATE FUNDING** for screening mammography:
   - Support universal healthcare that includes breast cancer screening services.
   - Maintain the Breast and Cervical Cancer Program for uninsured and underinsured women.
   - Maintain mandatory insurance coverage and no co-pays for screening mammography.
2. **INCORPORATE SYSTEM CHANGES** in healthcare provider settings that automatically order annual mammography for women 40 and older.
3. **SUPPORT POLICIES** that allow work-time release to obtain cancer-screening services (as was done for Baltimore City employees).
4. **REMOVE BARRIERS TO SELF-REFERRAL** for women 40 and older to obtain annual mammography and employ strategies such as direct-to-consumer advertising, mobile mammography services, and others to reach underserved individuals and ensure adequate follow-up.

OBJECTIVE 2

By 2015, ensure that all individuals are promptly diagnosed within 60 days of abnormal screening and receive appropriate surgical (including breast reconstruction) options and adjuvant therapy treatment according to national guidelines (e.g., CDC, NCCN guidelines).

STRATEGIES

1. **ESTABLISH THE BASELINE RATES** of individuals receiving diagnosis within 60 days and adherence to guidelines for prescribed treatment, and monitor/report primary treatment patterns using Maryland Cancer Registry and/or hospital tumor registries.
2. **REDUCE THE NUMBER OF BREAST CANCERS** that are reported as unstaged in the Maryland Cancer Registry:
   - Decrease the number of death-certificate-only and/or lab-only reports.
   - Determine and support the use of sentinel node biopsy as part of the staging procedure.
   - Ensure that all women undergo appropriate staging procedures per national guidelines (e.g., American College of Surgeons guidelines).
3. **INCLUDE "AMOUNT OF TIME TO DIAGNOSIS"** and "breast cancer treatment" as part of quality indicators that are publicly reported.
4. **ENCOURAGE THE DEVELOPMENT** of patient navigator/case manager programs to serve all patients, especially low-income populations, in order to ensure that patients have access to necessary services.
5. **IMPROVE THE NUMBER OF PATIENTS** participating in clinical trials by improving access throughout the state and increasing the provider network offering clinical trials.

OBJECTIVE 3

By 2015, ensure that all patients have a survivorship care plan as part of routine care and have adequate access to supportive care for pain and other symptom management for those living with, through, and beyond cancer.

STRATEGIES

1. **ASSESS THE NUMBER OF PATIENTS** who receive survivorship care plans and supportive care for pain/symptom management through patient and provider survivors in order to establish a baseline and measure progress.
2. **ESTABLISH MINIMAL CLINICAL ELEMENTS** for survivorship, pain management, and palliative and hospice care.
3. **IMPROVE THE ASSESSMENT AND TREATMENT** of pain and other symptom management by including assessments at each follow-up visit and incorporating systemic methods to trigger appropriate follow-up and treatment (including access to psychological services and palliative and hospice care if needed).

See the Patient Issues and Cancer Survivorship, Pain Management, and Palliative and Hospice Care chapters for additional specific objectives and strategies.

11 PROSTATE CANCER

Prostate cancer is the uncontrolled growth and invasion of malignant prostate cells. The prostate is a small gland located beneath the bladder and in front of the rectum. It surrounds the uretha, which is the tube that empties urine from the bladder. Only men have a prostate. It is part of the reproductive system. Prostate cancer is the most commonly diagnosed non-skin cancer and it is the second cause of cancer death after lung cancer in US men.

Risk Factors

- Non-modifiable: It has long been known that older men, men who have relatives with prostate cancer, and black or African American men and other men of African ancestry have a higher risk of prostate cancer compared to white men.
- Modifiable: There are no well-established risk factors for prostate cancer that men can change to reduce their risk of developing it. Smoking, obesity, and poor diet are leading causes of cardiovascular disease and other cancers in men and women. Therefore, preventing people from starting smoking and from gaining weight, intervening so that people can stop smoking and lose weight, and advocating a balanced diet are important strategies for good health in general, and also may be beneficial for developing or dying from prostate cancer.

Burden in Maryland

- The age-adjusted prostate cancer incidence rate in Maryland in 2006 was 153.9 per 100,000 men; this rate is similar to the 2006 US SEER age-adjusted prostate cancer incidence rate of 154.0 per 100,000 men.
- The age-adjusted mortality rate in Maryland in 2006 was 26.3 per 100,000 men; this rate is slightly higher than the US SEER age-adjusted prostate cancer mortality rate of 23.5 per 100,000 men.
- Prostate cancer mortality rates have been declining in the US, including in Maryland, since the mid-1990s.

Disparities

- Black or African American men in Maryland are more likely to be diagnosed with prostate cancer and more likely to die of prostate cancer than white men in Maryland.

Primary Prevention

- Preventing people from starting smoking and from gaining weight, intervening so that people can stop smoking and lose weight, and advocating a balanced diet are important strategies for good health in general, and also may be beneficial for developing or dying from prostate cancer.

Early Detection

- A blood test called the prostate-specific antigen (PSA) test, and a physical examination call the digital-rectal examination (DRE), are two tests to screen for prostate cancer.
- Recommendations for prostate cancer screening vary by organization, but many recommend that men discuss the benefits and risks of prostate cancer screening with a physician before deciding whether or not to be screened. In addition, many groups recommend against screening men who are older than 75 years of age or whose expected remaining lifespan is less than ten years.

Diagnosis and Treatment

- Men with an abnormal screening PSA test and/or an abnormal screening DRE may have a prostate biopsy to determine whether prostate cancer is present.
- Treatment for prostate cancer may involve surgery, radiation therapy, or hormonal therapy. Each treatment for prostate cancer has risks, including impotence (erectile dysfunction), urinary incontinence, and bowel problems, such as diarrhea or rectal bleeding.
- Treatment options may depend on a man's age, overall health, and whether the cancer has grown outside of the prostate and spread elsewhere. For some men, the risks and possible side effects of surgery and radiation therapy may outweigh the possible benefits, and they may choose to be monitored by their doctor and be treated only if additional biopsies indicate that the disease has worsened (referred to as watchful waiting, active surveillance, and/or expectant management).

GOALS OBJECTIVES STRATEGIES

GOAL 1

Reduce morbidity related to the detection and management of prostate cancer in Maryland men.

OBJECTIVE 1

By 2015, increase the proportion of men 40 years and older who report having had a discussion with their healthcare provider about prostate cancer screening to 74% (2008 Baseline: 64%).

Source: Maryland Cancer Survey.

STRATEGIES

1. **EDUCATE MEN AND THEIR FAMILIES AND FRIENDS** through public service announcements, Web sites, printed materials, etc. about the risks and benefits of prostate cancer screening and encourage them to discuss whether prostate cancer screening is right for them with their primary care provider or urologist.
2. **EDUCATE PROVIDERS** with updated information about the potential benefits and problems of prostate cancer screening.
3. **DEVELOP STRATEGIES FOR MONITORING** Objective 1, including:
   - Promote inclusion of questions about prostate cancer screening on the Maryland BRFSS.
   - Identify sources of funding for future Maryland Cancer Surveys and include questions about prostate cancer screening.
   - Encourage state-funded or other healthcare systems to monitor adherence to prostate cancer screening guidelines via electronic medical records systems.
4. **REDUCE THE NUMBER OF MEN BEING SCREENED** for prostate cancer past age 75.

OBJECTIVE 2

By 2015, use Web sites, printed materials, and other media to educate Maryland men who have been diagnosed with prostate cancer and their families and friends about prostate cancer treatment options.

STRATEGIES

1. **EDUCATE MEN RECENTLY DIAGNOSED** with prostate cancer and their families and friends through Web sites, printed materials, and other media about evidence-based treatment options, including active surveillance. Include information about how and why treatment options vary by the stage and grade of the man's disease and age. Encourage them to discuss treatment options and accompanying risks and benefits with their doctor (or doctors if the men choose to have a second opinion or attend a multidisciplinary clinic).
2. **EDUCATE MEN RECENTLY DIAGNOSED** with prostate cancer and their families and friends through Web sites, printed material, and other media about prostate cancer staging and grading (Gleason score) and how this information is used by doctors, in part, to determine treatment options for a given patient.
3. **EXPLORE THE POSSIBILITY** of insurance companies in Maryland sending an educational pamphlet about prostate cancer treatment options to men with a pathologically confirmed diagnosis of prostate cancer.
4. **DEVELOP A CLEARINGHOUSE** Web site to point men to information on treatment options.
5. **SET UP AND ENCOURAGE MEN TO REGISTER** on a Web site that will provide them updated information on screening and treatment options.

OBJECTIVE 3

By 2015, increase the information available on overall well being for men recently diagnosed with prostate cancer and men who have survived prostate cancer.

STRATEGIES

1. **INFORM MEN AND THEIR FAMILIES AND FRIENDS** at the time of diagnosis about the availability of support and survivorship groups.
2. **EDUCATE MEN, INCLUDING MEN DIAGNOSED WITH PROSTATE CANCER,** about the major causes of death in the US and how to reduce their risks of premature death through dietary and lifestyle modification and medical care.

GOAL 2

Continue to reduce the prostate cancer mortality rate in Maryland men.

TARGET (2015)

MORTALITY	**14.9 per 100,000** **(2006 Baseline: 26.3 per 100,000)** Source: CDC WONDER.

OBJECTIVE 1

By 2015, increase the percentage of Maryland men receiving appropriate treatment for prostate cancer.

STRATEGIES

1. **DEVELOP METHODS TO MEASURE APPROPRIATE TREATMENT,** including by modifying cancer registry reporting criteria.
2. **INCREASE ACCESS TO APPROPRIATE TREATMENT** based on stage, grade, and other patient-specific characteristics, such as co-morbidities.
3. **IMPROVE TREATMENT ADHERENCE** for men diagnosed with prostate cancer through enhanced efforts to care for uninsured and underinsured men and increased availability of patient navigation.
4. **REDUCE THE PREVALENCE** of unstaged prostate cancer cases by continuing to modify cancer registry criteria for staging of early disease, by encouraging complete reporting from hospitals, doctors, and independent pathology groups, and by ensuring adequate patient staging, which is needed to make treatment decisions.

OBJECTIVE 2

By 2015, reduce the disparity in prostate cancer mortality rates between black or African American and white men to reach the following targets:

WHITE	**12.4 per 100,000** **(2006 Baseline: 21.7 per 100,000)**
BLACK OR AFRICAN AMERICAN	**23.0 per 100,000** **(2006 Baseline: 51.2 per 100,000)**
	Source: Maryland Vital Statistics.

STRATEGIES

1. **UTILIZE PATIENT NAVIGATORS,** community health workers and case managers to increase access to appropriate treatment (based on stage, grade, and other patient-specific characteristics).
2. **IMPROVE THE QUALITY OF AND ADHERENCE TO TREATMENT** for black or African American men diagnosed with prostate cancer through enhanced efforts to reach underserved populations and increased availability of patient navigators.

OBJECTIVE 3

By 2015, create and maintain a Web site to educate Marylanders, including men diagnosed with and surviving prostate cancer, about ongoing research on risk factors for prostate cancer incidence and mortality, explanations for the racial disparity in these rates, screening, prognosis, treatment, and survivorship.

1. **DETERMINE WHICH GROUPS** are best able to develop and maintain the Web site and identify funding to do so.

12 ORAL CANCER

Oral cancer is cancer of the mouth and surrounding tissues. It includes the lips, inside lining of the lips and cheeks (buccal mucosa), gingiva (gums), tongue, floor of the mouth below the tongue, hard palate (roof of the mouth), and the area behind the wisdom teeth called the retromolar trigone. Oral cancer also includes the oropharynx (base of the tongue), soft palate (roof of the mouth behind the hard palate), tonsils, and sides and back wall of the throat.

Risk Factors

- **TOBACCO AND ALCOHOL USE:** Past and present use of cigarettes, cigars, pipe and spit tobacco, and alcohol.
- **SUN EXPOSURE:** Exposure to UV radiation is the primary risk factor for lip cancer.
- **VIRAL ETIOLOGY:** Exposure to viruses such as human papillomavirus (HPV), herpes simplex type 1, and Epstein-Barr Virus (EBV).
- **DIET:** Poor dietary intake of essential nutrients found in fruits and vegetables may be a risk factor.

Burden in Maryland

- The 2006 incidence rate for oral cancer in Maryland was 8.9 per 100,000, compared to a US rate of 10.2 per 100,000.
- In 2006, there were 15 deaths from oral cancer in Maryland. The 2006 mortality rate was 2.8 per 100,000 compared to a US rate of 2.5 per 100,000.
- 28.1% of oral cancers were diagnosed at the localized (early) stage and 44.4% at the regional stage.

Disparities

- Oral cancer lesions in blacks and African Americans are more likely to be diagnosed at a regional and distant stage than in whites.
- Black or African American men have the highest oral cancer mortality rates of any race and gender, and black or African American males have almost twice the oral cancer mortality rate of white males.
- Lower levels of HPV infection in blacks or African Americans compared to whites may contribute to poorer outcomes in blacks or African Americans because HPV-positive patients with oral cancer respond better to treatment.

Early Detection and Barriers

- According to the 2008 Maryland Cancer Survey, 40% of Marylanders ages 40 and over have received an oral cancer exam in the past year, and 50% of adults ages 40 and over have received an oral cancer exam at least once in their lifetime.
- Routine oral cancer exams may increase the likelihood that oral cancer is detected at an earlier stage; however, there is no research-based evidence that early detection decreases oral cancer mortality.
- Barriers to oral cancer exams include lack of access to dental care services as well as lack of oral cancer knowledge that likely affects behaviors of both the general public and health-care practitioners.

GOALS OBJECTIVES STRATEGIES

GOAL 1

Reduce oral cancer incidence and mortality.

TARGETS (2015)

INCIDENCE	**6.5 per 100,000** **(2006 Baseline: 8.9 per 100,000)** Source: Maryland Cancer Registry.
MORTALITY	**2.1 per 100,000** **(2006 Baseline: 2.8 per 100,000)** Source: CDC WONDER.

OBJECTIVE 1

By 2015, increase the proportion of adults 40 years and older who have had an oral cancer exam in the past year to 48% (2008 Baseline: 40%).
Source: Maryland Cancer Survey.

STRATEGIES

1. **INCREASE ORAL CANCER SCREENINGS** among adults by providing access to both primary care providers and oral health providers for low-income and underserved adult populations in Maryland by supporting community health centers, mobile screening services, seeking new funding sources (public and/or private), and advocating for policy changes and funding at the local, state, and federal levels.
2. **ESTABLISH A SUBCOMMITTEE** for the purpose of investigating policies aimed at incorporating oral cancer exams into routine medical and dental exams and assessing the availability and consistency of oral cancer continuing education.

3. **DEVELOP A STATEWIDE EDUCATIONAL CAMPAIGN** designed to increase the demand for oral cancer screening by encouraging individuals to ask healthcare providers for an annual oral cancer exam as part of routine health exams.

OBJECTIVE 2

By 2015, increase the proportion of oral cancer detected at a local stage to greater than 28% (2006 Baseline: 28%).
Source: Maryland Cancer Registry

1. **INCREASE THE PROPORTION** of primary care providers who perform oral cancer screening by working with professional organizations to teach and encourage physicians, dentists, nurse practitioners, nurse-midwives, and physicians' assistants to conduct oral cancer screening as part of a routine physical exam.
2. **DEVELOP AN ORAL CANCER EDUCATION/EARLY DETECTION PROGRAM** to target healthcare providers at Federally Qualified Health Centers, local health departments, other community health centers, and Veterans' Administration hospitals to ensure oral cancer screening is conducted during routine visits.
3. **PROVIDE HEALTHCARE PROVIDERS** with referral mechanisms for oral cancer by identifying local and state referral resources.

OBJECTIVE 3

By 2015, increase oral cancer literacy in the public and among healthcare providers to meet the following targets:

- **Increase the proportion of adults 40 years and older who have heard of an exam for oral cancer to 35% (2003 Baseline: 27%)**
  Source: Survey of Maryland Adults' Knowledge of Oral Cancer.
- **Increase the percentage of all healthcare providers who report adequate training for conducting oral cancer exams.**
  (Survey currently underway to access healthcare provider oral cancer literacy.)

STRATEGIES

1. **INCREASE THE ORAL CANCER KNOWLEDGE** of the public about oral cancer risk factors (such as tobacco use, alcohol use, and HPV infection) by developing targeted and culturally relevant oral cancer messages in plain language about high-risk activities.
2. **INCREASE THE NUMBER OF HEALTHCARE PROVIDERS** who are educated about oral cancer prevention (including tobacco, alcohol, and HPV risk-reduction strategies) and early detection through the education of health professionals including current practitioners and students in dentistry, medicine, nursing, and allied health fields.
3. **CREATE A JOINT COMMITTEE** of professional associations to encourage the development of a collaborative relationship among medicine, nursing, and dentistry in providing effective oral health education, including oral cancer prevention education and patient care.
4. **ENCOURAGE AND SUPPORT** professional organizations to include oral cancer prevention and early detection as a topic at educational seminars and meetings.
5. **PROMOTE THE INCLUSION** of oral health and oral cancer education materials in the health education curricula for grades K-12 in Maryland by working with local boards of education and other parent and teacher groups.

OBJECTIVE 4

By 2015, decrease the prevalence of oral cancer risk factors among adults 18 years and older in Maryland.
See specific objectives and strategies in the following chapters: Nutrition, Physical Activity, and Healthy Weight; Tobacco Use Prevention/Cessation and Lung Cancer; and Cervical Cancer (HPV).

STRATEGIES

1. **ENCOURAGE, INCREASE, AND REVIEW** research to determine effects of current and emerging risk factors.

GOAL 2

Reduce disparities in the incidence and mortality of oral cancer

OBJECTIVE 1

By 2015, increase the proportion of black or African American adults with oral cancer detected at a local stage to greater than 25% (2006 baseline: 25%).
Source: Maryland Cancer Registry.

STRATEGIES

1. **INCREASE THE NUMBER OF PRIMARY CARE** medical and dental providers in minority communities who perform routine oral cancer exams by determining and reducing barriers that prevent oral cancer screening.
2. **DEVELOP AND IMPLEMENT** an oral cancer education program to target healthcare providers at Federally Qualified Health Centers, local health departments, other community health centers, and Veterans' Administration hospitals to reduce the number of late stage of oral cancer diagnoses.
3. **DEVELOP, TEST, AND IMPLEMENT** an oral cancer education program to target black or African American adults about prevention and early detection of oral cancers.

OBJECTIVE 2

By 2015, increase the percentage of black or African American adults who have been screened in the past year for oral cancer to 25.8% (2008 Baseline: 23%).
Source: Maryland Cancer Survey.

STRATEGIES

1. **ADVOCATE AT THE STATE LEVEL** for increased funding for oral cancer in order to increase grant opportunities for community oral cancer programs targeted at underserved and minority communities.
2. **UTILIZE MOBILE DENTAL AND/OR MEDICAL SERVICES** to conduct oral cancer exams in minority and underserved communities.
3. **DEVELOP APPROPRIATE MATERIALS** and a distribution network in order to increase community-based and culturally relevant oral cancer programs and messages that target minority and underserved communities.

OBJECTIVE 3

By 2015, increase the number of healthcare providers who provide oral cancer exams and risk reduction counseling to minority and underserved populations.

STRATEGIES

1. **INCREASE THE HEALTH LITERACY** and cultural awareness of healthcare providers to improve their communication techniques with patients regarding oral cancer by providing continuing education.
2. **DEVELOP A METHOD** to measure the number of healthcare providers in underserved communities who conduct oral cancer exams and include this measure on future oral cancer surveys of healthcare providers.
3. **ENCOURAGE HEALTHCARE PROVIDERS** to engage in oral cancer volunteerism by providing continuing education credits or other potential incentives for participating in community oral cancer screenings.

13 CERVICAL CANCER

Cervical cancer originates when cells on the surface of the cervix begin to grow uncontrollably, usually initiated by persistent infection with the human papillomavirus (HPV). Invasive cancer develops when abnormal cells begin to invade normal cells.

To a greater extent than with many cancers, effective tools for the control of cervical cancer have been identified. Since the development of the Pap test (Pap smear) in the early 1940s, the number of women dying from cervical cancer in the United States has decreased dramatically. The HPV vaccine also shows promise to aid declines in cervical cancer death.

Risk Factors

HPV INFECTION: Cervical infection with HPV is the primary risk for cervical cancer.

Other Risks and Co-Factors:

- **SEXUAL HISTORY:** Women that become sexually active at a young age and have many sexual partners have a greater risk of being infected with HPV and developing cervical cancer.
- **TOBACCO EXPOSURE (CO-FACTOR):** Smoking and exposure to environmental smoke is associated with increased risk among HPV-infected women.
- **HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION (CO-FACTOR):** HIV weakens the immune system and reduces the body's ability to destroy cancer cells.
- **GIVING BIRTH TO MANY CHILDREN:** Women who have had seven or more full-term pregnancies may have an increased risk for cervical cancer.
- **LONG-TERM USE OF ORAL CONTRACEPTIVES:** Women who have used oral contraceptives ("the pill") for five years or more may have an increased risk for cervical cancer.

Burden in Maryland

- In 2006, the Maryland overall age-adjusted incidence rate for invasive cervical cancer was 6.7 per 100,000, and the national rate was 8.0 per 100,000.
- In 2006, 69 Maryland women died from invasive cervical cancer, a mortality rate of 2.2 per 100,000.

Disparities

- Black or African American women have a statistically significantly higher incidence rate and mortality rate for invasive cervical cancer than white women.
- For each stage, black or African American women have lower five-year survival rates than white women.
- Hispanic or Latina women have statistically significantly higher cervical cancer incidence rates than both black or African American and white women.

Primary Prevention

- Avoiding risk for HPV infection is an important strategy for primary prevention of cervical cancer.
- Barrier methods of contraception, and possibly spermicides, may prevent the spread of HPV.
- There are currently two different HPV vaccines offered to young women prior to initial exposure to HPV.

Secondary Prevention

- Detection of cervical abnormalities using the Pap test will remain an important tool.
- Recommendations and best practices for screening will advance with the evolution of better tools for primary prevention (including vaccination) and more sophisticated tools for identifying HPV type and likelihood of progression to invasive cancer.

Diagnosis and Treatment

- When abnormal cells are diagnosed early and treated appropriately, most cases of cervical cancer can be prevented.

Survivorship

- Since cervical cancer is a relatively rare disease, the importance of both clinical and nonclinical resources for cervical cancer survivors is substantial.

GOALS OBJECTIVES STRATEGIES

GOAL 1

Decrease the incidence of invasive cervical cancer in Maryland by reducing risk and improving early detection.

INCIDENCE TARGET (2015)

Less than 6.7 per 100,000
(2006 baseline: 6.7 per 100,000)
Source: Maryland Cancer Registry.

OBJECTIVE 1

By 2015, increase the proportion of guideline-eligible populations who are informed and have access to HPV vaccinations.

STRATEGIES

1. **EXPAND EXISTING SURVEILLANCE** and monitoring systems to collect information on the education of and access to HPV vaccinations in order to establish a baseline and monitor progress.
2. **INCREASE THE DISSEMINATION** of state-of-the-art HPV vaccination guidelines to health professionals and other stakeholders.
3. **REDUCE BARRIERS** to access, affordability, and administration of HPV vaccinations as identified in the "Maryland Human Papilloma Virus Vaccines Subcommittee Report" (available at www.maryland cancerplan.org).
4. **IMPLEMENT PARTNERSHIPS** between private, nonprofit, and governmental healthcare groups to increase Maryland residents' knowledge about the HPV vaccine, particularly those in at-risk populations, as outlined in the "Maryland Human Papilloma Virus Vaccines Subcommittee Report."

OBJECTIVE 2

By 2015, collaborate with state, local, and community partners to reduce the risks related to co-factors of cervical cancer (including HIV and the use of tobacco products).

STRATEGIES

1. **INCREASE SAFE REPRODUCTIVE HEALTH PRACTICES** through public education and increased access to male and female condoms.
2. **IMPLEMENT INNOVATIVE SYSTEMS** and health-based approaches to prevent and control HIV and the use of tobacco products. *See Chapter 5, Tobacco-Use Prevention/ Cessation and Lung Cancer, for specific objectives and strategies on decreasing the use of tobacco products.*

OBJECTIVE 3

By 2015, utilize state-of-the-art recommendations to:

- **Increase the proportion of women ages 21 to 70 receiving a Pap test in the last three years to greater than 88% (2008 baseline: 88%).**
  Source: Maryland BRFSS.
- **Increase the number of women who have had appropriate HPV testing.**

STRATEGIES

1. **EXPAND EXISTING SURVEILLANCE** and monitoring systems to collect information on HPV testing in order to establish a baseline and monitor progress.
2. **INCREASE THE DISSEMINATION** of state-of-the-art screening recommendations to healthcare providers.
3. **INCREASE OUTREACH EFFORTS** by public health organizations and healthcare providers to women who have never or rarely been screened.
4. **INCREASE PAP TESTING** of hospital inpatients by amending Senate Bill 59, Section 19-348 language to require hospitals to "provide" Pap tests to all inpatients. Examine hospitals that succeed at providing Pap tests to inpatients and share lessons learned with other hospitals.

GOAL 2

Decrease the mortality and morbidity of cervical cancer in Maryland.

MORTALITY TARGET (2015)

1.4 per 100,000
(2006 baseline: 2.2 per 100,000)
Source: CDC WONDER.

OBJECTIVE 1

By 2015, utilize state-of-the-art guidelines—such as the American Society for Colposcopy and Cervical Pathology (ASCCP)—to educate Maryland providers about the appropriate use of diagnostic procedures and the potential negative outcomes of overuse and underuse of diagnostic methods.

STRATEGIES

1. **DISSEMINATE STATE-OF-THE-ART GUIDELINES** to healthcare providers through Web-based methods and provider meetings and conferences.
2. **ENCOURAGE QUALITY ASSURANCE MONITORING** of cervical cancer diagnostic procedure management by providers.

OBJECTIVE 2

By 2015, increase access to cervical diagnostic and treatment services including:

- **An increase in the percentage of women who are diagnosed within 90 days of abnormal screening, and**
- **An increase in the percentage of women whose treatment is initiated within 90 days of diagnosis.**

STRATEGIES

1. **UTILIZE EXISTING FRAMEWORKS** and clinical data to develop a tracking system that will establish the baseline rates and measure progress for Objective 2.
2. **CONTINUE TO EDUCATE THE GENERAL PUBLIC** on the availability of screening, diagnostic, and treatment programs throughout Maryland.
3. **ENCOURAGE MORE GYNECOLOGIC SPECIALISTS** or gynecologic oncologists to practice (permanently or traveling) in rural and underserved areas in Maryland.
4. **PROVIDE EDUCATION ACTIVITIES** on the importance of obtaining diagnostic and treatment services in a timely manner.

OBJECTIVE 3

By 2015, ensure that Maryland cervical cancer survivors have a survivorship cancer plan in order to minimize morbidity and quality-of-life burden from their disease and treatment.

STRATEGIES

1. **ASSESS THE NUMBER OF CERVICAL CANCER SURVIVORS** in Maryland who receive survivorship care plans in order to establish a baseline and measure progress.
2. **ENSURE THAT SURVIVORSHIP CARE PLANS** include survivorship resources (such as informational resources and support groups).
3. **INCREASE AWARENESS** among primary care practitioners and gynecologic oncologists of survivorship issues, needs for medical care, and survivorship resources.
4. **MONITOR THE UNMET NEEDS** for survivors through data collection from both providers and survivors.

OBJECTIVE 4

By 2015, conduct Maryland-specific surveillance research on barriers to cervical cancer detection and treatment by establishing a statewide follow-back study mechanism to allow for monitoring of failures through follow-back and to evaluate and modify intervention strategies.

STRATEGIES

1. **MODEL A PROGRAM** after the Fetal Infant Mortality Review Program to establish and maintain mechanisms to:
   - Collect information on factors that influence or hinder health-seeking behaviors and influence screening, diagnosis, and treatment of cervical cancer.
   - Monitor the proportion of cervical cancer cases and deaths attributable to failures of detection and treatment.
   - Identify strategies and implement activities to minimize failures of detection and treatment.
2. **CONSIDER THE INCLUSION OF CIN 3** in the tumor registry reporting to the Maryland Cancer Registry to aid in the surveillance research.

14 PAIN MANAGEMENT

Pain affects more people in the US than diabetes, heart disease, and cancer combined.[1] Although the incidence of cancer pain has been difficult to measure,[2] some studies have shown that cancer pain is reported by about 50% of patients at all stages, and more than 70% of patients with advanced neoplasms.[3] Cancer pain can be managed effectively in up to 90% of Americans who have cancer or a history of cancer. Unfortunately, pain associated with cancer is frequently undertreated.[4]

Patient Issues

- Empowering patients to form a partnership with their healthcare providers is important for better cancer pain management.
- The following patient issues should be addressed:
  - Patient education.
  - Access to pain management resources.
  - Legislation and advocacy.

Clinician Issues

- The approach to pain management by clinicians can be influenced by many barriers including:
  - Understanding of pain and pain management.
  - Quality of pain assessments.
  - Attitudes and legal issues regarding pain medications.
- Barriers can be overcome by an emphasis on:
  - Clinician education and training.
  - An effort to involve pain specialists in the interdisciplinary management of pain.
  - The use of policy tools to move pain control policy forward.

GOALS OBJECTIVES STRATEGIES

GOAL 1

Empower cancer patients to take an active role in partnering with healthcare providers in managing pain and minimizing impact on quality of life.

OBJECTIVE 1

By 2015, increase the proportion of Maryland cancer patients exposed to pain education.

STRATEGIES

1. **PROVIDE ADEQUATE FUNDING** to support events to educate cancer patients about important pain topics.
2. **ORGANIZE A PATIENT EDUCATION SUMMIT** in partnership with interested organizations on topics such as:
   - Importance of pain control.
   - Value and process of pain assessment.
   - Types and purposes of various pain treatments.
   - Effective methods of communication with medical professionals about pain.
   - Patients' Pain Bill of Rights as put forth by the American Pain Foundation.
3. **PRODUCE AN EDUCATIONAL VIDEO** to be shown in cancer office waiting rooms and other venues where patients can learn about cancer pain principles. Include in this video all of the rest of the strategies with an emphasis on the assurance that all patients have a right to quality pain control without regard to age, race, gender, culture, and/or history of substance abuse.
4. **DEVELOP AND IMPLEMENT A SURVEY** of accredited cancer centers in Maryland to measure the proportion of cancer patients exposed to pain education.

OBJECTIVE 2

By 2015, decrease barriers to accessing quality pain management resources (specifically pain medications) for all Marylanders regardless of age, race, culture, and history of substance abuse as outlined in the strategies below.

STRATEGIES

1. **COLLABORATE WITH PHARMACIES** to ensure that pain medication is adequately stocked in all communities and explore legislation that would require pharmacies to stock pain medication.
2. **CONDUCT A STUDY** to measure availability of opioids in Maryland pharmacies, especially in urban settings. Set targets and measure changes over time.
3. **TEACH PATIENTS** how to navigate third-party challenges to decrease insurance barriers.
4. **CONDUCT AN INVESTIGATION** of insurance practices regarding adequate and fair coverage for patients in pain and create a report card that would allow patients to make informed decisions when selecting a health plan.

OBJECTIVE 3

By 2015, assure that legislation in areas such as Prescription Drug Monitoring Plans, electronic medical records, electronic prescribing, and Medicaid formulary does not hinder a patient's access to adequate pain control.

STRATEGIES

1. **INCREASE INVOLVEMENT** in legislative events to move pain issues to the forefront of Maryland's agenda.
2. **SPONSOR AN EVENT** for patient empowerment to teach patients how to engage in the legislative aspect of pain advocacy.
3. **CORRECT THE TERMINOLOGY** in the state report card to improve the pain report care grade (i.e., definition of addiction, dependency, etc.).
4. **INCLUDE PATIENT REPRESENTATION** in committee meetings, associations, and legislative activities related to pain.

GOAL 2

Educate and involve clinicians to optimize cancer pain control and take an active role in partnering with other healthcare providers and patients in managing pain and minimizing impact on quality of life.

OBJECTIVE 1

By 2015, increase clinician education and awareness by providing seminars, grand rounds, and/or other opportunities for pain management education at 50% of accredited cancer centers in Maryland.

STRATEGIES

1. **PROVIDE SUPPORT** through academic institutions and training programs to develop education tools that emphasize the importance of quality of life and optimum symptom management and pain control.
2. **PROVIDE A MECHANISM** for the education to be available at cancer centers.
3. **DEVELOP A TRACKING MECHANISM** to measure the utilization of this program by cancer centers.

OBJECTIVE 2

By 2015, increase the proportion of Maryland physicians utilizing pain consult from practitioners in the area of pain and palliative care.

STRATEGIES

1. **UTILIZE EXISTING STRUCTURES** to implement and make programs available to clinicians with the focus on pain control by partnering with state agencies such as the Maryland Board of Physicians to require CME in pain for renewal of medical licenses.
2. **DEVELOP METHODS** to measure the proportion of physicians utilizing pain consult from pain and palliative care practitioners in order to establish a baseline and monitor progress.

OBJECTIVE 3

By 2015, enact a statewide Maryland Pain and Palliative Care Act modeled after the New York Palliative Care Education and Training Act of 2007, which improves palliative care and pain management by:

- **Establishing a statewide advisory council on palliative care and pain management.**
- **Creating undergraduate and graduate training programs.**
- **Establishing Centers for Palliative Care Excellence.**
- **Certifying one or more palliative care resource centers to assist physicians in the treatment of patients in pain.**

STRATEGIES

1. **INVOLVE ADVOCATES** such as the Maryland Department of Health and Mental Hygiene, MedChi, and physician specialty groups in developing a legislative strategy to pursue this objective.

OBJECTIVE 4

By 2015, develop a plan that ensures that patients' pain is assessed and treated promptly in 80% of cancer patients.

STRATEGIES

1. **CONVENE A GROUP** of pain and palliative care specialists to develop the plan.

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15 PALLIATIVE AND HOSPICE CARE

Both palliative care and hospice care are based on the same key elements: the care of all patients with life-threatening illness of all ages; patient- and family-centered care, and comprehensive care (physical, emotional, social, and spiritual) offered by an interdisciplinary team of health professionals. The difference between palliative care and hospice care is the timing: palliative care may be offered at any point in time, while hospice care is offered at the end of life. There will be an increased need for palliative and hospice care as the aging population and improvements in cancer treatment mean that the number of survivors will grow. More than half of those diagnosed will live for more than five years with illness and ongoing treatment.[1]

Key Stakeholders in Palliative and Hospice Care

- Patients/Families/Communities
- Healthcare Professionals/Associated Staff
- Institutions
- Healthcare Policy Makers/Legislators/Payers

A Blueprint for Success

- The goal of implementation of a blueprint for success for palliative and hospice care across the state of Maryland will necessitate the achievement by each of the stakeholder groups of what is termed the "4 A's": Awareness, Acknowledgement, Access, and Action.
  - **AWARENESS** implies knowledge and appreciation gained through one's perceptions or by means of information about palliative and hospice care.
  - **ACKNOWLEDGMENT** is the recognition and acceptance of the value of palliative and hospice care.
  - **ACCESS** is the right, privilege, or ability to make use of resources and information related to palliative and hospice care.
  - **ACTION** is the development, implementation, and evaluation of initiatives to promote palliative and hospice care—which will lead to inclusion of palliative and hospice care into the standards of care and setting of future goals.

A more detailed version of the Goals/Objectives/Strategies can found on the Palliative and Hospice Care page of the Maryland Cancer Plan Web site: www.marylandcancerplan.org.

GOALS OBJECTIVES STRATEGIES

GOAL

Implement a blueprint for success for palliative and hospice care for patients and families experiencing cancer in the state of Maryland.

OBJECTIVE 1 AWARENESS

By 2015, develop an awareness campaign to educate Maryland citizens about palliative and hospice care within 50% of Maryland jurisdictions.

STRATEGIES (BY STAKEHOLDER GROUP)

1. **PATIENTS/FAMILIES/COMMUNITIES:** seek information on palliative and hospice care and advanced care planning from their healthcare providers, public library, national and local cancer agencies, and local health department.
2. **HEALTHCARE PROFESSIONALS AND ASSOCIATED STAFF:** increase communication related to palliative care issues in patient conversations, healthcare publications, and media/marketing.
3. **INSTITUTIONS:** initiate palliative care activities with the goal of obtaining buy-in from various constituencies.
4. **HEALTHCARE LEGISLATORS/POLICYMAKERS/PAYERS:** conduct an internal education effort on strategies to reduce barriers that Maryland residents face in regard to quality palliative and hospice care. The education effort should include widespread distribution, discussion, and the development of an action plan based on:
   - The 2009 "Workgroup Report on Hospice Care, Palliative Care and End of Life Counseling," released by the Maryland Attorney General's Counsel for Health Decisions Policy workgroup, and
   - "Reports of the Maryland State Advisory Council on Quality of Care at the End Life."

OBJECTIVE 2 ACKNOWLEDGING THE VALUE

By 2015, increase the participation in and support of palliative and hospice care initiatives by stakeholders as outlined in the strategies.

STRATEGIES (BY STAKEHOLDER GROUP)

1. **PATIENTS/FAMILIES/COMMUNITIES:** participate in campaigns that support/promote palliative and hospice care and advanced care planning.
2. **HEALTHCARE PROFESSIONALS AND ASSOCIATED STAFF:** actively participate in palliative education and palliative care initiatives as demonstrated by attendance at national conferences, increase in certification and credentialing rates, and referral to palliative care services and hospice care.

3 **INSTITUTIONS:** develop a strategic plan that incorporates goals and related tactics to institutionalize palliative care as it relates to ongoing professional education, implementing and maintaining supportive services for patient/families, supporting research and evidence-based practice, and driving healthcare policy and legislative initiatives that promote palliative care.

4 **HEALTHCARE LEGISLATORS/POLICYMAKERS/PAYERS:** conduct outreach efforts via email, town halls, and focus groups to educate constituents about the knowledge, financial, and administrative barriers Maryland cancer patients and their families face in regard to palliative and hospice care and get their input on options to reduce them.

OBJECTIVE 3 ACCESS

By 2015, increase access to palliative and hospice care services in Maryland.

STRATEGIES (BY STAKEHOLDER GROUP)

1 **PATIENTS/FAMILIES/COMMUNITIES:** request access to palliative and hospice services.

2 **HEALTHCARE PROFESSIONALS AND ASSOCIATED STAFF:** develop and implement educational programs (formal and informal) related to palliative and hospice care.

3 **INSTITUTIONS:**

- Develop a mechanism to track the percentage of palliative care consultations for hospital patients admitted with cancer, and
- Ensure clinical support through hiring a skilled and credentialed/certified team of interdisciplinary palliative care professionals and associated support staff in order to implement a palliative care consult service or other delivery models (such as an inpatient unit, outpatient clinic, homecare program, and/or establishing partnerships with community hospices).

4 **HEALTHCARE LEGISLATORS/POLICYMAKERS/PAYERS:** explore legislative options for expanding access to and payment for palliative and hospice care, building on best practices.

OBJECTIVE 4 ACTION

By 2015, stakeholders will take ownership of the Blueprint for Success and act on 70% of the strategies recommended for each stakeholder group.

STRATEGIES (BY STAKEHOLDER GROUP)

1 **PATIENTS/FAMILIES/COMMUNITIES:** advocate for effective and compassionate palliative care across healthcare settings to insure that the goals of care are achieved.

2 **HEALTHCARE PROFESSIONALS AND ASSOCIATED STAFF:** incorporate the National Quality Forum Preferred Practices of Palliative Care as a standard of care within the institution.

3 **INSTITUTIONS:** initiate quality improvement studies to evaluate the provision of quality palliative care by tracking:

- Requests for palliative care consults.
- Patient/family and community outcomes.
- Healthcare professional outcomes.
- Economic outcomes.

4 **HEALTHCARE LEGISLATORS/POLICYMAKERS/PAYERS:** support pilot programs that test:

- The feasibility and impact of training lay workers to serve as palliative and hospice care counseling coaches and navigators.
- Reimbursement models for providing end-of-life care counseling.
- The impact of innovative clinical-financial models of palliative and hospice care for cancer patients and their families designed to reduce knowledge, financial, and administrative barriers to their use.

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