Maryland Department of Health and Mental Hygiene

Cancer Report 2009

Cigarette Restitution Fund Program

Cancer Prevention, Education, Screening and Treatment Program

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of Maryland

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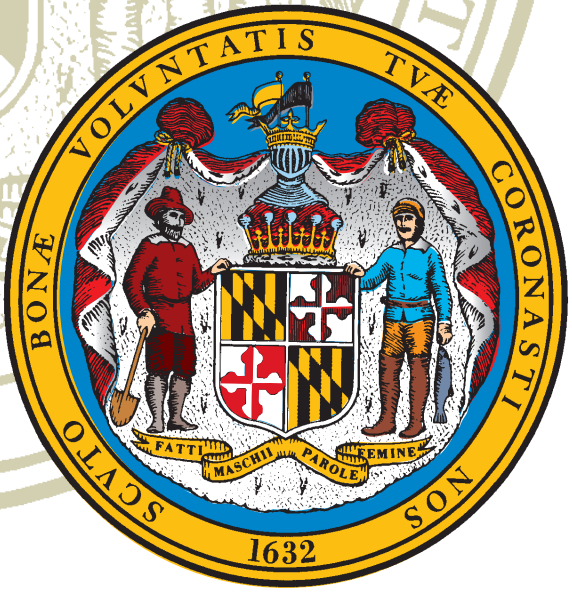

December 2009

STATE OF MARYLAND
DHMH
Maryland Department of Health and Mental Hygiene
201 W. Preston Street • Baltimore, Maryland 21201
Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – John M. Colmers, Secretary

Dear Fellow Marylanders:

Cancer is the second leading cause of death in Maryland and in the nation. Over 24,000 Marylanders were diagnosed with cancer in the year 2006, and more than 10,000 died from this disease. Maryland ranks twentieth in the nation in cancer mortality. Technical advances and improved resources have led to earlier diagnosis and better treatment of most cancers. As a result, more people diagnosed with cancer are surviving each year.

The Cigarette Restitution Fund (CRF) Program is among the highest priorities for the Maryland Department of Health and Mental Hygiene. The CRF Program includes the Cancer Prevention, Education, Screening and Treatment Program. The primary goals are to reduce cancer mortality and to decrease health disparities in cancer. The Department is coordinating efforts of the CRF Program through local health departments and other partnerships in order to reduce the burden of cancer.

The enclosed 2009 Cancer Report of the Cigarette Restitution Fund Program reviews total cancers and the seven specific cancer sites targeted by the Cancer Prevention, Education, Screening and Treatment Program: lung and bronchus, colon and rectum, female breast, prostate, oral, melanoma of the skin, and cervix. These cancers were selected for review based on the capacity for prevention (e.g., lung and bronchus, melanoma of the skin), the capacity for early detection and treatment (e.g., colon and rectum, female breast, cervix, oral cavity), or the magnitude of the impact on incidence and mortality (e.g., prostate).

Cancer prevention and control is the result of awareness and proactive behavior of all Marylanders. On behalf of the Maryland Department of Health and Mental Hygiene, I appreciate your efforts to control cancer in our great State.

Sincerely,

John M. Colmers
Secretary

Maryland Department of Health & Mental Hygiene

2009 Cancer Report

Cigarette Restitution Fund Program

Cancer Prevention, Education, Screening and Treatment Program

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Acknowledgments

The Maryland Department of Health and Mental Hygiene (DHMH), Center for Cancer Surveillance and Control, is pleased to present the Cigarette Restitution Fund Program 2009 Cancer Report. Our hope is that individuals, groups, and agencies, such as local health departments, Statewide Academic Health Centers, community health coalitions, other community organizations, policy makers, and the citizens of Maryland, will benefit from the information in this report and will find this report useful.

We thank the following agencies and individuals for their contributions to and assistance with this document:

- Maryland Cancer Registry, DHMH, for providing data for the tables and graphs. Kimberly S. Stern, M.H.A., C.T.R., provided data coordination and Jennifer Hayes, M.Ed., M.P.H., and Afaq Ahmad, M.D., M.P.H., C.T.R., provided special assistance by extracting incidence data.

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- Information Resources Management Administration, DHMH, for developing county and regional maps. Jennifer English provided special assistance.

- Surveillance and Evaluation Unit, Center for Cancer Surveillance and Control, DHMH, for coordinating and developing the report. Maya King, M.P.H., and Lorraine Underwood provided special assistance.

We thank all the individuals who contributed to the development and careful review of this document.

Dedication

We dedicate this report to all persons whose lives have been touched by cancer.

While this publication reflects numbers and statistics, we recognize that each number represents an individual and the impact that a cancer diagnosis places on them and their loved ones. We hope to make a difference for cancer survivors and the people in their lives so together they can face the many challenges related to cancer diagnosis and treatment.

Table of Contents

I. Executive Summary

A. Introduction

This publication is the Cigarette Restitution Fund Program (CRFP) 2009 Cancer Report. The primary purpose of the Cancer Report, which is required biennially by Maryland law, is to assist local health departments and local community health coalitions under the CRFP in planning and implementing comprehensive cancer prevention, education, screening, and treatment programs. The data and the "Public Health Intervention" recommendations are intended to guide local health departments, Statewide Academic Health Centers, community health coalitions, other community organizations, and policy makers as they decide how to allocate limited resources (e.g., staff time, funding) for the maximum benefit, with the goal of reducing cancer mortality.

The CRFP was established in 2000 to provide for the distribution of funds received as a result of multi-state litigation against the tobacco industry. This program provided approximately $21.8 million in Fiscal Year 2009 to combat cancer. The CRFP law established the Cancer Prevention, Education, Screening and Treatment (CPEST) Program within the Maryland Department of Health and Mental Hygiene (DHMH). The primary goal of the CPEST Program is to reduce cancer mortality in the State of Maryland.

The CRFP law requires DHMH to identify the types of cancers that may be targeted under the CPEST Program. In addition to overall cancers presented in this report, DHMH has selected seven targeted cancers; each is presented individually. The seven targeted cancers are: lung and bronchus, colon and rectum, female breast, prostate, oral, melanoma of the skin, and cervix. These cancers were selected because they can be prevented (e.g., lung and bronchus, melanoma) or detected and treated early (e.g., colon and rectum, female breast, cervix, oral cavity), or because of the magnitude of their impact on incidence and mortality (e.g., prostate).

Additionally, the CRFP law requires jurisdictions to develop plans to: 1) eliminate the higher incidence and mortality rates of cancer in minority populations (as defined in the CRFP law as women or individuals of African, Hispanic, Native American, and Asian descent) and the higher rates in rural areas, and 2) increase availability of and access to health care services for medically underserved populations and uninsured individuals.

The 2009 Cancer Report provides information on cancer incidence, mortality, stage of disease at diagnosis, public health evidence for prevention and screening, recommended areas for public health intervention, and Maryland screening behaviors compared to the Healthy People 2010 targets for cancer prevention and screening.

B. Major Highlights of the Report

1. Major findings for **all cancer sites**:

- Overall cancer incidence and mortality rates in Maryland continue to decline. For the period 1992-2006, both incidence and mortality rates in Maryland declined more rapidly than U.S. rates.
- Although cancer mortality is declining in Maryland, in 2006 the mortality rate for all cancer sites combined was statistically significantly higher than the corresponding U.S. rate.
- Mortality rates for cancer are higher than those for heart disease among Marylanders under age 85 years, although rates for both diseases are declining in this age group. Among persons age 85 years and older, the cancer mortality rate has remained relatively unchanged over time while mortality from heart disease has steadily declined.
- Cancer is the second leading cause of death in Maryland, responsible for 23.8% of all deaths in 2006; 10,350 cancer deaths occurred in Maryland that year. Cancer mortality in Maryland decreased an average of 1.8% per year from 2002-2006.
- Maryland is ranked 20th among all states and the District of Columbia in total cancer mortality for the time period 2002-2006, dropping from 19th highest from 1999-2003 and 15th highest from 1998-2002.
- Cancer incidence and mortality rates increase with increasing age for both males and females.
- Males have higher age-adjusted cancer incidence and mortality rates than females.
- Overall cancer mortality rates declined among both whites and blacks in Maryland from 2002-2006. The largest decline in mortality occurred among black males, with an average annual decrease of 3.2% per year from 2002-2006.
- Black males have the highest overall cancer mortality rates, white females the lowest.

2. Major findings for **lung and bronchus** cancer:

- Lung cancer is the leading cause of cancer deaths in both men and women in Maryland, accounting for 28.0% of all cancer deaths in 2006.
- Tobacco use is the primary cause of lung cancer; tobacco smoking causes an estimated 90% of lung cancer in males and 78% of lung cancer in females.
- The public health intervention for lung cancer is the prevention and cessation of tobacco use.
- Smoking rates among Maryland adults continue to decline; in 2008, 14.9% of adults age 18 years and older were current smokers. Maryland has not yet attained the Healthy People 2010 goal of reducing the percentage of adult smokers to 12%.
- Lung cancer incidence rates in Maryland in 2006 were statistically significantly higher than U.S. rates, although both incidence and mortality rates are declining in Maryland.
- From 2002-2006, lung cancer incidence rates in Maryland declined more rapidly among blacks than whites.

3. Major findings for **colon and rectum** cancer:

- Colorectal cancer is the second leading cause of cancer deaths in Maryland.
- The recommended public health intervention for colorectal cancer is early detection with screening colonoscopy or with a combination of fecal occult blood testing and flexible sigmoidoscopy.
- Maryland had the 14th highest colorectal cancer mortality rate in the nation for the period 2002-2006.
- Colorectal cancer mortality rates declined among both black and white Maryland residents from 2002-2006.
- The percentage of Maryland adults age 50 years and older ever receiving colonoscopy or sigmoidoscopy screening increased from 69% in 2006 to 75% in 2008.
- Maryland continues to surpass the Healthy People 2010 target for colorectal cancer screening.

4. Major findings for **female breast** cancer:

- Breast cancer is the second leading cause of cancer deaths among women after lung cancer.
- Maryland had the 5th highest breast cancer mortality rate in the U.S. for the period 2002-2006.
- From 2002-2006, breast cancer mortality rates decreased among both white and black women in Maryland.
- The recommended public health intervention for breast cancer is early detection using mammography and clinical breast examination by a health care professional.
- Maryland women continue to surpass the Healthy People 2010 target for mammography screening.

5. Major findings for **prostate** cancer:

- Prostate cancer is the second leading cause of cancer death (after lung cancer) among Maryland men.
- Maryland had the 10th highest mortality rate for prostate cancer in the U.S. for the period 2002-2006.
- Black men consistently experienced prostate incidence rates higher than those of white men, although this disparity appears to be decreasing over time. From 2002-2006, incidence rates decreased for both black men and white men.
- From 2002-2006, prostate cancer mortality rates were consistently higher among black men compared to white men, although black men had greater declines in mortality rates than white men.
- The recommended public health intervention for prostate cancer is that clinicians should discuss with their patients the potential benefits and uncertainties regarding prostate cancer screening and treatment, consider individual patient preferences, and individualize the decision to screen.

6. Major findings for **oral** cancer:

- Incidence of oral cancer in Maryland decreased among blacks and whites from 2002-2006.
- Mortality from oral cancer in Maryland declined among white males and white females, but increased among black males from 2002-2006.
- There is extensive evidence that tobacco use causes oral cancer.
- The recommended public health interventions for oral cancer are: avoidance and cessation of tobacco use; avoidance and reduction of alcohol consumption; avoidance of sun and use of lip balm that blocks ultraviolet (UV) light; and screening for oral cancer targeted to individuals 40 years of age and older.
- Marylanders have consistently surpassed the Healthy People 2010 target for oral cancer screening. In 2008, 40% of Marylanders age 40 years and older reported having an oral cancer exam in the past year.

7. Major findings for **melanoma** skin cancer:

- Melanoma incidence rates in Maryland decreased slightly from 2002-2006. Males had a pattern of higher melanoma incidence rates than females.
- From 2002-2006, mortality rates for melanoma increased among both males and females.
- The recommended public health intervention for skin cancer is reduction of exposure to UV light by: 1) avoiding the sun, especially between 10 a.m. and 4 p.m., 2) wearing sun protective clothing, hat, and sunglasses when exposed to sunlight, 3) avoiding artificial sources of UV light (e.g., tanning booths), and 4) using sunscreens with a SPF of 15 or higher, if sun exposure cannot be avoided.

8. Major findings for **cervical** cancer:

- Cervical cancer incidence and mortality rates among Maryland women decreased from 2002-2006.
- Black women have consistently higher incidence and mortality rates of cervical cancer than white women in Maryland, although the margin of this disparity is decreasing.
- The recommended public health intervention for cervical cancer is early detection using the Pap test for women beginning within 3 years of onset of sexual activity or by age 21 years, whichever comes first.
- In 2008, 84% of Maryland women age 18 years and older had a Pap test within the past 3 years, slightly below the Healthy People 2010 target of 90%.
- The Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices (ACIP) recommends the human papillomavirus vaccine as a means for preventing cervical cancer. ACIP recommends the vaccine be given routinely to girls when they are age 11-12 years. The ACIP recommendation also allows for vaccination of girls beginning at age 9 years, as well as vaccination of girls and women age 13-26 years who have not been previously vaccinated.

C. Major Changes to this Report from the 2008 Annual Cancer Report

- This report includes incidence and mortality data for the years 2004, 2005, and 2006, and 5-year data for the period 2002-2006. Tables for 2004 and 2005 incidence and mortality data are found in Appendices K and L, respectively.
- National Cancer Institute Surveillance, Epidemiology, and End Results (SEER) 17 registry data are used in this report to represent U.S. incidence rates in comparisons with recent Maryland rates (2000 and later years). SEER 13 rates are used for comparison with Maryland data prior to 2000. (In the 2008 CRF Cancer Report, SEER 13 rates were used as a basis for comparison.)

Important note: The 2006 case counts presented in this report for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively, for all cancer sites combined due to delay in case reporting. The exact percentage of underreporting for each cancer may differ from those percentages. March 26, 2009 was used as the cutoff date for the "official" dataset for 2004-2006; cancers diagnosed in 2006 but reported to the MCR after March 26, 2009 are not included in the 2006 dataset. The case undercounts resulted in lower than actual age-adjusted incidence rates for these counties, for the National Capital geographic region, and to a lesser degree, for Maryland, for 2006 and the 5-year period 2002-2006.

II. All Cancer Sites

Incidence (New Cases)

A total of 24,203 new cases of cancer diagnosed in 2006 in Maryland residents were reported to the Maryland Cancer Registry. The total age-adjusted cancer incidence rate for Maryland in 2006 was 426.3 per 100,000 population (420.9-431.8, 95% Confidence Interval [C.I.]). The 2006 Maryland cancer incidence rate is statistically significantly lower than the 2006 U.S. SEER rate of 450.5 per 100,000 population (449.0-452.1, 95% C.I.).

Table 1.
All Cancer Sites Incidence Data*
by Gender and Race, Maryland and the United States, 2004-2006

	Total	*Males*	*Females*	*Whites*	*Blacks*	*Other*
2004						
MD New Cases (count)	25,419	12,460	12,942	18,780	5,677	795
MD Incidence Rate	462.6	524.4	421.5	469.8	444.4	344.9
U.S. SEER Rate	464.6	545.4	408.9	471.7	501.6	314.7
2005						
MD New Cases (count)	25,513	12,765	12,719	18,756	5,719	877
MD Incidence Rate	457.4	528.3	409.0	466.4	434.9	362.9
U.S. SEER Rate	456.4	527.5	407.9	465.3	480.9	306.2
2006						
MD New Cases (count) †	24,203	12,246	11,895	17,629	5,391	903
MD Incidence Rate †	426.3	495.6	376.9	434.3	395.7	353.1
U.S. SEER Rate	450.5	521.9	401.0	458.1	467.3	299.7

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

† 2006 Maryland case counts and incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)

Total includes cases reported as transsexual, hermaphrodite, unknown gender, and unknown race

Sources: Maryland Cancer Registry (MD incidence data)

NCI SEER*Stat (U.S. SEER 17 rates)

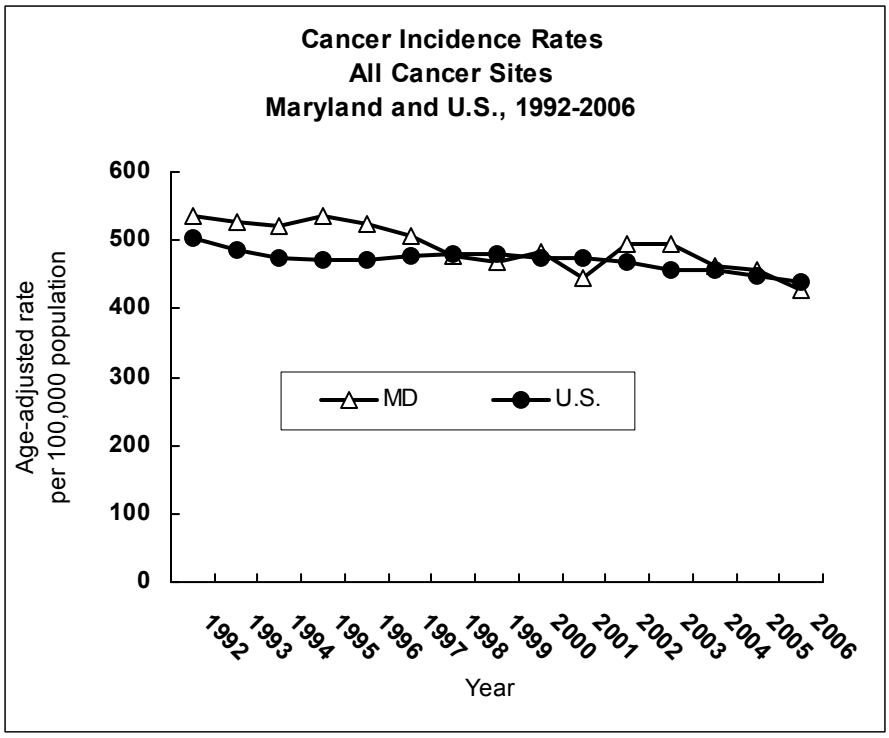
Mortality (Deaths)

Cancer is the second leading cause of death in Maryland, accounting for 23.8% of all deaths in 2006. A total of 10,350 Maryland residents died from cancer in 2006. The overall Maryland cancer mortality rate for 2006 was 186.9 per 100,000 population (183.3-190.5, 95% C.I.). This rate is statistically significantly higher than the 2006 U.S. cancer mortality rate of 180.7 per 100,000 population (180.2-181.2, 95% C.I.). Maryland ranks 20th highest among all states and the District of Columbia in total cancer mortality for the period 2002-2006.

Table 2.
All Cancer Sites Mortality Data*
by Gender and Race, Maryland and the United States, 2004-2006

	Total	*Males*	*Females*	*Whites*	*Blacks*	*Other*
2004						
MD Deaths (count)	10,168	5,088	5,080	7,429	2,545	194
MD Mortality Rate	189.8	229.2	164.4	185.6	218.0	91.9
U.S. Mortality Rate	185.8	227.7	157.4	184.4	227.2	112.7
2005						
MD Deaths (count)	10,371	5,290	5,081	7,589	2,559	223
MD Mortality Rate	190.0	232.0	162.2	187.8	209.4	102.9
U.S. Mortality Rate	183.8	225.1	155.6	182.6	222.7	112.4
2006						
MD Deaths (count)	10,350	5,168	5,182	7,512	2,627	211
MD Mortality Rate	186.9	225.2	161.8	183.8	211.6	93.6
U.S. Mortality Rate	180.7	220.0	153.6	179.9	217.4	108.4

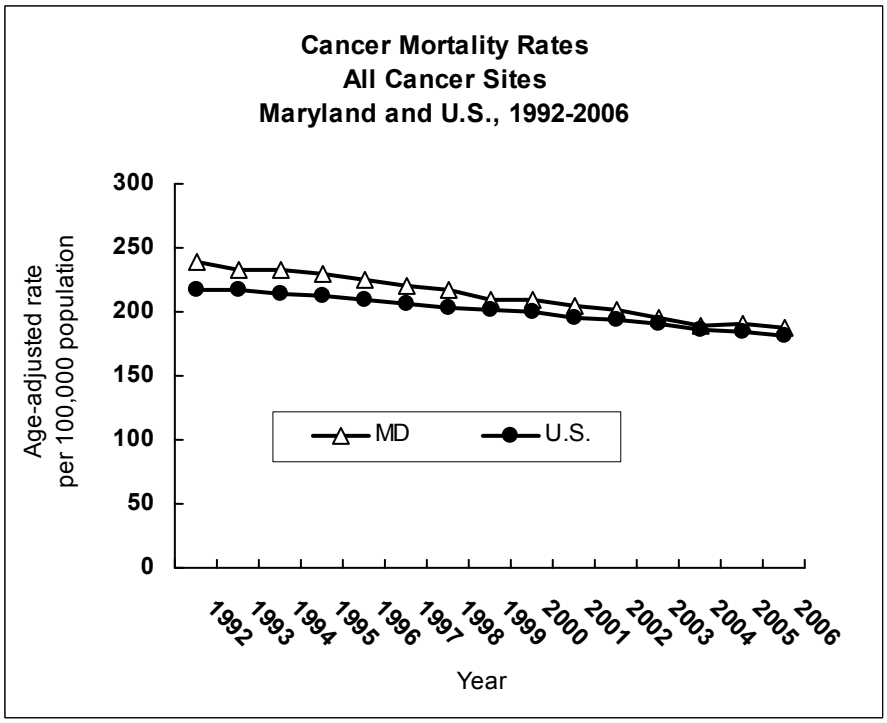
* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
Source: NCHS Compressed Mortality File in CDC WONDER



Sources: Maryland Cancer Registry (MD rates)
NCI SEER*Stat (U.S. SEER 13 rates)

Maryland vs. United States, Overall Cancer Incidence Rates, All Age Groups

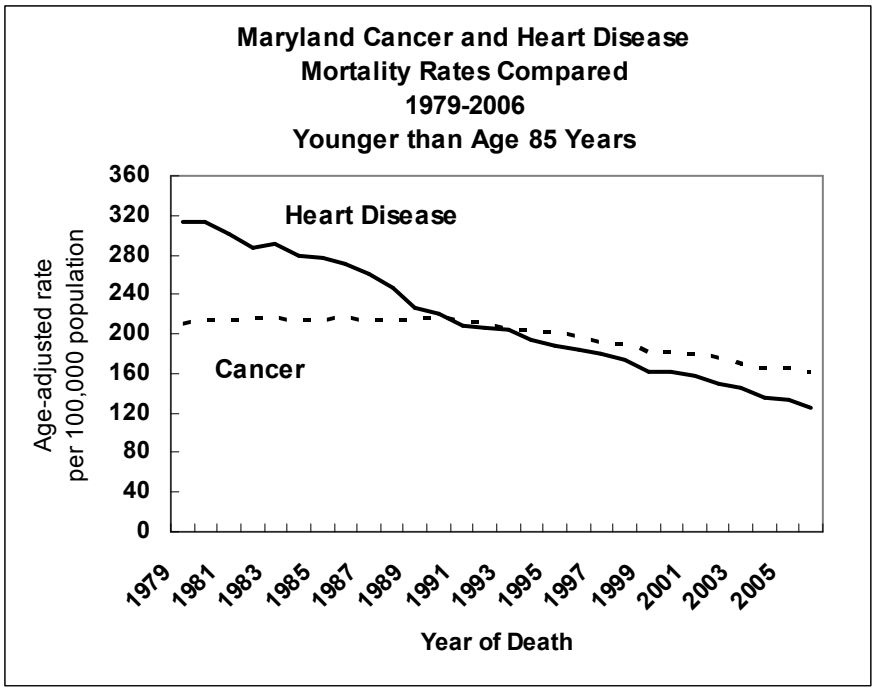
The overall cancer incidence rate in Maryland has generally declined since 1992. From 1992 to 2006, cancer incidence rates in Maryland decreased at an average rate of 1.3% per year, compared to a decrease of 0.6% per year for the U.S.



Source: NCHS Compressed Mortality File in CDC WONDER

Maryland vs. United States, Overall Cancer Mortality Rates, All Age Groups

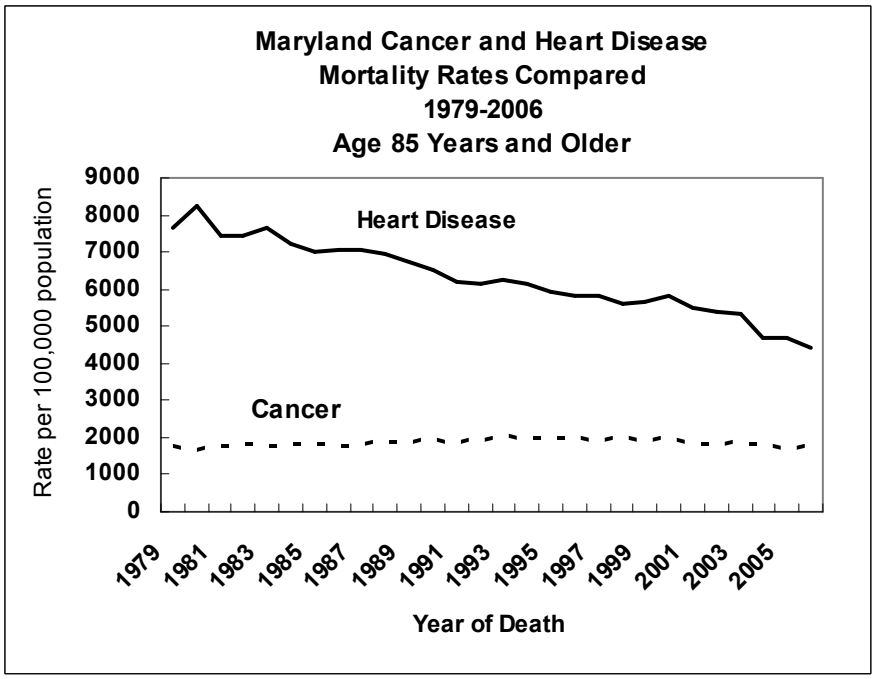
Maryland cancer mortality rates have steadily declined since 1992. From 1992 to 2006, the overall cancer mortality rate in Maryland decreased an average of 1.8% per year. The U.S. mortality rate for all cancers declined an average of 1.3% per year over the same period.



Source: NCHS Compressed Mortality File in CDC WONDER

Cancer vs. Heart Disease Mortality Rates, Under Age 85 Years

Mortality from both heart disease and cancer are declining among Marylanders under the age of 85 years, although heart disease mortality is declining more rapidly than cancer mortality. Since 1991, heart disease mortality has declined at an annual average of 3.4%, compared to a decline of 1.9% per year in cancer mortality.

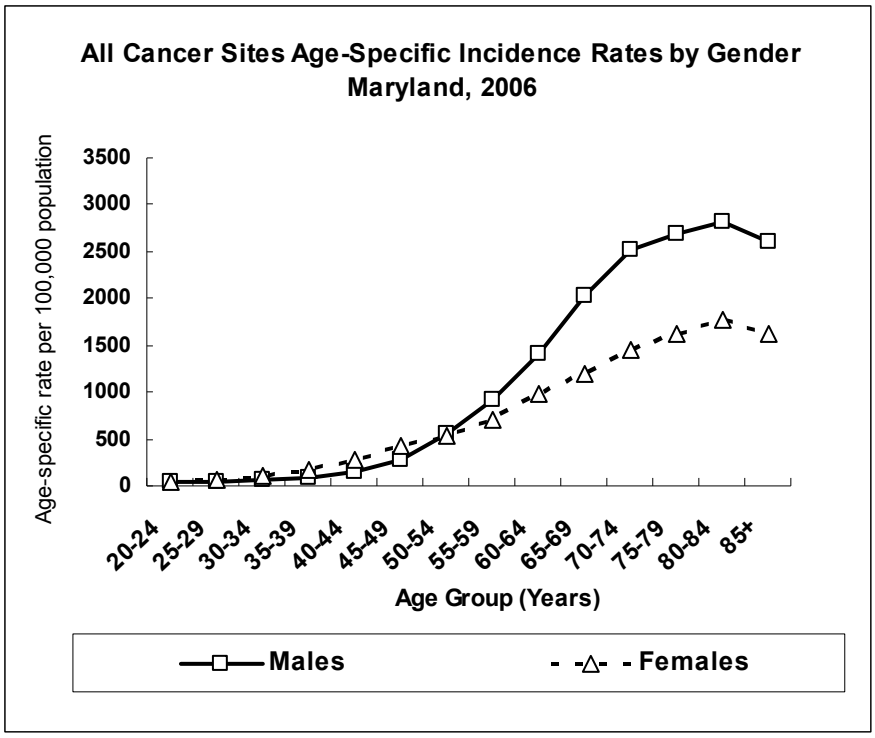


Age-adjusted rate cannot be calculated for a single age group (age 85 and older); crude mortality rates are presented.

Source: NCHS Compressed Mortality File in CDC WONDER

Cancer vs. Heart Disease Mortality Rates, Over Age 85 Years

Among persons age 85 years and older in Maryland, heart disease remains the leading cause of death, although mortality rates are steadily declining (average annual decrease of 1.9% per year from 1979 to 2006). Cancer mortality rates in this age group have remained relatively unchanged over the same period (0.2% average annual increase).

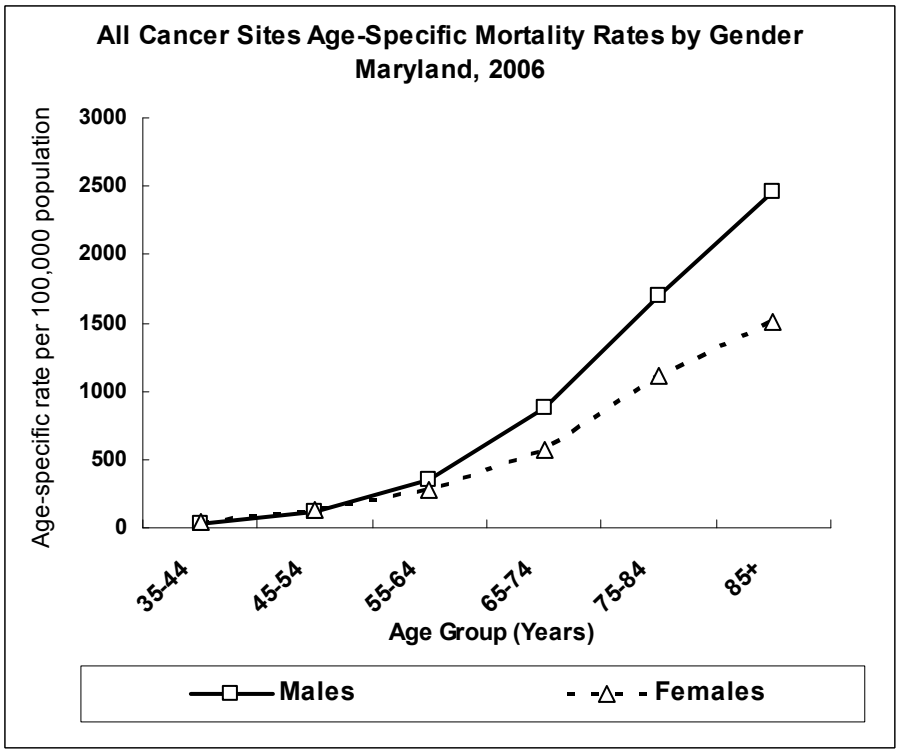


Source: Maryland Cancer Registry

Age-Specific Incidence Rates by Gender

In Maryland, 84% of all cancers diagnosed in 2006 occurred among persons age 50 years and older.

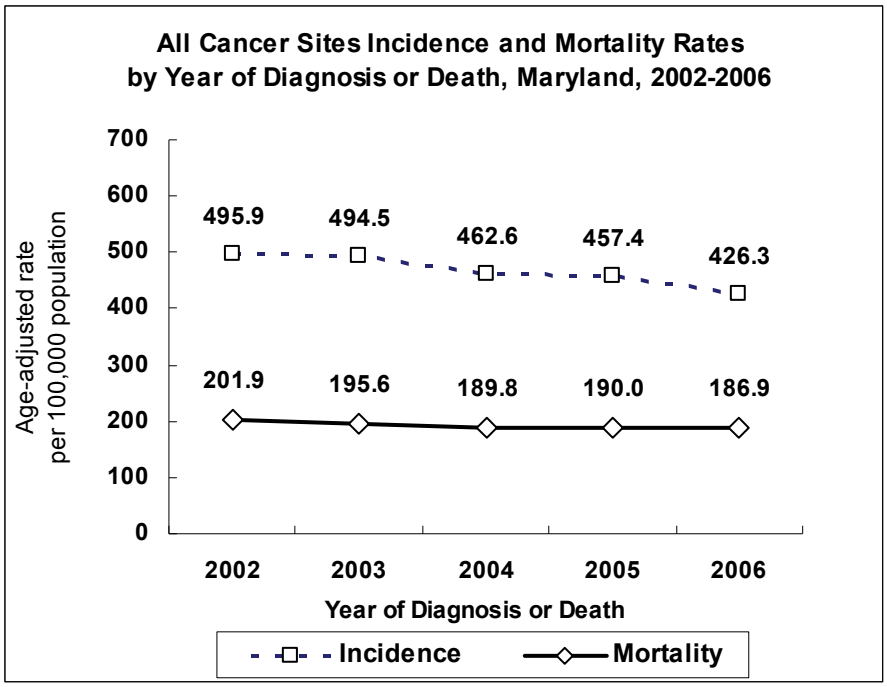
For all cancers combined, females have a higher cancer incidence rate than males until age 50-54 years. After that age, men have a higher cancer incidence rate.



Source: NCHS Compressed Mortality File in CDC WONDER

Age-Specific Mortality Rates by Gender

Cancer mortality rates increase with age. Males have a higher cancer mortality rate than females after age 45-54 years.



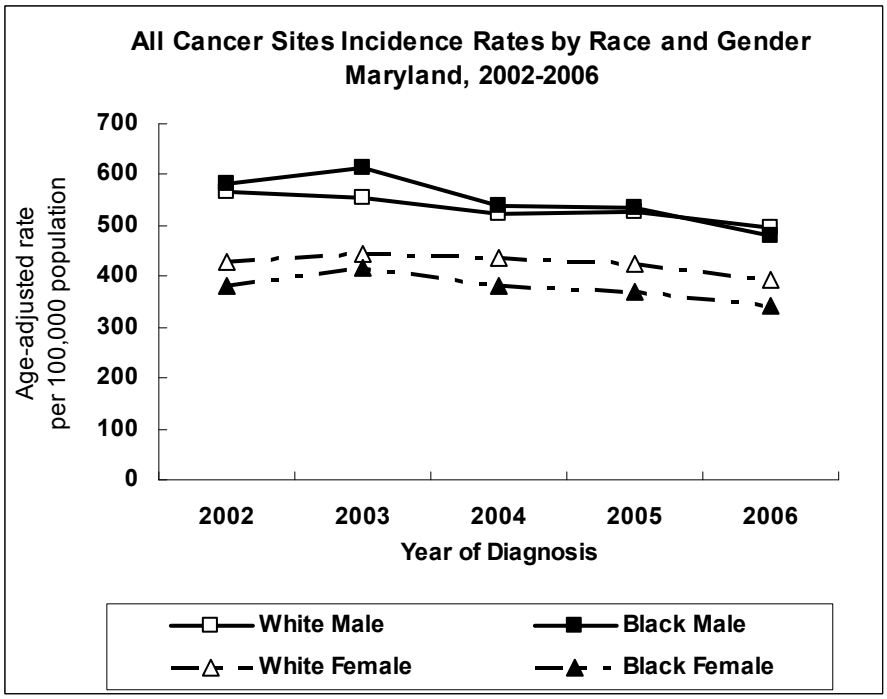
Rates are age-adjusted to 2000 U.S. standard population
Sources: Maryland Cancer Registry (incidence rates)
NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Incidence and Mortality Trends

In Maryland, the incidence rate for all cancers combined decreased an average of 3.7% from 2002 to 2006.

Overall cancer mortality rates decreased an average of 1.8% per year from 2002 to 2006.

See Appendix I, Tables 1 and 2.

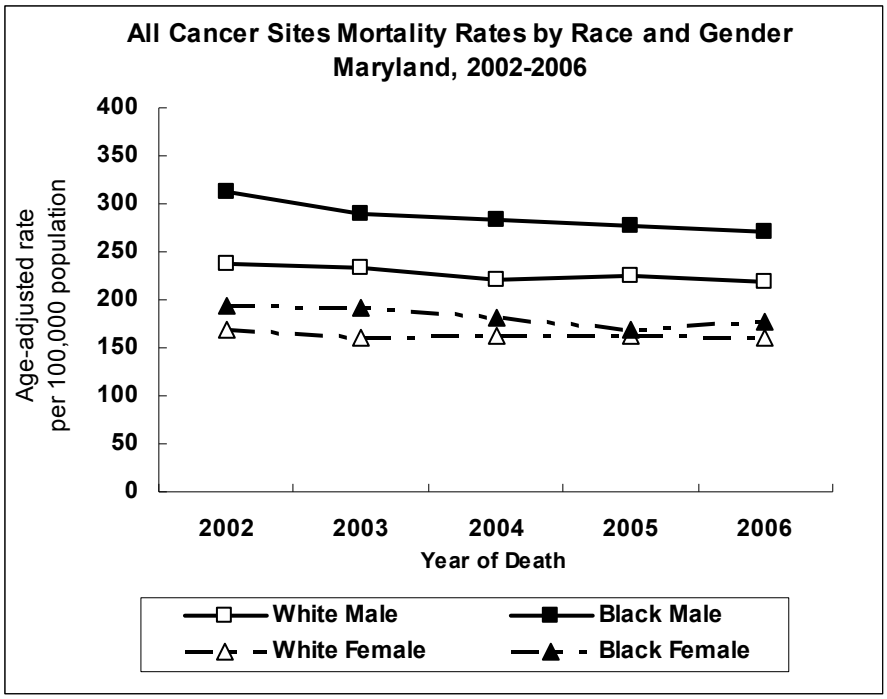


Rates are age-adjusted to 2000 U.S. standard population
Source: Maryland Cancer Registry

Race and Gender Incidence Trends

Compared to females, males have higher overall cancer incidence rates. Black males have the highest rates, black females the lowest. From 2002 to 2006, incidence rates for all cancer sites decreased an average of 5.2% and 3.2% for black males and black females, respectively. Among whites, incidence rates declined an average of 3.1% for males and 2.3% for females.

See Appendix I, Table 3.

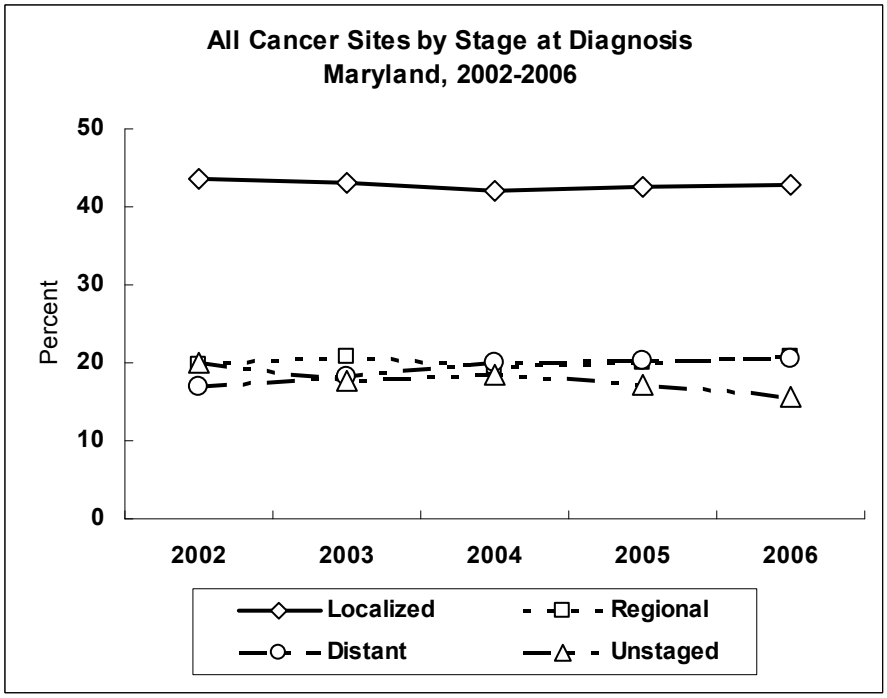


Rates are age-adjusted to 2000 U.S. standard population
Source: NCHS Compressed Mortality File in CDC WONDER

Race and Gender Mortality Trends

Males have higher overall cancer mortality rates than females. Black males have the highest rates; white females have the lowest. All gender and race categories showed overall declines in cancer mortality from 2002 to 2006. The largest decrease in mortality occurred for black males, with an average annual decrease of 3.2% per year from 2002 to 2006.

See Appendix I, Table 4.

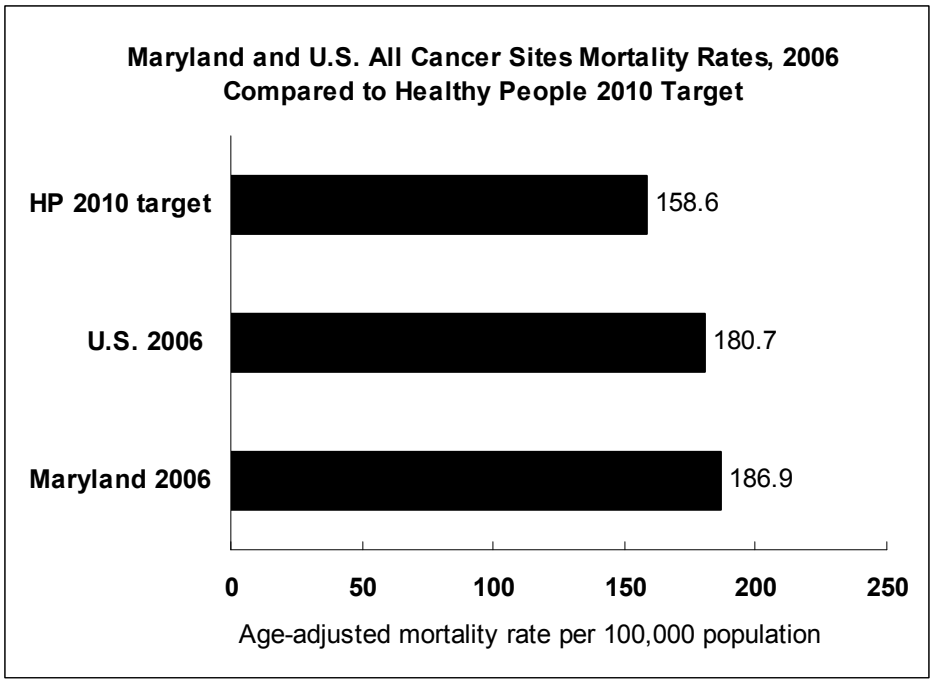


Source: Maryland Cancer Registry

Stage at Diagnosis

Of all cancers diagnosed in Maryland in 2006, 42.9% were found at the local stage, 20.8% at the regional stage, 20.5% at the distant stage, and 15.8% were reported without a stage.

See Appendix J, Table 1.



Mortality Rates Compared to Healthy People 2010 Target

The overall cancer mortality rate in 2006 for Maryland is 186.9 per 100,000 population. The Healthy People 2010 goal is to reduce cancer mortality to 158.6 per 100,000 population.

Rates are age-adjusted to 2000 U.S. standard population
Sources: NCHS Compressed Mortality File in CDC WONDER
Healthy People 2010 Midcourse Review, U.S. Department of Health and Human Services (2006)

Summary – Identification of Targeted Cancers

The cancers targeted under the Cigarette Restitution Fund in 2009 include: lung and bronchus, colon and rectum, prostate, breast, cervical, oral, and melanoma of the skin. These cancers were chosen due to the capacity to prevent, detect early, and effectively treat these cancers, and due to the magnitude of their impact on incidence and mortality. The remaining sections of this report address these targeted cancers. The public health interventions to reduce the impact of these cancers among Marylanders are listed in the chart below.

The public health interventions to reduce the impact of the targeted cancers are:

» Prevention and cessation of tobacco use

» Early detection and treatment of:
- colon/rectum cancer
- breast cancer
- cervical cancer
- oral cancer

» Protection of the skin from excessive sun or other sources of UV exposure

Table 3.
Number of Cancer Cases for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	24,203	12,246	11,895	17,629	5,391	903	280
Allegany	457	243	214	450	s	<6	0
Anne Arundel	2,226	1,144	1,055	1,908	243	53	22
Baltimore City	2,781	1,422	1,356	1,159	1,547	51	24
Baltimore County	3,903	1,952	1,948	3,143	569	146	45
Calvert	356	203	152	312	41	<6	<6
Caroline	175	90	84	154	16	<6	<6
Carroll	820	410	410	785	17	10	8
Cecil	481	237	244	455	20	<6	<6
Charles	425	244	181	295	106	16	8
Dorchester	191	104	87	146	40	<6	<6
Frederick	936	459	475	859	49	20	8
Garrett	142	68	74	s	<6	0	0
Harford	1,045	547	498	928	90	19	8
Howard	985	472	512	765	146	63	11
Kent	134	72	62	118	s	0	<6
Montgomery †	3,536	1,654	1,882	2,672	479	331	54
Prince George's †	2,900	1,449	1,445	1,088	1,650	134	28
Queen Anne's	232	145	85	201	27	<6	<6
Saint Mary's	442	243	199	372	56	<6	s
Somerset	115	61	54	83	s	<6	0
Talbot	253	141	112	217	33	<6	<6
Washington	701	353	347	666	24	s	<6
Wicomico	376	197	179	295	71	s	<6
Worcester	325	172	152	276	35	s	<6
Unknown	266	164	88	s	81	8	s

Total includes cases reported as transexual, hermaphrodite, unknown gender, and unknown race

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 4.
All Cancer Sites Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	426.3	495.6	376.9	434.3	395.7	353.1
Allegany	485.4	585.3	424.4	493.9	**	**
Anne Arundel	442.6	512.8	387.2	445.3	419.4	380.5
Baltimore City	431.5	540.7	359.8	484.7	391.2	476.0
Baltimore County	434.3	498.6	389.7	431.9	416.6	527.0
Calvert	445.8	565.4	352.0	463.0	353.6	**
Caroline	504.8	574.8	447.8	523.6	336.5	**
Carroll	481.3	547.7	442.5	479.5	293.3	**
Cecil	510.8	551.7	485.0	511.4	454.7	**
Charles	370.1	512.9	276.1	370.8	341.0	556.3
Dorchester	459.8	575.7	385.9	466.2	412.9	**
Frederick	460.9	527.5	421.2	466.5	367.9	312.0
Garrett	385.4	397.8	384.2	382.5	**	0.0
Harford	440.8	501.9	391.3	439.5	446.6	413.1
Howard	401.3	442.0	377.1	412.1	404.7	267.6
Kent	516.4	592.9	456.6	540.8	**	0.0
Montgomery †	364.4	395.5	345.1	366.6	398.3	276.5
Prince George's †	399.4	469.0	349.9	425.6	380.8	393.9
Queen Anne's	460.7	614.7	319.7	447.0	560.4	**
Saint Mary's	512.1	613.1	432.3	524.3	454.8	**
Somerset	418.1	484.2	372.0	419.9	401.6	**
Talbot	471.0	580.8	378.1	458.4	510.7	**
Washington	455.3	517.8	422.1	456.8	426.2	**
Wicomico	382.8	465.0	330.3	385.4	357.3	**
Worcester	464.0	513.5	428.0	452.9	393.5	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 5.
All Cancer Sites Cases and Age-Adjusted Incidence Rates* Among Hispanics§ by Geographical Area in Maryland, 2006

Jurisdiction	Cases	Rate
Maryland	521	292.8
Allegany	0	0.0
Anne Arundel	35	365.3
Baltimore City	36	379.8
Baltimore County	55	433.2
Calvert	<6	**
Caroline	0	0.0
Carroll	6	**
Cecil	7	**
Charles	9	**
Dorchester	<6	**
Frederick	23	509.4
Garrett	0	0.0
Harford	9	**
Howard	14	**
Kent	<6	**
Montgomery †	197	242.4
Prince George's †	88	221.1
Queen Anne's	0	0.0
St. Mary's	8	**
Somerset	0	0.0
Talbot	<6	**
Washington	7	**
Wicomico	<6	**
Worcester	<6	**
Region	**Cases**	**Rate**
Baltimore Metropolitan Area ^	155	377.5
Eastern Shore Region	23	571.6
National Capital Area †	285	234.0
Northwest Region	30	384.8
Southern Region	21	512.7

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

§ Case counts were prepared using MCR data and an algorithm to determine Hispanic ethnicity. (See Appendix C, Section D.6.)

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2006 case counts and incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting. (See Appendix C, Section A.1.)

^ Includes Baltimore City

Source: Maryland Cancer Registry

Table 6.
Number of Deaths for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	10,350	5,168	5,182	7,512	2,627	211
Allegany	184	99	85	182	<6	<6
Anne Arundel	961	500	461	831	114	16
Baltimore City	1,485	741	744	565	913	7
Baltimore County	1,839	899	940	1,561	256	22
Calvert	157	81	76	136	s	<6
Caroline	78	37	41	66	s	<6
Carroll	303	155	148	297	<6	<6
Cecil	198	102	96	194	<6	<6
Charles	203	102	101	143	s	<6
Dorchester	87	45	42	67	s	<6
Frederick	356	183	173	336	s	<6
Garrett	60	32	28	s	<6	<6
Harford	428	211	217	376	s	<6
Howard	305	142	163	233	55	17
Kent	62	33	29	54	s	<6
Montgomery	1,286	586	700	1,006	184	96
Prince George's	1,286	631	655	471	778	37
Queen Anne's	109	69	40	98	s	<6
Saint Mary's	176	105	71	146	s	<6
Somerset	58	35	23	s	13	<6
Talbot	99	51	48	92	s	<6
Washington	273	142	131	263	s	<6
Wicomico	215	107	108	167	s	<6
Worcester	142	80	62	123	s	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 7.
All Cancer Sites Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	186.9	225.2	161.8	183.8	211.6	93.6
Allegany	188.3	241.1	144.6	191.6	**	**
Anne Arundel	202.0	244.4	172.1	202.2	217.2	104.4
Baltimore City	230.4	295.5	191.3	223.4	237.0	**
Baltimore County	198.0	233.3	174.0	199.7	210.6	87.5
Calvert	212.0	245.3	182.8	218.0	196.7	**
Caroline	226.7	248.6	206.4	225.8	**	**
Carroll	186.3	225.1	157.6	189.7	**	**
Cecil	217.9	258.1	190.0	225.5	**	**
Charles	197.3	247.8	170.6	197.8	204.9	**
Dorchester	206.5	258.5	171.7	204.1	196.1	**
Frederick	185.8	234.5	157.8	189.8	173.2	**
Garrett	160.8	194.9	142.3	161.8	**	**
Harford	188.9	214.0	171.1	185.2	247.0	**
Howard	146.2	170.6	133.3	145.6	188.8	76.1
Kent	216.6	256.6	195.9	217.7	**	**
Montgomery	134.1	150.8	124.7	134.4	166.1	95.3
Prince George's	197.5	241.5	170.7	185.8	213.1	126.8
Queen Anne's	223.5	306.6	151.9	225.3	**	**
Saint Mary's	217.1	298.7	161.0	215.1	246.6	**
Somerset	212.0	287.3	156.7	223.5	**	**
Talbot	162.2	198.5	135.9	169.8	**	**
Washington	172.7	214.1	145.9	174.1	**	**
Wicomico	218.7	268.6	187.4	217.1	237.8	**
Worcester	185.2	233.8	145.2	184.1	204.9	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Table 8.
Number of Cancer Cases for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 2002-2006

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	128,221	64,623	63,489	93,454	28,423	4,174	2,170
Allegany	2,316	1,204	1,112	2,239	66	s	<6
Anne Arundel	11,571	6,013	5,530	9,915	1,216	237	203
Baltimore City	15,315	7,767	7,541	6,252	8,654	211	198
Baltimore County	22,297	10,981	11,312	18,027	3,448	496	326
Calvert	1,803	894	906	1,516	232	14	41
Caroline	831	430	400	698	116	9	8
Carroll	4,066	2,071	1,994	3,856	117	41	52
Cecil	2,121	1,137	984	1,976	90	16	39
Charles	2,412	1,252	1,155	1,764	550	47	51
Dorchester	953	534	418	742	198	s	<6
Frederick	5,330	2,690	2,636	4,898	279	76	77
Garrett	748	392	355	733	s	0	<6
Harford	5,490	2,955	2,534	4,928	409	88	65
Howard	5,030	2,415	2,611	3,933	690	304	103
Kent	657	349	308	559	87	<6	s
Montgomery †	19,526	9,293	10,222	14,903	2,387	1,794	442
Prince George's †	14,404	7,136	7,254	5,288	8,204	621	291
Queen Anne's	1,157	640	515	1,002	126	11	18
Saint Mary's	1,848	1,001	844	1,517	239	34	58
Somerset	676	382	294	470	193	s	<6
Talbot	1,261	634	627	1,083	162	7	9
Washington	3,628	1,866	1,761	3,437	134	33	24
Wicomico	2,180	1,097	1,083	1,716	407	38	19
Worcester	1,680	916	763	1,446	184	43	7
Unknown	921	574	330	556	s	25	s

Total includes cases reported as transexual, hermaphrodite, unknown gender, and unknown race

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 9.
All Cancer Sites Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2002-2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	466.7	542.6	414.3	468.7	444.6	361.3
Allegany	491.2	583.8	431.6	489.4	739.8	**
Anne Arundel	476.0	553.2	419.2	473.9	450.1	366.8
Baltimore City	473.7	588.6	400.2	505.0	444.5	401.4
Baltimore County	504.8	574.8	457.9	493.0	560.4	417.0
Calvert	476.9	535.0	437.9	469.5	458.4	**
Caroline	501.4	572.8	445.0	494.3	500.3	**
Carroll	502.2	582.3	450.1	494.7	538.2	611.4
Cecil	472.0	555.4	408.7	463.3	469.1	622.9
Charles	441.2	533.1	375.8	447.0	406.5	351.6
Dorchester	471.5	601.0	378.2	479.3	429.2	**
Frederick	551.7	647.3	491.3	551.3	497.6	319.7
Garrett	411.9	464.7	367.9	406.3	**	0.0
Harford	486.7	583.7	412.6	484.3	463.0	434.4
Howard	437.9	482.7	410.4	440.8	436.9	302.0
Kent	493.4	569.0	437.2	496.3	435.3	**
Montgomery †	417.6	462.3	388.9	417.9	424.2	330.6
Prince George's †	413.4	485.1	364.0	408.5	405.0	371.2
Queen Anne's	472.6	550.2	404.1	456.4	546.3	**
Saint Mary's	453.2	538.1	389.4	444.9	417.9	553.6
Somerset	499.2	615.2	413.9	482.4	541.5	**
Talbot	486.7	540.5	444.4	480.7	500.8	**
Washington	480.7	556.8	432.2	478.2	558.2	505.7
Wicomico	470.2	547.8	419.8	473.1	440.5	591.4
Worcester	474.4	551.8	412.6	470.4	414.5	2,689.3

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2002-2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1)

Source: Maryland Cancer Registry

Table 10.
Number of Cancer Deaths for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 2002-2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	51,576	26,038	25,538	37,689	12,905	982
Allegany	988	532	456	972	s	<6
Anne Arundel	4,645	2,391	2,254	4,009	566	70
Baltimore City	7,858	3,962	3,896	3,026	4,792	40
Baltimore County	9,062	4,528	4,534	7,766	1,189	107
Calvert	770	394	376	646	s	<6
Caroline	379	195	184	310	s	<6
Carroll	1,515	781	734	1,463	44	8
Cecil	915	486	429	877	s	<6
Charles	1,067	556	511	799	246	22
Dorchester	432	251	181	324	s	<6
Frederick	1,718	893	825	1,603	109	6
Garrett	311	172	139	308	<6	<6
Harford	2,074	1,061	1,013	1,865	186	23
Howard	1,469	713	756	1,157	235	77
Kent	286	153	133	233	s	<6
Montgomery	6,387	2,985	3,402	5,142	827	418
Prince George's	6,295	3,094	3,201	2,509	3,611	175
Queen Anne's	475	254	221	415	s	<6
Saint Mary's	824	474	350	685	133	6
Somerset	339	196	143	258	s	<6
Talbot	522	260	262	446	s	<6
Washington	1,502	766	736	1,450	s	<6
Wicomico	1,001	511	490	782	211	8
Worcester	742	430	312	644	s	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 11.
All Cancer Sites Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2002-2006

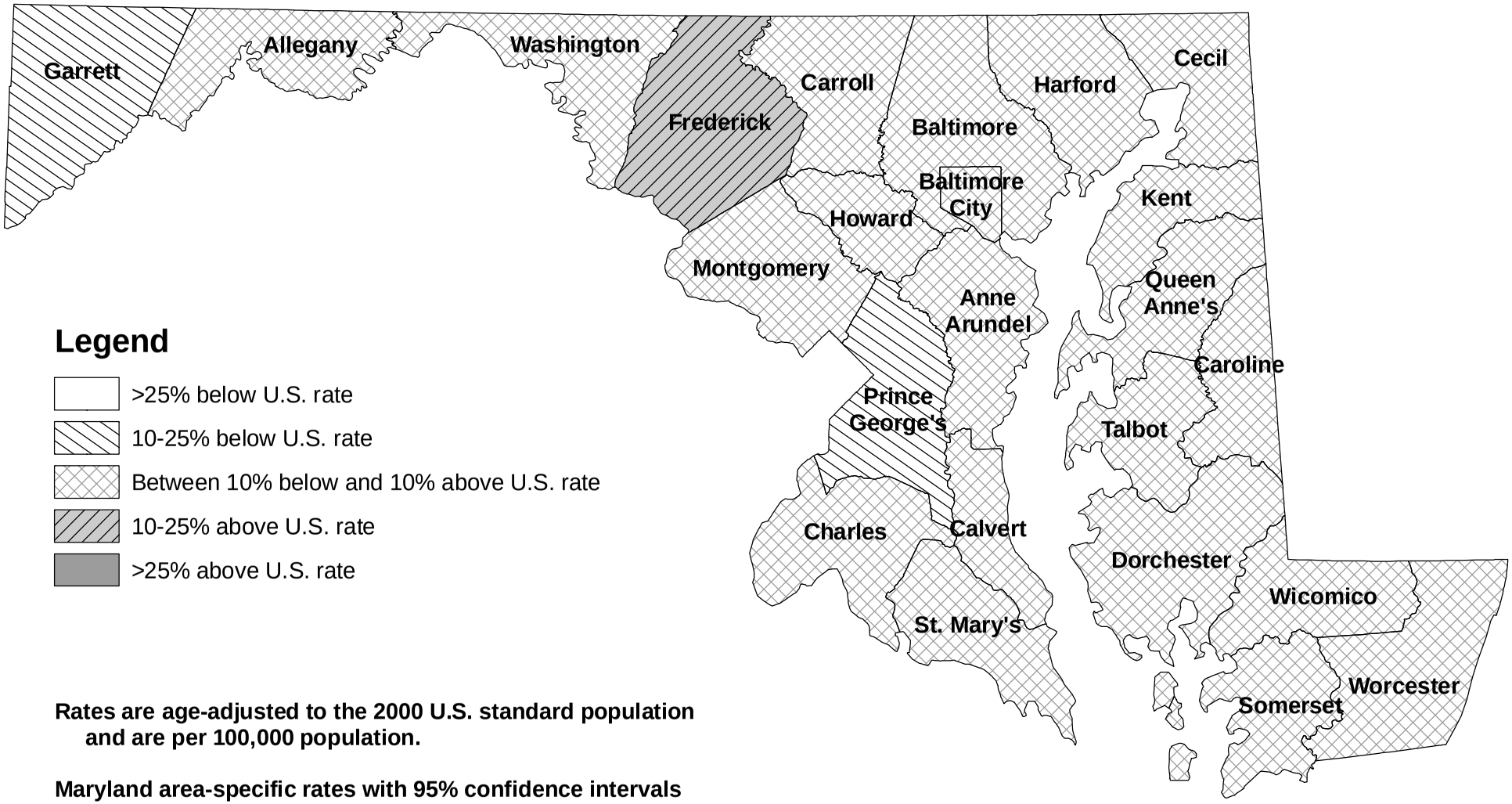
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	193.0	235.6	165.3	188.7	221.1	96.7
Allegany	199.3	261.0	160.5	201.0	**	**
Anne Arundel	203.7	246.7	175.6	202.3	232.0	116.7
Baltimore City	242.6	311.0	200.5	231.1	253.3	82.6
Baltimore County	199.9	242.6	171.8	200.3	214.7	92.4
Calvert	222.7	269.7	192.6	220.7	248.2	**
Caroline	226.7	273.0	195.4	217.9	283.8	**
Carroll	194.8	243.3	164.8	194.9	214.7	**
Cecil	213.8	261.1	181.4	215.8	182.4	**
Charles	220.3	282.0	182.5	226.0	209.3	163.9
Dorchester	208.7	290.4	155.7	201.4	228.3	**
Frederick	186.9	234.1	156.7	188.2	210.9	**
Garrett	170.2	213.2	137.9	169.6	**	**
Harford	195.8	231.8	169.7	194.4	224.8	114.5
Howard	145.7	173.4	131.9	147.3	164.6	87.5
Kent	198.7	245.6	169.3	189.2	255.8	**
Montgomery	140.0	161.0	127.3	142.2	164.8	91.4
Prince George's	200.6	244.6	173.6	193.9	213.5	116.3
Queen Anne's	201.1	229.9	174.3	197.4	243.1	**
Saint Mary's	216.5	280.4	169.5	215.8	240.0	**
Somerset	250.3	330.1	194.8	258.0	230.8	**
Talbot	184.2	216.0	160.8	178.4	226.6	**
Washington	195.2	238.6	167.8	196.1	265.6	**
Wicomico	215.5	266.0	181.9	213.5	232.0	**
Worcester	200.8	260.1	155.0	199.9	212.3	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Maryland All Cancer Sites Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



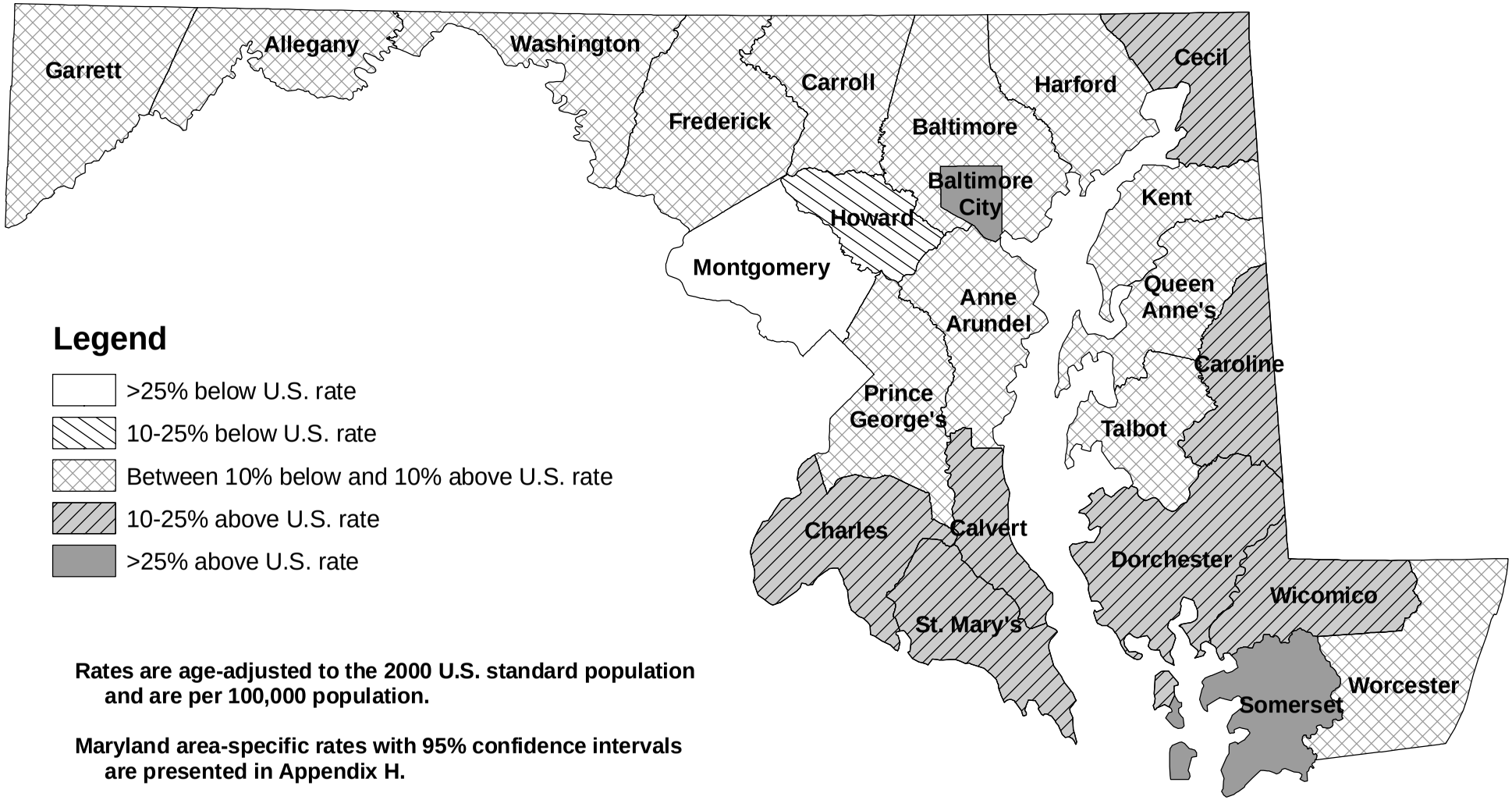
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. all cancer sites incidence rate, 2002-2006: 462.9/100,000

Source: MD incidence rates from Maryland Cancer Registry, 2002-2006
U.S. (SEER 17) rate from SEER*Stat Software

Maryland All Cancer Sites Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. all cancer sites mortality rate, 2002-2006: 186.7/100,000

Source: MD and U.S. mortality rates from NCHS Compressed Mortality File in CDC WONDER

III. Targeted Cancers

A. Lung and Bronchus Cancer

Incidence (New Cases)

There were 3,512 new cases of lung and bronchus cancer (called lung cancer) reported among Maryland residents in 2006. The 2006 Maryland age-adjusted lung cancer incidence rate was 63.3 per 100,000 population (61.2-66.5, 95% C.I.), which is statistically significantly higher than the 2006 U.S. SEER lung cancer incidence rate of 60.7 per 100,000 population (60.1-61.2, 95% C.I.).

Table 12.
Lung Cancer Incidence Data*
by Gender and Race, Maryland and the United States, 2004-2006

	Total	*Males*	*Females*	*Whites*	*Blacks*	*Other*
2004						
MD New Cases (count)	3,711	1,903	1,808	2,840	806	s
MD Incidence Rate	69.0	82.7	59.4	71.1	67.7	31.1
U.S. SEER Rate	63.1	77.6	52.5	64.2	75.3	40.0
2005						
MD New Cases (count)	3,694	1,937	1,754	2,782	818	s
MD Incidence Rate	67.9	83.1	56.8	69.5	66.2	44.3
U.S. SEER Rate	62.3	75.6	52.6	63.7	73.3	39.0
2006						
MD New Cases (count) †	3,512	1,776	1,720	2,717	714	69
MD Incidence Rate †	63.3	74.6	55.0	67.1	55.3	28.4
U.S. SEER Rate	60.7	73.3	51.4	61.9	71.3	37.4

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
Total includes cases reported as transsexual, hermaphrodite, unknown gender, and unknown race
† 2006 Maryland case counts and incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)
s = Counts are suppressed to prevent disclosure of data in other cells based on Tables K-5 and L-5.
Sources: Maryland Cancer Registry (MD incidence data)
NCI SEER*Stat (U.S. SEER 17 rates)

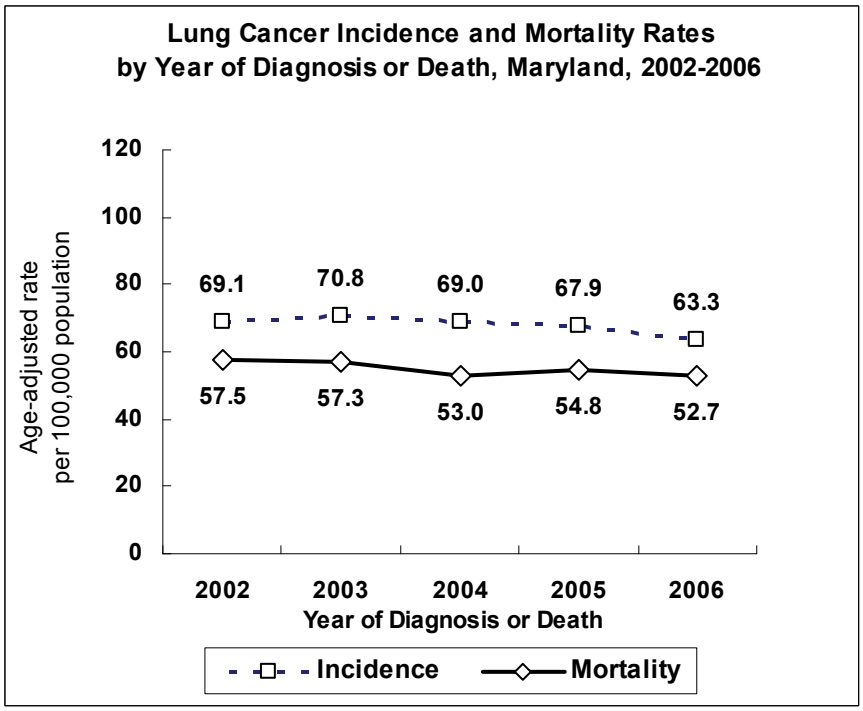
Mortality (Deaths)

There were 2,902 lung cancer deaths among Maryland residents in 2006. In 2006, lung cancer accounted for 28.0% of all cancer deaths in Maryland and was the leading cause of cancer deaths in both men and women. The 2006 age-adjusted lung cancer mortality rate was 52.7 per 100,000 population (50.8-54.6, 95% C.I.) in Maryland. This rate is similar to the 2006 U.S. mortality rate for lung and bronchus cancer of 51.5 per 100,000 population (51.2-51.8, 95% C.I.). Maryland had the 20th highest lung cancer mortality rate among the states and the District of Columbia for the period 2002-2006.

Table 13.
Lung Cancer Mortality Data*
by Gender and Race, Maryland and the United States, 2004-2006

	Total	*Males*	*Females*	*Whites*	*Blacks*	*Other*
2004						
MD Deaths (count)	2,845	1,547	1,298	2,134	676	35
MD Mortality Rate	53.0	67.8	42.5	53.3	57.4	16.0
U.S. Mortality Rate	53.2	70.0	40.9	53.6	59.8	27.7
2005						
MD Deaths (count)	2,989	1,641	1,348	2,258	676	55
MD Mortality Rate	54.8	71.0	43.4	56.0	55.3	27.0
U.S. Mortality Rate	52.6	69.0	40.5	53.1	58.4	27.0
2006						
MD Deaths (count)	2,902	1,552	1,350	2,182	674	46
MD Mortality Rate	52.7	66.6	42.6	53.7	53.3	20.9
U.S. Mortality Rate	51.5	67.0	40.0	52.1	56.7	26.1

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
Source: NCHS Compressed Mortality File in CDC WONDER



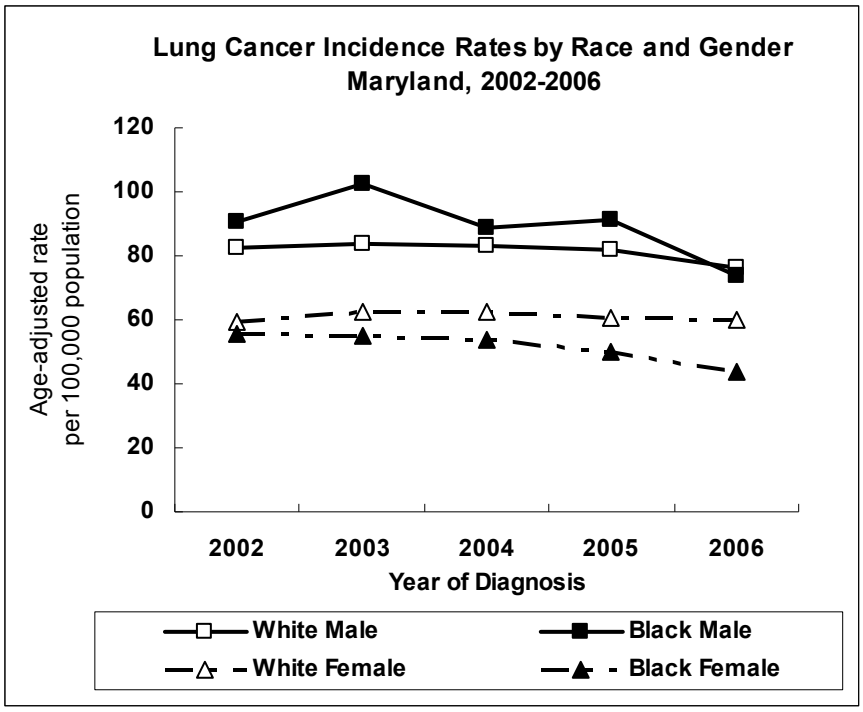
Rates are age-adjusted to 2000 U.S. standard population
Sources: Maryland Cancer Registry (incidence rates)
NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Incidence and Mortality Trends

Lung cancer incidence rates decreased an average of 2.1% per year from 2002 to 2006 in Maryland.

Lung cancer mortality in Maryland began to decline in the 1990s. From 2002 to 2006, lung cancer death rates decreased an average of 2.2% per year.

See Appendix I, Tables 1 and 2.

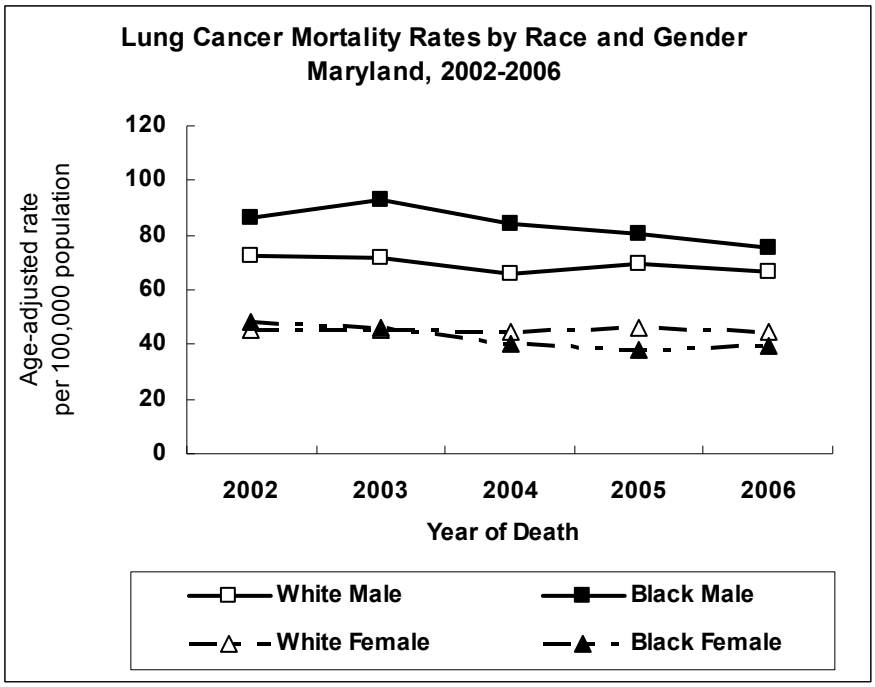


Rates are age-adjusted to 2000 U.S. standard population
Source: Maryland Cancer Registry

Race and Gender Incidence Trends

In recent years, lung cancer incidence rates among black males and black females in Maryland have declined at a faster pace than among whites. By 2006, the incidence rate for black males was comparable to that for white men. From 2002 to 2006, incidence rates for black women declined an average of 5.6% per year, whereas incidence rates among white women were relatively unchanged.

See Appendix I, Table 5.

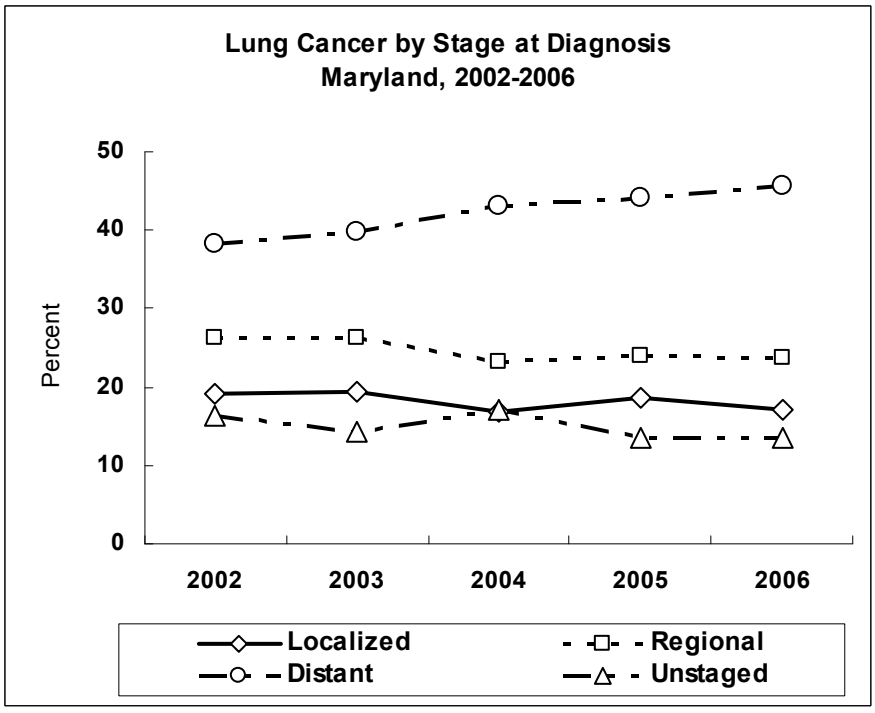


Rates are age-adjusted to 2000 U.S. standard population
Source: NCHS Compressed Mortality File in CDC WONDER

Race and Gender Mortality Trends

Males have consistently higher lung cancer mortality rates than females in Maryland, with highest rates among black males. From 2002 to 2006, lung cancer mortality declined for all race and gender groups. The largest decline in lung cancer mortality rates over the period occurred among black females (5.5% per year); the smallest decline in mortality occurred among white women (0.2% per year).

See Appendix I, Table 6.

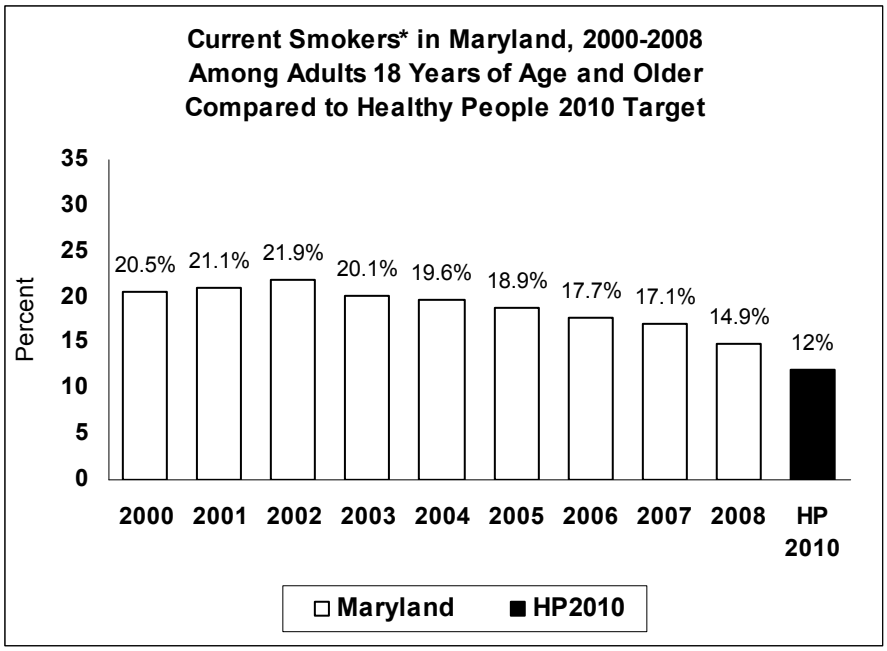


Source: Maryland Cancer Registry

Stage at Diagnosis

A higher proportion of lung cancer cases are diagnosed at the distant stage than at the localized or regional stage of cancer. In 2006, 45.6% of lung cancer cases were diagnosed at the distant stage.

See Appendix J, Table 2.

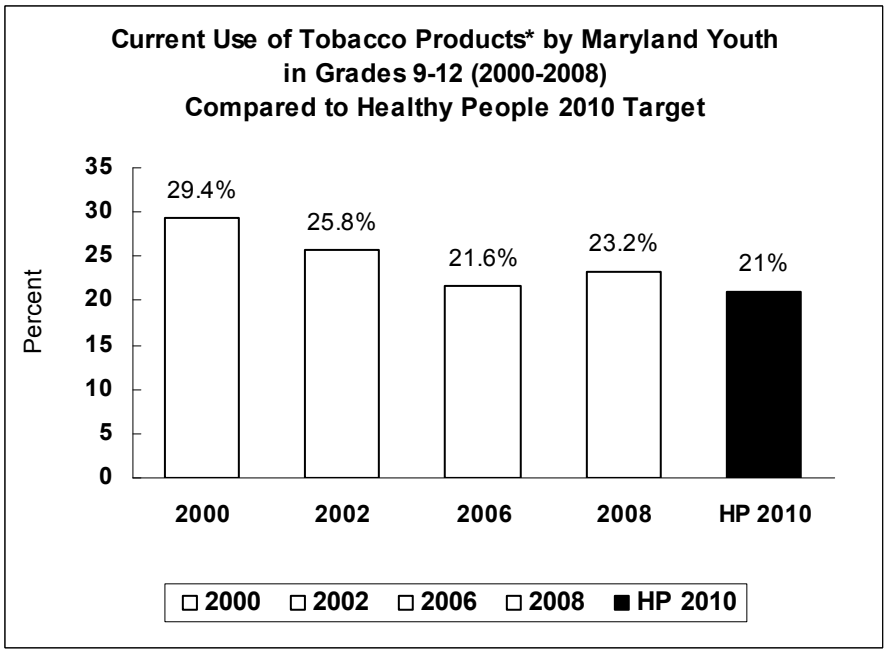


* Current smoker is defined as a person who smokes cigarettes every day or some days

Sources: Maryland BRFSS
Healthy People 2010, U.S. Department of Health and Human Services (2000)

Smoking Prevalence Among Maryland Adults

One Healthy People 2010 target is to reduce the percentage of adults who are current smokers to 12%. Although Maryland has not yet attained this goal, the percentage of adult smokers has declined an average of 3.9% per year since 2000, with a consistent downward trend since 2003.



* Current use of tobacco products is defined as use of any tobacco product, including cigarettes, smokeless or spit tobacco, and other products containing tobacco in the last 30 days

Sources: MYTS 2000, 2002, 2006, and 2008
Healthy People 2010, U.S. Department of Health and Human Services (2000)

Tobacco Use by Maryland Youth

Healthy People 2010 has established a target of reducing the percentage of youth in grades 9-12 who are current users of tobacco products to 21%.

Based on the Maryland Youth Tobacco Survey (MYTS), 23.2% of Maryland youth in grades 9-12 were current users of tobacco products in 2008. This represents an increase over 2006 levels of tobacco use and is above the Healthy People 2010 target.

Public Health Evidence (quoted from National Cancer Institute [NCI], Physician Data Query [PDQ], 6/30/2009 and 6/30/2009, and United States Preventive Services Task Force [USPSTF], 5/2004)

Primary Prevention

The most important risk factor for lung cancer (as well as many other cancers) is tobacco use. Cigarette smoking has been established as the predominant cause of lung cancer, and tobacco smoking is estimated to cause 90% of lung cancer in males and 78% of lung cancer in females. Cigar and pipe smoking have also been associated, independently, with increased lung cancer risk. Based on solid evidence, cigarette smoking causes lung cancer and therefore, smoking avoidance would result in decreased mortality from primary lung cancers. Additionally, long-term sustained smoking cessation results in decreased incidence of lung cancer and of second primary lung tumors. Compared with persistent smokers, a 30 to 50% reduction of lung cancer mortality has been noted after 10 years of smoking cessation.

Environmental, or secondhand, tobacco smoke contains the same components as inhaled mainstream smoke at 1% to 10% the concentration, depending on the component. Indoor exposure to radon increases lung cancer incidence and mortality. Considered in total, occupational exposures have been estimated to account for approximately 10% of lung cancers. These carcinogens include asbestos, radon, tar and soot (source of polycyclic aromatic hydrocarbons), arsenic, chromium, and nickel. For many of these workplace carcinogens, cigarette smoking interacts to synergistically increase the risk.

Chemoprevention

Chemoprevention studies of beta-carotene found that high-intensity smokers (one or more packs per day) who take pharmacological doses of beta-carotene supplementation ($\geq$ 20 mg/day) have an *increased* lung cancer incidence and mortality that is associated with taking the supplement. In these studies, beta-carotene did not increase lung cancer risk among moderate smokers, former smokers, or non-smokers. Based on solid evidence, taking vitamin E supplements does not affect the risk of lung cancer.

Screening

Based on fair evidence, screening with chest x-ray and/or sputum cytology does not reduce mortality from lung cancer. Evidence is inadequate to determine whether screening with low-dose helical computed tomography (LDCT) decreases mortality from lung cancer. Based on solid evidence, screening with chest x-ray (CXR) and/or sputum cytology or with LDCT would lead to false-positive tests with unnecessary invasive diagnostic procedures and treatments.

The United States Preventive Services Task Force (USPSTF) similarly concluded that the evidence is insufficient to recommend for or against screening asymptomatic persons for lung cancer with LDCT, CXR, sputum cytology, or a combination of these tests. Because of the high number of false-positive tests in certain populations and the invasive nature of diagnostic testing, there is potential for significant harms from screening and diagnostic procedures.

Public Health Intervention for Lung Cancer (CDC Best Practices for Comprehensive Tobacco Control Programs-2007, 10/2007)

- Prevent tobacco use among youth and young adults
- Promote cessation among adults and young people
- Eliminate exposure to secondhand smoke
- Identify and eliminate tobacco-related disparities

The CDC Best Practice Guidelines address five components of Comprehensive Tobacco Control Programs including:

- ***State and Community Interventions:***

✓ Support and implement programs and policies to influence organizations, systems, and networks

✓ Include local and statewide policies and programs, chronic disease and tobacco-related disparity elimination initiatives, and interventions aimed at youth

- ***Health Communication Interventions:***

✓ Deliver strategic, culturally appropriate, and high-impact messages in sustained and adequately funded campaigns

✓ Use traditional health communication interventions and counter-marketing strategies, as well as innovations including more focused targeting of specific audiences and fostering message development and distribution

- ***Cessation Interventions:***

✓ Use interventions that encompass a broad array of policy, system, and population-based measures

✓ Ensure that all patients seen in the health care system are screened for tobacco use, receive brief interventions to help them quit, and are offered more intensive counseling services and FDA-approved cessation medications

✓ Make quitline counseling available to all tobacco users willing to access the service

- ***Surveillance and Evaluation:***

✓ Monitor tobacco-related attitudes, behaviors, and health outcomes

✓ Collect baseline data related to each objective and performance indicator to ensure program effects are adequately measured

- ***Administration and Management:***

✓ Have sufficient funding, internal capacity, and skilled staff for effective tobacco prevention and control programs

Table 14.
Number of Lung and Bronchus Cancer Cases by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	3,512	1,776	1,720	2,717	714	69	12
Allegany	82	48	34	s	<6	<6	0
Anne Arundel	346	163	176	323	s	<6	0
Baltimore City	514	264	250	s	274	<6	0
Baltimore County	598	302	296	523	68	7	0
Calvert	55	26	29	49	6	0	0
Caroline	31	17	14	27	<6	<6	0
Carroll	125	63	62	s	<6	0	0
Cecil	102	51	51	s	<6	0	0
Charles	55	34	21	43	12	0	0
Dorchester	36	20	16	28	8	0	0
Frederick	149	71	77	141	s	<6	0
Garrett	20	8	12	20	0	0	0
Harford	158	79	79	145	s	<6	0
Howard	97	48	49	79	s	<6	0
Kent	22	9	13	s	<6	0	0
Montgomery †	357	161	196	275	44	s	<6
Prince George's †	361	188	172	161	193	s	<6
Queen Anne's	43	26	16	38	<6	<6	0
Saint Mary's	62	38	24	55	7	0	0
Somerset	19	13	6	s	<6	0	0
Talbot	45	20	25	s	<6	0	0
Washington	96	56	40	91	<6	<6	0
Wicomico	65	34	31	54	s	<6	0
Worcester	48	27	21	41	<6	<6	0
Unknown	26	10	10	10	s	<6	8

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 15.
Lung and Bronchus Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	63.3	74.6	55.0	67.1	55.3	28.4
Allegany	84.7	113.9	65.9	84.5	**	**
Anne Arundel	72.0	78.3	66.4	77.9	35.4	**
Baltimore City	80.4	104.5	65.4	100.0	69.5	**
Baltimore County	65.9	77.4	57.7	69.5	55.2	**
Calvert	72.0	72.1	70.4	77.2	**	0.0
Caroline	90.2	114.8	**	91.7	**	**
Carroll	75.2	87.7	68.4	77.1	**	0.0
Cecil	110.7	124.7	102.6	112.9	**	0.0
Charles	52.4	83.8	32.9	59.3	**	0.0
Dorchester	83.7	109.7	67.2	83.5	**	0.0
Frederick	77.5	85.6	70.6	79.6	**	**
Garrett	53.0	**	**	53.3	0.0	0.0
Harford	68.2	76.3	63.1	69.6	**	**
Howard	44.5	51.8	40.7	46.7	49.5	**
Kent	80.5	**	**	84.4	**	0.0
Montgomery †	37.9	40.2	36.3	38.3	38.4	31.2
Prince George's †	53.0	66.5	44.2	62.7	48.4	**
Queen Anne's	85.6	110.9	60.9	85.6	**	**
Saint Mary's	76.1	98.1	56.2	80.7	**	0.0
Somerset	69.9	**	**	**	**	0.0
Talbot	75.9	74.8	77.3	75.3	**	0.0
Washington	61.9	81.7	46.8	61.2	**	**
Wicomico	66.1	81.1	55.2	70.2	**	**
Worcester	62.2	77.9	49.4	60.0	**	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 16.
Number of Lung and Bronchus Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2,902	1,552	1,350	2,182	674	46
Allegany	55	37	18	54	<6	<6
Anne Arundel	308	173	135	274	s	<6
Baltimore City	468	255	213	s	269	<6
Baltimore County	496	253	243	429	s	<6
Calvert	49	25	24	46	<6	<6
Caroline	30	17	13	23	s	<6
Carroll	94	54	40	92	<6	<6
Cecil	73	37	36	72	<6	<6
Charles	64	33	31	45	s	<6
Dorchester	28	12	16	20	s	<6
Frederick	97	51	46	93	<6	<6
Garrett	12	s	<6	s	<6	<6
Harford	123	67	56	109	s	<6
Howard	73	38	35	56	s	<6
Kent	11	<6	s	6	<6	<6
Montgomery	273	117	156	219	31	23
Prince George's	328	178	150	151	169	8
Queen Anne's	31	21	10	27	<6	<6
Saint Mary's	54	34	20	46	s	<6
Somerset	23	14	9	17	s	<6
Talbot	23	10	13	20	<6	<6
Washington	82	48	34	79	<6	<6
Wicomico	62	37	25	51	s	<6
Worcester	45	28	17	42	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 17.
Lung and Bronchus Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	52.7	66.6	42.6	53.7	53.3	20.9
Allegany	56.2	88.6	29.1	56.6	**	**
Anne Arundel	65.0	82.8	51.5	67.1	58.1	**
Baltimore City	73.2	101.3	55.2	80.6	68.7	**
Baltimore County	53.9	65.5	45.3	55.4	55.3	**
Calvert	65.4	74.4	55.9	72.8	**	**
Caroline	88.9	114.1	**	80.4	**	**
Carroll	58.6	76.0	44.2	59.6	**	**
Cecil	80.7	95.7	72.9	84.1	**	**
Charles	63.8	88.3	51.9	64.3	62.3	**
Dorchester	66.0	**	65.0	61.7	**	**
Frederick	50.9	61.8	42.9	52.9	**	**
Garrett	**	**	**	**	**	**
Harford	53.7	67.7	43.8	53.1	**	**
Howard	35.6	43.1	29.6	34.9	**	**
Kent	**	**	**	**	**	**
Montgomery	29.1	30.4	28.5	30.2	26.8	24.0
Prince George's	50.1	66.6	39.4	59.2	43.2	**
Queen Anne's	61.8	86.2	**	59.1	**	**
Saint Mary's	68.8	98.9	46.8	70.2	**	**
Somerset	84.7	**	**	86.2	**	**
Talbot	36.1	**	**	35.4	**	**
Washington	52.7	70.6	38.9	53.1	**	**
Wicomico	62.7	88.9	44.1	66.4	**	**
Worcester	57.6	80.9	38.0	62.2	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Table 18.
Number of Lung and Bronchus Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2002-2006

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	18,245	9,453	8,773	13,855	3,987	370	33
Allegany	412	236	176	398	s	<6	0
Anne Arundel	1,644	846	791	1,464	148	s	<6
Baltimore City	2,758	1,491	1,267	1,180	1,565	s	<6
Baltimore County	3,417	1,684	1,733	2,899	474	s	<6
Calvert	275	140	135	234	37	<6	<6
Caroline	154	80	74	133	s	<6	0
Carroll	560	320	240	540	14	6	0
Cecil	364	193	171	349	12	<6	<6
Charles	327	173	154	262	s	<6	<6
Dorchester	187	109	78	148	s	<6	0
Frederick	692	390	301	651	35	6	0
Garrett	103	62	41	s	<6	0	0
Harford	826	456	369	752	64	10	0
Howard	534	262	272	436	77	21	0
Kent	113	61	52	94	19	0	0
Montgomery †	1,943	862	1,080	1,575	213	149	6
Prince George's †	1,779	911	866	785	929	s	<6
Queen Anne's	196	100	95	169	s	<6	0
Saint Mary's	304	167	137	262	s	<6	0
Somerset	140	94	46	98	42	0	0
Talbot	201	84	117	181	s	<6	0
Washington	538	310	228	510	s	<6	0
Wicomico	409	222	187	334	67	s	<6
Worcester	294	163	131	253	33	8	0
Unknown	75	37	32	s	15	<6	8

Total includes cases reported as transexual, hermaphrodite, unknown gender, and unknown race

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 19.
Lung and Bronchus Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender and Race, Maryland, 2002-2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	67.9	81.9	57.8	69.6	66.2	35.8
Allegany	84.4	113.3	63.2	83.2	**	**
Anne Arundel	70.7	81.6	61.9	72.5	58.5	53.7
Baltimore City	85.5	114.1	66.5	94.5	80.7	**
Baltimore County	76.5	88.3	68.3	76.7	84.0	34.0
Calvert	78.0	91.3	69.0	77.7	76.9	**
Caroline	92.8	110.1	81.2	93.9	82.0	**
Carroll	71.8	94.0	55.8	71.7	**	**
Cecil	83.6	98.8	72.5	84.5	**	**
Charles	66.1	84.2	54.7	71.7	53.7	**
Dorchester	90.3	123.4	66.9	92.4	80.2	**
Frederick	75.1	97.8	58.6	76.2	70.2	**
Garrett	55.2	70.5	40.4	54.4	**	0.0
Harford	75.3	93.9	61.2	75.5	78.2	**
Howard	52.7	57.9	48.9	54.9	54.5	26.6
Kent	82.9	96.5	74.7	81.6	92.3	0.0
Montgomery †	43.0	45.1	41.7	44.5	42.9	30.9
Prince George's †	55.2	68.2	46.6	60.4	50.8	40.3
Queen Anne's	80.6	87.6	74.7	77.7	110.2	**
Saint Mary's	78.3	91.5	67.0	80.7	70.3	**
Somerset	102.4	149.8	59.4	96.5	121.2	0.0
Talbot	73.3	68.3	77.8	74.7	58.2	**
Washington	71.2	93.6	55.0	70.2	117.6	**
Wicomico	88.3	112.1	71.0	91.4	75.4	**
Worcester	77.6	93.7	64.3	76.6	71.5	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2002-2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1)

Source: Maryland Cancer Registry

Table 20.
Number of Lung and Bronchus Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2002-2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	14,718	8,036	6,682	11,034	3,460	224
Allegany	306	192	114	301	<6	<6
Anne Arundel	1,422	768	654	1,257	146	19
Baltimore City	2,474	1,351	1,123	998	1,467	9
Baltimore County	2,670	1,414	1,256	2,351	302	17
Calvert	220	117	103	189	s	<6
Caroline	130	78	52	115	s	<6
Carroll	428	246	182	417	s	<6
Cecil	294	155	139	283	s	<6
Charles	331	182	149	256	s	<6
Dorchester	148	90	58	115	s	<6
Frederick	435	258	177	414	s	<6
Garrett	83	51	32	s	<6	<6
Harford	649	369	280	586	56	7
Howard	359	185	174	285	58	16
Kent	84	44	40	s	22	<6
Montgomery	1,395	655	740	1,142	157	96
Prince George's	1,596	906	690	699	854	43
Queen Anne's	150	81	69	130	s	<6
Saint Mary's	254	158	96	217	s	<6
Somerset	121	74	47	93	s	<6
Talbot	149	71	78	130	s	<6
Washington	457	264	193	442	s	<6
Wicomico	340	192	148	277	s	<6
Worcester	223	135	88	192	s	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 21.
Lung and Bronchus Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender and Race, Maryland, 2002-2006

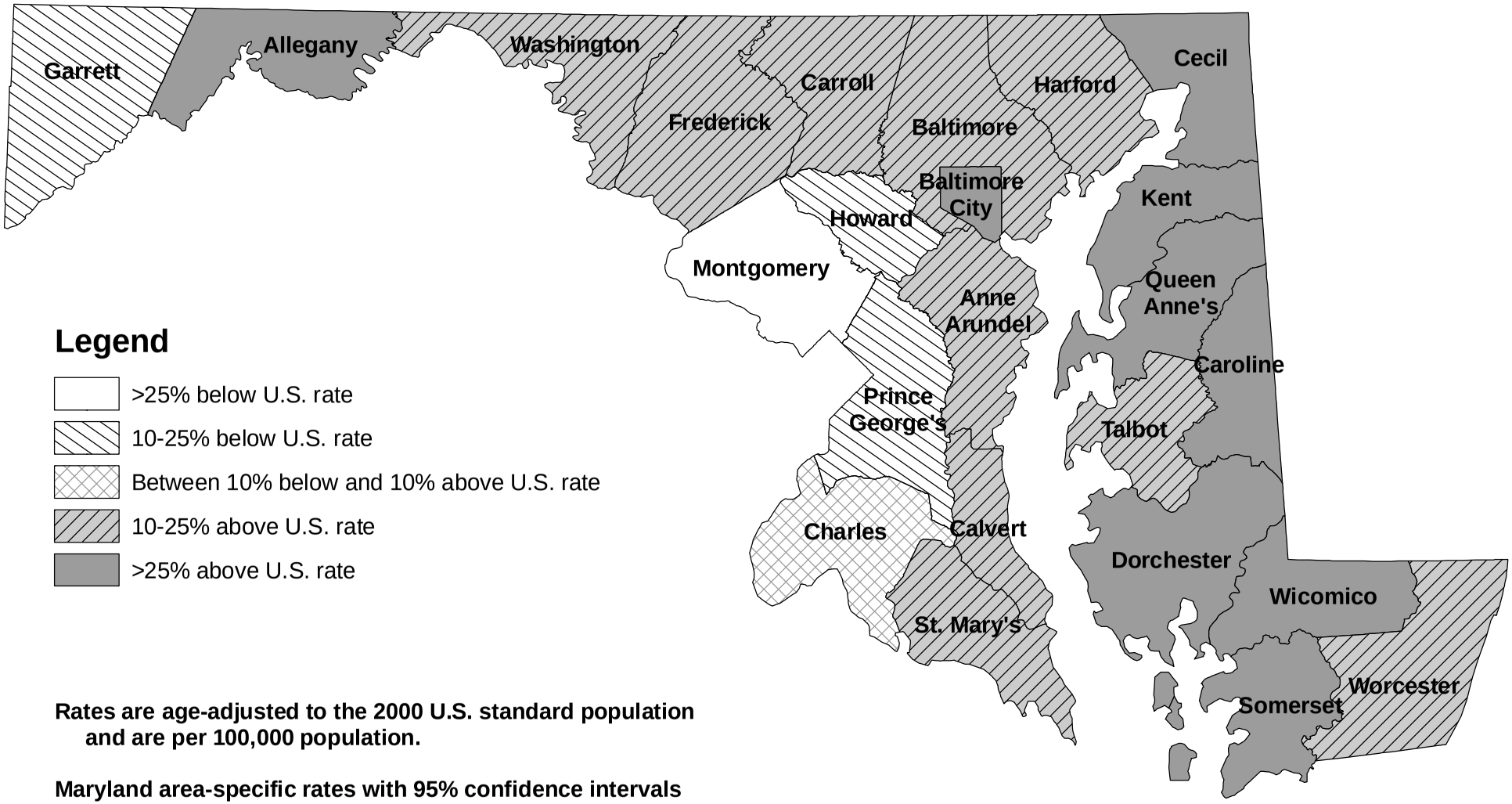
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	55.1	71.1	43.7	55.3	58.7	22.4
Allegany	62.0	92.0	39.9	62.3	**	**
Anne Arundel	62.2	76.6	51.4	63.2	58.6	37.4
Baltimore City	76.5	104.5	58.2	77.7	76.5	**
Baltimore County	59.1	74.7	48.1	61.0	55.0	12.5
Calvert	64.6	83.8	52.9	65.5	64.4	**
Caroline	78.1	108.5	56.2	81.2	**	**
Carroll	55.1	73.5	42.0	55.5	**	**
Cecil	68.7	81.2	59.5	69.5	**	**
Charles	68.9	94.2	54.3	72.5	60.6	**
Dorchester	70.6	103.7	48.7	71.0	68.7	**
Frederick	47.7	67.0	34.2	48.9	42.1	**
Garrett	44.6	60.5	30.5	44.9	**	**
Harford	60.1	78.3	46.6	59.9	67.3	**
Howard	36.2	43.4	31.5	37.1	39.1	20.9
Kent	59.7	68.9	54.0	51.9	105.5	**
Montgomery	31.0	35.3	28.1	31.9	31.8	22.1
Prince George's	50.6	68.8	38.1	53.6	49.5	25.1
Queen Anne's	61.9	70.0	54.1	59.9	83.7	**
Saint Mary's	66.8	91.9	47.3	68.5	63.3	**
Somerset	87.9	117.5	61.7	91.8	81.3	**
Talbot	53.2	58.7	48.9	52.4	55.8	**
Washington	59.9	80.4	45.0	60.2	**	**
Wicomico	73.2	97.6	55.8	75.7	66.1	**
Worcester	58.9	79.7	42.1	57.7	65.9	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Maryland Lung Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



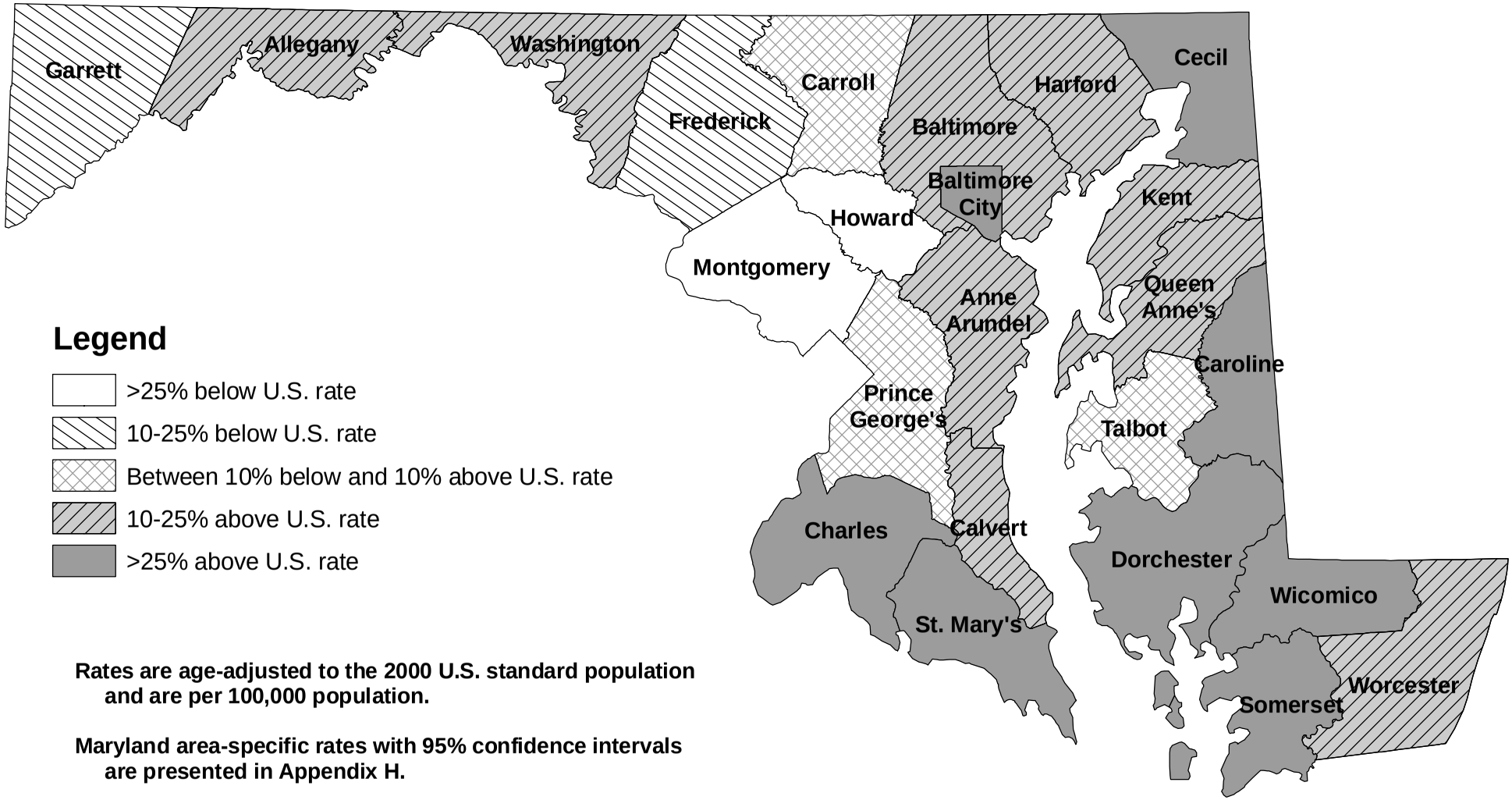
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. lung cancer incidence rate, 2002-2006: 63.1/100,000

Source: MD incidence rates from Maryland Cancer Registry, 2002-2006
U.S. (SEER 17) rate from SEER*Stat Software

Maryland Lung Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. lung cancer mortality rate, 2002-2006: 53.2/100,000

Source: MD and U.S. mortality rates from NCHS Compressed Mortality File in CDC WONDER

B. Colon and Rectum Cancer

Incidence (New Cases)

In 2006, there were 2,322 new cases of cancer of the colon or rectum (called colorectal cancer) reported among Maryland residents. The age-adjusted colorectal cancer incidence rate in Maryland for 2006 was 41.3 per 100,000 population (39.7-43.1, 95% C.I.), which is statistically significantly lower than the 2006 U.S. SEER age-adjusted colorectal cancer incidence rate of 45.9 per 100,000 population (45.5-46.4, 95% C.I.).

Table 22.
Colorectal Cancer Incidence Data*
by Gender and Race, Maryland and the United States, 2004-2006

	Total	*Males*	*Females*	*Whites*	*Blacks*	*Other*
2004						
MD New Cases (count)	2,630	1,285	1,342	1,853	673	86
MD Incidence Rate	48.6	55.7	43.4	46.1	55.8	40.9
U.S. SEER Rate	48.9	57.3	42.3	48.4	59.5	39.6
2005						
MD New Cases (count)	2,554	1,286	1,266	1,842	619	81
MD Incidence Rate	46.3	54.9	40.2	45.5	49.4	34.0
U.S. SEER Rate	47.7	55.4	41.5	47.3	57.8	38.5
2006						
MD New Cases (count) †	2,322	1,161	1,156	1,640	568	95
MD Incidence Rate †	41.3	48.1	36.2	40.2	42.7	37.5
U.S. SEER Rate	45.9	52.8	40.5	45.3	56.2	38.0

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
Total includes cases reported as transsexual, hermaphrodite, unknown gender, and unknown race
† 2006 Maryland case counts and incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)
Sources: Maryland Cancer Registry (MD incidence data)
NCI SEER*Stat (U.S. SEER 17 rates)

Mortality (Deaths)

A total of 1,015 persons died of colorectal cancer in 2006 in Maryland. In 2006, colorectal cancer accounted for 9.8% of all cancer deaths and was the second leading cause of cancer deaths in Maryland. The age-adjusted colorectal cancer mortality rate in Maryland was 18.4 per 100,000 population (17.3-19.5, 95% C.I.). This rate is statistically significantly higher than the 2006 U.S. colorectal cancer mortality rate of 17.1 per 100,000 population (17.0-17.2, 95% C.I.). Maryland had the 14th highest colorectal cancer mortality rate among the states and the District of Columbia for the period 2002-2006.

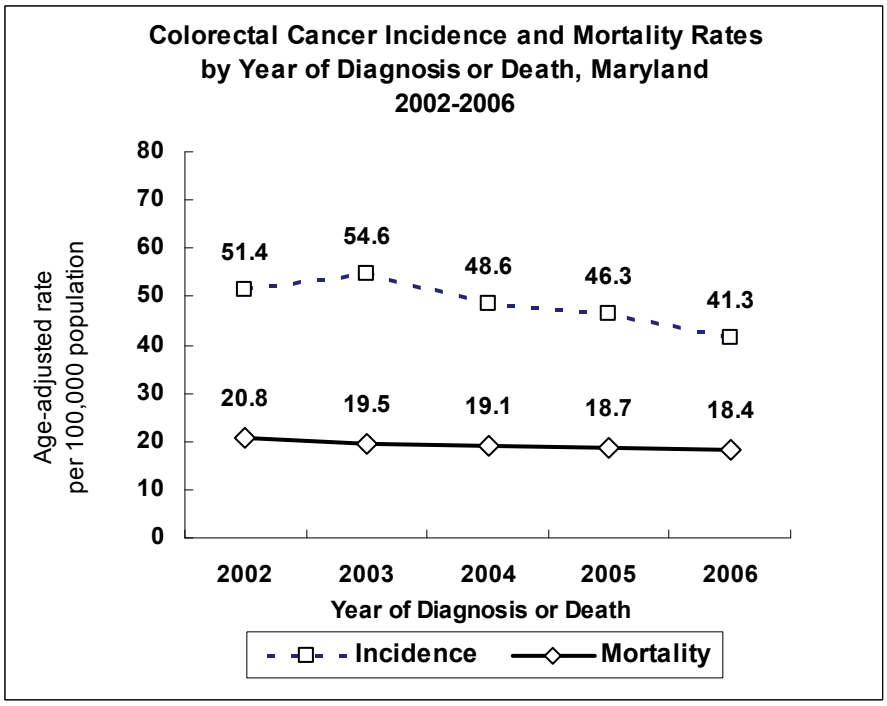
Table 23.
Colorectal Cancer Mortality Data*
by Gender and Race, Maryland and the United States, 2004-2006

	Total	*Males*	*Females*	*Whites*	*Blacks*	*Other*
2004						
MD Deaths (count)	1,013	509	504	718	276	19
MD Mortality Rate	19.1	23.2	16.1	17.9	24.9	8.4
U.S. Mortality Rate	17.9	21.5	15.2	17.5	24.7	11.3
2005						
MD Deaths (count)	1,017	533	484	710	292	15
MD Mortality Rate	18.7	23.2	15.2	17.5	24.8	**
U.S. Mortality Rate	17.4	20.9	14.7	16.8	24.7	11.3
2006						
MD Deaths (count)	1,015	495	520	719	274	22
MD Mortality Rate	18.4	21.8	16.1	17.6	22.7	9.5
U.S. Mortality Rate	17.1	20.4	14.6	16.6	24.1	10.9

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** MD mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

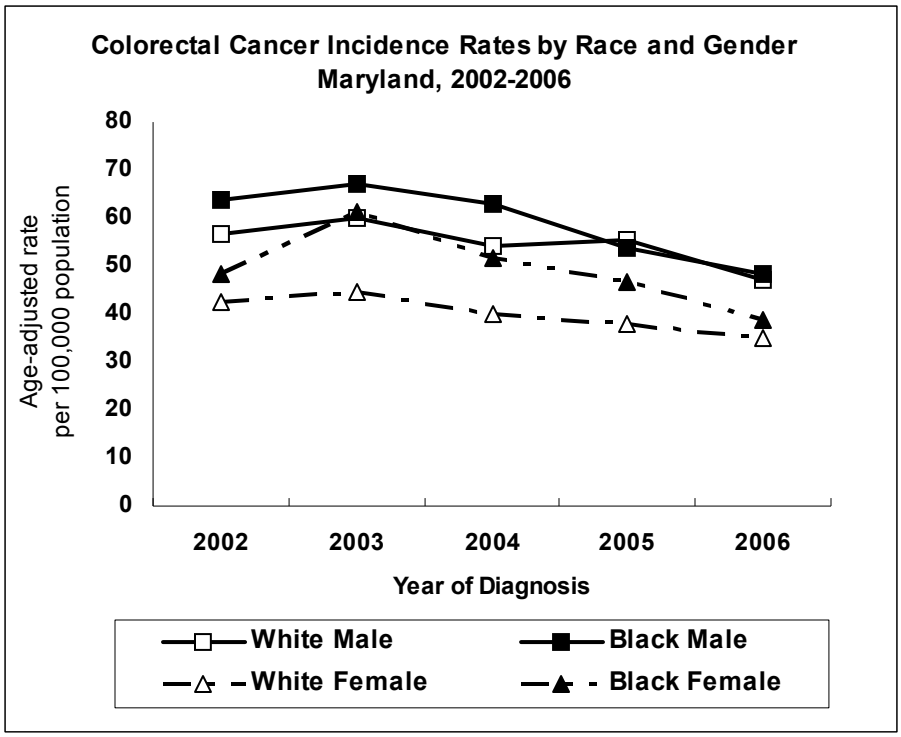


Rates are age-adjusted to 2000 U.S. standard population
Sources: Maryland Cancer Registry (incidence rates)
NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Incidence and Mortality Trends

Both incidence and mortality rates for colorectal cancer have been declining in Maryland. From 2002 to 2006, incidence rates dropped an average of 5.8% per year, and mortality rates dropped an average of 2.8% per year.

See Appendix I, Tables 1 and 2.

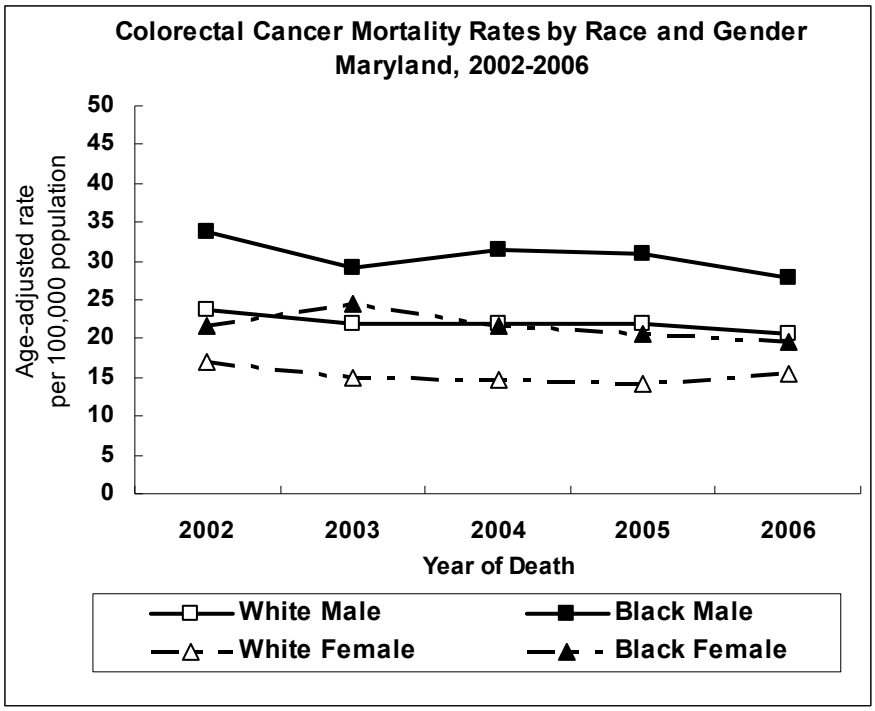


Rates are age-adjusted to 2000 U.S. standard population
Source: Maryland Cancer Registry

Race and Gender Incidence Trends

From 2002 to 2006, colorectal cancer incidence rates declined for all gender-race groups. The largest declines in incidence rates occurred among black males and black females, with average decreases of 7.4% and 6.9% per year, respectively. Among whites, colorectal cancer incidence rates declined an average of 5.3% per year for women and 4.4% for men.

See Appendix I, Table 7.

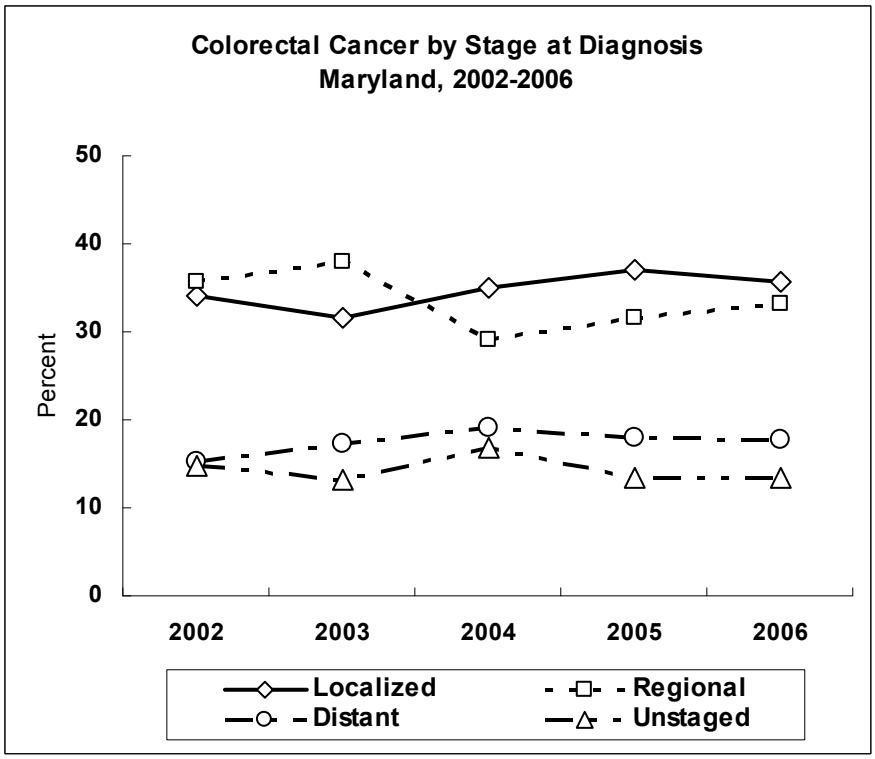


Rates are age-adjusted to 2000 U.S. standard population
Source: NCHS Compressed Mortality File in CDC WONDER

Race and Gender Mortality Trends

Colorectal cancer mortality rates in Maryland were highest among black males and lowest for white females from 2002 to 2006. Mortality rates declined for each of the four gender-race categories over this period, with greater declines among blacks than whites.

See Appendix I, Table 8.

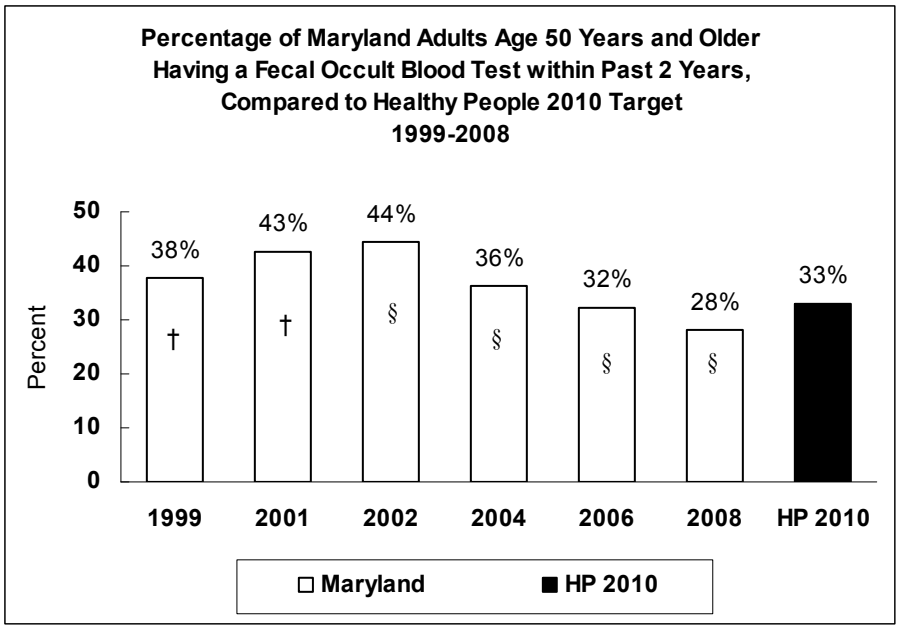


Source: Maryland Cancer Registry

Stage at Diagnosis

In 2006, 33.1% of colorectal cancers diagnosed in Maryland were detected in the regional stage, and 35.7% were diagnosed at the localized (early) stage.

See Appendix J, Table 3.

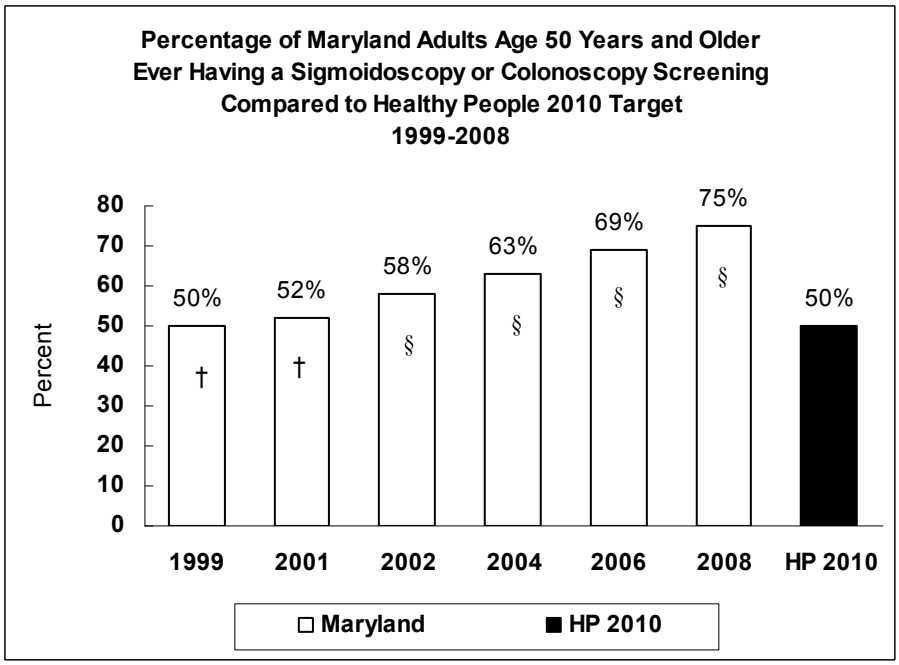


Note: Graphic includes results from both the Maryland BRFSS and Maryland Cancer Survey. See Appendix C for a cautionary note on comparing these data.

† Maryland BRFSS 1999 and 2001

§ Maryland Cancer Survey 2002, 2004, 2006, and 2008

Healthy People 2010 Midcourse Review, U.S. Department of Health and Human Services (2006)



Note: Graphic includes results from both the Maryland BRFSS and Maryland Cancer Survey. See Appendix C for a cautionary note on comparing these data.

† Maryland BRFSS 1999 and 2001

§ Maryland Cancer Survey 2002, 2004, 2006, and 2008

Healthy People 2010, U.S. Department of Health and Human Services (2000)

Screening with Fecal Occult Blood Test

One Healthy People 2010 target for colorectal cancer is to increase to 33% the proportion of adults age 50 years and older who received a fecal occult blood test (FOBT) in the preceding 2 years. FOBT testing in Maryland increased steadily from 1999 to 2002, surpassing the Healthy People 2010 target, but declined to 28% by 2008. The declining rate of FOBT screening has occurred in parallel with the increase in colonoscopy (see below).

Screening with Sigmoidoscopy or Colonoscopy

The second Healthy People 2010 target for colorectal cancer is to increase to 50% the proportion of adults age 50 years and older who ever received a sigmoidoscopy. In 2008, 75% of Maryland adults age 50 years and older reported ever having a sigmoidoscopy or colonoscopy, surpassing the Healthy People target. (Note: The Maryland BRFSS and MCS ask respondents whether they have ever had either a sigmoidoscopy or colonoscopy.)

Public Health Evidence (quoted from NCI PDQ, 6/30/2009 and 6/30/2009, and USPSTF, 11/2008)

Screening

Screening for colorectal cancer (CRC) reduces CRC mortality but there is little evidence that it reduces all-cause mortality, possibly because of an observed increase in other causes of death. The United States Preventive Services Task Force (USPSTF) recommends screening men and women for CRC using fecal occult blood testing, sigmoidoscopy, or colonoscopy beginning at age 50 years and continuing until age 75 years. The USPSTF recommends against routine screening for CRC in adults age 76 to 85 years, but considerations may support CRC screening in an individual patient. The USPSTF recommends against CRC screening for adults older than age 85 years because there is moderate certainty that the benefits of screening do not outweigh the harms. Barium enema studies are no longer recommended due to lower sensitivity compared with other studies, lack of screening trials, and declining use. The USPSTF concluded that the benefits from screening substantially outweigh potential harms for persons age 50 to 75 years, but the risks and benefits vary with each method. They recommend that efforts to reduce CRC mortality should focus on maximizing the number of individuals who get screening and that test selection should be based on patient preference, local test availability, and quality. The USPSTF found insufficient evidence to assess the benefits and harms of computer tomographic (CT) colonography ("virtual colonoscopy") and fecal DNA testing as screening modalities for CRC.

Prevention

Based on fair evidence, removal of adenomatous polyps reduces the risk of CRC. Harms of polyp removal include infrequent perforation of the colon during the procedure, as well as bleeding and infection following the procedure. There is inadequate evidence to suggest that a diet low in fat and high in fiber, fruits, and vegetables decreases the risk of CRC; however, there are no known harms from dietary modification. Obesity is associated with a two-fold risk increase in CRC in premenopausal women. Cigarette smoking is associated with an increased tendency to form adenomas and to develop CRC.

Chemoprevention

There is inadequate evidence that the use of nonsteroidal anti-inflammatory drugs (NSAIDs) reduces the risk of CRC. Based on solid evidence, NSAIDs reduce the risk of adenomas, but the extent to which this translates into a reduction of CRC is uncertain. However, harms of NSAID use include upper gastrointestinal bleeding and serious cardiovascular events such as heart attack, heart failure, and hemorrhagic stroke. Based on solid evidence, postmenopausal estrogen plus progesterone hormone use decreases the incidence of CRC, but this benefit is not applicable to estrogen alone use. However, harms of postmenopausal combined estrogen plus progestin hormone use include increased risk of breast cancer, coronary heart disease, stroke, and other thromboembolic events.

Public Health Intervention for CRC (USPSTF 2008; DHMH CRC Medical Advisory Committee, 2009)
➢ For those age 50 to 75 years at average risk, screen with colonoscopy or with FOBT and flexible sigmoidoscopy. Persons older than age 75 years may also be screened if there are considerations to support screening after taking into account comorbidities, longevity, and past CRC screening results. The harms likely outweigh the benefits of CRC screening for persons age 85 years or older. ➢ For those unable or unwilling to undergo colonoscopy or sigmoidoscopy, FOBT is an alternative initial screening method. ➢ Reserve other CRC screening tests as alternatives for situations where the patient and the provider discuss and determine that such tests are indicated for the individual.

Table 24.
Number of Colorectal Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	2,322	1,161	1,156	1,640	568	95	19
Allegany	50	28	22	s	<6	0	0
Anne Arundel	208	124	83	162	38	s	<6
Baltimore City	268	122	145	108	155	<6	<6
Baltimore County	363	180	183	299	45	12	7
Calvert	33	16	17	25	8	0	0
Caroline	15	8	7	15	0	0	0
Carroll	80	34	46	s	0	<6	<6
Cecil	46	22	24	s	<6	0	0
Charles	54	29	25	39	15	0	0
Dorchester	23	16	7	s	<6	0	0
Frederick	85	40	45	81	<6	<6	0
Garrett	13	<6	s	s	<6	0	0
Harford	90	46	44	81	<6	<6	0
Howard	86	50	36	64	14	s	<6
Kent	13	6	7	s	<6	0	0
Montgomery †	323	150	173	233	51	s	<6
Prince George's †	306	157	148	112	176	s	<6
Queen Anne's	23	14	9	s	<6	0	0
Saint Mary's	44	30	14	31	s	<6	0
Somerset	9	<6	<6	s	<6	0	0
Talbot	30	15	15	s	<6	0	0
Washington	63	25	38	s	<6	0	0
Wicomico	33	13	20	24	s	<6	0
Worcester	38	17	21	s	<6	0	0
Unknown	26	11	13	9	11	<6	<6

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 25.
Colorectal Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	41.3	48.1	36.2	40.2	42.7	37.5
Allegany	50.8	69.3	39.6	50.4	**	0.0
Anne Arundel	43.2	57.2	31.6	39.2	70.3	**
Baltimore City	40.8	47.1	36.9	41.4	39.5	**
Baltimore County	39.7	45.8	34.6	39.4	31.5	**
Calvert	41.7	45.6	39.7	38.7	**	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	48.5	48.3	50.3	49.1	0.0	**
Cecil	50.8	51.1	48.9	50.8	**	0.0
Charles	54.8	72.3	41.7	57.7	**	0.0
Dorchester	53.1	94.7	**	56.9	**	0.0
Frederick	41.8	45.7	40.0	43.5	**	**
Garrett	**	**	**	**	**	0.0
Harford	39.8	43.0	35.5	39.9	**	**
Howard	36.5	50.3	27.9	37.1	**	**
Kent	**	**	**	**	**	0.0
Montgomery †	33.7	37.0	31.9	31.7	46.4	32.7
Prince George's †	43.4	49.7	37.5	44.1	42.2	42.0
Queen Anne's	48.0	**	**	41.5	**	0.0
Saint Mary's	52.0	79.9	**	45.2	**	**
Somerset	**	**	**	**	**	0.0
Talbot	56.3	**	**	61.2	**	0.0
Washington	40.4	36.7	43.3	41.1	**	0.0
Wicomico	33.2	**	36.8	31.6	**	**
Worcester	52.1	49.8	53.7	54.8	**	0.0

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 26.
Number of Colorectal Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	1,015	495	520	719	274	22
Allegany	17	7	10	s	<6	<6
Anne Arundel	82	47	35	62	s	<6
Baltimore City	146	61	85	s	94	<6
Baltimore County	191	85	106	158	s	<6
Calvert	14	<6	s	12	<6	<6
Caroline	s	<6	<6	s	<6	<6
Carroll	31	18	13	30	<6	<6
Cecil	16	7	9	s	<6	<6
Charles	25	7	18	20	<6	<6
Dorchester	15	9	6	10	<6	<6
Frederick	36	18	18	35	<6	<6
Garrett	11	<6	s	s	<6	<6
Harford	38	18	20	33	<6	<6
Howard	34	21	13	25	s	<6
Kent	9	<6	<6	8	<6	<6
Montgomery	123	70	53	96	18	9
Prince George's	120	58	62	s	78	<6
Queen Anne's	12	s	<6	9	<6	<6
Saint Mary's	9	s	<6	s	<6	<6
Somerset	<6	<6	<6	<6	<6	<6
Talbot	9	s	<6	s	<6	<6
Washington	29	17	12	28	<6	<6
Wicomico	31	8	23	24	s	<6
Worcester	9	<6	<6	s	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 27.
Colorectal Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	18.4	21.8	16.1	17.6	22.7	9.5
Allegany	15.7	**	**	16.0	**	**
Anne Arundel	17.3	22.6	13.4	15.3	32.4	**
Baltimore City	22.4	24.2	21.2	19.8	24.7	**
Baltimore County	20.5	21.9	19.3	19.9	25.4	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	19.3	26.8	**	19.4	**	**
Cecil	17.8	**	**	18.8	**	**
Charles	24.5	**	31.3	27.6	**	**
Dorchester	**	**	**	**	**	**
Frederick	19.2	22.3	16.5	20.2	**	**
Garrett	**	**	**	**	**	**
Harford	18.0	18.3	16.9	17.4	**	**
Howard	17.0	26.0	**	15.9	**	**
Kent	**	**	**	**	**	**
Montgomery	12.9	18.5	9.5	12.7	18.4	**
Prince George's	19.0	21.5	16.7	15.5	22.3	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	18.0	26.4	**	18.1	**	**
Wicomico	31.5	**	40.2	30.9	**	**
Worcester	**	**	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Table 28.
Number of Colorectal Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2002-2006

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	13,117	6,498	6,609	9,299	3,220	437	161
Allegany	283	151	132	275	8	0	0
Anne Arundel	1,105	598	506	900	157	34	14
Baltimore City	1,691	778	911	675	984	17	15
Baltimore County	2,303	1,115	1,188	1,850	384	44	25
Calvert	204	93	110	166	33	<6	<6
Caroline	89	59	30	76	13	0	0
Carroll	416	207	209	398	14	<6	<6
Cecil	237	131	106	220	11	<6	<6
Charles	293	155	138	210	71	<6	s
Dorchester	124	76	48	102	22	0	0
Frederick	530	261	268	489	32	s	<6
Garrett	90	42	48	s	<6	0	0
Harford	477	240	237	427	37	s	<6
Howard	489	254	235	370	76	37	6
Kent	74	34	40	60	14	0	0
Montgomery †	1,808	865	941	1,358	237	183	30
Prince George's †	1,535	735	799	516	918	73	28
Queen Anne's	116	61	55	98	15	<6	<6
Saint Mary's	213	121	92	170	34	<6	<6
Somerset	67	37	30	43	s	<6	<6
Talbot	141	72	69	123	18	0	0
Washington	361	175	186	337	20	<6	<6
Wicomico	231	119	112	174	48	s	<6
Worcester	165	87	78	138	s	<6	0
Unknown	75	32	41	s	26	<6	11

Total includes cases reported as transexual, hermaphrodite, unknown gender, and unknown race

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 29.
Colorectal Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2002-2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	48.4	55.8	42.8	46.4	52.8	39.9
Allegany	57.6	74.5	45.8	57.5	**	0.0
Anne Arundel	47.3	57.2	39.5	44.5	62.9	54.3
Baltimore City	51.9	59.6	46.9	52.2	51.0	35.7
Baltimore County	51.2	58.6	45.6	48.4	66.6	42.8
Calvert	55.9	53.9	56.0	54.0	64.3	**
Caroline	53.2	80.7	32.7	53.1	**	0.0
Carroll	53.1	61.7	46.9	52.6	**	**
Cecil	54.6	65.0	45.6	53.5	**	**
Charles	59.7	74.5	49.1	58.1	58.9	**
Dorchester	60.5	87.9	41.5	63.4	48.4	0.0
Frederick	57.0	66.6	50.8	56.9	63.8	**
Garrett	49.4	51.3	47.9	49.1	**	0.0
Harford	43.9	48.2	39.6	43.6	42.5	**
Howard	45.0	52.9	39.3	44.0	50.7	36.4
Kent	53.2	55.7	50.4	49.5	**	0.0
Montgomery †	39.1	44.0	35.3	37.6	45.2	36.4
Prince George's †	46.0	50.7	42.3	40.1	49.4	43.7
Queen Anne's	48.4	54.8	42.6	45.6	**	**
Saint Mary's	52.9	68.5	42.1	50.4	60.2	**
Somerset	49.3	57.7	40.2	42.6	60.7	**
Talbot	51.2	60.2	43.1	51.1	55.1	0.0
Washington	47.2	52.6	42.7	45.9	86.0	**
Wicomico	49.7	60.9	42.1	47.3	52.2	**
Worcester	45.8	52.0	40.5	44.4	56.9	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2002-2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1)

Source: Maryland Cancer Registry

Table 30.
Number of Colorectal Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2002-2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	5,124	2,566	2,558	3,636	1,404	84
Allegany	94	45	49	92	<6	<6
Anne Arundel	437	241	196	363	66	8
Baltimore City	788	361	427	s	471	<6
Baltimore County	918	453	465	758	150	10
Calvert	87	44	43	70	s	<6
Caroline	35	19	16	28	s	<6
Carroll	177	87	90	165	s	<6
Cecil	96	50	46	92	<6	<6
Charles	136	77	59	98	s	<6
Dorchester	51	35	16	39	s	<6
Frederick	185	96	89	168	s	<6
Garrett	28	13	15	s	<6	<6
Harford	177	87	90	151	s	<6
Howard	162	95	67	112	40	10
Kent	30	s	s	25	<6	<6
Montgomery	577	278	299	462	81	34
Prince George's	638	296	342	243	382	13
Queen Anne's	48	24	24	41	s	<6
Saint Mary's	85	50	35	73	s	<6
Somerset	17	s	<6	14	<6	<6
Talbot	48	26	22	36	s	<6
Washington	137	70	67	133	<6	<6
Wicomico	114	55	59	80	s	<6
Worcester	59	37	22	50	s	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 31.
Colorectal Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2002-2006

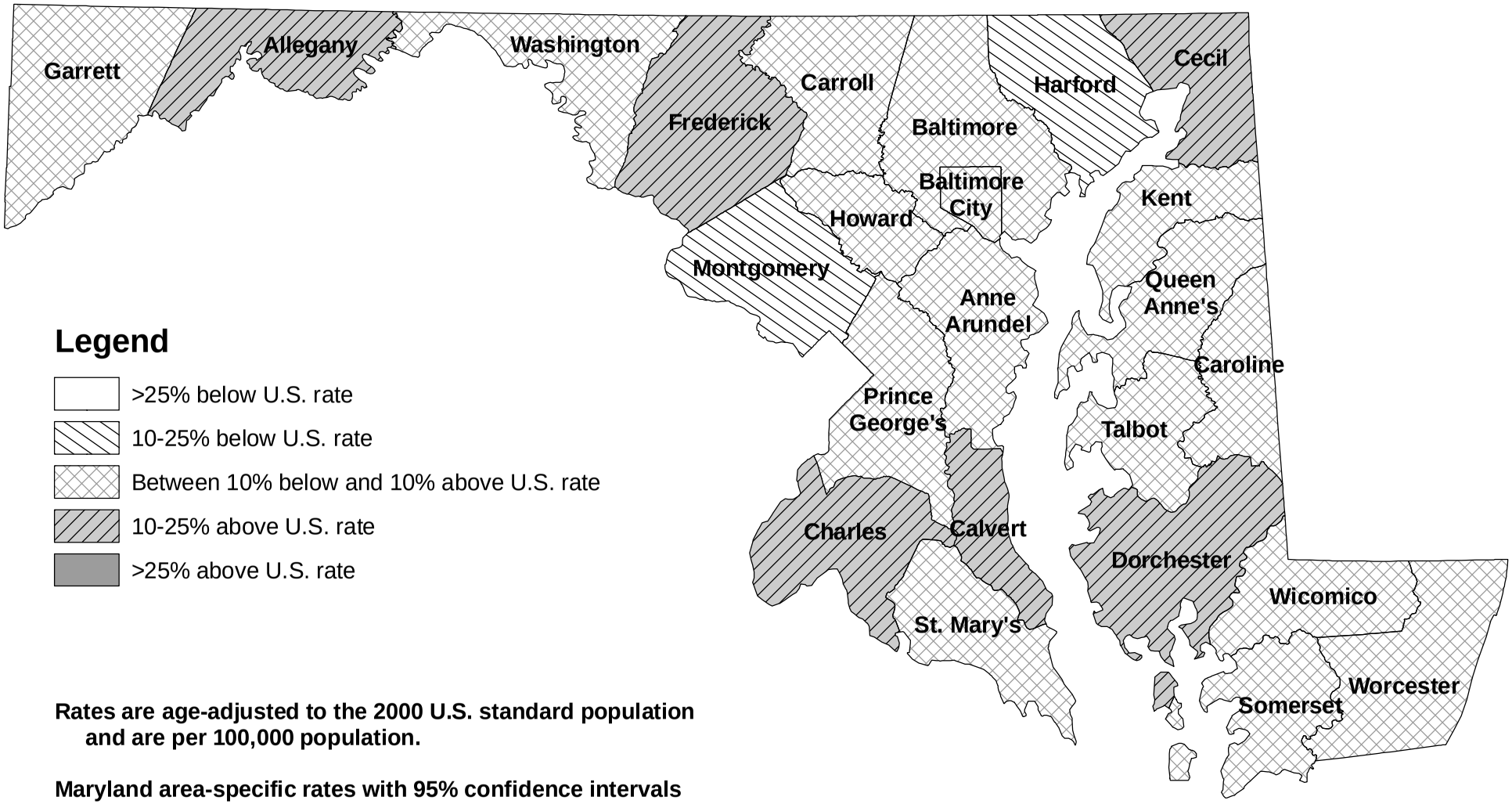
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	19.3	23.2	16.4	18.2	25.0	8.6
Allegany	18.8	22.6	17.5	19.0	**	**
Anne Arundel	19.5	25.0	15.5	18.6	28.4	**
Baltimore City	24.2	28.7	21.2	23.4	25.3	**
Baltimore County	20.1	24.2	17.1	19.4	28.5	**
Calvert	25.4	28.2	22.6	24.5	33.6	**
Caroline	21.1	26.4	16.9	20.0	**	**
Carroll	23.1	27.8	19.8	22.3	**	**
Cecil	22.4	26.0	19.5	22.6	**	**
Charles	29.4	38.6	22.5	28.1	34.9	**
Dorchester	24.9	42.1	13.3	24.6	**	**
Frederick	20.3	24.0	17.0	19.9	32.1	**
Garrett	15.4	**	**	15.5	**	**
Harford	17.3	18.7	15.6	16.4	30.9	**
Howard	16.5	23.2	12.1	14.5	30.4	**
Kent	22.4	**	**	20.7	**	**
Montgomery	12.7	15.0	11.0	12.7	16.7	7.3
Prince George's	21.1	23.3	19.3	18.8	24.2	**
Queen Anne's	21.1	23.3	18.9	20.4	**	**
Saint Mary's	22.8	29.7	17.5	23.1	**	**
Somerset	12.4	**	**	**	**	**
Talbot	16.1	20.6	12.7	13.6	**	**
Washington	17.6	22.4	14.7	17.7	**	**
Wicomico	24.6	29.2	21.3	21.7	35.9	**
Worcester	15.9	21.9	10.5	15.2	**	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Maryland Colorectal Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



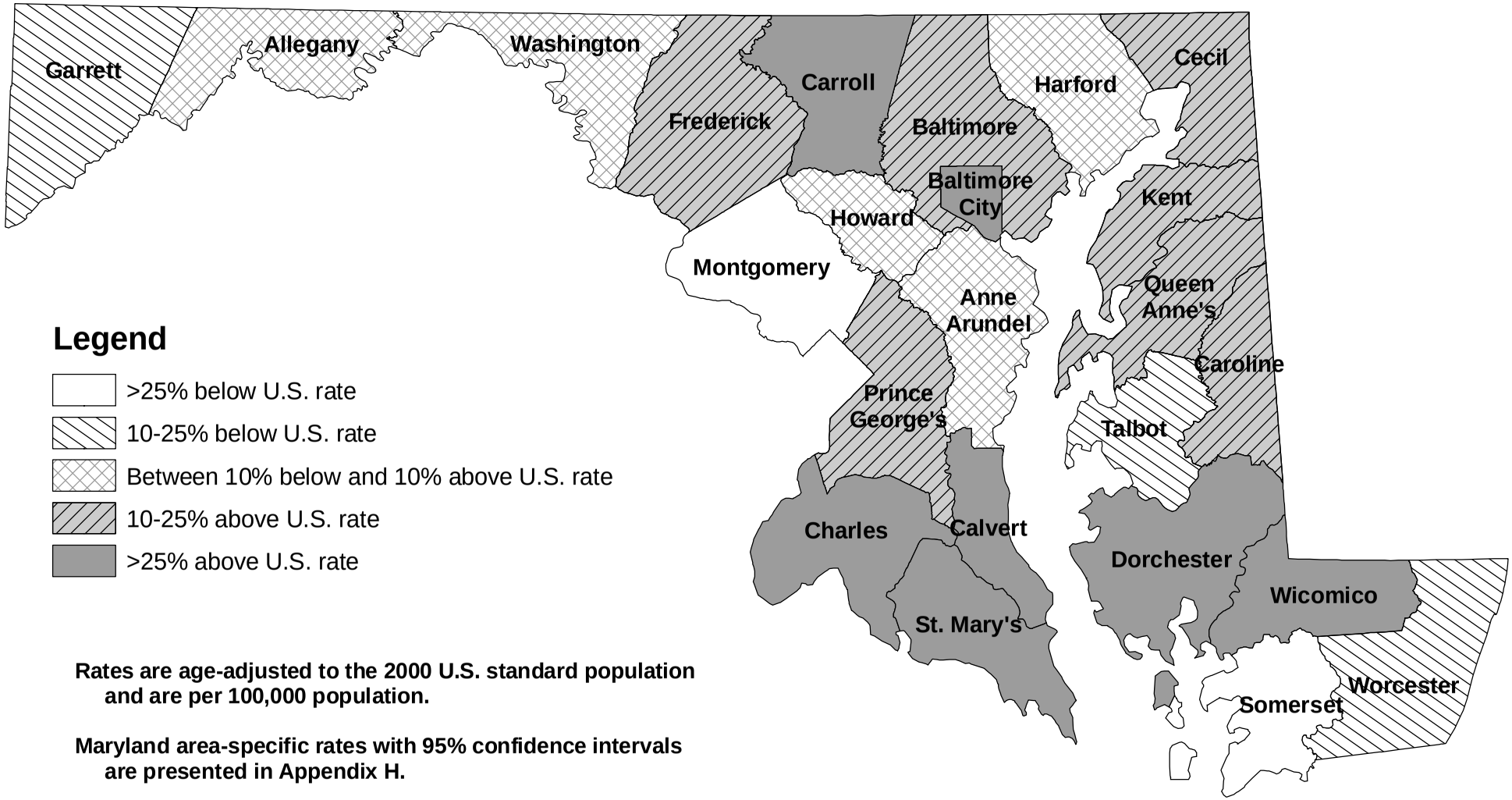
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. colorectal cancer incidence rate, 2002-2006: 49.1/100,000

Source: MD incidence rates from Maryland Cancer Registry, 2002-2006
U.S. (SEER 17) rate from SEER*Stat Software

Maryland Colorectal Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. colorectal cancer mortality rate, 2002-2006: 18.2/100,000

Source: MD and U.S. mortality rates from NCHS Compressed Mortality File in CDC WONDER

C. Female Breast Cancer

Incidence (New Cases)

In 2006, a total of 3,580 cases of breast cancer were reported among Maryland women. The 2006 age-adjusted incidence rate in Maryland was 112.8 per 100,000 women (109.1-116.6, 95% C.I.); this rate is statistically significantly lower than the 2006 U.S. SEER age-adjusted incidence rate for breast cancer of 120.8 per 100,000 women (119.8-121.9, 95% C.I.).

Table 32.
Female Breast Cancer Incidence Data*
by Race, Maryland and the United States, 2004-2006

	Total	*Whites*	*Blacks*	*Other*
2004				
MD New Cases (count)	3,850	2,767	915	129
MD Incidence Rate	124.2	127.4	114.0	90.2
U.S. SEER Rate	123.0	126.7	118.3	88.8
2005				
MD New Cases (count)	3,712	2,637	896	153
MD Incidence Rate	118.6	121.1	108.7	101.2
U.S. SEER Rate	122.1	126.2	114.8	88.1
2006				
MD New Cases (count) †	3,580	2,509	921	124
MD Incidence Rate †	112.8	115.0	109.7	76.9
U.S. SEER Rate	120.8	124.3	116.8	86.9

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
Total includes cases reported as unknown race

† 2006 Maryland case counts and incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)

Sources: Maryland Cancer Registry (MD incidence data)
NCI SEER*Stat (U.S. SEER 17 rates)

Mortality (Deaths)

In 2006, a total of 808 women died of breast cancer in Maryland. Female breast cancer accounted for 7.8% of all cancer deaths in Maryland in 2006. Breast cancer is the second leading cause of cancer death among women in Maryland after lung cancer. The 2006 age-adjusted mortality rate for breast cancer in Maryland was 25.0 per 100,000 women (23.3-26.7, 95% C.I.). This rate is similar to the 2006 U.S. breast cancer mortality rate of 23.5 per 100,000 population of women (23.3-23.7, 95% C.I.). Maryland ranked 5th highest for female breast cancer mortality among the states and the District of Columbia for the period 2002-2006.

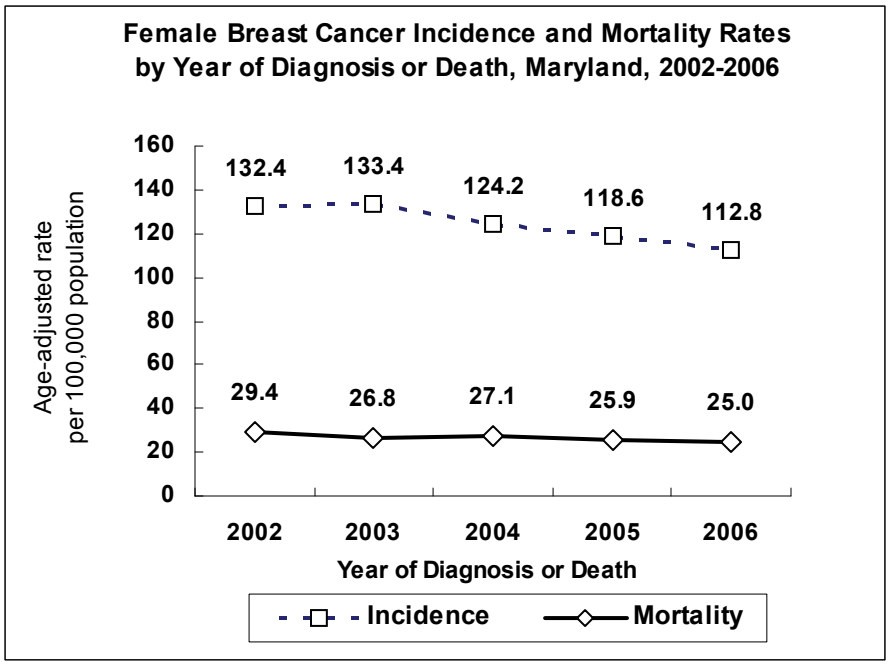
Table 33.
Female Breast Cancer Mortality Data*
by Race, Maryland and the United States, 2004-2006

	Total	*Whites*	*Blacks*	*Other*
2004				
MD Deaths (count)	847	583	251	13
MD Mortality Rate	27.1	25.6	32.9	**
U.S. Mortality Rate	24.5	23.9	32.2	13.0
2005				
MD Deaths (count)	821	571	231	19
MD Mortality Rate	25.9	25.0	28.8	13.6
U.S. Mortality Rate	24.1	23.4	32.8	12.6
2006				
MD Deaths (count)	808	549	249	10
MD Mortality Rate	25.0	23.7	30.3	**
U.S. Mortality Rate	23.5	22.9	31.6	12.2

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** MD mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

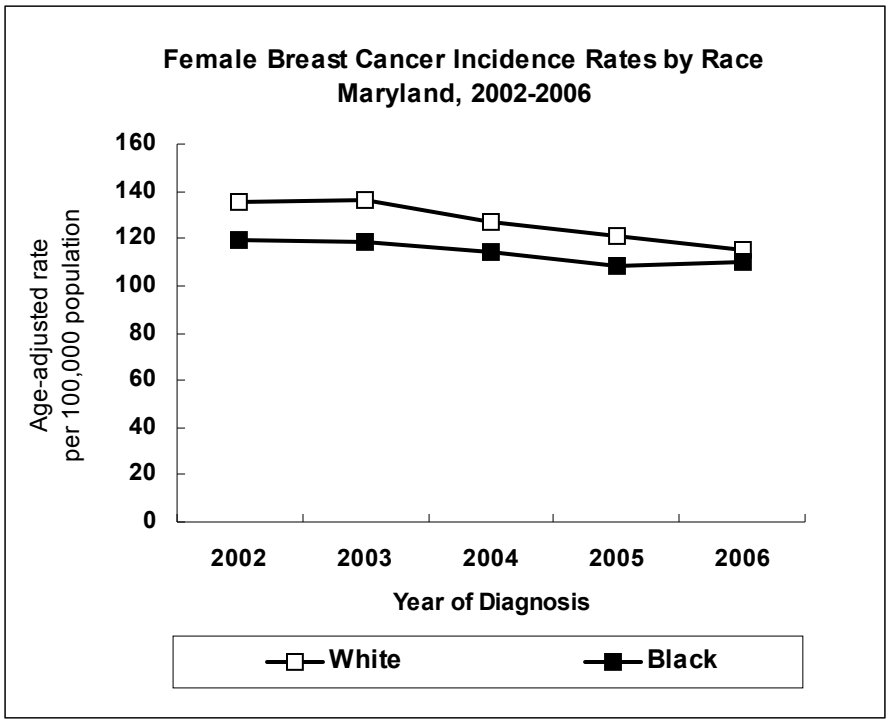


Rates are age-adjusted to 2000 U.S. standard population
Sources: Maryland Cancer Registry (incidence rates)
NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Incidence and Mortality Trends

From 2002 to 2006, both incidence and mortality rates for female breast cancer declined in Maryland. Breast cancer incidence rates decreased an average of 4.3% annually and mortality rates declined an average of 3.5% per year.

See Appendix I, Tables 1 and 2.



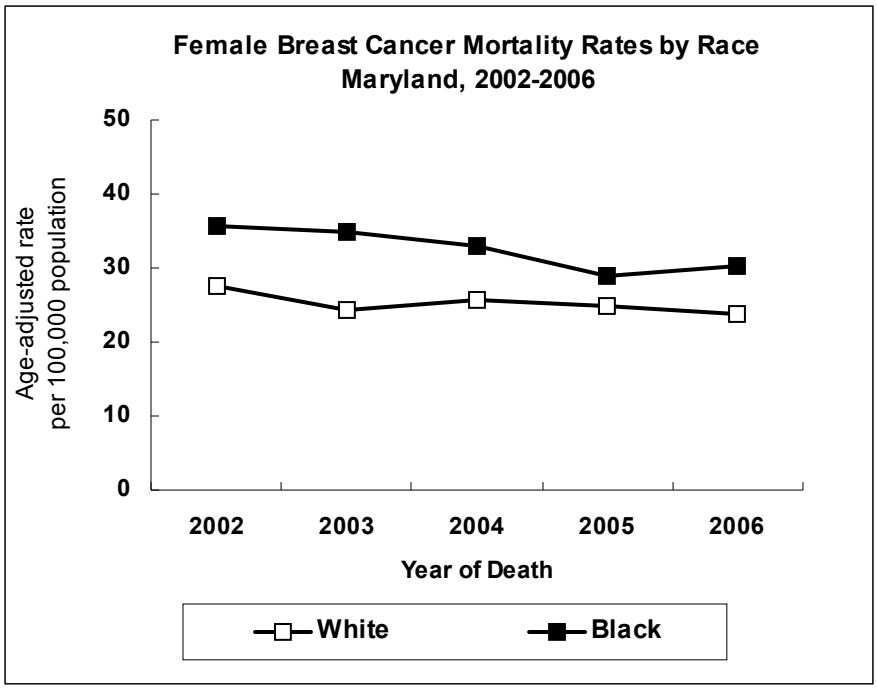
Rates are age-adjusted to 2000 U.S. standard population
Source: Maryland Cancer Registry

Race Incidence Trends

In recent years, breast cancer incidence rates in Maryland have declined at a slightly faster rate among white women than among black women (average annual declines of 4.4% and 2.5%, respectively).

In 2006, the breast cancer incidence rate for white women in Maryland was 115.0 compared to 109.7 for black women.

See Appendix I, Table 9.



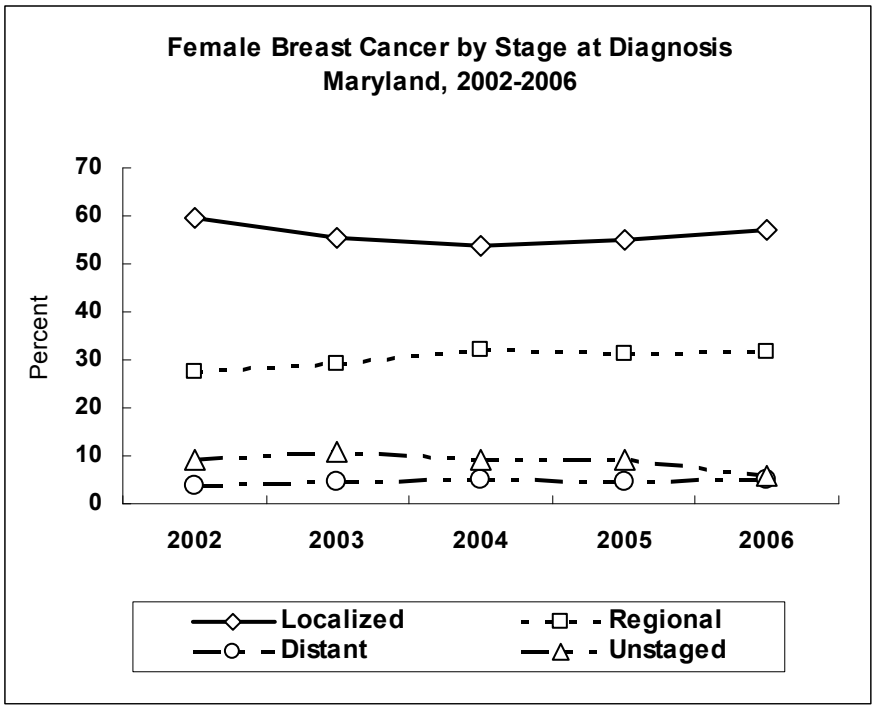
Rates are age-adjusted to 2000 U.S. standard population
Source: NCHS Compressed Mortality File in CDC WONDER

Race Mortality Trends

Black women in Maryland consistently had higher mortality rates from breast cancer than white women from 2002 to 2006, although this disparity is decreasing.

Breast cancer mortality rates for black women in Maryland decreased an average of 5.0% per year over the period, compared to a decline of 2.8% per year among white women.

See Appendix I, Table 10.

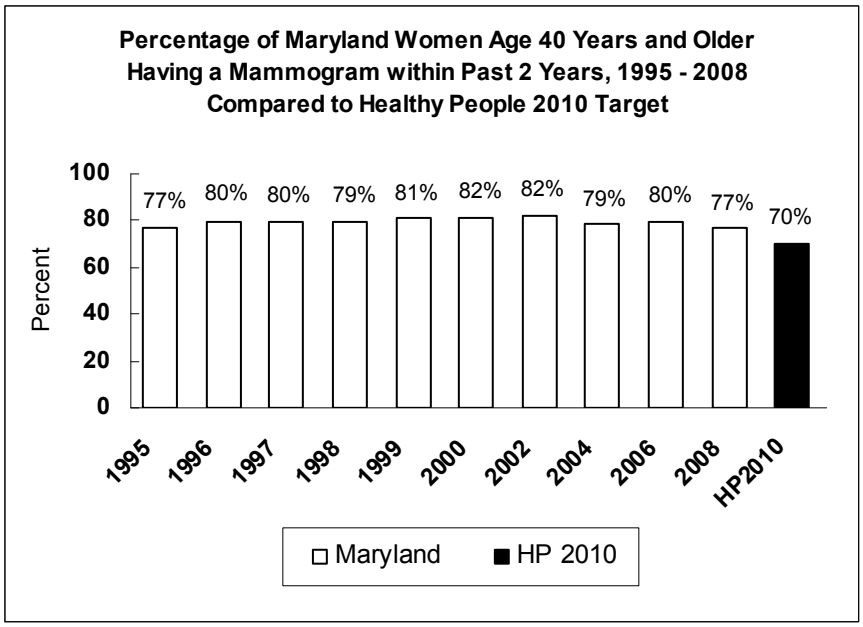


Source: Maryland Cancer Registry

Stage of Disease at Diagnosis

In 2006, 57.1% of all female breast cancer cases in Maryland were diagnosed at the local stage and 31.9% of cases were found at the regional stage.

See Appendix J, Table 4.



Breast Cancer Screening

The Healthy People 2010 target for breast cancer is to increase to 70% the proportion of women age 40 years and older who received a mammogram within the preceding 2 years. Maryland women have consistently surpassed this target. In 2008, 77% of Maryland women age 40 years and older reported receiving a mammogram within the preceding 2 years.

Sources: Maryland BRFSS
Healthy People 2010, U.S. Department of Health and Human Services (2000)

Public Health Evidence (quoted from NCI PDQ, 10/9/2009 and 8/14/2009; USPSTF Chemoprevention 7/2002)

Screening

Based on fair evidence, screening mammography in women aged 40-70 years decreases breast cancer mortality. The benefit is higher for older women, in part because their breast cancer risk is higher. Relative breast cancer-specific mortality is decreased by 15%-20%. Absolute mortality benefit for women screened annually starting at age 40 years is 4 per 10,000 at 10.7 years. The comparable mortality benefit for women screened annually starting at age 50 years is approximately 5 per 1,000. Based on solid evidence, screening mammography may lead to the following harms: treatment of insignificant cancers; additional testing; false sense of security and delay in cancer diagnosis; radiation-induced mutations that can cause breast cancer, especially if exposed before age 30 years. Based on fair evidence, screening by clinical breast examination reduces breast cancer mortality, but leads to additional testing and a false sense of security. Based on fair evidence, teaching breast self-examination (BSE) does not reduce breast cancer mortality; BSE leads to more breast biopsies and to the diagnosis of more benign breast lesions.

Chemoprevention

The USPSTF recommends against the routine use of tamoxifen or raloxifene (selective estrogen receptor modulators) for the primary prevention of breast cancer in women at low or average risk for breast cancer. The USPSTF recommends that clinicians discuss chemoprevention with women at high risk for breast cancer and at low risk for adverse effects of chemoprevention. Clinicians should inform patients of the potential benefits and harms of chemoprevention. Based on solid evidence for tamoxifen and fair evidence for raloxifene, treatment reduces the incidence of breast cancer in postmenopausal women. Tamoxifen also reduced the risk of breast cancer in high-risk premenopausal women. Treatment with tamoxifen reduced breast cancer by about 50%. Treatment with raloxifene has a similar effect on reduction of invasive breast cancer but appears to be less effective for prevention of noninvasive tumors. Based on solid evidence, tamoxifen treatment increases the risk of endometrial cancer, thrombotic vascular events (pulmonary embolism, stroke, deep venous thrombosis), and cataracts. Based on fair evidence, raloxifene also increases venous pulmonary embolism and deep venous thrombosis but not endometrial cancer. Aromatase inhibitors or inactivators reduce the incidence of new breast cancers in postmenopausal women who have a history of breast cancer.

Primary Prevention

Factors associated with increased female breast cancer risk are: combination hormone therapy (HT) with estrogen-progestin (evidence for increased risk with estrogen alone therapy is mixed); ionizing radiation; obesity in postmenopausal women who have not used HT; alcohol (dose-dependent association); inherited gene mutations associated with breast cancer. Solid evidence shows that strenuous exercising more than 4 hours per week and breast-feeding are associated with reduced breast cancer risk. It is uncertain whether reducing weight or decreasing alcohol exposure would decrease the risk of breast cancer.

Public Health Intervention for Breast Cancer (DHMH Breast Cancer Medical Advisory Committee, 2009)
Early detection of breast cancer: ➢ Screen using mammography and a clinical breast examination by a health professional, every 1-2 years for women age 40 years and older.

Table 34.
Number of Female Breast Cancer Cases by Jurisdiction and Race, Maryland, 2006

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	3,580	2,509	921	124	26
Allegany	61	61	0	0	0
Anne Arundel	325	267	46	s	<6
Baltimore City	356	131	217	s	<6
Baltimore County	595	454	125	s	<6
Calvert	51	44	s	<6	0
Caroline	30	s	<6	0	0
Carroll	107	s	<6	0	0
Cecil	58	52	<6	<6	0
Charles	56	31	s	<6	0
Dorchester	27	21	<6	<6	0
Frederick	125	114	s	<6	<6
Garrett	25	s	<6	0	0
Harford	150	136	s	<6	0
Howard	184	140	26	s	<6
Kent	21	s	<6	0	0
Montgomery †	589	453	76	53	7
Prince George's †	470	147	309	s	<6
Queen Anne's	21	s	<6	0	0
Saint Mary's	58	s	<6	0	0
Somerset	16	9	7	0	0
Talbot	34	26	s	<6	0
Washington	90	s	0	<6	0
Wicomico	54	40	s	0	<6
Worcester	48	38	s	<6	0
Unknown	29	13	9	0	7

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 35.
Female Breast Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2006

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	112.8	115.0	109.7	76.9
Allegany	127.2	130.2	0.0	0.0
Anne Arundel	116.3	113.3	137.2	**
Baltimore City	96.2	104.4	91.1	**
Baltimore County	121.4	117.5	146.5	**
Calvert	116.8	119.7	**	**
Caroline	159.0	158.0	**	0.0
Carroll	114.1	113.2	**	0.0
Cecil	115.5	110.3	**	**
Charles	79.1	67.3	101.4	**
Dorchester	121.7	129.5	**	**
Frederick	109.2	110.0	**	**
Garrett	129.7	125.4	**	0.0
Harford	114.2	117.5	**	**
Howard	125.8	129.2	114.9	93.1
Kent	182.6	201.5	**	0.0
Montgomery †	106.3	112.3	96.6	70.1
Prince George's †	106.8	112.0	109.1	**
Queen Anne's	79.2	81.9	**	0.0
Saint Mary's	127.3	142.2	**	0.0
Somerset	112.2	**	**	0.0
Talbot	122.0	103.7	**	**
Washington	113.3	117.9	0.0	**
Wicomico	101.8	97.0	**	0.0
Worcester	140.1	122.5	**	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 36.
Number of Female Breast Cancer Deaths
by Jurisdiction and Race, Maryland, 2006

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	808	549	249	10
Allegany	12	s	<6	<6
Anne Arundel	66	53	s	<6
Baltimore City	120	s	71	<6
Baltimore County	142	120	s	<6
Calvert	17	15	<6	<6
Caroline	<6	<6	<6	<6
Carroll	23	s	<6	<6
Cecil	9	s	<6	<6
Charles	16	10	s	<6
Dorchester	<6	<6	<6	<6
Frederick	23	20	<6	<6
Garrett	8	s	<6	<6
Harford	27	22	<6	<6
Howard	27	20	s	<6
Kent	<6	<6	<6	<6
Montgomery	110	84	s	<6
Prince George's	119	s	90	<6
Queen Anne's	12	11	<6	<6
Saint Mary's	6	<6	<6	<6
Somerset	<6	<6	<6	<6
Talbot	6	<6	<6	<6
Washington	22	s	<6	<6
Wicomico	20	15	<6	<6
Worcester	10	9	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 37.
Female Breast Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2006

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	25.0	23.7	30.3	**
Allegany	**	**	**	**
Anne Arundel	23.7	22.3	**	**
Baltimore City	31.6	33.0	29.7	**
Baltimore County	26.7	27.9	27.3	**
Calvert	41.2	**	**	**
Caroline	**	**	**	**
Carroll	25.2	26.3	**	**
Cecil	**	**	**	**
Charles	24.4	**	**	**
Dorchester	**	**	**	**
Frederick	20.6	19.2	**	**
Garrett	**	**	**	**
Harford	20.4	18.8	**	**
Howard	19.6	19.8	**	**
Kent	**	**	**	**
Montgomery	19.2	19.1	28.7	**
Prince George's	28.1	19.3	33.6	**
Queen Anne's	**	**	**	**
Saint Mary's	**	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	24.8	25.9	**	**
Wicomico	35.2	**	**	**
Worcester	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Table 38.
Number of Female Breast Cancer Cases by Jurisdiction and Race, Maryland, 2002-2006

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	19,150	13,714	4,553	684	199
Allegany	289	283	<6	<6	0
Anne Arundel	1,675	1,428	196	42	9
Baltimore City	1,972	782	1,132	30	28
Baltimore County	3,254	2,531	626	60	37
Calvert	257	219	s	<6	0
Caroline	128	111	12	<6	<6
Carroll	592	560	20	6	6
Cecil	265	255	s	<6	0
Charles	363	252	103	s	<6
Dorchester	116	95	s	<6	0
Frederick	760	690	50	s	<6
Garrett	119	116	<6	0	<6
Harford	714	659	47	s	<6
Howard	904	730	112	53	9
Kent	97	87	s	0	<6
Montgomery †	3,447	2,657	409	333	48
Prince George's †	2,475	801	1,556	85	33
Queen Anne's	134	122	s	<6	0
Saint Mary's	217	186	s	<6	0
Somerset	76	50	s	0	<6
Talbot	176	149	s	<6	0
Washington	476	462	8	6	0
Wicomico	319	245	63	<6	s
Worcester	223	189	26	8	0
Unknown	102	55	33	<6	s

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 39.
Female Breast Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2002-2006

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	124.0	127.0	113.8	94.7
Allegany	118.4	118.2	**	**
Anne Arundel	123.7	123.8	121.8	95.4
Baltimore City	106.5	120.1	96.9	99.8
Baltimore County	134.7	129.8	159.6	80.4
Calvert	119.3	120.2	112.8	**
Caroline	145.5	148.8	**	**
Carroll	131.2	128.9	178.7	**
Cecil	107.8	109.5	**	**
Charles	110.7	111.1	108.7	**
Dorchester	109.9	120.0	64.6	**
Frederick	139.0	137.7	147.6	128.3
Garrett	125.6	123.2	**	0.0
Harford	113.1	116.6	87.7	**
Howard	132.3	140.5	110.6	80.2
Kent	145.4	155.6	**	0.0
Montgomery †	129.4	134.9	109.8	99.0
Prince George's †	117.1	118.1	115.7	85.1
Queen Anne's	103.0	105.6	**	**
Saint Mary's	98.5	102.2	83.6	**
Somerset	111.6	102.6	138.8	0.0
Talbot	133.8	130.2	136.5	**
Washington	119.1	120.5	**	**
Wicomico	126.6	125.7	119.7	**
Worcester	124.4	122.8	102.9	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2002-2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1)

Source: Maryland Cancer Registry

Table 40.
Number of Female Breast Cancer Deaths
by Jurisdiction and Race, Maryland, 2002-2006

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	4,175	2,855	1,250	70
Allegany	73	71	<6	<6
Anne Arundel	350	293	s	<6
Baltimore City	630	s	396	<6
Baltimore County	683	547	130	6
Calvert	70	60	s	<6
Caroline	29	27	<6	<6
Carroll	121	116	<6	<6
Cecil	63	60	<6	<6
Charles	88	61	s	<6
Dorchester	21	16	<6	<6
Frederick	132	120	s	<6
Garrett	32	s	<6	<6
Harford	151	132	s	<6
Howard	127	102	s	<6
Kent	23	19	<6	<6
Montgomery	573	439	107	27
Prince George's	628	202	410	16
Queen Anne's	35	30	<6	<6
Saint Mary's	43	36	s	<6
Somerset	26	18	s	<6
Talbot	39	32	s	<6
Washington	113	112	<6	<6
Wicomico	79	60	s	<6
Worcester	46	39	s	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 41.
Female Breast Cancer Age-Adjusted Mortality Rates* by Jurisdiction and Race, Maryland, 2002-2006

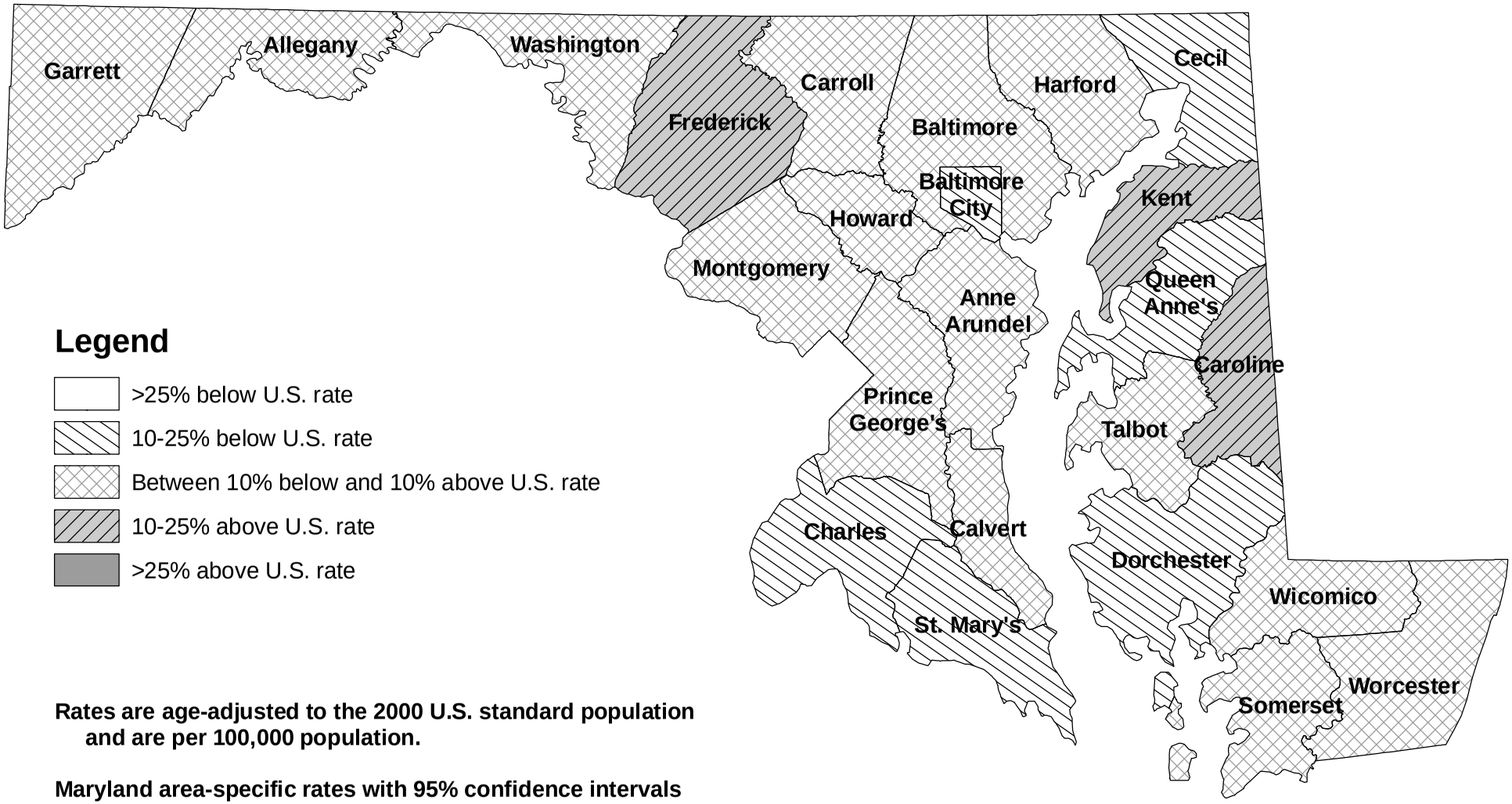
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	26.8	25.3	32.4	10.5
Allegany	25.3	25.0	**	**
Anne Arundel	26.4	25.8	32.5	**
Baltimore City	33.1	30.8	34.1	**
Baltimore County	26.5	25.1	34.0	**
Calvert	34.1	34.8	**	**
Caroline	30.9	33.8	**	**
Carroll	27.0	26.8	**	**
Cecil	26.1	26.2	**	**
Charles	29.2	29.5	25.9	**
Dorchester	19.1	18.9	**	**
Frederick	24.5	24.1	**	**
Garrett	33.9	34.1	**	**
Harford	24.6	23.8	34.6	**
Howard	20.5	21.7	20.3	**
Kent	27.3	27.2	**	**
Montgomery	21.2	21.1	30.6	8.9
Prince George's	31.2	28.0	32.9	16.7
Queen Anne's	27.2	26.5	**	**
Saint Mary's	20.0	20.3	**	**
Somerset	38.9	33.7	**	**
Talbot	27.1	26.0	**	**
Washington	26.5	27.3	**	**
Wicomico	30.2	29.5	33.3	**
Worcester	24.0	23.5	**	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Maryland Female Breast Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



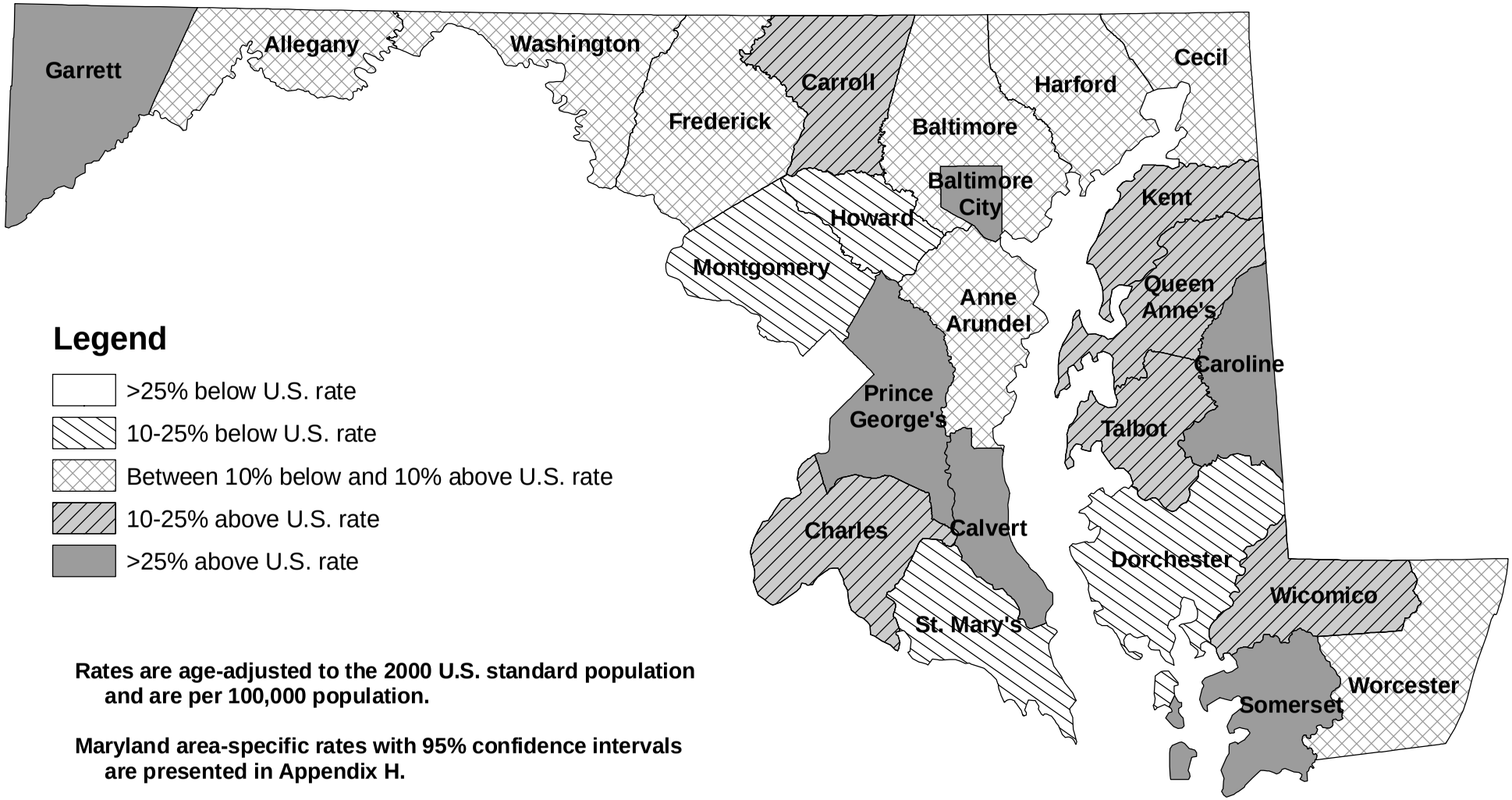
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. female breast cancer incidence rate, 2002-2006: 123.8/100,000

Source: MD incidence rates from Maryland Cancer Registry, 2002-2006
U.S. (SEER 17) rate from SEER*Stat Software

Maryland Female Breast Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. female breast cancer mortality rate, 2002-2006: 24.5/100,000

Source: MD and U.S. mortality rates from NCHS Compressed Mortality File in CDC WONDER

D. Prostate Cancer

Incidence (New Cases)

In 2006, a total of 3,897 cases of prostate cancer were reported among men in Maryland. The age-adjusted prostate cancer incidence rate in Maryland for 2006 was 153.9 per 100,000 men (149.0-159.0, 95% C.I.); this is similar to the 2006 U.S. SEER age-adjusted incidence rate for prostate cancer of 154.0 per 100,000 men (152.6-155.3, 95% C.I.).

Table 42.
Prostate Cancer Incidence Data*
by Race, Maryland and the United States, 2004-2006

	Total	*Whites*	*Blacks*	*Other*
2004				
MD New Cases (count)	3,579	2,381	1,051	106
MD Incidence Rate	148.0	132.0	202.7	112.9
U.S. SEER Rate	158.4	151.9	242.7	93.7
2005				
MD New Cases (count)	3,649	2,418	1,042	150
MD Incidence Rate	147.2	131.7	193.3	149.5
U.S. SEER Rate	146.2	140.2	222.5	83.3
2006				
MD New Cases (count) †	3,897	2,554	1,032	206
MD Incidence Rate †	153.9	137.3	186.3	191.2
U.S. SEER Rate	154.0	147.7	217.5	85.2

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

Total includes cases reported as unknown race

† 2006 Maryland case counts and incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)

Sources: Maryland Cancer Registry (MD incidence data)
NCI SEER*Stat (U.S. SEER 17 rates)

Mortality (Deaths)

Prostate cancer is the second leading cause of cancer deaths among men in Maryland, after lung cancer. In 2006, 531 men died of prostate cancer in Maryland, accounting for 5.1% of all cancer deaths in Maryland. The 2006 age-adjusted mortality rate for prostate cancer in Maryland was 26.3 per 100,000 men (24.1-28.5, 95% C.I.). This rate is statistically significantly higher than the 2006 U.S. mortality rate for prostate cancer of 23.5 per 100,000 men (23.2-23.8, 95% C.I.). Maryland had the 10th highest mortality rate for prostate cancer among the states and the District of Columbia for the period 2002-2006.

Table 43.
Prostate Cancer Mortality Data*
by Race, Maryland and the United States, 2004-2006

	Total	*Whites*	*Blacks*	*Other*
2004				
MD Deaths (count)	560	368	186	6
MD Mortality Rate	28.6	24.1	52.9	**
U.S. Mortality Rate	25.4	23.4	55.5	12.1
2005				
MD Deaths (count)	519	328	178	13
MD Mortality Rate	25.7	20.9	47.7	**
U.S. Mortality Rate	24.5	22.6	53.3	11.5
2006				
MD Deaths (count)	531	341	s	<6
MD Mortality Rate	26.3	21.7	51.2	**
U.S. Mortality Rate	23.5	21.7	50.5	10.4

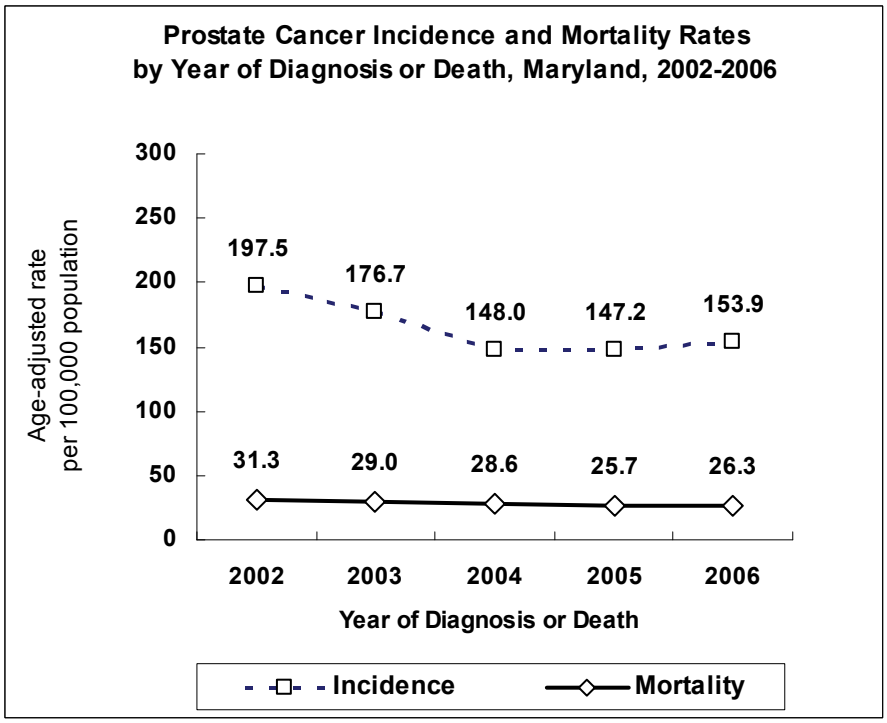
* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** MD mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Count is suppressed to prevent disclosure of data in other cell(s) based on Table 46

<6 = MD death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

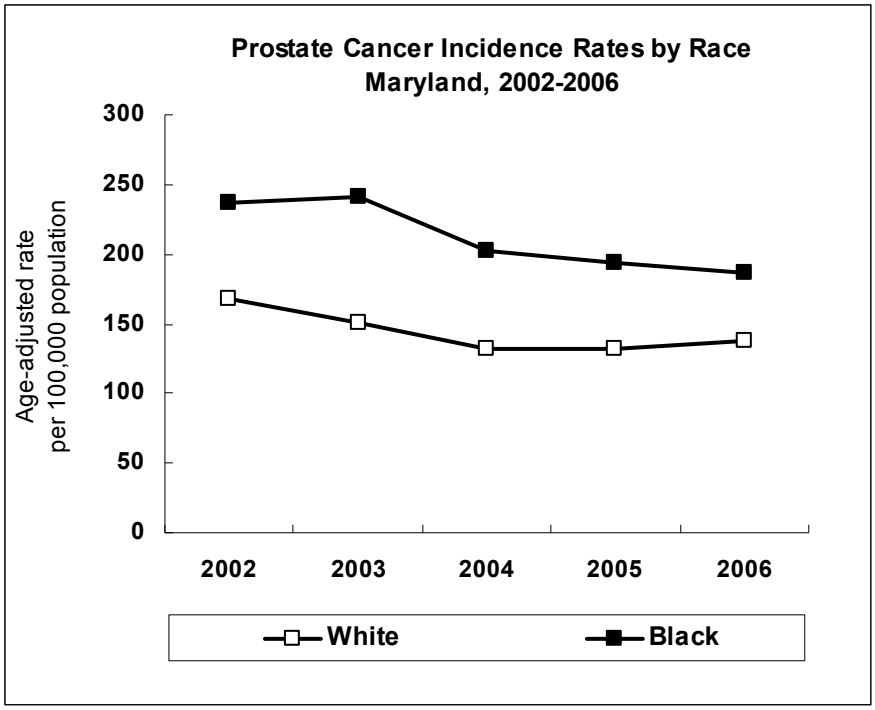


Rates are age-adjusted to 2000 U.S. standard population
Sources: Maryland Cancer Registry (incidence rates)
NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Incidence and Mortality Trends

Prostate cancer incidence rates in Maryland decreased an average of 6.6% per year and mortality rates declined an average of 4.6% per year from 2002 to 2006.

See Appendix I, Tables 1 and 2.



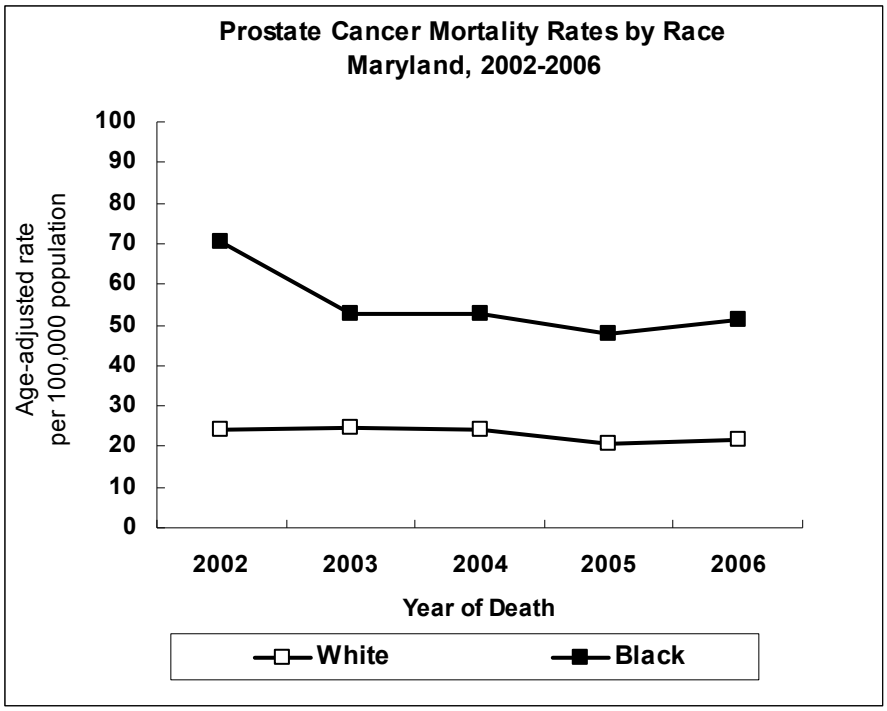
Rates are age-adjusted to 2000 U.S. standard population
Source: Maryland Cancer Registry

Race Incidence Trends

From 2002 to 2006, black men consistently experienced prostate cancer incidence rates higher than those of white men, although this disparity in incidence rates has decreased over time.

Incidence rates for black men decreased an average of 6.7% per year during this period, and rates for white men declined 5.2% per year.

See Appendix I, Table 11.

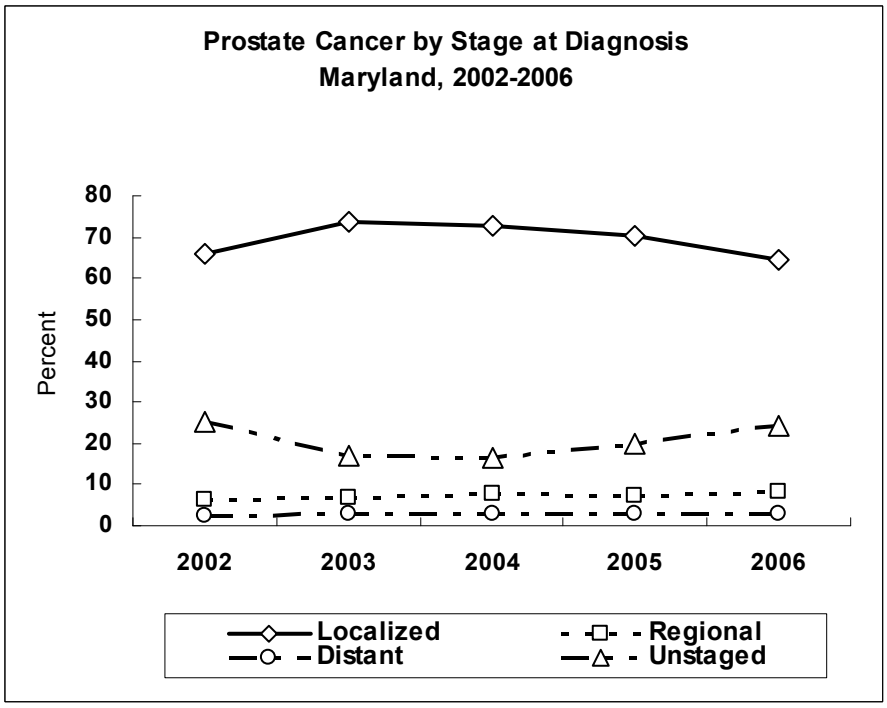


Rates are age-adjusted to 2000 U.S. standard population
Source: NCHS Compressed Mortality File in CDC WONDER

Race Mortality Trends

Prostate cancer mortality rates in Maryland were consistently higher for black men compared to white men from 2002 to 2006, although declines in mortality rates occurred for both white and black men. Mortality rates decreased an average of 7.0% per year for black men and 3.6% per year for white men.

See Appendix I, Table 12.

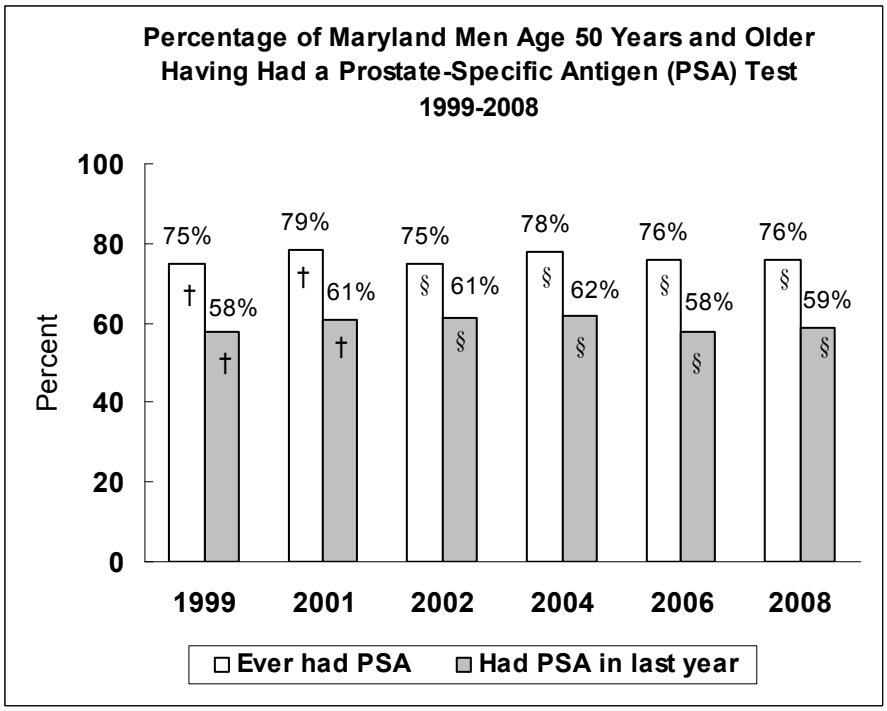


Source: Maryland Cancer Registry

Stage at Diagnosis

Of prostate cancers diagnosed in Maryland in 2006, 64.7% were detected at the localized (early) stage.

See Appendix J, Table 5.



Prostate-Specific Antigen Test

There is no Healthy People 2010 objective for prostate cancer detection.

In 2008, 76% of Maryland men age 50 years and older reported that they have ever had a prostate-specific antigen (PSA) test, and 59% of men age 50 years and older had a PSA in the last year. Screening rates have been relatively stable from 1999 to 2008.

Note: Graphic includes results from both the Maryland BRFSS and Maryland Cancer Survey. See Appendix C for a cautionary note on comparing these data.

† Maryland BRFSS 1999 and 2001

§ Maryland Cancer Survey 2002, 2004, 2006, and 2008

Public Health Evidence (quoted from NCI PDQ, 7/27/2009 and 7/27/2009, and USPSTF, 8/2008)

Screening

The prostate specific antigen (PSA) blood test and the digital rectal examination (DRE) are two commonly used screening tests to detect prostate cancer. The evidence is insufficient to determine whether screening for prostate cancer with DRE or PSA reduces mortality from prostate cancer. The USPSTF concluded that current evidence is insufficient to assess the balance of benefits and harms of screening for prostate cancer in men younger than age 75 years, and recommended against screening for prostate cancer in men age 75 years or older. Screening tests are able to detect prostate cancer at an early stage, but it is not clear whether this earlier detection and consequent earlier treatment leads to any change in the disease natural history and outcome of the disease. Observational evidence shows a trend toward lower mortality for prostate cancer in some countries, but the relationship between these trends and intensity of screening is not clear, and associations with screening patterns are inconsistent. The observed trends may be due to screening or factors such as improved treatment. Solid evidence indicates that screening with PSA and/or DRE detects some prostate cancers that would never have caused clinical problems. Thus, screening leads to some degree of overtreatment. Current prostate cancer treatments, including radical prostatectomy and radiation therapy, result in permanent side effects in many men, including erectile dysfunction, and urinary incontinence. The screening process itself can lead to adverse psychological effects in men who have a prostate biopsy but not prostate cancer; prostate biopsies are associated with complications.

Primary Prevention

There is inadequate evidence to determine whether the prevention strategies of dietary change (i.e., reducing dietary fat or increasing fruits and vegetables) or lycopene supplementation are effective in reducing prostate cancer incidence or mortality. The Selenium and Vitamin E Cancer Prevention Trial failed to demonstrate that these drugs reduce the period prevalence of prostate cancer.

Chemoprevention

Based on solid evidence, chemoprevention with finasteride reduces the incidence of prostate cancer, but the evidence is inadequate to determine whether chemoprevention with finasteride reduces mortality from prostate cancer. There are significant complications associated with finasteride including erectile dysfunction, loss of libido and male breast enlargement.

Public Health Intervention for Prostate Cancer (Cancer Screening in the United States, 2009: A Review of Current American Cancer Society Guidelines and Issues in Cancer Screening, CA Cancer J Clin 2009;59;27-41; USPSTF, 2008; and DHMH Prostate Cancer Medical Advisory Committee, 2005 and 2009)
➢ On the basis of available data, men should be made aware of the availability of the PSA and DRE tests and the potential risks and benefits in order to make an informed choice about screening. Men ages 40-74 years are more likely to benefit from screening. ➢ Clinicians should discuss with their patients the potential benefits and uncertainties regarding prostate cancer detection and subsequent treatment, consider individual patient preferences, and individualize the decision to screen. ➢ PSA and DRE should be *offered* annually, beginning at age 50 years, to men who are at average risk of prostate cancer and have at least a 10-year life expectancy. Men at high risk of developing prostate cancer (African American men or men of any race with a first-degree relative [father, brother, or son] diagnosed with prostate cancer before age 65 years) should have this discussion with their provider beginning at age 45 years. Men at even higher risk (because they have several close relatives diagnosed with prostate cancer at an early age) should have this discussion with their provider at age 40 years. Subsequent testing would be guided by the baseline screening results.

Table 44.
Number of Prostate Cancer Cases
by Jurisdiction and Race, Maryland, 2006

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	3,897	2,554	1,032	206	105
Allegany	65	s	<6	0	0
Anne Arundel	313	257	43	<6	s
Baltimore City	416	139	242	26	9
Baltimore County	636	427	117	76	16
Calvert	50	41	s	0	<6
Caroline	24	21	<6	0	<6
Carroll	108	98	<6	<6	<6
Cecil	51	47	<6	<6	0
Charles	84	54	22	<6	<6
Dorchester	24	11	9	<6	<6
Frederick	123	111	7	<6	<6
Garrett	19	19	0	0	0
Harford	187	153	22	6	6
Howard	135	97	28	s	<6
Kent	24	s	0	0	<6
Montgomery †	617	461	94	40	22
Prince George's †	527	151	337	24	15
Queen Anne's	42	33	s	0	<6
Saint Mary's	68	51	s	0	<6
Somerset	14	s	<6	0	0
Talbot	49	38	s	0	<6
Washington	100	94	<6	<6	0
Wicomico	64	49	s	<6	0
Worcester	50	42	s	<6	0
Unknown	107	65	38	<6	<6

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 45.
Prostate Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 2006

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	153.9	137.3	186.3	191.2
Allegany	151.2	151.4	**	0.0
Anne Arundel	131.8	125.2	163.7	**
Baltimore City	158.6	135.1	157.0	574.0
Baltimore County	160.8	130.6	222.4	582.3
Calvert	142.8	135.8	**	0.0
Caroline	148.4	152.1	**	0.0
Carroll	138.9	128.7	**	**
Cecil	111.0	105.9	**	**
Charles	169.1	147.9	180.8	**
Dorchester	127.2	**	**	**
Frederick	135.4	136.0	**	**
Garrett	107.7	108.4	0.0	0.0
Harford	170.5	156.0	256.7	**
Howard	116.6	105.2	182.4	**
Kent	191.7	207.3	0.0	0.0
Montgomery †	143.8	140.7	201.7	75.4
Prince George's †	164.7	128.2	183.3	182.4
Queen Anne's	166.5	141.5	**	0.0
Saint Mary's	166.5	153.1	**	0.0
Somerset	**	**	**	0.0
Talbot	192.3	169.1	**	0.0
Washington	148.2	145.0	**	**
Wicomico	145.8	139.3	**	**
Worcester	140.0	133.7	**	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 46.
Number of Prostate Cancer Deaths
by Jurisdiction and Race, Maryland, 2006

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	531	341	s	<6
Allegany	7	s	<6	<6
Anne Arundel	43	36	s	<6
Baltimore City	83	s	63	<6
Baltimore County	84	70	s	<6
Calvert	8	<6	<6	<6
Caroline	<6	<6	<6	<6
Carroll	12	11	<6	<6
Cecil	8	7	<6	<6
Charles	11	<6	6	<6
Dorchester	<6	<6	<6	<6
Frederick	14	13	<6	<6
Garrett	<6	<6	<6	<6
Harford	17	16	<6	<6
Howard	15	9	s	<6
Kent	<6	<6	<6	<6
Montgomery	61	51	s	<6
Prince George's	86	s	56	<6
Queen Anne's	<6	<6	<6	<6
Saint Mary's	16	12	<6	<6
Somerset	<6	<6	<6	<6
Talbot	7	s	<6	<6
Washington	17	14	<6	<6
Wicomico	12	9	<6	<6
Worcester	<6	<6	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 47.
Prostate Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2006

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	26.3	21.7	51.2	**
Allegany	**	**	**	**
Anne Arundel	26.2	25.0	**	**
Baltimore City	36.2	19.5	51.3	**
Baltimore County	22.6	21.2	**	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	**	**	**	**
Cecil	**	**	**	**
Charles	**	**	**	**
Dorchester	**	**	**	**
Frederick	**	**	**	**
Garrett	**	**	**	**
Harford	20.5	21.0	**	**
Howard	**	**	**	**
Kent	**	**	**	**
Montgomery	16.7	17.1	**	**
Prince George's	43.7	28.4	66.6	**
Queen Anne's	**	**	**	**
Saint Mary's	56.9	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	27.5	**	**	**
Wicomico	**	**	**	**
Worcester	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Table 48.
Number of Prostate Cancer Cases
by Jurisdiction and Race, Maryland, 2002-2006

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	19,872	12,967	5,461	686	758
Allegany	304	283	16	<6	<6
Anne Arundel	1,802	1,481	233	32	56
Baltimore City	2,258	711	1,411	62	74
Baltimore County	3,099	2,251	603	148	97
Calvert	213	156	40	<6	s
Caroline	100	79	s	0	<6
Carroll	534	497	18	10	9
Cecil	310	262	17	7	24
Charles	387	249	115	7	16
Dorchester	136	89	43	<6	<6
Frederick	798	710	48	9	31
Garrett	112	106	<6	0	<6
Harford	899	746	99	24	30
Howard	750	518	153	40	39
Kent	101	83	13	<6	<6
Montgomery †	3,281	2,405	520	236	120
Prince George's †	2,685	738	1,730	78	139
Queen Anne's	192	159	26	<6	<6
Saint Mary's	253	180	44	<6	s
Somerset	90	56	s	<6	0
Talbot	200	150	s	0	<6
Washington	518	485	22	s	<6
Wicomico	277	197	73	<6	<6
Worcester	236	192	38	<6	<6
Unknown	337	184	101	<6	s

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 49.
Prostate Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2002-2006

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	164.2	143.7	211.0	143.2
Allegany	144.0	137.9	386.0	**
Anne Arundel	159.3	149.3	201.4	125.0
Baltimore City	172.8	134.6	187.1	283.0
Baltimore County	160.6	138.6	244.6	277.4
Calvert	129.0	109.5	184.1	**
Caroline	130.1	120.0	174.4	0.0
Carroll	146.0	140.4	172.2	**
Cecil	147.4	128.8	204.8	**
Charles	160.1	137.2	208.2	**
Dorchester	145.6	122.1	218.1	**
Frederick	195.9	189.7	198.1	**
Garrett	128.9	123.1	**	0.0
Harford	176.8	160.3	277.1	318.6
Howard	141.9	121.1	221.3	105.7
Kent	161.9	155.9	**	**
Montgomery †	160.4	151.8	237.2	101.8
Prince George's †	176.9	125.2	204.8	118.8
Queen Anne's	157.2	140.5	269.3	**
Saint Mary's	134.7	113.0	174.2	**
Somerset	146.1	122.3	212.3	**
Talbot	165.8	142.5	312.7	0.0
Washington	154.5	150.6	183.7	**
Wicomico	135.0	121.2	186.9	**
Worcester	134.8	123.7	206.0	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2002-2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1)

Source: Maryland Cancer Registry

Table 50.
Number of Prostate Cancer Deaths
by Jurisdiction and Race, Maryland, 2002-2006

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2,717	1,742	940	35
Allegany	60	59	<6	<6
Anne Arundel	197	157	s	<6
Baltimore City	467	s	351	<6
Baltimore County	446	351	s	<6
Calvert	49	38	s	<6
Caroline	19	13	s	<6
Carroll	73	70	<6	<6
Cecil	40	35	<6	<6
Charles	48	31	s	<6
Dorchester	17	s	9	<6
Frederick	87	76	s	<6
Garrett	23	22	<6	<6
Harford	80	73	s	<6
Howard	75	57	s	<6
Kent	19	14	<6	<6
Montgomery	358	281	63	14
Prince George's	370	122	238	10
Queen Anne's	20	18	<6	<6
Saint Mary's	48	34	s	<6
Somerset	25	15	s	<6
Talbot	39	30	s	<6
Washington	71	65	<6	<6
Wicomico	42	24	s	<6
Worcester	44	36	s	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 51.
Prostate Cancer Age-Adjusted Mortality Rates* by Jurisdiction and Race, Maryland, 2002-2006

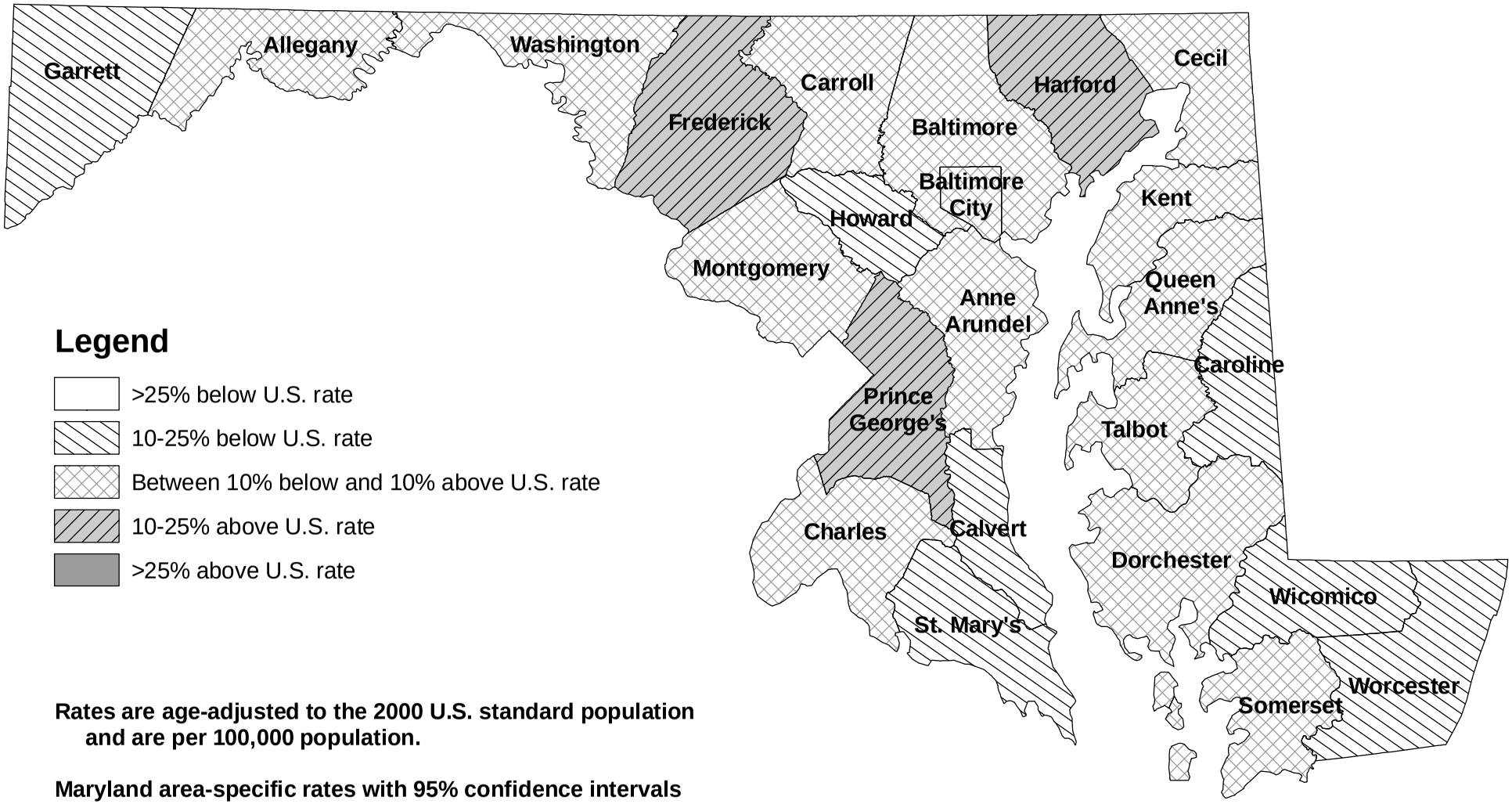
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	28.3	23.1	55.3	11.6
Allegany	30.1	30.3	**	**
Anne Arundel	25.9	23.2	55.0	**
Baltimore City	40.1	21.2	57.8	**
Baltimore County	25.2	22.1	65.1	**
Calvert	41.0	37.3	**	**
Caroline	29.5	**	**	**
Carroll	27.4	27.1	**	**
Cecil	27.5	25.6	**	**
Charles	31.3	26.3	50.2	**
Dorchester	19.7	**	**	**
Frederick	26.6	25.1	**	**
Garrett	31.3	29.9	**	**
Harford	21.9	21.9	**	**
Howard	23.6	22.3	44.2	**
Kent	30.1	**	**	**
Montgomery	21.3	20.2	46.5	**
Prince George's	37.7	25.3	55.9	**
Queen Anne's	20.0	20.7	**	**
Saint Mary's	34.9	30.5	**	**
Somerset	50.6	**	**	**
Talbot	31.1	26.9	**	**
Washington	24.1	22.9	**	**
Wicomico	23.8	17.6	51.7	**
Worcester	27.7	26.2	**	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Maryland Prostate Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



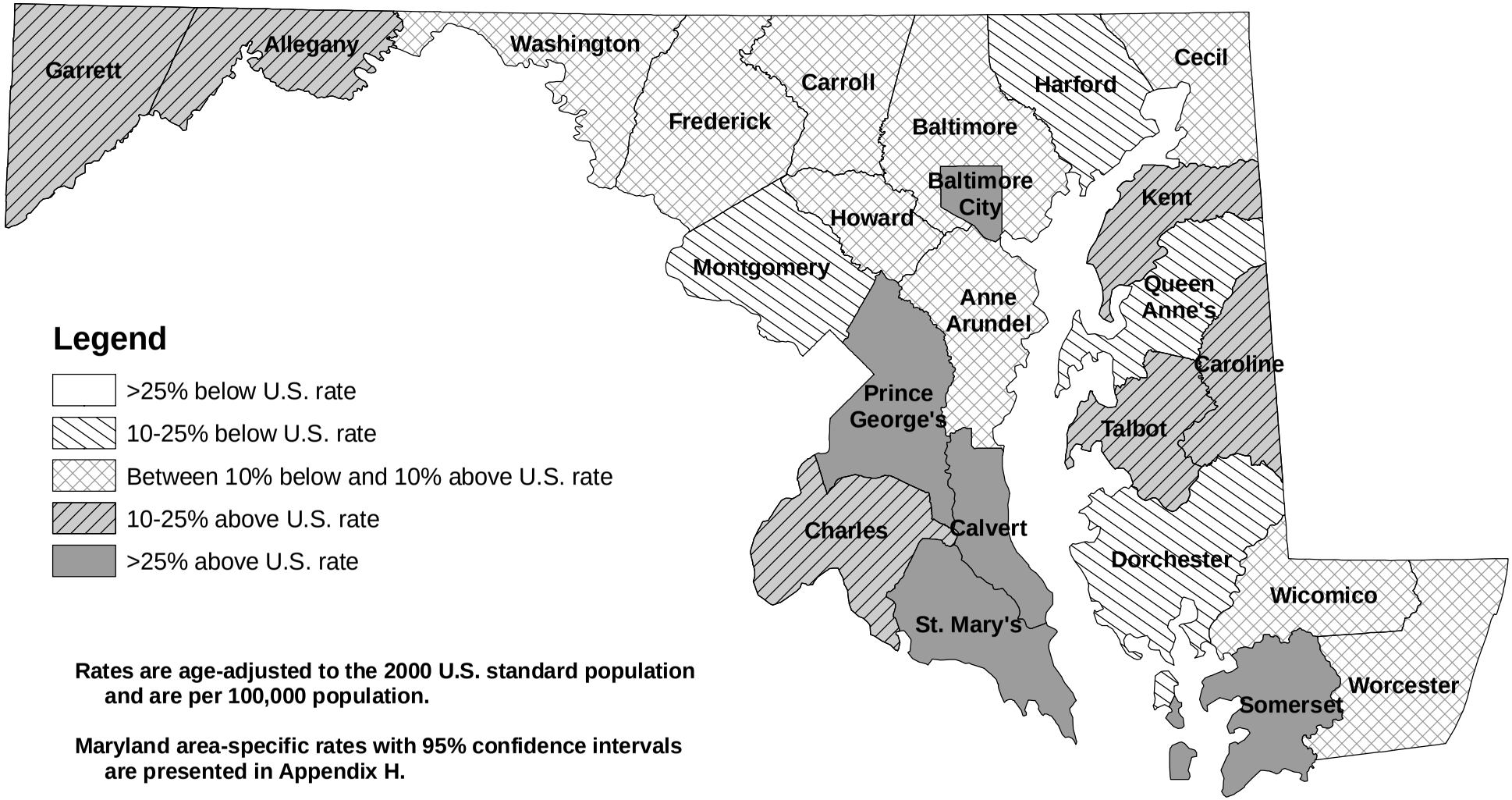
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. prostate cancer incidence rate, 2002-2006: 159.3/100,000

Source: MD incidence rates from Maryland Cancer Registry, 2002-2006
U.S. (SEER 17) rate from SEER*Stat Software

Maryland Prostate Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. prostate cancer mortality rate, 2002-2006: 25.5/100,000

Source: MD and U.S. mortality rates from NCHS Compressed Mortality File in CDC WONDER

E. Oral Cancer

Incidence (New Cases)

In 2006, a total of 520 cases of oral cavity and pharynx cancer (called oral cancer) were reported in Maryland. The age-adjusted incidence rate for oral cancer in Maryland in 2006 was 8.9 per 100,000 population (8.1-9.7, 95% C.I.), which is statistically significantly lower than the 2006 U.S. SEER age-adjusted oral cancer incidence rate of 10.2 per 100,000 population (9.9-10.4, 95% C.I.).

Table 52.
Oral Cancer Incidence Data*
by Gender and Race, Maryland and the United States, 2004-2006

	Total	*Males*	*Females*	*Whites*	*Blacks*	*Other*
2004						
MD New Cases (count)	534	350	184	396	113	s
MD Incidence Rate	9.4	13.5	6.0	9.7	8.3	8.0
U.S. SEER Rate	10.5	15.6	6.1	10.7	10.9	7.6
2005						
MD New Cases (count)	509	346	162	374	118	s
MD Incidence Rate	8.8	13.3	5.2	9.1	8.4	**
U.S. SEER Rate	10.2	15.1	6.1	10.4	9.9	7.7
2006						
MD New Cases (count) †	520	350	170	388	110	s
MD Incidence Rate †	8.9	13.2	5.3	9.4	7.6	7.0
U.S. SEER Rate	10.2	14.9	6.1	10.3	9.4	7.7

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
Total includes cases reported as transsexual, hermaphrodite, unknown gender, and unknown race
s = Counts are suppressed to prevent disclosure of data in other cell(s) based on Tables K-21, L-21 and 54
** MD incidence rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy
† 2006 Maryland case counts and incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)
Sources: Maryland Cancer Registry (MD incidence data)
NCI SEER*Stat (U.S. SEER 17 rates)

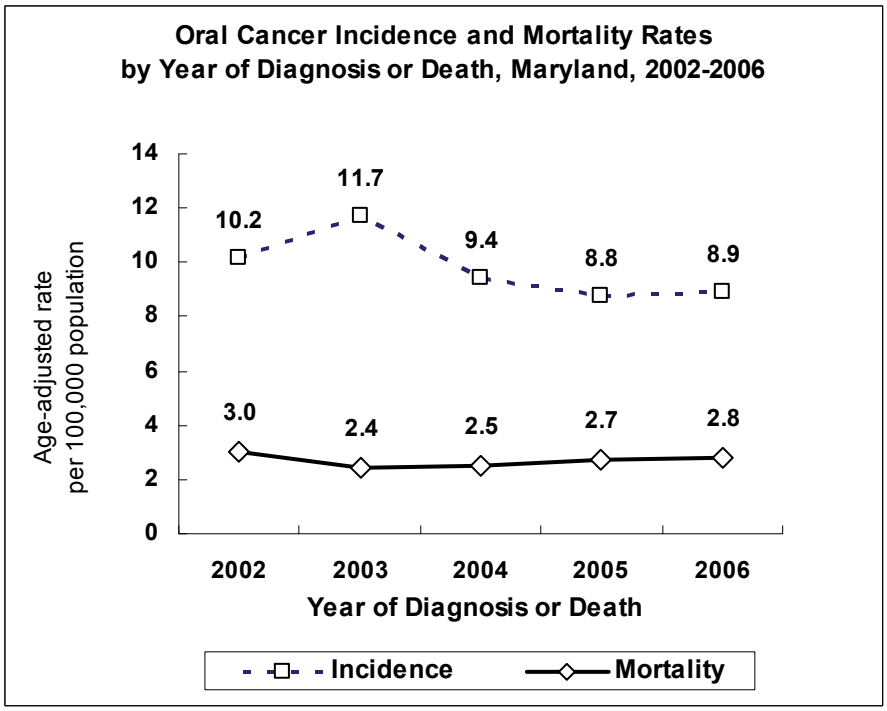
Mortality (Deaths)

In 2006, 158 persons in Maryland died of oral cancer. The 2006 age-adjusted mortality rate of 2.8 per 100,000 population (2.4-3.2, 95% C.I.) in Maryland is similar to the 2006 U.S. oral cancer mortality rate of 2.5 per 100,000 (2.4-2.6, 95% C.I.). Maryland ranked 20th highest for oral cancer mortality among the states and the District of Columbia for the period 2002-2006.

Table 53.
Oral Cancer Mortality Data*
by Gender and Race, Maryland and the United States, 2004-2006

	Total	*Males*	*Females*	*Whites*	*Blacks*	*Other*
2004						
MD Deaths (count)	138	98	40	92	s	<6
MD Mortality Rate	2.5	4.0	1.3	2.3	3.0	**
U.S. Mortality Rate	2.6	4.0	1.5	2.5	3.8	1.9
2005						
MD Deaths (count)	151	117	34	104	s	<6
MD Mortality Rate	2.7	4.7	1.1	2.5	3.5	**
U.S. Mortality Rate	2.5	3.8	1.4	2.4	3.5	2.1
2006						
MD Deaths (count)	158	105	53	106	s	<6
MD Mortality Rate	2.8	4.2	1.6	2.6	3.7	**
U.S. Mortality Rate	2.5	3.8	1.4	2.4	3.2	2.0

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
s = Counts are suppressed to prevent disclosure of data in other cell(s) based on Tables K-23, L-23 and 56
<6 = MD death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy
** MD mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy
Source: NCHS Compressed Mortality File in CDC WONDER



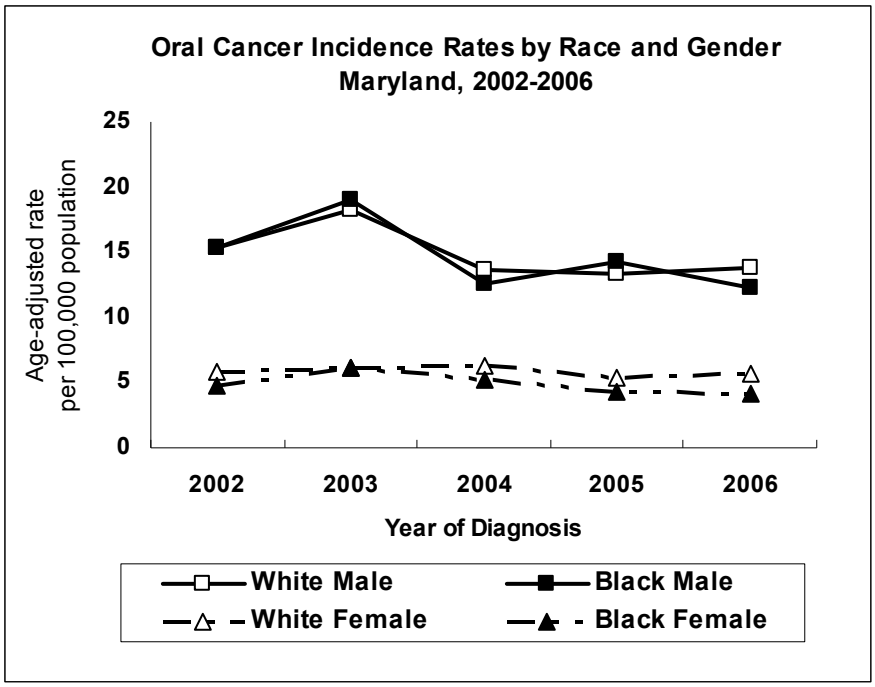
Rates are age-adjusted to 2000 U.S. standard population
Sources: Maryland Cancer Registry (incidence rates)
NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Incidence and Mortality Trends

The incidence of oral cancer in Maryland decreased an average of 5.4% per year from 2002 to 2006.

Mortality rates for oral cancer declined at an average of only 0.2% per year from 2002 to 2006.

See Appendix I, Tables 1 and 2.



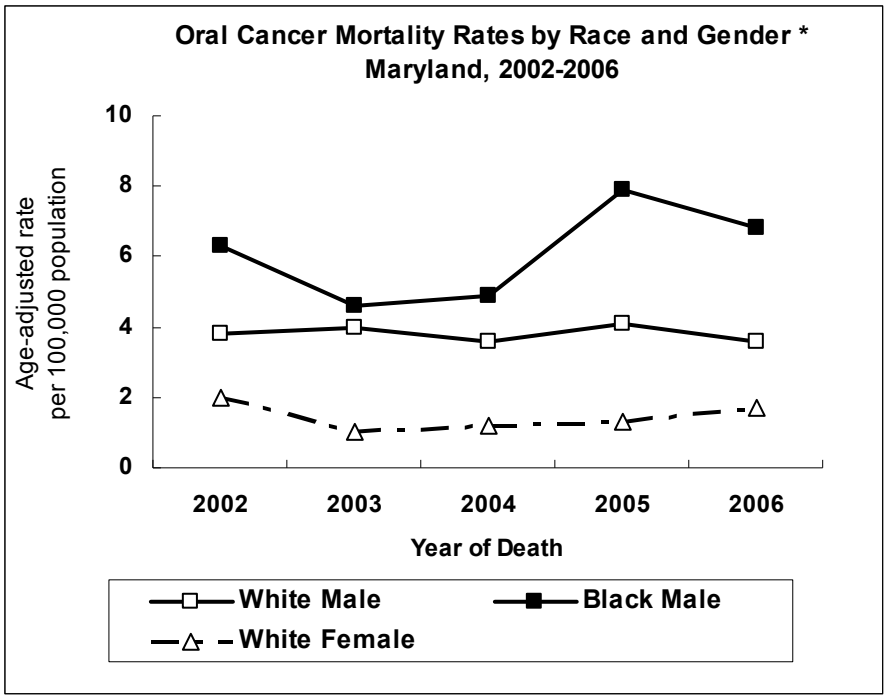
Rates are age-adjusted to 2000 U.S. standard population
Source: Maryland Cancer Registry

Race and Gender Incidence Trends

From 2002 to 2006, males consistently had higher oral cancer incidence rates than females.

Over the 5-year period, oral cancer incidence rates declined for all gender-race groups. The largest declines in incidence rates were seen among black males (7.1% per year), black females (6.4%), and white males (5.2%).

See Appendix I, Table 13.

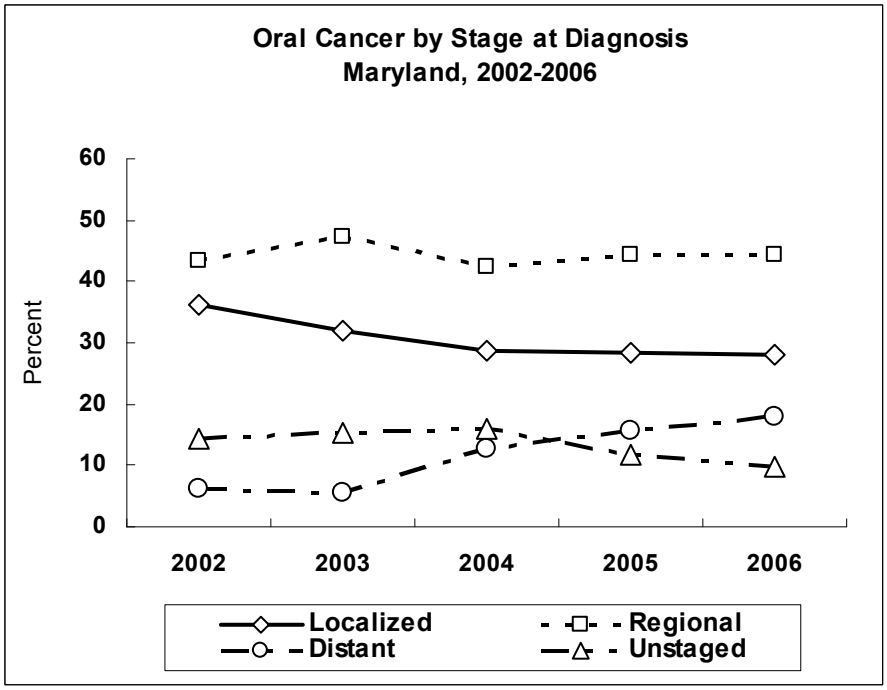


Rates are age-adjusted to 2000 U.S. standard population
* Mortality rates for black females are suppressed due to low death counts, per DHMH/CCSC Mortality Data Suppression Policy.
Source: NCHS Compressed Mortality File in CDC WONDER

Race and Gender Mortality Trends

Oral cancer mortality rates are consistently higher for males than females in Maryland. Mortality rates for black males increased an average of 7.2% per year from 2002 to 2006, while rates for white males and white females declined slightly. Note: Mortality rates for black females are not shown due to low death counts which resulted in unstable rates.

See Appendix I, Table 14.

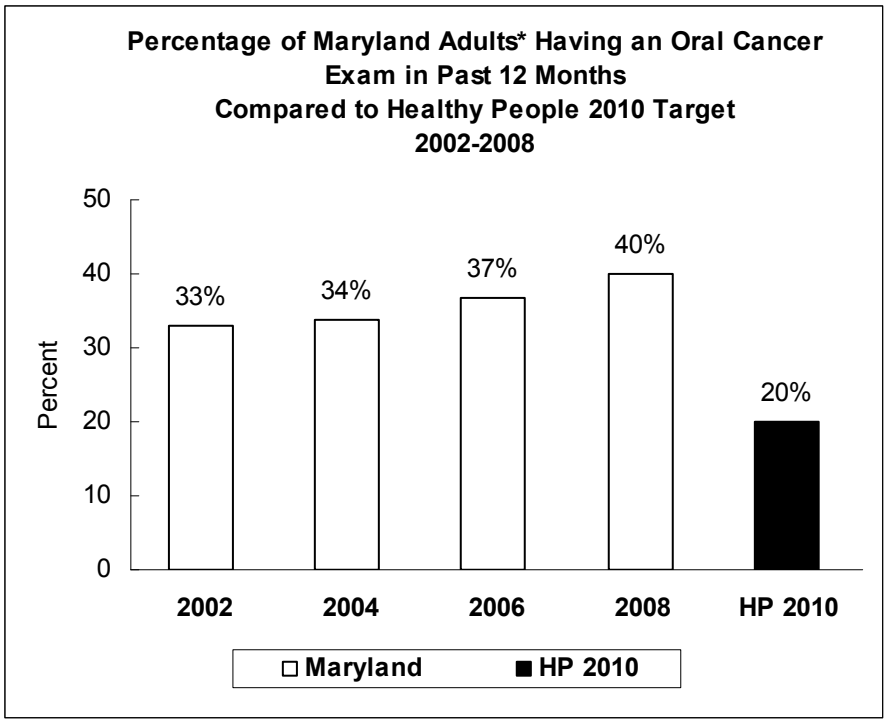


Source: Maryland Cancer Registry

Stage at Diagnosis

During 2006, 28.1% of oral cancer cases in Maryland were diagnosed at the localized (early) stage, and 44.4% were diagnosed at the regional stage.

See Appendix J, Table 6.



* Adults age 40 years and older

Sources: Maryland Cancer Survey 2002, 2004, 2006, and 2008
Healthy People 2010, U.S. Department of Health and Human Services (2000)

Oral Cancer Screening

The Healthy People 2010 target for oral cancer is to increase to 20% the proportion of adults age 40 years and older who report having had an oral cancer screening examination in the past 12 months to detect oral and pharyngeal cancer.

In the 2008 Maryland Cancer Survey, 40% of persons 40 years of age and older reported they had an oral cancer exam in the past year, again surpassing the Healthy People 2010 target.

Public Health Evidence (quoted from NCI PDQ, 6/30/2009 and 6/30/2009, and USPSTF, 2/2004)

Primary Prevention

Tobacco use (including use of cigarettes, cigars, pipes, and smokeless or spit tobacco) causes oral cancer. Tobacco use is responsible for more than 90% of oral cancer among men and 60% among women, and is responsible for more than 90% of oral cancer-related deaths in males. Alcohol use is a second independent major risk factor for oral cancer. There is a suggestion that beer and hard liquor confer greater risk of oral cancer than wine. The combined use of tobacco and alcohol increases the risks for oral cancer more than either risk behavior alone. There appears to be an association between human papillomavirus (HPV) and oral cancer; however, the role of HPV remains unclear. Sun exposure represents an important risk factor for lip cancer along with chronic direct exposure to tobacco.

Avoidance or cessation of tobacco use (e.g., cigarettes, pipes, cigars, and smokeless tobacco) would lead to a decrease in oral cancer. A 50% reduction of oral cancer risk has been noted after 3 to 5 years of smoking cessation and a return to normal risk noted within 10 years of cessation. Although alcohol use is a risk factor for oral cancer, there is inadequate evidence that cessation of alcohol use decreases the risk of oral cancer. A diet high in fruits and fiber is associated with a decreased risk of oral and pharyngeal cancer, particularly among smokers; however, there is inadequate evidence to determine whether a *change* in diet decreases the risk of oral cancer. There is inadequate evidence to determine whether reducing sun exposure would prevent lip cancer. Sunscreen use has been associated with a lower incidence of skin cancers and thus may lower the incidence of lip cancer.

Screening

The routine examination of asymptomatic and symptomatic patients can lead to detection of earlier stage cancers and premalignant lesions; however, there is no definitive evidence to show this screening can reduce mortality. The United States Preventive Services Task Force (USPSTF) concluded that the evidence is insufficient to recommend for or against routinely screening adults for oral cancer. The USPSTF found no new good-quality evidence that screening for oral cancer leads to improved health outcomes for either high-risk adults (i.e., those over age 50 years who use tobacco) or for average-risk adults in the general population. It is unlikely that controlled trials of screening for oral cancer will ever be conducted in the general population because of the very low incidence of oral cancer in the U.S. There is also no new evidence for the harms of screening. As a result, the USPSTF could not determine the balance between benefits and harms of screening.

Public Health Intervention for Oral Cancer (DHMH Oral Cancer Medical Advisory Committee, 2005)
➢ Avoidance or cessation of smoking and other tobacco use. ➢ Avoidance or reduction of alcohol consumption. ➢ Avoidance of sun exposure; use of ultraviolet light-blocking lip balm. ➢ Screening for oral cancer targeted to individuals age 40 years and older.

Table 54.
Number of Oral Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	520	350	170	388	110	s	<6
Allegany	9	s	<6	9	0	0	0
Anne Arundel	53	37	16	47	<6	<6	<6
Baltimore City	64	42	22	s	38	<6	0
Baltimore County	91	58	33	78	s	<6	0
Calvert	7	<6	<6	7	0	0	0
Caroline	<6	<6	<6	<6	0	0	0
Carroll	18	12	6	s	<6	0	0
Cecil	11	s	<6	11	0	0	0
Charles	11	s	<6	s	<6	0	0
Dorchester	<6	<6	<6	<6	<6	0	0
Frederick	23	17	6	s	0	<6	0
Garrett	<6	<6	0	<6	0	0	0
Harford	22	s	<6	s	<6	0	0
Howard	26	18	8	22	<6	<6	0
Kent	<6	<6	<6	<6	<6	0	0
Montgomery †	63	32	31	46	s	9	<6
Prince George's †	58	43	15	s	31	<6	0
Queen Anne's	<6	<6	<6	<6	<6	0	0
Saint Mary's	16	9	7	11	<6	0	<6
Somerset	<6	<6	<6	<6	0	<6	0
Talbot	<6	<6	<6	<6	0	0	0
Washington	13	s	<6	s	<6	0	0
Wicomico	8	s	<6	s	<6	0	0
Worcester	<6	<6	0	<6	0	0	0
Unknown	<6	0	<6	0	<6	0	0

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 55.
Oral Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	8.9	13.2	5.3	9.4	7.6	7.0
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	10.1	15.6	5.7	10.6	**	**
Baltimore City	9.8	15.8	5.6	11.0	9.3	**
Baltimore County	10.2	14.4	6.8	10.8	**	**
Calvert	**	**	**	**	0.0	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	10.5	**	**	10.4	**	0.0
Cecil	**	**	**	**	0.0	0.0
Charles	**	**	**	**	**	0.0
Dorchester	**	**	**	**	**	0.0
Frederick	10.8	17.0	**	11.4	0.0	**
Garrett	**	**	0.0	**	0.0	0.0
Harford	9.2	16.8	**	9.8	**	0.0
Howard	9.3	14.4	**	10.4	**	**
Kent	**	**	**	**	**	0.0
Montgomery †	6.4	7.3	5.4	6.3	**	**
Prince George's †	7.6	12.4	**	10.0	6.6	**
Queen Anne's	**	**	**	**	**	0.0
Saint Mary's	16.0	**	**	**	**	0.0
Somerset	**	**	**	**	0.0	**
Talbot	**	**	**	**	0.0	0.0
Washington	**	**	**	**	**	0.0
Wicomico	**	**	**	**	**	0.0
Worcester	**	**	0.0	**	0.0	0.0

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 56.
Number of Oral Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	158	105	53	106	s	<6
Allegany	<6	<6	<6	<6	<6	<6
Anne Arundel	14	s	<6	13	<6	<6
Baltimore City	26	19	7	s	14	<6
Baltimore County	25	14	11	22	<6	<6
Calvert	<6	<6	<6	<6	<6	<6
Caroline	<6	<6	<6	<6	<6	<6
Carroll	<6	<6	<6	<6	<6	<6
Cecil	<6	<6	<6	<6	<6	<6
Charles	<6	<6	<6	<6	<6	<6
Dorchester	<6	<6	<6	<6	<6	<6
Frederick	<6	<6	<6	<6	<6	<6
Garrett	<6	<6	<6	<6	<6	<6
Harford	6	<6	<6	s	<6	<6
Howard	<6	<6	<6	<6	<6	<6
Kent	<6	<6	<6	<6	<6	<6
Montgomery	17	s	<6	12	<6	<6
Prince George's	26	17	9	s	19	<6
Queen Anne's	<6	<6	<6	<6	<6	<6
Saint Mary's	<6	<6	<6	<6	<6	<6
Somerset	<6	<6	<6	<6	<6	<6
Talbot	<6	<6	<6	<6	<6	<6
Washington	<6	<6	<6	<6	<6	<6
Wicomico	<6	<6	<6	<6	<6	<6
Worcester	<6	<6	<6	<6	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 57.
Oral Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.8	4.2	1.6	2.6	3.7	**
Allegany	**	**	**	**	**	**
Anne Arundel	**	**	**	**	**	**
Baltimore City	4.0	7.1	**	**	**	**
Baltimore County	2.8	**	**	3.0	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	**	**	**	**	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	**	**	**	**	**	**
Garrett	**	**	**	**	**	**
Harford	**	**	**	**	**	**
Howard	**	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	1.8	**	**	**	**	**
Prince George's	3.7	6.0	**	**	5.1	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	**	**	**	**	**	**
Wicomico	**	**	**	**	**	**
Worcester	**	**	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Table 58.
Number of Oral Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2002-2006

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	2,765	1,896	868	2,034	616	84	31
Allegany	47	30	17	s	<6	0	0
Anne Arundel	268	198	70	239	22	<6	<6
Baltimore City	377	274	102	s	228	<6	0
Baltimore County	435	295	140	352	67	s	<6
Calvert	49	29	20	s	<6	0	0
Caroline	16	s	<6	s	<6	0	0
Carroll	82	60	22	76	<6	<6	<6
Cecil	52	40	12	s	<6	0	0
Charles	61	41	20	46	s	0	<6
Dorchester	12	s	<6	s	<6	0	0
Frederick	105	69	36	91	7	<6	<6
Garrett	15	s	<6	s	<6	0	0
Harford	127	89	38	116	s	<6	0
Howard	93	65	28	77	s	8	<6
Kent	21	12	9	s	<6	0	0
Montgomery †	394	243	151	309	43	35	7
Prince George's †	300	199	101	131	158	s	<6
Queen Anne's	30	19	11	s	<6	0	0
Saint Mary's	62	45	17	47	10	<6	<6
Somerset	13	s	<6	7	<6	<6	0
Talbot	28	15	13	24	<6	<6	0
Washington	74	54	20	s	<6	0	0
Wicomico	49	35	14	39	10	0	0
Worcester	34	28	6	29	<6	<6	0
Unknown	21	14	7	14	<6	<6	<6

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 59.
Oral Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2002-2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	9.8	14.7	5.6	10.0	8.9	6.7
Allegany	10.2	14.6	6.2	10.0	**	0.0
Anne Arundel	10.5	16.5	5.3	10.9	7.9	**
Baltimore City	11.4	19.5	5.2	12.1	11.2	**
Baltimore County	9.9	15.1	5.8	9.9	10.5	**
Calvert	12.1	15.1	9.5	12.4	**	0.0
Caroline	9.1	**	**	**	**	0.0
Carroll	9.9	15.3	5.0	9.6	**	**
Cecil	11.0	16.9	**	10.5	**	0.0
Charles	10.5	14.3	6.9	10.7	**	0.0
Dorchester	**	**	**	**	**	0.0
Frederick	10.2	14.7	6.3	9.6	**	**
Garrett	**	**	**	**	**	0.0
Harford	10.6	15.9	6.2	10.9	**	**
Howard	7.5	11.2	4.8	8.1	**	**
Kent	15.0	**	**	14.2	**	0.0
Montgomery †	8.2	11.3	5.8	8.6	7.0	6.4
Prince George's †	8.1	11.9	5.1	10.2	7.0	**
Queen Anne's	12.3	15.7	**	13.3	**	0.0
Saint Mary's	14.1	21.5	7.0	13.1	**	**
Somerset	**	**	**	**	**	**
Talbot	11.3	**	**	11.4	**	**
Washington	10.0	15.3	5.2	10.2	**	0.0
Wicomico	10.6	16.7	**	10.9	**	0.0
Worcester	9.8	17.7	**	9.7	**	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2002-2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1)

Source: Maryland Cancer Registry

Table 60.
Number of Oral Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2002-2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	736	515	221	507	216	13
Allegany	12	s	<6	s	<6	<6
Anne Arundel	69	54	15	60	s	<6
Baltimore City	147	110	37	s	102	<6
Baltimore County	119	77	42	103	s	<6
Calvert	12	<6	s	10	<6	<6
Caroline	<6	<6	<6	<6	<6	<6
Carroll	14	s	<6	s	<6	<6
Cecil	16	s	<6	s	<6	<6
Charles	18	s	<6	11	s	<6
Dorchester	<6	<6	<6	<6	<6	<6
Frederick	16	10	6	13	<6	<6
Garrett	<6	<6	<6	<6	<6	<6
Harford	29	20	9	28	<6	<6
Howard	21	9	12	14	<6	<6
Kent	<6	<6	<6	<6	<6	<6
Montgomery	80	51	29	62	12	6
Prince George's	88	65	23	s	49	<6
Queen Anne's	11	s	<6	s	<6	<6
Saint Mary's	9	s	<6	6	<6	<6
Somerset	<6	<6	<6	<6	<6	<6
Talbot	6	<6	<6	<6	<6	<6
Washington	26	17	9	25	<6	<6
Wicomico	12	s	<6	8	<6	<6
Worcester	14	s	<6	s	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 61.
Oral Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2002-2006

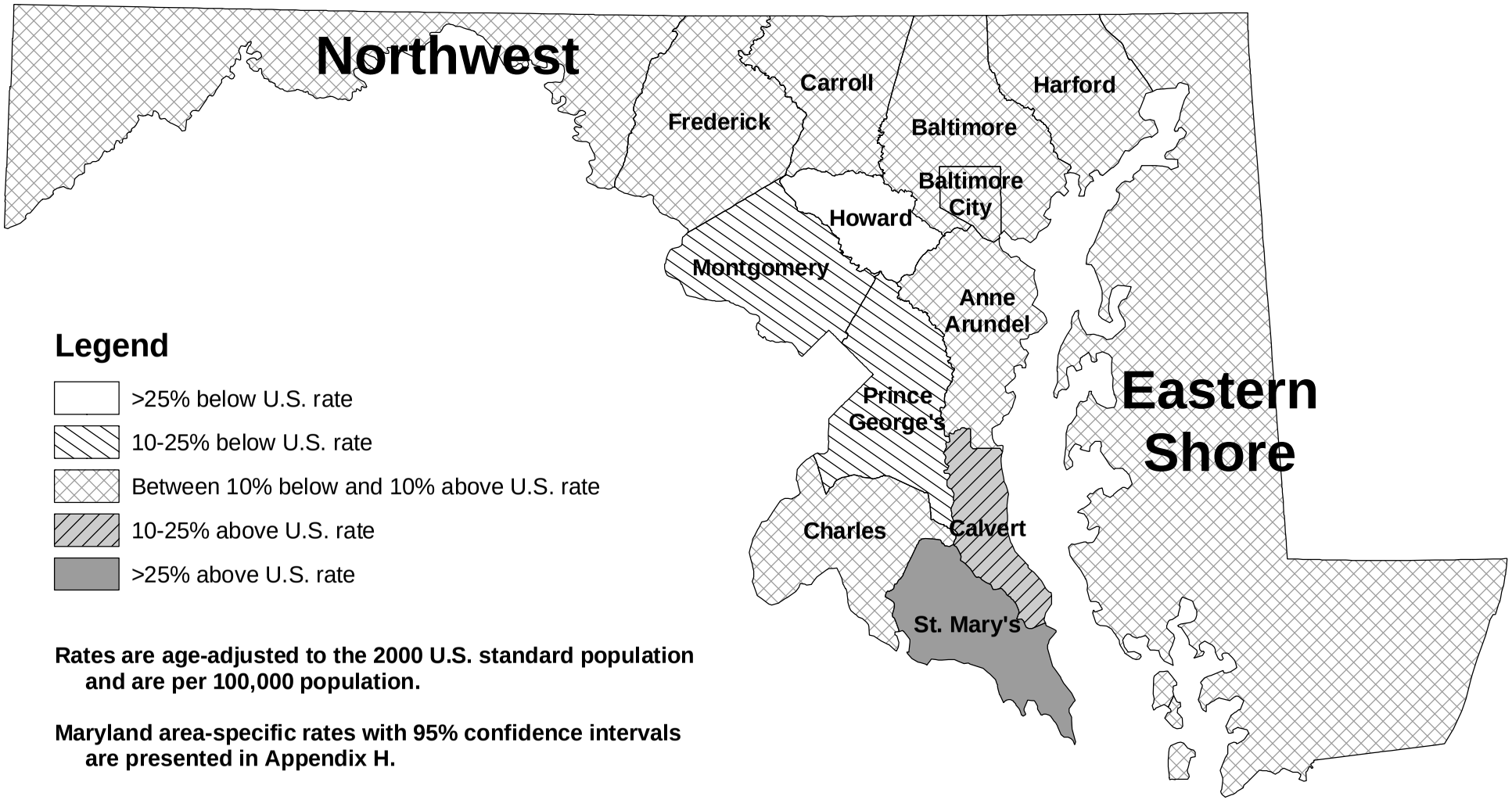
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.7	4.2	1.4	2.5	3.4	**
Allegany	**	**	**	**	**	**
Anne Arundel	2.8	5.1	**	2.9	**	**
Baltimore City	4.5	8.0	1.9	3.5	5.2	**
Baltimore County	2.7	3.9	1.6	2.8	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	**	**	**	**	**	**
Cecil	3.6	**	**	3.8	**	**
Charles	3.7	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	1.8	**	**	**	**	**
Garrett	**	**	**	**	**	**
Harford	2.6	3.9	**	2.8	**	**
Howard	2.1	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	1.7	2.7	1.0	1.7	**	**
Prince George's	2.6	4.6	1.1	2.9	2.6	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	3.4	4.9	**	3.5	**	**
Wicomico	**	**	**	**	**	**
Worcester	**	**	**	**	**	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Maryland Oral Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

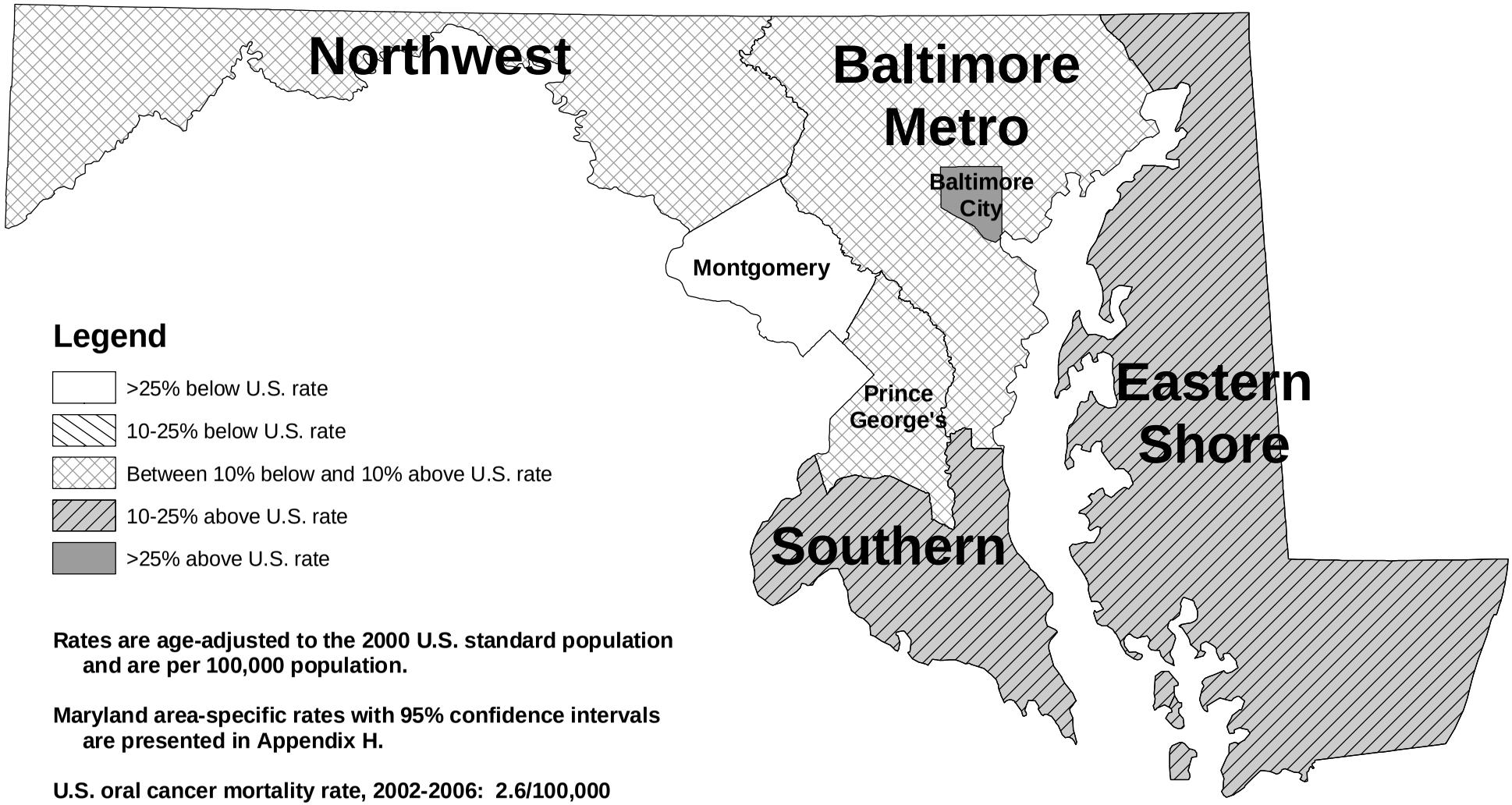
Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. oral cancer incidence rate, 2002-2006: 10.4/100,000

Note: Aggregated regional rates are used in comparisons when rates for one or more counties in that region are suppressed due to small numbers of cases or deaths. (See Appendix C for methods.)

Source: MD incidence rates from Maryland Cancer Registry, 2002-2006
U.S. (SEER 17) rate from SEER*Stat Software

Maryland Oral Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. oral cancer mortality rate, 2002-2006: 2.6/100,000

Note: Aggreated regional rates are used in comparisons when rates for one or more counties in that region are suppressed due to small numbers of cases or deaths. (See Appendix C for methods.)

Source: MD and U.S. mortality rates from NCHS Compressed Mortality File in CDC WONDER

F. Melanoma of the Skin

There are three major types of skin cancer: basal cell carcinoma, squamous cell carcinoma, and melanoma. Basal cell and squamous cell carcinoma are the most common forms of skin cancer and are not reportable to the Maryland Cancer Registry (MCR). Melanoma is the less frequent but the most serious type of skin cancer (NCI PDQ) and is reportable to the MCR.

Incidence (New Cases)

In 2006, a total of 1,137 cases of melanoma of the skin were reported in Maryland. The age-adjusted incidence rate for melanoma for 2006 was 19.7 per 100,000 population (18.6-20.9, 95% C.I.). This Maryland incidence rate is similar to the 2006 U.S. SEER age-adjusted incidence rate for melanoma of 19.8 per 100,000 population (19.5-20.1, 95% C.I.).

Table 62.
Melanoma Incidence Data*
by Gender and Race, Maryland and the United States, 2004-2006

	Total	*Males*	*Females*	*Whites*	*Blacks*	*Other*
2004						
MD New Cases (count)	1,044	592	451	1,000	11	7
MD Incidence Rate	18.7	24.1	14.9	25.4	**	**
U.S. SEER Rate	19.8	25.5	15.9	23.2	1.1	1.8
2005						
MD New Cases (count)	1,208	697	511	1,160	6	14
MD Incidence Rate	21.3	27.9	16.8	29.4	**	**
U.S. SEER Rate	21.1	26.8	17.0	24.8	1.0	1.8
2006						
MD New Cases (count) †	1,137	661	473	1,069	15	11
MD Incidence Rate †	19.7	26.0	15.3	26.7	**	**
U.S. SEER Rate	19.8	25.2	16.0	23.1	0.9	1.6

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
Total includes cases reported as transsexual, hermaphrodite, unknown gender, and unknown race
** MD incidence rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy
† 2006 Maryland case counts and incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)
Sources: Maryland Cancer Registry (MD incidence data)
NCI SEER*Stat (U.S. SEER 17 rates)

Mortality (Deaths)

In 2006, a total of 172 persons died of melanoma in Maryland. The 2006 age-adjusted mortality rate for melanoma in Maryland was 3.0 per 100,000 population (2.6-3.4, 95% C.I.). This rate is similar to the 2006 U.S. melanoma mortality rate of 2.7 per 100,000 population (2.6-2.8, 95% C.I.). Maryland ranked 30th in the nation for melanoma mortality for the period 2002-2006.

Table 63.
Melanoma Mortality Data*
by Gender and Race, Maryland and the United States, 2004-2006

	Total	*Males*	*Females*	*Whites*	*Blacks*	*Other*
2004						
MD Deaths (count)	145	89	56	143	<6	<6
MD Mortality Rate	2.7	3.9	1.8	3.5	**	**
U.S. Mortality Rate	2.7	3.9	1.7	3.0	0.4	0.3
2005						
MD Deaths (count)	155	97	58	153	<6	<6
MD Mortality Rate	2.8	4.2	1.8	3.8	**	**
U.S. Mortality Rate	2.7	4.0	1.8	3.1	0.4	0.5
2006						
MD Deaths (count)	172	113	59	166	s	<6
MD Mortality Rate	3.0	4.8	1.8	4.0	**	**
U.S. Mortality Rate	2.7	4.1	1.7	3.1	0.4	0.5

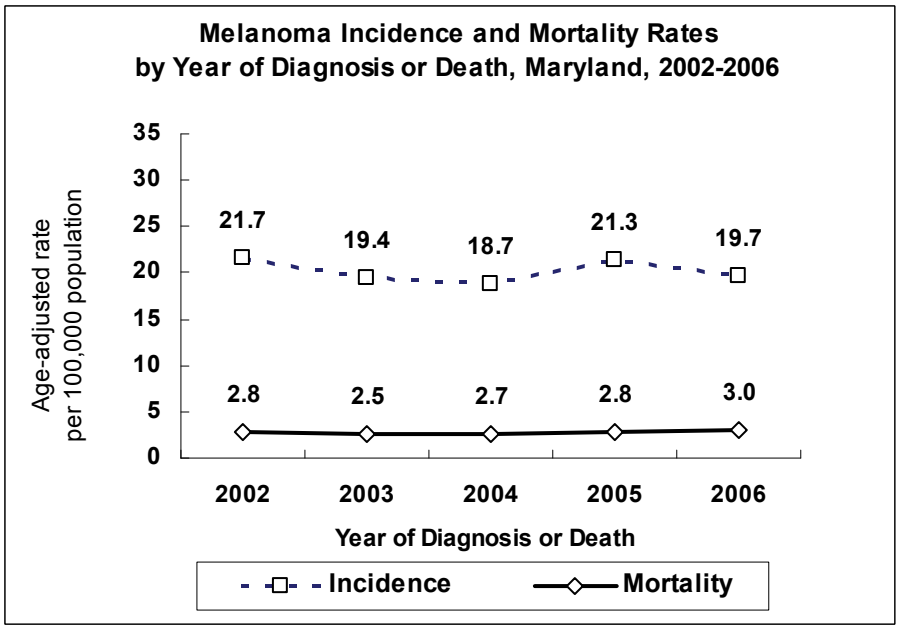
* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** MD mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

<6 = MD death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Count is suppressed to prevent disclosure of data in other cell(s) based on Table 66

Source: NCHS Compressed Mortality File in CDC WONDER

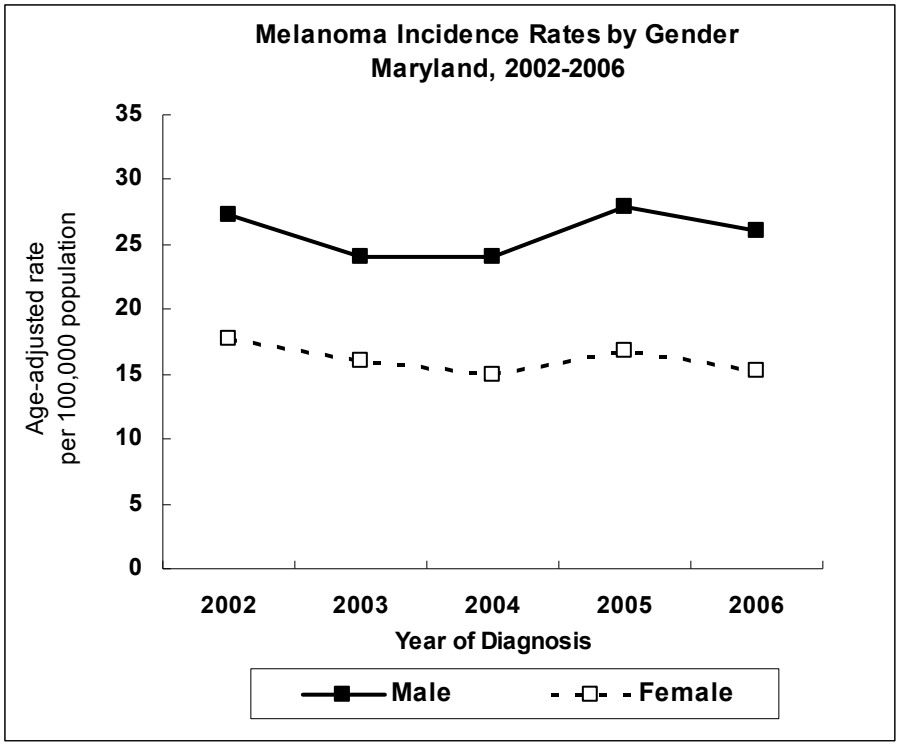


Rates are age-adjusted to 2000 U.S. standard population
Sources: Maryland Cancer Registry (incidence rates)
NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Incidence and Mortality Trends

Melanoma incidence rates in Maryland decreased an average of 1.0% yearly from 2002 to 2006. Mortality rates increased an average of 2.5% per year over the same period.

See Appendix I, Tables 1 and 2.

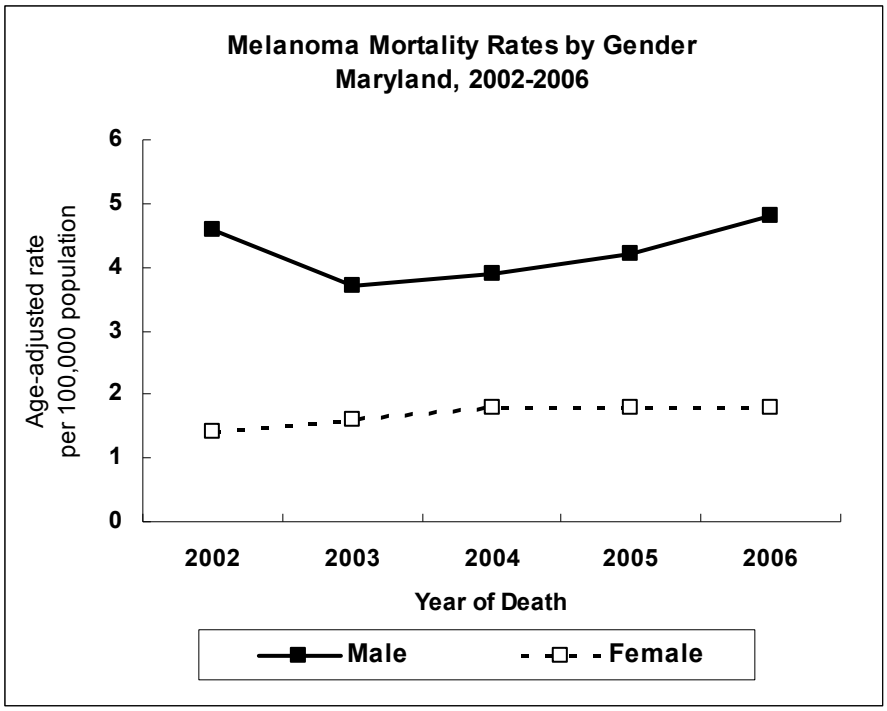


Rates are age-adjusted to 2000 U.S. standard population
Source: Maryland Cancer Registry

Gender Incidence Trends

From 2002 to 2006, males had higher rates of melanoma incidence than females. Rates increased slightly for males (average of 0.5% per year) but declined for females (average of 2.5% per year) during the 5-year period.

See Appendix I, Table 15.

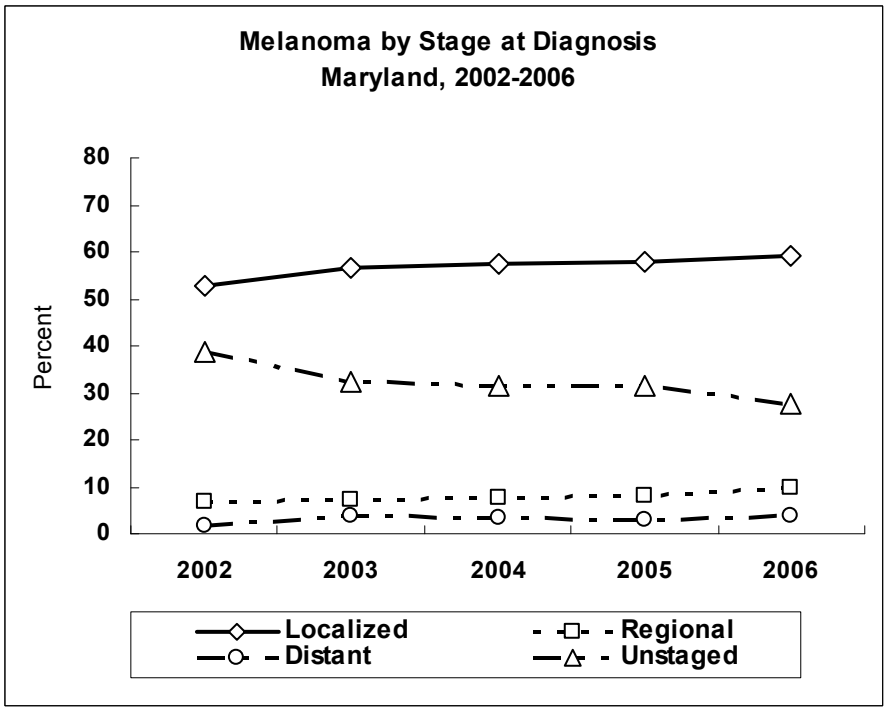


Rates are age-adjusted to 2000 U.S. standard population
Source: NCHS Compressed Mortality File in CDC WONDER

Gender Mortality Trends

From 2002 to 2006, males had consistently higher rates of melanoma mortality than females, although females had a higher average annual increase in mortality. Female mortality rates from melanoma increased at an average annual rate of 6.4%, compared to an average increase of 2.1% per year among males.

See Appendix I, Table 16.



Source: Maryland Cancer Registry

Stage at Diagnosis

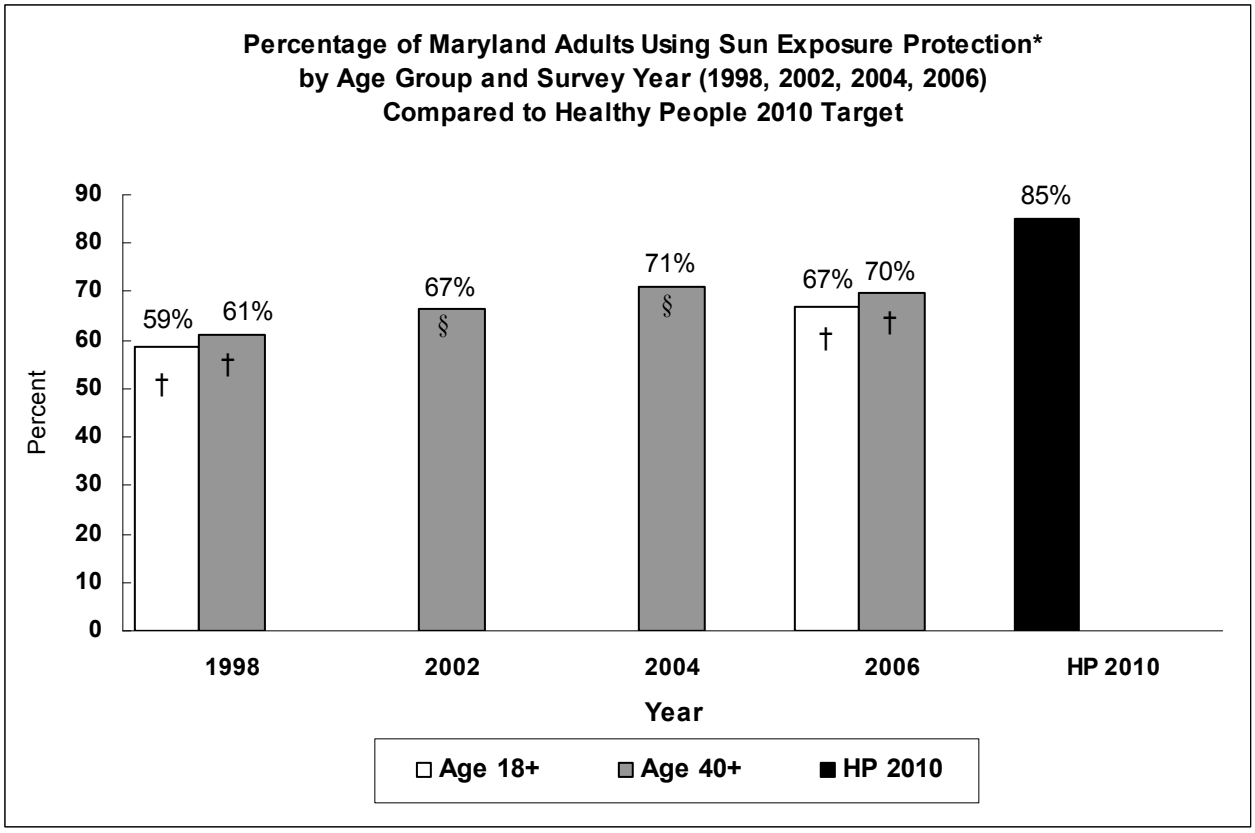
In 2006, 59.1% of all melanoma was diagnosed at the localized stage.

See Appendix J, Table 7.

Sun Exposure Protection

The Healthy People 2010 target is to increase to 85% the percentage of persons age 18 years and older who use at least one of the following measures that may reduce the risk of skin cancer: avoid sun between 10 a.m. and 4 p.m.; wear sun-protective clothing when exposed to sunlight; use sunscreen with a sun protective factor of 15 or higher; and avoid artificial sources of ultraviolet light (e.g., tanning booths).

In 2006, the Maryland BRFSS found that 67% of adults age 18 years and older and 70% of those age 40 years and older used at least one method of protection against sun exposure.



Note: Graphic includes results from both the Maryland BRFSS and Maryland Cancer Survey. See Appendix C for a cautionary note on comparing these data.

* Sun exposure protection means percentage of adults who report "always" or "nearly always" using one or more of the following measures: a) avoid sun between 10 a.m. and 4 p.m., b) wear sun-protective clothing when exposed to sunlight, c) use sunscreen with a sun protective factor of 15 or higher, and d) wear a hat when outdoors. The BRFSS and MCS do not include questions regarding frequency of exposure to ultraviolet light.

† Maryland BRFSS 1998 and 2006

§ Maryland Cancer Survey 2002 and 2004

Healthy People 2010 Midcourse Review, U.S. Department of Health and Human Services (2006)

Public Health Evidence (quoted from NCI PDQ, 6/30/2009 and 6/30/2009, and USPSTF, 2/2009)

Primary Prevention

There are three major types of skin cancer: basal cell carcinoma, squamous cell carcinoma, and melanoma of the skin. Melanoma is less common but more aggressive than basal cell or squamous cell. Epidemiologic evidence suggests that exposure to ultraviolet (UV) radiation from the sun or artificial sources, and the sensitivity of an individual's skin to UV radiation are risk factors for skin cancer, though the type of exposure (high-intensity and short-duration vs. chronic exposure) and pattern of exposure (continuous vs. intermittent) may differ among the three main types of skin cancer.

Intermittent acute sun exposure leading to sunburn, particularly in childhood or adolescence, appears to be an important risk factor for melanoma. Non-modifiable factors, such as the likelihood of getting a burn, a large number of benign melanocytic nevi (moles), and atypical nevi may also increase the risk of melanoma. Individuals with certain types of pigmented lesions (dysplastic or atypical nevi), with several large nondysplastic nevi, with many small nevi, or with moderate freckling, have a twofold to threefold increased risk of developing melanoma of the skin. Individuals with familial dysplastic nevus syndrome or with several dysplastic or atypical nevi are at high risk (greater than fivefold risk) of developing melanoma. There is inadequate evidence to determine whether the avoidance of sunburns alters the incidence of melanoma.

Increased cumulative sun exposure is an important risk factor for basal and squamous cell skin cancers. Individuals whose skin tans poorly or burns easily after sun exposure are particularly susceptible. There is inadequate evidence to determine whether the use of sunscreen reduces the incidence of basal and squamous cell skin cancer.

The best defense against skin cancer is protection from the sun and UV light. As of October 2008, an owner, employee, or operator of a tanning facility in Maryland may not allow a minor under the age of 18 years to use a tanning device unless the minor's parent or legal guardian provides written consent on the premises and in the presence of an owner, employee, or operator of the facility.

Screening

The United States Preventive Services Task Force concludes that the current evidence is insufficient to assess the balance of benefits and harms of using a whole-body skin examination by a primary care clinician or a patient skin self-examination for the early detection of melanoma of the skin, basal cell cancer, or squamous cell skin cancer in the adult general population.

Public Health Intervention for Skin Cancer
Reduction of exposure to the sun and other UV light by: ➢ Avoiding sun exposure, especially between 10 a.m. and 4 p.m.; ➢ Wearing sun-protective clothing, hat, and sunglasses when exposed to sunlight; ➢ Avoiding artificial sources of UV light (e.g., tanning booths); and ➢ If sun cannot be avoided, using sunscreen with a SPF of 15 or higher.

Table 64.
Number of Melanoma Cases
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	1,137	661	473	1,069	15	11	42
Allegany	15	8	7	15	0	0	0
Anne Arundel	161	92	68	154	<6	0	s
Baltimore City	60	35	25	51	<6	<6	<6
Baltimore County	181	107	74	172	<6	<6	s
Calvert	46	33	13	s	<6	0	0
Caroline	9	s	<6	s	0	0	<6
Carroll	49	27	22	s	0	0	<6
Cecil	20	14	6	s	0	0	<6
Charles	15	9	6	s	0	0	<6
Dorchester	8	<6	<6	8	0	0	0
Frederick	47	24	23	s	0	0	<6
Garrett	<6	<6	0	<6	0	0	0
Harford	56	32	24	s	0	0	<6
Howard	67	41	25	63	<6	0	<6
Kent	9	s	<6	s	<6	0	<6
Montgomery †	146	80	66	136	<6	<6	7
Prince George's †	68	42	26	61	<6	<6	0
Queen Anne's	19	s	<6	19	0	0	0
Saint Mary's	39	17	22	s	0	0	<6
Somerset	<6	<6	<6	<6	0	<6	0
Talbot	14	6	8	s	<6	0	<6
Washington	34	20	14	s	0	0	<6
Wicomico	28	18	10	s	0	<6	0
Worcester	25	15	10	25	0	0	0
Unknown	16	6	9	13	0	<6	<6

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 65.
Melanoma Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	19.7	26.0	15.3	26.7	**	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	31.7	41.4	25.6	36.0	**	0.0
Baltimore City	8.9	12.5	6.8	20.8	**	**
Baltimore County	20.9	27.0	16.5	26.0	**	**
Calvert	55.1	88.2	**	62.9	**	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	26.9	31.4	23.3	27.0	0.0	0.0
Cecil	21.4	**	**	21.3	0.0	0.0
Charles	**	**	**	**	0.0	0.0
Dorchester	**	**	**	**	0.0	0.0
Frederick	22.2	26.4	19.7	23.1	0.0	0.0
Garrett	**	**	0.0	**	0.0	0.0
Harford	22.9	27.1	19.5	25.6	0.0	0.0
Howard	25.2	33.5	17.0	32.2	**	0.0
Kent	**	**	**	**	**	0.0
Montgomery †	14.7	18.1	12.4	18.8	**	**
Prince George's †	9.7	15.2	6.2	24.0	**	**
Queen Anne's	38.1	**	**	42.6	0.0	0.0
Saint Mary's	41.5	39.9	44.7	48.9	0.0	0.0
Somerset	**	**	**	**	0.0	**
Talbot	**	**	**	**	**	0.0
Washington	22.1	28.9	**	23.4	0.0	0.0
Wicomico	28.6	43.8	**	35.6	0.0	**
Worcester	39.6	**	**	46.4	0.0	0.0

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 66.
Number of Melanoma Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	172	113	59	166	s	<6
Allegany	<6	<6	<6	<6	<6	<6
Anne Arundel	25	17	8	s	<6	<6
Baltimore City	11	s	<6	9	<6	<6
Baltimore County	37	23	14	s	<6	<6
Calvert	<6	<6	<6	<6	<6	<6
Caroline	<6	<6	<6	<6	<6	<6
Carroll	6	<6	<6	s	<6	<6
Cecil	<6	<6	<6	<6	<6	<6
Charles	<6	<6	<6	<6	<6	<6
Dorchester	<6	<6	<6	<6	<6	<6
Frederick	10	s	<6	s	<6	<6
Garrett	<6	<6	<6	<6	<6	<6
Harford	15	s	<6	s	<6	<6
Howard	9	s	<6	8	<6	<6
Kent	<6	<6	<6	<6	<6	<6
Montgomery	21	14	7	s	<6	<6
Prince George's	<6	<6	<6	<6	<6	<6
Queen Anne's	<6	<6	<6	<6	<6	<6
Saint Mary's	<6	<6	<6	<6	<6	<6
Somerset	<6	<6	<6	<6	<6	<6
Talbot	<6	<6	<6	<6	<6	<6
Washington	<6	<6	<6	<6	<6	<6
Wicomico	<6	<6	<6	<6	<6	<6
Worcester	<6	<6	<6	<6	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 67.
Melanoma Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	3.0	4.8	1.8	4.0	**	**
Allegany	**	**	**	**	**	**
Anne Arundel	5.4	8.7	**	6.2	**	**
Baltimore City	**	**	**	**	**	**
Baltimore County	3.9	5.7	**	4.7	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	**	**	**	**	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	**	**	**	**	**	**
Garrett	**	**	**	**	**	**
Harford	**	**	**	**	**	**
Howard	**	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	2.2	**	**	2.9	**	**
Prince George's	**	**	**	**	**	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	**	**	**	**	**	**
Wicomico	**	**	**	**	**	**
Worcester	**	**	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Table 68.
Number of Melanoma Cases
by Jurisdiction, Gender and Race, Maryland, 2002-2006

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	5,642	3,199	2,439	5,105	59	64	414
Allegany	65	31	34	s	<6	0	0
Anne Arundel	713	403	309	652	<6	7	s
Baltimore City	273	153	120	250	10	<6	s
Baltimore County	981	584	397	911	8	9	53
Calvert	141	90	51	124	<6	0	s
Caroline	35	25	10	s	0	0	<6
Carroll	244	134	110	224	0	<6	s
Cecil	100	61	39	s	0	0	<6
Charles	92	54	38	75	<6	<6	s
Dorchester	33	18	15	s	0	0	<6
Frederick	271	142	129	248	0	<6	s
Garrett	22	14	8	22	0	0	0
Harford	319	184	135	295	<6	<6	21
Howard	315	163	150	282	<6	<6	25
Kent	43	31	12	40	<6	0	<6
Montgomery †	876	470	406	743	9	22	102
Prince George's †	292	183	109	244	17	6	25
Queen Anne's	94	53	41	86	0	0	8
Saint Mary's	116	64	52	102	0	0	14
Somerset	27	14	13	s	0	<6	0
Talbot	91	50	41	87	<6	0	<6
Washington	187	95	92	173	<6	<6	10
Wicomico	119	65	54	s	0	<6	<6
Worcester	138	87	51	134	0	<6	<6
Unknown	55	31	23	46	<6	<6	s

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 69.
Melanoma Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2002-2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	20.2	25.9	16.1	26.0	0.9	5.4
Allegany	15.1	15.4	16.5	15.7	**	0.0
Anne Arundel	28.6	36.4	23.1	30.7	**	**
Baltimore City	8.3	11.3	6.6	20.7	**	**
Baltimore County	23.1	30.5	17.7	27.5	**	**
Calvert	35.8	50.7	24.1	37.1	**	0.0
Caroline	21.6	32.5	**	23.8	0.0	0.0
Carroll	28.4	34.1	24.7	27.2	0.0	**
Cecil	22.0	31.2	15.3	21.9	0.0	0.0
Charles	14.0	17.3	11.1	17.1	**	**
Dorchester	18.4	21.3	**	24.0	0.0	0.0
Frederick	25.5	30.0	22.7	25.8	0.0	**
Garrett	13.1	**	**	13.2	0.0	0.0
Harford	27.5	34.1	22.2	28.6	**	**
Howard	24.6	28.3	21.7	29.1	**	**
Kent	31.9	50.9	**	34.4	**	0.0
Montgomery †	18.5	22.4	15.8	21.2	**	4.1
Prince George's †	8.3	12.8	5.3	18.8	0.9	**
Queen Anne's	39.4	47.0	33.6	40.6	0.0	0.0
Saint Mary's	26.7	32.6	22.3	28.1	0.0	0.0
Somerset	20.5	**	**	30.6	0.0	**
Talbot	38.4	44.8	33.5	42.3	**	0.0
Washington	25.2	27.4	25.2	25.3	**	**
Wicomico	26.0	32.1	22.2	33.1	0.0	**
Worcester	42.4	56.8	30.0	48.0	0.0	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2002-2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1)

Source: Maryland Cancer Registry

Table 70.
Number of Melanoma Deaths
by Jurisdiction, Gender and Race, Maryland, 2002-2006

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	752	487	265	730	s	<6
Allegany	14	8	6	s	<6	<6
Anne Arundel	98	61	37	s	<6	<6
Baltimore City	52	31	21	46	s	<6
Baltimore County	149	97	52	147	<6	<6
Calvert	13	s	<6	11	<6	<6
Caroline	<6	<6	<6	<6	<6	<6
Carroll	29	21	8	s	<6	<6
Cecil	9	<6	<6	s	<6	<6
Charles	13	s	<6	s	<6	<6
Dorchester	<6	<6	<6	<6	<6	<6
Frederick	33	22	11	s	<6	<6
Garrett	<6	<6	<6	<6	<6	<6
Harford	41	30	11	s	<6	<6
Howard	23	15	8	22	<6	<6
Kent	11	s	<6	10	<6	<6
Montgomery	109	69	40	107	<6	<6
Prince George's	50	26	24	44	<6	<6
Queen Anne's	9	s	<6	s	<6	<6
Saint Mary's	17	s	<6	s	<6	<6
Somerset	<6	<6	<6	<6	<6	<6
Talbot	11	s	<6	10	<6	<6
Washington	21	10	11	s	<6	<6
Wicomico	18	s	<6	s	<6	<6
Worcester	16	s	<6	s	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 71.
Melanoma Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2002-2006

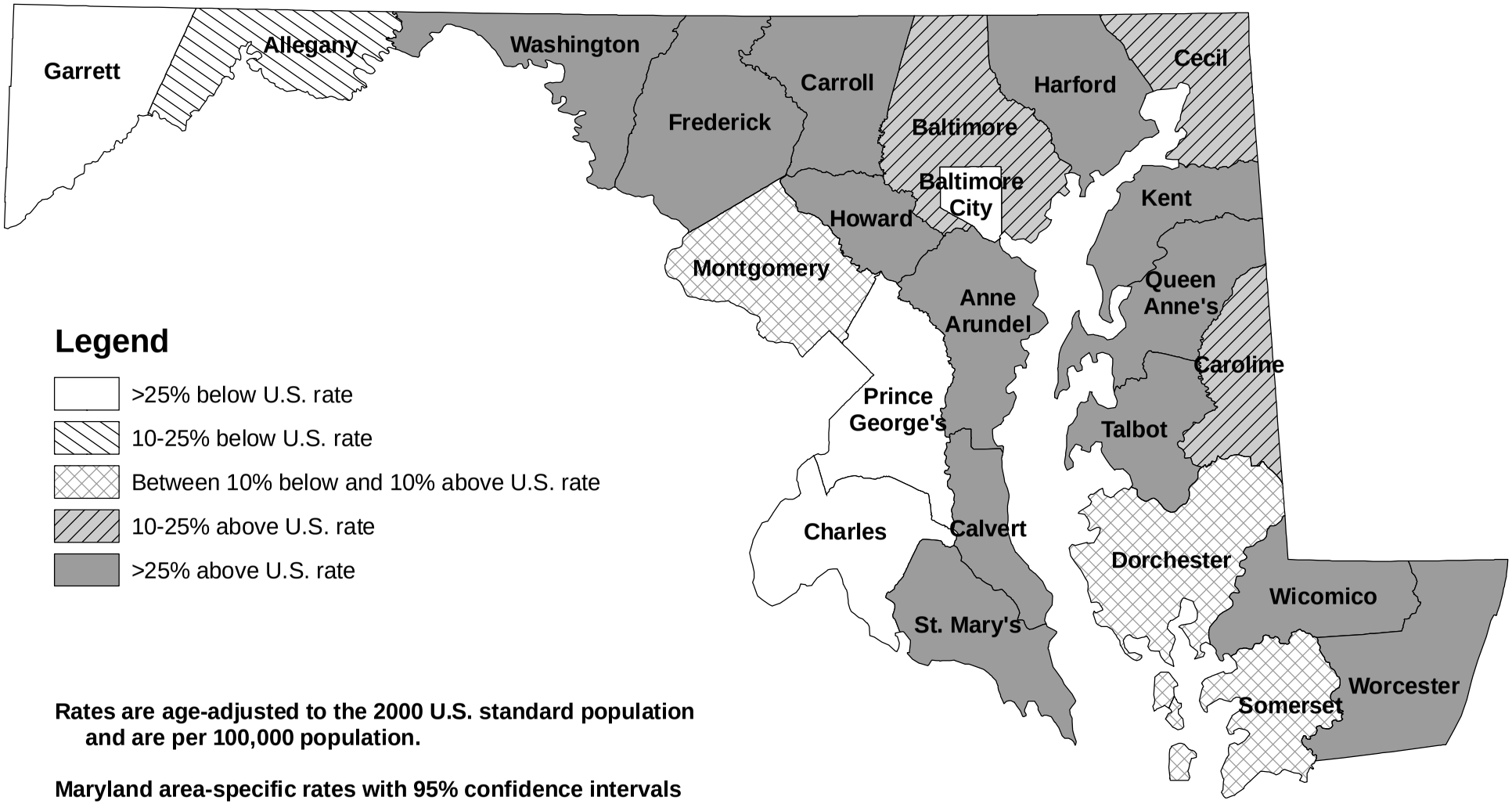
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.8	4.3	1.7	3.6	0.3	**
Allegany	**	**	**	**	**	**
Anne Arundel	4.3	6.4	2.9	4.9	**	**
Baltimore City	1.6	2.6	1.0	3.4	**	**
Baltimore County	3.3	5.1	2.0	4.0	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	3.4	5.6	**	3.6	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	3.5	5.4	**	3.8	**	**
Garrett	**	**	**	**	**	**
Harford	3.7	5.8	**	4.1	**	**
Howard	2.0	**	**	2.4	**	**
Kent	**	**	**	**	**	**
Montgomery	2.3	3.4	1.5	3.0	**	**
Prince George's	1.7	2.2	1.4	3.4	**	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	4.1	**	**	4.9	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	2.8	**	**	3.0	**	**
Wicomico	3.9	**	**	4.9	**	**
Worcester	4.3	**	**	5.0	**	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Maryland Melanoma Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



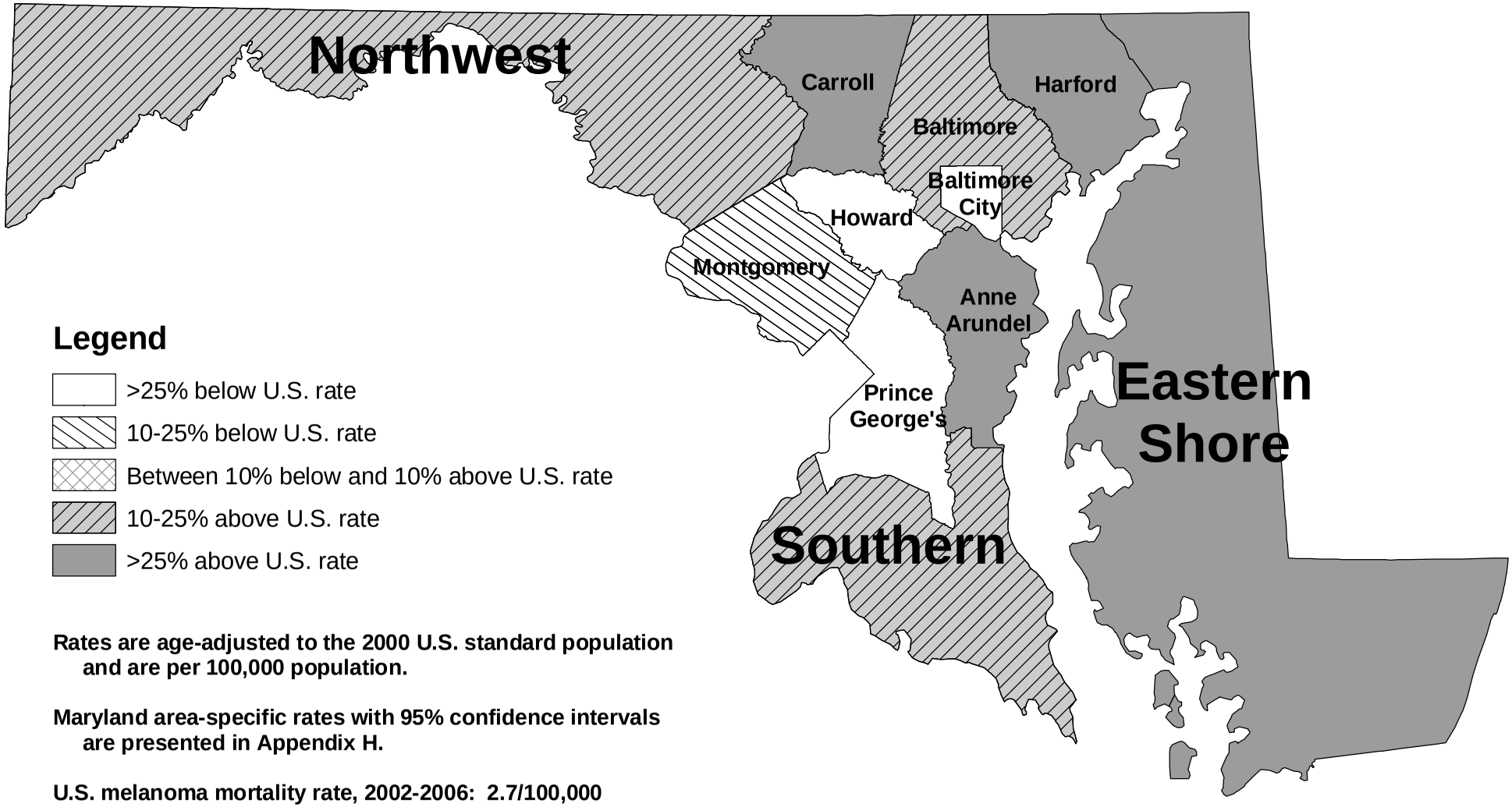
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. melanoma incidence rate, 2002-2006: 19.6/100,000

Source: MD incidence rates from Maryland Cancer Registry, 2002-2006
U.S. (SEER 17) rate from SEER*Stat Software

Maryland Melanoma Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. melanoma mortality rate, 2002-2006: 2.7/100,000

Note: Aggreated regional rates are used in comparisons when rates for one or more counties in that region are suppressed due to small numbers of cases or deaths. (See Appendix C for methods.)

Source: MD and U.S. mortality rates from NCHS Compressed Mortality File in CDC WONDER

G. Cervical Cancer

Incidence (New Cases)

A total of 199 cases of cervical cancer among women in Maryland were reported in 2006. The age-adjusted incidence rate for cervical cancer in Maryland for 2006 was 6.7 per 100,000 population of women (5.8-7.7, 95% C.I.). This rate is statistically significantly lower than the 2006 U.S. SEER age-adjusted cervical cancer incidence rate of 8.0 per 100,000 population of women (7.7-8.3, 95% C.I.).

Table 72.
Cervical Cancer Incidence Data*
by Race, Maryland and the United States, 2004-2006

	Total	*Whites*	*Blacks*	*Other*
2004				
MD New Cases (count)	226	133	83	s
MD Incidence Rate	7.5	6.7	10.1	**
U.S. SEER Rate	8.2	8.0	11.0	7.2
2005				
MD New Cases (count)	254	155	76	15
MD Incidence Rate	8.5	7.8	9.1	**
U.S. SEER Rate	8.1	8.0	9.2	7.8
2006				
MD New Cases (count) †	199	112	57	17
MD Incidence Rate †	6.7	5.8	7.1	9.8
U.S. SEER Rate	8.0	7.9	9.4	7.1

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
Total includes cases reported as unknown race
† 2006 Maryland case counts and incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)
s = Count is suppressed to prevent disclosure of data in other cell(s) based on Table K-29
** MD incidence rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy
Source: Maryland Cancer Registry (MD incidence data)
NCI SEER*Stat (U.S. SEER 17 rates)

Mortality (Deaths)

In 2006, a total of 69 women died of cervical cancer in Maryland. The age-adjusted cervical cancer mortality rate in Maryland in 2006 was 2.2 per 100,000 women (1.7-2.7, 95% C.I.). This rate is similar to the 2006 U.S. cervical cancer mortality rate of 2.4 per 100,000 population of women (2.3-2.5, 95% C.I.). Maryland ranked 29th highest for cervical cancer mortality rate among the states and the District of Columbia for the period 2002 to 2006.

Table 73.
Cervical Cancer Mortality Data*
by Race, Maryland and the United States, 2004-2006

	Total	*Whites*	*Blacks*	*Other*
2004				
MD Deaths (count)	77	46	s	<6
MD Mortality Rate	2.5	2.2	3.9	**
U.S. Mortality Rate	2.4	2.2	4.5	2.2
2005				
MD Deaths (count)	62	34	s	<6
MD Mortality Rate	2.0	1.5	3.2	**
U.S. Mortality Rate	2.4	2.2	4.4	1.9
2006				
MD Deaths (count)	69	38	s	<6
MD Mortality Rate	2.2	1.7	3.6	**
U.S. Mortality Rate	2.4	2.2	4.3	2.1

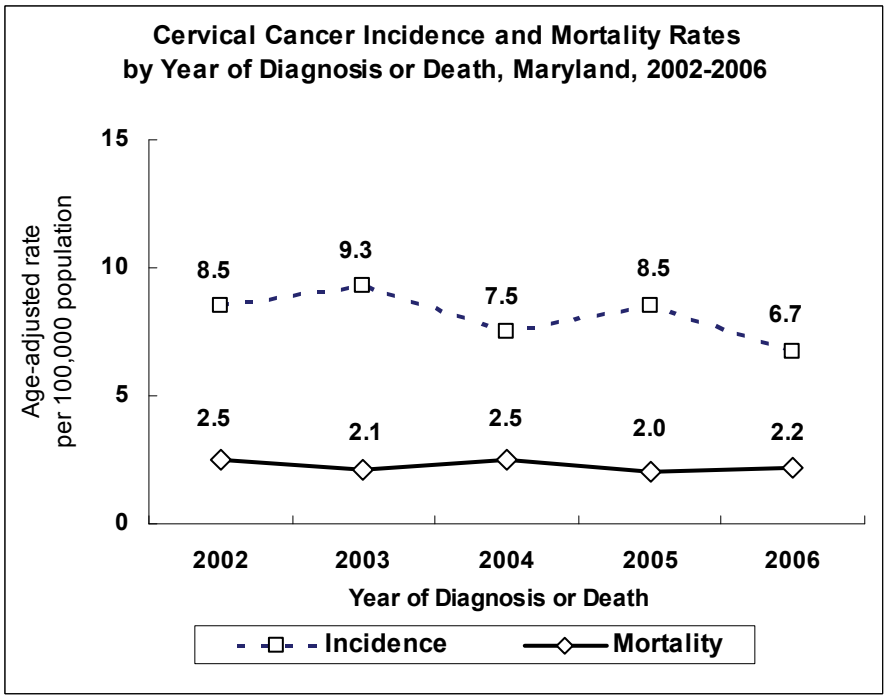
* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** MD mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s) based on Tables K-31, L-31, and 76

<6 = MD death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

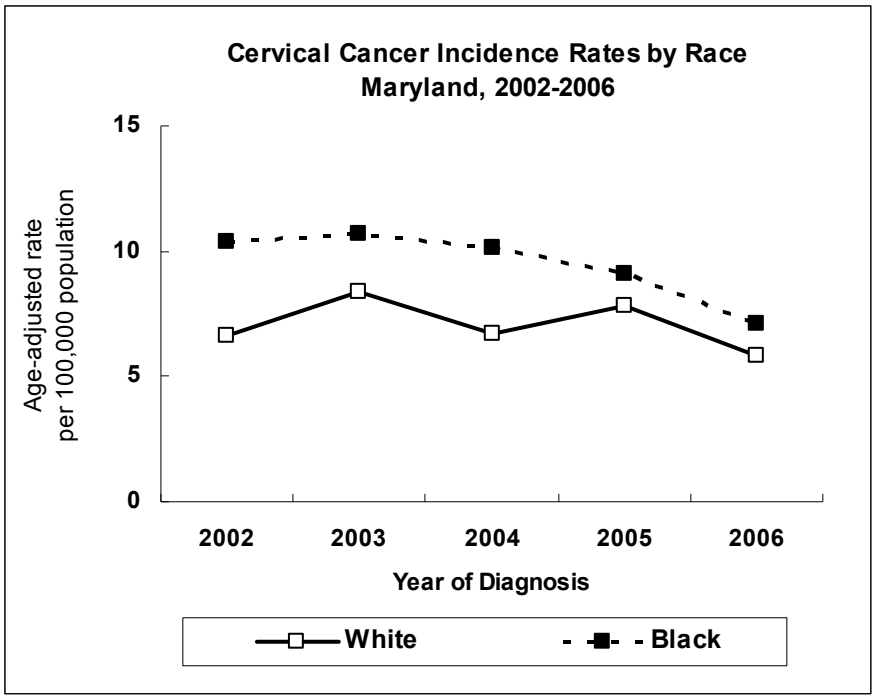


Rates are age-adjusted to 2000 U.S. standard population
Sources: Maryland Cancer Registry (incidence rates)
NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Incidence and Mortality Trends

Cervical cancer incidence rates among Maryland women decreased an average of 5.5% per year from 2002 to 2006. Mortality rates for cervical cancer decreased an average of 3.0% per year from 2002 to 2006.

See Appendix I, Tables 1 and 2.



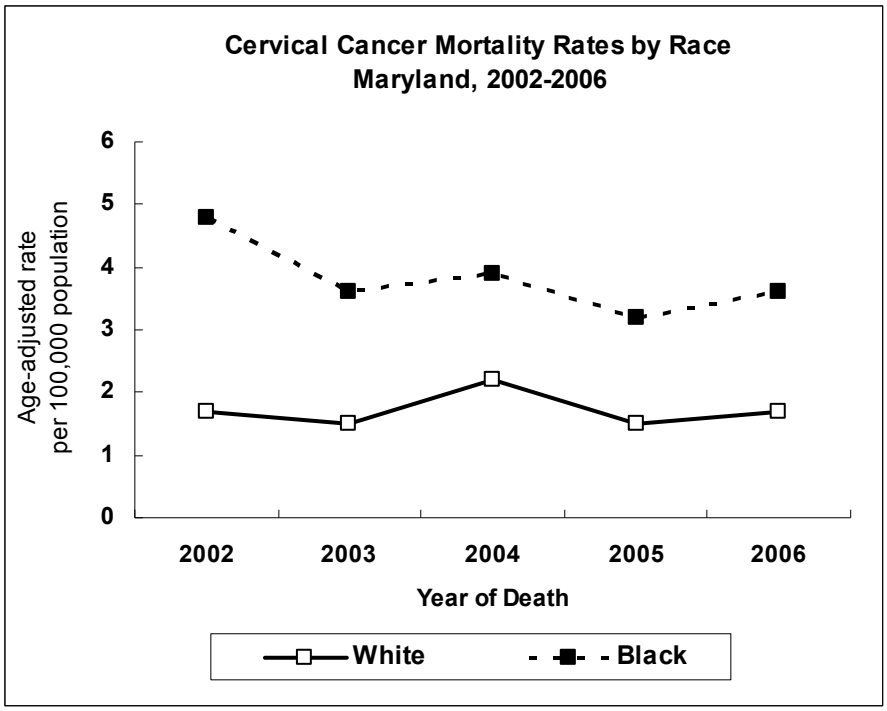
Rates are age-adjusted to 2000 U.S. standard population
Source: Maryland Cancer Registry

Incidence Trends by Race

Cervical cancer incidence rates were higher among black women than white women during the period 2002 to 2006, although the margin of this disparity gradually decreased.

From 2002 to 2006, cervical cancer incidence rates decreased an average of 8.8% per year for black women and 3.3% for white women.

See Appendix I, Table 17.



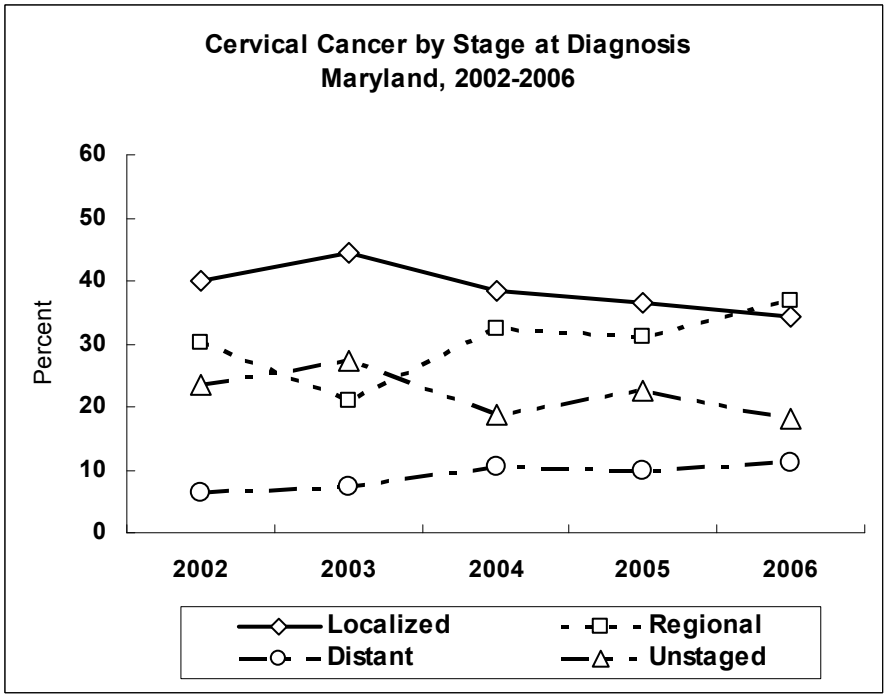
Rates are age-adjusted to 2000 U.S. standard population
Source: NCHS Compressed Mortality File in CDC WONDER

Race Mortality Trends

Disparities in cervical cancer mortality between black women and white women in Maryland have steadily decreased from 2002 to 2006.

The mortality rate for black women decreased an average of 6.7% per year, while the rate for white women remained relatively unchanged from 2002 to 2006.

See Appendix I, Table 18.

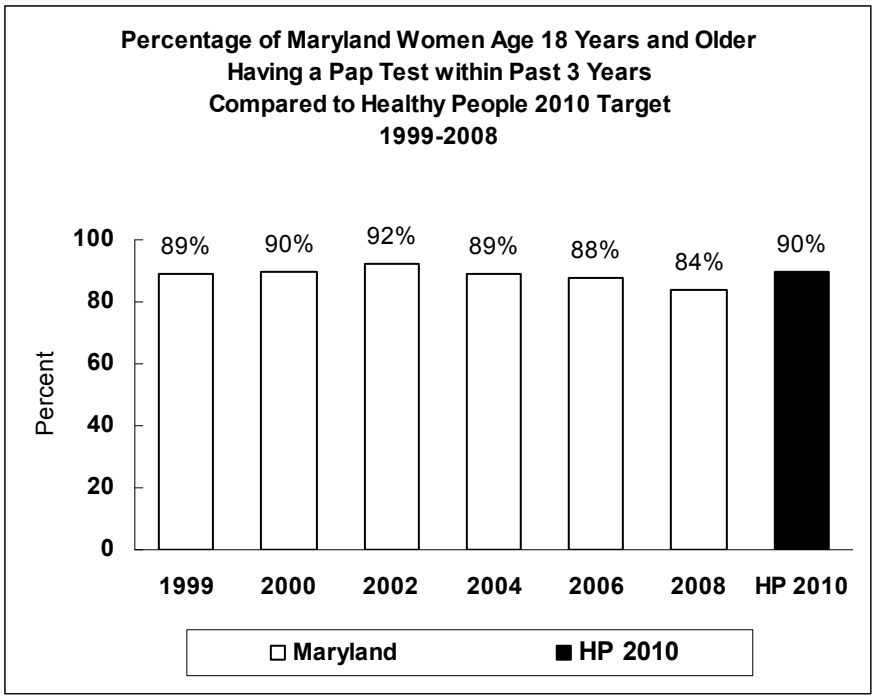


Source: Maryland Cancer Registry

Stage at Diagnosis

In 2006, 34.2% of all cervical cancer cases in Maryland were diagnosed at the localized stage, and 36.7% were diagnosed at the regional stage.

See Appendix J, Table 8.



Sources: Maryland BRFSS, 1999, 2000, 2002, 2004, 2006, and 2008
Healthy People 2010, U.S. Department of Health and Human Services (2000)

Cervical Cancer Screening

One Healthy People 2010 target for cervical cancer is to increase to 90% the percentage of women age 18 years and older who have had a Pap test within the preceding 3 years. In 2008, 84% of Maryland women age 18 years and older reported they had a Pap test within the preceding 3 years. This is below the Healthy People 2010 target, and represents a decrease in prevalence of up-to-date cervical cancer screening compared to previous years.

Public Health Evidence (quoted from NCI PDQ, 6/16/2009 and 8/12/2009; Advisory Committee on Immunization Practices [ACIP], 3/23/2007; and USPSTF, 1/2003)

Screening

Based on solid evidence, screening of appropriate women via regular gynecologic examinations and cytology test (Papanicolaou [Pap] test), with treatment of precancerous abnormalities, decreases the incidence and mortality of cervical cancer. Screening is effective when started within 3 years after first vaginal intercourse. Continued screening in elderly women who have had negative Pap tests is of minimal value. Screening is not helpful in women who do not have a cervix as a result of a hysterectomy for a benign condition.

Newer techniques that employ liquid-based cytology (e.g., ThinPrep) have been developed to improve the sensitivity of screening. Some less-than-optimal studies show that sensitivity is modestly higher for detecting any degree of cervical intraepithelial neoplasia, with modestly lower specificity. One careful study, however, showed that conventional Pap testing was slightly more sensitive and specific than liquid-based cytology.

The evidence is also mixed about whether liquid-based techniques improve the rates of test adequacy. One advantage of liquid-based cytology is that human papilloma virus testing can be done on the same preparation; one disadvantage is that liquid-based approaches are more expensive than conventional Pap testing. No study has examined whether liquid-based cytology actually reduces the number of women dying of cervical cancer compared with conventional Pap testing.

Primary Prevention

Epidemiologic studies to evaluate risk factors for the development of squamous intraepithelial lesions (SIL) of the cervix and cervical cancer demonstrate conclusively a sexual mode of transmission of a carcinogen. It is now widely accepted that HPV is the primary causative infectious agent. Persistent infection with oncogenic types of HPV (e.g., HPV-16, HPV-18) is associated with development of cervical cancer. Based on solid evidence, the following measures are effective to minimize the risk of HPV infection and thus cervical cancer: abstinence from sexual activity; barrier protection and/or spermicidal gel during sexual intercourse; (based on fair evidence) vaccination against HPV-16/HPV-18; and screening via gynecologic exam and Pap testing with treatment of precancerous abnormalities. Based on solid evidence, the following factors are associated with increased risk of cervical cancer: cigarette smoking (both active and passive); high parity; and long-term use of oral contraceptives. The Advisory Committee on Immunization Practices (ACIP) recommends routine HPV vaccination (with three doses) of females age 11-12 years (vaccine can be administered as young as age 9 years). Catch-up vaccination is recommended for females age 13-26 years who have not previously been vaccinated.

Public Health Intervention for Cervical Cancer (NCI PDQ, USPSTF, and ACIP)
➢ Screen using the Pap test for all women who have a cervix, within 3 years after onset of sexual activity or by age 21 years if not sexually active (whichever comes first). ➢ Vaccinate girls and women according to ACIP recommendations.

Table 74.
Number of Cervical Cancer Cases
by Jurisdiction and Race, Maryland, 2006

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	199	112	57	17	13
Allegany	<6	<6	0	0	0
Anne Arundel	10	6	<6	<6	0
Baltimore City	34	s	20	0	<6
Baltimore County	24	18	<6	0	<6
Calvert	<6	<6	0	0	0
Caroline	<6	<6	0	0	0
Carroll	7	s	0	0	<6
Cecil	6	<6	<6	0	0
Charles	<6	0	<6	<6	<6
Dorchester	0	0	0	0	0
Frederick	14	9	<6	<6	<6
Garrett	<6	<6	0	0	0
Harford	10	s	<6	0	0
Howard	10	6	<6	<6	0
Kent	<6	<6	0	0	0
Montgomery †	28	12	s	7	<6
Prince George's †	22	8	11	<6	<6
Queen Anne's	0	0	0	0	0
Saint Mary's	<6	<6	<6	0	0
Somerset	0	0	0	0	0
Talbot	<6	<6	0	0	0
Washington	6	<6	<6	<6	0
Wicomico	<6	<6	<6	<6	0
Worcester	<6	<6	<6	0	0
Unknown	<6	0	<6	0	<6

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 75.
Cervical Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 2006

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	6.7	5.8	7.1	9.8
Allegany	**	**	0.0	0.0
Anne Arundel	**	**	**	**
Baltimore City	10.1	**	9.1	0.0
Baltimore County	5.7	6.3	**	0.0
Calvert	**	**	0.0	0.0
Caroline	**	**	0.0	0.0
Carroll	**	**	0.0	0.0
Cecil	**	**	**	0.0
Charles	**	0.0	**	**
Dorchester	0.0	0.0	0.0	0.0
Frederick	**	**	**	**
Garrett	**	**	0.0	0.0
Harford	**	**	**	0.0
Howard	**	**	**	**
Kent	**	**	0.0	0.0
Montgomery †	5.5	**	**	**
Prince George's †	5.3	**	**	**
Queen Anne's	0.0	0.0	0.0	0.0
Saint Mary's	**	**	**	0.0
Somerset	0.0	0.0	0.0	0.0
Talbot	**	**	0.0	0.0
Washington	**	**	**	**
Wicomico	**	**	**	**
Worcester	**	**	**	0.0

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 76.
Number of Cervical Cancer Deaths
by Jurisdiction and Race, Maryland, 2006

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	69	38	s	<6
Allegany	<6	<6	<6	<6
Anne Arundel	11	8	<6	<6
Baltimore City	14	<6	9	<6
Baltimore County	7	<6	<6	<6
Calvert	<6	<6	<6	<6
Caroline	<6	<6	<6	<6
Carroll	<6	<6	<6	<6
Cecil	<6	<6	<6	<6
Charles	<6	<6	<6	<6
Dorchester	<6	<6	<6	<6
Frederick	<6	<6	<6	<6
Garrett	<6	<6	<6	<6
Harford	<6	<6	<6	<6
Howard	<6	<6	<6	<6
Kent	<6	<6	<6	<6
Montgomery	10	<6	<6	<6
Prince George's	9	<6	<6	<6
Queen Anne's	<6	<6	<6	<6
Saint Mary's	<6	<6	<6	<6
Somerset	<6	<6	<6	<6
Talbot	<6	<6	<6	<6
Washington	<6	<6	<6	<6
Wicomico	<6	<6	<6	<6
Worcester	<6	<6	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 77.
Cervical Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2006

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2.2	1.7	3.6	**
Allegany	**	**	**	**
Anne Arundel	**	**	**	**
Baltimore City	**	**	**	**
Baltimore County	**	**	**	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	**	**	**	**
Cecil	**	**	**	**
Charles	**	**	**	**
Dorchester	**	**	**	**
Frederick	**	**	**	**
Garrett	**	**	**	**
Harford	**	**	**	**
Howard	**	**	**	**
Kent	**	**	**	**
Montgomery	**	**	**	**
Prince George's	**	**	**	**
Queen Anne's	**	**	**	**
Saint Mary's	**	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	**	**	**	**
Wicomico	**	**	**	**
Worcester	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Table 78.
Number of Cervical Cancer Cases
by Jurisdiction and Race, Maryland, 2002-2006

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	1,202	697	381	67	57
Allegany	22	s	<6	0	0
Anne Arundel	93	68	14	s	<6
Baltimore City	204	61	134	0	9
Baltimore County	178	125	47	<6	<6
Calvert	18	s	<6	0	0
Caroline	8	s	<6	0	0
Carroll	31	s	0	0	<6
Cecil	23	s	<6	0	0
Charles	16	10	<6	<6	<6
Dorchester	<6	<6	<6	0	0
Frederick	48	40	s	<6	<6
Garrett	<6	<6	0	0	0
Harford	34	30	<6	0	<6
Howard	44	29	9	6	0
Kent	<6	<6	0	0	0
Montgomery †	217	114	41	38	24
Prince George's †	155	49	90	8	8
Queen Anne's	9	6	<6	0	<6
Saint Mary's	21	15	<6	0	<6
Somerset	s	<6	<6	0	0
Talbot	<6	<6	0	0	0
Washington	20	16	<6	<6	<6
Wicomico	17	11	<6	<6	0
Worcester	11	s	<6	0	0
Unknown	7	<6	<6	0	<6

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

† 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Table 79.
Cervical Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 2002-2006

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	8.1	7.1	9.4	8.8
Allegany	10.7	10.5	**	0.0
Anne Arundel	7.1	6.3	**	**
Baltimore City	11.6	10.9	11.8	0.0
Baltimore County	8.3	8.2	10.6	**
Calvert	8.7	**	**	0.0
Caroline	**	**	**	0.0
Carroll	7.2	7.2	0.0	0.0
Cecil	9.3	8.6	**	0.0
Charles	5.3	**	**	**
Dorchester	**	**	**	0.0
Frederick	8.9	8.2	**	**
Garrett	**	**	0.0	0.0
Harford	5.5	5.4	**	0.0
Howard	6.3	5.4	**	**
Kent	**	**	0.0	0.0
Montgomery †	8.8	6.4	11.1	10.8
Prince George's †	7.4	7.8	7.0	**
Queen Anne's	**	**	**	0.0
Saint Mary's	9.0	**	**	0.0
Somerset	**	**	**	0.0
Talbot	**	**	0.0	0.0
Washington	5.3	4.4	**	**
Wicomico	7.1	**	**	**
Worcester	**	**	**	0.0

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

† 2002-2006 incidence rates for Montgomery and Prince George's counties are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1)

Source: Maryland Cancer Registry

Table 80.
Number of Cervical Cancer Deaths
by Jurisdiction and Race, Maryland, 2002-2006

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	344	184	149	11
Allegany	<6	<6	<6	<6
Anne Arundel	33	19	s	<6
Baltimore City	73	s	54	<6
Baltimore County	46	28	s	<6
Calvert	<6	<6	<6	<6
Caroline	<6	<6	<6	<6
Carroll	7	s	<6	<6
Cecil	<6	<6	<6	<6
Charles	7	6	<6	<6
Dorchester	<6	<6	<6	<6
Frederick	17	15	<6	<6
Garrett	<6	<6	<6	<6
Harford	13	s	<6	<6
Howard	<6	<6	<6	<6
Kent	<6	<6	<6	<6
Montgomery	39	17	16	6
Prince George's	55	s	38	<6
Queen Anne's	<6	<6	<6	<6
Saint Mary's	9	7	<6	<6
Somerset	<6	<6	<6	<6
Talbot	<6	<6	<6	<6
Washington	8	7	<6	<6
Wicomico	<6	<6	<6	<6
Worcester	<6	<6	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Table 81.
Cervical Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2002-2006

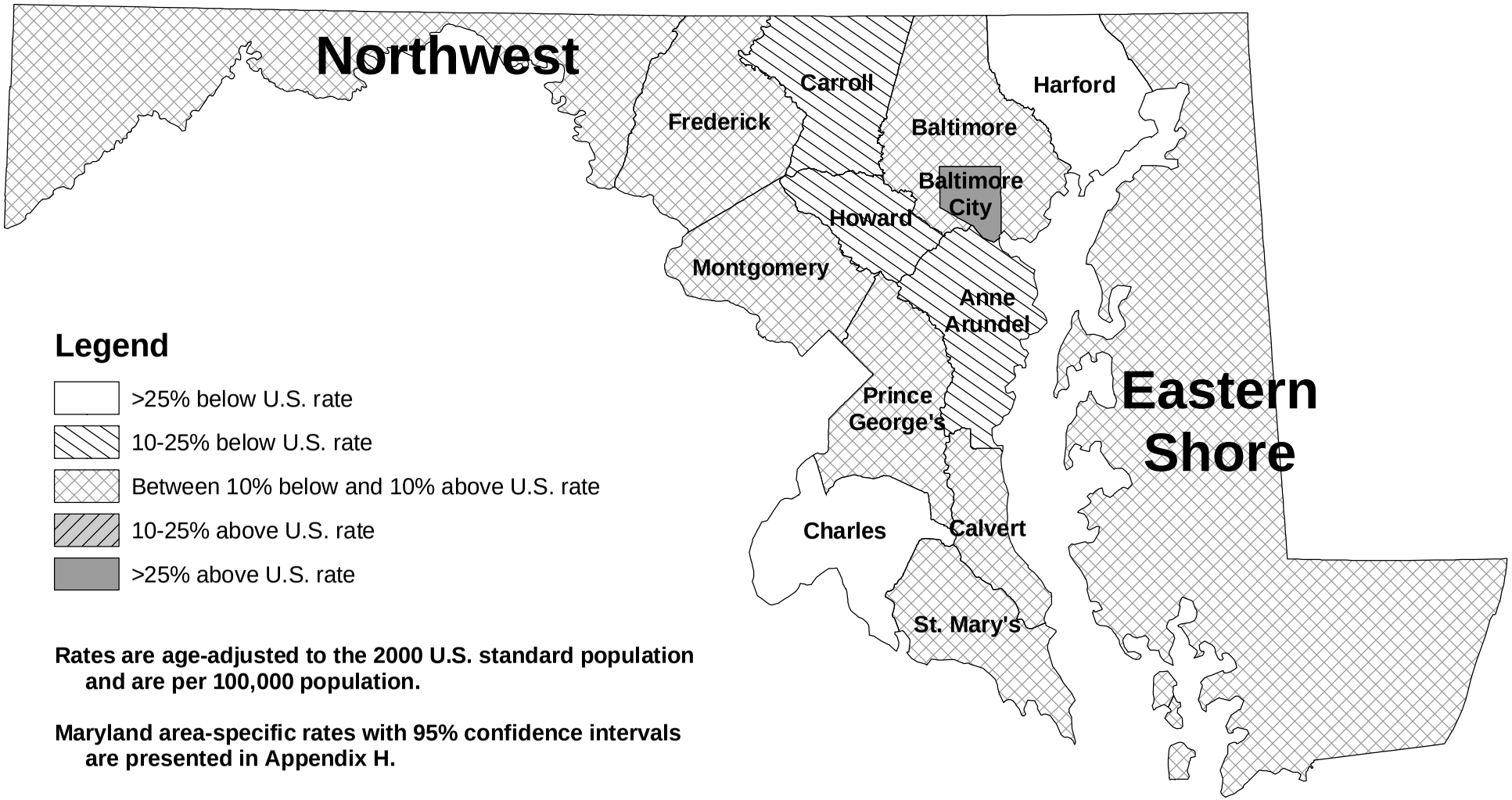
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2.2	1.7	3.8	**
Allegany	**	**	**	**
Anne Arundel	2.4	1.6	**	**
Baltimore City	4.0	2.9	4.7	**
Baltimore County	2.0	1.6	4.9	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	**	**	**	**
Cecil	**	**	**	**
Charles	**	**	**	**
Dorchester	**	**	**	**
Frederick	3.2	**	**	**
Garrett	**	**	**	**
Harford	**	**	**	**
Howard	**	**	**	**
Kent	**	**	**	**
Montgomery	1.5	0.9	4.6	**
Prince George's	2.7	2.5	3.2	**
Queen Anne's	**	**	**	**
Saint Mary's	**	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	**	**	**	**
Wicomico	**	**	**	**
Worcester	**	**	**	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Maryland Cervical Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

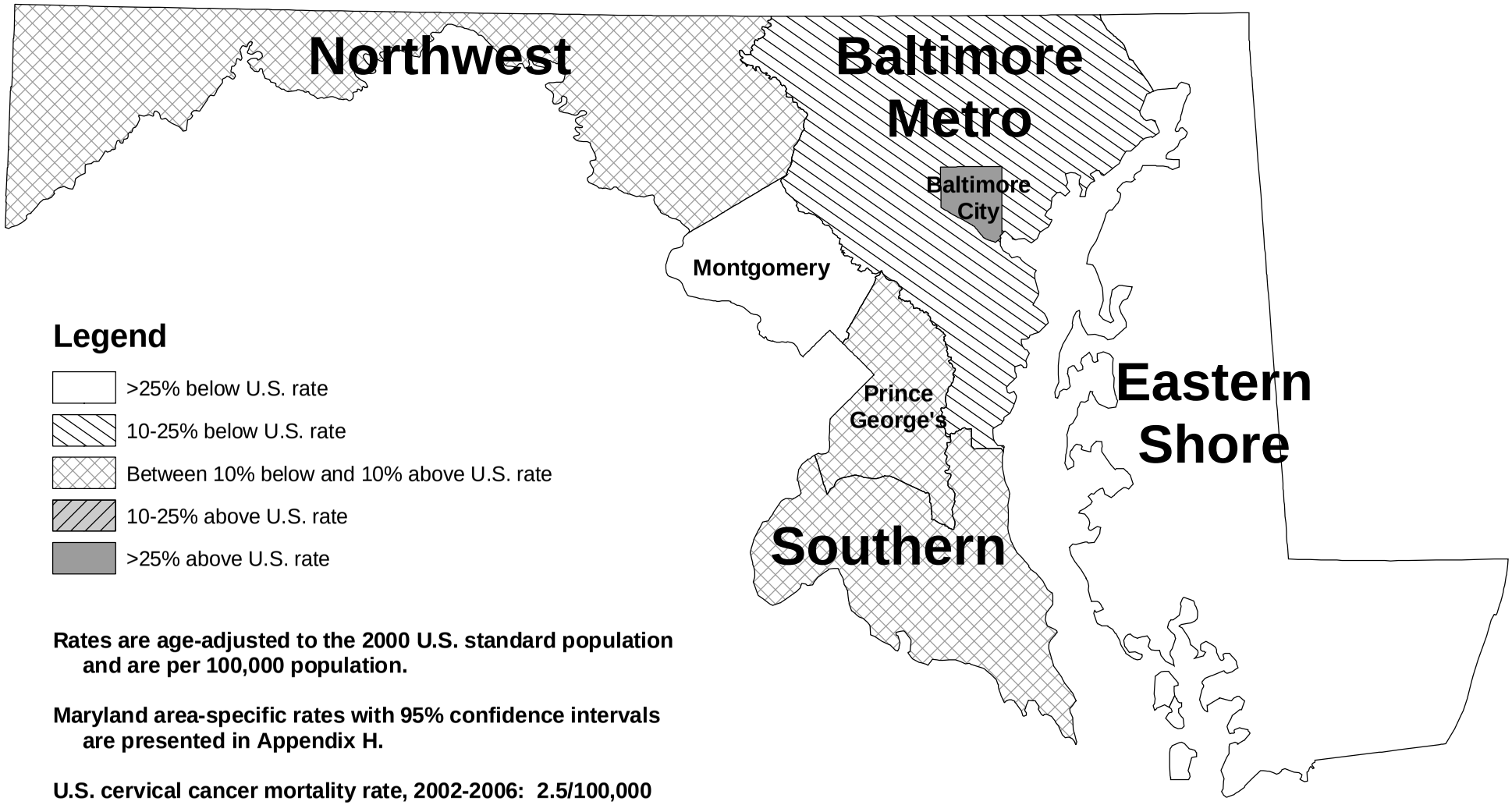
Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. cervical cancer incidence rate, 2002-2006: 8.2/100,000

Note: Aggregated regional rates are used in comparisons when rates for one or more counties in that region are suppressed due to small numbers of cases or deaths. (See Appendix C for methods.)

Source: MD incidence rates from Maryland Cancer Registry, 2002-2006
U.S. (SEER 17) rate from SEER*Stat Software

Maryland Cervical Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2002-2006



Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

Maryland area-specific rates with 95% confidence intervals are presented in Appendix H.

U.S. cervical cancer mortality rate, 2002-2006: 2.5/100,000

Note: Aggreated regional rates are used in comparisons when rates for one or more counties in that region are suppressed due to small numbers of cases or deaths. (See Appendix C for methods.)

Source: MD and U.S. mortality rates from NCHS Compressed Mortality File in CDC WONDER

IV. County-Specific Data

Incidence and Mortality Data by Jurisdiction

This section presents five-year (2002-2006) combined incidence and mortality data, by jurisdiction, for all cancers and the seven targeted cancers. Maryland and U.S. rates are also presented.

The rates for Maryland's 23 counties and Baltimore City may be based on small counts (cases or deaths) or small population sizes. Therefore, comparisons of rates for one jurisdiction to another, or to Maryland or U.S. rates, may not be valid. As described in Appendix C, Section D.4, confidence intervals can be used to facilitate statistical comparisons between two rates. Appendix H of this report presents 95% confidence intervals for incidence and mortality rates, by cancer site and jurisdiction.

Table 82.
Incidence and Mortality Data* by Type of Cancer
Allegany County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	2,316	491.2	466.7	462.9	988	199.3	193.0	186.7
Lung and Bronchus	412	84.4	67.9	63.1	306	62.0	55.1	53.2
Colorectal	283	57.6	48.4	49.1	94	18.8	19.3	18.2
Female Breast	289	118.4	124.0	123.8	73	25.3	26.8	24.5
Prostate	304	144.0	164.2	159.3	60	30.1	28.3	25.5
Oral	47	10.2	9.8	10.4	12	**	2.7	2.6
Melanoma	65	15.1	20.2	19.6	14	**	2.8	2.7
Cervical	22	10.7	8.1	8.2	<6	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

<6 = County death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

** County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)

NCI SEER*Stat (U.S. SEER 17 incidence rates)

NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 83.
Incidence and Mortality Data* by Type of Cancer
Anne Arundel County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	11,571	476.0	466.7	462.9	4,645	203.7	193.0	186.7
Lung and Bronchus	1,644	70.7	67.9	63.1	1,422	62.2	55.1	53.2
Colorectal	1,105	47.3	48.4	49.1	437	19.5	19.3	18.2
Female Breast	1,675	123.7	124.0	123.8	350	26.4	26.8	24.5
Prostate	1,802	159.3	164.2	159.3	197	25.9	28.3	25.5
Oral	268	10.5	9.8	10.4	69	2.8	2.7	2.6
Melanoma	713	28.6	20.2	19.6	98	4.3	2.8	2.7
Cervical	93	7.1	8.1	8.2	33	2.4	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

Sources: Maryland Cancer Registry (County and MD incidence data)
NCI SEER*Stat (U.S. SEER 17 incidence rates)
NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 84.
Incidence and Mortality Data* by Type of Cancer
Baltimore City, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	City Case Count	City Rate	MD Rate	U.S. SEER Rate	City Death Count	City Rate	MD Rate	U.S. Rate
All Cancers	15,315	473.7	466.7	462.9	7,858	242.6	193.0	186.7
Lung and Bronchus	2,758	85.5	67.9	63.1	2,474	76.5	55.1	53.2
Colorectal	1,691	51.9	48.4	49.1	788	24.2	19.3	18.2
Female Breast	1,972	106.5	124.0	123.8	630	33.1	26.8	24.5
Prostate	2,258	172.8	164.2	159.3	467	40.1	28.3	25.5
Oral	377	11.4	9.8	10.4	147	4.5	2.7	2.6
Melanoma	273	8.3	20.2	19.6	52	1.6	2.8	2.7
Cervical	204	11.6	8.1	8.2	73	4.0	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

Sources: Maryland Cancer Registry (City and MD incidence data)
NCI SEER*Stat (U.S. SEER 17 incidence rates)
NCHS Compressed Mortality File in CDC WONDER (City, MD, and U.S. mortality rates)

Table 85.
Incidence and Mortality Data* by Type of Cancer
Baltimore County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	22,297	504.8	466.7	462.9	9,062	199.9	193.0	186.7
Lung and Bronchus	3,417	76.5	67.9	63.1	2,670	59.1	55.1	53.2
Colorectal	2,303	51.2	48.4	49.1	918	20.1	19.3	18.2
Female Breast	3,254	134.7	124.0	123.8	683	26.5	26.8	24.5
Prostate	3,099	160.6	164.2	159.3	446	25.2	28.3	25.5
Oral	435	9.9	9.8	10.4	119	2.7	2.7	2.6
Melanoma	981	23.1	20.2	19.6	149	3.3	2.8	2.7
Cervical	178	8.3	8.1	8.2	46	2.0	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

Sources: Maryland Cancer Registry (County and MD incidence data)
NCI SEER*Stat (U.S. SEER 17 incidence rates)
NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 86.
Incidence and Mortality Data* by Type of Cancer
Calvert County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	1,803	476.9	466.7	462.9	770	222.7	193.0	186.7
Lung and Bronchus	275	78.0	67.9	63.1	220	64.6	55.1	53.2
Colorectal	204	55.9	48.4	49.1	87	25.4	19.3	18.2
Female Breast	257	119.3	124.0	123.8	70	34.1	26.8	24.5
Prostate	213	129.0	164.2	159.3	49	41.0	28.3	25.5
Oral	49	12.1	9.8	10.4	12	**	2.7	2.6
Melanoma	141	35.8	20.2	19.6	13	**	2.8	2.7
Cervical	18	8.7	8.1	8.2	<6	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

<6 = County death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

** County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)

NCI SEER*Stat (U.S. SEER 17 incidence rates)

NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 87.
Incidence and Mortality Data* by Type of Cancer
Caroline County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	831	501.4	466.7	462.9	379	226.7	193.0	186.7
Lung and Bronchus	154	92.8	67.9	63.1	130	78.1	55.1	53.2
Colorectal	89	53.2	48.4	49.1	35	21.1	19.3	18.2
Female Breast	128	145.5	124.0	123.8	29	30.9	26.8	24.5
Prostate	100	130.1	164.2	159.3	19	29.5	28.3	25.5
Oral	16	9.1	9.8	10.4	<6	**	2.7	2.6
Melanoma	35	21.6	20.2	19.6	<6	**	2.8	2.7
Cervical	8	**	8.1	8.2	<6	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

<6 = County death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

** County incidence rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)

NCI SEER*Stat (U.S. SEER 17 incidence rates)

NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 88.
Incidence and Mortality Data* by Type of Cancer
Carroll County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	4,066	502.2	466.7	462.9	1,515	194.8	193.0	186.7
Lung and Bronchus	560	71.8	67.9	63.1	428	55.1	55.1	53.2
Colorectal	416	53.1	48.4	49.1	177	23.1	19.3	18.2
Female Breast	592	131.2	124.0	123.8	121	27.0	26.8	24.5
Prostate	534	146.0	164.2	159.3	73	27.4	28.3	25.5
Oral	82	9.9	9.8	10.4	14	**	2.7	2.6
Melanoma	244	28.4	20.2	19.6	29	3.4	2.8	2.7
Cervical	31	7.2	8.1	8.2	7	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)
NCI SEER*Stat (U.S. SEER 17 incidence rates)
NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 89.
Incidence and Mortality Data* by Type of Cancer
Cecil County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	2,121	472.0	466.7	462.9	915	213.8	193.0	186.7
Lung and Bronchus	364	83.6	67.9	63.1	294	68.7	55.1	53.2
Colorectal	237	54.6	48.4	49.1	96	22.4	19.3	18.2
Female Breast	265	107.8	124.0	123.8	63	26.1	26.8	24.5
Prostate	310	147.4	164.2	159.3	40	27.5	28.3	25.5
Oral	52	11.0	9.8	10.4	16	3.6	2.7	2.6
Melanoma	100	22.0	20.2	19.6	9	**	2.8	2.7
Cervical	23	9.3	8.1	8.2	<6	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

<6 = County death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

** County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)

NCI SEER*Stat (U.S. SEER 17 incidence rates)

NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 90.
Incidence and Mortality Data* by Type of Cancer
Charles County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	2,412	441.2	466.7	462.9	1,067	220.3	193.0	186.7
Lung and Bronchus	327	66.1	67.9	63.1	331	68.9	55.1	53.2
Colorectal	293	59.7	48.4	49.1	136	29.4	19.3	18.2
Female Breast	363	110.7	124.0	123.8	88	29.2	26.8	24.5
Prostate	387	160.1	164.2	159.3	48	31.3	28.3	25.5
Oral	61	10.5	9.8	10.4	18	3.7	2.7	2.6
Melanoma	92	14.0	20.2	19.6	13	**	2.8	2.7
Cervical	16	5.3	8.1	8.2	7	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)
NCI SEER*Stat (U.S. SEER 17 incidence rates)
NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 91.
Incidence and Mortality Data* by Type of Cancer
Dorchester County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	953	471.5	466.7	462.9	432	208.7	193.0	186.7
Lung and Bronchus	187	90.3	67.9	63.1	148	70.6	55.1	53.2
Colorectal	124	60.5	48.4	49.1	51	24.9	19.3	18.2
Female Breast	116	109.9	124.0	123.8	21	19.1	26.8	24.5
Prostate	136	145.6	164.2	159.3	17	19.7	28.3	25.5
Oral	12	**	9.8	10.4	<6	**	2.7	2.6
Melanoma	33	18.4	20.2	19.6	<6	**	2.8	2.7
Cervical	<6	**	8.1	8.2	<6	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

<6 = County case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

County death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

** County incidence rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)

NCI SEER*Stat (U.S. SEER 17 incidence rates)

NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 92.
Incidence and Mortality Data* by Type of Cancer
Frederick County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	5,330	551.7	466.7	462.9	1,718	186.9	193.0	186.7
Lung and Bronchus	692	75.1	67.9	63.1	435	47.7	55.1	53.2
Colorectal	530	57.0	48.4	49.1	185	20.3	19.3	18.2
Female Breast	760	139.0	124.0	123.8	132	24.5	26.8	24.5
Prostate	798	195.9	164.2	159.3	87	26.6	28.3	25.5
Oral	105	10.2	9.8	10.4	16	1.8	2.7	2.6
Melanoma	271	25.5	20.2	19.6	33	3.5	2.8	2.7
Cervical	48	8.9	8.1	8.2	17	3.2	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

Sources: Maryland Cancer Registry (County and MD incidence data)
NCI SEER*Stat (U.S. SEER 17 incidence rates)
NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 93.
Incidence and Mortality Data* by Type of Cancer
Garrett County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	748	411.9	466.7	462.9	311	170.2	193.0	186.7
Lung and Bronchus	103	55.2	67.9	63.1	83	44.6	55.1	53.2
Colorectal	90	49.4	48.4	49.1	28	15.4	19.3	18.2
Female Breast	119	125.6	124.0	123.8	32	33.9	26.8	24.5
Prostate	112	128.9	164.2	159.3	23	31.3	28.3	25.5
Oral	15	**	9.8	10.4	<6	**	2.7	2.6
Melanoma	22	13.1	20.2	19.6	<6	**	2.8	2.7
Cervical	<6	**	8.1	8.2	<6	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

<6 = County case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

County death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

** County incidence rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)

NCI SEER*Stat (U.S. SEER 17 incidence rates)

NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 94.
Incidence and Mortality Data* by Type of Cancer
Harford County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	5,490	486.7	466.7	462.9	2,074	195.8	193.0	186.7
Lung and Bronchus	826	75.3	67.9	63.1	649	60.1	55.1	53.2
Colorectal	477	43.9	48.4	49.1	177	17.3	19.3	18.2
Female Breast	714	113.1	124.0	123.8	151	24.6	26.8	24.5
Prostate	899	176.8	164.2	159.3	80	21.9	28.3	25.5
Oral	127	10.6	9.8	10.4	29	2.6	2.7	2.6
Melanoma	319	27.5	20.2	19.6	41	3.7	2.8	2.7
Cervical	34	5.5	8.1	8.2	13	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)
NCI SEER*Stat (U.S. SEER 17 incidence rates)
NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 95.
Incidence and Mortality Data* by Type of Cancer
Howard County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	5,030	437.9	466.7	462.9	1,469	145.7	193.0	186.7
Lung and Bronchus	534	52.7	67.9	63.1	359	36.2	55.1	53.2
Colorectal	489	45.0	48.4	49.1	162	16.5	19.3	18.2
Female Breast	904	132.3	124.0	123.8	127	20.5	26.8	24.5
Prostate	750	141.9	164.2	159.3	75	23.6	28.3	25.5
Oral	93	7.5	9.8	10.4	21	2.1	2.7	2.6
Melanoma	315	24.6	20.2	19.6	23	2.0	2.8	2.7
Cervical	44	6.3	8.1	8.2	<6	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

<6 = County death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

** County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)

NCI SEER*Stat (U.S. SEER 17 incidence rates)

NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 96.
Incidence and Mortality Data* by Type of Cancer
Kent County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	657	493.4	466.7	462.9	286	198.7	193.0	186.7
Lung and Bronchus	113	82.9	67.9	63.1	84	59.7	55.1	53.2
Colorectal	74	53.2	48.4	49.1	30	22.4	19.3	18.2
Female Breast	97	145.4	124.0	123.8	23	27.3	26.8	24.5
Prostate	101	161.9	164.2	159.3	19	30.1	28.3	25.5
Oral	21	15.0	9.8	10.4	<6	**	2.7	2.6
Melanoma	43	31.9	20.2	19.6	11	**	2.8	2.7
Cervical	<6	**	8.1	8.2	<6	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

<6 = County case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

County death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

** County incidence rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)

NCI SEER*Stat (U.S. SEER 17 incidence rates)

NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 97.
Incidence and Mortality Data* by Type of Cancer
Montgomery County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count †	County Rate †	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	19,526	417.6	466.7	462.9	6,387	140.0	193.0	186.7
Lung and Bronchus	1,943	43.0	67.9	63.1	1,395	31.0	55.1	53.2
Colorectal	1,808	39.1	48.4	49.1	577	12.7	19.3	18.2
Female Breast	3,447	129.4	124.0	123.8	573	21.2	26.8	24.5
Prostate	3,281	160.4	164.2	159.3	358	21.3	28.3	25.5
Oral	394	8.2	9.8	10.4	80	1.7	2.7	2.6
Melanoma	876	18.5	20.2	19.6	109	2.3	2.8	2.7
Cervical	217	8.8	8.1	8.2	39	1.5	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

† 2002-2006 case counts and incidence rates for Montgomery County are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1.)

Sources: Maryland Cancer Registry (County and MD incidence data)
NCI SEER*Stat (U.S. SEER 17 incidence rates)
NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 98.
Incidence and Mortality Data* by Type of Cancer
Prince George's County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count †	County Rate †	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	14,404	413.4	466.7	462.9	6,295	200.6	193.0	186.7
Lung and Bronchus	1,779	55.2	67.9	63.1	1,596	50.6	55.1	53.2
Colorectal	1,535	46.0	48.4	49.1	638	21.1	19.3	18.2
Female Breast	2,475	117.1	124.0	123.8	628	31.2	26.8	24.5
Prostate	2,685	176.9	164.2	159.3	370	37.7	28.3	25.5
Oral	300	8.1	9.8	10.4	88	2.6	2.7	2.6
Melanoma	292	8.3	20.2	19.6	50	1.7	2.8	2.7
Cervical	155	7.4	8.1	8.2	55	2.7	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

† 2002-2006 case counts and incidence rates for Prince George's County are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1.)

Sources: Maryland Cancer Registry (County and MD incidence data)
NCI SEER*Stat (U.S. SEER 17 incidence rates)
NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 99.
Incidence and Mortality Data* by Type of Cancer
Queen Anne's County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	1,157	472.6	466.7	462.9	475	201.1	193.0	186.7
Lung and Bronchus	196	80.6	67.9	63.1	150	61.9	55.1	53.2
Colorectal	116	48.4	48.4	49.1	48	21.1	19.3	18.2
Female Breast	134	103.0	124.0	123.8	35	27.2	26.8	24.5
Prostate	192	157.2	164.2	159.3	20	20.0	28.3	25.5
Oral	30	12.3	9.8	10.4	11	**	2.7	2.6
Melanoma	94	39.4	20.2	19.6	9	**	2.8	2.7
Cervical	9	**	8.1	8.2	<6	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

<6 = County death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

** County incidence rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)

NCI SEER*Stat (U.S. SEER 17 incidence rates)

NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 100.
Incidence and Mortality Data* by Type of Cancer
Saint Mary's County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	1,848	453.2	466.7	462.9	824	216.5	193.0	186.7
Lung and Bronchus	304	78.3	67.9	63.1	254	66.8	55.1	53.2
Colorectal	213	52.9	48.4	49.1	85	22.8	19.3	18.2
Female Breast	217	98.5	124.0	123.8	43	20.0	26.8	24.5
Prostate	253	134.7	164.2	159.3	48	34.9	28.3	25.5
Oral	62	14.1	9.8	10.4	9	**	2.7	2.6
Melanoma	116	26.7	20.2	19.6	17	4.1	2.8	2.7
Cervical	21	9.0	8.1	8.2	9	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)
NCI SEER*Stat (U.S. SEER 17 incidence rates)
NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 101.
Incidence and Mortality Data* by Type of Cancer
Somerset County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	676	499.2	466.7	462.9	339	250.3	193.0	186.7
Lung and Bronchus	140	102.4	67.9	63.1	121	87.9	55.1	53.2
Colorectal	67	49.3	48.4	49.1	17	12.4	19.3	18.2
Female Breast	76	111.6	124.0	123.8	26	38.9	26.8	24.5
Prostate	90	146.1	164.2	159.3	25	50.6	28.3	25.5
Oral	13	**	9.8	10.4	<6	**	2.7	2.6
Melanoma	27	20.5	20.2	19.6	<6	**	2.8	2.7
Cervical	s	**	8.1	8.2	<6	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

s = Count is suppressed to prevent disclosure of data in other cell(s) based on Table 78. (See Appendix C for methods.)

<6 = County death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

** County incidence rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)

NCI SEER*Stat (U.S. SEER 17 incidence rates)

NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 102.
Incidence and Mortality Data* by Type of Cancer
Talbot County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	1,261	486.7	466.7	462.9	522	184.2	193.0	186.7
Lung and Bronchus	201	73.3	67.9	63.1	149	53.2	55.1	53.2
Colorectal	141	51.2	48.4	49.1	48	16.1	19.3	18.2
Female Breast	176	133.8	124.0	123.8	39	27.1	26.8	24.5
Prostate	200	165.8	164.2	159.3	39	31.1	28.3	25.5
Oral	28	11.3	9.8	10.4	6	**	2.7	2.6
Melanoma	91	38.4	20.2	19.6	11	**	2.8	2.7
Cervical	<6	**	8.1	8.2	<6	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

<6 = County case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

County death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

** County incidence rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)

NCI SEER*Stat (U.S. SEER 17 incidence rates)

NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 103.
Incidence and Mortality Data* by Type of Cancer
Washington County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	3,628	480.7	466.7	462.9	1,502	195.2	193.0	186.7
Lung and Bronchus	538	71.2	67.9	63.1	457	59.9	55.1	53.2
Colorectal	361	47.2	48.4	49.1	137	17.6	19.3	18.2
Female Breast	476	119.1	124.0	123.8	113	26.5	26.8	24.5
Prostate	518	154.5	164.2	159.3	71	24.1	28.3	25.5
Oral	74	10.0	9.8	10.4	26	3.4	2.7	2.6
Melanoma	187	25.2	20.2	19.6	21	2.8	2.8	2.7
Cervical	20	5.3	8.1	8.2	8	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)
NCI SEER*Stat (U.S. SEER 17 incidence rates)
NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 104.
Incidence and Mortality Data* by Type of Cancer
Wicomico County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	2,180	470.2	466.7	462.9	1,001	215.5	193.0	186.7
Lung and Bronchus	409	88.3	67.9	63.1	340	73.2	55.1	53.2
Colorectal	231	49.7	48.4	49.1	114	24.6	19.3	18.2
Female Breast	319	126.6	124.0	123.8	79	30.2	26.8	24.5
Prostate	277	135.0	164.2	159.3	42	23.8	28.3	25.5
Oral	49	10.6	9.8	10.4	12	**	2.7	2.6
Melanoma	119	26.0	20.2	19.6	18	3.9	2.8	2.7
Cervical	17	7.1	8.1	8.2	<6	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

<6 = County death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

** County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)
NCI SEER*Stat (U.S. SEER 17 incidence rates)
NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Table 105.
Incidence and Mortality Data* by Type of Cancer
Worcester County, Maryland, and U.S., 2002-2006

Type of Cancer	Incidence				Mortality			
	County Case Count	County Rate	MD Rate	U.S. SEER Rate	County Death Count	County Rate	MD Rate	U.S. Rate
All Cancers	1,680	474.4	466.7	462.9	742	200.8	193.0	186.7
Lung and Bronchus	294	77.6	67.9	63.1	223	58.9	55.1	53.2
Colorectal	165	45.8	48.4	49.1	59	15.9	19.3	18.2
Female Breast	223	124.4	124.0	123.8	46	24.0	26.8	24.5
Prostate	236	134.8	164.2	159.3	44	27.7	28.3	25.5
Oral	34	9.8	9.8	10.4	14	**	2.7	2.6
Melanoma	138	42.4	20.2	19.6	16	4.3	2.8	2.7
Cervical	11	**	8.1	8.2	<6	**	2.2	2.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

<6 = County death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

** County incidence rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

County mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Sources: Maryland Cancer Registry (County and MD incidence data)

NCI SEER*Stat (U.S. SEER 17 incidence rates)

NCHS Compressed Mortality File in CDC WONDER (County, MD, and U.S. mortality rates)

Appendix A

Cigarette Restitution Fund
Cancer Report Requirements

Cigarette Restitution Fund Cancer Report Requirements

The Maryland General Assembly established a Cigarette Restitution Fund (CRF) to provide for the distribution of funds from the tobacco settlement (Enrolled House Bill 1425-2000/Enrolled Senate Bill 896-2000). The law created a Tobacco Use Prevention and Cessation Program and a Cancer Prevention, Education, Screening and Treatment Program, and provides parameters on how the funds may be spent. One provision of the law requires the Maryland Department of Health and Mental Hygiene (DHMH) to conduct a baseline cancer survey (2000) as well as cancer surveys at least every other year thereafter.

The law requires that the survey include:

(1) The number and percentage of individuals who have each targeted cancer, both Statewide and in each county;
(2) The number and percentage of individuals within each minority population who have each targeted cancer, both Statewide and in each county;
(3) The mortality rate for each targeted cancer, both Statewide and in each county;
(4) The mortality rate for the different minority populations for each targeted cancer, both Statewide and in each county;
(5) The number of identifiable cancers with a high incidence in the State for which there are effective methods of prevention and early detection, and treatment after detection;
(6) Any aspect of targeted and non-targeted cancers that DHMH seeks to measure; and
(7) Any other factor that DHMH determines to be important for measuring rates of cancer in the State or for evaluating whether the program meets its objectives.

This information is provided in this Cancer Report as follows:

Required Component of the Cancer Report	***Location of Information in this Report***
1. Number and percentage of individuals having each targeted cancer, both Statewide and in each jurisdiction.	Tables 1, 3, 4, 5, 8, 9, 12, 14, 15, 18, 19, 22, 24, 25, 28, 29, 32, 34, 35, 38, 39, 42, 44, 45, 48, 49, 52, 54, 55, 58, 59, 62, 64, 65, 68, 69, 72, 74, 75, 78, 79, 82-105, K-1, K-2, K-5, K-6, K-9, K-10, K-13, K-14, K-17, K-18, K-21, K-22, K-25, K-26, K-29, K-30, L-1, L-2, L-5, L-6, L-9, L-10, L-13, L-14, L-17, L-18, L-21, L-22, L-25, L-26, L-29, L-30
2. Number and percentage of individuals within each minority population having each targeted cancer, both Statewide and in each jurisdiction.	Same as above
3. Mortality rate for each targeted cancer, both Statewide and in each jurisdiction.	Tables 2, 6, 7, 10, 11, 13, 16, 17, 20, 21, 23, 26, 27, 30, 31, 33, 36, 37, 40, 41, 43, 46, 47, 50, 51, 53, 56, 57, 60, 61, 63, 66, 67, 70, 71, 73, 76, 77, 80, 81, 82-105, K-3, K-4, K-7, K-8, K-11, K-12, K-15, K-16, K-19, K-20, K-23, K-24, K-27, K-28, K-31, K-32, L-3, L-4, L-7, L-8, L-11, L-12, L-15, L-16, L-19, L-20, L-23, L-24, L-27, L-28, L-31, L-32

Required Component of the Cancer Report	*Location of Information in this Report*
4. Mortality rate for the different minority populations for each targeted cancer, both Statewide and in each county.	Same as above
5. Number of identifiable cancers with a high incidence in the State for which there are effective methods of prevention and early detection, and treatment after detection.	High incidence and effective prevention: Lung cancer: Tables 12, 14, 15, 18, 19, K-5, K-6, L-5, L-6 High incidence and effective detection: Colorectal and breast cancer: Tables 22, 24, 25, 28, 29, 32, 34, 35, 38, 39, K-9, K-10, K-13, K-14, L-9, L-10, L-13, L-14
6. Other aspects of targeted and non-targeted cancers that DHMH seeks to measure.	For cancer overall and for each targeted cancer, the report: 1. Compares the cancer burden to that of heart disease; 2. Compares Maryland incidence and mortality rates to that of the U.S.; 3. Depicts trends by age for overall cancer incidence and mortality; 4. Delineates incidence and mortality trends by race and gender; 5. Shows 5-year mortality trends and 5-year combined data; 6. Presents 5-year incidence trends and 5-year combined data; 7. Tracks stage of disease at diagnosis over a 5-year period; 8. Lists appropriate Healthy People 2010 objective(s) showing trend data for each targeted cancer and identifies where Maryland currently is in meeting the respective objective(s); 9. Describes the evidence for screening, primary prevention and chemoprevention for each targeted cancer, based on current scientific literature; and 10. Describes the recommended public health intervention for each targeted cancer based on the evidence referenced above. This information is located throughout the report.
7. Other factors that DHMH determines to be important for measuring rates of cancer in the State or for evaluating whether the program meets its objectives.	Same as above

Appendix B

Cancer Report Format

Cancer Report Format

1. Selection of Targeted Cancers

Under the Cigarette Restitution Fund Program, Cancer Prevention, Education, Screening and Treatment Program, the Maryland Department of Health and Mental Hygiene targeted seven cancer sites: lung and bronchus, colon and rectum, female breast, prostate, oral, melanoma of the skin, and cervix. These cancers have been targeted because they can be prevented (e.g., lung and bronchus, melanoma of the skin) or detected early and treated (e.g., colon and rectum, female breast, cervical, oral), or are a major cause of cancer death (e.g., prostate).

2. Report Format

Information provided in this report focuses on all cancer sites reported in Maryland and the seven specific cancer sites targeted by the Cancer Prevention, Education, Screening and Treatment Program. This special issue of the Cancer Report includes three individual years of incidence and mortality data (2004, 2005, and 2006), bringing Maryland cancer data reporting up to date with the most current data available. (Future Cancer Reports will resume single-year data reporting.) The main body of the 2009 Cancer Report focuses on the most recent data (2006 and 5-year combined data for the period 2002 through 2006). Incidence and mortality data tables for 2004 and 2005 are presented in Appendices K and L, respectively.

Section I of the 2009 Cancer Report is an Executive Summary, including an introduction to the report, highlights of major findings for each cancer, and a brief description of major changes to this report from the last (2008) Cancer Report.

Section II of the report describes overall cancer incidence and mortality in Maryland for all cancer sites combined. This chapter includes graphs comparing long-term trends in overall cancer incidence and mortality rates for Maryland and the U.S., from 1992 to 2006. Another set of graphs compares the long-term mortality pattern for the two leading causes of death in Maryland, heart disease and cancer, for two age groups: persons younger than age 85 years and persons age 85 years and older. The 2006 age-specific incidence and mortality rates, by gender, for all cancer sites combined are also depicted graphically.

Maryland 2006 incidence and mortality rates (with 95% confidence intervals [95% C.I.]) are compared to U.S. data in the overview text and table for all cancer sites combined (Section II) and each targeted cancer (Section III). Maryland mortality rankings among the 50 states and the District of Columbia, based on 5-year mortality rates, are also described. Graphics are also included in each chapter to depict the following: Trends in cancer incidence and mortality rates from 2002 to 2006; 5-year trends in cancer incidence and mortality rates by gender-race category; 5-year trends in cancer stage at time of diagnosis; and prevalence of cancer screening and cancer-risk behaviors in Maryland compared to Healthy People (HP) 2010 targets. Public health evidence and

recommended areas for public health intervention are also described for each targeted cancer. The number of new cancer cases, number of cancer deaths, and age-adjusted cancer incidence and mortality rates for each cancer are tabulated by gender, race, and jurisdiction for 2006 and for the 5-year period, 2002-2006. All rates are age-adjusted to the 2000 U.S. standard population. Maps included in each cancer chapter display Maryland incidence and mortality rates compared to corresponding U.S. rates for the combined years 2002-2006, by geographical area (see Appendix H for map data).

Section IV of the 2009 Cancer Report presents tables of 5-year (2002-2006) combined incidence and mortality data, by type of cancer, for each Maryland jurisdiction. Maryland (statewide) and U.S. rates are included for comparison.

Appendix A describes the legal basis for the Cancer Report and includes a crosswalk between each required component and its location in this report. Appendix C describes the sources of data used to prepare the 2009 Cancer Report and specific data considerations (e.g., data confidentiality and statistical methods). A glossary of terms used in the 2009 Cancer Report is included as Appendix D. Maryland population estimates for 2004, 2005, and 2006, by race and gender, are presented in Appendix E. The population data in these tables can be used as denominators for calculating crude incidence and mortality rates. Appendix F depicts the 2000 U.S. standard population organized by age groupings. Appendix G contains a listing of International Classification of Diseases for Oncology (ICD-O-3) codes for incidence, along with corresponding ICD-10 codes for mortality for the cancer sites included in the report. Appendix H presents age-adjusted incidence and mortality rates with 95% confidence intervals, by Maryland geographical area (state, region, and county). Appendix I tables display trends in cancer incidence and mortality rates, by cancer site and gender-race category, over the 5-year period, 2002-2006. Appendix J tables show the distribution of cancer stage at diagnosis for all cancer sites and the targeted cancers, by year, from 2002 to 2006. Appendices K and L present tabulations of the number of new cancers, number of cancer deaths, and age-adjusted cancer incidence and mortality rates for 2004 and 2005, respectively.

Appendix C

Cancer Report Data Sources, References, and Data Considerations

2009 Cancer Report Data Sources, References, and Data Considerations

A. Maryland Data Sources

The Maryland-specific data used in this report were supplied by offices in the Maryland Department of Health and Mental Hygiene (DHMH), including the Maryland Cancer Registry; Vital Statistics Administration, Division of Health Statistics; Office of Health Policy and Planning; Center for Health Promotion, Education and Tobacco Use Prevention; and the Center for Cancer Surveillance and Control, Surveillance and Evaluation Unit.

1. Maryland Cancer Registry

The Maryland Cancer Registry (MCR), Center for Cancer Surveillance and Control, DHMH, is a computerized data system that registers all new cases of reportable cancers (excluding non-genital squamous cell or basal cell carcinoma) that are diagnosed or treated in Maryland and reported to the MCR. Incidence rates used in this report were calculated using cases reported to the MCR as of March 26, 2009, for diagnosis years 2004, 2005, and 2006.

The Maryland cancer reporting law and regulations mandate the collection of cancer information from hospitals, radiation therapy centers, diagnostic pathology laboratories licensed in Maryland, freestanding ambulatory care facilities, surgical centers, and physicians whose non-hospitalized cancer patients are not otherwise reported. MCR also participates in data exchange agreements with 13 other states/jurisdictions, including Delaware, Pennsylvania, Virginia, West Virginia, and the District of Columbia. Information on Maryland residents diagnosed or treated for cancer in these jurisdictions is included in this report. **Note: The 2006 case counts presented in this report for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively, for all cancer sites combined due to delay in case reporting. The exact percentage of underreporting for each cancer may differ from those percentages. March 26, 2009 was used as the cutoff date for the "official" dataset for 2004-2006; cancers diagnosed in 2006 but reported to the MCR after March 26, 2009 are not included in the 2006 dataset. The case undercounts resulted in lower than actual age-adjusted incidence rates for these counties, for the National Capital geographic region, and to a lesser degree, for Maryland, for 2006 and the 5-year period 2002-2006.**

2. Maryland Division of Health Statistics

The Division of Health Statistics in the Vital Statistics Administration of DHMH registers births, deaths, marriages, and divorces. The Maryland population estimates presented in Appendix E (2004, 2005, and 2006) were provided by the Vital Statistics Administration. Mortality data presented in this report were obtained from the National Center for Health Statistics (NCHS) Compressed Mortality Files in the Centers for

Disease Control and Prevention (CDC) Wide-ranging Online Data for Epidemiologic Research (WONDER) system, a national Web-based data source. (Refer to Section B.1 of this appendix for more information on CDC WONDER.)

3. Behavioral Risk Factor Surveillance System

The Maryland Behavioral Risk Factor Surveillance System (BRFSS) is an annual telephone survey conducted on a random sample of Maryland adult residents. This survey, managed by the Maryland DHMH Family Health Administration, Office of Health Policy and Planning, provided risk behavior and cancer screening information for this report. Maryland data can be accessed online at http://www.marylandbrfss.org. In addition, both Maryland and state-aggregated national data on health risk behavior can be obtained from the CDC BRFSS Web site at http://www.cdc.gov/brfss.

4. Maryland Youth Tobacco Survey

The Maryland Youth Tobacco Survey (MYTS), managed by the DHMH Family Health Administration, Center for Health Promotion, Education and Tobacco Use Prevention, is administered to gather information regarding attitudes, usage, and exposure to tobacco products among public middle and high school students Statewide and within each of Maryland's 23 counties and Baltimore City. Survey results are also used in apportioning Local Tobacco Use Prevention and Cessation grants among Maryland's 24 major political subdivisions. The MYTS has been conducted in 2000, 2002, 2006, and 2008. Published survey reports are available on the DHMH Web site at http://www.crf.state.md.us/html/stats.cfm. Additional information can be obtained from the Center for Health Promotion, Education, and Tobacco Use Prevention at 410-767-1362.

5. Maryland Cancer Survey

The Maryland Cancer Survey (MCS) is a biennial survey managed by the DHMH Center for Cancer Surveillance and Control, Surveillance and Evaluation Unit. The purpose of the MCS is to determine cancer screening rates and to measure cancer risk behaviors among persons age 40 years and older living in Maryland, for selected cancers targeted by DHMH. Completed surveys are available for 2002, 2004, 2006, and 2008. MCS data are tabulated and reported as not including missing values; all percentages are based on the number of respondents who answered the question. Some charts in this report include both MCS and Maryland BRFSS data, as a basis for comparison with Healthy People (HP) 2010 targets. Caution should be used when comparing results from the MCS and BRFSS. Although they are similar, these surveys have certain design and methodological differences, including targeted age groups, scope and timing of the surveys, and weighting. The MCS reports, including detailed information on the survey methods, are available on the Web at http://fha.maryland.gov/cancer/surv_data-reports.cfm.

B. National Data Sources

Statistics for the U.S. cited in this report were obtained from the federal Centers for Disease Control and Prevention (CDC), the Office of Disease Prevention and Health Promotion (U.S. Department of Health and Human Services (DHHS)), the National Center for Health Statistics (NCHS), and the National Cancer Institute (NCI). Maryland mortality statistics were obtained from CDC WONDER, a Web-based data resource sponsored by CDC.

1. CDC WONDER

CDC WONDER is an easy-to-use Internet system that makes information from CDC available to public health professionals and the public at large. It provides access to a wide array of public health information, including Web resources for Healthy People (HP) 2010 targets (see Section B.2 of this appendix) and cancer mortality data.

All cancer mortality data presented in this report were obtained by querying the NCHS Compressed Mortality Files (CMF) in CDC WONDER. The NCHS CMF is a county-level national mortality and population database spanning the years 1979-2006. The number of deaths, crude death rates, and age-adjusted death rates can be obtained by place of residence (total U.S., state, and county), age group, race, gender, year of death, and underlying cause of death (ICD code or group of codes). Due to delays in availability of the 1999-2006 Compressed Mortality File (CMF) in CDC WONDER (released August 2009), mortality data for individual years preceding 2006 were retrieved using the 1999-2005 CMF. Mortality data for 2006 and 5-year data for the period 2002-2006 were obtained from the newer 1999-2006 CMF.

Beginning with 2006 mortality data, CDC WONDER reports race in four categories (White, Black, Asian or Pacific Islander, and Native American or Alaska Native), as well as Hispanic ethnicity; for years prior to 2006, race is reported in three categories (White, Black, and other). The category of "other" races includes the American Indian or Alaska Native race category and the Asian or Pacific Islander race category. Although data before 1999 are no longer a focus of this report, deaths for 1979-1998 are classified using the Ninth Revision (ICD-9); deaths for 1999 and later are classified using the Tenth Revision (ICD-10). The two classification schemes are sufficiently different to make direct comparisons of cause of death difficult.

2. HP 2010

HP 2010 is a collaboration of local and national governmental agencies and private organizations that have developed prevention-oriented national objectives to improve the health of Americans. There are 28 focus areas and 467 specific objectives in HP 2010. For cancer prevention, the overarching HP 2010 goal is to "reduce the number of new cases as well as the illness, disability, and death caused by cancer." To achieve this goal, measurable objectives related to cancer screening and cancer risk behaviors were established, each with a specific quantitative target. In 2006, a Midcourse Review of HP

2010 was completed by DHHS to assess progress toward the original HP 2010 objectives and to revise those objectives for which new data had become available.

The HP initiative is under the Office of Disease Prevention and Health Promotion at the DHHS. Further information can be found on the Web at http://www.healthypeople.gov and http://www.healthypeople.gov/data/midcourse.

3. Surveillance, Epidemiology, and End Results Program (SEER)

The Surveillance, Epidemiology, and End Results (SEER) Program, managed by the staff of the NCI, is an authoritative source of information on cancer incidence, stage, and survival in the U.S. The SEER Program, which began in 1973, collects, analyzes, and publishes cancer incidence and survival data from population-based cancer registries participating in the program. The SEER Program was expanded in 1992 (creating the SEER 13 registry database) and again in 2001 to increase representation of minority and rural low-income populations including Hispanics, American Indian populations, and rural African Americans. Since 2000, SEER incidence data have been collected from 13 SEER registries and four expansion registries throughout the U.S. (SEER 17 registry database) and are estimated to represent approximately 26% of the U.S. population. The SEER database adequately represents cancer incidence in the U.S. population with regard to race, ethnicity, age, gender, poverty, and education, and by collecting data on epidemiologically significant population subgroups.

SEER 17 incidence data are used in this report for comparisons with the most recent Maryland data (2002-2006) because they provide the broadest population coverage that is currently available. For longer-term comparisons that include Maryland data prior to 2000, SEER 13 registry data are used. All SEER 13 and 17 rates were obtained from SEER*Stat (version 6.5.1), a statistical software tool for the analysis of SEER and other cancer-related databases. The SEER Program updates cancer statistics annually in a publication called the SEER Cancer Statistics Review (CSR). SEER data for specific cancers can be seen on the Web at http://seer.cancer.gov/csr/1975_2006/index.html. Further information about SEER can also be found on the Web site at www.seer.cancer.gov.

C. References Used for Public Health Evidence and Public Health Intervention Sections

1. National Cancer Institute Physician Data Query (NCI PDQ)

Information provided in the chapters under the sections for "Public Health Evidence" and "Public Health Intervention" was taken primarily from the NCI PDQ® Web site. While the United State Preventive Services Task Force (USPSTF) reviews its recommendations every few years, the information presented in the PDQ on cancer prevention and screening is updated more frequently and the date of the most recent revision can be found on each Web page for that topic. Prevention and screening sections from this source provide information for health professionals and the public on various aspects of

cancer control such as prevention, screening, treatment, genetics, and clinical trials. For some cancer types, the information is reviewed by a scientific editorial board and is updated as new research becomes available. The PDQ Editorial Board evaluates evidence in two steps: (1) study design, and (2) assessment of the evidence. The first step is to describe the evidence within five domains (see below); the second is an assessment of certainty--to judge the overall "level" of evidence as "solid," "fair," or "inadequate." The Board conducts the same process separately for potential benefits and potential harms of each intervention.

Step 1: Description of the evidence
Step 1 involves evaluating the levels of evidence in five domains.

1. Study Design: study designs in order of strongest evidence to weakest evidence, are described as follows:
    a. Evidence obtained from at least one randomized controlled trial (this is considered the gold standard for scientific research);
    b. Evidence obtained from controlled trials without randomization;
    c. Evidence obtained from well-designed and conducted cohort or case-control studies, preferably from more than one center or research group;
    d. Evidence obtained from multiple time series with or without intervention; and
    e. Opinions of respected authorities based on clinical experience, descriptive studies, or reports of expert committees.
2. Internal validity
3. Consistency (coherence)/volume of the evidence
4. Direction and magnitude of effects for health outcomes (both absolute and relative risks, as quantitative as possible, may vary for different populations)
5. External validity

Step 2: Assessment of the evidence
Step 2 is a judgment of the level of certainty (solid, fair, inadequate) and is based on the Board's understanding of the direction and magnitude of the health effects of widespread implementation. The assessment may also include a statement of benefits and a second statement of harms of widespread implementation.

More information about NCI PDQ can be accessed at:

Levels of evidence
http://www.cancer.gov/cancertopics/pdq/screening/levels-of-evidence

Prevention and screening/detection
http://www.cancer.gov/cancertopics/pdq/prevention
http://www.cancer.gov/cancertopics/pdq/screening

The PDQ reference is used throughout the report for consistency in interpreting the results of scientific literature and the PDQ Summary of Evidence is often quoted verbatim and sometimes paraphrased. This report includes the date(s) of the last update

of the PDQ for each targeted cancer site accessed in September 2009. PDQ definitions are included in Appendix D (Glossary). For additional information, the Web site is http://www.cancer.gov/cancertopics/pdq.

2. Maryland Department of Health and Mental Hygiene, Medical Advisory Committees for Breast, Cervical, Colorectal, Oral, and Prostate Cancer

The Center for Cancer Surveillance and Control has convened four Medical Advisory Committees to formulate guidelines for breast, cervical, colorectal, and prostate cancer screening, diagnosis, and treatment. The Office of Oral Health has convened a Medical Advisory Committee to formulate guidelines for oral cancer for screening, diagnosis, and treatment. All guidelines are located at http://fha.maryland.gov/cancer/guidelines.cfm.

3. Additional Medical Literature

A. Lung and Bronchus Cancer

Centers for Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control Programs – 2007* (October 2007). National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Atlanta, GA. http://www.cdc.gov/tobacco/tobacco_control_programs/stateandcommunity/best_practices/. Last accessed December 15, 2009.

Screening for Lung Cancer, Topic Page. May 2004. U.S. Preventive Services Task Force. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/clinic/uspstf/uspslung.htm. Last accessed May 12, 2009.

B. Colorectal Cancer

Screening for Colorectal Cancer, Topic Page. November 2008. U.S. Preventive Services Task Force. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/clinic/uspstf/uspscolo.htm. Last accessed May 12, 2009.

C. Female Breast Cancer

Chemoprevention for Breast Cancer, Topic Page. July 2002. U.S. Preventive Services Task Force. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/clinic/uspstf/uspsbrpv.htm. Last accessed May 12, 2009.

D. Prostate Cancer

Smith RA, Cokkinides V, and Brawley OW. Cancer Screening in the United States, 2008: A Review of Current American Cancer Society Guidelines and Cancer Screening Issues. *CA Cancer J Clin* 2008; 58: 161-179. http://caonline.amcancersoc.org/cgi/content/full/58/3/161. Last accessed December 15, 2009.

Screening for Prostate Cancer, Topic Page. August 2008. U.S. Preventive Services Task Force. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/clinic/uspstf/uspsprca.htm. Last accessed May 12, 2009.

E. Oral Cancer
Screening for Oral Cancer, Topic Page. February 2004. U.S. Preventive Services Task Force. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/clinic/uspstf/uspsoral.htm. Last accessed May 12, 2009.

F. Skin Cancer
Screening for Skin Cancer, Topic Page. February 2009. U.S. Preventive Services Task Force. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/clinic/uspstf/uspsskca.htm. Last accessed May 12, 2009.

G. Cervical Cancer
Screening for Cervical Cancer, Topic Page. January 2003. U.S. Preventive Services Task Force. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/clinic/uspstf/uspscerv.htm. Last accessed May 12, 2009.

CDC. Quadrivalent Human Papillomavirus Vaccine: recommendations of the Advisory Committee on Immunization Practices. *MMWR* 2007;56 (No. RR-02).

D. Data Considerations

1. Data Confidentiality

DHMH regards all data reported to, and received and processed by, the MCR as confidential. Data are secured from unauthorized access and disclosure. The MCR manages and releases cancer information in accordance with the laws and regulations established by the State of Maryland, as set forth in the Annotated Code of Maryland, Health-General Article, §§18-203 – 204 and §4-101 et seq., and Code of Maryland Regulations, COMAR 10.14.01 (Cancer Registry).

Because incidence data and mortality data come from different sources, separate suppression procedures were employed. For the number of cancer cases collected by MCR and for incidence rates calculated using case and population data, the following protocols apply: To ensure patient confidentiality and to comply with the *MCR Data Use Policy and Procedures* (July 2008; http://fha.maryland.gov/cancer/mcr_data.cfm), cells with counts of 1-5 cases are suppressed and presented as "<6." Complementary suppression of case counts in additional cell(s) is used, denoted by "s," to prevent back-calculation of numbers in those cells with primary suppression. Incidence rates based on 15 or fewer (non-zero) cases are presented with asterisks (**) because the rates are unstable and do not provide reliable information.

Mortality data for the report were extracted from the NCHS CMF in CDC WONDER using its Web-based data query feature (see Section B.1 above). ICD codes listed in Appendix G of this report were used for identifying type of cancer for extraction. Data obtained from the NCHS CMF are subject to both CDC WONDER and NCHS data use restrictions, which differ slightly from those of the *MCR Data Use Policy* used for incidence data. To ensure that individual identity is protected in the use and re-release of

mortality data from the CMF in CDC WONDER and that reliable mortality rates are presented in this and other CCSC publications, the DHMH Center for Cancer Surveillance and Control (CCSC) developed the *Mortality Data Suppression Policy When Using National Center for Health Statistics (NCHS) Mortality Data in CCSC Publications* (June 2008). In accordance with this policy, the following protocols are applied to mortality data in this report: Death counts of fewer than 6 (i.e., 0-5 deaths) are suppressed, and denoted by "<6." Complementary suppression of death counts in additional cell(s) is used, as denoted by the letter "s," to prevent back-calculation of numbers in cells with primary suppression. Age-adjusted mortality rates based on counts less than 16 (i.e., 0-15 deaths) are suppressed (denoted by ** symbol) because the rates are unstable and do not provide reliable information. Although CDC WONDER publishes and annotates as "unreliable" rates based on counts less than 20 deaths, CCSC suppresses death rates based on counts of less than 16 deaths. This threshold is consistent with the criteria used in both the NCI U.S. Cancer Statistics Review and the *DHMH/MCR Data Use Policy* for incidence rate suppression.

2. Gender

Gender is reported to the Maryland Cancer Registry as: a) male; b) female; c) hermaphrodite; d) transsexual; and e) unknown (not stated). The totals shown in the count for number of cancer cases may not equal the sum of males and females because of cases in these other gender categories.

3. Rate Analysis

Individual year incidence rates for 2004, 2005, and 2006 presented in this report were calculated using Maryland resident cancer cases diagnosed from January 1 through December 31 of each year, and reported to the MCR as of March 26, 2009. The individual year mortality data (2004, 2005, and 2006) consist of deaths that occurred between January 1 and December 31 of each year. Multiple year incidence rates presented were calculated for 5-year collapsed rates using MCR 2002-2006 data. Corresponding mortality rates were extracted from the NCHS CMF in CDC WONDER as 5-year combined data from 2002-2006.

Age-adjustment, also called age-standardization, is one of the tools used to control for the different and changing age distributions of the population in states, counties, etc., and to enable meaningful comparisons of vital rates over time. Age-adjusted rates do not include cancer cases on which age has not been reported. Federal agencies have adopted the year 2000 U.S. standard population as the standard for age-adjusting incidence and mortality rates. For consistency and ease of comparison, incidence and mortality rates in this report were calculated and age-adjusted using the 2000 U.S. standard population. Additional information on age-adjustment can be found at http://www.cdc.gov/nchs/data/statnt/statnt20.pdf.

Incidence and mortality counts and rates are suppressed according to the *DHMH/MCR Data Use Policy* and the *DHMH/CCSC Mortality Data Suppression Policy*, as described in Section D.1 above.

The Annual Percent Change (APC) is calculated for incidence and mortality trends and for tracking incidence and mortality rates by race and gender over time (from 2002 to 2006). See Appendix D, Glossary, for the definition of APC.

4. Confidence Intervals and Statistical Significance

Age-adjusted rates for specific geographic areas (e.g., U.S., states, regions, counties) can be compared to determine whether differences in incidence or mortality exist between those areas. However, incidence and mortality rates, particularly those based on small numbers of events (cases or deaths) or small population sizes, can be highly variable from year to year. The rate from one year may not be typical of the usual rate for a geographic area when compared to other years. For this reason, two rates cannot simply be compared side-by-side to determine whether they are statistically significantly different. Confidence intervals are useful in defining a range within which the typical rate for a geographic area can be expected to lie.

A confidence interval is used to describe the range of uncertainty around a point estimate (e.g., an incidence or mortality rate) and serves as an indicator of the precision or stability of a rate. Most confidence intervals are, by convention, calculated at the 95% level; at this level, there is a 95% probability that the interval covers the true value. The smaller the number of events upon which a rate is based, the wider the confidence interval will be.

Confidence intervals for incidence and mortality rates are included in this report to facilitate comparisons between rates, such as the comparison of Maryland rates to U.S. rates. Confidence intervals for Maryland and SEER 17 incidence rates, provided by the MCR, are developed from the SEER*Stat software. CDC WONDER does not provide confidence intervals for NCHS mortality data (CMF); therefore, the following formula was used to approximate the 95% confidence interval for age-adjusted mortality rates in this report:

$$\text{Lower limit} = R - [1.96\ (R/\sqrt{n})]$$

$$\text{Upper limit} = R + [1.96\ (R/\sqrt{n})]$$

R = age-adjusted cancer incidence or mortality rate
n = number of events (cancer cases or deaths)

When the confidence intervals around two rates (e.g., state and county rates) do not overlap, it can be stated with 95% confidence that the two rates are statistically significantly different. For example, Maryland's 2006 colorectal cancer (CRC) incidence rate is 41.3 per 100,000, with a confidence interval of 39.7-43.1. The 2006 U.S. SEER-reported CRC cancer incidence rate was 45.9 per 100,000 population, with a 95%

confidence interval of 45.5-46.4. Since these rates do not overlap, the two rates are considered to be statistically significantly different (i.e., the difference between these rates is more than that expected by chance).

If the two confidence overlap, and if the rate for one area is included in the confidence interval of the other rate, then the rates are not statistically significantly different. However, when there is overlap in the confidence intervals for two rates, but the rate for the comparison area is not included in the interval for the rate of interest, the two rates may or may not be statistically significantly different. In this situation, statistical testing is needed to determine whether the differences between the two rates are statistically significant. In this report, when two rates are not statistically significantly different, they are described as "similar" or "same."

5. National Comparison Data

Maryland and county incidence and mortality rates are compared to U.S. SEER incidence rates and U.S. mortality rates from NCHS, as described in Sections B.1 and B.3 of this appendix.

Data used for Maryland cancer mortality ranking by site are based on NCHS mortality files extracted from CDC WONDER. Maryland's mortality ranking among the 50 states and the District of Columbia for all cancer sites combined and for specific targeted cancers is based on a 5-year average (2002-2006) of age-adjusted rates. Because mortality rates describe the cancer burden better than incidence rates, only Maryland rankings for mortality are presented for each targeted cancer.

Maps in this report display comparisons of Maryland incidence and mortality rates, by geographical area, to U.S. rates. For both incidence and mortality rate maps, the 5-year (2002-2006) U.S. rate was used as a basis for comparison with rates for Maryland jurisdictions (counties and regions). A ramp is used for grouping Maryland data into categories in reference to U.S. rates. The ramp groups data into five divisions: >25% above U.S. rate; 10-25% above U.S. rate; between 10% below and 10% above U.S. rate; 10-25% below U.S. rate; and >25% below U.S. rate. Note that 10-25% includes the 10% and 25%, but less than 10% and more than 25% do not include the endpoints of the range. Where 5-year incidence or mortality rates for any given jurisdiction are suppressed due to a small number of cases or deaths, aggregated regional rates for the affected area are used in lieu of county rates as a basis for comparison in maps.

6. Race and Hispanic Ethnicity

The MCR began requiring submission of more detailed data on race and ethnicity in August 1998. Incidence data provided by the MCR for this report include the following race categories: White, Black, and Other. The "Other" race category includes cases reported as American Indian or Alaska Native, Asian or Pacific Islander, and any other race category except those cases with unknown or missing race. The MCR uses the National Cancer Institute SEER*Stat software to compile incidence data.

Hispanic ethnicity is captured in a separate data field. Data presented in Table 5 are derived using the NAACCR Hispanic Identification Algorithm. This algorithm uses a combination of NAACCR variables to classify cases as Hispanic. In Table 5, "Hispanic" includes people reported to the MCR as Spanish/Hispanic origin plus those with "derived" Hispanic origin. The derivation is an algorithm based on the person's surname (last or maiden name) and their place of birth, race, and sex.

Mortality data (death counts and rates) in this report for 2002 through 2006 were obtained from the NCHS CMF in CDC WONDER. Race data in the CMF are based on information collected on death certificates. As described in Section B.3 above, CDC WONDER began reporting race in four categories (White, Black, Asian or Pacific Islander, and Native American or Alaska Native), as well as Hispanic ethnicity, starting with 2006 mortality data. In years prior to 2006, race is reported in three categories (White, Black, and other). The category of "other" races includes the American Indian or Alaska Native race category and the Asian or Pacific Islander race category. NCHS, in collaboration with the Census Bureau, developed a race-bridging methodology for assigning multiple-race groups to single-race categories.

7. HP 2010 Targets

In this report, quantitative HP 2010 targets, where available, are compared to Maryland data related to cancer risk behaviors (e.g., smoking, sun exposure) and adherence to cancer screening recommendations. Specifically, HP 2010 targets are compared to data from the Maryland BRFSS and the MCS. The data from these Maryland surveys are weighted to the age, race, and gender of Maryland population. Unlike the national data that serve as the basis for HP 2010 targets, Maryland BRFSS and MCS data are not age-adjusted to the 2000 U.S. standard population.

The HP 2010 targets in this report have been updated to reflect changes resulting from the HP 2010 Midcourse review completed in 2006. Further information about HP 2010 can be found at http://www.healthypeople.gov and http://www.healthypeople.gov/data/midcourse. Monitoring data for tracking specific HP 2010 objectives can also be obtained via an interactive, query-based system, DATA2010, accessible through CDC WONDER (http://wonder.cdc.gov/DATA2010).

8. Appendices

Please refer to additional appendices for:

- Cigarette Restitution Fund Program Cancer Report Requirements (Appendix A)
- Cancer Report Format (Appendix B)
- Glossary (technical terms and definitions; Appendix D)
- Maryland Population Estimates (Appendix E)
- U.S. Standard Population for 2000 (Appendix F)
- Definitions of International Classification of Diseases (ICD) Codes Used for Cancer Incidence and Mortality (Appendix G)

- Maryland Cancer Incidence and Mortality Rates by Geographical Area, 2002-2006 (Appendix H)
- Trends in Cancer Incidence and Mortality Rates in Maryland by Cancer Site and Year, 2002-2006 (Appendix I)
- Trends in Cancer Stage of Disease at Diagnosis in Maryland by Cancer Site and Year, 2002-2006 (Appendix J)
- 2004 Maryland Cancer Incidence and Mortality Data (Appendix K)
- 2005 Maryland Cancer Incidence and Mortality Data (Appendix L)

Appendix D

Glossary

Glossary

- **Age-adjustment:** Age is the most important risk factor for the incidence of most cancers. Cancer rates derived from populations that differ in underlying age structure are not comparable. Age-adjustment is a statistical technique that allows for the comparison of rates among populations having different age distributions, by weighting the age-specific rates in each population to one standard population. Additional information on age-adjustment can be found on the following Web sites:
  http://seer.cancer.gov/seerstat/tutorials/aarates/definition.html
  http://www.cdc.gov/nchs/data/statnt/statnt20.pdf

- **Annual Percent Change (APC):** APC is a measure of the annual percent increase or decrease in cancer rates over time. It is an estimated average change per year over a defined time span. For the purpose of this report, 5-year incidence and mortality trend data and corresponding APCs are presented for the years 2002 through 2006. In addition, APCs are used for analyzing trends by race and gender, by establishing which trend line has the greatest change. A more detailed description of the method can be found at: http://seer.cancer.gov/seerstat/WebHelp/seerstat.htm#Trend_Algorithms.htm.

- **Ascertainment:** Ascertainment refers to the quality assurance procedures that Maryland Cancer Registry staff use to ensure completeness of cancer cases in the registry database. These activities include: a review of disease indices from all reporting hospitals to identify possible missed cases; a random sample of records from reporting facilities; and review of death certificate data to identify cancer cases not previously reported.

- **Cancer:** Cancer is a disease characterized by the uncontrolled, abnormal growth of cells in different parts of the body that can spread to other parts of the body.

- **Chemoprevention:** Chemoprevention is the use of drugs, vitamins, or other agents to try to reduce the risk of cancer or to delay the development or recurrence of cancer.

- **Confidence Interval (CI):** A confidence interval is the range of values for a rate that will include the true value of the rate a given percentage of the time. A 95% CI includes the true value of the rate 95% of the time.

- **Incidence:** Incidence is the number of new cases of a given cancer or other event during a defined period, usually one year. For the purpose of this report, cancer incidence refers to the number of new cases diagnosed during individual calendar years 2004, 2005, and 2006. Cancer incidence data are also presented in aggregated form as the average annual incidence for the 5-year period from 2002 through 2006.

- **International Classification of Diseases for Oncology (ICD-O):** The ICD-O is the classification system used by tumor or cancer registries to code the site and the histology of the cancer, usually from a pathology report.

- **Invasive cancer:** Invasive cancer is a stage of cancer in which cancer cells have spread to healthy tissue adjacent to the tumor. It may still be considered localized if it has not spread to other parts of the body. Stage data presented in this report involve a diagnosis of invasive cancer: localized, regional, or distant. A diagnosis "in situ" is noninvasive and is not included in the staging data.

- **Mortality:** Mortality refers to the number of deaths during a defined time, usually one year. For the purposes of this report, cancer mortality data are presented for individual calendar years 2004, 2005, and 2006. Data for cancer mortality are also presented in an aggregated form, as the average annual mortality for the 5-year period from 2002 through 2006.

- **Primary prevention:** Primary prevention is preventing cancer before it has developed, such as through avoiding carcinogens (e.g., avoiding tobacco), promoting a healthy lifestyle through exercise and diet, preventing the harmful effects of carcinogens (e.g., using sunscreen), and detecting and removing precancerous lesions (e.g., removing polyps in the colon).

- **Race bridging:** Race bridging refers to the process of making data collected using one set of race categories consistent with data collected using a different set of race categories. This consistency allows estimation and comparison of race-specific statistics at a given point in time or over a period of time. More specifically, race bridging is a method used to make systems sufficiently comparable to permit estimation and analysis of race-specific statistics. Race-bridging algorithms are generally applied to population data, which are used in this report for calculating rates and for describing race categories of Maryland population estimates (see Appendix E).

- **Rate:** A rate is an estimate of the burden of a given disease on a defined population over a specified period of time. A crude rate is calculated by dividing the number of cases or deaths (events) by the population at risk during a given time period. Cancer incidence and mortality rates are usually presented per 100,000 population during a given time period. An incidence rate is the number of new cases during a specific period (usually one year) divided by the population at risk, standardized to a population of 100,000. A mortality rate is the number of deaths for a given period divided by the population at risk per 100,000 population. All rates presented in this report are age-adjusted to the 2000 U.S. standard population.

- **Region:** The following are regional categories in Maryland.

  <u>Baltimore Metropolitan Area</u>
  Anne Arundel, Baltimore City, Baltimore County, Carroll, Harford, Howard

  Note: The Baltimore Metropolitan Area does not include Baltimore City when used in Appendix H and for the incidence and mortality maps.

  <u>Eastern Shore Region</u>
  Caroline, Cecil, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico, Worcester

National Capital Area
Montgomery, Prince George's

Northwest Region
Allegany, Frederick, Garrett, Washington

Southern Region
Calvert, Charles, Saint Mary's

- **Screening:** Screening is checking for disease when there are no symptoms, resulting in detection of pre-cancer, or cancer in situ or at an early stage.

- **Stage at Diagnosis:** Cancer stage is the extent to which the cancer has spread from the organ of origin at the time of diagnosis. The stage information used in this report is based on the SEER Summary Stage Guidelines:

    1. **In situ:** the cancerous cells have not invaded the tissue basement membrane. In situ cancers are not considered malignant (with the exception of bladder cancers) and are not included in incidence rate calculations.
    2. **Localized:** the tumor is confined to the organ of origin.
    3. **Regional:** the tumor has spread to adjacent organs or tissue. Regional lymph nodes may also be involved.
    4. **Distant:** the tumor has spread beyond the adjacent organs or tissues. Distant lymph nodes, organs and/or tissues may also be involved.
    5. **Unstaged:** the stage of disease at diagnosis was unable to be classified (often due to insufficient information) or was not reported to the cancer registry.

Appendix E

Maryland Population Estimates
2004, 2005, and 2006

Maryland Population Estimates by Gender, Race, and Jurisdiction -- 2004

	Total All Genders	Total Male	Total Female	Total White	White Male	White Female	Total Black	Black Male	Black Female
Maryland	**5,558,058**	**2,690,901**	**2,867,157**	**3,617,094**	**1,777,157**	**1,839,937**	**1,645,781**	**771,050**	**874,731**
Baltimore Metro	**2,594,135**	**1,249,807**	**1,344,328**	**1,736,450**	**849,790**	**886,660**	**754,791**	**350,217**	**404,574**
Anne Arundel County	508,572	253,324	255,248	415,731	207,340	208,391	75,603	37,742	37,861
Baltimore City	636,251	296,513	339,738	202,997	98,974	104,023	418,532	190,370	228,162
Baltimore County	780,821	371,183	409,638	561,413	268,864	292,549	185,969	85,926	100,043
Carroll County	166,159	82,056	84,103	158,686	78,238	80,448	4,880	2,598	2,282
Harford County	235,594	115,559	120,035	203,606	100,155	103,451	26,501	12,864	13,637
Howard County	266,738	131,172	135,566	194,017	96,219	97,798	43,306	20,717	22,589
Eastern Shore	**420,792**	**205,623**	**215,169**	**344,979**	**168,883**	**176,096**	**70,075**	**33,892**	**36,183**
Caroline County	31,058	15,276	15,782	26,139	12,960	13,179	4,547	2,123	2,424
Cecil County	95,526	47,170	48,356	89,622	44,304	45,318	4,625	2,267	2,358
Dorchester County	30,912	14,650	16,262	21,860	10,472	11,388	8,733	4,024	4,709
Kent County	19,582	9,395	10,187	16,220	7,863	8,357	3,164	1,422	1,742
Queen Anne's County	45,078	22,362	22,716	40,866	20,343	20,523	3,698	1,774	1,924
Somerset County	25,863	13,821	12,042	14,737	7,500	7,237	10,836	6,177	4,659
Talbot County	35,017	16,764	18,253	29,435	14,121	15,314	5,192	2,438	2,754
Wicomico County	88,782	42,358	46,424	65,267	31,279	33,988	21,623	10,126	11,497
Worcester County	48,974	23,827	25,147	40,833	20,041	20,792	7,657	3,541	4,116
National Capital	**1,764,657**	**848,408**	**916,249**	**879,020**	**434,164**	**444,856**	**716,620**	**332,471**	**384,149**
Montgomery County	921,690	443,642	478,048	639,576	310,951	328,625	152,716	70,387	82,329
Prince George's County	842,967	404,766	438,201	239,444	123,213	116,231	563,904	262,084	301,820
Northwest	**461,272**	**230,512**	**230,760**	**418,235**	**205,447**	**212,788**	**33,739**	**20,536**	**13,203**
Allegany County	73,871	36,882	36,989	68,936	33,286	35,650	4,366	3,303	1,063
Frederick County	217,653	107,364	110,289	194,203	95,775	98,428	16,708	8,317	8,391
Garrett County	30,124	14,878	15,246	29,872	14,730	15,142	165	110	55
Washington County	139,624	71,388	68,236	125,224	61,656	63,568	12,500	8,806	3,694
Southern	**317,202**	**156,551**	**160,651**	**238,410**	**118,873**	**119,537**	**70,556**	**33,934**	**36,622**
Calvert County	86,474	42,643	43,831	73,883	36,669	37,214	11,298	5,394	5,904
Charles County	135,807	66,335	69,472	85,732	42,433	43,299	45,622	21,870	23,752
St. Mary's County	94,921	47,573	47,348	78,795	39,771	39,024	13,636	6,670	6,966

NCHS (Bridged) Population Estimates, July 01, 2004
Source: Maryland DHMH Vital Statistics Administration, Division of Health Statistics

Maryland Population Estimates by Gender, Race, and Jurisdiction -- 2005

	Total All Genders	Total Male	Total Female	Total White	White Male	White Female	Total Black	Black Male	Black Female
Maryland	**5,600,388**	**2,713,312**	**2,887,076**	**3,622,922**	**1,780,826**	**1,842,096**	**1,672,296**	**784,729**	**887,567**
Baltimore Metro	**2,610,063**	**1,258,467**	**1,351,596**	**1,736,095**	**850,155**	**885,940**	**764,957**	**355,488**	**409,469**
Anne Arundel County	510,878	254,862	256,016	415,655	207,539	208,116	77,086	38,555	38,531
Baltimore City	635,815	296,381	339,434	203,405	99,091	104,314	416,862	189,781	227,081
Baltimore County	786,113	373,950	412,163	558,922	267,860	291,062	192,077	88,821	103,256
Carroll County	168,541	83,469	85,072	160,488	79,309	81,179	5,209	2,807	2,402
Harford County	239,259	117,314	121,945	204,896	100,726	104,170	28,602	13,926	14,676
Howard County	269,457	132,491	136,966	192,729	95,630	97,099	45,121	21,598	23,523
Eastern Shore	**427,210**	**208,404**	**218,806**	**350,786**	**171,380**	**179,406**	**70,432**	**34,078**	**36,354**
Caroline County	31,822	15,554	16,268	26,921	13,262	13,659	4,543	2,109	2,434
Cecil County	97,796	48,245	49,551	91,416	45,136	46,280	5,050	2,492	2,558
Dorchester County	31,401	14,883	16,518	22,326	10,686	11,640	8,736	4,033	4,703
Kent County	19,899	9,554	10,345	16,496	8,003	8,493	3,176	1,422	1,754
Queen Anne's County	45,612	22,638	22,974	41,402	20,629	20,773	3,627	1,737	1,890
Somerset County	25,845	13,779	12,066	14,690	7,461	7,229	10,850	6,171	4,679
Talbot County	35,683	17,007	18,676	30,120	14,368	15,752	5,155	2,420	2,735
Wicomico County	90,402	43,061	47,341	66,579	31,856	34,723	21,910	10,260	11,650
Worcester County	48,750	23,683	25,067	40,836	19,979	20,857	7,385	3,434	3,951
National Capital	**1,773,706**	**853,693**	**920,013**	**876,447**	**433,386**	**443,061**	**726,165**	**337,383**	**388,782**
Montgomery County	927,583	446,627	480,956	639,111	310,506	328,605	157,056	72,742	84,314
Prince George's County	846,123	407,066	439,057	237,336	122,880	114,456	569,109	264,641	304,468
Northwest	**466,144**	**233,140**	**233,004**	**419,874**	**206,363**	**213,511**	**35,799**	**21,646**	**14,153**
Allegany County	73,639	36,935	36,704	68,562	33,185	35,377	4,539	3,466	1,073
Frederick County	220,701	109,149	111,552	194,768	96,229	98,539	18,106	9,084	9,022
Garrett County	29,909	14,795	15,114	29,659	14,646	15,013	167	111	56
Washington County	141,895	72,261	69,634	126,885	62,303	64,582	12,987	8,985	4,002
Southern	**323,265**	**159,608**	**163,657**	**239,720**	**119,542**	**120,178**	**74,943**	**36,134**	**38,809**
Calvert County	87,925	43,341	44,584	75,052	37,224	37,828	11,523	5,527	5,996
Charles County	138,822	68,007	70,815	84,926	42,154	42,772	49,178	23,684	25,494
St. Mary's County	96,518	48,260	48,258	79,742	40,164	39,578	14,242	6,923	7,319

NCHS (Bridged) Population Estimates, July 01, 2005
Source: Maryland DHMH Vital Statistics Administration, Division of Health Statistics

Maryland Population Estimates by Gender, Race, and Jurisdiction -- 2006

	Total All Genders	Total Male	Total Female	Total White	White Male	White Female	Total Black	Black Male	Black Female
Maryland	**5,615,727**	**2,716,854**	**2,898,873**	**3,610,808**	**1,773,971**	**1,836,837**	**1,688,378**	**790,055**	**898,323**
Baltimore Metro	**2,612,164**	**1,257,158**	**1,355,006**	**1,724,043**	**843,452**	**880,591**	**773,145**	**358,109**	**415,036**
Anne Arundel County	509,300	252,851	256,449	411,498	204,602	206,896	78,548	38,954	39,594
Baltimore City	631,366	294,292	337,074	201,969	98,600	103,369	413,593	188,042	225,551
Baltimore County	787,384	374,061	413,323	552,999	265,090	287,909	197,781	91,044	106,737
Carroll County	170,260	84,040	86,220	161,421	79,554	81,867	5,632	2,956	2,676
Harford County	241,402	118,131	123,271	204,790	100,631	104,159	30,345	14,615	15,730
Howard County	272,452	133,783	138,669	191,366	94,975	96,391	47,246	22,498	24,748
Eastern Shore	**432,667**	**211,128**	**221,539**	**354,913**	**173,557**	**181,356**	**71,225**	**34,320**	**36,905**
Caroline County	32,617	15,992	16,625	27,530	13,605	13,925	4,661	2,161	2,500
Cecil County	99,506	49,069	50,437	92,612	45,725	46,887	5,445	2,673	2,772
Dorchester County	31,631	15,083	16,548	22,452	10,836	11,616	8,806	4,070	4,736
Kent County	19,983	9,620	10,363	16,543	8,031	8,512	3,218	1,454	1,764
Queen Anne's County	46,241	22,863	23,378	41,983	20,825	21,158	3,647	1,751	1,896
Somerset County	25,774	13,736	12,038	14,808	7,555	7,253	10,626	6,018	4,608
Talbot County	36,062	17,186	18,876	30,437	14,536	15,901	5,198	2,441	2,757
Wicomico County	91,987	43,831	48,156	67,518	32,368	35,150	22,352	10,392	11,960
Worcester County	48,866	23,748	25,118	41,030	20,076	20,954	7,272	3,360	3,912
National Capital	**1,773,446**	**852,792**	**920,654**	**874,010**	**432,460**	**441,550**	**725,906**	**336,467**	**389,439**
Montgomery County	932,131	448,740	483,391	636,656	309,525	327,131	161,174	74,653	86,521
Prince George's County	841,315	404,052	437,263	237,354	122,935	114,419	564,732	261,814	302,918
Northwest	**469,376**	**234,238**	**235,138**	**418,697**	**205,444**	**213,253**	**38,460**	**22,890**	**15,570**
Allegany County	72,831	36,536	36,295	67,562	32,689	34,873	4,596	3,514	1,082
Frederick County	222,938	109,845	113,093	194,098	95,644	98,454	19,771	9,825	9,946
Garrett County	29,859	14,735	15,124	29,550	14,560	14,990	200	125	75
Washington County	143,748	73,122	70,626	127,487	62,551	64,936	13,893	9,426	4,467
Southern	**328,074**	**161,538**	**166,536**	**239,145**	**119,058**	**120,087**	**79,642**	**38,269**	**41,373**
Calvert County	88,804	43,666	45,138	75,241	37,222	38,019	12,059	5,788	6,271
Charles County	140,416	68,433	71,983	82,561	40,852	41,709	52,795	25,266	27,529
St. Mary's County	98,854	49,439	49,415	81,343	40,984	40,359	14,788	7,215	7,573

NCHS (Bridged) Population Estimates, July 01, 2006
Source: Maryland DHMH Vital Statistics Administration, Division of Health Statistics

Appendix F

U.S. Standard Population, 2000

2000 U.S. Standard Population
(Census P25-1130)

Age Group	2000 Population
Less than 01 years	3,794,901
01-04 years	15,191,619
05-09 years	19,919,840
10-14 years	20,056,779
15-19 years	19,819,518
20-24 years	18,257,225
25-29 years	17,722,067
30-34 years	19,511,370
35-39 years	22,179,956
40-44 years	22,479,229
45-49 years	19,805,793
50-54 years	17,224,359
55-59 years	13,307,234
60-64 years	10,654,272
65-69 years	9,409,940
70-74 years	8,725,574
75-79 years	7,414,559
80-84 years	4,900,234
85+ years	4,259,173
Total	274,633,642

Source: National Cancer Institute, SEER, 2000

Appendix G

Definitions of International Classification of Diseases (ICD) Codes Used for Cancer Incidence and Mortality

International Classification of Diseases for Oncology, Third Edition (ICD-O-3) Codes Used for Cancer Incidence and International Classification of Diseases, 10th Revision (ICD-10) Codes Used for Cancer Mortality

Cancer Site	Incidence (ICD-O-3)		Mortality (ICD-10)
	Topography (Site)	Histology	
All Cancer Sites	C00.0 – C80.9	Includes all invasive cancers except basal and squamous cell skin cancers, and includes in situ cancer of the urinary bladder	C00 – C97
Lung and Bronchus	C34.0 - C34.9	Excludes codes 9590-9989	C34
Colon and Rectum	C18.0 – C20.9, C26.0	Excludes codes 9590-9989	C18 – C20, C26.0
Female Breast	C50.0 - C50.9 (female only)	Excludes codes 9590-9989	C50 (female only)
Prostate	C61.9	Excludes codes 9590-9989	C61
Oral Cavity and Pharynx	C00.0 - C14.8	Excludes codes 9590-9989	C00 – C14
Melanoma of the Skin	C44.0 - C44.9	Includes only codes 8720-8790	C43
Cervix	C53.0 - C53.9	Excludes codes 9590-9989	C53

Note: Most cancer mortality (ICD-10) codes are similar to cancer incidence (ICD-O-3) topography (site) codes.

Appendix H

Maryland Cancer Incidence and Mortality Rates by Geographical Area, 2002-2006

Appendix H

All Cancer Sites Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	466.7	464.2	469.3
Northwest Region	504.7	495.6	513.8
Allegany	491.2	471.0	512.0
Frederick	551.7	536.7	566.9
Garrett	411.9	382.8	442.9
Washington	480.7	465.2	496.7
Baltimore Metropolitan Area ^	487.5	483.1	491.9
Anne Arundel	476.0	467.2	484.9
Baltimore City	473.7	466.2	481.3
Baltimore County	504.8	498.2	511.5
Carroll	502.2	486.7	518.1
Harford	486.7	473.7	500.0
Howard	437.9	425.2	450.7
National Capital Area †	416.5	412.0	421.1
Montgomery †	417.6	411.7	423.5
Prince George's †	413.4	406.3	420.5
Southern Region	454.7	443.0	466.6
Calvert	476.9	454.6	500.1
Charles	441.2	422.9	460.0
Saint Mary's	453.2	432.4	474.7
Eastern Shore Region	476.4	467.7	485.2
Caroline	501.4	467.7	536.9
Cecil	472.0	451.9	492.7
Dorchester	471.5	441.6	502.9
Kent	493.4	455.3	534.1
Queen Anne's	472.6	445.4	501.0
Somerset	499.2	462.2	538.5
Talbot	486.7	459.4	515.4
Wicomico	470.2	450.6	490.5
Worcester	474.4	451.3	498.5

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

^ Area rate does not include Baltimore City

† 2002-2006 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Appendix H

Lung and Bronchus Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	67.9	66.9	68.9
Northwest Region	73.9	70.4	77.4
Allegany	84.4	76.4	93.1
Frederick	75.1	69.6	81.0
Garrett	55.2	45.0	67.1
Washington	71.2	65.3	77.5
Baltimore Metropolitan Area ^	71.5	69.8	73.2
Anne Arundel	70.7	67.3	74.3
Baltimore City	85.5	82.3	88.7
Baltimore County	76.5	74.0	79.1
Carroll	71.8	65.9	78.0
Harford	75.3	70.2	80.7
Howard	52.7	48.1	57.5
National Capital Area †	48.4	46.8	50.0
Montgomery †	43.0	41.1	45.0
Prince George's †	55.2	52.6	58.0
Southern Region	73.2	68.3	78.2
Calvert	78.0	68.8	88.0
Charles	66.1	58.8	73.9
Saint Mary's	78.3	69.6	87.8
Eastern Shore Region	83.8	80.2	87.5
Caroline	92.8	78.7	108.7
Cecil	83.6	75.2	92.7
Dorchester	90.3	77.7	104.5
Kent	82.9	68.0	100.4
Queen Anne's	80.6	69.6	92.9
Somerset	102.4	86.1	120.9
Talbot	73.3	63.3	84.6
Wicomico	88.3	80.0	97.3
Worcester	77.6	68.9	87.4

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

^ Area rate does not include Baltimore City

† 2002-2006 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Appendix H

Colorectal Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	48.4	47.6	49.2
Northwest Region	53.0	50.1	56.0
Allegany	57.6	51.0	65.0
Frederick	57.0	52.2	62.2
Garrett	49.4	39.7	61.0
Washington	47.2	42.4	52.3
Baltimore Metropolitan Area ^	48.8	47.4	50.2
Anne Arundel	47.3	44.5	50.2
Baltimore City	51.9	49.5	54.5
Baltimore County	51.2	49.1	53.3
Carroll	53.1	48.0	58.5
Harford	43.9	39.9	48.1
Howard	45.0	40.9	49.4
National Capital Area †	42.3	40.8	43.8
Montgomery †	39.1	37.3	41.0
Prince George's †	46.0	43.6	48.5
Southern Region	56.0	51.8	60.4
Calvert	55.9	48.3	64.4
Charles	59.7	52.7	67.2
Saint Mary's	52.9	45.9	60.7
Eastern Shore Region	51.1	48.3	54.0
Caroline	53.2	42.7	65.6
Cecil	54.6	47.8	62.1
Dorchester	60.5	50.2	72.4
Kent	53.2	41.5	67.6
Queen Anne's	48.4	39.9	58.3
Somerset	49.3	38.2	62.8
Talbot	51.2	42.9	60.8
Wicomico	49.7	43.5	56.5
Worcester	45.8	38.9	53.7

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

^ Area rate does not include Baltimore City

† 2002-2006 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Appendix H

Female Breast Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	124.0	122.3	125.8
Northwest Region	128.1	121.9	134.4
Allegany	118.4	104.5	133.7
Frederick	139.0	129.2	149.4
Garrett	125.6	103.8	150.9
Washington	119.1	108.5	130.4
Baltimore Metropolitan Area ^	129.2	126.2	132.2
Anne Arundel	123.7	117.8	129.9
Baltimore City	106.5	101.9	111.4
Baltimore County	134.7	130.0	139.4
Carroll	131.2	120.8	142.3
Harford	113.1	104.9	121.7
Howard	132.3	123.5	141.5
National Capital Area †	124.2	121.0	127.4
Montgomery †	129.4	125.1	133.8
Prince George's †	117.1	112.4	121.9
Southern Region	109.8	102.4	117.7
Calvert	119.3	105.0	135.1
Charles	110.7	99.3	123.0
Saint Mary's	98.5	85.8	112.7
Eastern Shore Region	120.7	114.7	127.0
Caroline	145.5	121.2	173.4
Cecil	107.8	95.2	121.7
Dorchester	109.9	90.4	132.8
Kent	145.4	116.6	179.7
Queen Anne's	103.0	86.2	122.3
Somerset	111.6	87.5	140.5
Talbot	133.8	114.0	156.5
Wicomico	126.6	113.0	141.5
Worcester	124.4	107.9	142.8

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

^ Area rate does not include Baltimore City

† 2002-2006 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Appendix H

Prostate Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	164.2	161.9	166.5
Northwest Region	165.3	157.5	173.4
Allegany	144.0	128.2	161.2
Frederick	195.9	182.0	210.5
Garrett	128.9	105.9	155.7
Washington	154.5	141.5	168.5
Baltimore Metropolitan Area ^	158.7	154.9	162.5
Anne Arundel	159.3	151.7	167.2
Baltimore City	172.8	165.7	180.1
Baltimore County	160.6	154.9	166.4
Carroll	146.0	133.4	159.4
Harford	176.8	165.0	189.3
Howard	141.9	131.1	153.4
National Capital Area †	167.8	163.4	172.2
Montgomery †	160.4	154.9	166.1
Prince George's †	176.9	169.8	184.2
Southern Region	143.2	133.1	153.8
Calvert	129.0	111.1	148.8
Charles	160.1	143.1	178.4
Saint Mary's	134.7	118.0	153.1
Eastern Shore Region	145.5	138.5	152.7
Caroline	130.1	105.7	158.6
Cecil	147.4	130.9	165.5
Dorchester	145.6	122.1	172.7
Kent	161.9	131.7	197.6
Queen Anne's	157.2	135.4	181.6
Somerset	146.1	117.2	180.0
Talbot	165.8	143.4	191.0
Wicomico	135.0	119.4	152.1
Worcester	134.8	118.0	153.7

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

^ Area rate does not include Baltimore City

† 2002-2006 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Appendix H

Oral Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	9.8	9.4	10.1
Northwest Region	10.0	8.8	11.3
Allegany	10.2	7.5	13.7
Frederick	10.2	8.3	12.4
Garrett	**	**	**
Washington	10.0	7.8	12.5
Baltimore Metropolitan Area ^	9.8	9.2	10.4
Anne Arundel	10.5	9.2	11.8
Baltimore City	11.4	10.3	12.7
Baltimore County	9.9	9.0	10.9
Carroll	9.9	7.9	12.3
Harford	10.6	8.9	12.7
Howard	7.5	6.0	9.3
National Capital Area †	8.2	7.6	8.9
Montgomery †	8.2	7.4	9.1
Prince George's †	8.1	7.2	9.2
Southern Region	12.1	10.3	14.1
Calvert	12.1	8.8	16.1
Charles	10.5	7.9	13.6
Saint Mary's	14.1	10.7	18.2
Eastern Shore Region	10.6	9.3	11.9
Caroline	9.1	5.2	14.9
Cecil	11.0	8.2	14.4
Dorchester	**	**	**
Kent	15.0	9.2	23.6
Queen Anne's	12.3	8.3	17.7
Somerset	**	**	**
Talbot	11.3	7.4	16.8
Wicomico	10.6	7.8	14.1
Worcester	9.8	6.7	14.0

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

^ Area rate does not include Baltimore City

† 2002-2006 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Appendix H

Melanoma Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	20.2	19.6	20.7
Northwest Region	22.7	20.8	24.7
Allegany	15.1	11.5	19.4
Frederick	25.5	22.6	28.8
Garrett	13.1	8.2	20.1
Washington	25.2	21.7	29.1
Baltimore Metropolitan Area ^	25.5	24.5	26.5
Anne Arundel	28.6	26.5	30.8
Baltimore City	8.3	7.4	9.4
Baltimore County	23.1	21.6	24.6
Carroll	28.4	24.9	32.2
Harford	27.5	24.5	30.7
Howard	24.6	21.9	27.7
National Capital Area †	13.9	13.1	14.8
Montgomery †	18.5	17.2	19.7
Prince George's †	8.3	7.3	9.3
Southern Region	24.1	21.6	26.9
Calvert	35.8	30.0	42.4
Charles	14.0	11.2	17.4
Saint Mary's	26.7	21.9	32.1
Eastern Shore Region	29.2	27.0	31.5
Caroline	21.6	15.0	30.0
Cecil	22.0	17.9	26.9
Dorchester	18.4	12.6	26.2
Kent	31.9	22.7	43.9
Queen Anne's	39.4	31.8	48.4
Somerset	20.5	13.5	30.0
Talbot	38.4	30.5	47.7
Wicomico	26.0	21.5	31.1
Worcester	42.4	35.4	50.5

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

^ Area rate does not include Baltimore City

† 2002-2006 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Appendix H

Cervical Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	8.1	7.6	8.5
Northwest Region	7.8	6.3	9.5
Allegany	10.7	6.6	16.5
Frederick	8.9	6.5	11.8
Garrett	**	**	**
Washington	5.3	3.2	8.3
Baltimore Metropolitan Area ^	7.2	6.5	7.9
Anne Arundel	7.1	5.7	8.7
Baltimore City	11.6	10.1	13.4
Baltimore County	8.3	7.1	9.6
Carroll	7.2	4.9	10.2
Harford	5.5	3.8	7.7
Howard	6.3	4.6	8.6
National Capital Area †	8.0	7.2	8.9
Montgomery †	8.8	7.6	10.0
Prince George's †	7.4	6.3	8.7
Southern Region	7.3	5.5	9.5
Calvert	8.7	5.1	13.8
Charles	5.3	3.0	8.7
Saint Mary's	9.0	5.6	13.9
Eastern Shore Region	7.8	6.3	9.7
Caroline	**	**	**
Cecil	9.3	5.9	14.0
Dorchester	**	**	**
Kent	**	**	**
Queen Anne's	**	**	**
Somerset	**	**	**
Talbot	**	**	**
Wicomico	7.1	4.1	11.4
Worcester	**	**	**

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

^ Area rate does not include Baltimore City

† 2002-2006 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix C, Section A.1.)

Source: Maryland Cancer Registry

Appendix H

All Cancer Sites Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	193.0	191.3	194.7
Northwest Region	189.5	184.0	195.0
Allegany	199.3	186.9	211.7
Frederick	186.9	178.1	195.7
Garrett	170.2	151.3	189.1
Washington	195.2	185.3	205.1
Baltimore Metropolitan Area ^	193.6	190.8	196.4
Anne Arundel	203.7	197.8	209.6
Baltimore City	242.6	237.2	248.0
Baltimore County	199.9	195.8	204.0
Carroll	194.8	185.0	204.6
Harford	195.8	187.4	204.2
Howard	145.7	138.2	153.2
National Capital Area	165.2	162.3	168.1
Montgomery	140.0	136.6	143.4
Prince George's	200.6	195.6	205.6
Southern Region	219.3	211.0	227.6
Calvert	222.7	207.0	238.4
Charles	220.3	207.1	233.5
Saint Mary's	216.5	201.7	231.3
Eastern Shore Region	208.6	202.9	214.3
Caroline	226.7	203.9	249.5
Cecil	213.8	199.9	227.7
Dorchester	208.7	189.0	228.4
Kent	198.7	175.7	221.7
Queen Anne's	201.1	183.0	219.2
Somerset	250.3	223.7	276.9
Talbot	184.2	168.4	200.0
Wicomico	215.5	202.1	228.9
Worcester	200.8	186.4	215.2

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

^ Area rate does not include Baltimore City

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Appendix H

Lung and Bronchus Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	55.1	54.2	56.0
Northwest Region	53.9	50.9	56.9
Allegany	62.0	55.1	68.9
Frederick	47.7	43.2	52.2
Garrett	44.6	35.0	54.2
Washington	59.9	54.4	65.4
Baltimore Metropolitan Area ^	57.0	55.5	58.5
Anne Arundel	62.2	59.0	65.4
Baltimore City	76.5	73.5	79.5
Baltimore County	59.1	56.9	61.3
Carroll	55.1	49.9	60.3
Harford	60.1	55.5	64.7
Howard	36.2	32.5	39.9
National Capital Area	39.3	37.9	40.7
Montgomery	31.0	29.4	32.6
Prince George's	50.6	48.1	53.1
Southern Region	66.8	62.2	71.4
Calvert	64.6	56.1	73.1
Charles	68.9	61.5	76.3
Saint Mary's	66.8	58.6	75.0
Eastern Shore Region	66.7	63.5	69.9
Caroline	78.1	64.7	91.5
Cecil	68.7	60.8	76.6
Dorchester	70.6	59.2	82.0
Kent	59.7	46.9	72.5
Queen Anne's	61.9	52.0	71.8
Somerset	87.9	72.2	103.6
Talbot	53.2	44.7	61.7
Wicomico	73.2	65.4	81.0
Worcester	58.9	51.2	66.6

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

^ Area rate does not include Baltimore City

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Appendix H

Colorectal Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	19.3	18.8	19.8
Northwest Region	18.6	16.9	20.3
Allegany	18.8	15.0	22.6
Frederick	20.3	17.4	23.2
Garrett	15.4	9.7	21.1
Washington	17.6	14.7	20.5
Baltimore Metropolitan Area ^	19.4	18.5	20.3
Anne Arundel	19.5	17.7	21.3
Baltimore City	24.2	22.5	25.9
Baltimore County	20.1	18.8	21.4
Carroll	23.1	19.7	26.5
Harford	17.3	14.8	19.8
Howard	16.5	14.0	19.0
National Capital Area	16.0	15.1	16.9
Montgomery	12.7	11.7	13.7
Prince George's	21.1	19.5	22.7
Southern Region	26.1	23.2	29.0
Calvert	25.4	20.1	30.7
Charles	29.4	24.5	34.3
Saint Mary's	22.8	18.0	27.6
Eastern Shore Region	20.4	18.6	22.2
Caroline	21.1	14.1	28.1
Cecil	22.4	17.9	26.9
Dorchester	24.9	18.1	31.7
Kent	22.4	14.4	30.4
Queen Anne's	21.1	15.1	27.1
Somerset	12.4	6.5	18.3
Talbot	16.1	11.5	20.7
Wicomico	24.6	20.1	29.1
Worcester	15.9	11.8	20.0

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

^ Area rate does not include Baltimore City

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Appendix H

Female Breast Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	26.8	26.0	27.6
Northwest Region	25.9	23.2	28.6
Allegany	25.3	19.5	31.1
Frederick	24.5	20.3	28.7
Garrett	33.9	22.2	45.6
Washington	26.5	21.6	31.4
Baltimore Metropolitan Area ^	25.6	24.3	26.9
Anne Arundel	26.4	23.6	29.2
Baltimore City	33.1	30.5	35.7
Baltimore County	26.5	24.5	28.5
Carroll	27.0	22.2	31.8
Harford	24.6	20.7	28.5
Howard	20.5	16.9	24.1
National Capital Area	25.6	24.2	27.0
Montgomery	21.2	19.5	22.9
Prince George's	31.2	28.8	33.6
Southern Region	27.9	24.0	31.8
Calvert	34.1	26.1	42.1
Charles	29.2	23.1	35.3
Saint Mary's	20.0	14.0	26.0
Eastern Shore Region	27.2	24.4	30.0
Caroline	30.9	19.7	42.1
Cecil	26.1	19.7	32.5
Dorchester	19.1	10.9	27.3
Kent	27.3	16.1	38.5
Queen Anne's	27.2	18.2	36.2
Somerset	38.9	23.9	53.9
Talbot	27.1	18.6	35.6
Wicomico	30.2	23.5	36.9
Worcester	24.0	17.1	30.9

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

^ Area rate does not include Baltimore City

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Appendix H

Prostate Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	28.3	27.2	29.4
Northwest Region	27.1	23.7	30.5
Allegany	30.1	22.5	37.7
Frederick	26.6	21.0	32.2
Garrett	31.3	18.5	44.1
Washington	24.1	18.5	29.7
Baltimore Metropolitan Area ^	25.0	23.3	26.7
Anne Arundel	25.9	22.3	29.5
Baltimore City	40.1	36.5	43.7
Baltimore County	25.2	22.9	27.5
Carroll	27.4	21.1	33.7
Harford	21.9	17.1	26.7
Howard	23.6	18.3	28.9
National Capital Area	27.3	25.3	29.3
Montgomery	21.3	19.1	23.5
Prince George's	37.7	33.9	41.5
Southern Region	35.6	29.8	41.4
Calvert	41.0	29.5	52.5
Charles	31.3	22.4	40.2
Saint Mary's	34.9	25.0	44.8
Eastern Shore Region	27.6	24.3	30.9
Caroline	29.5	16.2	42.8
Cecil	27.5	19.0	36.0
Dorchester	19.7	10.3	29.1
Kent	30.1	16.6	43.6
Queen Anne's	20.0	11.2	28.8
Somerset	50.6	30.8	70.4
Talbot	31.1	21.3	40.9
Wicomico	23.8	16.6	31.0
Worcester	27.7	19.5	35.9

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

^ Area rate does not include Baltimore City

** Rates based on death counts of 0-15 deaths are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Appendix H

Oral Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	2.7	2.5	2.9
Northwest Region	2.4	1.8	3.0
Allegany	**	**	**
Frederick	1.8	0.9	2.7
Garrett	**	**	**
Washington	3.4	2.1	4.7
Baltimore Metropolitan Area ^	2.5	2.2	2.8
Anne Arundel	2.8	2.1	3.5
Baltimore City	4.5	3.8	5.2
Baltimore County	2.7	2.2	3.2
Carroll	**	**	**
Harford	2.6	1.7	3.5
Howard	2.1	1.2	3.0
National Capital Area	2.1	1.8	2.4
Montgomery	1.7	1.3	2.1
Prince George's	2.6	2.1	3.1
Southern Region	3.1	2.1	4.1
Calvert	**	**	**
Charles	3.7	2.0	5.4
Saint Mary's	**	**	**
Eastern Shore Region	3.0	2.3	3.7
Caroline	**	**	**
Cecil	3.6	1.8	5.4
Dorchester	**	**	**
Kent	**	**	**
Queen Anne's	**	**	**
Somerset	**	**	**
Talbot	**	**	**
Wicomico	**	**	**
Worcester	**	**	**

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

^ Area rate does not include Baltimore City

** Rates based on death counts of 0-15 deaths are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Appendix H

Melanoma Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	2.8	2.6	3.0
Northwest Region	3.0	2.3	3.7
Allegany	**	**	**
Frederick	3.5	2.3	4.7
Garrett	**	**	**
Washington	2.8	1.6	4.0
Baltimore Metropolitan Area ^	3.4	3.0	3.8
Anne Arundel	4.3	3.4	5.2
Baltimore City	1.6	1.2	2.0
Baltimore County	3.3	2.8	3.8
Carroll	3.4	2.2	4.6
Harford	3.7	2.6	4.8
Howard	2.0	1.2	2.8
National Capital Area	2.1	1.8	2.4
Montgomery	2.3	1.9	2.7
Prince George's	1.7	1.2	2.2
Southern Region	3.3	2.3	4.3
Calvert	**	**	**
Charles	**	**	**
Saint Mary's	4.1	2.2	6.0
Eastern Shore Region	3.6	2.8	4.4
Caroline	**	**	**
Cecil	**	**	**
Dorchester	**	**	**
Kent	**	**	**
Queen Anne's	**	**	**
Somerset	**	**	**
Talbot	**	**	**
Wicomico	3.9	2.1	5.7
Worcester	4.3	2.2	6.4

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

^ Area rate does not include Baltimore City

** Rates based on death counts of 0-15 deaths are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Appendix H

Cervical Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2002-2006

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	2.2	2.0	2.4
Northwest Region	2.6	1.7	3.5
Allegany	**	**	**
Frederick	3.2	1.7	4.7
Garrett	**	**	**
Washington	**	**	**
Baltimore Metropolitan Area ^	1.9	1.5	2.3
Anne Arundel	2.4	1.6	3.2
Baltimore City	4.0	3.1	4.9
Baltimore County	2.0	1.4	2.6
Carroll	**	**	**
Harford	**	**	**
Howard	**	**	**
National Capital Area	2.0	1.6	2.4
Montgomery	1.5	1.0	2.0
Prince George's	2.7	2.0	3.4
Southern Region	2.5	1.3	3.7
Calvert	**	**	**
Charles	**	**	**
Saint Mary's	**	**	**
Eastern Shore Region	1.8	1.0	2.6
Caroline	**	**	**
Cecil	**	**	**
Dorchester	**	**	**
Kent	**	**	**
Queen Anne's	**	**	**
Somerset	**	**	**
Talbot	**	**	**
Wicomico	**	**	**
Worcester	**	**	**

* Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

^ Area rate does not include Baltimore City

** Rates based on death counts of 0-15 deaths are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Appendix I

Trends in Cancer Incidence and Mortality Rates in Maryland by Cancer Site and Year, 2002-2006

Appendix I

Table 1: Cancer Incidence Rates, by Cancer Site and Year
Maryland, 2002-2006

Cancer Site	2002	2003	2004	2005	2006 †	APC 2002-2006	MD Trend
All Cancer Sites	495.9	494.5	462.6	457.4	426.3	-3.7%	↓
Lung	69.1	70.8	69.0	67.9	63.3	-2.1%	↓
Colorectal	51.4	54.6	48.6	46.3	41.3	-5.8%	↓
Breast	132.4	133.4	124.2	118.6	112.8	-4.3%	↓
Prostate	197.5	176.7	148.0	147.2	153.9	-6.6%	↓
Oral	10.2	11.7	9.4	8.8	8.9	-5.4%	↓
Melanoma	21.7	19.4	18.7	21.3	19.7	-1.0%	↓
Cervical	8.5	9.3	7.5	8.5	6.7	-5.5%	↓

† 2006 Maryland incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: Maryland Cancer Registry (incidence rates)

Table 2: Cancer Mortality Rates, by Cancer Site and Year
Maryland, 2002-2006

Cancer Site	2002	2003	2004	2005	2006	APC 2002-2006	MD Trend
All Cancer Sites	201.9	195.6	189.8	190.0	186.9	-1.8%	↓
Lung	57.5	57.3	53.0	54.8	52.7	-2.2%	↓
Colorectal	20.8	19.5	19.1	18.7	18.4	-2.8%	↓
Breast	29.4	26.8	27.1	25.9	25.0	-3.5%	↓
Prostate	31.3	29.0	28.6	25.7	26.3	-4.6%	↓
Oral	3.0	2.4	2.5	2.7	2.8	-0.2%	↓
Melanoma	2.8	2.5	2.7	2.8	3.0	2.5%	↑
Cervical	2.5	2.1	2.5	2.0	2.2	-3.0%	↓

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

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Table 3: All Sites Cancer Incidence Rates, by Race-Gender Group and Year Maryland, 2002-2006

Race and Gender	2002	2003	2004	2005	2006 †	APC 2002-2006
White Male	564.8	554.4	521.6	528.4	495.0	-3.1%
Black Male	581.8	613.6	539.7	533.6	478.6	-5.2%
White Female	428.3	445.9	437.5	425.0	391.3	-2.3%
Black Female	379.8	418.3	381.4	371.2	342.0	-3.2%

† 2006 Maryland incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: Maryland Cancer Registry (incidence rates)

Table 4: All Sites Cancer Mortality Rates, by Race-Gender Group and Year Maryland, 2002-2006

Race and Gender	2002	2003	2004	2005	2006	APC 2002-2006
White Male	237.9	232.4	220.6	225.2	218.8	-2.0%
Black Male	312.4	290.4	283.2	277.3	271.5	-3.2%
White Female	168.2	161.4	162.6	162.7	160.3	-0.9%
Black Female	194.4	191.4	180.9	168.4	177.1	-3.1%

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

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Table 5: Lung Cancer Incidence Rates, by Race-Gender Group and Year Maryland, 2002-2006

Race and Gender	2002	2003	2004	2005	2006 †	APC 2002-2006
White Male	82.7	83.5	83.2	81.8	76.4	-1.8%
Black Male	90.5	102.5	88.6	91.0	73.7	-5.2%
White Female	59.1	62.6	62.7	60.4	60.2	0.0%
Black Female	55.6	55.1	53.9	49.9	43.7	-5.6%

† 2006 Maryland incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: Maryland Cancer Registry (incidence rates)

Table 6: Lung Cancer Mortality Rates, by Race-Gender Group and Year Maryland, 2002-2006

Race and Gender	2002	2003	2004	2005	2006	APC 2002-2006
White Male	72.8	71.7	65.9	69.7	66.4	-2.1%
Black Male	86.3	92.7	83.8	80.6	75.1	-4.1%
White Female	45.3	45.6	44.4	46.4	44.4	-0.2%
Black Female	48.1	45.9	40.6	38.3	39.6	-5.5%

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

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Table 7: Colorectal Cancer Incidence Rates, by Race-Gender Group and Year Maryland, 2002-2006

Race and Gender	2002	2003	2004	2005	2006 †	APC 2002-2006
White Male	56.6	59.9	54.0	55.6	47.0	-4.4%
Black Male	63.6	67.2	63.1	53.6	48.5	-7.4%
White Female	42.4	44.6	39.8	38.0	34.9	-5.3%
Black Female	48.2	61.1	51.7	46.5	38.7	-6.9%

† 2006 Maryland incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: Maryland Cancer Registry (incidence rates)

Table 8: Colorectal Cancer Mortality Rates, by Race-Gender Group and Year Maryland, 2002-2006

Race and Gender	2002	2003	2004	2005	2006	APC 2002-2006
White Male	23.7	21.8	21.9	21.9	20.6	-2.7%
Black Male	33.7	29.1	31.4	30.8	27.8	-3.2%
White Female	16.9	15.0	14.7	14.1	15.4	-2.4%
Black Female	21.6	24.4	21.7	20.6	19.7	-3.5%

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

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Table 9: Female Breast Cancer Incidence Rates, by Race and Year Maryland, 2002-2006

Race	2002	2003	2004	2005	2006 †	APC 2002-2006
White	135.8	136.4	127.4	121.1	115.0	-4.4%
Black	119.0	118.6	114.0	108.7	109.7	-2.5%

† 2006 Maryland incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: Maryland Cancer Registry (incidence rates)

Table 10: Female Breast Cancer Mortality Rates, by Race and Year Maryland, 2002-2006

Race	2002	2003	2004	2005	2006	APC 2002-2006
White	27.6	24.4	25.6	25.0	23.7	-2.8%
Black	35.6	34.9	32.9	28.8	30.3	-5.0%

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

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Table 11: Prostate Cancer Incidence Rates, by Race and Year Maryland, 2002-2006

Race	2002	2003	2004	2005	2006 †	APC 2002-2006
White	168.3	150.2	132.0	131.7	137.3	-5.2%
Black	236.4	241.2	202.7	193.3	186.3	-6.7%

† 2006 Maryland incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: Maryland Cancer Registry (incidence rates)

Table 12: Prostate Cancer Mortality Rates, by Race and Year Maryland, 2002-2006

Race	2002	2003	2004	2005	2006	APC 2002-2006
White	24.0	24.7	24.1	20.9	21.7	-3.6%
Black	70.2	52.6	52.9	47.7	51.2	-7.0%

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

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Table 13: Oral Cancer Incidence Rates, by Race-Gender Group and Year Maryland, 2002-2006

Race and Gender	2002	2003	2004	2005	2006 †	APC 2002-2006
White Male	15.4	18.3	13.7	13.3	13.8	-5.2%
Black Male	15.4	19.0	12.6	14.3	12.3	-7.1%
White Female	5.8	6.1	6.3	5.4	5.6	-1.9%
Black Female	4.8	6.1	5.2	4.3	4.1	-6.4%

† 2006 Maryland incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: Maryland Cancer Registry (incidence rates)

Table 14: Oral Cancer Mortality Rates, by Race-Gender Group and Year Maryland, 2002-2006

Race and Gender	2002	2003	2004	2005	2006	APC 2002-2006
White Male	3.8	4.0	3.6	4.1	3.6	-0.8%
Black Male	6.3	4.6	4.9	7.9	6.8	7.2%
White Female	2.0	1.0	1.2	1.3	1.7	-0.6%
Black Female	**	**	**	**	**	**

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

** Mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

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Table 15: Melanoma Incidence Rates, by Gender and Year Maryland, 2002-2006

Gender	2002	2003	2004	2005	2006 †	APC 2002-2006
Male	27.3	24.1	24.1	27.9	26.0	0.5%
Female	17.8	16.0	14.9	16.8	15.3	-2.5%

† 2006 Maryland incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: Maryland Cancer Registry (incidence rates)

Table 16: Melanoma Mortality Rates, by Gender and Year Maryland, 2002-2006

Gender	2002	2003	2004	2005	2006	APC 2002-2006
Male	4.6	3.7	3.9	4.2	4.8	2.1%
Female	1.4	1.6	1.8	1.8	1.8	6.4%

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

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Table 17: Cervical Cancer Incidence Rates, by Race and Year Maryland, 2002-2006

Race	2002	2003	2004	2005	2006 †	APC 2002-2006
White	6.6	8.4	6.7	7.8	5.8	-3.3%
Black	10.4	10.7	10.1	9.1	7.1	-8.8%

† 2006 Maryland incidence rates are lower than actual due to case underreporting for Montgomery and Prince George's counties. (See Appendix C, Section A.1.)

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: Maryland Cancer Registry (incidence rates)

Table 18: Cervical Cancer Mortality Rates, by Race and Year Maryland, 2002-2006

Race	2002	2003	2004	2005	2006	APC 2002-2006
White	1.7	1.5	2.2	1.5	1.7	0.0%
Black	4.8	3.6	3.9	3.2	3.6	-6.7%

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: NCHS Compressed Mortality File in CDC WONDER (mortality rates)

Appendix J

Trends in Cancer Stage of Disease at Diagnosis in Maryland by Cancer Site and Year, 2002-2006

Appendix J

Table 1: All Cancer Sites
Distribution of Cancer Stage at Diagnosis, by Year
Maryland, 2002-2006

Stage	2002	2003	2004	2005	2006
	%	%	%	%	%
Local	43.5	43.2	42.0	42.5	42.9
Regional	19.7	20.7	19.5	20.1	20.8
Distant	16.8	18.3	19.9	20.2	20.5
Unstaged	20.1	17.8	18.5	17.3	15.8

Source: Maryland Cancer Registry

Table 2: Lung Cancer
Distribution of Cancer Stage at Diagnosis, by Year
Maryland, 2002-2006

Stage	2002	2003	2004	2005	2006
	%	%	%	%	%
Local	19.2	19.4	16.8	18.5	17.1
Regional	26.4	26.4	23.1	23.9	23.8
Distant	38.2	39.8	43.1	44.1	45.6
Unstaged	16.2	14.3	17.1	13.5	13.5

Source: Maryland Cancer Registry

Table 3: Colorectal Cancer
Distribution of Cancer Stage at Diagnosis, by Year
Maryland, 2002-2006

Stage	2002	2003	2004	2005	2006
	%	%	%	%	%
Local	34.2	31.6	35.0	37.0	35.7
Regional	35.7	37.9	29.2	31.6	33.1
Distant	15.3	17.3	19.0	17.9	17.7
Unstaged	14.8	13.2	16.8	13.5	13.5

Source: Maryland Cancer Registry

Table 4: Breast Cancer
Distribution of Cancer Stage at Diagnosis, by Year
Maryland, 2002-2006

Stage	2002	2003	2004	2005	2006
	%	%	%	%	%
Local	59.4	55.6	54.0	54.9	57.1
Regional	27.7	29.3	31.9	31.2	31.9
Distant	3.7	4.5	4.8	4.7	5.0
Unstaged	9.2	10.7	9.3	9.2	6.0

Source: Maryland Cancer Registry

Appendix J

Table 5: Prostate Cancer
Distribution of Cancer Stage at Diagnosis, by Year
Maryland, 2002-2006

Stage	2002	2003	2004	2005	2006
	%	%	%	%	%
Local	65.9	73.6	72.8	70.1	64.7
Regional	6.4	6.9	7.8	7.2	8.3
Distant	2.6	2.7	2.9	2.9	2.9
Unstaged	25.1	16.8	16.5	19.8	24.1

Source: Maryland Cancer Registry

Table 6: Oral Cancer
Distribution of Cancer Stage at Diagnosis, by Year
Maryland, 2002-2006

Stage	2002	2003	2004	2005	2006
	%	%	%	%	%
Local	36.1	31.9	28.8	28.3	28.1
Regional	43.3	47.4	42.5	44.2	44.4
Distant	6.3	5.4	12.7	15.7	17.9
Unstaged	14.4	15.3	15.9	11.8	9.6

Source: Maryland Cancer Registry

Table 7: Melanoma
Distribution of Cancer Stage at Diagnosis, by Year
Maryland, 2002-2006

Stage	2002	2003	2004	2005	2006
	%	%	%	%	%
Local	53.0	56.7	57.5	57.7	59.1
Regional	6.7	7.2	7.9	8.2	9.7
Distant	1.5	3.9	3.3	2.8	3.7
Unstaged	38.9	32.2	31.4	31.3	27.5

Source: Maryland Cancer Registry

Table 8: Cervical Cancer
Distribution of Cancer Stage at Diagnosis, by Year
Maryland, 2002-2006

Stage	2002	2003	2004	2005	2006
	%	%	%	%	%
Local	39.9	44.6	38.5	36.6	34.2
Regional	30.2	21.0	32.3	31.1	36.7
Distant	6.5	7.3	10.6	9.8	11.1
Unstaged	23.4	27.2	18.6	22.4	18.1

Source: Maryland Cancer Registry

Appendix K

2004 Maryland Incidence and Mortality Data

Appendix K
Table 1.
Number of Cancer Cases for All Cancer Sites by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	25,419	12,460	12,942	18,780	5,677	795	167
Allegany	425	222	203	404	s	<6	0
Anne Arundel	2,284	1,146	1,138	1,965	265	48	6
Baltimore City	2,863	1,438	1,425	1,245	1,562	34	22
Baltimore County	4,813	2,285	2,528	3,787	886	91	49
Calvert	339	150	187	286	47	<6	<6
Caroline	152	84	68	119	30	<6	<6
Carroll	811	400	411	775	28	<6	s
Cecil	420	208	212	393	s	<6	0
Charles	466	215	250	349	s	<6	<6
Dorchester	174	99	75	140	34	0	0
Frederick	1,116	547	569	1041	55	s	<6
Garrett	134	74	60	s	<6	0	0
Harford	1,159	615	544	1,064	82	s	<6
Howard	1,026	478	547	794	141	81	10
Kent	167	94	73	148	s	0	<6
Montgomery	3,804	1,791	2,011	2,958	467	356	23
Prince George's	2,698	1,310	1,383	988	1,579	109	22
Queen Anne's	210	108	102	187	s	<6	0
Saint Mary's	343	177	163	294	43	<6	<6
Somerset	140	77	63	100	s	<6	0
Talbot	248	109	139	202	s	<6	<6
Washington	714	359	355	686	21	s	<6
Wicomico	416	220	196	326	78	s	<6
Worcester	309	153	156	266	38	<6	<6
Unknown	188	101	84	s	45	<6	7

Total includes cases reported as transexual, hermaphrodite, unknown gender, and unknown race

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix K
Table 2.
All Cancer Sites Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	462.6	524.4	421.5	469.8	444.4	344.9
Allegany	452.6	541.2	386.9	441.2	1,033.5	**
Anne Arundel	470.3	523.6	430.8	468.7	498.9	381.1
Baltimore City	443.1	545.6	379.0	502.9	401.9	326.3
Baltimore County	543.7	599.0	508.8	516.2	733.5	359.1
Calvert	448.2	463.7	446.7	442.9	462.2	**
Caroline	460.7	562.9	378.4	421.8	639.7	**
Carroll	502.8	572.6	465.3	500.0	623.5	**
Cecil	461.5	496.4	437.1	456.3	603.8	**
Charles	433.2	472.7	407.2	446.9	396.4	**
Dorchester	427.3	564.3	333.3	443.5	387.6	0.0
Frederick	581.9	673.9	532.8	589.3	485.9	405.0
Garrett	375.4	441.5	317.2	367.0	**	0.0
Harford	516.6	621.2	440.8	524.5	467.4	**
Howard	446.8	479.4	431.2	448.7	423.0	403.5
Kent	636.0	773.6	531.7	671.7	412.0	0.0
Montgomery	406.6	445.3	382.6	413.4	414.4	338.5
Prince George's	386.3	440.7	347.8	380.0	386.6	305.4
Queen Anne's	424.9	453.1	400.3	419.3	457.3	**
Saint Mary's	417.8	479.3	373.1	427.2	374.4	**
Somerset	521.5	626.2	435.0	520.9	541.7	**
Talbot	469.2	463.6	468.9	436.8	670.8	**
Washington	471.5	537.4	426.0	475.4	451.6	**
Wicomico	451.7	555.2	389.5	450.4	426.5	**
Worcester	437.1	456.7	425.1	432.2	435.9	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix K
Table 3.
Number of Deaths for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	10,168	5,088	5,080	7,429	2,545	194
Allegany	184	105	79	180	<6	<6
Anne Arundel	926	438	488	785	129	12
Baltimore City	1,521	771	750	576	938	7
Baltimore County	1,711	861	850	1,454	230	27
Calvert	142	80	62	114	s	<6
Caroline	80	40	40	65	s	<6
Carroll	291	146	145	278	s	<6
Cecil	184	101	83	176	s	<6
Charles	225	117	108	169	s	<6
Dorchester	66	30	36	49	s	<6
Frederick	367	195	172	343	s	<6
Garrett	67	34	33	66	<6	<6
Harford	418	229	189	377	s	<6
Howard	283	129	154	233	35	15
Kent	67	32	35	50	s	<6
Montgomery	1,283	601	682	1,059	144	80
Prince George's	1,229	601	628	477	715	37
Queen Anne's	93	53	40	81	s	<6
Saint Mary's	179	89	90	154	s	<6
Somerset	70	39	31	51	s	<6
Talbot	96	49	47	86	s	<6
Washington	330	170	160	315	s	<6
Wicomico	199	98	101	154	s	<6
Worcester	157	80	77	137	s	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix K
Table 4.
All Cancer Sites Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	189.8	229.2	164.4	185.6	218.0	91.9
Allegany	182.4	255.9	134.4	183.2	**	**
Anne Arundel	202.6	222.0	191.6	198.2	260.9	**
Baltimore City	233.5	300.7	191.8	218.1	246.6	**
Baltimore County	187.8	230.9	160.3	186.2	205.5	115.7
Calvert	206.6	278.7	159.2	194.2	276.8	**
Caroline	237.4	271.4	213.1	226.1	**	**
Carroll	187.0	229.3	162.6	184.4	**	**
Cecil	211.3	255.8	176.3	212.7	**	**
Charles	234.1	309.6	190.4	238.8	237.2	**
Dorchester	157.6	166.6	157.9	151.6	190.3	**
Frederick	201.7	255.0	163.1	203.3	203.1	**
Garrett	180.8	206.4	161.7	179.2	**	**
Harford	197.0	250.4	158.8	196.2	239.9	**
Howard	139.3	159.4	132.9	147.4	125.3	**
Kent	237.5	264.0	220.0	208.1	423.8	**
Montgomery	140.5	161.4	127.7	146.8	148.6	83.2
Prince George's	197.6	241.3	172.1	185.5	209.5	129.1
Queen Anne's	189.8	222.9	158.0	183.8	**	**
Saint Mary's	232.7	254.8	216.7	240.4	225.0	**
Somerset	257.7	332.7	215.0	254.5	274.1	**
Talbot	172.1	203.8	145.2	175.5	**	**
Washington	215.2	262.3	183.0	213.7	**	**
Wicomico	216.0	262.1	187.8	209.3	247.5	**
Worcester	210.1	232.4	189.4	208.0	224.9	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix K
Table 5.
Number of Lung and Bronchus Cancer Cases by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	3,711	1,903	1,808	2,840	806	s	<6
Allegany	72	44	28	s	<6	0	0
Anne Arundel	325	162	163	280	38	7	0
Baltimore City	517	278	239	s	287	<6	0
Baltimore County	795	363	432	649	137	9	0
Calvert	48	25	23	42	6	0	0
Caroline	33	19	14	27	6	0	0
Carroll	111	63	48	s	<6	0	0
Cecil	74	39	35	s	<6	0	0
Charles	59	31	28	48	11	0	0
Dorchester	27	15	12	21	6	0	0
Frederick	146	87	59	s	<6	0	0
Garrett	20	11	9	20	0	0	0
Harford	202	117	85	186	s	<6	0
Howard	88	47	41	72	10	6	0
Kent	26	19	7	s	<6	0	0
Montgomery	396	165	231	325	41	s	<6
Prince George's	339	184	155	155	175	s	<6
Queen Anne's	38	19	19	29	9	0	0
Saint Mary's	61	37	24	52	9	0	0
Somerset	34	23	11	28	6	0	0
Talbot	32	9	23	s	<6	0	0
Washington	108	65	43	s	<6	0	0
Wicomico	87	47	40	71	s	<6	0
Worcester	57	26	31	48	s	<6	0
Unknown	16	8	8	s	<6	0	0

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix K
Table 6.
Lung and Bronchus Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	69.0	82.7	59.4	71.1	67.7	31.1
Allegany	74.4	105.8	48.9	72.8	**	0.0
Anne Arundel	69.6	78.1	63.3	69.0	74.5	**
Baltimore City	80.0	106.0	62.4	91.4	73.9	**
Baltimore County	88.3	94.7	84.8	85.1	126.5	**
Calvert	68.0	90.0	56.0	69.4	**	0.0
Caroline	100.0	130.1	**	95.5	**	0.0
Carroll	72.0	95.7	56.3	73.2	**	0.0
Cecil	82.7	93.3	73.5	83.9	**	0.0
Charles	60.2	74.3	50.4	64.7	**	0.0
Dorchester	67.5	**	**	67.4	**	0.0
Frederick	80.4	116.3	57.8	84.0	**	0.0
Garrett	54.7	**	**	55.0	0.0	0.0
Harford	90.6	119.7	68.7	91.8	**	**
Howard	42.9	53.9	36.9	45.2	**	**
Kent	95.9	148.1	**	94.0	**	0.0
Montgomery	43.6	43.0	44.0	45.3	44.1	33.6
Prince George's	52.6	70.0	41.4	60.1	46.8	**
Queen Anne's	81.2	86.8	76.3	70.7	**	0.0
Saint Mary's	79.3	99.8	60.6	80.3	**	0.0
Somerset	124.2	196.0	**	136.6	**	0.0
Talbot	55.7	**	65.2	54.3	**	0.0
Washington	71.4	99.1	51.1	72.8	**	0.0
Wicomico	93.6	116.9	76.9	97.0	**	**
Worcester	72.9	71.5	74.4	71.0	**	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix K
Table 7.
Number of Lung and Bronchus Cancer Deaths by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2,845	1,547	1,298	2,134	676	35
Allegany	59	38	21	s	<6	<6
Anne Arundel	278	142	136	246	s	<6
Baltimore City	465	253	212	s	278	<6
Baltimore County	485	262	223	425	s	<6
Calvert	43	28	15	36	s	<6
Caroline	29	17	12	26	<6	<6
Carroll	81	46	35	79	<6	<6
Cecil	56	29	27	54	<6	<6
Charles	74	43	31	57	s	<6
Dorchester	23	11	12	20	<6	<6
Frederick	79	48	31	75	<6	<6
Garrett	17	8	9	s	<6	<6
Harford	120	75	45	105	s	<6
Howard	67	33	34	52	s	<6
Kent	22	12	10	16	s	<6
Montgomery	269	122	147	229	26	14
Prince George's	331	191	140	151	169	11
Queen Anne's	26	16	10	21	<6	<6
Saint Mary's	53	28	25	46	s	<6
Somerset	25	13	12	21	<6	<6
Talbot	30	15	15	s	<6	<6
Washington	98	56	42	93	<6	<6
Wicomico	72	37	35	55	s	<6
Worcester	43	24	19	34	s	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix K
Table 8.
Lung and Bronchus Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	53.0	67.8	42.5	53.3	57.4	16.0
Allegany	58.6	90.0	36.2	60.0	**	**
Anne Arundel	59.7	67.4	53.9	60.8	61.8	**
Baltimore City	71.4	97.1	54.6	72.2	72.0	**
Baltimore County	53.4	69.0	42.3	54.6	49.1	**
Calvert	63.0	100.2	**	61.0	**	**
Caroline	85.6	108.3	**	90.1	**	**
Carroll	51.8	68.8	40.8	52.0	**	**
Cecil	64.1	74.2	57.2	64.6	**	**
Charles	79.1	116.3	57.2	82.0	77.4	**
Dorchester	55.2	**	**	62.3	**	**
Frederick	43.9	60.4	29.2	44.9	**	**
Garrett	45.1	**	**	45.4	**	**
Harford	55.6	79.3	38.0	53.6	**	**
Howard	34.1	37.3	31.1	34.1	**	**
Kent	77.5	**	**	65.6	**	**
Montgomery	29.9	32.3	28.3	32.0	27.7	**
Prince George's	52.4	71.5	39.0	58.2	48.4	**
Queen Anne's	53.2	70.3	**	47.0	**	**
Saint Mary's	67.1	79.7	59.3	69.7	**	**
Somerset	91.0	**	**	103.4	**	**
Talbot	54.5	**	**	62.5	**	**
Washington	64.3	86.5	50.6	63.5	**	**
Wicomico	78.1	98.5	65.3	74.9	91.7	**
Worcester	55.7	68.3	44.6	48.0	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix K
Table 9.
Number of Colorectal Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	2,630	1,285	1,342	1,853	673	86	18
Allegany	62	31	31	56	6	0	0
Anne Arundel	218	117	101	184	27	7	0
Baltimore City	314	142	172	118	190	<6	<6
Baltimore County	492	232	260	379	100	s	<6
Calvert	34	11	22	28	6	0	0
Caroline	19	s	<6	s	<6	0	0
Carroll	87	46	41	80	<6	<6	<6
Cecil	52	28	24	47	<6	<6	0
Charles	63	30	33	42	18	<6	<6
Dorchester	28	21	7	s	<6	0	0
Frederick	106	57	49	95	11	0	0
Garrett	23	15	8	23	0	0	0
Harford	107	60	47	97	s	0	<6
Howard	109	46	63	73	25	s	<6
Kent	18	11	7	18	0	0	0
Montgomery	348	155	191	273	41	s	<6
Prince George's	297	136	161	99	180	s	<6
Queen Anne's	28	15	13	25	<6	<6	0
Saint Mary's	39	20	19	s	<6	0	0
Somerset	14	7	7	8	6	0	0
Talbot	26	12	14	20	6	0	0
Washington	63	28	35	59	<6	<6	0
Wicomico	45	28	17	33	s	<6	0
Worcester	27	19	8	s	<6	0	0
Unknown	11	<6	s	<6	6	0	<6

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix K
Table 10.
Colorectal Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	48.6	55.7	43.4	46.1	55.8	40.9
Allegany	64.7	78.0	55.7	60.3	**	0.0
Anne Arundel	46.6	56.9	39.1	44.7	62.3	**
Baltimore City	48.3	54.5	44.6	45.4	48.8	**
Baltimore County	54.7	61.7	50.2	49.5	88.5	**
Calvert	49.7	**	57.2	48.9	**	0.0
Caroline	56.2	**	**	**	**	0.0
Carroll	55.5	64.8	46.8	53.3	**	**
Cecil	60.8	69.2	52.3	58.0	**	**
Charles	69.2	78.4	61.5	62.0	82.3	**
Dorchester	66.6	120.8	**	68.4	**	0.0
Frederick	57.5	74.6	46.5	55.7	**	0.0
Garrett	63.2	**	**	63.6	0.0	0.0
Harford	50.6	64.6	39.6	51.1	**	0.0
Howard	50.9	45.1	53.7	45.2	81.7	**
Kent	67.5	**	**	79.5	0.0	0.0
Montgomery	37.3	39.1	35.2	37.1	41.0	32.2
Prince George's	46.4	48.4	44.7	38.2	51.8	**
Queen Anne's	57.0	**	**	56.2	**	**
Saint Mary's	48.5	59.8	42.8	50.3	**	0.0
Somerset	**	**	**	**	**	0.0
Talbot	49.3	**	**	41.6	**	0.0
Washington	41.3	42.8	40.5	40.2	**	**
Wicomico	48.8	75.6	33.4	44.3	**	**
Worcester	38.7	56.4	**	36.0	**	0.0

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix K
Table 11.
Number of Colorectal Cancer Deaths by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	1,013	509	504	718	276	19
Allegany	19	12	7	18	<6	<6
Anne Arundel	98	59	39	85	s	<6
Baltimore City	157	78	79	s	99	<6
Baltimore County	161	79	82	132	s	<6
Calvert	17	10	7	14	<6	<6
Caroline	9	s	<6	8	<6	<6
Carroll	37	17	20	34	<6	<6
Cecil	21	11	10	s	<6	<6
Charles	19	10	9	15	<6	<6
Dorchester	9	s	<6	6	<6	<6
Frederick	44	22	22	39	<6	<6
Garrett	<6	<6	<6	<6	<6	<6
Harford	33	16	17	29	<6	<6
Howard	26	15	11	20	<6	<6
Kent	s	<6	<6	<6	<6	<6
Montgomery	120	53	67	99	11	10
Prince George's	123	55	68	s	78	<6
Queen Anne's	9	<6	<6	8	<6	<6
Saint Mary's	19	10	9	15	<6	<6
Somerset	7	<6	<6	6	<6	<6
Talbot	7	<6	<6	<6	<6	<6
Washington	35	17	18	34	<6	<6
Wicomico	20	8	12	13	s	<6
Worcester	15	6	9	12	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix K
Table 12.
Colorectal Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	19.1	23.2	16.1	17.9	24.9	8.4
Allegany	19.3	**	**	19.0	**	**
Anne Arundel	22.6	32.8	15.8	22.3	**	**
Baltimore City	24.2	31.9	20.1	21.8	26.7	**
Baltimore County	17.5	21.4	14.8	16.5	23.7	**
Calvert	25.6	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	24.1	25.6	22.7	22.9	**	**
Cecil	24.2	**	**	25.5	**	**
Charles	18.8	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	23.7	28.1	20.3	22.8	**	**
Garrett	**	**	**	**	**	**
Harford	15.7	16.0	14.6	15.3	**	**
Howard	13.2	**	**	13.3	**	**
Kent	**	**	**	**	**	**
Montgomery	13.1	14.4	11.9	13.5	**	**
Prince George's	20.7	22.5	19.6	15.9	25.8	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	26.6	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	22.7	25.2	20.0	22.9	**	**
Wicomico	21.5	**	**	**	**	**
Worcester	**	**	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix K
Table 13.
Number of Female Breast Cancer Cases by Jurisdiction and Race, Maryland, 2004

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	3,850	2,767	915	129	39
Allegany	43	s	<6	0	0
Anne Arundel	364	313	42	9	0
Baltimore City	371	161	192	10	8
Baltimore County	702	514	149	17	22
Calvert	48	41	7	0	0
Caroline	19	s	0	<6	0
Carroll	119	110	<6	0	<6
Cecil	59	s	0	<6	0
Charles	75	51	s	0	<6
Dorchester	20	s	<6	0	0
Frederick	186	172	8	6	0
Garrett	19	19	0	0	0
Harford	149	139	s	<6	0
Howard	184	146	25	13	0
Kent	21	s	<6	0	0
Montgomery	630	493	84	s	<6
Prince George's	477	149	315	s	<6
Queen Anne's	24	21	<6	<6	0
Saint Mary's	47	40	s	<6	0
Somerset	16	10	6	0	0
Talbot	40	s	<6	0	0
Washington	103	97	<6	<6	0
Wicomico	51	41	7	<6	<6
Worcester	58	49	9	0	0
Unknown	25	15	10	0	0

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix K
Table 14.
Female Breast Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2004

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	124.2	127.4	114.0	90.2
Allegany	89.9	89.2	**	0.0
Anne Arundel	135.3	136.9	132.3	**
Baltimore City	99.8	124.2	82.4	**
Baltimore County	144.5	130.1	190.2	110.1
Calvert	110.2	110.7	**	0.0
Caroline	112.4	117.3	0.0	**
Carroll	131.7	126.6	**	0.0
Cecil	116.3	120.7	0.0	**
Charles	110.4	106.5	117.7	0.0
Dorchester	92.4	92.3	**	0.0
Frederick	167.9	169.2	**	**
Garrett	95.1	95.6	0.0	0.0
Harford	118.5	123.1	**	**
Howard	133.6	139.2	113.0	**
Kent	154.2	156.7	**	0.0
Montgomery	118.7	125.2	114.4	78.3
Prince George's	112.4	110.5	115.7	**
Queen Anne's	95.6	95.4	**	**
Saint Mary's	103.6	107.3	**	**
Somerset	128.4	**	**	0.0
Talbot	155.4	155.8	**	0.0
Washington	122.4	119.9	**	**
Wicomico	105.2	110.5	**	**
Worcester	160.1	157.4	**	0.0

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix K
Table 15.
Number of Female Breast Cancer Deaths by Jurisdiction and Race, Maryland, 2004

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	847	583	251	13
Allegany	19	18	<6	<6
Anne Arundel	75	61	s	<6
Baltimore City	128	s	88	<6
Baltimore County	136	114	s	<6
Calvert	12	8	<6	<6
Caroline	8	7	<6	<6
Carroll	25	24	<6	<6
Cecil	12	11	<6	<6
Charles	21	17	<6	<6
Dorchester	7	<6	<6	<6
Frederick	32	29	<6	<6
Garrett	<6	<6	<6	<6
Harford	37	36	<6	<6
Howard	25	24	<6	<6
Kent	<6	<6	<6	<6
Montgomery	110	90	s	<6
Prince George's	124	s	86	<6
Queen Anne's	6	<6	<6	<6
Saint Mary's	9	8	<6	<6
Somerset	<6	<6	<6	<6
Talbot	6	s	<6	<6
Washington	20	s	<6	<6
Wicomico	9	<6	<6	<6
Worcester	11	8	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix K
Table 16.
Female Breast Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2004

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	27.1	25.6	32.9	**
Allegany	31.4	30.9	**	**
Anne Arundel	28.5	27.0	**	**
Baltimore City	33.2	26.0	37.7	**
Baltimore County	26.2	26.2	26.9	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	27.4	27.1	**	**
Cecil	**	**	**	**
Charles	35.5	42.1	**	**
Dorchester	**	**	**	**
Frederick	30.1	29.2	**	**
Garrett	**	**	**	**
Harford	29.8	32.1	**	**
Howard	20.5	25.6	**	**
Kent	**	**	**	**
Montgomery	20.3	21.7	21.0	**
Prince George's	31.4	23.8	36.0	**
Queen Anne's	**	**	**	**
Saint Mary's	**	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	24.5	25.4	**	**
Wicomico	**	**	**	**
Worcester	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix K
Table 17.
Number of Prostate Cancer Cases by Jurisdiction and Race, Maryland, 2004

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	3,579	2,381	1,051	106	41
Allegany	51	48	<6	<6	0
Anne Arundel	342	284	49	s	<6
Baltimore City	396	131	256	<6	<6
Baltimore County	580	427	137	s	<6
Calvert	37	26	s	<6	<6
Caroline	20	13	7	0	0
Carroll	95	s	<6	0	0
Cecil	52	s	<6	0	0
Charles	56	35	s	0	<6
Dorchester	22	16	6	0	0
Frederick	162	150	s	<6	0
Garrett	16	s	<6	0	0
Harford	164	141	s	<6	0
Howard	140	98	30	s	<6
Kent	25	21	<6	0	<6
Montgomery	606	435	117	s	<6
Prince George's	456	120	311	13	12
Queen Anne's	29	s	<6	0	0
Saint Mary's	40	30	7	<6	<6
Somerset	14	s	<6	0	0
Talbot	34	23	s	0	<6
Washington	101	96	<6	<6	0
Wicomico	52	37	15	0	0
Worcester	38	30	8	0	0
Unknown	51	33	s	0	<6

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix K
Table 18.
Prostate Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 2004

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	148.0	132.0	202.7	112.9
Allegany	121.0	117.3	**	**
Anne Arundel	150.6	142.4	220.1	**
Baltimore City	151.7	122.8	170.6	**
Baltimore County	150.0	131.1	278.5	**
Calvert	114.0	96.1	**	**
Caroline	128.7	**	**	0.0
Carroll	132.5	129.9	**	0.0
Cecil	118.6	113.5	**	0.0
Charles	115.3	97.5	177.7	0.0
Dorchester	117.6	106.9	**	0.0
Frederick	200.1	200.5	**	**
Garrett	95.0	**	**	0.0
Harford	161.6	151.8	252.5	**
Howard	128.9	113.6	221.7	**
Kent	203.9	199.9	**	0.0
Montgomery	149.0	138.3	249.5	116.1
Prince George's	147.0	99.7	181.8	**
Queen Anne's	119.6	116.9	**	0.0
Saint Mary's	108.2	91.6	**	**
Somerset	**	**	**	0.0
Talbot	138.9	108.8	**	0.0
Washington	151.8	150.4	**	**
Wicomico	126.2	113.3	**	0.0
Worcester	110.6	101.7	**	0.0

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix K
Table 19.
Number of Prostate Cancer Deaths by Jurisdiction and Race, Maryland, 2004

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	560	368	186	6
Allegany	13	s	<6	<6
Anne Arundel	46	38	s	<6
Baltimore City	77	s	55	<6
Baltimore County	102	77	s	<6
Calvert	13	s	<6	<6
Caroline	<6	<6	<6	<6
Carroll	11	10	<6	<6
Cecil	6	s	<6	<6
Charles	16	8	s	<6
Dorchester	<6	<6	<6	<6
Frederick	25	21	<6	<6
Garrett	<6	<6	<6	<6
Harford	23	19	<6	<6
Howard	11	10	<6	<6
Kent	<6	<6	<6	<6
Montgomery	76	57	s	<6
Prince George's	71	s	49	<6
Queen Anne's	<6	<6	<6	<6
Saint Mary's	6	<6	<6	<6
Somerset	<6	<6	<6	<6
Talbot	6	<6	<6	<6
Washington	16	15	<6	<6
Wicomico	9	<6	6	<6
Worcester	10	s	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix K
Table 20.
Prostate Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2004

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	28.6	24.1	52.9	**
Allegany	**	**	**	**
Anne Arundel	29.1	26.1	**	**
Baltimore City	32.7	19.9	44.2	**
Baltimore County	28.7	24.4	70.1	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	**	**	**	**
Cecil	**	**	**	**
Charles	60.2	**	**	**
Dorchester	**	**	**	**
Frederick	40.2	35.5	**	**
Garrett	**	**	**	**
Harford	30.7	28.3	**	**
Howard	**	**	**	**
Kent	**	**	**	**
Montgomery	22.4	20.4	68.8	**
Prince George's	35.5	20.8	51.9	**
Queen Anne's	**	**	**	**
Saint Mary's	**	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	25.3	**	**	**
Wicomico	**	**	**	**
Worcester	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix K
Table 21.
Number of Oral Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	534	350	184	396	113	s	<6
Allegany	12	s	<6	s	<6	0	0
Anne Arundel	59	42	17	54	<6	<6	0
Baltimore City	62	46	16	23	39	0	0
Baltimore County	70	42	28	55	11	<6	<6
Calvert	9	<6	<6	9	0	0	0
Caroline	<6	<6	<6	<6	0	0	0
Carroll	12	s	<6	12	0	0	0
Cecil	9	s	<6	s	<6	0	0
Charles	14	s	<6	s	<6	0	0
Dorchester	<6	<6	0	<6	0	0	0
Frederick	s	<6	<6	s	0	<6	0
Garrett	<6	<6	<6	<6	<6	0	0
Harford	24	14	10	24	0	0	0
Howard	22	15	7	16	<6	<6	0
Kent	9	s	<6	s	<6	0	0
Montgomery	79	45	34	62	<6	11	<6
Prince George's	73	45	28	31	42	0	0
Queen Anne's	<6	0	<6	<6	0	0	0
Saint Mary's	10	s	<6	s	<6	0	0
Somerset	<6	<6	<6	<6	<6	0	0
Talbot	8	<6	s	s	<6	0	0
Washington	16	s	<6	16	0	0	0
Wicomico	10	s	<6	s	<6	0	0
Worcester	6	<6	<6	6	0	0	0
Unknown	7	<6	<6	<6	<6	0	<6

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix K
Table 22.
Oral Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	9.4	13.5	6.0	9.7	8.3	8.0
Allegany	**	**	**	**	**	0.0
Anne Arundel	10.9	16.1	6.1	11.7	**	**
Baltimore City	9.4	16.1	4.2	9.2	9.7	0.0
Baltimore County	8.0	10.9	5.7	7.8	**	**
Calvert	**	**	**	**	0.0	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	**	**	**	**	0.0	0.0
Cecil	**	**	**	**	**	0.0
Charles	**	**	**	**	**	0.0
Dorchester	**	**	0.0	**	0.0	0.0
Frederick	**	**	**	**	0.0	**
Garrett	**	**	**	**	**	0.0
Harford	9.9	**	**	11.1	0.0	0.0
Howard	10.3	**	**	9.6	**	**
Kent	**	**	**	**	**	0.0
Montgomery	8.0	10.2	6.3	8.3	**	**
Prince George's	9.9	13.2	7.1	11.6	9.8	0.0
Queen Anne's	**	0.0	**	**	0.0	0.0
Saint Mary's	**	**	**	**	**	0.0
Somerset	**	**	**	**	**	0.0
Talbot	**	**	**	**	**	0.0
Washington	10.9	**	**	11.4	0.0	0.0
Wicomico	**	**	**	**	**	0.0
Worcester	**	**	**	**	0.0	0.0

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix K
Table 23.
Number of Oral Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	138	98	40	92	s	<6
Allegany	<6	<6	<6	<6	<6	<6
Anne Arundel	17	9	8	16	<6	<6
Baltimore City	35	27	8	s	27	<6
Baltimore County	17	s	<6	14	<6	<6
Calvert	<6	<6	<6	<6	<6	<6
Caroline	<6	<6	<6	<6	<6	<6
Carroll	<6	<6	<6	<6	<6	<6
Cecil	<6	<6	<6	<6	<6	<6
Charles	<6	<6	<6	<6	<6	<6
Dorchester	<6	<6	<6	<6	<6	<6
Frederick	6	<6	<6	s	<6	<6
Garrett	<6	<6	<6	<6	<6	<6
Harford	<6	<6	<6	<6	<6	<6
Howard	<6	<6	<6	<6	<6	<6
Kent	<6	<6	<6	<6	<6	<6
Montgomery	13	7	6	12	<6	<6
Prince George's	13	s	<6	7	s	<6
Queen Anne's	<6	<6	<6	<6	<6	<6
Saint Mary's	<6	<6	<6	<6	<6	<6
Somerset	<6	<6	<6	<6	<6	<6
Talbot	<6	<6	<6	<6	<6	<6
Washington	<6	<6	<6	<6	<6	<6
Wicomico	<6	<6	<6	<6	<6	<6
Worcester	<6	<6	<6	<6	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix K
Table 24.
Oral Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.5	4.0	1.3	2.3	3.0	**
Allegany	**	**	**	**	**	**
Anne Arundel	3.7	**	**	4.0	**	**
Baltimore City	5.3	9.1	**	**	6.6	**
Baltimore County	2.0	**	**	**	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	**	**	**	**	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	**	**	**	**	**	**
Garrett	**	**	**	**	**	**
Harford	**	**	**	**	**	**
Howard	**	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	**	**	**	**	**	**
Prince George's	**	**	**	**	**	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	**	**	**	**	**	**
Wicomico	**	**	**	**	**	**
Worcester	**	**	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix K
Table 25.
Number of Melanoma Cases
by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	1,044	592	451	1,000	11	7	26
Allegany	11	s	<6	11	0	0	0
Anne Arundel	123	71	52	119	<6	0	<6
Baltimore City	57	33	24	s	0	0	<6
Baltimore County	175	93	82	164	<6	<6	<6
Calvert	21	10	11	s	0	0	<6
Caroline	s	s	<6	s	0	0	<6
Carroll	42	23	19	s	0	0	<6
Cecil	20	12	8	20	0	0	0
Charles	14	8	6	s	0	0	<6
Dorchester	6	<6	<6	6	0	0	0
Frederick	50	27	23	s	0	0	<6
Garrett	<6	<6	<6	<6	0	0	0
Harford	72	42	30	72	0	0	0
Howard	68	33	34	65	0	<6	<6
Kent	15	9	6	15	0	0	0
Montgomery	177	104	73	163	<6	<6	8
Prince George's	48	30	18	45	<6	0	<6
Queen Anne's	16	8	8	16	0	0	0
Saint Mary's	8	s	<6	8	0	0	0
Somerset	6	<6	<6	6	0	0	0
Talbot	12	s	<6	12	0	0	0
Washington	33	11	22	s	0	0	<6
Wicomico	25	15	10	25	0	0	0
Worcester	21	15	6	s	0	0	<6
Unknown	13	6	7	s	0	0	<6

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix K
Table 26.
Melanoma Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	18.7	24.1	14.9	25.4	**	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	24.9	32.7	19.3	28.1	**	0.0
Baltimore City	8.7	12.6	6.7	23.0	0.0	0.0
Baltimore County	20.6	23.9	18.1	24.8	**	**
Calvert	28.1	**	**	31.4	0.0	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	24.4	30.4	20.2	24.9	0.0	0.0
Cecil	22.1	**	**	23.4	0.0	0.0
Charles	**	**	**	**	0.0	0.0
Dorchester	**	**	**	**	0.0	0.0
Frederick	24.4	30.5	20.7	26.2	0.0	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	31.2	40.0	24.5	34.8	0.0	0.0
Howard	25.4	27.1	24.1	31.9	0.0	**
Kent	**	**	**	**	0.0	0.0
Montgomery	18.7	25.0	14.3	23.5	**	**
Prince George's	6.4	9.3	4.2	17.1	**	0.0
Queen Anne's	34.4	**	**	38.3	0.0	0.0
Saint Mary's	**	**	**	**	0.0	0.0
Somerset	**	**	**	**	0.0	0.0
Talbot	**	**	**	**	0.0	0.0
Washington	22.8	**	32.0	24.5	0.0	0.0
Wicomico	27.4	**	**	35.9	0.0	0.0
Worcester	30.8	**	**	33.7	0.0	0.0

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix K
Table 27.
Number of Melanoma Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	145	89	56	143	<6	<6
Allegany	<6	<6	<6	<6	<6	<6
Anne Arundel	13	6	7	s	<6	<6
Baltimore City	9	s	<6	s	<6	<6
Baltimore County	30	20	10	s	<6	<6
Calvert	<6	<6	<6	<6	<6	<6
Caroline	<6	<6	<6	<6	<6	<6
Carroll	7	<6	<6	s	<6	<6
Cecil	<6	<6	<6	<6	<6	<6
Charles	7	<6	<6	s	<6	<6
Dorchester	<6	<6	<6	<6	<6	<6
Frederick	8	s	<6	s	<6	<6
Garrett	<6	<6	<6	<6	<6	<6
Harford	<6	<6	<6	<6	<6	<6
Howard	<6	<6	<6	<6	<6	<6
Kent	<6	<6	<6	<6	<6	<6
Montgomery	21	11	10	20	<6	<6
Prince George's	10	<6	<6	9	<6	<6
Queen Anne's	<6	<6	<6	<6	<6	<6
Saint Mary's	6	<6	<6	s	<6	<6
Somerset	<6	<6	<6	<6	<6	<6
Talbot	<6	<6	<6	<6	<6	<6
Washington	7	<6	<6	s	<6	<6
Wicomico	7	<6	<6	s	<6	<6
Worcester	<6	<6	<6	<6	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix K
Table 28.
Melanoma Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2004

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.7	3.9	1.8	3.5	**	**
Allegany	**	**	**	**	**	**
Anne Arundel	**	**	**	**	**	**
Baltimore City	**	**	**	**	**	**
Baltimore County	3.3	5.1	**	4.0	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	**	**	**	**	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	**	**	**	**	**	**
Garrett	**	**	**	**	**	**
Harford	**	**	**	**	**	**
Howard	**	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	2.2	**	**	2.8	**	**
Prince George's	**	**	**	**	**	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	**	**	**	**	**	**
Wicomico	**	**	**	**	**	**
Worcester	**	**	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix K
Table 29.
Number of Cervical Cancer Cases by Jurisdiction and Race, Maryland, 2004

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	226	133	83	s	<6
Allegany	<6	<6	0	0	0
Anne Arundel	15	12	<6	<6	0
Baltimore City	39	11	28	0	0
Baltimore County	36	25	s	<6	0
Calvert	<6	<6	<6	0	0
Caroline	<6	<6	0	0	0
Carroll	11	11	0	0	0
Cecil	<6	<6	<6	0	0
Charles	6	<6	<6	0	0
Dorchester	0	0	0	0	0
Frederick	10	s	<6	0	0
Garrett	<6	<6	0	0	0
Harford	7	7	0	0	0
Howard	10	6	<6	<6	0
Kent	<6	<6	0	0	0
Montgomery	35	19	10	<6	<6
Prince George's	27	8	19	0	0
Queen Anne's	<6	<6	0	0	0
Saint Mary's	<6	<6	<6	0	0
Somerset	<6	0	<6	0	0
Talbot	0	0	0	0	0
Washington	<6	<6	<6	0	0
Wicomico	<6	<6	<6	0	0
Worcester	<6	<6	0	0	0
Unknown	<6	0	<6	0	0

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix K
Table 30.
Cervical Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2004

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	7.5	6.7	10.1	**
Allegany	**	**	0.0	0.0
Anne Arundel	**	**	**	**
Baltimore City	11.0	**	12.3	0.0
Baltimore County	8.4	8.4	**	**
Calvert	**	**	**	0.0
Caroline	**	**	0.0	0.0
Carroll	**	**	0.0	0.0
Cecil	**	**	**	0.0
Charles	**	**	**	0.0
Dorchester	0.0	0.0	0.0	0.0
Frederick	**	**	**	0.0
Garrett	**	**	0.0	0.0
Harford	**	**	0.0	0.0
Howard	**	**	**	**
Kent	**	**	0.0	0.0
Montgomery	6.9	5.1	**	**
Prince George's	6.4	**	7.9	0.0
Queen Anne's	**	**	0.0	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	0.0	**	0.0
Talbot	0.0	0.0	0.0	0.0
Washington	**	**	**	0.0
Wicomico	**	**	**	0.0
Worcester	**	**	0.0	0.0

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix K
Table 31.
Number of Cervical Cancer Deaths by Jurisdiction and Race, Maryland, 2004

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	77	46	s	<6
Allegany	<6	<6	<6	<6
Anne Arundel	7	<6	<6	<6
Baltimore City	10	<6	9	<6
Baltimore County	11	8	<6	<6
Calvert	<6	<6	<6	<6
Caroline	<6	<6	<6	<6
Carroll	<6	<6	<6	<6
Cecil	<6	<6	<6	<6
Charles	<6	<6	<6	<6
Dorchester	<6	<6	<6	<6
Frederick	<6	<6	<6	<6
Garrett	<6	<6	<6	<6
Harford	6	s	<6	<6
Howard	<6	<6	<6	<6
Kent	<6	<6	<6	<6
Montgomery	12	9	<6	<6
Prince George's	10	<6	8	<6
Queen Anne's	<6	<6	<6	<6
Saint Mary's	<6	<6	<6	<6
Somerset	<6	<6	<6	<6
Talbot	<6	<6	<6	<6
Washington	<6	<6	<6	<6
Wicomico	<6	<6	<6	<6
Worcester	<6	<6	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix K
Table 32.
Cervical Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2004

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2.5	2.2	3.9	**
Allegany	**	**	**	**
Anne Arundel	**	**	**	**
Baltimore City	**	**	**	**
Baltimore County	**	**	**	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	**	**	**	**
Cecil	**	**	**	**
Charles	**	**	**	**
Dorchester	**	**	**	**
Frederick	**	**	**	**
Garrett	**	**	**	**
Harford	**	**	**	**
Howard	**	**	**	**
Kent	**	**	**	**
Montgomery	**	**	**	**
Prince George's	**	**	**	**
Queen Anne's	**	**	**	**
Saint Mary's	**	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	**	**	**	**
Wicomico	**	**	**	**
Worcester	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L

2005 Maryland Incidence and Mortality Data

Appendix L
Table 1.
Number of Cancer Cases for All Cancer Sites by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	25,513	12,765	12,719	18,756	5,719	877	161
Allegany	461	250	211	444	s	<6	0
Anne Arundel	2,158	1,183	974	1,873	224	48	13
Baltimore City	2,901	1,493	1,404	1,178	1,652	51	20
Baltimore County	4,409	2,123	2,285	3,521	761	101	26
Calvert	391	184	207	338	48	<6	<6
Caroline	162	78	84	134	s	<6	0
Carroll	870	444	426	828	30	12	0
Cecil	494	260	234	468	20	6	0
Charles	501	239	258	359	128	s	<6
Dorchester	191	105	85	157	s	<6	0
Frederick	1,184	555	627	1093	72	s	<6
Garrett	141	67	73	141	0	0	0
Harford	1,096	572	523	972	98	s	<6
Howard	1,015	487	526	826	141	s	<6
Kent	122	63	59	108	14	0	0
Montgomery	3,929	1,860	2,060	3,006	485	399	39
Prince George's	2,739	1,354	1,382	983	1,621	118	17
Queen Anne's	211	114	97	188	s	<6	0
Saint Mary's	385	209	176	327	47	s	<6
Somerset	110	62	48	72	s	<6	0
Talbot	233	120	113	207	s	<6	0
Washington	731	376	355	695	30	<6	<6
Wicomico	495	239	256	390	98	s	<6
Worcester	346	181	165	291	37	s	<6
Unknown	238	147	91	157	56	<6	s

Total includes cases reported as transexual, hermaphrodite, unknown gender, and unknown race

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix L
Table 2.
All Cancer Sites Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	457.4	528.3	409.0	466.4	434.9	362.9
Allegany	494.7	603.3	419.4	492.6	**	**
Anne Arundel	437.1	537.0	364.7	442.4	394.6	350.3
Baltimore City	450.1	565.7	375.5	486.1	421.9	468.4
Baltimore County	494.3	550.0	459.3	482.5	594.0	413.8
Calvert	500.0	532.3	487.7	510.8	448.5	**
Caroline	481.9	510.8	457.8	468.8	581.1	**
Carroll	524.1	605.6	468.4	519.0	656.7	**
Cecil	542.9	636.4	476.2	543.5	475.0	**
Charles	447.9	493.4	413.3	450.1	447.2	**
Dorchester	468.0	581.7	380.0	501.9	350.4	**
Frederick	603.7	668.2	572.1	609.5	594.3	**
Garrett	384.8	394.4	373.5	387.3	0.0	0.0
Harford	475.6	553.3	413.6	470.4	511.7	514.8
Howard	423.9	465.0	400.0	445.9	424.9	201.6
Kent	451.3	500.9	418.3	468.3	**	0.0
Montgomery	412.6	457.4	384.4	416.7	408.2	351.1
Prince George's	386.3	454.3	340.0	383.4	390.5	341.0
Queen Anne's	421.1	463.2	379.4	415.8	459.6	**
Saint Mary's	452.0	535.5	389.3	457.4	397.0	**
Somerset	410.3	494.6	360.6	376.2	491.2	**
Talbot	437.7	501.1	396.1	453.3	356.4	**
Washington	479.9	556.3	430.6	480.1	600.8	**
Wicomico	519.5	574.6	483.6	526.8	506.2	**
Worcester	486.3	541.5	447.0	477.9	406.1	4,375.3

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix L
Table 3.
Number of Deaths for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	10,371	5,290	5,081	7,589	2,559	223
Allegany	201	106	95	199	<6	<6
Anne Arundel	944	505	439	811	111	22
Baltimore City	1,482	757	725	566	909	7
Baltimore County	1,850	951	899	1,588	249	13
Calvert	170	81	89	139	s	<6
Caroline	72	36	36	58	s	<6
Carroll	308	157	151	296	s	<6
Cecil	197	91	106	187	s	<6
Charles	236	122	114	167	63	6
Dorchester	90	57	33	68	s	<6
Frederick	323	166	157	299	s	<6
Garrett	58	33	25	57	<6	<6
Harford	435	204	231	389	40	6
Howard	321	169	152	243	59	19
Kent	51	31	20	43	s	<6
Montgomery	1,275	598	677	1,030	146	99
Prince George's	1,235	624	611	484	712	39
Queen Anne's	95	44	51	84	s	<6
Saint Mary's	168	107	61	139	s	<6
Somerset	67	37	30	54	s	<6
Talbot	122	61	61	99	s	<6
Washington	305	157	148	295	s	<6
Wicomico	208	103	105	156	s	<6
Worcester	158	93	65	138	s	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L
Table 4.
All Cancer Sites Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	190.0	232.0	162.2	187.8	209.4	102.9
Allegany	199.3	258.2	163.3	201.7	**	**
Anne Arundel	203.8	255.4	168.9	201.9	221.9	198.0
Baltimore City	229.6	297.8	188.0	223.3	236.7	**
Baltimore County	201.8	248.9	169.5	206.0	208.6	**
Calvert	230.8	249.6	221.4	225.2	295.8	**
Caroline	212.6	249.3	189.6	199.9	**	**
Carroll	190.5	228.1	166.0	189.3	**	**
Cecil	224.5	236.7	219.8	224.5	**	**
Charles	229.7	277.2	197.2	234.1	225.3	**
Dorchester	213.7	321.4	144.2	210.1	236.6	**
Frederick	170.1	207.3	147.9	171.3	195.9	**
Garrett	157.9	200.2	122.9	156.5	**	**
Harford	198.3	210.7	187.7	197.9	206.0	**
Howard	149.3	186.7	128.9	148.7	178.0	97.8
Kent	162.2	235.6	111.5	159.6	**	**
Montgomery	136.5	157.0	124.5	139.8	144.5	102.2
Prince George's	190.1	229.4	163.6	190.1	198.6	115.6
Queen Anne's	196.6	197.4	196.5	194.1	**	**
Saint Mary's	214.6	307.0	144.0	214.5	241.5	**
Somerset	245.5	320.0	193.3	268.9	**	**
Talbot	213.6	251.2	184.6	198.7	338.0	**
Washington	194.6	240.3	164.1	195.5	**	**
Wicomico	217.8	252.7	194.4	209.5	256.6	**
Worcester	205.1	261.2	159.2	206.6	210.6	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L
Table 5.
Number of Lung and Bronchus Cancer Cases by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	3,694	1,937	1,754	2,782	818	s	<6
Allegany	89	54	35	s	<6	0	0
Anne Arundel	316	181	135	277	32	7	0
Baltimore City	510	282	228	198	312	0	0
Baltimore County	656	328	328	534	115	7	0
Calvert	66	28	38	57	s	<6	0
Caroline	26	15	11	s	<6	0	0
Carroll	128	71	57	122	<6	<6	0
Cecil	90	48	42	s	<6	0	0
Charles	79	40	39	61	s	<6	0
Dorchester	45	23	22	38	7	0	0
Frederick	146	78	68	133	s	<6	0
Garrett	13	s	<6	13	0	0	0
Harford	160	88	71	142	s	<6	0
Howard	128	60	68	105	s	<5	0
Kent	22	13	9	s	<6	0	0
Montgomery	436	204	231	356	41	39	0
Prince George's	337	180	156	140	180	s	<6
Queen Anne's	35	18	17	s	<6	0	0
Saint Mary's	63	31	32	56	7	0	0
Somerset	22	15	7	13	9	0	0
Talbot	38	14	24	s	<6	0	0
Washington	117	64	53	111	<6	<6	0
Wicomico	88	51	37	73	s	<6	0
Worcester	67	32	35	59	<6	<6	0
Unknown	17	s	s	13	<6	<6	0

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix L
Table 6.
Lung and Bronchus Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	67.9	83.1	56.8	69.5	66.2	44.3
Allegany	91.6	130.2	64.3	91.1	**	0.0
Anne Arundel	67.6	86.4	52.3	68.6	63.0	**
Baltimore City	79.5	108.6	60.2	80.9	80.6	0.0
Baltimore County	73.0	85.5	64.4	70.9	92.2	**
Calvert	90.9	85.5	95.9	92.9	**	**
Caroline	77.1	**	**	72.6	**	0.0
Carroll	81.0	102.4	64.6	80.1	**	**
Cecil	104.7	124.0	88.9	106.6	**	0.0
Charles	78.6	97.2	68.9	84.1	68.4	**
Dorchester	107.7	128.0	94.6	118.3	**	0.0
Frederick	78.2	93.6	65.7	77.3	**	**
Garrett	**	**	**	**	0.0	0.0
Harford	71.0	88.0	57.1	70.2	**	**
Howard	62.8	63.7	60.8	66.3	62.7	**
Kent	77.5	**	**	74.2	**	0.0
Montgomery	47.8	53.2	44.0	50.2	41.9	38.8
Prince George's	51.7	66.4	41.0	53.8	48.8	58.5
Queen Anne's	69.3	72.8	64.5	68.1	**	0.0
Saint Mary's	77.1	78.8	74.5	83.3	**	0.0
Somerset	79.3	**	**	**	**	0.0
Talbot	69.8	**	83.3	78.5	**	0.0
Washington	76.9	97.5	64.2	76.0	**	**
Wicomico	92.0	123.1	69.8	97.2	**	**
Worcester	89.7	89.8	89.6	92.2	**	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix L
Table 7.
Number of Lung and Bronchus Cancer Deaths by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2,989	1,641	1,348	2,258	676	55
Allegany	55	36	19	54	<6	<6
Anne Arundel	283	156	127	246	29	8
Baltimore City	478	257	221	s	280	<6
Baltimore County	550	292	258	484	s	<6
Calvert	46	20	26	38	s	<6
Caroline	24	s	s	22	<6	<6
Carroll	87	49	38	84	<6	<6
Cecil	57	24	33	53	<6	<6
Charles	74	38	36	57	s	<6
Dorchester	34	20	14	27	s	<6
Frederick	88	55	33	84	<6	<6
Garrett	17	11	6	s	<6	<6
Harford	144	77	67	127	s	<6
Howard	81	50	31	63	s	<6
Kent	16	s	<6	13	<6	<6
Montgomery	303	149	154	249	31	23
Prince George's	283	173	110	124	153	6
Queen Anne's	42	19	23	38	<6	<6
Saint Mary's	54	36	18	48	s	<6
Somerset	23	12	11	16	s	<6
Talbot	36	17	19	28	s	<6
Washington	98	59	39	97	<6	<6
Wicomico	69	40	29	54	s	<6
Worcester	47	25	22	39	s	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L
Table 8.
Lung and Bronchus Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	54.8	71.0	43.4	56.0	55.3	27.0
Allegany	55.4	86.5	33.7	55.7	**	**
Anne Arundel	61.4	77.1	49.3	61.3	58.1	**
Baltimore City	74.4	100.0	57.7	79.7	72.6	**
Baltimore County	60.3	75.8	49.8	63.1	52.6	**
Calvert	64.0	69.1	63.9	63.7	**	**
Caroline	70.9	**	**	75.8	**	**
Carroll	53.2	68.7	41.8	52.9	**	**
Cecil	65.7	61.3	70.0	64.5	**	**
Charles	71.2	87.8	63.5	78.6	**	**
Dorchester	80.1	113.0	**	82.2	**	**
Frederick	47.7	73.3	32.4	49.3	**	**
Garrett	44.5	**	**	44.8	**	**
Harford	64.1	77.6	53.9	62.9	**	**
Howard	36.1	49.2	26.0	37.1	**	**
Kent	54.9	**	**	**	**	**
Montgomery	32.7	38.9	28.4	33.8	32.8	24.4
Prince George's	43.5	62.6	29.3	48.5	41.6	**
Queen Anne's	84.7	78.5	88.3	85.2	**	**
Saint Mary's	68.6	95.3	44.6	74.4	**	**
Somerset	82.7	**	**	77.7	**	**
Talbot	65.7	74.4	57.1	56.9	**	**
Washington	63.3	88.6	44.7	65.1	**	**
Wicomico	72.7	96.0	54.3	72.6	**	**
Worcester	59.5	68.2	52.5	57.3	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L
Table 9.
Number of Colorectal Cancer Cases by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	2,554	1,286	1,266	1,842	619	81	12
Allegany	53	27	26	53	0	0	0
Anne Arundel	197	107	90	164	24	s	<6
Baltimore City	307	154	152	s	180	0	<6
Baltimore County	452	212	240	370	74	s	<6
Calvert	40	23	17	34	6	0	0
Caroline	17	s	<6	17	0	0	0
Carroll	94	50	44	s	<6	0	0
Cecil	54	33	21	s	<6	0	0
Charles	54	24	30	37	s	<6	0
Dorchester	20	9	11	s	<6	0	0
Frederick	120	61	58	114	6	0	0
Garrett	19	8	11	19	0	0	0
Harford	98	33	65	85	s	<6	0
Howard	89	50	39	74	s	<6	0
Kent	12	<6	s	s	<6	0	0
Montgomery	370	183	187	279	43	42	6
Prince George's	273	138	135	77	181	15	0
Queen Anne's	19	11	8	s	<6	0	0
Saint Mary's	45	26	19	36	s	<6	0
Somerset	12	s	<6	s	<6	0	0
Talbot	28	18	10	s	<6	0	0
Washington	74	40	34	66	s	<6	0
Wicomico	63	33	30	44	s	<6	0
Worcester	25	16	9	18	s	<6	0
Unknown	19	6	13	13	6	0	0

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix L
Table 10.
Colorectal Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	46.3	54.9	40.2	45.5	49.4	34.0
Allegany	53.9	65.0	43.4	55.4	0.0	0.0
Anne Arundel	40.9	51.7	33.8	39.5	43.4	**
Baltimore City	47.5	59.0	40.0	51.4	46.2	0.0
Baltimore County	49.4	55.2	45.0	48.1	61.4	**
Calvert	52.7	71.1	39.9	52.9	**	0.0
Caroline	49.7	**	**	58.4	0.0	0.0
Carroll	58.0	75.1	47.3	58.0	**	0.0
Cecil	61.8	90.0	43.4	62.7	**	0.0
Charles	54.5	61.9	53.7	50.7	64.2	**
Dorchester	48.4	**	**	**	**	0.0
Frederick	64.5	81.6	53.8	66.0	**	0.0
Garrett	50.4	**	**	50.6	0.0	0.0
Harford	44.4	33.1	52.4	43.2	**	**
Howard	40.6	58.3	31.3	42.9	**	**
Kent	**	**	**	**	**	0.0
Montgomery	39.5	46.8	34.2	38.5	35.9	36.6
Prince George's	39.5	47.4	34.1	30.5	47.2	**
Queen Anne's	37.9	**	**	37.2	**	0.0
Saint Mary's	52.1	63.3	41.9	48.4	**	**
Somerset	**	**	**	**	**	0.0
Talbot	50.3	77.0	**	51.3	**	0.0
Washington	47.5	59.6	37.2	43.8	**	**
Wicomico	65.6	81.0	53.7	58.6	93.4	**
Worcester	33.7	47.4	**	28.4	**	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix L
Table 11.
Number of Colorectal Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	1,017	533	484	710	292	15
Allegany	19	7	12	s	<6	<6
Anne Arundel	75	43	32	61	s	<6
Baltimore City	130	50	80	s	79	<6
Baltimore County	185	106	79	153	s	<6
Calvert	24	14	10	17	s	<6
Caroline	<6	<6	<6	<6	<6	<6
Carroll	44	18	26	40	<6	<6
Cecil	25	11	14	23	<6	<6
Charles	37	26	11	21	s	<6
Dorchester	8	<6	<6	6	<6	<6
Frederick	35	17	18	31	<6	<6
Garrett	6	<6	<6	s	<6	<6
Harford	40	21	19	34	s	<6
Howard	39	22	17	22	s	<6
Kent	<6	<6	<6	<6	<6	<6
Montgomery	113	58	55	90	17	6
Prince George's	129	67	62	s	78	<6
Queen Anne's	9	<6	<6	8	<6	<6
Saint Mary's	17	s	<6	13	<6	<6
Somerset	<6	<6	<6	<6	<6	<6
Talbot	9	<6	<6	<6	<6	<6
Washington	26	15	11	24	<6	<6
Wicomico	24	13	11	15	s	<6
Worcester	13	s	<6	s	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L
Table 12.
Colorectal Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	18.7	23.2	15.2	17.5	24.8	**
Allegany	18.3	**	**	18.9	**	**
Anne Arundel	16.0	20.5	12.2	15.1	**	**
Baltimore City	19.8	19.5	19.3	18.9	20.7	**
Baltimore County	20.1	27.5	14.6	20.0	27.5	**
Calvert	31.4	**	**	27.5	**	**
Caroline	**	**	**	**	**	**
Carroll	27.7	26.4	27.7	26.1	**	**
Cecil	28.6	**	**	28.0	**	**
Charles	40.7	64.5	**	31.7	71.5	**
Dorchester	**	**	**	**	**	**
Frederick	19.3	20.9	17.2	18.5	**	**
Garrett	**	**	**	**	**	**
Harford	18.1	21.4	15.4	17.3	**	**
Howard	19.9	28.6	15.1	14.8	62.1	**
Kent	**	**	**	**	**	**
Montgomery	12.0	14.9	10.1	12.3	17.7	**
Prince George's	20.7	24.6	17.6	19.2	23.4	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	22.3	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	16.3	**	**	15.5	**	**
Wicomico	24.8	**	**	**	**	**
Worcester	**	**	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L
Table 13.
Number of Female Breast Cancer Cases by Jurisdiction and Race, Maryland, 2005

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	3,712	2,637	896	153	26
Allegany	51	48	<6	<6	0
Anne Arundel	245	207	29	s	<6
Baltimore City	360	149	199	s	<6
Baltimore County	622	476	133	s	<6
Calvert	52	43	9	0	0
Caroline	29	s	<6	0	0
Carroll	135	129	<6	<6	0
Cecil	64	s	<6	<6	0
Charles	74	48	s	<6	0
Dorchester	18	s	<6	0	0
Frederick	180	158	16	<6	<6
Garrett	25	25	0	0	0
Harford	127	113	10	<6	<6
Howard	155	133	13	s	<6
Kent	21	s	<6	0	0
Montgomery	706	515	99	s	<6
Prince George's	493	157	315	s	<6
Queen Anne's	28	s	<6	0	0
Saint Mary's	46	42	<6	<6	0
Somerset	11	s	<6	0	0
Talbot	29	s	<6	0	0
Washington	93	s	<6	0	0
Wicomico	78	62	s	0	<6
Worcester	44	39	<6	<6	0
Unknown	26	15	7	<6	<6

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix L
Table 14.
Female Breast Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2005

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	118.6	121.1	108.7	101.2
Allegany	109.3	106.5	**	**
Anne Arundel	90.5	90.3	83.2	**
Baltimore City	97.5	115.6	85.2	**
Baltimore County	127.3	122.4	166.6	**
Calvert	117.6	117.6	**	0.0
Caroline	165.0	176.5	**	0.0
Carroll	146.7	145.9	**	**
Cecil	126.6	130.1	**	**
Charles	112.8	108.4	119.1	**
Dorchester	80.2	101.1	**	0.0
Frederick	162.7	157.1	219.0	**
Garrett	131.2	132.0	0.0	0.0
Harford	98.4	97.9	**	**
Howard	108.4	121.6	**	**
Kent	157.3	174.6	**	0.0
Montgomery	129.5	128.6	123.7	129.1
Prince George's	115.8	115.1	112.6	75.3
Queen Anne's	106.4	109.6	**	0.0
Saint Mary's	99.8	110.4	**	**
Somerset	**	**	**	0.0
Talbot	100.7	103.2	**	0.0
Washington	115.1	118.8	**	0.0
Wicomico	150.4	155.4	**	0.0
Worcester	130.3	138.9	**	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix L
Table 15.
Number of Female Breast Cancer Deaths by Jurisdiction and Race, Maryland, 2005

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	821	571	231	19
Allegany	15	s	<6	<6
Anne Arundel	69	59	s	<6
Baltimore City	103	s	66	<6
Baltimore County	135	109	s	<6
Calvert	14	s	<6	<6
Caroline	<6	<6	<6	<6
Carroll	25	24	<6	<6
Cecil	14	s	<6	<6
Charles	19	10	s	<6
Dorchester	<6	<6	<6	<6
Frederick	25	s	<6	<6
Garrett	6	s	<6	<6
Harford	34	28	<6	<6
Howard	22	19	<6	<6
Kent	<6	<6	<6	<6
Montgomery	119	85	25	9
Prince George's	123	s	81	<6
Queen Anne's	6	<6	<6	<6
Saint Mary's	15	11	<6	<6
Somerset	8	s	<6	<6
Talbot	9	8	<6	<6
Washington	24	s	<6	<6
Wicomico	19	17	<6	<6
Worcester	8	s	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L
Table 16.
Female Breast Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2005

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	25.9	25.0	28.8	13.6
Allegany	**	**	**	**
Anne Arundel	25.5	25.6	**	**
Baltimore City	27.2	25.8	28.3	**
Baltimore County	25.7	24.8	31.3	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	26.6	26.3	**	**
Cecil	**	**	**	**
Charles	27.9	**	**	**
Dorchester	**	**	**	**
Frederick	22.7	24.7	**	**
Garrett	**	**	**	**
Harford	27.4	25.2	**	**
Howard	17.3	20.1	**	**
Kent	**	**	**	**
Montgomery	21.8	20.7	33.1	**
Prince George's	30.1	26.5	31.7	**
Queen Anne's	**	**	**	**
Saint Mary's	**	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	24.7	25.6	**	**
Wicomico	35.7	41.5	**	**
Worcester	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L
Table 17.
Number of Prostate Cancer Cases by Jurisdiction and Race, Maryland, 2005

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	3,649	2,418	1,042	150	39
Allegany	63	55	s	<6	0
Anne Arundel	321	262	48	s	<6
Baltimore City	415	146	242	21	6
Baltimore County	560	405	113	s	<6
Calvert	29	20	9	0	0
Caroline	11	s	<6	0	0
Carroll	98	90	<6	<6	0
Cecil	72	63	<6	<6	0
Charles	73	48	22	<6	<6
Dorchester	23	17	6	0	0
Frederick	149	138	s	<6	0
Garrett	18	18	0	0	0
Harford	164	132	24	s	<6
Howard	143	107	29	7	0
Kent	17	s	<6	0	0
Montgomery	586	434	98	43	11
Prince George's	484	138	332	s	<6
Queen Anne's	29	26	<6	<6	0
Saint Mary's	61	49	s	<6	0
Somerset	15	<6	s	0	0
Talbot	31	21	10	0	0
Washington	98	s	<6	0	0
Wicomico	53	35	18	0	0
Worcester	48	37	7	<6	<6
Unknown	88	55	25	0	8

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix L
Table 18.
Prostate Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2005

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	147.2	131.7	193.3	149.5
Allegany	149.0	134.4	**	**
Anne Arundel	135.5	125.2	205.1	**
Baltimore City	158.5	141.0	158.2	483.5
Baltimore County	143.6	124.4	225.3	363.4
Calvert	76.5	62.7	**	0.0
Caroline	**	**	**	0.0
Carroll	125.7	120.5	**	**
Cecil	163.4	150.0	**	**
Charles	146.7	133.9	176.8	**
Dorchester	120.5	115.0	**	0.0
Frederick	189.0	190.7	**	**
Garrett	104.7	105.4	0.0	0.0
Harford	161.2	143.7	300.6	**
Howard	120.2	113.6	176.0	**
Kent	130.9	**	**	0.0
Montgomery	138.9	134.2	205.1	90.1
Prince George's	155.0	116.1	193.2	**
Queen Anne's	108.8	104.2	**	**
Saint Mary's	162.8	155.2	**	**
Somerset	**	**	**	0.0
Talbot	128.6	99.0	**	0.0
Washington	144.0	143.0	**	0.0
Wicomico	123.7	104.5	217.4	0.0
Worcester	136.2	118.9	**	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix L
Table 19.
Number of Prostate Cancer Deaths by Jurisdiction and Race, Maryland, 2005

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	519	328	178	13
Allegany	13	s	<6	<6
Anne Arundel	42	34	s	<6
Baltimore City	85	s	60	<6
Baltimore County	81	62	s	<6
Calvert	12	10	<6	<6
Caroline	<6	<6	<6	<6
Carroll	14	s	<6	<6
Cecil	11	9	<6	<6
Charles	<6	<6	<6	<6
Dorchester	<6	<6	<6	<6
Frederick	15	12	<6	<6
Garrett	<6	<6	<6	<6
Harford	12	11	<6	<6
Howard	17	12	<6	<6
Kent	<6	<6	<6	<6
Montgomery	62	49	6	7
Prince George's	70	s	47	<6
Queen Anne's	<6	<6	<6	<6
Saint Mary's	10	6	<6	<6
Somerset	8	6	<6	<6
Talbot	11	8	<6	<6
Washington	9	8	<6	<6
Wicomico	8	<6	6	<6
Worcester	12	8	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L
Table 20.
Prostate Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2005

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	25.7	20.9	47.7	**
Allegany	**	**	**	**
Anne Arundel	25.2	23.1	**	**
Baltimore City	36.3	24.4	47.9	**
Baltimore County	22.1	19.1	61.5	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	**	**	**	**
Cecil	**	**	**	**
Charles	**	**	**	**
Dorchester	**	**	**	**
Frederick	**	**	**	**
Garrett	**	**	**	**
Harford	**	**	**	**
Howard	23.4	**	**	**
Kent	**	**	**	**
Montgomery	17.9	17.3	**	**
Prince George's	31.6	20.5	44.2	**
Queen Anne's	**	**	**	**
Saint Mary's	**	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	**	**	**	**
Wicomico	**	**	**	**
Worcester	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L
Table 21.
Number of Oral Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	509	346	162	374	118	s	<6
Allegany	10	s	<6	10	0	0	0
Anne Arundel	37	28	9	s	<6	0	0
Baltimore City	73	55	17	26	47	0	0
Baltimore County	75	53	22	58	14	<6	<6
Calvert	15	s	<6	15	0	0	0
Caroline	<6	0	<6	<6	0	0	0
Carroll	17	10	7	17	0	0	0
Cecil	14	s	<6	14	0	0	0
Charles	14	8	6	8	6	0	0
Dorchester	<6	<6	<6	<6	0	0	0
Frederick	19	9	10	s	0	0	<6
Garrett	<6	<6	0	<6	0	0	0
Harford	25	15	10	s	<6	0	0
Howard	12	s	<6	s	<6	0	0
Kent	<6	<6	<6	<6	0	0	0
Montgomery	73	50	23	61	s	<6	0
Prince George's	54	37	17	s	28	<6	0
Queen Anne's	9	s	<6	9	0	0	0
Saint Mary's	s	<6	<6	s	<6	0	<6
Somerset	<6	<6	<6	<6	<6	0	0
Talbot	<6	<6	0	<6	0	<6	0
Washington	13	s	<6	s	<6	0	0
Wicomico	8	s	<6	<6	<6	0	0
Worcester	6	<6	<6	<6	0	<6	0
Unknown	8	<6	<6	s	0	<6	<6

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix L
Table 22.
Oral Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	8.8	13.3	5.2	9.1	8.4	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	7.0	11.7	**	6.9	**	0.0
Baltimore City	11.2	20.0	4.4	10.6	11.6	0.0
Baltimore County	8.5	13.4	4.4	8.1	**	**
Calvert	**	**	**	**	0.0	0.0
Caroline	**	0.0	**	**	0.0	0.0
Carroll	10.4	**	**	10.8	0.0	0.0
Cecil	**	**	**	**	0.0	0.0
Charles	**	**	**	**	**	0.0
Dorchester	**	**	**	**	0.0	0.0
Frederick	9.5	**	**	9.8	0.0	0.0
Garrett	**	**	0.0	**	0.0	0.0
Harford	9.9	**	**	9.8	**	0.0
Howard	**	**	**	**	**	0.0
Kent	**	**	**	**	0.0	0.0
Montgomery	7.5	11.6	4.2	8.3	**	**
Prince George's	7.5	11.5	4.4	10.0	5.9	**
Queen Anne's	**	**	**	**	0.0	0.0
Saint Mary's	**	**	**	**	**	0.0
Somerset	**	**	**	**	**	0.0
Talbot	**	**	0.0	**	0.0	**
Washington	**	**	**	**	**	0.0
Wicomico	**	**	**	**	**	0.0
Worcester	**	**	**	**	0.0	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix L
Table 23.
Number of Oral Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	151	117	34	104	s	<6
Allegany	<6	<6	<6	<6	<6	<6
Anne Arundel	12	s	<6	9	<6	<6
Baltimore City	29	s	<6	s	19	<6
Baltimore County	27	16	11	24	<6	<6
Calvert	<6	<6	<6	<6	<6	<6
Caroline	<6	<6	<6	<6	<6	<6
Carroll	<6	<6	<6	<6	<6	<6
Cecil	<6	<6	<6	<6	<6	<6
Charles	<6	<6	<6	<6	<6	<6
Dorchester	<6	<6	<6	<6	<6	<6
Frederick	<6	<6	<6	<6	<6	<6
Garrett	<6	<6	<6	<6	<6	<6
Harford	<6	<6	<6	<6	<6	<6
Howard	<6	<6	<6	<6	<6	<6
Kent	<6	<6	<6	<6	<6	<6
Montgomery	18	s	<6	15	<6	<6
Prince George's	19	s	<6	s	12	<6
Queen Anne's	<6	<6	<6	<6	<6	<6
Saint Mary's	<6	<6	<6	<6	<6	<6
Somerset	<6	<6	<6	<6	<6	<6
Talbot	<6	<6	<6	<6	<6	<6
Washington	6	<6	<6	s	<6	<6
Wicomico	<6	<6	<6	<6	<6	<6
Worcester	<6	<6	<6	<6	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L
Table 24.
Oral Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.7	4.7	1.1	2.5	3.5	**
Allegany	**	**	**	**	**	**
Anne Arundel	**	**	**	**	**	**
Baltimore City	4.4	9.4	**	**	4.9	**
Baltimore County	3.0	4.0	**	3.2	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	**	**	**	**	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	**	**	**	**	**	**
Garrett	**	**	**	**	**	**
Harford	**	**	**	**	**	**
Howard	**	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	1.8	**	**	**	**	**
Prince George's	2.9	6.1	**	**	**	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	**	**	**	**	**	**
Wicomico	**	**	**	**	**	**
Worcester	**	**	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L
Table 25.
Number of Melanoma Cases
by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	1,208	697	511	1,160	6	14	28
Allegany	8	<6	<6	8	0	0	0
Anne Arundel	150	92	58	146	<6	<6	<6
Baltimore City	67	38	29	s	<6	0	0
Baltimore County	203	115	88	s	0	<6	<6
Calvert	35	23	12	s	0	0	<6
Caroline	7	<6	<6	7	0	0	0
Carroll	61	32	29	61	0	0	0
Cecil	26	16	10	26	0	0	0
Charles	24	16	8	s	0	0	<6
Dorchester	<6	<6	0	<6	0	0	0
Frederick	71	37	34	s	0	0	<6
Garrett	<6	<6	<6	<6	0	0	0
Harford	78	48	30	s	0	0	<6
Howard	77	43	34	72	<6	<6	<6
Kent	10	s	<6	10	0	0	0
Montgomery	180	95	85	161	<6	9	s
Prince George's	54	38	16	50	<6	0	<6
Queen Anne's	20	11	9	20	0	0	0
Saint Mary's	21	12	9	s	0	0	<6
Somerset	8	s	<6	8	0	0	0
Talbot	17	8	9	17	0	0	0
Washington	44	24	20	44	0	0	0
Wicomico	11	<6	s	11	0	0	0
Worcester	18	11	7	s	0	<6	0
Unknown	13	7	6	s	0	0	<6

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix L
Table 26.
Melanoma Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	21.3	27.9	16.8	29.4	**	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	29.2	39.2	21.3	33.5	**	**
Baltimore City	10.3	14.0	8.0	27.6	**	0.0
Baltimore County	24.1	30.1	20.1	31.4	0.0	**
Calvert	43.3	64.2	**	46.8	0.0	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	35.2	40.7	32.9	37.0	0.0	0.0
Cecil	28.3	37.0	**	30.0	0.0	0.0
Charles	18.5	26.8	**	25.4	0.0	0.0
Dorchester	**	**	0.0	**	0.0	0.0
Frederick	32.1	38.2	28.4	33.9	0.0	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	32.9	44.1	24.3	36.6	0.0	0.0
Howard	28.4	36.7	22.7	35.1	**	**
Kent	**	**	**	**	0.0	0.0
Montgomery	19.0	22.5	16.8	23.4	**	**
Prince George's	8.0	14.7	4.0	19.7	**	0.0
Queen Anne's	42.7	**	**	47.3	0.0	0.0
Saint Mary's	23.6	**	**	27.0	0.0	0.0
Somerset	**	**	**	**	0.0	0.0
Talbot	35.6	**	**	41.5	0.0	0.0
Washington	29.5	34.4	26.6	31.8	0.0	0.0
Wicomico	**	**	**	**	0.0	0.0
Worcester	27.8	**	**	31.0	0.0	**

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix L
Table 27.
Number of Melanoma Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	155	97	58	153	<6	<6
Allegany	<6	<6	<6	<6	<6	<6
Anne Arundel	18	11	7	s	<6	<6
Baltimore City	16	10	6	15	<6	<6
Baltimore County	30	17	13	s	<6	<6
Calvert	<6	<6	<6	<6	<6	<6
Caroline	<6	<6	<6	<6	<6	<6
Carroll	<6	<6	<6	<6	<6	<6
Cecil	<6	<6	<6	<6	<6	<6
Charles	<6	<6	<6	<6	<6	<6
Dorchester	<6	<6	<6	<6	<6	<6
Frederick	<6	<6	<6	<6	<6	<6
Garrett	<6	<6	<6	<6	<6	<6
Harford	9	s	<6	s	<6	<6
Howard	<6	<6	<6	<6	<6	<6
Kent	<6	<6	<6	<6	<6	<6
Montgomery	23	15	8	s	<6	<6
Prince George's	11	<6	s	10	<6	<6
Queen Anne's	<6	<6	<6	<6	<6	<6
Saint Mary's	<6	<6	<6	<6	<6	<6
Somerset	<6	<6	<6	<6	<6	<6
Talbot	<6	<6	<6	<6	<6	<6
Washington	<6	<6	<6	<6	<6	<6
Wicomico	<6	<6	<6	<6	<6	<6
Worcester	<6	<6	<6	<6	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L
Table 28.
Melanoma Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2005

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.8	4.2	1.8	3.8	**	**
Allegany	**	**	**	**	**	**
Anne Arundel	4.0	**	**	4.6	**	**
Baltimore City	2.5	**	**	**	**	**
Baltimore County	3.3	4.4	**	4.0	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	**	**	**	**	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	**	**	**	**	**	**
Garrett	**	**	**	**	**	**
Harford	**	**	**	**	**	**
Howard	**	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	2.4	**	**	3.0	**	**
Prince George's	**	**	**	**	**	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	**	**	**	**	**	**
Wicomico	**	**	**	**	**	**
Worcester	**	**	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L
Table 29.
Number of Cervical Cancer Cases by Jurisdiction and Race, Maryland, 2005

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	254	155	76	15	8
Allegany	<6	<6	0	0	0
Anne Arundel	20	15	<6	<6	0
Baltimore City	37	s	25	0	<6
Baltimore County	46	29	s	<6	0
Calvert	7	s	<6	0	0
Caroline	<6	<6	0	0	0
Carroll	<6	<6	0	0	0
Cecil	7	s	<6	0	0
Charles	<6	0	<6	0	0
Dorchester	0	0	0	0	0
Frederick	13	13	0	0	0
Garrett	<6	<6	0	0	0
Harford	8	s	<6	0	0
Howard	8	<6	<6	<6	0
Kent	<6	<6	0	0	0
Montgomery	44	23	s	12	<6
Prince George's	23	10	s	0	<6
Queen Anne's	<6	<6	<6	0	0
Saint Mary's	6	<6	<6	0	0
Somerset	<6	<6	0	0	0
Talbot	<6	<6	0	0	0
Washington	<6	<6	0	0	<6
Wicomico	6	<6	<6	0	0
Worcester	<6	<6	0	0	0
Unknown	<6	<6	0	0	<6

<6 = Case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy

s = Case counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: Maryland Cancer Registry

Appendix L
Table 30.
Cervical Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2005

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	8.5	7.8	9.1	**
Allegany	**	**	0.0	0.0
Anne Arundel	7.6	**	**	**
Baltimore City	10.8	**	11.3	0.0
Baltimore County	10.2	9.3	19.4	**
Calvert	**	**	**	0.0
Caroline	**	**	0.0	0.0
Carroll	**	**	0.0	0.0
Cecil	**	**	**	0.0
Charles	**	0.0	**	0.0
Dorchester	0.0	0.0	0.0	0.0
Frederick	**	**	0.0	0.0
Garrett	**	**	0.0	0.0
Harford	**	**	**	0.0
Howard	**	**	**	**
Kent	**	**	0.0	0.0
Montgomery	8.5	6.3	**	**
Prince George's	5.3	**	**	0.0
Queen Anne's	**	**	**	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	**	0.0	0.0
Talbot	**	**	0.0	0.0
Washington	**	**	0.0	0.0
Wicomico	**	**	**	0.0
Worcester	**	**	0.0	0.0

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

** Rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix L
Table 31.
Number of Cervical Cancer Deaths by Jurisdiction and Race, Maryland, 2005

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	62	34	s	<6
Allegany	<6	<6	<6	<6
Anne Arundel	<6	<6	<6	<6
Baltimore City	21	s	13	<6
Baltimore County	10	6	<6	<6
Calvert	<6	<6	<6	<6
Caroline	<6	<6	<6	<6
Carroll	<6	<6	<6	<6
Cecil	<6	<6	<6	<6
Charles	<6	<6	<6	<6
Dorchester	<6	<6	<6	<6
Frederick	<6	<6	<6	<6
Garrett	<6	<6	<6	<6
Harford	<6	<6	<6	<6
Howard	<6	<6	<6	<6
Kent	<6	<6	<6	<6
Montgomery	<6	<6	<6	<6
Prince George's	9	<6	6	<6
Queen Anne's	<6	<6	<6	<6
Saint Mary's	<6	<6	<6	<6
Somerset	<6	<6	<6	<6
Talbot	<6	<6	<6	<6
Washington	<6	<6	<6	<6
Wicomico	<6	<6	<6	<6
Worcester	<6	<6	<6	<6

<6 = Death counts of 0-5 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix C for methods.)

Source: NCHS Compressed Mortality File in CDC WONDER

Appendix L
Table 32.
Cervical Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2005

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2.0	1.5	3.2	**
Allegany	**	**	**	**
Anne Arundel	**	**	**	**
Baltimore City	5.9	**	**	**
Baltimore County	**	**	**	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	**	**	**	**
Cecil	**	**	**	**
Charles	**	**	**	**
Dorchester	**	**	**	**
Frederick	**	**	**	**
Garrett	**	**	**	**
Harford	**	**	**	**
Howard	**	**	**	**
Kent	**	**	**	**
Montgomery	**	**	**	**
Prince George's	**	**	**	**
Queen Anne's	**	**	**	**
Saint Mary's	**	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	**	**	**	**
Wicomico	**	**	**	**
Worcester	**	**	**	**

* Rates are per 100,000 and age-adjusted to 2000 U.S. standard population

** Rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

Source: NCHS Compressed Mortality File in CDC WONDER

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