Maryland Department of Health & Mental Hygiene

Annual Cancer Report

Cigarette Restitution Fund Program

Cancer Prevention, Education, Screening and Treatment Program

Robert L. Ehrlich, Jr.
Governor
State of Maryland

Michael S. Steele
Lieutenant Governor
State of Maryland

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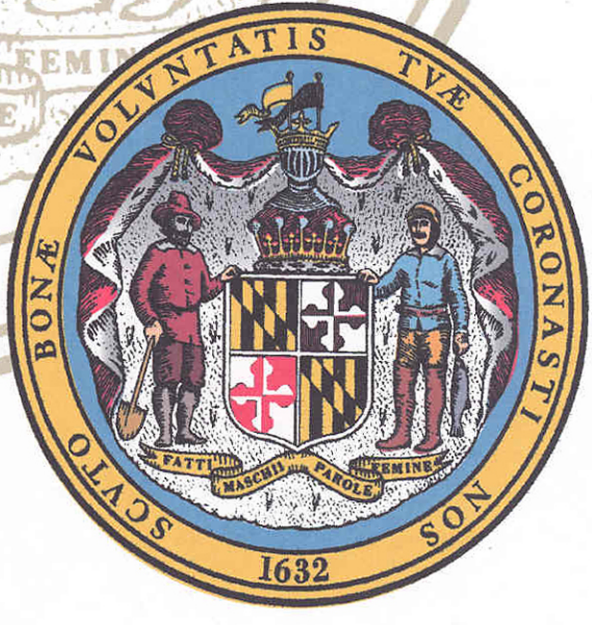

September, 2004

STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
201 W. Preston Street ● Baltimore, Maryland 21201
Robert L. Ehrlich, Jr., Governor - Michael S. Steele, Lt. Governor – S. Anthony McCann, Secretary

Dear Fellow Marylanders:

Cancer is the second leading cause of death in Maryland and in the nation. Over 23,000 Marylanders were diagnosed with cancer in the year 2001, and more than 10,000 died from this disease. Maryland ranks thirteenth in the nation in cancer mortality. Recent updates in technology have led to earlier diagnosis and better treatment of most cancers. As a result, more people diagnosed with cancer are living and surviving each year.

The Cigarette Restitution Fund (CRF) Program is an important component and is one of my highest priorities for the Maryland Department of Health and Mental Hygiene. The program includes the Cancer Prevention, Education, Screening and Treatment Program whose primary goal is to reduce the morbidity associated with cancer and to decrease health disparities. We are coordinating efforts through various partnerships in order to eliminate the burden of cancer.

The enclosed 2004 Annual Cancer Report of the Cigarette Restitution Fund Program focuses on all cancer sites combined as well as 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 based on the capacity for prevention (e.g., lung and bronchus, melanoma of the skin), early detection and treatment (e.g., colon and rectum, female breast, cervix, oral cavity), or on the impact on incidence and mortality (e.g., prostate).

On behalf of the Maryland Department of Health and Mental Hygiene, I appreciate your efforts in the battle to control cancer in Maryland.

Sincerely,

S. Anthony McCann
Secretary

Maryland Department of Health & Mental Hygiene

Annual Cancer Report

Cigarette Restitution Fund Program

Cancer Prevention, Education, Screening and Treatment Program

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Acknowledgements

The Maryland Department of Health and Mental Hygiene (DHMH), Center for Cancer Surveillance and Control, is pleased to present the Cigarette Restitution Fund Program's Annual Cancer Report for 2004. Our hope is that individuals, groups, and agencies, such as local health departments, community health coalitions, community-based 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. Stacey Neloms, M.P.H., provided data coordination and Ryan Colvin, M.P.H., provided technical assistance.

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

- Surveillance and Evaluation Unit, Center for Cancer Surveillance and Control, DHMH, for coordinating and developing the report. Lorraine Underwood provided administrative 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 who have ever been diagnosed with cancer and their families in Maryland. We hope that by the efforts of the Department, including the Cigarette Restitution Fund Program and other programs, cancer survivors (people diagnosed with cancer) and people in their lives who are affected by the diagnosis can cope with the many challenges and aspects related to cancer diagnosis and treatment.

Table of Contents

I. Executive Summary

A. Introduction

This publication is the Cigarette Restitution Fund Program's (CRFP) Annual Cancer Report for 2004. The purpose of the Annual Cancer Report 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 provide guidance to local health departments, statewide academic health centers, community health coalitions, and other community organizations as they decide how to allocate limited resources (e.g., staff time, funding) to the maximum benefit, with the goal of reducing cancer mortality.

The CRFP was established to provide for the distribution of funds as a result of multi-state litigation against the tobacco industry. This program provided approximately $30 million in 2004 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 this 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 that are examined individually in this report. 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 their impact on incidence and mortality (e.g., prostate).

Additionally, the CRFP law requires counties 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 uninsured individuals and medically underserved populations.

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

B. Major Highlights of the Report

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

- 23,038 cases of cancer were reported in Maryland in 2001 (excluding non-melanoma skin cancer). Overall cancer incidence is decreasing 29% per year.
- The all cancer sites incidence rate is lower among Hispanics than whites or blacks. In 2001, there were a total of 352 cancer cases among individuals of Hispanic ethnicity.
- Cancer is the second leading cause of death in Maryland, responsible for 24% of all deaths. 10,179 cancer deaths occurred in 2001. Cancer mortality in Maryland decreased 2.0% per year from 1997-2001.
- Maryland is ranked 13th among states and the District of Columbia in total cancer mortality for the time period 1997-2001, dropping from 11th (from 1996-2000) and 9th (from 1995-1999).
- The 2001 cancer mortality rate for Maryland is statistically significantly higher than the U.S. rate.
- Blacks have a statistically significantly higher mortality rate than whites for all cancer sites combined.
- Cancer incidence and mortality rates increase with increasing age for both males and females. Males have a statistically significantly higher mortality rate than females for all cancer sites combined and for all ages after age 49 years.

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

- Lung cancer is the leading cause of cancer death in both men and women in Maryland, accounting for 28% of all cancer deaths.
- Tobacco use is the primary cause of lung cancer; tobacco smoking causes 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.
- In 2002, Maryland for the first time surpassed the Healthy People 2010 goal to reduce the current use of tobacco products by youth.

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

- Colorectal cancer is the second leading cause of cancer death in Maryland.
- The recommended public health intervention for colorectal cancer is early detection through screening colonoscopy or fecal occult blood testing with flexible sigmoidoscopy.
- The percent of Maryland adults receiving colonoscopy or sigmoidoscopy increased 11.5% between 2001 and 2002.
- Maryland continues to surpass the Healthy People 2010 objective to increase the percent of adults receiving a colonoscopy or sigmoidoscopy.

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

- Breast cancer is the second leading cause of cancer death among women after lung cancer.
- The recommended public health intervention for breast cancer is early detection using mammography and clinical breast examination by a health care professional.
- Maryland has exceeded the Healthy People 2010 objective for mammography screening in 1998, 1999, 2000, and 2002.

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

- Prostate cancer is the most common reportable cancer among men and the third leading cause of cancer death among men after lung cancer and colorectal cancer.
- Prostate cancer incidence and mortality rates are statistically significantly higher among black men than white men.
- Clinicians should discuss with their patients the potential benefits and uncertainties regarding prostate cancer detection and treatment, consider individual patient preferences, and individualize the decision to screen.

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

- 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 ultraviolet (UV) light-blocking lip balm, and screening for oral cancer targeted to individuals 40 years of age and older.

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

- Incidence and mortality rates of melanoma are statistically significantly higher among males than females and among whites than blacks.
- Melanoma cancer incidence rates are continuing to increase at the same time cancer incidence rates for all sites combined and for major cancer sites are declining.
- The recommended public health intervention for skin cancer is reduction of exposure to ultraviolet light by: 1) avoiding the sun between 10 a.m. and 4 p.m., 2) wearing sun protective clothing when exposed to sunlight, 3) using sunscreens with a SPF of 15 or higher, and 4) avoiding artificial sources of ultraviolet light (e.g., tanning booths).

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

- The invasive cervical cancer incidence rate is decreasing at a faster rate than any of the targeted cancers.
- The recommended public health intervention for cervical cancer is early detection using the Pap test for women beginning at the onset of sexual activity or by age 21 if not sexually active.

C. Major Changes to this Report from the 2003 Annual Cancer Report

- The all cancer sites chapter now has two new graphs showing age-specific cancer incidence and mortality rates by gender.
- Each chapter has a new format for depicting staging; stage data for each targeted cancer are now shown as a trend over a 6-year period, 1996-2001.
- Cancer-related behavior (e.g., smoking, screening, etc.) for the chapters is now tracked over time for recent years when data are available, and results are compared against the appropriate Healthy People objective.
- A set of cancer incidence maps have been added in each chapter.
- A revised method for representing the geographic distribution of rates for cancer incidence and cancer mortality was applied to the maps. Each county or region's rate was compared to the U.S. rate. The rates are shown in four categories: >25% above the U.S. rate, 1-25% above the U.S. rate, 0-25% below the U.S. rate, and >25% below the U.S. rate. The new approach replaces the previous method of showing statistical difference from the U.S. rate.
- The new Appendix I combines the Maryland cancer incidence rates and mortality rates for the years 1997-2001 and the annual percent change for this period from each chapter.
- Similarly, the new Appendix J provides the percent of each stage at diagnosis for all cancer sites and the targeted cancers for the years 1996 through 2001.

II. All Cancer Sites Combined

Incidence (New Cases)

A total of 23,038 new cancer cases diagnosed in 2001 were reported to the Maryland Cancer Registry. The total age-adjusted cancer incidence rate for Maryland in 2001 was 444.4 per 100,000 population [438.6-450.2, 95% Confidence Interval (C.I.)]. The 2001 Maryland cancer incidence rate is statistically significantly lower than the 2001 U.S. rate of 468.8 per 100,000 population published by the National Cancer Institute, Surveillance Epidemiological End Results (SEER) Program.

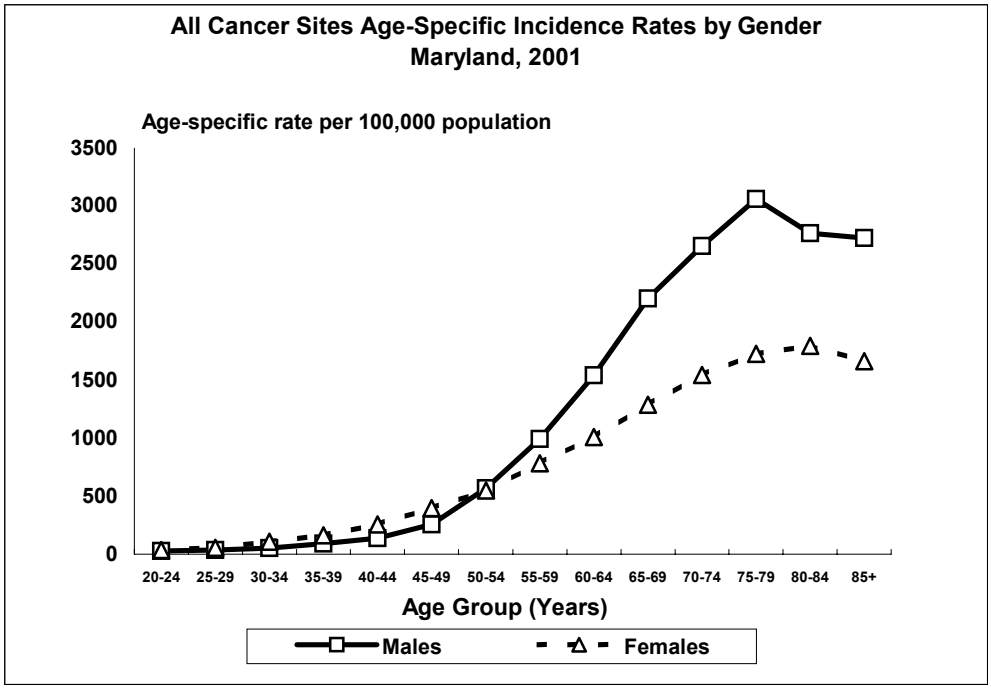
Mortality (Deaths)

Cancer is the second leading cause of death in Maryland, accounting for 24% of all deaths. A total of 10,179 Maryland residents died from cancer in 2001. The overall Maryland cancer mortality rate for 2001 is 202.2 per 100,000 population (198.3-206.2, 95% C.I.). This rate is statistically significantly higher than the 2001 U.S. cancer mortality rate of 195.6 per 100,000 population. Maryland is ranked 13th highest among all states and the District of Columbia in total cancer mortality for the period 1997-2001.

Table 1.
All Cancer Sites Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2001

Incidence 2001	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
New Cases (#)	23,038	11,748	11,286	17,026	4,833	697
Incidence Rate*	444.4	525.9	388.4	442.1	423.8	362.9
U.S. SEER Rate*	468.8	552.9	410.5	478.2	490.1	NA
Mortality 2001	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	10,179	5,200	4,979	7,500	2,491	188
MD Mortality Rate*	202.2	251.3	170.5	194.9	241.7	120.4
U.S. Mortality Rate*	195.6	243.5	164.1	193.3	243.8	NA

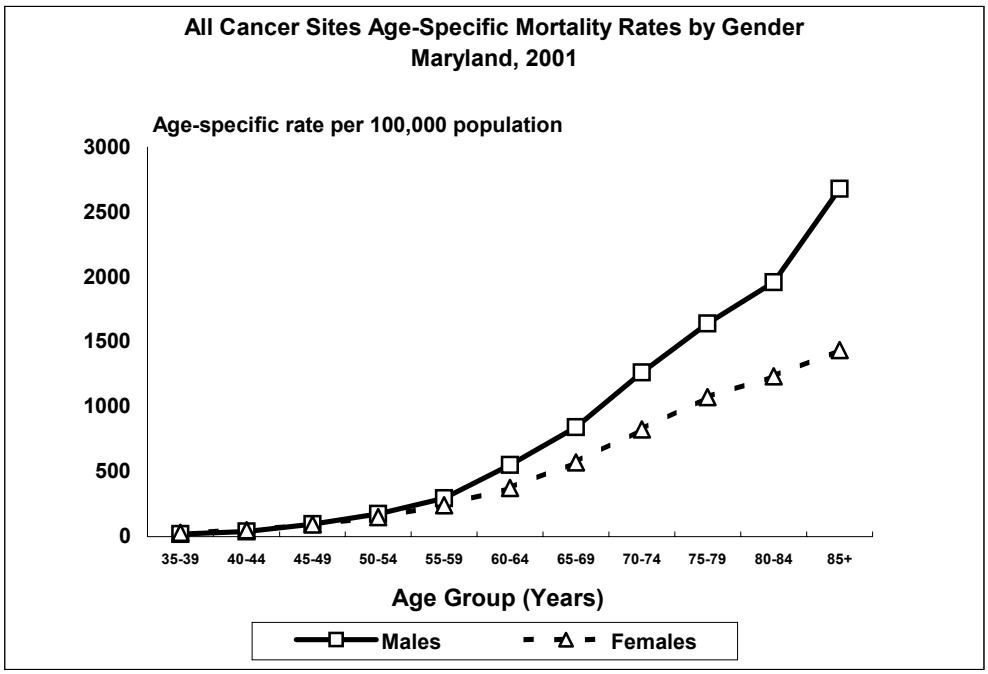
Total includes cases with transsexual, hermaphrodite, and unknown gender and unknown race (see Appendix C)
* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
NA: Data were not available
Source: Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001
SEER, National Cancer Institute, 2001



Maryland Cancer Registry, 2001

Age-Specific Incidence Rates by Gender

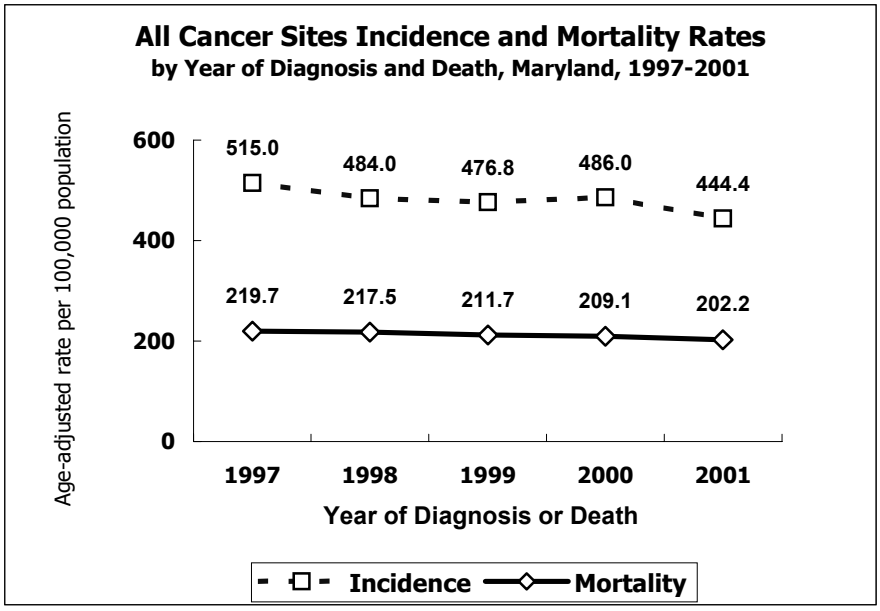
Over 94% of cancers occur in Marylanders over age 50. Females have a higher cancer incidence than males until 50-54 years. Afterward men have a higher incidence.



Maryland Division of Health Statistics, 2001

Age-Specific Mortality Rates by Gender

Cancer mortality rates increase with age. Males have a higher cancer mortality rate than females after age 45-49.

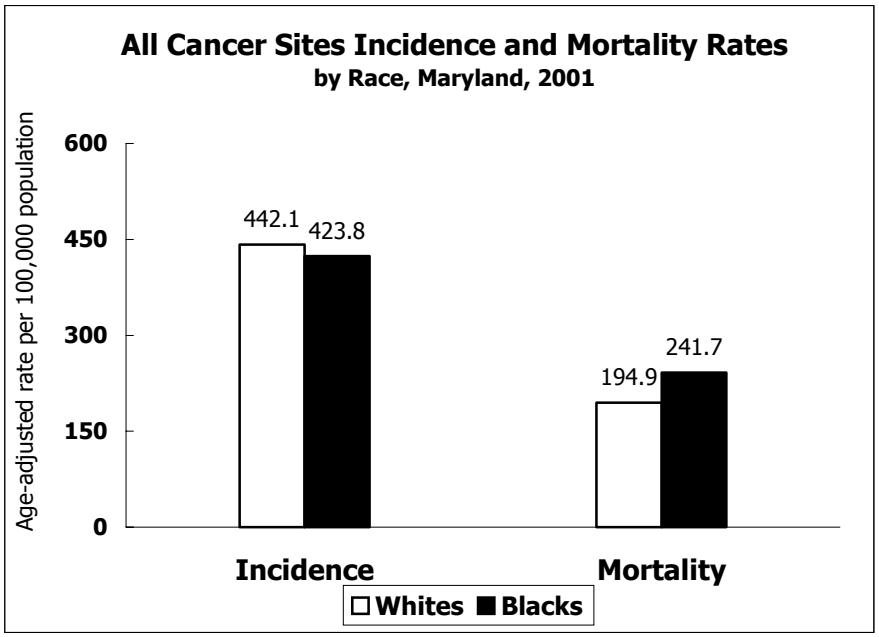


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001

Trend

Total cancer incidence (new cases) rates in Maryland decreased an average of 2.9% per year from 1997 to 2001.

Total cancer mortality (death) rates decreased an average of 2.0% per year from 1997 to 2001.

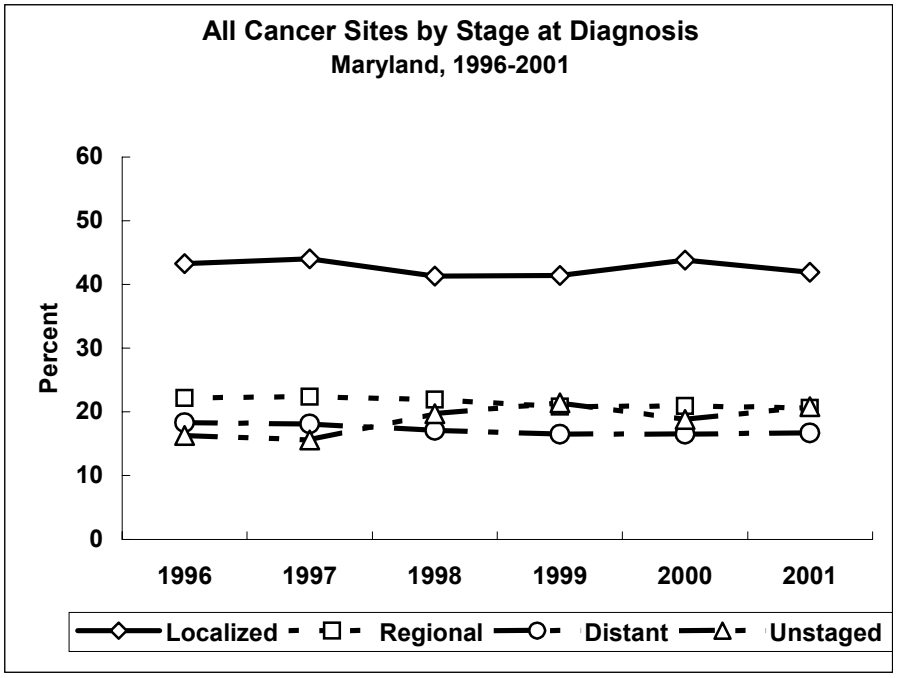


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 1997-2001

Race-Specific Rates

Overall cancer incidence rates are similar between blacks and whites.

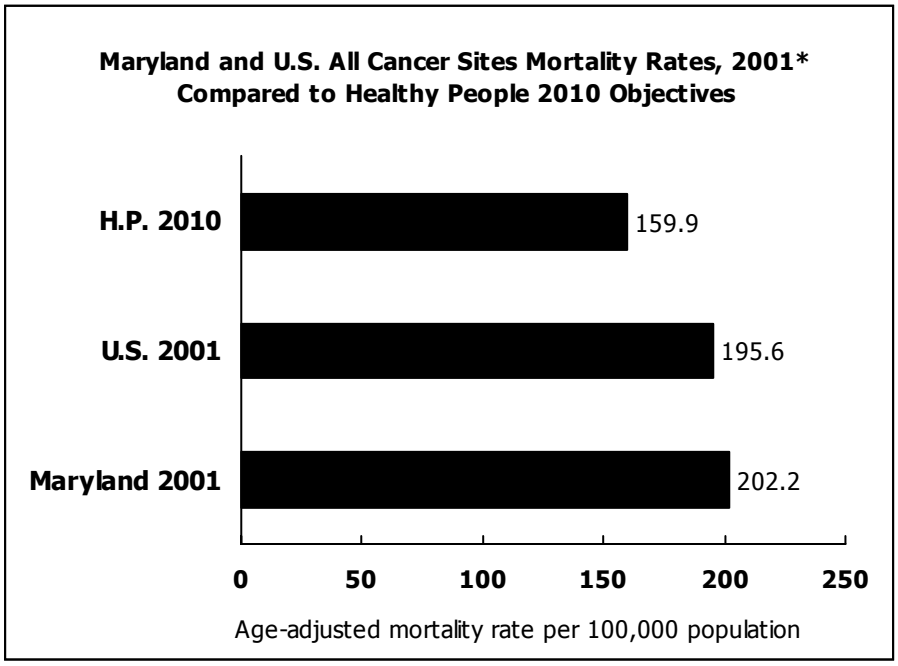
However, blacks have a statistically significantly higher cancer mortality rate than whites.



Maryland Cancer Registry, 1996-2001

Stage at Diagnosis

The stage of disease at diagnosis is an important predictor of cancer survival. Less than half (41.9%) of the new cancers in 2001 were diagnosed at the localized (early stage).



*Maryland and U.S. rates are age-adjusted to 2000 U.S. standard population
Maryland Division of Health Statistics, 2001
SEER, National Cancer Institute, 2001
Healthy People 2010, U.S. Department of Health and Human Services, 2000

Healthy People 2010 Objectives

The overall cancer mortality rate in 2001 for Maryland is 202.2 per 100,000 population. The Healthy People 2010 goal is to reduce cancer mortality to159.9 per 100,000 population.

Summary – Identification of Targeted Cancers

The cancers targeted under the Cigarette Restitution Fund in 2004 include: lung and bronchus, colon and rectum, prostate, breast, cervical, oral, and melanoma of the skin. These cancers were chosen due to the ability to prevent, detect early, and treat these cancers, and due to 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
  - prostate cancer
  - oral cancer
- Protection of the skin from excessive sun exposure or exposure to ultraviolet light

Table 2.
Number of Cancer Cases for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	23,038	11,748	11,286	17,026	4,833	697	482
Allegany	430	235	195	418	s	0	<6
Anne Arundel	2,103	1,113	990	1,807	212	42	42
Baltimore City	3,211	1,566	1,644	1,354	1,763	35	59
Baltimore County	4,129	2,129	2,000	3,462	528	69	70
Calvert	327	173	153	268	45	6	8
Caroline	148	85	63	125	s	<6	<6
Carroll	695	347	348	657	19	6	13
Cecil	340	180	160	325	7	<6	s
Charles	400	221	179	292	93	s	<6
Dorchester	194	92	102	153	41	0	0
Frederick	831	431	400	763	41	9	18
Garrett	164	92	72	164	0	0	0
Harford	977	499	478	868	81	8	20
Howard	834	426	408	639	126	50	19
Kent	106	s	s	88	s	0	<6
Montgomery	3,305	1,628	1,676	2,509	350	328	118
Prince George's	2,296	1,169	1,126	938	1,190	99	69
Queen Anne's	226	122	104	200	18	<6	s
Saint Mary's	309	145	164	253	43	<6	s
Somerset	147	76	71	104	s	<6	0
Talbot	277	147	130	241	33	<6	<6
Washington	740	380	360	705	25	s	<6
Wicomico	468	220	248	382	81	<6	<6
Worcester	371	205	166	305	49	s	<6
Unknown	10	s	<6	6	<6	0	<6

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 3.
All Cancer Sites Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	444.4	525.9	388.4	442.1	423.8	362.9
Allegany	459.6	562.8	390.9	458.7	**	0.0
Anne Arundel	460.5	548.4	396.6	452.4	465.7	383.2
Baltimore City	491.9	587.9	430.4	512.6	463.4	345.7
Baltimore County	487.3	582.1	420.8	479.5	523.0	386.6
Calvert	498.8	618.8	425.1	480.3	524.5	**
Caroline	466.6	615.8	361.5	458.6	**	**
Carroll	473.9	549.6	430.2	462.2	**	**
Cecil	415.3	496.7	363.5	415.7	**	**
Charles	401.9	513.9	317.5	380.9	463.5	**
Dorchester	497.8	540.3	472.6	506.7	478.8	0.0
Frederick	474.2	571.9	409.6	463.9	505.9	**
Garrett	482.5	598.4	395.8	485.6	0.0	0.0
Harford	478.7	570.1	420.8	465.4	541.7	**
Howard	398.6	452.8	352.9	381.1	505.7	282.5
Kent	395.1	493.4	320.8	387.7	**	0.0
Montgomery	378.4	438.4	338.6	366.3	363.2	366.5
Prince George's	350.5	421.7	299.7	351.4	333.6	322.8
Queen Anne's	501.3	557.9	450.0	494.4	**	**
Saint Mary's	412.3	412.3	416.7	399.2	420.9	**
Somerset	554.0	610.8	524.7	550.1	549.8	**
Talbot	556.9	664.3	475.5	544.3	557.3	**
Washington	511.0	594.2	464.0	505.3	**	**
Wicomico	540.1	568.1	511.9	555.2	482.5	**
Worcester	544.8	653.7	468.6	518.6	582.3	**

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 4.
All Sites Cancer Cases and Age-Adjusted Incidence Rates*
Among Hispanics
Maryland and Jurisdictions, 2001

Jurisdiction	Number	Rate
Maryland	352	322.8
Allegany	<6	**
Anne Arundel	25	**
Baltimore City	24	**
Baltimore County	35	449.8
Calvert	<6	**
Caroline	<6	**
Carroll	<6	**
Cecil	0	0.0
Charles	<6	**
Dorchester	<6	**
Frederick	11	**
Garrett	0	0.0
Harford	8	**
Howard	6	**
Kent	0	0.0
Montgomery	157	295.4
Prince George's	52	253.7
Queen Anne's	<6	**
St. Mary's	<6	**
Somerset	0	0.0
Talbot	<6	**
Washington	<6	**
Wicomico	<6	**
Worcester	6	**
Region	**Number**	**Rate**
BALTIMORE METRO REGION ^	100	386.6
EASTERN SHORE REGION	14	**
NATIONAL CAPITAL REGION	209	282.1
NORTHWEST REGION	18	**
SOUTHERN REGION	11	**

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

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

^ Includes Baltimore City

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Case numbers were prepared using MCR data and an algorithm to determine Hispanic ethnicity (see Appendix C)

Source: Maryland Cancer Registry, 2001

Table 5.
Number of Cancer Deaths for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	10,179	5,200	4,979	7,500	2,491	188
Allegany	152	74	78	s	<6	0
Anne Arundel	895	465	430	782	100	13
Baltimore City	1,665	818	847	s	996	<6
Baltimore County	1,902	948	954	1,652	229	21
Calvert	129	70	59	108	s	<6
Caroline	76	44	32	65	11	0
Carroll	291	152	139	280	s	<6
Cecil	182	97	85	175	7	0
Charles	207	104	103	155	46	6
Dorchester	94	57	37	61	33	0
Frederick	308	161	147	279	29	0
Garrett	76	46	30	76	0	0
Harford	364	211	153	341	s	<6
Howard	328	170	158	252	61	15
Kent	68	37	31	57	11	0
Montgomery	1,266	605	661	1,029	142	95
Prince George's	1,164	596	568	492	647	25
Queen Anne's	78	37	41	59	s	<6
Saint Mary's	127	71	56	113	s	<6
Somerset	51	30	21	41	10	0
Talbot	101	53	48	95	6	0
Washington	298	171	127	s	<6	0
Wicomico	199	111	88	150	s	<6
Worcester	158	72	86	131	s	<6

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 6.
All Cancer Sites Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	202.2	251.3	170.5	194.9	241.7	120.4
Allegany	151.3	190.0	134.3	151.2	**	0.0
Anne Arundel	212.6	263.1	179.9	210.3	245.3	**
Baltimore City	253.3	316.3	214.2	236.1	267.9	**
Baltimore County	219.3	268.2	188.5	217.6	265.2	**
Calvert	209.2	274.1	168.0	205.4	**	**
Caroline	238.7	325.8	176.6	237.3	**	0.0
Carroll	206.6	268.5	168.3	204.6	**	**
Cecil	235.9	301.7	198.5	236.0	**	0.0
Charles	238.0	288.8	202.9	231.8	253.5	**
Dorchester	230.4	333.9	157.0	191.4	372.4	0.0
Frederick	184.4	230.1	154.5	177.7	377.9	0.0
Garrett	214.3	303.6	144.7	215.6	0.0	0.0
Harford	190.5	271.0	139.8	193.2	**	**
Howard	183.7	228.0	156.2	174.6	278.1	**
Kent	232.3	295.5	185.1	226.4	**	0.0
Montgomery	149.5	174.4	132.8	150.1	172.1	133.9
Prince George's	200.5	256.1	167.1	185.6	227.6	85.7
Queen Anne's	181.2	186.1	179.0	152.9	**	**
Saint Mary's	183.8	216.9	152.1	193.6	**	**
Somerset	189.7	248.8	**	208.9	**	0.0
Talbot	193.2	230.6	168.7	207.8	**	0.0
Washington	203.2	281.9	151.7	206.1	**	0.0
Wicomico	231.4	308.3	173.7	217.3	310.9	**
Worcester	231.3	241.4	228.6	225.8	304.4	**

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 7.
Number of Cancer Cases for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	118,419	60,356	58,046	87,427	24,774	3,207	3,011
Allegany	2,363	1,253	1,110	2,304	37	13	9
Anne Arundel	10,691	5,499	5,190	9,002	1,183	169	337
Baltimore City	17,075	8,634	8,440	7,544	9,077	158	296
Baltimore County	20,794	10,527	10,266	17,600	2,473	311	410
Calvert	1,492	798	693	1,215	209	21	47
Caroline	782	430	352	655	118	s	<6
Carroll	3,379	1,786	1,593	3,189	77	28	85
Cecil	1,836	976	860	1,715	54	19	48
Charles	2,126	1,137	989	1,581	434	58	53
Dorchester	1,024	528	496	788	229	<6	<6
Frederick	3,926	2,021	1,905	3,499	220	35	172
Garrett	736	404	332	725	6	<6	<6
Harford	4,727	2,481	2,246	4,249	338	34	106
Howard	4,034	1,966	2,068	3,174	547	198	115
Kent	582	310	272	485	83	<6	s
Montgomery	17,364	8,528	8,828	13,511	1,789	1,439	625
Prince George's	13,312	6,778	6,531	5,855	6,523	515	419
Queen Anne's	1,011	532	479	866	119	<6	s
Saint Mary's	1,636	838	798	1,367	207	31	31
Somerset	701	393	308	503	179	s	<6
Talbot	1,216	648	568	1,048	150	s	<6
Washington	3,431	1,709	1,722	3,289	91	25	26
Wicomico	2,103	1,027	1,075	1,675	385	28	15
Worcester	1,672	909	763	1,387	210	44	31
Unknown	404	242	162	199	36	36	133

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 8.
All Cancer Sites Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	475.3	567.7	413.9	466.5	467.1	388.7
Allegany	492.9	609.9	416.5	491.8	435.1	**
Anne Arundel	491.7	576.0	435.3	472.8	538.1	354.3
Baltimore City	517.1	645.0	437.0	541.3	485.3	355.0
Baltimore County	499.7	593.2	438.3	488.5	548.2	362.6
Calvert	490.8	605.6	414.4	467.3	512.1	**
Caroline	498.7	611.4	412.7	490.0	528.9	**
Carroll	488.5	607.3	411.1	475.2	519.4	762.9
Cecil	479.5	572.0	416.5	468.4	386.5	**
Charles	469.0	588.5	386.5	448.8	485.5	749.3
Dorchester	523.1	611.4	460.1	520.4	530.2	**
Frederick	476.9	574.9	413.7	452.4	561.5	329.0
Garrett	434.6	529.1	365.7	429.8	**	**
Harford	492.8	602.2	421.3	483.3	509.8	266.4
Howard	430.1	487.2	390.4	419.2	461.3	313.9
Kent	448.5	517.6	393.2	445.3	406.3	**
Montgomery	419.9	487.9	375.5	410.5	410.2	371.6
Prince George's	441.0	540.0	374.4	438.4	421.8	384.7
Queen Anne's	476.0	529.6	435.1	459.8	530.3	**
Saint Mary's	464.0	509.6	428.4	459.2	434.2	625.2
Somerset	532.3	654.9	455.0	530.6	504.7	**
Talbot	498.8	595.7	427.1	492.7	492.5	**
Washington	483.0	551.6	447.1	480.6	508.9	**
Wicomico	500.3	569.3	454.4	500.9	474.6	481.9
Worcester	521.0	606.8	457.4	502.3	501.1	5,840.9

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 9.
Number of Cancer Deaths for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	50,810	25,969	24,841	37,768	12,254	788
Allegany	1,000	528	472	982	s	<6
Anne Arundel	4,402	2,299	2,103	3,812	540	50
Baltimore City	8,959	4,567	4,392	3,739	5,183	37
Baltimore County	9,085	4,507	4,578	8,040	965	80
Calvert	611	349	262	491	s	<6
Caroline	359	190	169	292	67	0
Carroll	1,318	696	622	1,274	38	6
Cecil	883	478	405	842	s	<6
Charles	983	516	467	754	214	15
Dorchester	466	274	192	334	s	<6
Frederick	1,506	831	675	1,382	113	11
Garrett	318	181	137	318	0	0
Harford	1,842	977	865	1,694	141	7
Howard	1,561	779	782	1,270	235	56
Kent	257	150	107	212	45	0
Montgomery	6,341	3,020	3,321	5,261	709	371
Prince George's	5,887	2,987	2,900	2,763	2,995	129
Queen Anne's	421	216	205	349	s	<6
Saint Mary's	661	367	294	549	s	<6
Somerset	322	189	133	226	s	<6
Talbot	479	270	209	401	s	<6
Washington	1,479	739	740	1,452	s	<6
Wicomico	951	481	470	735	s	<6
Worcester	719	378	341	596	s	<6

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Table 10.
All Cancer Sites Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1997-2001

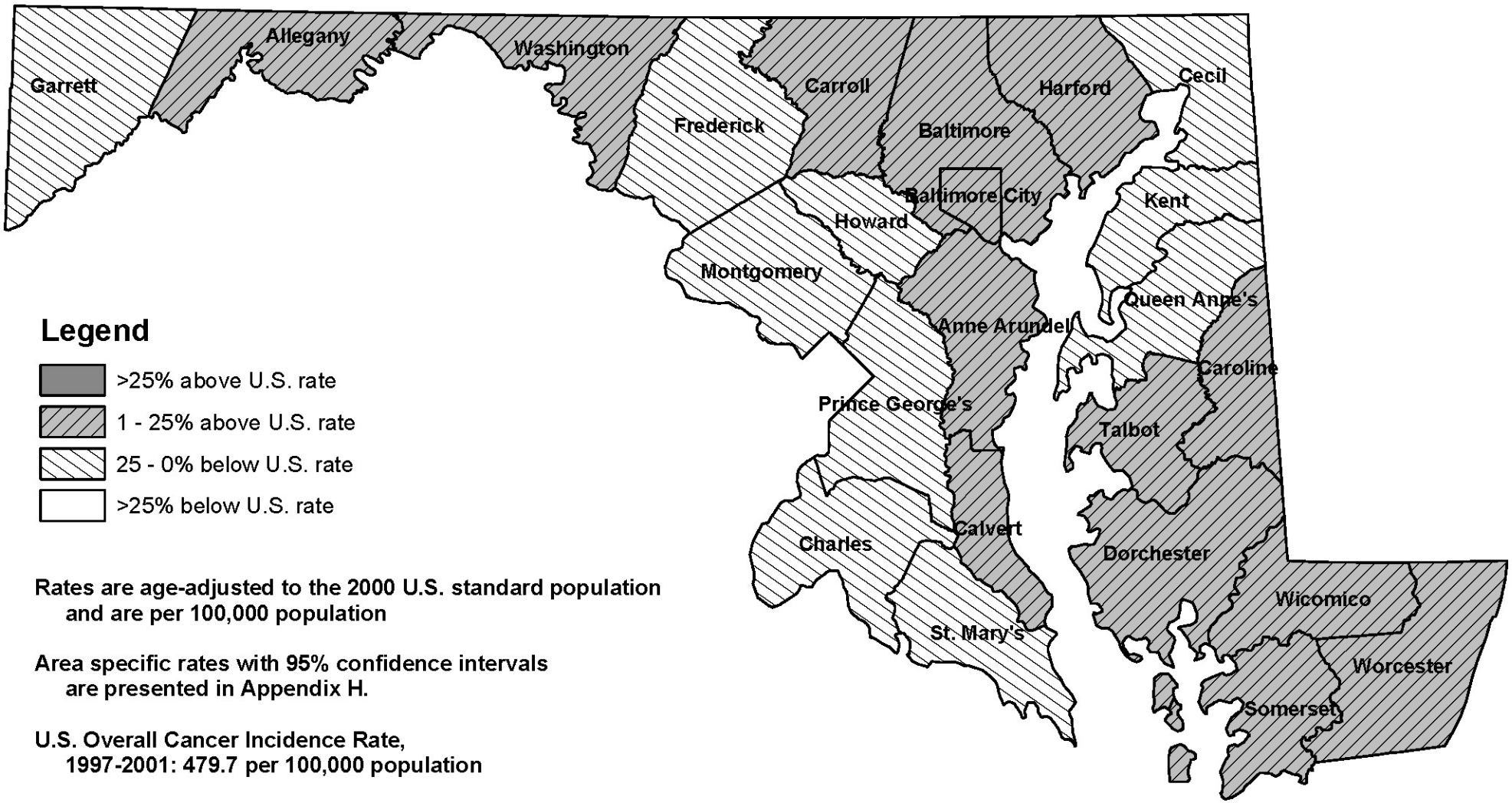
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	209.9	263.9	176.2	202.0	253.2	112.8
Allegany	198.0	265.3	157.2	198.2	**	**
Anne Arundel	218.1	273.0	183.2	214.1	270.1	127.9
Baltimore City	270.0	354.0	219.3	251.4	285.1	92.6
Baltimore County	214.4	264.4	184.1	213.8	245.8	119.5
Calvert	215.3	293.1	165.1	203.0	292.7	**
Caroline	227.8	280.7	187.7	216.8	303.8	0.0
Carroll	196.9	260.1	158.6	195.6	273.6	**
Cecil	244.7	320.1	201.2	243.2	304.9	**
Charles	239.6	301.7	199.5	233.8	267.1	**
Dorchester	230.4	325.2	164.7	211.2	302.9	**
Frederick	192.2	254.9	149.9	187.0	316.6	**
Garrett	184.7	246.3	142.1	185.3	0.0	0.0
Harford	206.3	268.2	168.6	206.1	237.9	**
Howard	190.1	234.9	164.3	188.2	239.3	108.6
Kent	187.2	252.6	141.6	181.4	229.2	0.0
Montgomery	157.3	185.7	140.2	158.7	183.7	112.8
Prince George's	215.3	273.0	180.5	209.3	232.6	107.2
Queen Anne's	205.3	232.4	185.8	192.8	302.1	**
Saint Mary's	201.3	247.3	165.3	198.1	231.4	**
Somerset	243.5	340.3	183.2	229.7	281.8	**
Talbot	187.0	251.0	144.9	179.6	237.2	**
Washington	205.9	251.7	178.6	208.1	**	**
Wicomico	227.7	281.4	192.6	219.2	272.0	**
Worcester	220.3	257.4	192.4	211.7	285.0	**

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Maryland Overall Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



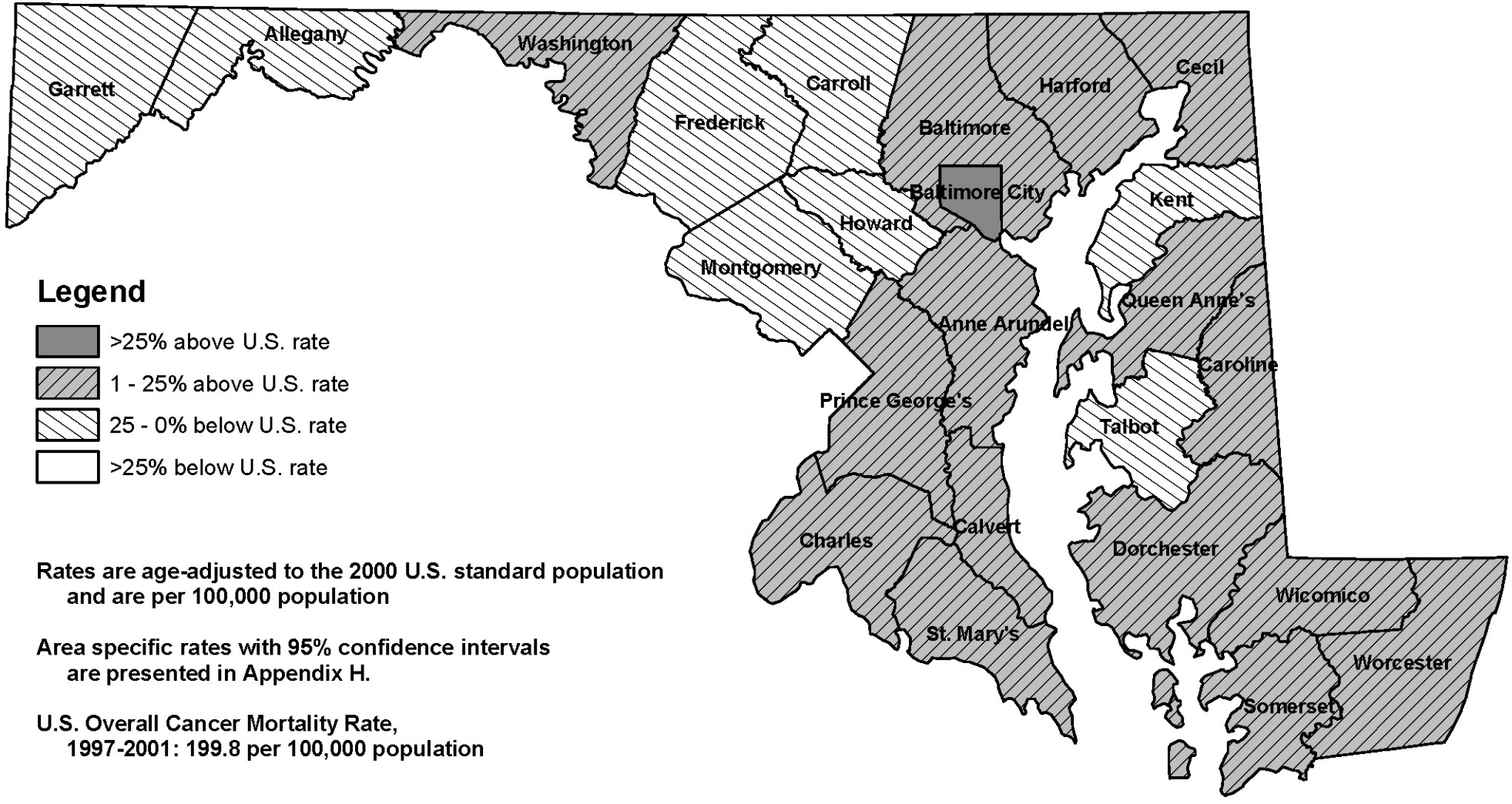
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Overall Cancer Incidence Rate, 1997-2001: 479.7 per 100,000 population

Source: Maryland Division of Health Statistics, 1997-2001

Maryland Overall Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



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

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Overall Cancer Mortality Rate, 1997-2001: 199.8 per 100,000 population

Source: Maryland Division of Health Statistics, 1997-2001

III. Targeted Cancers

A. Lung and Bronchus Cancer

Incidence (New Cases)

There were 3,190 new lung and bronchus cancer cases (called lung cancer) among Maryland residents in 2001. Lung cancer represents 13.8% of new cancers diagnosed in Maryland in 2001. The 2001 Maryland age-adjusted lung cancer incidence rate is 62.5 per 100,000 population (60.4-64.7, 95% C.I.) which is similar to (not statistically significantly different from) the 2001 U.S. SEER lung cancer incidence rate of 61.2 per 100,000 population.

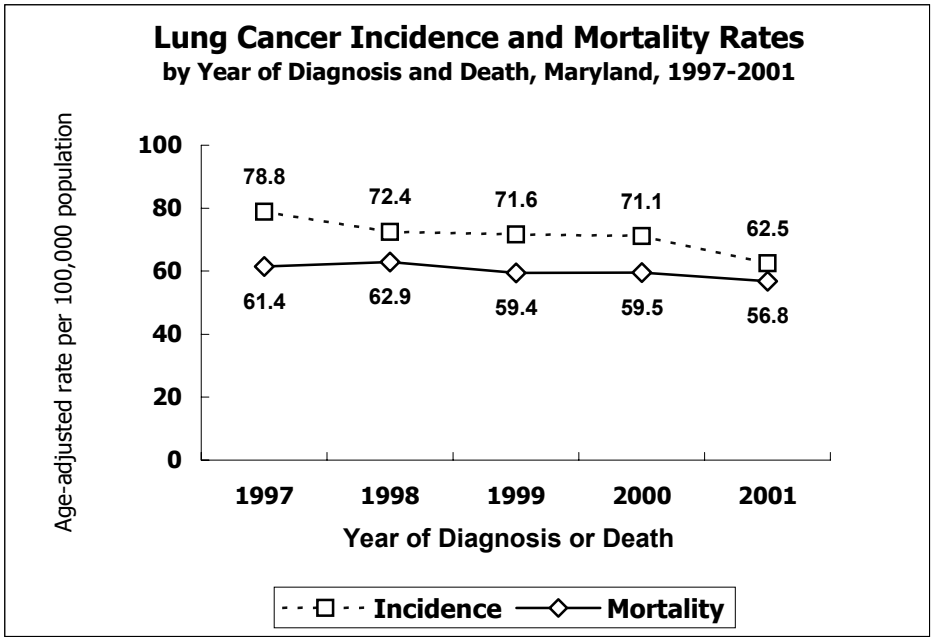
Mortality (Deaths)

There were 2,858 lung cancer deaths among Maryland residents in 2001. Lung cancer accounts for 28.1% of all cancer deaths in Maryland and is the leading cause of cancer deaths in both men and women. The 2001 age-adjusted lung cancer mortality rate is 56.8 per 100,000 population (54.7-58.9, 95% C.I.) in Maryland. This rate is similar to the 2001 U.S. mortality rate for lung and bronchus cancer of 55.2 per 100,000 population. Maryland has the 18th highest lung cancer mortality rate among the states and the District of Columbia for the period 1997-2001.

Table 11.
Lung Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2001

Incidence 2001	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
New Cases (#)	3,190	1,713	1,477	2,433	694	50
Incidence Rate*	62.5	78.3	51.2	63.1	63.6	27.7
U.S. SEER Rate*	61.2	77.7	49.1	62.1	76.9	NA
Mortality 2001	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	2,858	1,598	1,260	2,177	649	32
MD Mortality Rate*	56.8	75.2	43.7	56.6	62.7	20.8
U.S. Mortality Rate*	55.2	75.1	40.9	55.5	62.6	NA

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
NA: Data were not available
Source: Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001
SEER, National Cancer Institute, 2001

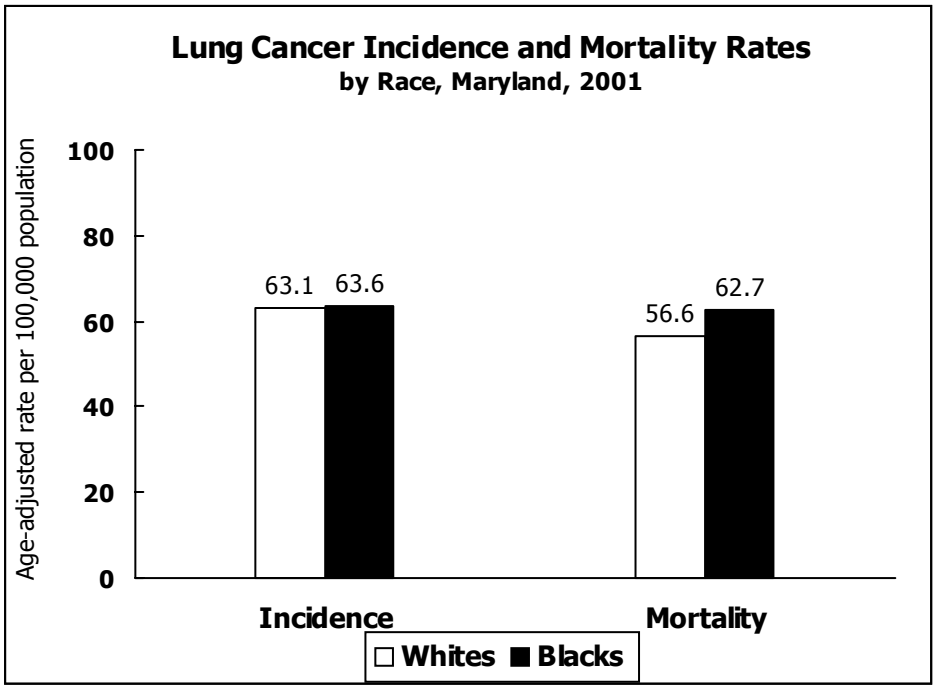


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001

Trends

Lung cancer incidence rates have decreased an average of 4.7% per year from 1997 to 2001 in Maryland.

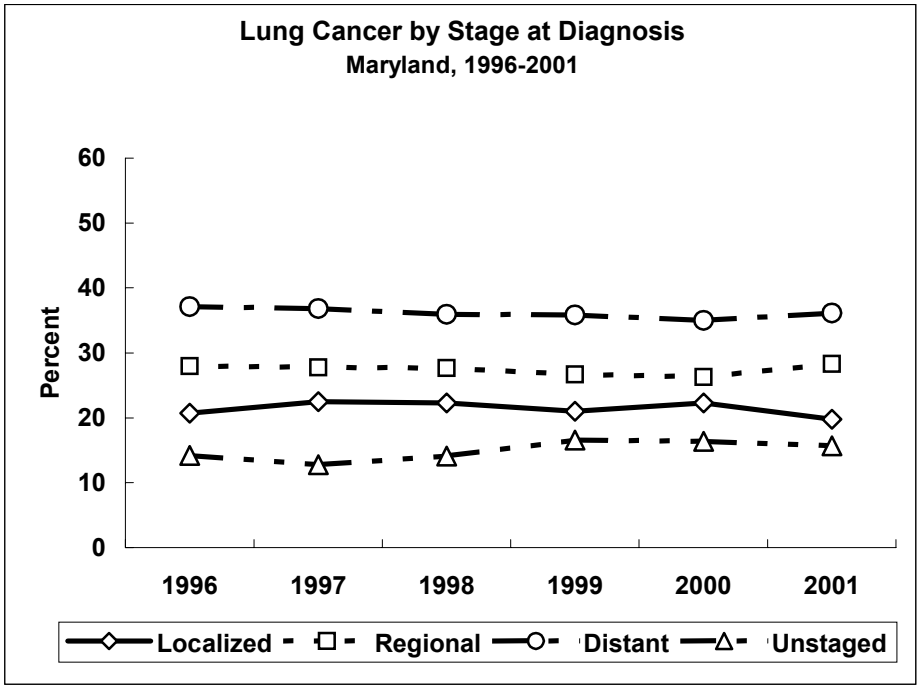
Lung cancer mortality began to decline in the 1990's. In Maryland, lung cancer death rates have decreased an average of 2.1% per year from 1997 to 2001.



Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001

Race-Specific Rates

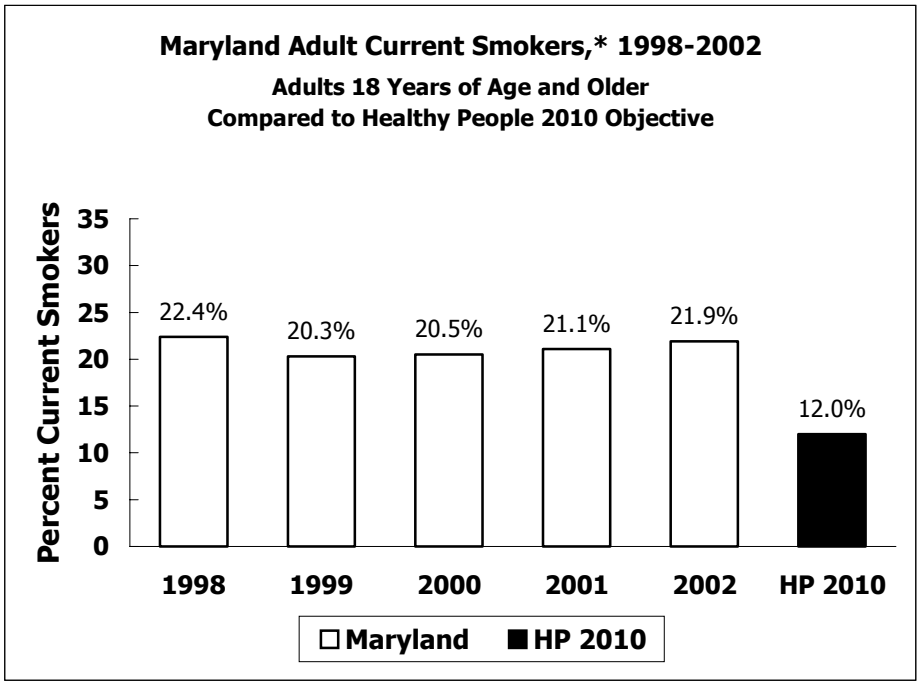
Lung cancer incidence and mortality rates are similar among whites and blacks in Maryland.



Maryland Cancer Registry, 1996-2001

Stage at Diagnosis

The majority of lung cancer cases are diagnosed at the distant stage. In 2001, 36.1% of lung cancer cases were diagnosed at the distant stage.



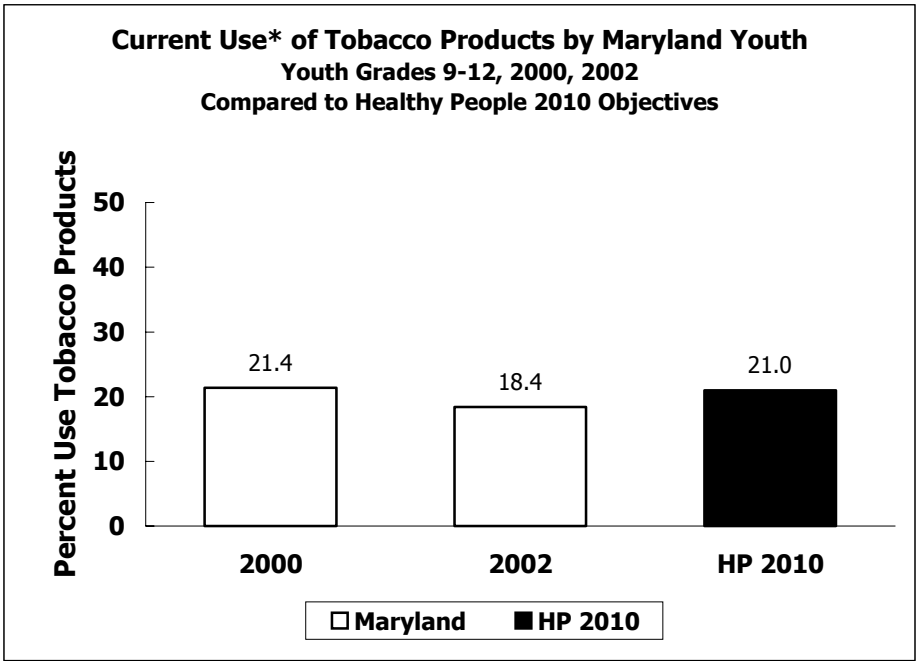
* Current Smoker is defined as a person 18 years and older who smokes cigarettes every day or some days

BRFSS, Maryland DHMH Office of Surveillance and Assessment, 1998-2002

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

Healthy People 2010 Objectives

The Healthy People 2010 objective is to reduce the percentage of adults (≥18 years) who are current smokers to 12%. The percent of adult smokers in Maryland has remained relatively stable since 1998.



* Current Use of Tobacco Products is defined as a youth from grades 9-12 who has used any tobacco product, including cigarettes, smokeless or spit tobacco, and other products containing tobacco in the last 30 days
MYTS, DHMH Center for Health Promotion, Education, and Tobacco Use Prevention, 2000, 2002

Healthy People 2010 Objectives

For youth, grades 9-12, the Healthy People 2010 tobacco use objective is to reduce the percentage of youth who are current users of tobacco products to 21.0%.

Based on the Maryland Youth Tobacco Survey (MYTS), 18.4% of Maryland youth currently use tobacco products, so Maryland has surpassed the Healthy People 2010 objective.

Public Health Evidence (quoted from National Cancer Institute [NCI], Physician Data Query [PDQ], 2/20/2004 and 7/13/2004 and United States Preventive Services Task Force [USPSTF], 5/2004)

Primary Prevention

Cigarette smoking has been established as the primary 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 with increased lung cancer risk. Smoking avoidance and cessation would result in decreased mortality from primary lung cancers. A 30-50% reduction of lung cancer mortality has been noted after 10 years of smoking cessation. Long-term smoking avoidance results in decreased incidence of second primary lung tumors.

Environmental, or second-hand, tobacco smoke contains the same components as inhaled mainstream smoke, in lower concentrations. Environmental smoke is also implicated in causing lung cancer. Other risk factors for lung cancer include asbestos and radon exposure; asbestos exposure combined with smoking increases the risk of lung cancer more than either exposure alone.

Chemoprevention

Pharmacological doses of beta-carotene supplementation (> 20 mg/day) *increase* lung cancer incidence and mortality among relatively high-intensity smokers (one or more packs per day).

Screening

The United States Preventive Services Task Force (USPSTF) concludes that the evidence is insufficient to recommend for or against screening for asymptomatic persons for lung cancer with either low dose computerized tomography ("spiral CT"), chest x-ray, sputum cytology, or a combination of these tests. Because of the invasive nature of diagnostic testing and the possibility of a high number of false-positive tests in certain populations, there is potential for significant harms from screening. Therefore, the USPSTF could not determine the balance between the benefits and harms of screening for lung cancer.

Public Health Intervention for Lung Cancer (CDC Best Practice Guidelines, 8/1999)

- **Prevent initiation of tobacco use among youth and young adults**
- **Promote quitting of tobacco use among youth and adults**
- **Eliminate non-smoker's exposure to environmental tobacco smoke**
- **Identify and eliminate tobacco-related health disparities**

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

- ***Community-based and statewide programs:***

✓ Adoption of smoke-free laws and policies (e.g., raising the costs of tobacco products, reducing minors access to tobacco products and reducing exposure to environmental smoke)
✓ Individually-focused identification of tobacco use and cessation counseling by medical and dental providers
✓ Effective smoking cessation programs for current tobacco users (individual, telephone, or group counseling)
✓ Nicotine replacement and other pharmacotherapy
✓ Effective community-based tobacco use prevention activities encompassing all sectors of the community (e.g., homes, work sites, places of worship and entertainment, and civic organizations)

- ***School-based programs:***

✓ Evidence-based tobacco prevention curricula in schools
✓ Evidence-based tobacco cessation programs for youth in schools

- ***Enforcement programs:***

✓ Enforce laws and policies to reduce minors' access to tobacco products
✓ Enforce laws and policies to reduce exposure to environmental tobacco smoke

- ***Counter-marketing programs:***

✓ Counter tobacco advertisements
✓ Raise awareness of the dangers of environmental tobacco smoke
✓ Discourage the use of tobacco products and promote smoke-free behavior as the norm
✓ Promote cessation of tobacco use

- ***Surveillance and Evaluation:***

✓ Monitor tobacco-related behaviors, attitudes, and health outcomes
✓ Evaluate local and state tobacco-related programs

- ***Chronic Disease:***

✓ Prevent and detect other tobacco-related diseases such as cardiovascular disease and asthma

- ***Administration and Management:***

✓ Have sufficient staffing and management structures to facilitate coordination of program components and multiple agencies/groups

Table 12.
Number of Lung and Bronchus Cancer Cases by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	3,190	1,713	1,477	2,433	694	50	13
Allegany	76	43	33	76	0	0	0
Anne Arundel	307	159	148	281	s	<6	0
Baltimore City	570	300	270	s	327	0	<6
Baltimore County	592	320	272	522	62	s	<6
Calvert	46	30	16	s	<6	0	0
Caroline	21	13	8	s	<6	0	0
Carroll	76	43	33	76	0	0	0
Cecil	55	32	23	s	<6	0	0
Charles	65	46	19	48	s	<6	<6
Dorchester	30	14	16	20	10	0	0
Frederick	99	65	34	91	s	<6	0
Garrett	22	14	8	22	0	0	0
Harford	145	82	63	132	s	<6	0
Howard	80	36	44	58	s	<6	0
Kent	19	10	9	s	<6	0	0
Montgomery	306	143	163	255	30	s	<6
Prince George's	279	151	128	132	136	s	<6
Queen Anne's	32	16	16	26	<6	<6	0
Saint Mary's	40	21	19	36	<6	0	<6
Somerset	27	15	12	s	<6	0	0
Talbot	37	19	18	31	6	0	0
Washington	112	64	48	107	<6	0	<6
Wicomico	83	38	45	70	s	<6	0
Worcester	70	38	32	59	8	<6	<6
Unknown	<6	<6	0	0	<6	0	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 13.
Lung and Bronchus Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	62.5	78.3	51.2	63.1	63.6	27.7
Allegany	76.9	102.2	59.2	78.6	0.0	0.0
Anne Arundel	69.3	84.1	60.4	72.0	**	**
Baltimore City	87.2	113.1	70.3	87.9	85.7	0.0
Baltimore County	69.1	86.8	55.9	70.7	70.2	**
Calvert	77.8	124.1	**	83.0	**	0.0
Caroline	**	**	**	**	**	0.0
Carroll	53.4	72.8	41.5	55.0	0.0	0.0
Cecil	68.5	86.3	**	70.4	**	0.0
Charles	69.2	113.9	**	66.4	**	**
Dorchester	74.1	**	**	**	**	0.0
Frederick	58.4	87.5	36.0	56.9	**	**
Garrett	**	**	0.0	**	0.0	0.0
Harford	72.0	94.4	56.1	71.1	**	**
Howard	43.9	47.7	43.3	40.8	**	**
Kent	**	**	**	**	**	0.0
Montgomery	36.0	38.4	33.4	37.3	33.0	**
Prince George's	46.6	59.2	37.8	48.6	45.7	**
Queen Anne's	72.7	**	**	65.6	**	**
Saint Mary's	55.0	**	**	58.9	**	0.0
Somerset	99.6	**	**	**	**	0.0
Talbot	74.2	**	**	68.3	**	0.0
Washington	76.8	100.7	60.9	75.7	**	0.0
Wicomico	95.2	100.1	91.2	100.4	**	**
Worcester	99.5	119.6	87.3	96.7	**	**

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 14.
Number of Lung and Bronchus Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2,858	1,598	1,260	2,177	649	32
Allegany	40	23	17	40	0	0
Anne Arundel	270	148	122	251	s	<6
Baltimore City	487	266	221	s	284	<6
Baltimore County	570	302	268	500	s	<6
Calvert	36	20	16	s	<6	0
Caroline	25	15	10	s	<6	0
Carroll	77	45	32	s	<6	0
Cecil	58	34	24	s	<6	0
Charles	53	33	20	38	s	<6
Dorchester	30	18	12	22	8	0
Frederick	76	46	30	69	7	0
Garrett	21	s	s	21	0	0
Harford	116	71	45	108	8	0
Howard	82	54	28	62	s	<6
Kent	23	12	11	s	<6	0
Montgomery	272	139	133	229	30	13
Prince George's	307	176	131	146	155	6
Queen Anne's	23	13	10	18	<6	<6
Saint Mary's	36	22	14	s	<6	0
Somerset	16	s	<6	s	<6	0
Talbot	30	17	13	s	<6	0
Washington	87	48	39	s	<6	0
Wicomico	68	45	23	57	11	0
Worcester	55	25	30	46	9	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 15.
Lung and Bronchus Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	56.8	75.2	43.7	56.6	62.7	20.8
Allegany	39.5	**	**	40.3	0.0	0.0
Anne Arundel	63.9	82.7	51.0	67.2	**	**
Baltimore City	74.3	101.1	56.7	74.1	75.0	**
Baltimore County	66.0	83.8	53.3	66.2	79.6	**
Calvert	61.4	**	**	66.1	**	0.0
Caroline	**	**	**	**	**	0.0
Carroll	56.0	80.3	40.3	56.8	**	0.0
Cecil	74.1	99.0	**	73.2	**	0.0
Charles	59.0	90.3	**	54.7	**	**
Dorchester	72.6	**	**	**	**	0.0
Frederick	45.5	65.5	32.0	44.0	**	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	59.5	86.9	41.0	59.8	**	0.0
Howard	46.7	72.0	29.2	43.7	**	**
Kent	**	**	**	**	**	0.0
Montgomery	32.6	39.1	27.1	33.8	36.7	**
Prince George's	53.2	71.3	40.3	54.5	55.4	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	51.1	**	**	57.5	**	0.0
Somerset	**	**	**	**	**	0.0
Talbot	56.6	**	**	62.2	**	0.0
Washington	59.2	78.6	46.8	59.6	**	0.0
Wicomico	78.3	123.2	**	81.7	**	0.0
Worcester	77.8	**	78.2	76.1	**	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 16.
Number of Lung and Bronchus Cancer Cases by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	17,288	9,526	7,759	13,323	3,674	249	42
Allegany	392	232	160	384	<6	<6	<6
Anne Arundel	1,671	889	781	1,483	172	s	<6
Baltimore City	3,055	1,678	1,377	1,400	1,629	18	8
Baltimore County	3,182	1,706	1,475	2,832	318	s	<6
Calvert	229	141	88	197	s	<6	0
Caroline	128	74	54	105	s	<6	0
Carroll	426	261	165	410	s	<6	0
Cecil	318	180	138	307	s	<6	0
Charles	329	202	127	260	63	<6	<6
Dorchester	178	107	71	134	44	0	0
Frederick	500	319	181	455	39	<6	<6
Garrett	108	69	39	s	<6	0	0
Harford	708	391	317	664	s	<6	0
Howard	483	242	241	397	72	s	<6
Kent	108	59	49	93	s	<6	0
Montgomery	1,815	919	895	1,517	190	102	6
Prince George's	1,743	998	745	912	779	45	7
Queen Anne's	157	85	72	137	s	<6	0
Saint Mary's	256	145	111	226	27	<6	<6
Somerset	138	86	52	101	s	<6	0
Talbot	162	86	76	142	s	<6	0
Washington	511	273	238	494	s	0	<6
Wicomico	356	184	172	291	s	<6	0
Worcester	307	181	126	253	47	<6	<6
Unknown	28	19	9	22	<6	0	<6

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 17.
Lung and Bronchus Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	70.4	91.0	55.7	70.8	72.4	34.8
Allegany	78.2	109.8	54.5	78.2	**	**
Anne Arundel	79.5	97.5	67.2	80.0	82.1	**
Baltimore City	92.3	126.2	70.7	99.1	87.4	**
Baltimore County	75.2	95.6	60.9	75.8	76.9	29.0
Calvert	80.1	114.6	56.1	80.4	81.3	**
Caroline	81.2	107.7	62.9	78.0	**	**
Carroll	63.4	91.7	44.0	62.8	**	**
Cecil	83.8	104.6	67.9	84.5	**	**
Charles	75.5	105.6	53.1	76.7	71.7	**
Dorchester	87.4	120.7	63.8	84.2	100.2	0.0
Frederick	63.0	93.4	40.6	60.9	110.3	**
Garrett	62.5	91.0	41.4	62.2	**	0.0
Harford	75.8	98.5	60.6	77.1	66.6	**
Howard	58.4	67.8	52.3	59.4	62.9	**
Kent	77.2	94.8	61.1	78.0	**	**
Montgomery	45.2	53.8	38.8	46.4	48.0	31.2
Prince George's	60.9	82.1	46.0	67.6	55.3	40.1
Queen Anne's	73.4	82.5	64.4	72.4	**	**
Saint Mary's	75.2	91.9	61.8	78.8	56.1	**
Somerset	104.0	144.2	71.5	102.7	102.1	**
Talbot	63.5	77.2	53.0	62.8	**	**
Washington	71.1	88.0	59.5	70.8	**	0.0
Wicomico	84.2	103.3	70.9	85.7	80.9	**
Worcester	91.4	118.3	68.9	87.1	111.6	**

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 18.
Number of Lung and Bronchus Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	14,438	8,204	6,234	11,050	3,246	142
Allegany	302	185	117	295	7	0
Anne Arundel	1,355	757	598	1,216	130	9
Baltimore City	2,697	1,571	1,126	1,182	1,505	10
Baltimore County	2,688	1,462	1,226	2,437	239	12
Calvert	192	110	82	165	s	<6
Caroline	121	73	48	99	22	0
Carroll	356	210	146	348	8	0
Cecil	269	163	106	258	11	0
Charles	293	162	131	236	51	6
Dorchester	136	87	49	101	35	0
Frederick	417	283	134	382	s	<6
Garrett	92	62	30	92	0	0
Harford	559	319	240	519	s	<6
Howard	409	223	186	335	64	10
Kent	83	52	31	74	9	0
Montgomery	1,417	730	687	1,204	157	56
Prince George's	1,556	890	666	806	719	31
Queen Anne's	129	69	60	104	s	<6
Saint Mary's	169	105	64	148	s	<6
Somerset	109	73	36	77	32	0
Talbot	117	73	44	103	14	0
Washington	428	235	193	422	6	0
Wicomico	315	180	135	256	59	0
Worcester	229	130	99	191	38	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Table 19.
Lung and Bronchus Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender and Race, Maryland, 1997-2001

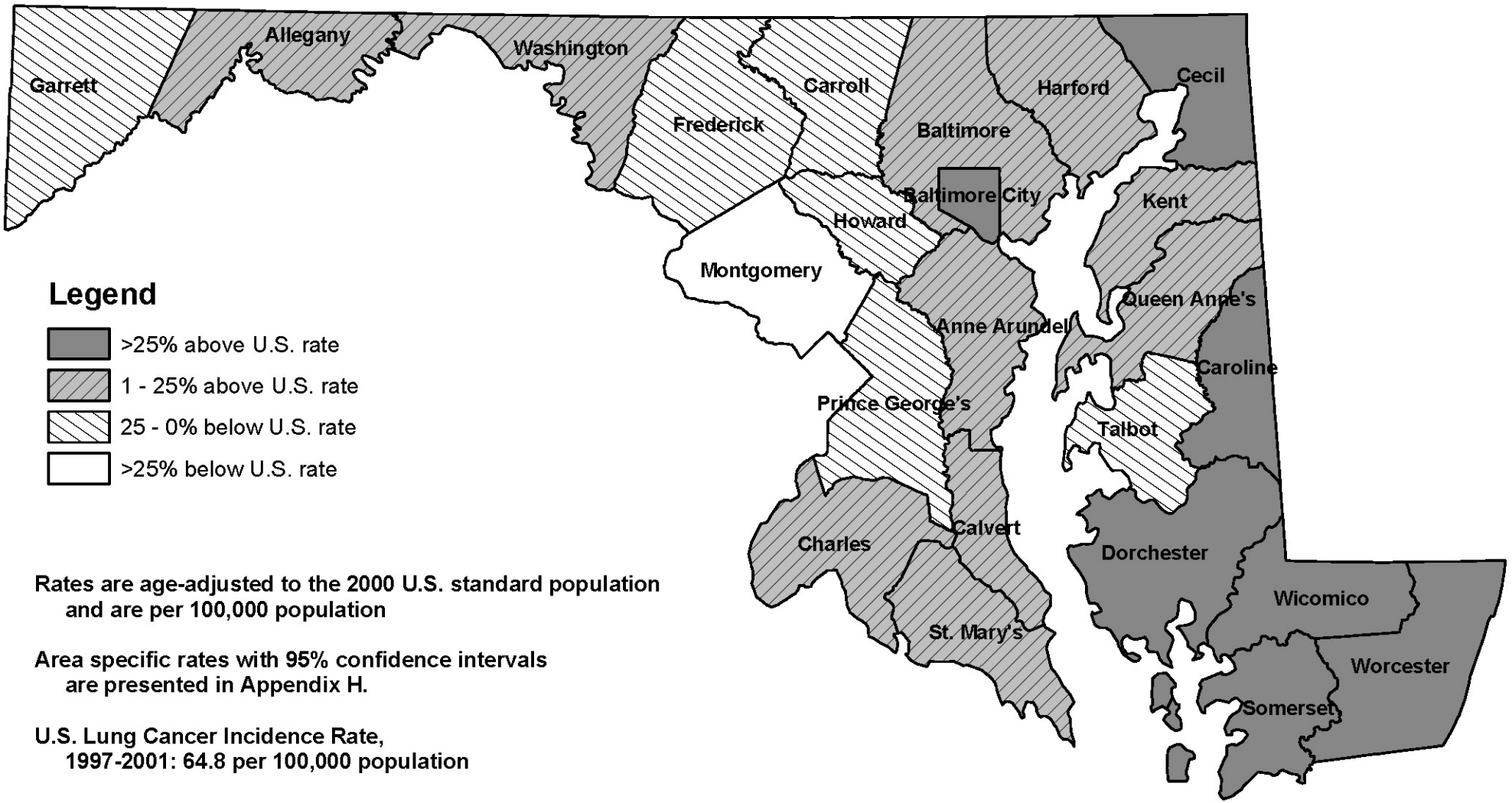
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	59.4	80.8	44.6	58.8	66.2	22.1
Allegany	59.7	89.4	39.0	59.3	**	0.0
Anne Arundel	66.4	87.2	52.2	67.3	66.5	**
Baltimore City	81.2	119.1	56.7	81.7	81.2	**
Baltimore County	63.1	83.4	49.5	64.4	60.4	**
Calvert	67.6	86.3	53.1	68.0	66.2	**
Caroline	76.8	107.0	54.2	73.6	**	0.0
Carroll	53.6	76.3	38.3	53.8	**	0.0
Cecil	71.7	97.9	52.2	71.8	**	0.0
Charles	69.9	91.0	56.0	71.9	61.8	**
Dorchester	67.0	99.4	43.9	62.9	80.9	0.0
Frederick	53.0	84.5	30.1	51.5	93.0	**
Garrett	52.8	80.3	31.4	53.0	0.0	0.0
Harford	61.0	83.9	46.1	61.3	64.6	**
Howard	51.2	66.8	41.1	51.1	64.4	**
Kent	60.3	87.6	41.4	63.6	**	0.0
Montgomery	35.6	44.3	29.4	36.7	42.1	18.6
Prince George's	56.3	77.8	42.2	59.8	55.6	28.7
Queen Anne's	60.9	67.5	53.9	55.5	**	**
Saint Mary's	50.8	69.9	35.9	53.0	**	**
Somerset	82.0	125.7	49.6	77.9	94.7	0.0
Talbot	45.3	66.8	29.7	45.8	**	0.0
Washington	59.3	78.2	46.3	60.0	**	0.0
Wicomico	74.8	102.8	55.8	75.7	74.3	0.0
Worcester	66.4	83.6	52.7	63.9	88.3	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Maryland Lung Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



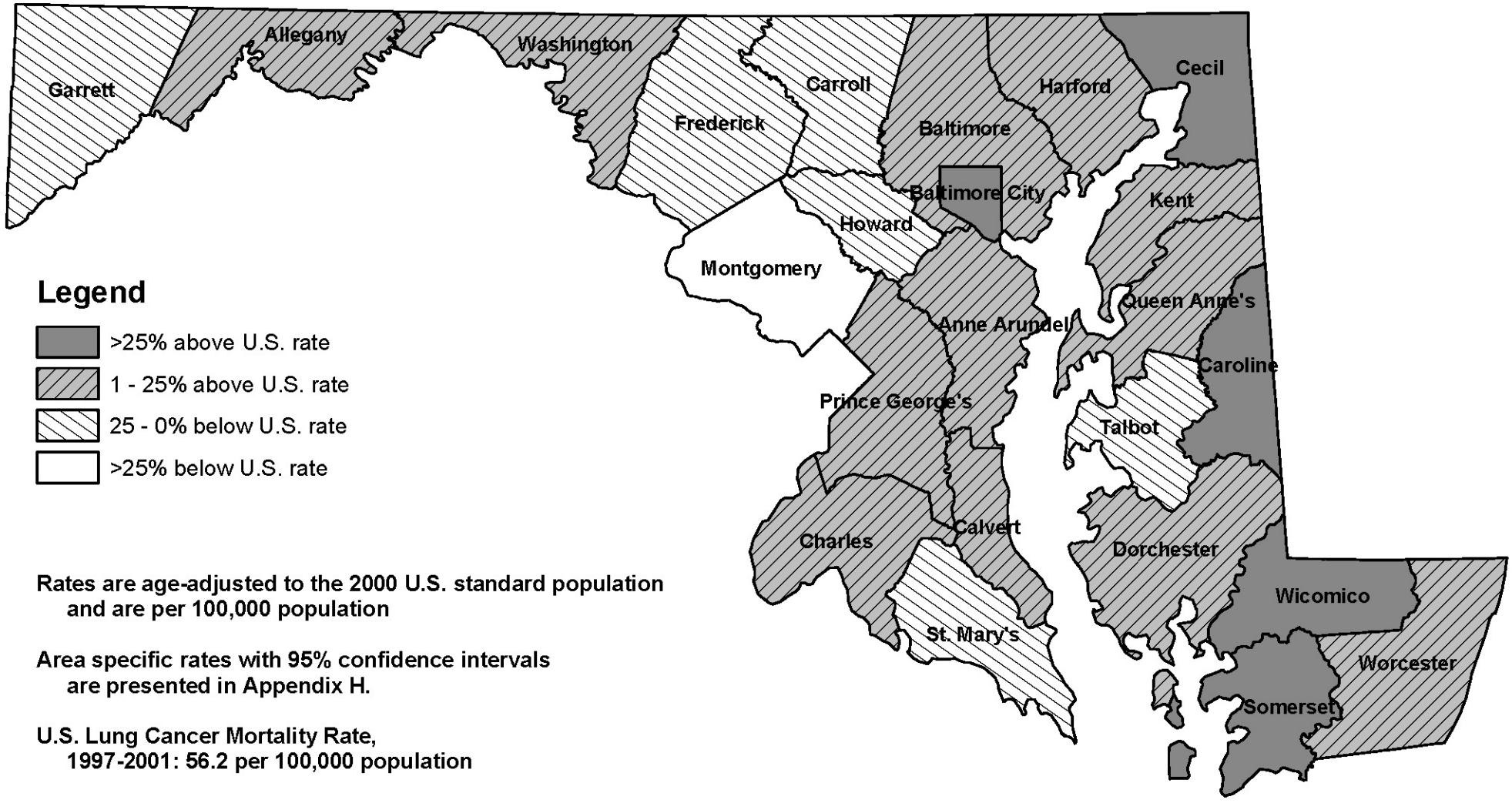
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Lung Cancer Incidence Rate, 1997-2001: 64.8 per 100,000 population

Source: Maryland Cancer Registry, 1997-2001

Maryland Lung Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



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

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Lung Cancer Mortality Rate, 1997-2001: 56.2 per 100,000 population

Source: Maryland Division of Health Statistics, 1997-2001

B. Colon and Rectum Cancer

Incidence (New Cases)

Cancer of the colon or rectum is often referred to as colorectal cancer. There were 2,665 new cases of colorectal cancer diagnosed among Maryland residents in 2001. Colorectal cancer cases represent 11.6% of 2001 new cancers. The age-adjusted colorectal cancer incidence rate in Maryland for 2001 is 52.5 per 100,000 population (50.6-54.6, 95% C.I.) which is similar to the 2001 U.S. SEER age-adjusted colorectal cancer incidence rate of 51.8 per 100,000 population.

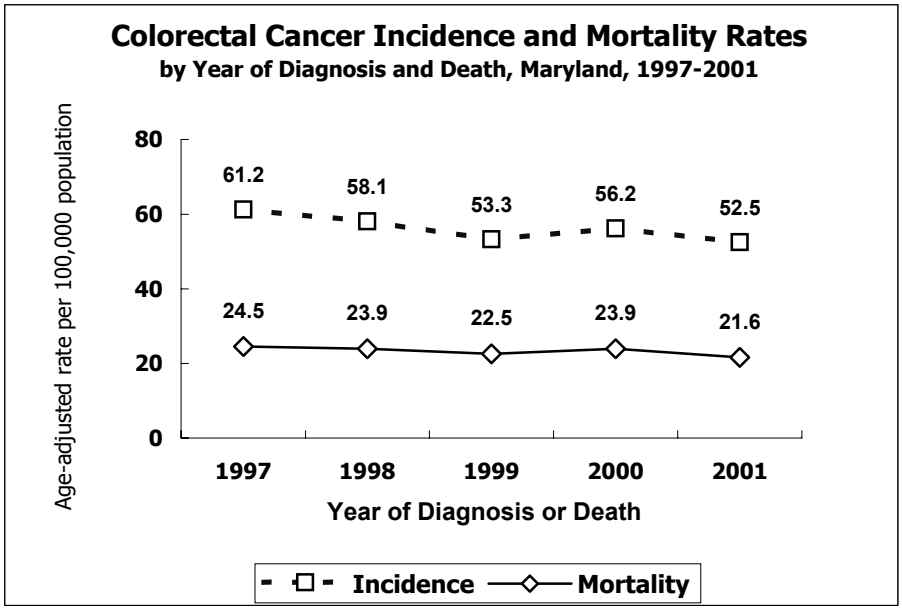
Mortality (Deaths)

A total of 1,079 persons died of colorectal cancer in 2001 in Maryland. Colorectal cancer accounts for 10.6% of all cancer deaths and is the second leading cause of cancer deaths in Maryland. The age-adjusted colorectal cancer mortality rate in Maryland is 21.6 per 100,000 population (20.3-23.0, 95% C.I.). This rate is statistically significantly higher than the 2001 U.S. colorectal cancer mortality rate of 20.0 per 100,000 population. Maryland has the 5th highest colorectal cancer mortality rate for the period 1997-2001 among the states and the District of Columbia for the period 1997-2001.

Table 20.
Colorectal Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2001

Incidence 2001	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
New Cases (#)	2,665	1,278	1,385	1,987	541	90
Incidence Rate*	52.5	59.2	47.4	51.5	51.8	50.0
U.S. SEER Rate*	51.8	60.6	44.8	51.1	61.4	NA
Mortality 2001	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	1,079	526	553	776	278	25
MD Mortality Rate*	21.6	26.0	18.7	20.1	28.4	**
U.S. Mortality Rate*	20.0	24.2	17.0	19.5	27.6	NA

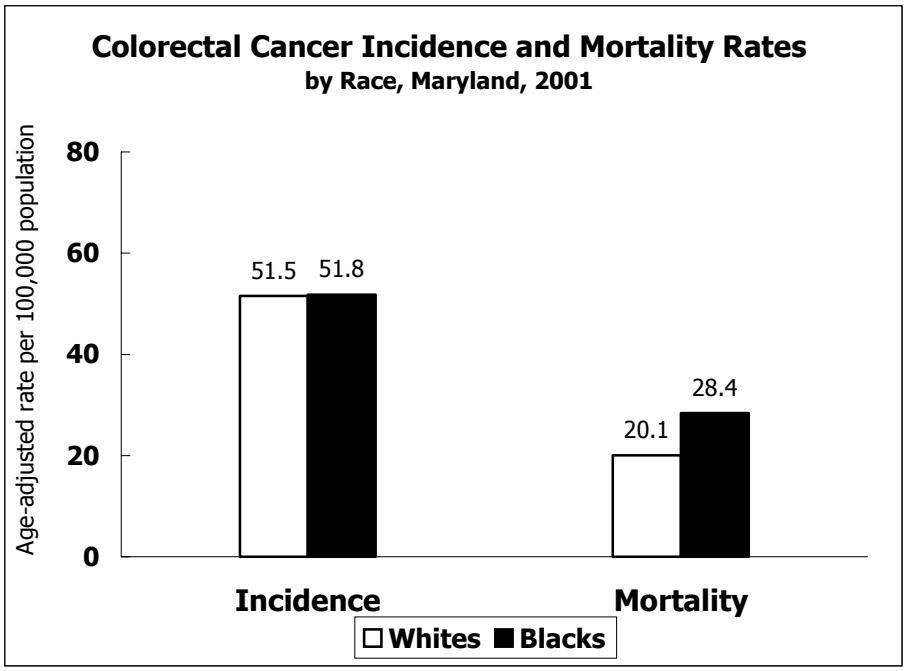
* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy
NA: Data were not available
Source: Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001
SEER, National Cancer Institute, 2001



Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001

Trends

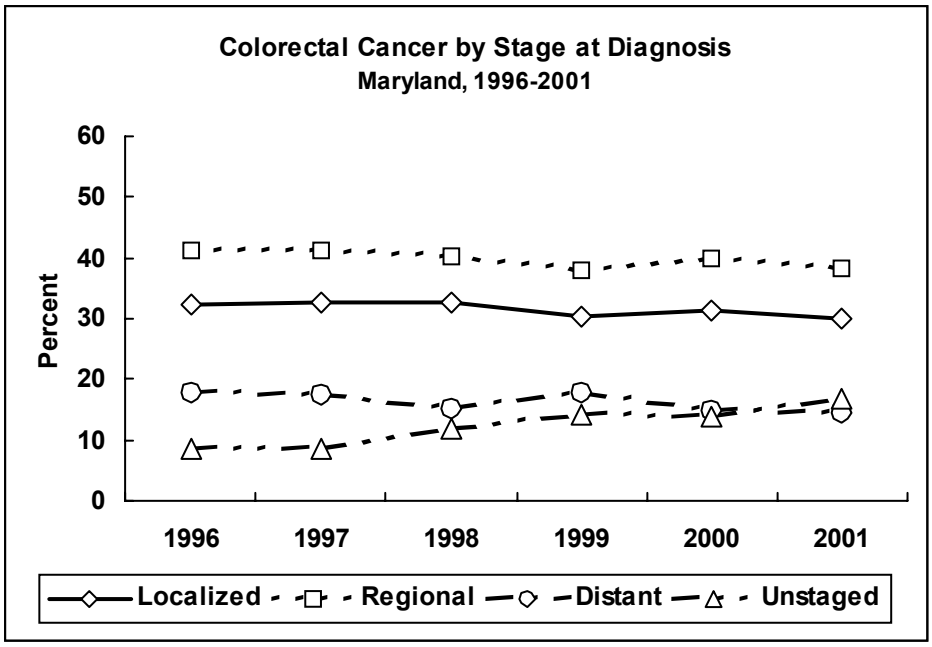
Both incidence and mortality rates for colorectal cancer have been declining. Incidence rates dropped an average of 3.3% per year from 1997 to 2001, and mortality rates dropped an average of 2.5% per year.



Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001

Race-Specific Rates

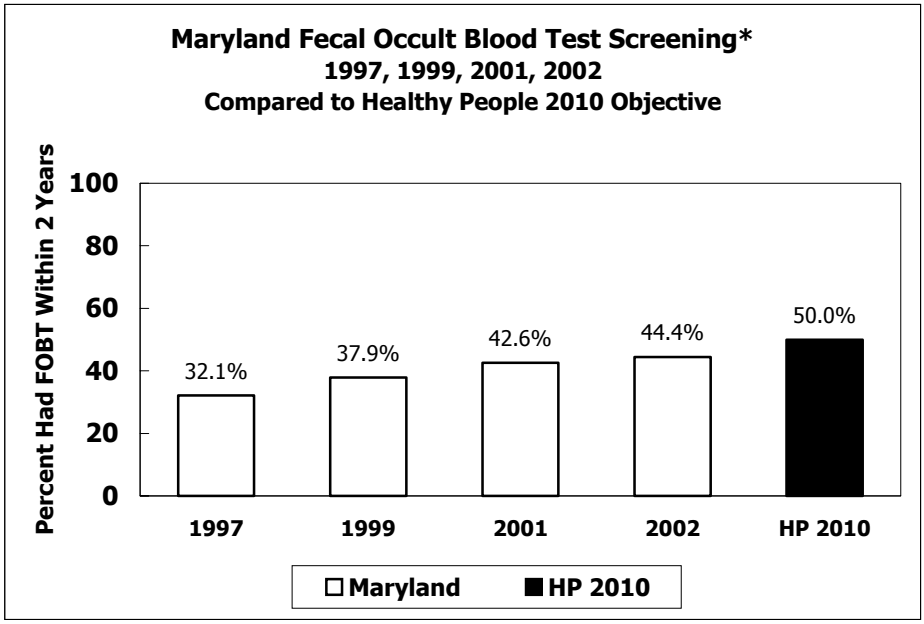
Although blacks have similar colorectal cancer incidence rates compared to whites, they have statistically significantly higher colorectal cancer mortality rates than whites.



Maryland Cancer Registry, 1996-2001

Stage at Diagnosis

In 2001, 30.1% of colorectal cancers were diagnosed at the localized (early) stage in Maryland, compared with 32.4% in 1996.
The percent of unstaged colorectal cancer has increased from 8.6% in 1996 to 16.9% in 2001.

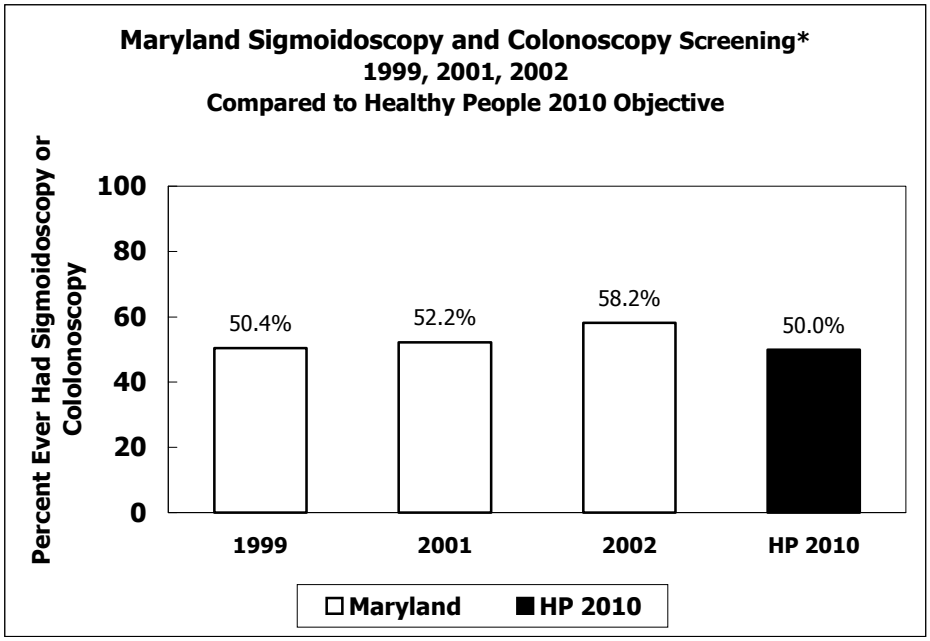


* Adults 50 years of age and older having FOBT within the preceding 2 years
BRFSS, Maryland DHMH Office of Surveillance and Assessment, 1997, 1999, 2001
Maryland Cancer Survey, DHMH Center for Cancer Surveillance and Control, 2002
Healthy People 2010, U.S. Department of Health and Human Services, 2000

Healthy People 2010 Objectives

One Healthy People 2010 objective for colorectal cancer is to increase to 50% the proportion of adults 50 years and older who received a fecal occult blood test (FOBT) in the preceding 2 years.

Since 1997, there has been an increasing trend of FOBT use. Of Maryland adults 50 years and older surveyed in 2002, 44.4% reported having had a home test kit for FOBT within the preceding 2 years.



* Adults 50 years of age and older ever having had sigmoidoscopy or colonoscopy
BRFSS, Maryland DHMH Office of Surveillance and Assessment, 1997, 1999, 2001
Maryland Cancer Survey, DHMH Center for Cancer Surveillance and Control, 2002
Healthy People 2010, U.S. Department of Health and Human Services, 2000

Healthy People 2010 Objectives

The second Healthy People 2010 objective for colorectal cancer is to increase to 50% the proportion of adults 50 years and older who *ever* received a sigmoidoscopy or colonoscopy.

In the 2002 Maryland Cancer Survey, 58.2% of Maryland adults age 50 and older reported having *ever* had a sigmoidoscopy or colonoscopy, continuing a steady increase that, in 1999, 2001, and 2002, exceeded the Healthy People 2010 objective.

Public Health Evidence (quoted from NCI, PDQ, 5/26/2004 and 7/13/2004 and the USPSTF 7/2002)

Screening

The United States Preventive Services Task Force (USPSTF) strongly recommends that clinicians screen men and women 50 years of age and older for colorectal cancer. The USPSTF found fair to good evidence that several screening methods (e.g., fecal occult blood testing [FOBT], sigmoidoscopy, colonoscopy, double contrast barium enema [DCBE]) are effective in reducing mortality from colorectal cancer. They concluded that the benefits from screening substantially outweigh potential harms, but the quality of evidence, magnitude of benefit and potential harms vary with each method. They found that there were insufficient data to determine which strategy is best in terms of the balance of benefits and potential harms or cost-effectiveness. The USPSTF found insufficient evidence that newer technologies, such as computer tomographic colography ("virtual colonoscopy"), are effective in improving health outcome.

Prevention

Studies suggest that colorectal cancer results from complex interactions between inherited susceptibility and environmental factors. It is hypothesized that adenomatous polyps (adenomas) are precursors for the vast majority of colorectal cancers. Colonoscopy with removal of adenomas may reduce the risk of colorectal cancer. Epidemiological, experimental (animal), and clinical studies suggest that diets high in total fat, protein, calories, alcohol, and meat (both red and white meat) and low in calcium and folate are associated with an increased incidence of colorectal cancer. Cereal fiber supplementation and diets low in fat and high in fiber, fruits, and vegetables, however, do not reduce the rate of adenoma recurrence over a 3-year to 4-year period. Cigarette smoking is associated with an increased tendency to form adenomas and to develop colorectal cancer.

Chemoprevention

Nonsteroidal anti-inflammatory drugs (NSAIDs) including proxicam, sulindac, and aspirin may prevent adenoma formation or cause adenomatous polyps to regress in individuals with prior colorectal cancer or adenomatous polyps and in the setting of familial adenomatous polyposis. The potential for the use of NSAIDs as a primary prevention measure is being studied. However, there are several unresolved issues that mitigate against making general recommendations for their use. These include a paucity of knowledge about the proper dose and duration of these agents, and concern about whether the potential preventive benefits such as a reduction in the frequency or intensity of screening or surveillance could counterbalance such long-term risks as gastrointestinal ulceration and hemorrhagic stroke for the average-risk individual.

Public Health Intervention for Colorectal Cancer (DHMH Colorectal Cancer Medical Advisory Committee)
Early detection of colorectal cancer: ➢ For those at average risk, screen with colonoscopy, or with FOBT (three samples) and flexible sigmoidoscopy. ➢ For those unable or unwilling to undergo colonoscopy or sigmoidoscopy—FOBT (three samples) is an alternative initial screening method. ➢ DCBE is reserved as an alternative for situations where the patient and the provider discuss and determine that DCBE is indicated for the individual.

Table 21.
Number of Colorectal Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	2,665	1,278	1,385	1,987	541	90	47
Allegany	55	23	32	s	<6	0	0
Anne Arundel	241	124	117	205	31	<6	<6
Baltimore City	347	148	198	176	163	s	<6
Baltimore County	521	248	273	422	73	13	13
Calvert	36	15	20	30	<6	0	<6
Caroline	28	18	10	s	<6	0	0
Carroll	85	37	48	79	<6	<6	0
Cecil	44	18	26	44	0	0	0
Charles	46	26	20	31	s	<6	<6
Dorchester	25	11	14	18	7	0	0
Frederick	109	58	51	99	<6	<6	<6
Garrett	17	6	11	17	0	0	0
Harford	106	51	55	92	9	<6	<6
Howard	92	43	49	64	21	7	0
Kent	14	<6	s	s	<6	0	0
Montgomery	336	171	165	250	37	34	15
Prince George's	259	121	138	107	131	12	9
Queen Anne's	25	11	14	22	<6	0	<6
Saint Mary's	46	25	21	39	7	0	0
Somerset	11	s	<6	s	<6	0	0
Talbot	38	21	17	s	<6	0	0
Washington	85	38	47	s	<6	0	0
Wicomico	53	23	30	42	11	0	0
Worcester	46	30	16	33	7	6	0
Unknown	0	0	0	0	0	0	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 22.
Colorectal Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	52.5	59.2	47.4	51.5	51.8	50.0
Allegany	57.4	**	59.7	57.7	**	0.0
Anne Arundel	55.9	64.8	48.9	54.1	72.4	**
Baltimore City	52.6	57.7	49.1	63.7	44.7	**
Baltimore County	60.4	67.9	54.2	56.1	80.1	**
Calvert	60.6	**	**	61.1	**	0.0
Caroline	88.3	**	**	**	**	0.0
Carroll	60.2	65.0	59.3	57.6	**	**
Cecil	55.0	**	59.5	57.2	0.0	0.0
Charles	50.8	57.4	**	41.7	**	**
Dorchester	**	**	**	**	**	0.0
Frederick	64.9	79.9	53.8	62.9	**	**
Garrett	**	**	**	**	0.0	0.0
Harford	55.2	60.9	50.6	52.0	**	**
Howard	48.5	47.7	46.6	42.8	**	**
Kent	**	**	**	**	**	0.0
Montgomery	38.9	47.3	33.5	36.1	44.8	39.8
Prince George's	42.9	47.2	39.6	40.7	40.2	**
Queen Anne's	**	**	**	**	**	0.0
Saint Mary's	64.2	**	**	63.8	**	0.0
Somerset	**	**	**	**	**	0.0
Talbot	71.8	**	**	70.9	**	0.0
Washington	57.5	58.9	53.4	57.7	**	0.0
Wicomico	61.4	**	56.7	60.1	**	0.0
Worcester	68.7	96.4	**	55.5	**	**

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 23.
Number of Colorectal Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	1,079	526	553	776	278	25
Allegany	14	8	6	s	<6	0
Anne Arundel	74	39	35	61	s	<6
Baltimore City	165	78	87	61	104	0
Baltimore County	207	91	116	179	s	<6
Calvert	13	s	<6	s	<6	0
Caroline	9	s	<6	s	<6	0
Carroll	36	15	21	s	<6	0
Cecil	25	11	14	25	0	0
Charles	22	14	8	16	<6	<6
Dorchester	11	s	<6	s	<6	0
Frederick	41	20	21	35	6	0
Garrett	6	<6	<6	6	0	0
Harford	41	17	24	s	<6	0
Howard	32	13	19	26	<6	<6
Kent	<6	<6	<6	<6	<6	0
Montgomery	130	70	60	105	16	9
Prince George's	142	72	70	58	78	6
Queen Anne's	11	<6	s	s	<6	0
Saint Mary's	16	10	6	s	<6	0
Somerset	<6	<6	<6	<6	<6	0
Talbot	7	<6	s	s	<6	0
Washington	31	19	12	s	<6	0
Wicomico	23	10	13	17	6	0
Worcester	15	9	6	s	<6	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 24.
Colorectal Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	21.6	26.0	18.7	20.1	28.4	**
Allegany	**	**	**	**	**	0.0
Anne Arundel	17.8	22.1	15.0	16.3	**	**
Baltimore City	24.8	30.9	21.2	21.0	29.2	0.0
Baltimore County	23.8	26.1	21.8	23.4	**	**
Calvert	**	**	**	**	**	0.0
Caroline	**	**	**	**	**	0.0
Carroll	25.0	**	**	23.7	**	0.0
Cecil	**	**	**	**	0.0	0.0
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	0.0
Frederick	24.8	**	**	22.7	**	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	22.8	**	**	24.2	**	0.0
Howard	20.0	**	**	19.9	**	**
Kent	**	**	**	**	**	0.0
Montgomery	15.3	20.2	12.1	15.2	**	**
Prince George's	24.7	31.0	20.8	21.8	26.2	**
Queen Anne's	**	**	**	**	**	0.0
Saint Mary's	**	**	**	**	**	0.0
Somerset	**	**	**	**	**	0.0
Talbot	**	**	**	**	**	0.0
Washington	21.0	**	**	20.8	**	0.0
Wicomico	**	**	**	**	**	0.0
Worcester	**	**	**	**	**	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 25.
Number of Colorectal Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	13,536	6,688	6,845	10,048	2,873	383	232
Allegany	317	146	171	308	s	0	<6
Anne Arundel	1,113	574	539	934	129	17	33
Baltimore City	1,972	878	1,093	956	985	17	14
Baltimore County	2,491	1,220	1,271	2,118	303	35	35
Calvert	165	89	75	136	24	<6	<6
Caroline	121	67	54	105	16	0	0
Carroll	380	187	193	366	9	<6	<6
Cecil	210	113	97	201	s	<6	<6
Charles	228	114	114	167	51	<6	s
Dorchester	143	70	73	113	s	0	<6
Frederick	496	266	230	443	36	7	10
Garrett	95	45	50	s	0	0	<6
Harford	507	269	238	442	57	<6	<6
Howard	403	190	213	306	64	25	8
Kent	63	26	37	53	10	0	0
Montgomery	1,768	891	877	1,345	197	185	41
Prince George's	1,579	763	815	719	768	57	35
Queen Anne's	127	63	64	107	s	0	<6
Saint Mary's	230	121	109	186	39	<6	<6
Somerset	84	55	29	69	s	<6	0
Talbot	158	87	71	127	s	0	<6
Washington	429	209	220	416	s	<6	0
Wicomico	208	94	114	170	s	<6	0
Worcester	194	116	78	146	31	s	<6
Unknown	55	35	20	21	<6	s	23

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 26.
Colorectal Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	55.7	65.5	48.5	53.6	58.6	50.0
Allegany	63.5	71.2	58.1	63.0	**	0.0
Anne Arundel	53.7	63.7	46.7	51.3	60.9	**
Baltimore City	59.3	67.7	54.2	64.2	54.6	**
Baltimore County	58.9	69.7	50.7	56.5	74.5	43.7
Calvert	58.5	72.7	47.3	56.2	**	**
Caroline	76.7	96.6	60.0	77.6	**	0.0
Carroll	56.8	68.1	48.9	56.2	**	**
Cecil	56.0	65.2	47.8	56.0	**	**
Charles	54.5	59.3	49.4	50.7	63.7	**
Dorchester	71.0	83.5	62.8	70.8	68.1	0.0
Frederick	62.7	78.1	51.4	59.9	97.5	**
Garrett	55.6	58.9	51.8	55.2	0.0	0.0
Harford	55.7	69.3	46.3	52.9	95.9	**
Howard	47.9	52.6	44.1	44.7	63.2	**
Kent	45.0	43.3	47.0	44.6	**	0.0
Montgomery	43.5	53.0	36.9	40.5	50.4	49.6
Prince George's	57.4	66.4	51.1	54.7	57.1	50.7
Queen Anne's	62.9	69.8	58.3	60.8	**	0.0
Saint Mary's	69.4	77.3	62.2	66.2	85.4	**
Somerset	63.3	95.4	37.6	69.2	**	**
Talbot	62.7	78.9	51.3	57.1	99.3	0.0
Washington	59.7	67.5	52.3	59.5	**	**
Wicomico	49.9	51.7	45.8	50.6	44.8	**
Worcester	58.8	76.3	43.9	50.9	74.0	**

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 27.
Number of Colorectal Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	5,505	2,680	2,825	4,017	1,389	99
Allegany	131	68	63	s	<6	0
Anne Arundel	427	227	200	362	57	8
Baltimore City	957	437	520	395	556	6
Baltimore County	1,014	474	540	896	106	12
Calvert	68	35	33	52	s	<6
Caroline	48	24	24	41	7	0
Carroll	155	67	88	149	<6	<6
Cecil	85	42	43	79	<6	<6
Charles	108	60	48	83	s	<6
Dorchester	54	32	22	39	15	0
Frederick	185	93	92	167	s	<6
Garrett	45	22	23	45	0	0
Harford	190	93	97	169	s	<6
Howard	150	73	77	123	21	6
Kent	23	12	11	17	6	0
Montgomery	648	317	331	526	78	44
Prince George's	679	332	347	300	365	14
Queen Anne's	42	14	28	32	10	0
Saint Mary's	79	44	35	66	s	<6
Somerset	29	18	11	21	8	0
Talbot	59	36	23	40	19	0
Washington	157	77	80	s	<6	0
Wicomico	91	39	52	67	24	0
Worcester	81	44	37	67	14	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Table 28.
Colorectal Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1997-2001

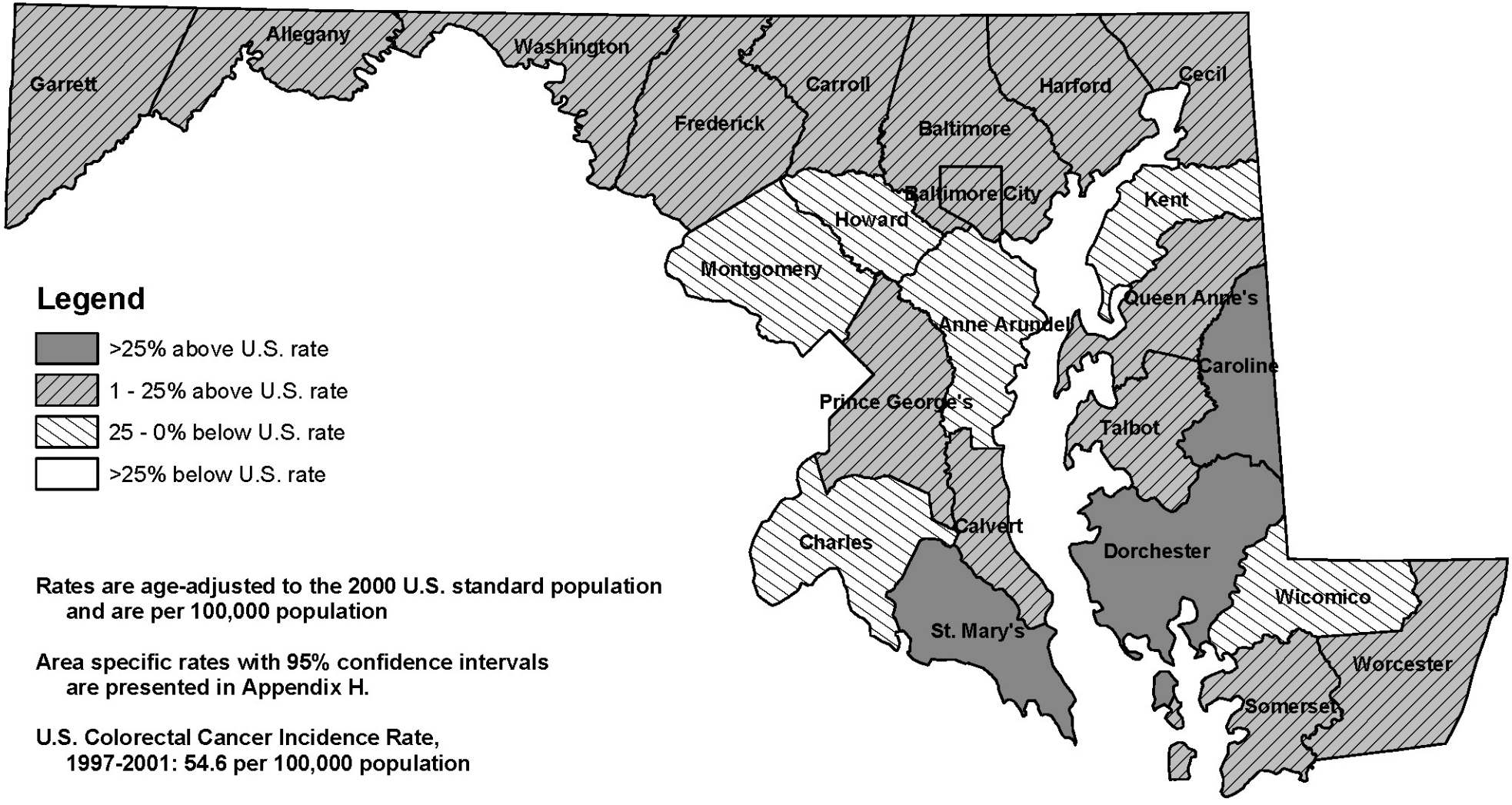
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	23.1	27.8	19.8	21.6	30.0	14.8
Allegany	25.5	35.2	19.6	25.2	**	0.0
Anne Arundel	21.8	27.2	17.8	21.0	29.0	**
Baltimore City	28.8	34.4	25.2	25.5	31.6	**
Baltimore County	23.8	28.2	20.8	23.4	29.1	**
Calvert	25.6	33.0	21.0	23.3	**	**
Caroline	30.4	**	**	30.2	**	0.0
Carroll	23.2	25.5	21.7	23.0	**	**
Cecil	24.1	26.1	21.8	23.4	**	**
Charles	27.7	34.8	21.5	27.0	**	**
Dorchester	26.1	39.4	**	24.4	**	0.0
Frederick	24.1	30.5	20.5	23.1	**	**
Garrett	26.3	**	**	26.3	0.0	0.0
Harford	22.1	26.6	19.4	21.5	**	**
Howard	19.5	23.6	16.9	19.6	**	**
Kent	**	**	**	**	**	0.0
Montgomery	16.1	19.6	13.6	15.8	21.3	13.5
Prince George's	26.1	31.0	22.6	23.3	29.7	**
Queen Anne's	21.2	**	25.1	18.5	**	0.0
Saint Mary's	24.8	30.3	20.0	24.6	**	**
Somerset	21.9	**	**	**	**	0.0
Talbot	23.2	33.4	**	17.9	**	0.0
Washington	21.8	26.1	18.6	21.9	**	0.0
Wicomico	22.1	22.4	20.6	20.2	**	0.0
Worcester	25.2	31.3	20.2	24.3	**	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Maryland Colorectal Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



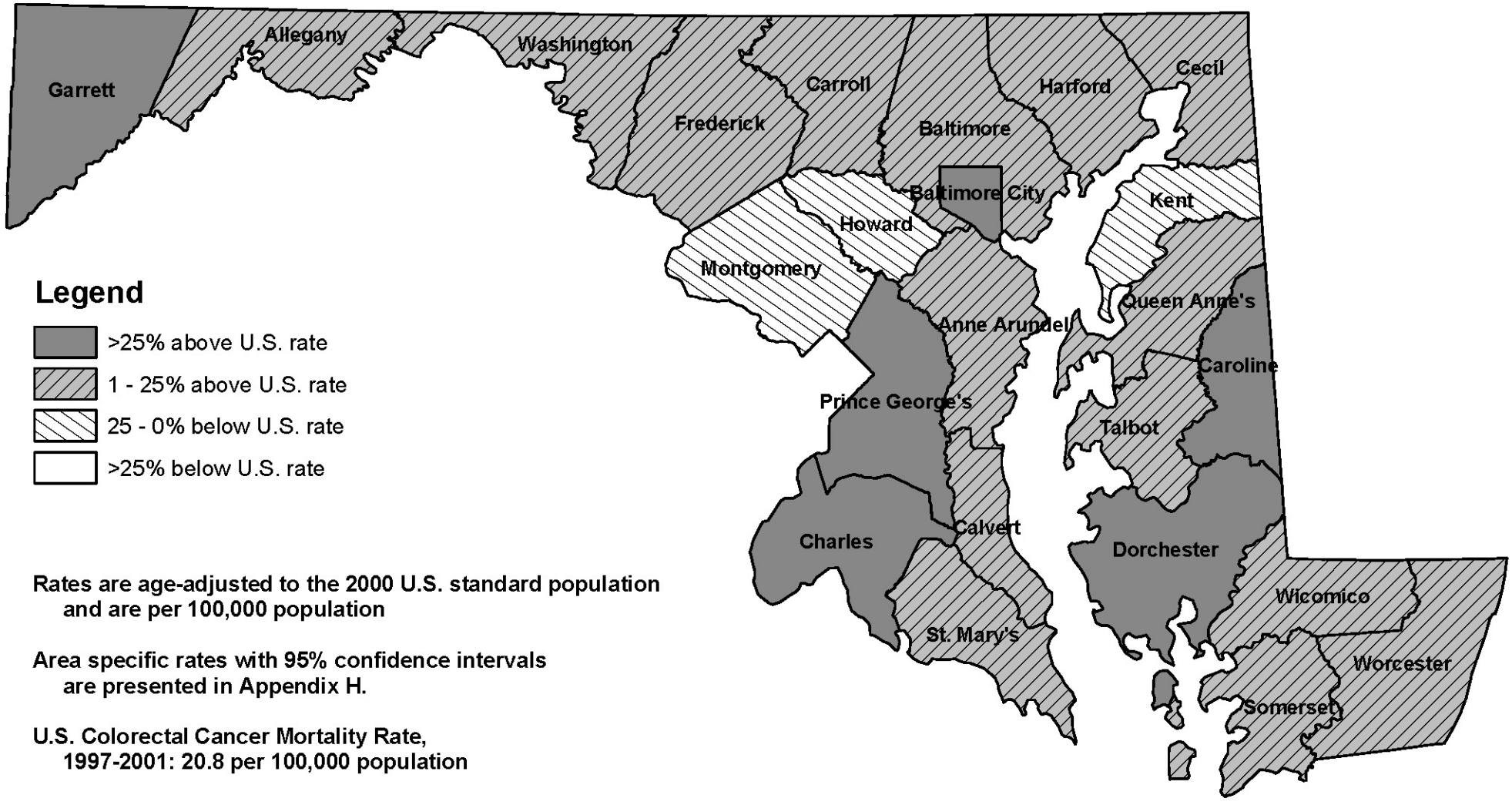
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Colorectal Cancer Incidence Rate, 1997-2001: 54.6 per 100,000 population

Source: Maryland Cancer Registry, 1997-2001

Maryland Colorectal Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



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

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Colorectal Cancer Mortality Rate, 1997-2001: 20.8 per 100,000 population

Source: Maryland Division of Health Statistics, 1997-2001

C. Female Breast Cancer

Incidence (New Cases)

Breast cancer is the most common reportable cancer among women. A total of 3,551 women in Maryland were diagnosed with breast cancer in 2001. Female breast cancers represent 15.4% of all cancers in 2001. The 2001 age-adjusted incidence rate in Maryland is 121.6 per 100,000 women (117.6-125.7, 95% C.I.); this is statistically significantly less than the 2001 U.S. SEER age-adjusted incidence rate for breast cancer of 134.8 per 100,000 women.

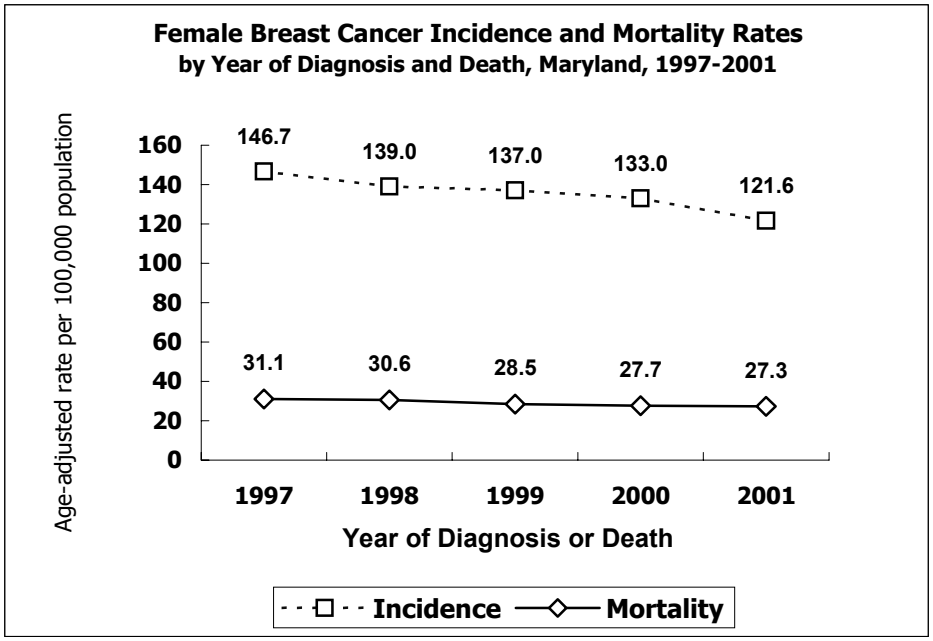
Mortality (Deaths)

In 2001, a total of 801 women died of breast cancer in Maryland. Female breast cancer accounts for 7.9% of all cancer deaths in Maryland. Breast cancer is the second leading cause of cancer death among women after lung cancer in Maryland. The age-adjusted mortality rate in Maryland is 27.3 per 100,000 women (25.4-29.2, 95% C.I.). This rate is equivalent to the 2001 U.S. mortality rate for breast cancer of 25.9 per 100,000 population of women. Maryland women rank 8th highest for female breast cancer mortality among the states and the District of Columbia for the period 1997-2001.

Table 29.
Female Breast Incidence and Mortality Rates
by Race, Maryland and the United States, 2001

Incidence 2001	*Total*	*Whites*	*Blacks*	*Other*
New Cases (#)	3,551	2,581	787	133
Incidence Rate*	121.6	123.4	109.4	110.0
U.S. SEER Rate*	134.8	140.8	110.1	NA
Mortality 2001	*Total*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	801	566	221	14
MD Mortality Rate*	27.3	25.9	32.0	**
U.S. Mortality Rate*	25.9	25.4	34.5	NA

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy
NA: Data were not available
Source: Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001
SEER, National Cancer Institute, 2001

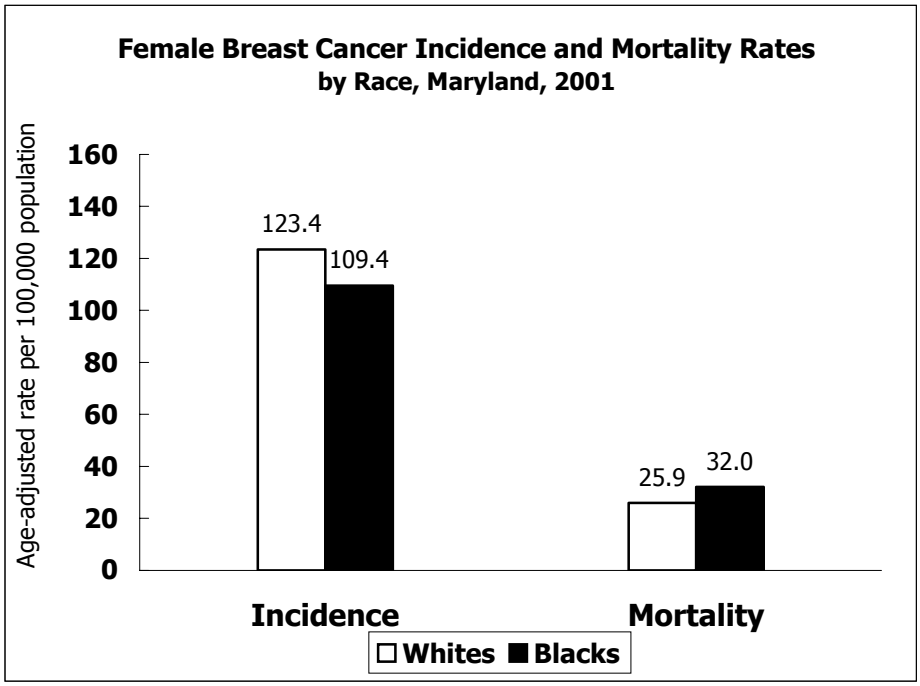


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001

Trends

From 1997 to 2001, there has been a decrease of 4.1% annually in breast cancer incidence among Maryland women.

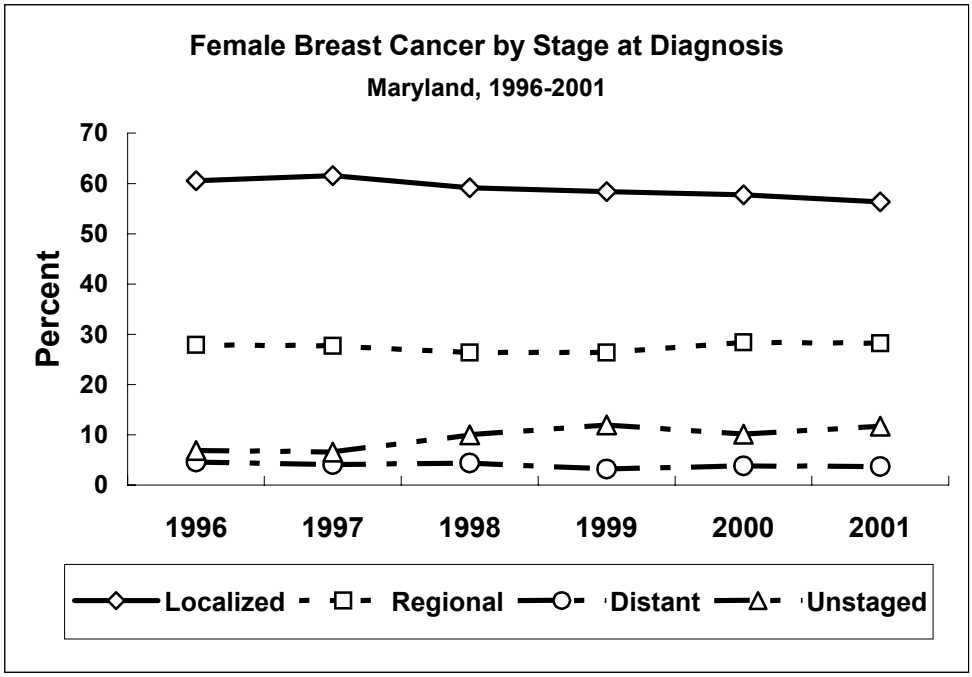
Similarly, breast cancer mortality has been decreasing an average of 3.5% per year between 1997 and 2001.



Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001

Race-Specific Rates

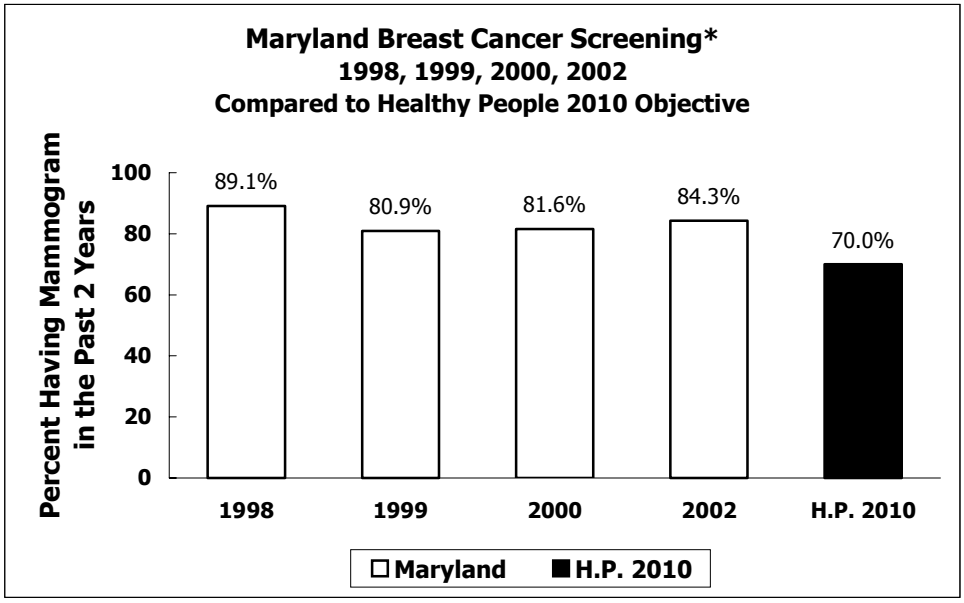
White women had a statistically significantly higher incidence of breast cancer. However, black women had a higher breast cancer mortality rate than white women (although the rate is not statistically significantly higher in 2001).



Maryland Cancer Registry, 1996-2001

Stage of Disease at Diagnosis

In 2001, 56.4% of female breast cancer cases were diagnosed at the localized (early) stage, compared to 60.6% diagnosed at the localized stage in 1996. The percent of unstaged cases has increased.



* Women 40 years of age and older
BRFSS, Maryland DHMH Office of Surveillance and Assessment, 1998, 1999, 2000
Maryland Cancer Survey, DHMH Center for Cancer Surveillance and Control, 2002
Healthy People 2010, U.S. Department of Health and Human Services, 2000

Healthy People Objectives

The Healthy People 2010 objective for breast cancer is to increase to 70% the proportion of women age 40 and older who received a mammogram within the preceding 2 years.

In the 2002 Maryland Cancer Survey, 84.3% of Maryland women 40 years and older reported receiving a mammogram within the previous 2 years, exceeding the Healthy People 2010 goal of 70%. In fact, Maryland women exceeded Healthy People 2010 for mammograms in 1998, 1999, 2000, and 2002.

Public Health Evidence (quoted from NCI, PDQ, 7/13/2004, and the USPSTF, 2/2002 and 7/2002)

Screening

The United States Preventive Services Task Force (USPSTF) recommends screening mammography, with or without clinical breast exam (CBE), every 1-2 years for women aged 40 and older. The USPSTF found fair evidence that mammography screening every 12-33 months significantly reduces mortality from breast cancer. Evidence is strongest for women aged 50-69, the age group generally included in screening trials. For women aged 40-49, the evidence that screening mammography reduces mortality from breast cancer is weaker, and the absolute benefit of mammography is smaller than it is for older women. The precise age at which the benefits from screening mammography justify the potential harms is a subjective choice. The USPSTF did not find sufficient evidence to specify the optimal screening interval for women aged 40-49. Clinicians should inform women about the potential benefits (e.g., reduced chance of dying from breast cancer), potential harms (e.g., false positive results, unnecessary biopsies), and limitations of the test that apply to women their age.

Chemoprevention

The USPSTF recommends against the routine use of tamoxifen or raloxifene 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. Women who are concerned that they may be at increased risk of developing breast cancer should talk with their doctor about whether to take tamoxifen or raloxifen as a preventive measure. A clinical trial (STAR) comparing the efficacy of tamoxifen and raloxifene for reducing the risk of breast cancer among high-risk post-menopausal women is currently underway.

Primary Prevention

Obesity is associated with increased breast cancer risk in post-menopausal women who have not used hormone replacement therapy (HRT), also called hormone therapy (HT). Exposure to alcohol may be associated with increased breast cancer risk. Studies suggest that exercise may be associated with reduced risk of breast cancer. Based on good evidence, combination HRT (estrogen-progestin)/HT is associated with increased risk of developing breast cancer.

The USPSTF recommends against the routine use of estrogen and progestin for the prevention of chronic conditions in postmenopausal women.

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

Table 30.
Number of Female Breast Cancer Cases by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	3,551	2,581	787	133	50
Allegany	47	s	<6	0	0
Anne Arundel	308	263	32	s	<6
Baltimore City	485	210	262	s	<6
Baltimore County	602	511	77	<6	s
Calvert	53	44	s	<6	0
Caroline	21	s	<6	0	0
Carroll	112	106	<6	<6	<6
Cecil	45	s	0	<6	0
Charles	65	47	14	<6	<6
Dorchester	33	26	7	0	0
Frederick	116	102	s	<6	0
Garrett	24	24	0	0	0
Harford	160	139	18	<6	<6
Howard	135	109	20	<6	<6
Kent	11	s	<6	0	0
Montgomery	569	426	61	71	11
Prince George's	405	142	229	19	15
Queen Anne's	30	s	<6	0	<6
Saint Mary's	41	34	<6	<6	0
Somerset	19	9	s	<6	0
Talbot	47	s	<6	0	0
Washington	109	106	<6	<6	0
Wicomico	70	55	s	<6	<6
Worcester	42	38	<6	<6	0
Unknown	<6	<6	0	0	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 31.
Female Breast Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	121.6	123.4	109.4	110.0
Allegany	98.1	94.4	**	0.0
Anne Arundel	120.1	118.2	111.1	**
Baltimore City	129.7	150.8	114.6	**
Baltimore County	130.1	132.9	111.8	**
Calvert	136.0	133.0	**	**
Caroline	**	**	**	0.0
Carroll	137.6	134.0	**	**
Cecil	100.8	102.8	0.0	**
Charles	111.0	107.1	**	**
Dorchester	163.4	164.6	**	0.0
Frederick	115.1	108.5	**	**
Garrett	**	**	0.0	0.0
Harford	136.3	130.9	**	**
Howard	106.4	109.8	**	**
Kent	**	**	**	0.0
Montgomery	113.6	111.4	94.7	120.0
Prince George's	101.7	103.9	96.1	**
Queen Anne's	125.4	130.6	**	0.0
Saint Mary's	103.2	101.8	**	**
Somerset	**	**	**	**
Talbot	175.3	185.2	**	0.0
Washington	144.6	145.2	**	**
Wicomico	146.0	145.8	**	**
Worcester	125.5	133.4	**	**

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 32.
Number of Female Breast Cancer Deaths by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	801	566	221	14
Allegany	16	16	0	0
Anne Arundel	66	56	10	0
Baltimore City	139	s	83	<6
Baltimore County	148	126	s	<6
Calvert	13	s	<6	0
Caroline	6	6	0	0
Carroll	24	s	<6	0
Cecil	11	11	0	0
Charles	27	19	8	0
Dorchester	<6	<6	<6	0
Frederick	16	s	<6	0
Garrett	6	6	0	0
Harford	22	s	<6	<6
Howard	22	s	<6	0
Kent	<6	<6	0	0
Montgomery	113	88	18	7
Prince George's	95	s	66	<6
Queen Anne's	7	s	<6	0
Saint Mary's	<6	<6	0	0
Somerset	<6	<6	0	0
Talbot	<6	<6	0	0
Washington	20	20	0	0
Wicomico	20	s	<6	0
Worcester	11	s	<6	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 33.
Female Breast Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	27.3	25.9	32.0	**
Allegany	**	**	0.0	0.0
Anne Arundel	26.8	26.2	**	0.0
Baltimore City	36.6	35.9	36.6	**
Baltimore County	30.1	30.1	**	**
Calvert	**	**	**	0.0
Caroline	**	**	0.0	0.0
Carroll	**	**	**	0.0
Cecil	**	**	0.0	0.0
Charles	52.8	**	**	0.0
Dorchester	**	**	**	0.0
Frederick	**	**	**	0.0
Garrett	**	**	0.0	0.0
Harford	**	**	**	**
Howard	**	**	**	0.0
Kent	**	**	0.0	0.0
Montgomery	22.2	21.9	**	**
Prince George's	24.8	19.3	29.1	**
Queen Anne's	**	**	**	0.0
Saint Mary's	**	**	0.0	0.0
Somerset	**	**	0.0	0.0
Talbot	**	**	0.0	0.0
Washington	**	**	0.0	0.0
Wicomico	**	**	**	0.0
Worcester	**	**	**	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 34.
Number of Female Breast Cancer Cases
by Jurisdiction and Race, Maryland, 1997-2001

Jurisdiction	Total	Race			
		Whites	Blacks	Others	Unknown
Maryland	18,628	13,876	3,952	573	227
Allegany	302	296	<6	<6	0
Anne Arundel	1,730	1,500	184	28	18
Baltimore City	2,376	1,096	1,240	26	14
Baltimore County	3,156	2,683	400	43	30
Calvert	232	194	31	<6	<6
Caroline	113	100	s	<6	0
Carroll	527	506	8	<6	s
Cecil	236	227	<6	<6	0
Charles	327	237	72	s	<6
Dorchester	147	113	s	0	<6
Frederick	646	593	42	<6	s
Garrett	108	105	0	<6	<6
Harford	670	611	52	<6	<6
Howard	739	589	110	34	6
Kent	77	62	15	0	0
Montgomery	3,252	2,571	347	268	66
Prince George's	2,266	913	1,215	97	41
Queen Anne's	140	120	s	0	<6
Saint Mary's	222	187	24	11	0
Somerset	87	60	s	<6	0
Talbot	197	174	s	<6	0
Washington	483	471	<6	s	0
Wicomico	337	265	61	s	<6
Worcester	213	180	26	<6	<6
Unknown	45	23	<6	<6	14

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 35.
Female Breast Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 1997-2001

Jurisdiction	Total	Race		
		Whites	Blacks	Others
Maryland	132.8	136.2	117.2	107.8
Allegany	118.1	117.1	**	**
Anne Arundel	142.3	141.9	140.3	94.6
Baltimore City	126.8	150.2	110.8	102.3
Baltimore County	138.9	140.3	135.5	78.3
Calvert	134.4	133.7	126.5	**
Caroline	136.4	143.8	**	**
Carroll	135.5	133.9	**	**
Cecil	113.1	113.7	**	**
Charles	121.4	116.1	126.5	**
Dorchester	144.1	144.1	142.0	0.0
Frederick	138.3	136.1	173.3	**
Garrett	119.0	116.6	0.0	**
Harford	122.5	122.8	122.7	**
Howard	129.2	131.2	133.9	81.2
Kent	121.3	118.9	**	0.0
Montgomery	137.9	140.7	116.3	106.3
Prince George's	122.3	128.5	113.5	109.4
Queen Anne's	124.5	120.0	**	0.0
Saint Mary's	116.9	117.2	**	**
Somerset	132.9	126.4	**	**
Talbot	155.4	157.7	**	**
Washington	129.1	129.8	**	**
Wicomico	144.4	143.0	130.0	**
Worcester	132.5	130.7	117.9	**

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 36.
Number of Female Breast Cancer Deaths
by Jurisdiction and Race, Maryland, 1997-2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	4,025	2,877	1,096	52
Allegany	59	59	0	0
Anne Arundel	354	294	s	<6
Baltimore City	702	s	406	<6
Baltimore County	697	609	81	7
Calvert	35	28	7	0
Caroline	24	s	<6	0
Carroll	84	s	<6	0
Cecil	65	s	<6	0
Charles	79	55	24	0
Dorchester	24	s	<6	0
Frederick	110	99	s	<6
Garrett	23	23	0	0
Harford	129	116	s	<6
Howard	130	102	22	6
Kent	13	s	<6	0
Montgomery	599	491	88	20
Prince George's	517	187	321	9
Queen Anne's	27	s	<6	0
Saint Mary's	43	33	10	0
Somerset	19	s	<6	0
Talbot	30	24	6	0
Washington	121	s	<6	0
Wicomico	95	66	s	<6
Worcester	46	40	6	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Table 37.
Female Breast Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 1997-2001

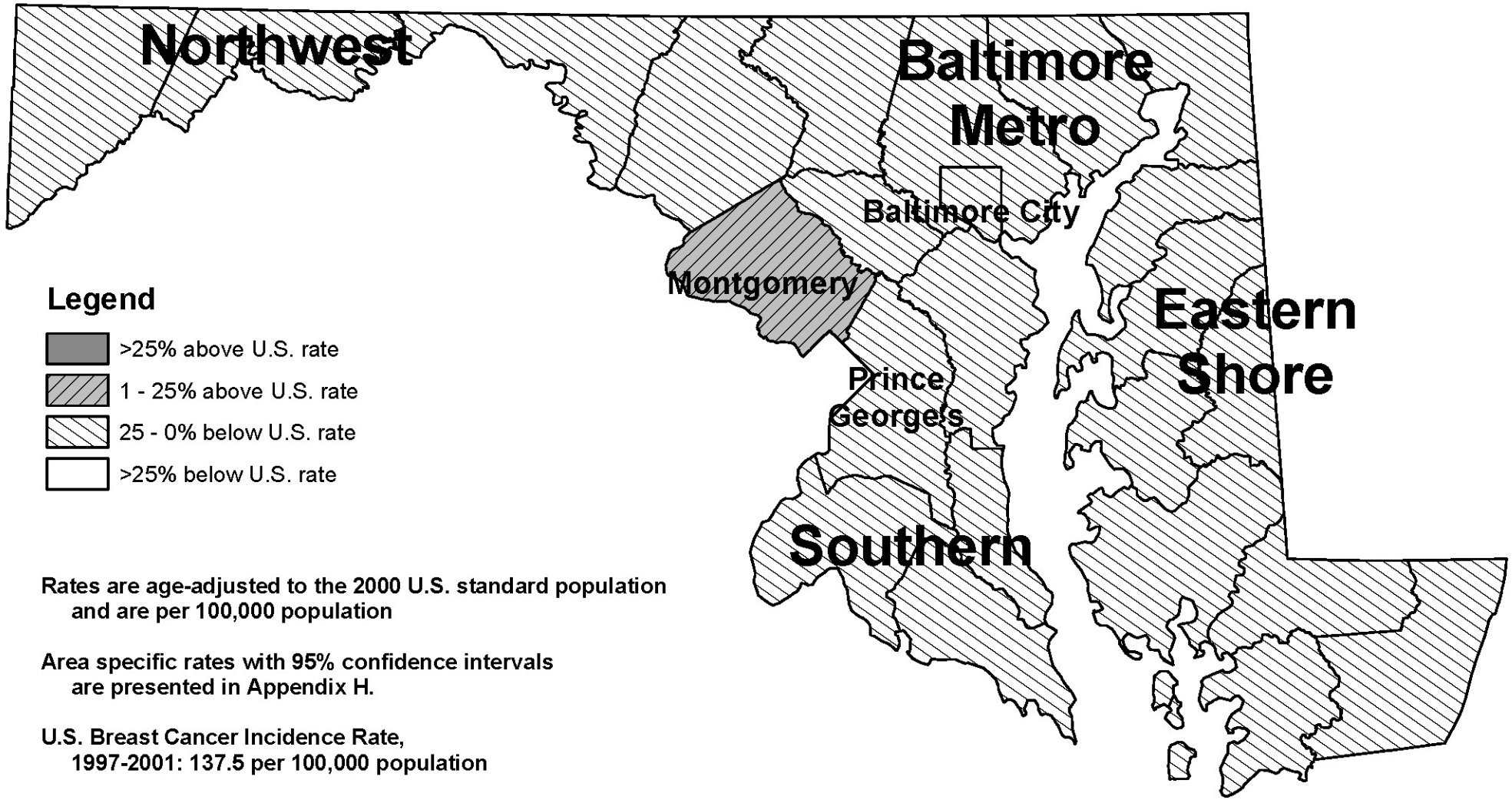
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	28.5	27.1	34.6	10.2
Allegany	19.5	19.8	0.0	0.0
Anne Arundel	29.9	28.5	42.9	**
Baltimore City	36.1	34.9	36.6	**
Baltimore County	28.8	29.0	33.1	**
Calvert	20.5	19.5	**	0.0
Caroline	**	**	**	0.0
Carroll	21.6	20.9	**	0.0
Cecil	31.8	32.7	**	0.0
Charles	32.5	28.7	**	0.0
Dorchester	**	**	**	0.0
Frederick	24.2	23.2	**	**
Garrett	**	**	0.0	0.0
Harford	24.5	24.2	**	**
Howard	25.3	25.1	**	**
Kent	**	**	**	0.0
Montgomery	25.2	25.7	33.9	**
Prince George's	29.4	25.2	32.7	**
Queen Anne's	24.5	27.2	**	0.0
Saint Mary's	22.9	20.9	**	0.0
Somerset	**	**	**	0.0
Talbot	21.7	**	**	0.0
Washington	30.6	31.2	**	0.0
Wicomico	39.4	33.8	60.1	**
Worcester	25.1	25.6	**	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Maryland Breast Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



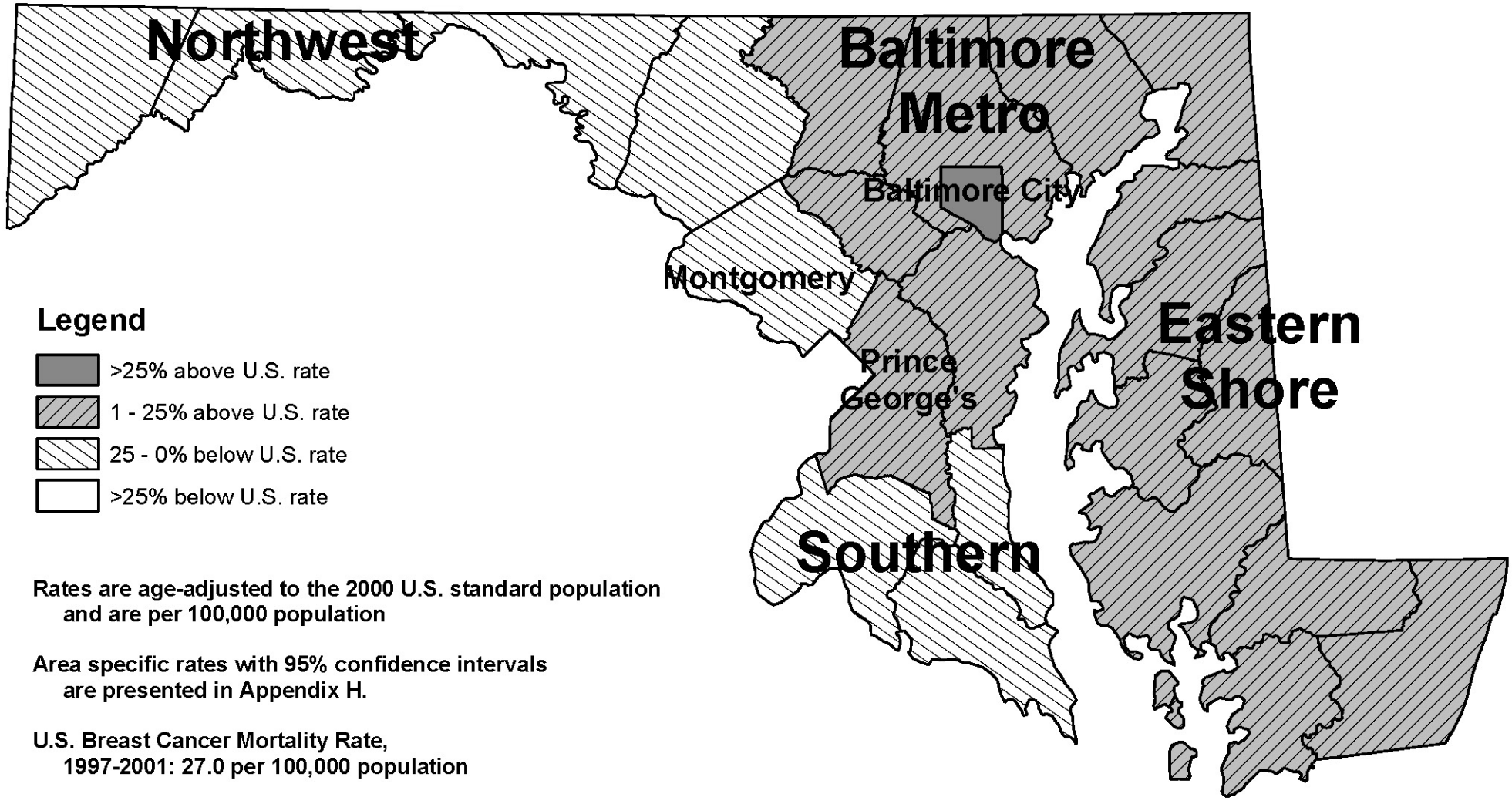
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Breast Cancer Incidence Rate, 1997-2001: 137.5 per 100,000 population

Source: Maryland Division of Health Statistics, 1997-2001

Maryland Breast Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



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

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Breast Cancer Mortality Rate, 1997-2001: 27.0 per 100,000 population

Source: Maryland Division of Health Statistics, 1997-2001

D. Prostate Cancer

Incidence (New Cases)

A total of 3,843 cases of prostate cancer were diagnosed among men during 2001 in Maryland. Prostate cancer is the most common reportable cancer among men. Excluding non-melanoma skin cancer, prostate cancer accounts for 16.7% of all reportable cancers in 2001. The age-adjusted prostate cancer incidence rate in Maryland for 2001 is 170.7 per 100,000 men (165.2-176.3, 95% C.I.); this is statistically significantly lower than the 2001 U.S. SEER age-adjusted incidence rate for prostate cancer of 176.8 per 100,000 men.

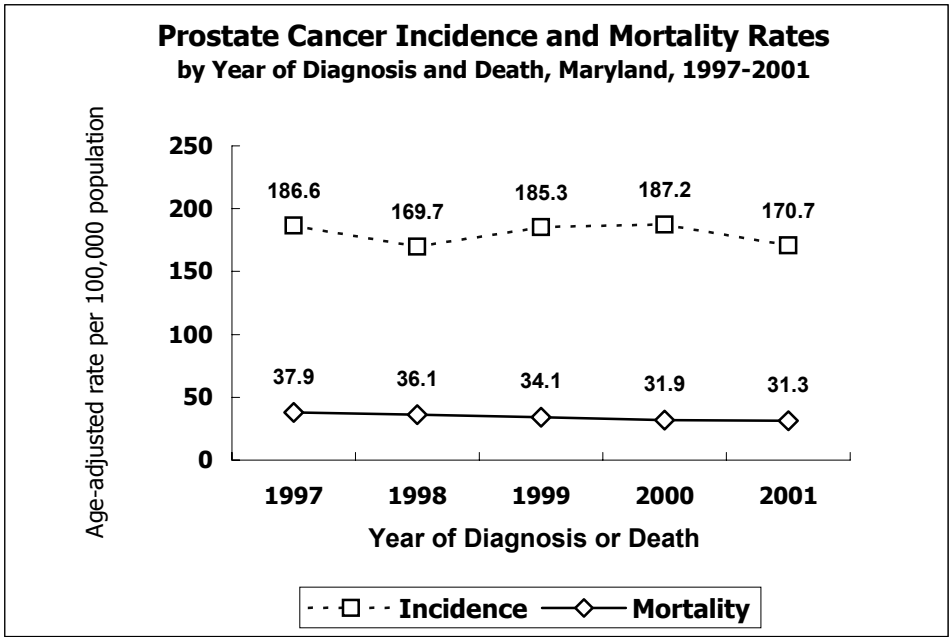
Mortality (Deaths)

Prostate cancer is the third leading cause of cancer deaths in Maryland among men after lung and colon and rectum cancer. In 2001, 552 men died of prostate cancer in Maryland; this accounts for 5.4% of all cancer deaths in Maryland. The age-adjusted mortality rate for prostate cancer is 31.3 per 100,000 men (28.7-34.1, 95% C.I.). This rate is similar to the 2001 U.S. mortality rate for prostate cancer of 29.1 per 100,000 men. Maryland has the 10th highest mortality rate for prostate cancer among the states and the District of Columbia for the period 1997-2001.

Table 38.
Prostate Cancer Incidence and Mortality Rates*
by Race, Maryland and the United States, 2001

Incidence 2001	*Total*	*Whites*	*Blacks*
New Cases (#)	3,843	2,628	962
Incidence Rate*	170.7	153.0	210.0
U.S. SEER Rate*	176.8	173.5	251.9
Mortality 2001	*Total*	*Whites*	*Blacks*
MD Deaths (#)	552	355	188
MD Mortality Rate*	31.3	25.1	65.7
U.S. Mortality Rate*	29.1	26.6	66.4

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
Source: Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001
SEER, National Cancer Institute, 2001

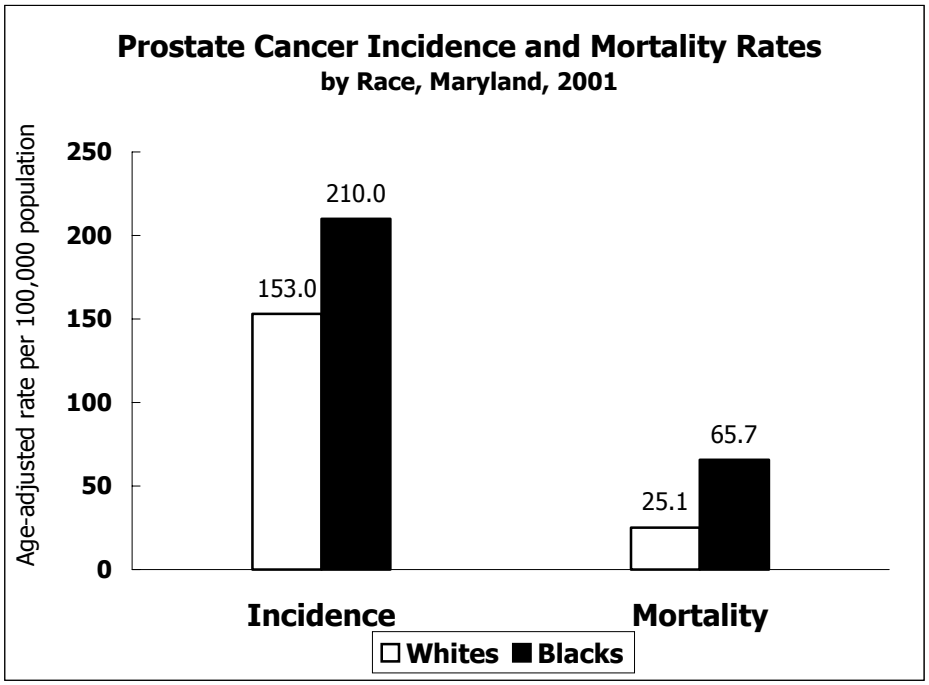


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001

Trends

Prostate cancer incidence rates have decreased an average of 0.8% per year from 1997 to 2001 in Maryland.

Prostate cancer mortality rates declined an average of 4.9% per year among men from 1997 to 2001.

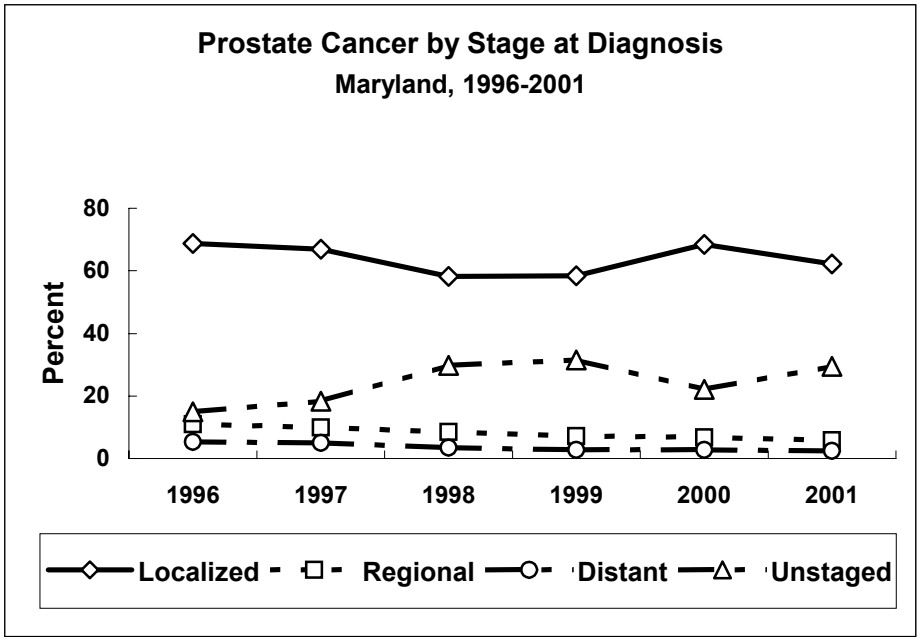


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001

Race-Specific Rates

The prostate cancer incidence rate for black men was statistically significantly higher than that for white men in 2001.

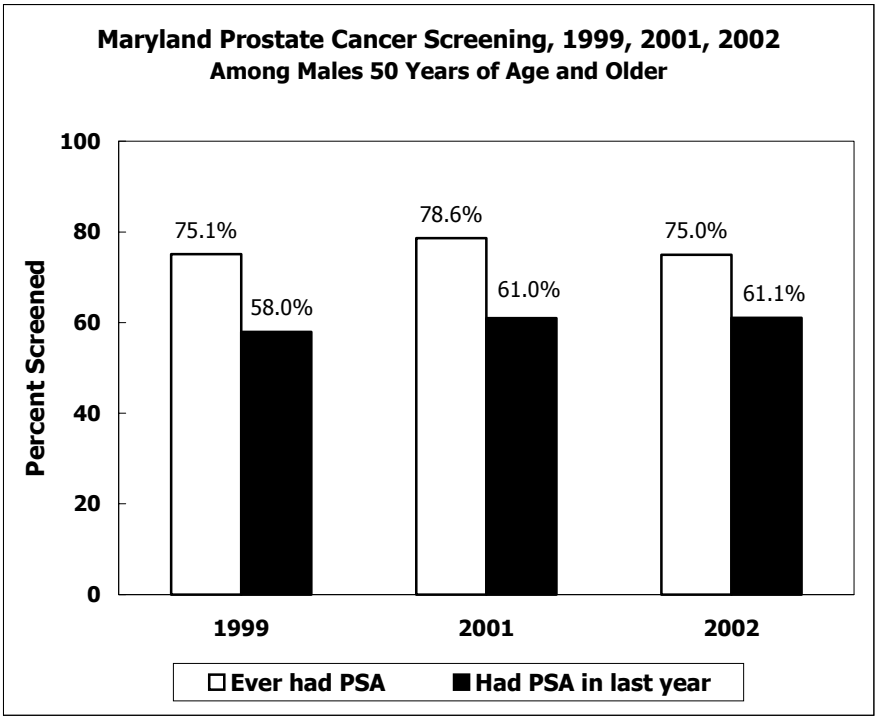
The 2001 prostate cancer mortality rate for black men was statistically significantly higher and over twice the corresponding rate for white men.



Maryland Cancer Registry, 1996-2001

Stage at Diagnosis

During 2001, 62.2% of prostate cancer cases were diagnosed at the localized (early) stage in Maryland. This was a decline from 68.7% in 1996. The percent of unstaged prostate cancers increased from 1996 to 2001.



BRFSS, Maryland DHMH Office of Surveillance and Assessment, 1999, 2001
Maryland Cancer Survey, DHMH Center for Cancer Surveillance and Control, 2002

Healthy People 2010 Objectives

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

In 2002, 75.0% of Maryland men 50 years of age and older reported that they have *ever* had a prostate specific antigen (PSA) test, and 61.1% of men 50 years and older had a PSA in the past year.

Public Health Evidence (quoted from NCI, PDQ, 7/13/2004)

Screening

Digital rectal examination (DRE) and the serum prostate specific antigen (PSA) test are two commonly used methods of detecting prostate cancer. The evidence is insufficient to determine whether screening for prostate cancer with DRE or PSA reduces mortality from prostate cancer. 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 natural history and outcome of the disease. Ecological 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 to other factors such as improved treatment.

Based on good evidence, screening with PSA and/or DRE detects some prostate cancers that would never have caused important 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. The most common of these side effects are erectile dysfunction and urinary incontinence.

Primary Prevention

The evidence is insufficient that the prevention strategies of dietary change (i.e., reducing dietary fat or increasing fruits and vegetables), or vitamin E (alpha-tocopherol), selenium, or lycopene supplementation, are effective in reducing prostate cancer incidence or mortality.

Chemoprevention

Based on good evidence, chemoprevention with finasteride reduces the incidence of prostate cancer, but the evidence is insufficient to determine whether chemoprevention with finasteride reduces mortality from prostate cancer. One large randomized controlled trial showed that finasteride, given to men who have not had prostate cancer, reduces the risk of developing this disease. Slightly fewer men in the finasteride group had urinary urgency and urinary frequency; however, the incidence of higher-grade prostate cancer increased in the finasteride group. The clinical significance of histologic grade in men taking finasteride is uncertain.

Men in the finasteride group had statistically significantly more erectile dysfunction, loss of libido, and gynecomastia than men in the placebo group.

Public Health Intervention for Prostate Cancer (American Cancer Society: Guidelines for the early detection of cancer: *CA Cancer J. Clin*. 2003, Jan-Feb; 53(1):27-43, and DHMH Prostate Cancer Medical Advisory Committee)

- 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.

- 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 to men 50-70 years of age who have at least a 10-year life expectancy. High risk men (African Americans, men with one or more first degree relatives diagnosed with prostate cancer) should begin testing at age 45.

Table 39.
Number of Prostate Cancer Cases
by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	3,843	2,628	962	102	151
Allegany	70	67	<6	0	<6
Anne Arundel	292	243	39	<6	s
Baltimore City	498	158	313	<6	s
Baltimore County	679	522	120	13	24
Calvert	55	42	10	<6	<6
Caroline	16	11	<6	<6	0
Carroll	124	117	<6	<6	<6
Cecil	45	40	<6	0	<6
Charles	65	44	s	<6	<6
Dorchester	25	19	6	0	0
Frederick	148	125	s	<6	12
Garrett	29	29	0	0	0
Harford	184	159	16	0	9
Howard	150	111	24	s	<6
Kent	17	11	<6	0	<6
Montgomery	610	454	74	50	32
Prince George's	484	179	267	16	22
Queen Anne's	42	37	<6	0	<6
Saint Mary's	39	32	s	0	<6
Somerset	11	<6	s	0	0
Talbot	45	38	s	0	<6
Washington	99	94	<6	<6	<6
Wicomico	52	36	s	0	<6
Worcester	63	54	s	0	<6
Unknown	<6	<6	0	0	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 40.
Prostate Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	170.7	153.0	210.0	121.2
Allegany	166.7	163.8	**	0.0
Anne Arundel	141.8	132.7	199.6	**
Baltimore City	187.6	139.3	212.4	**
Baltimore County	184.7	163.4	278.9	**
Calvert	190.9	170.9	**	**
Caroline	**	**	**	**
Carroll	187.3	182.6	**	**
Cecil	122.5	117.0	**	0.0
Charles	162.9	134.8	**	**
Dorchester	**	**	**	0.0
Frederick	204.6	182.0	**	**
Garrett	185.5	186.7	0.0	0.0
Harford	212.4	200.2	**	0.0
Howard	163.4	143.3	**	**
Kent	**	**	**	0.0
Montgomery	163.2	152.5	206.7	115.0
Prince George's	170.4	146.8	172.9	**
Queen Anne's	188.7	181.5	**	0.0
Saint Mary's	108.6	99.7	**	0.0
Somerset	**	**	**	0.0
Talbot	191.8	178.8	**	0.0
Washington	153.7	151.1	**	**
Wicomico	132.2	112.9	**	0.0
Worcester	192.2	182.8	**	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 41.
Number of Prostate Cancer Deaths
by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	552	355	188	9
Allegany	9	9	0	0
Anne Arundel	40	31	s	<6
Baltimore City	113	34	79	0
Baltimore County	94	82	s	<6
Calvert	7	<6	<6	0
Caroline	<6	<6	<6	0
Carroll	17	17	0	0
Cecil	12	s	<6	0
Charles	9	6	<6	<6
Dorchester	9	<6	<6	0
Frederick	13	s	<6	0
Garrett	7	7	0	0
Harford	19	s	<6	0
Howard	14	11	<6	<6
Kent	<6	<6	<6	0
Montgomery	67	55	s	<6
Prince George's	63	21	42	0
Queen Anne's	<6	<6	<6	0
Saint Mary's	<6	<6	<6	0
Somerset	<6	<6	<6	0
Talbot	10	s	<6	0
Washington	13	13	0	0
Wicomico	10	<6	<6	<6
Worcester	6	6	0	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 42.
Prostate Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	31.3	25.1	65.7	**
Allegany	**	**	0.0	0.0
Anne Arundel	27.8	24.1	**	**
Baltimore City	47.0	28.7	67.8	0.0
Baltimore County	29.3	27.5	**	**
Calvert	**	**	**	0.0
Caroline	**	**	**	0.0
Carroll	**	**	0.0	0.0
Cecil	**	**	**	0.0
Charles	**	**	**	**
Dorchester	**	**	**	0.0
Frederick	**	**	**	0.0
Garrett	**	**	0.0	0.0
Harford	**	**	**	0.0
Howard	**	**	**	**
Kent	**	**	**	0.0
Montgomery	21.3	20.7	**	**
Prince George's	37.1	**	66.5	0.0
Queen Anne's	**	**	**	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	**	**	0.0
Talbot	**	**	**	0.0
Washington	**	**	0.0	0.0
Wicomico	**	**	**	**
Worcester	**	**	0.0	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 43.
Number of Prostate Cancer Cases
by Jurisdiction and Race, Maryland, 1997-2001

Jurisdiction	Total	Race			
		Whites	Blacks	Others	Unknown
Maryland	19,041	12,595	4,683	428	1,335
Allegany	348	335	6	<6	<6
Anne Arundel	1,552	1,221	208	18	105
Baltimore City	2,614	903	1,511	22	178
Baltimore County	3,292	2,524	503	41	224
Calvert	237	164	44	<6	s
Caroline	103	79	s	<6	0
Carroll	528	478	s	<6	34
Cecil	285	237	s	<6	33
Charles	410	284	101	13	12
Dorchester	140	89	48	<6	<6
Frederick	584	431	36	7	110
Garrett	124	124	0	0	0
Harford	782	650	71	<6	s
Howard	642	474	96	21	51
Kent	86	58	15	<6	s
Montgomery	3,049	2,269	390	178	212
Prince George's	2,531	891	1,360	87	193
Queen Anne's	149	125	18	<6	<6
Saint Mary's	216	170	41	<6	<6
Somerset	89	56	s	<6	0
Talbot	204	170	31	<6	<6
Washington	456	430	14	<6	s
Wicomico	271	189	74	<6	<6
Worcester	238	205	24	<6	s
Unknown	111	39	13	9	50

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 44.
Prostate Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 1997-2001

Jurisdiction	Total	Race		
		Whites	Blacks	Others
Maryland	178.6	152.7	227.1	132.2
Allegany	165.1	162.4	**	**
Anne Arundel	160.8	142.4	222.9	**
Baltimore City	195.4	151.4	211.1	**
Baltimore County	183.5	159.5	280.9	133.5
Calvert	177.3	141.6	254.9	**
Caroline	145.7	130.4	**	**
Carroll	177.7	165.8	**	**
Cecil	170.6	148.8	**	**
Charles	221.1	192.6	289.3	**
Dorchester	156.5	124.3	269.7	**
Frederick	172.4	133.1	229.6	**
Garrett	155.4	155.9	0.0	0.0
Harford	191.9	171.0	274.2	**
Howard	162.7	144.7	211.4	**
Kent	138.3	108.8	**	**
Montgomery	174.5	160.3	249.0	111.9
Prince George's	199.7	149.0	223.6	163.0
Queen Anne's	139.9	130.1	**	**
Saint Mary's	130.6	120.4	194.6	**
Somerset	142.5	117.5	223.5	**
Talbot	178.0	168.0	236.1	**
Washington	147.7	143.5	**	**
Wicomico	150.4	129.8	225.8	**
Worcester	149.5	144.5	**	**

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 45.
Number of Prostate Cancer Deaths
by Jurisdiction and Race, Maryland, 1997-2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2,868	1,875	969	24
Allegany	47	47	0	0
Anne Arundel	202	165	s	<6
Baltimore City	586	170	416	0
Baltimore County	463	392	s	<6
Calvert	39	25	14	0
Caroline	20	13	7	0
Carroll	70	s	<6	0
Cecil	69	60	9	0
Charles	60	38	s	<6
Dorchester	43	23	20	0
Frederick	71	63	8	0
Garrett	20	20	0	0
Harford	115	99	16	0
Howard	80	58	s	<6
Kent	16	9	7	0
Montgomery	357	291	54	12
Prince George's	336	s	208	<6
Queen Anne's	16	s	<6	0
Saint Mary's	34	24	10	0
Somerset	18	10	8	0
Talbot	36	30	6	0
Washington	82	s	<6	0
Wicomico	54	35	s	<6
Worcester	34	24	10	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Table 46.
Prostate Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 1997-2001

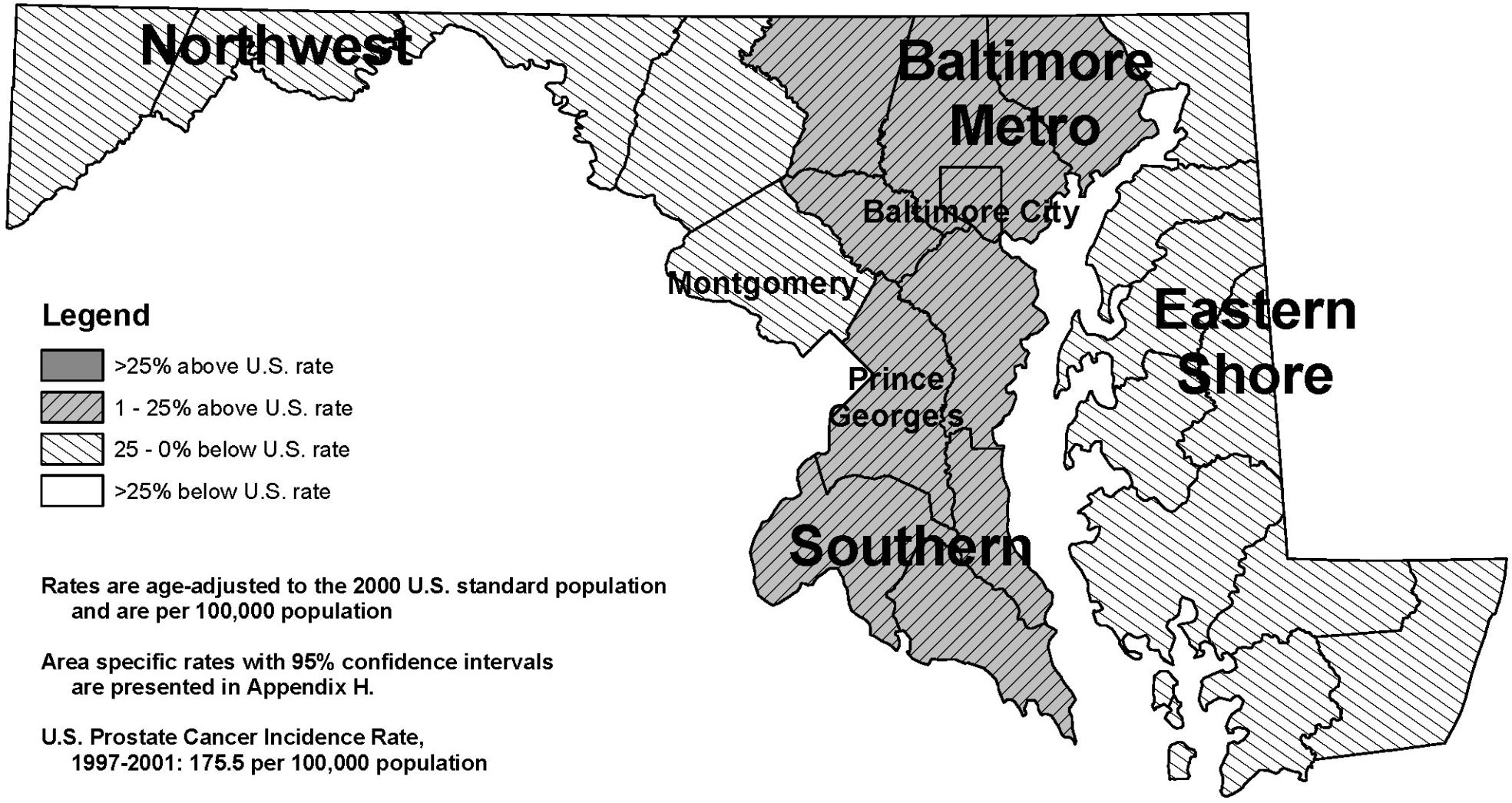
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	34.3	27.8	71.6	**
Allegany	26.9	27.3	0.0	0.0
Anne Arundel	31.0	28.4	55.3	**
Baltimore City	50.1	28.9	74.1	0.0
Baltimore County	29.6	27.3	66.8	**
Calvert	43.8	**	**	0.0
Caroline	33.0	**	**	0.0
Carroll	30.8	29.9	**	0.0
Cecil	60.1	54.4	**	0.0
Charles	49.6	41.2	**	**
Dorchester	56.2	**	**	0.0
Frederick	26.0	24.4	**	0.0
Garrett	31.1	**	0.0	0.0
Harford	39.0	36.2	**	0.0
Howard	32.6	28.2	**	**
Kent	27.9	**	**	0.0
Montgomery	24.8	23.4	54.0	**
Prince George's	41.0	26.9	69.2	**
Queen Anne's	22.1	**	**	0.0
Saint Mary's	27.7	**	**	0.0
Somerset	35.4	**	**	0.0
Talbot	34.1	31.3	**	0.0
Washington	32.4	31.8	**	0.0
Wicomico	38.3	30.3	**	**
Worcester	26.7	**	**	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Maryland Prostate Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



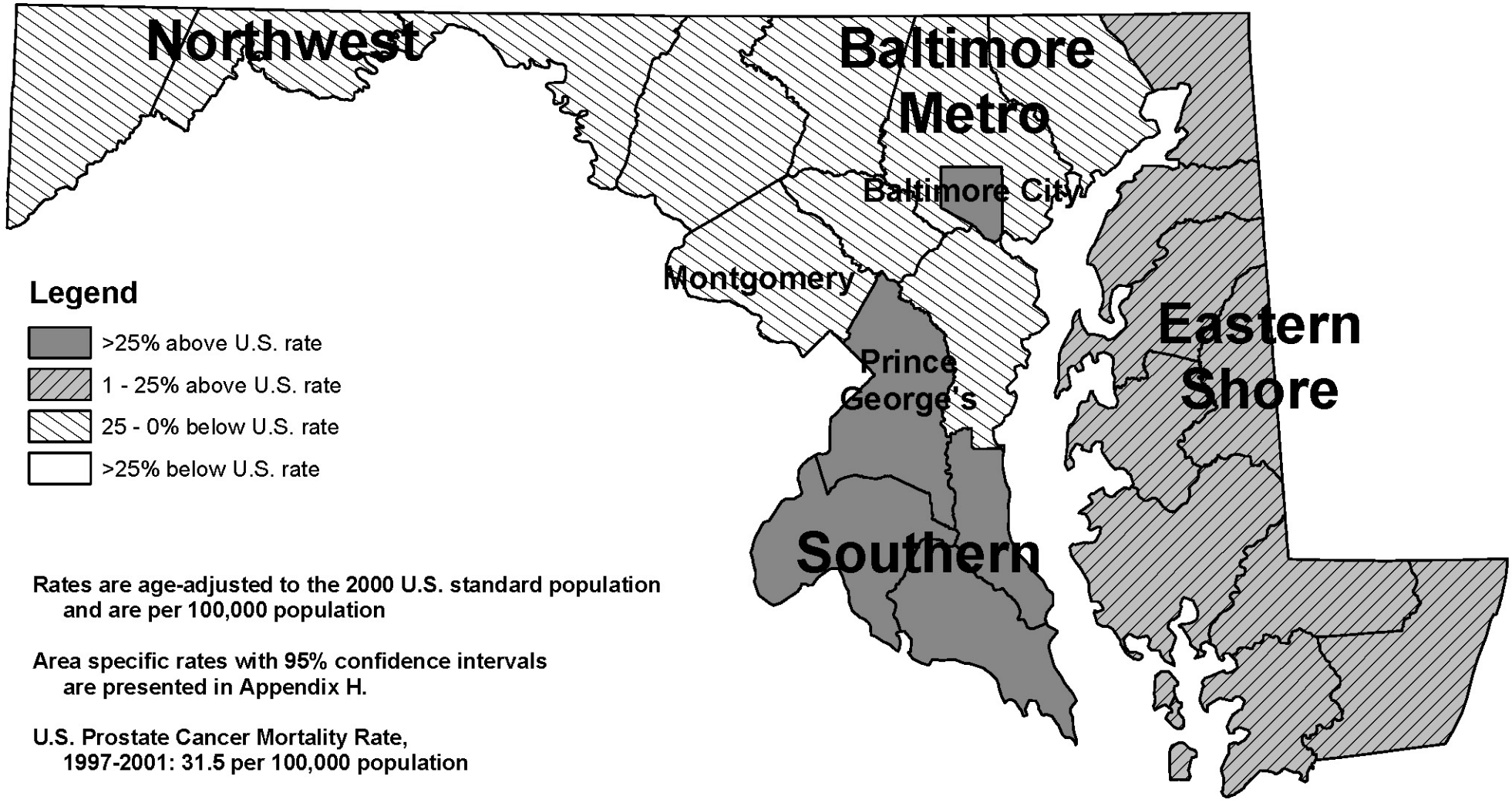
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Prostate Cancer Incidence Rate, 1997-2001: 175.5 per 100,000 population

Source: Maryland Cancer Registry, 1997-2001

Maryland Prostate Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



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

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Prostate Cancer Mortality Rate, 1997-2001: 31.5 per 100,000 population

Source: Maryland Division of Health Statistics, 1997-2001

E. Oral Cancer

Incidence (New Cases)

A total of 497 cases of oral cavity and pharynx cancer (called oral cancer) were diagnosed in Maryland in 2001. The age-adjusted incidence rate for oral cancer in Maryland in 2001 is 9.4 per 100,000 population (8.6-10.3, 95% C.I.) which is statistically significantly lower than the 2001 U.S. SEER age-adjusted oral cancer incidence rate of 10.4 per 100,000 population.

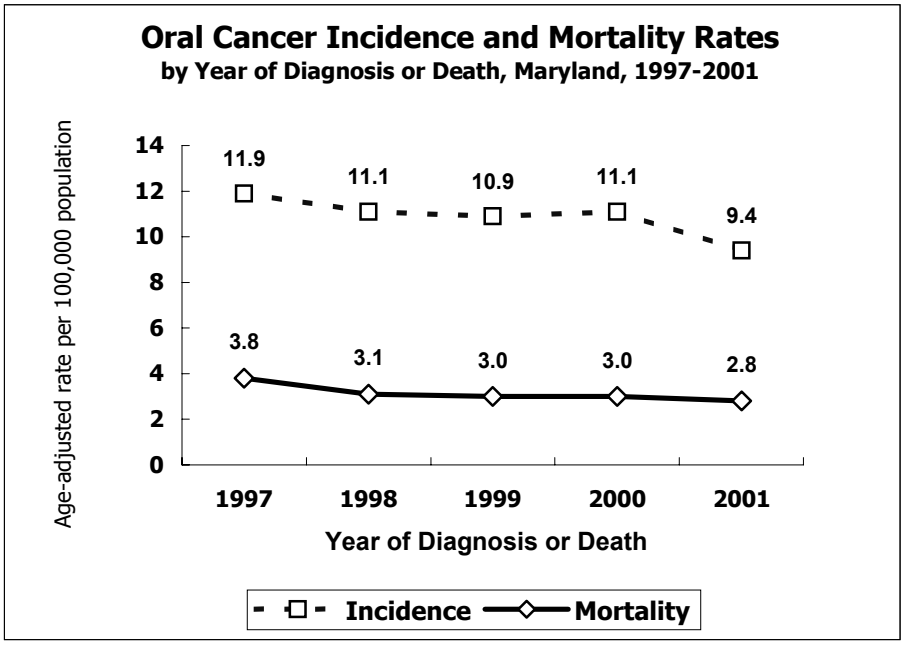
Mortality (Deaths)

In 2001, 141 persons in Maryland died of oral cancer. The age-adjusted mortality rate of 2.8 per 100,000 population (2.3-3.3, 95% C.I.) in Maryland is similar to the 2001 U.S. oral cancer mortality rate of 2.7. Maryland ranks 12th highest for oral cancer mortality among the states and the District of Columbia for the period 1997-2001.

Table 47.
Oral Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2001

Incidence 2001	*Total*	*Males*	*Females*	*Whites*	*Blacks*
New Cases (#)	497	336	161	336	131
Incidence Rate*	9.4	14.1	5.6	8.7	10.3
U.S. SEER Rate*	10.4	15.0	6.6	10.5	11.8
Mortality 2001	*Total*	*Males*	*Females*	*Whites*	*Blacks*
MD Deaths (#)	141	100	41	87	s
MD Mortality Rate*	2.8	4.6	1.4	2.3	4.5
U.S. Mortality Rate*	2.7	4.1	1.6	2.6	3.9

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
s=Number was suppressed to ensure confidentiality of cell in other table
Source: Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001
SEER, National Cancer Institute, 2001

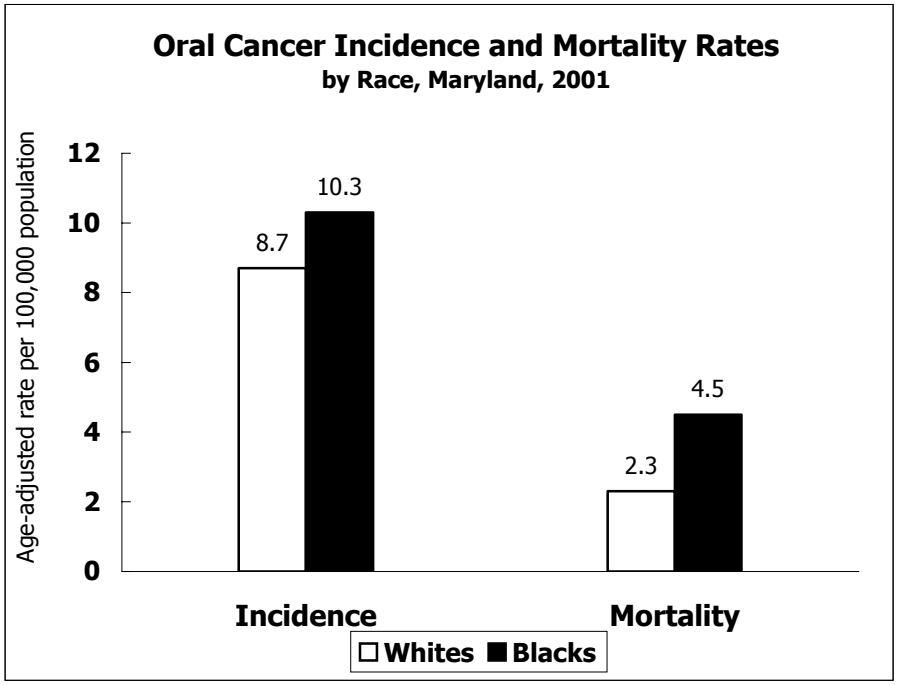


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001

Trends

The incidence of oral cancer has decreased an average of 4.6% per year from 1997 to 2001 in Maryland.

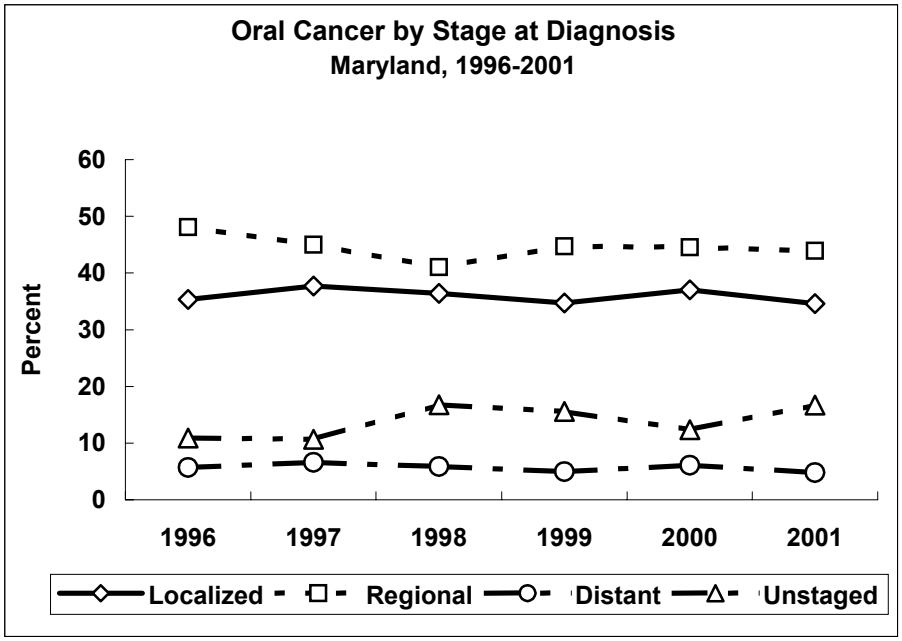
Mortality rates for oral cancer overall declined an average of 6.2% per year from 1997 to 2001.



Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001

Race-Specific Rates

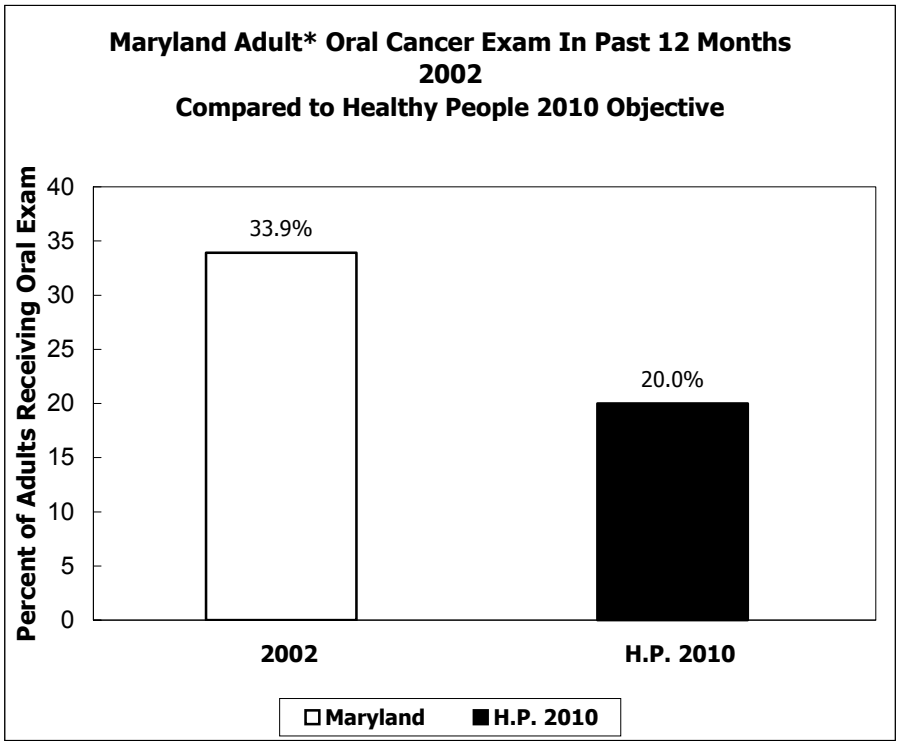
Incidence rates for oral cancer for blacks were not statistically significantly different. On the other hand, blacks had a statistically significantly higher rate of oral cancer mortality.



Maryland Cancer Registry, 1996-2001

Stage at Diagnosis

During 2001, 34.6% of oral cancer cases were diagnosed at the localized (early) stage in Maryland; 43.9% were diagnosed at the regional stage. The percent of unstaged cancers increased from 1996-2001 (10.9% to 16.7%).



* Adults 40 years of age and older
Maryland Cancer Survey, DHMH Center for Cancer Surveillance and Control, 2002
Healthy People 2010, U.S. Department of Health and Human Services, 2000

Healthy People 2010 Objectives

The Healthy People 2010 objective for oral cancer is to increase to 20% the proportion of adults 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 2002 Maryland Cancer Survey, 33.9% of persons 40 years of age and older in Maryland reported they had an oral cancer exam in the past year.

Public Health Evidence (quoted from NCI, PDQ, 8/2004 and USPSTF 2/2004)

Primary Prevention

Tobacco (including 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, particularly beer and hard liquor, is associated with an increased risk of oral cancer. The combined use of tobacco and alcohol increases the risks for oral cancer more than either risk behavior alone. For lip cancer, there is evidence that sunlight exposure is associated with an increased risk.

Avoiding or stopping smoking and avoiding or stopping the use of other tobacco products will decrease the incidence of 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 after 10 years of cessation. A diet high in fruits and fiber is associated with a decreased risk of oral and pharyngeal cancer, particularly among smokers.

Screening

While the routine examination of asymptomatic and symptomatic patients can lead to detection of earlier stage cancers as well as premalignant lesions, the United States Preventive Services Task Force (USPSTF) concludes 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 the age of 50 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, 8/2001)
➢ Avoidance or cessation of smoking and other tobacco use ➢ Avoidance or reduction of alcohol consumption ➢ Avoidance of sun exposure; use of ultraviolet (UV) light-blocking lip balm ➢ Screening for oral cancer targeted to individuals 40 years of age and older

Table 48.
Number of Oral Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	497	336	161	336	131	19	11
Allegany	14	s	<6	s	<6	0	0
Anne Arundel	54	41	13	45	<6	<6	0
Baltimore City	96	66	30	s	58	0	<6
Baltimore County	63	44	19	47	12	<6	<6
Calvert	9	s	<6	s	<6	0	0
Caroline	<6	<6	<6	<6	<6	0	0
Carroll	12	6	6	s	0	0	<6
Cecil	13	s	<6	13	0	0	0
Charles	7	<6	<6	<6	<6	0	0
Dorchester	<6	<6	<6	<6	0	0	0
Frederick	13	s	<6	13	0	0	0
Garrett	<6	<6	0	<6	0	0	0
Harford	11	<6	s	6	<6	0	<6
Howard	17	11	6	s	<6	<6	0
Kent	<6	<6	0	<6	0	0	0
Montgomery	70	40	30	56	s	7	<6
Prince George's	55	37	18	21	29	<6	<6
Queen Anne's	6	<6	<6	<6	<6	0	0
Saint Mary's	8	s	<6	<6	<6	0	0
Somerset	<6	<6	0	<6	0	0	0
Talbot	6	<6	<6	<6	<6	0	0
Washington	12	<6	s	s	<6	<6	0
Wicomico	9	s	<6	s	<6	0	0
Worcester	9	<6	<6	s	<6	0	0
Unknown	0	0	0	0	0	0	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 49.
Oral Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	9.4	14.1	5.6	8.7	10.3	**
Allegany	**	**	**	**	**	0.0
Anne Arundel	11.4	18.0	**	10.9	**	**
Baltimore City	14.8	23.8	8.3	13.2	14.7	0.0
Baltimore County	7.5	11.8	**	6.6	**	**
Calvert	**	**	**	**	**	0.0
Caroline	**	**	**	**	**	0.0
Carroll	**	**	**	**	0.0	0.0
Cecil	**	**	**	**	0.0	0.0
Charles	**	**	**	**	**	0.0
Dorchester	**	**	**	**	0.0	0.0
Frederick	**	**	**	**	0.0	0.0
Garrett	**	**	0.0	**	0.0	0.0
Harford	**	**	**	**	**	0.0
Howard	**	**	**	**	**	**
Kent	**	**	0.0	**	0.0	0.0
Montgomery	8.0	10.7	6.0	8.1	**	**
Prince George's	7.8	12.7	**	**	7.0	**
Queen Anne's	**	**	**	**	**	0.0
Saint Mary's	**	**	**	**	**	0.0
Somerset	**	**	0.0	**	0.0	0.0
Talbot	**	**	**	**	**	0.0
Washington	**	**	**	**	**	**
Wicomico	**	**	**	**	**	0.0
Worcester	**	**	**	**	**	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 50.
Number of Oral Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	141	100	41	87	s	<6
Allegany	0	0	0	0	0	0
Anne Arundel	17	11	6	s	<6	0
Baltimore City	38	31	7	12	26	0
Baltimore County	26	18	8	s	<6	0
Calvert	0	0	0	0	0	0
Caroline	0	0	0	0	0	0
Carroll	<6	<6	0	<6	0	0
Cecil	0	0	0	0	0	0
Charles	<6	<6	<6	<6	<6	0
Dorchester	0	0	0	0	0	0
Frederick	<6	<6	0	<6	0	0
Garrett	<6	<6	0	<6	0	0
Harford	<6	<6	<6	<6	0	0
Howard	<6	<6	<6	<6	<6	<6
Kent	<6	<6	0	<6	<6	0
Montgomery	15	7	8	s	<6	0
Prince George's	16	s	<6	<6	11	<6
Queen Anne's	<6	<6	0	<6	0	0
Saint Mary's	<6	<6	<6	<6	0	0
Somerset	0	0	0	0	0	0
Talbot	<6	<6	0	<6	0	0
Washington	<6	<6	0	<6	0	0
Wicomico	0	0	0	0	0	0
Worcester	<6	<6	<6	<6	<6	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 51.
Oral Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.8	4.6	1.4	2.3	4.5	**
Allegany	0.0	0.0	0.0	0.0	0.0	0.0
Anne Arundel	**	**	**	**	**	0.0
Baltimore City	5.9	11.5	**	**	6.8	0.0
Baltimore County	2.9	**	**	**	**	0.0
Calvert	0.0	0.0	0.0	0.0	0.0	0.0
Caroline	0.0	0.0	0.0	0.0	0.0	0.0
Carroll	**	**	0.0	**	**	0.0
Cecil	0.0	0.0	0.0	0.0	0.0	0.0
Charles	**	**	**	**	**	0.0
Dorchester	0.0	0.0	0.0	0.0	0.0	0.0
Frederick	**	**	0.0	**	0.0	0.0
Garrett	**	**	0.0	**	0.0	0.0
Harford	**	**	**	**	0.0	0.0
Howard	**	**	**	**	**	**
Kent	**	**	0.0	**	**	0.0
Montgomery	**	**	**	**	**	0.0
Prince George's	**	**	**	**	**	**
Queen Anne's	**	**	0.0	**	0.0	0.0
Saint Mary's	**	**	**	**	0.0	0.0
Somerset	0.0	0.0	0.0	0.0	0.0	0.0
Talbot	**	**	0.0	**	0.0	0.0
Washington	**	**	0.0	**	0.0	0.0
Wicomico	0.0	0.0	0.0	0.0	0.0	0.0
Worcester	**	**	**	**	**	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 52.
Number of Oral Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	2,713	1,829	884	1,909	658	83	63
Allegany	58	42	16	s	<6	0	0
Anne Arundel	266	185	81	222	36	s	<6
Baltimore City	511	361	150	195	301	<6	s
Baltimore County	440	284	156	353	67	9	11
Calvert	42	24	18	36	<6	0	<6
Caroline	18	s	<6	15	<6	0	<6
Carroll	73	55	18	s	0	0	<6
Cecil	49	38	11	s	0	0	<6
Charles	40	28	12	33	<6	<6	<6
Dorchester	28	18	10	25	<6	<6	0
Frederick	53	37	16	s	<6	0	0
Garrett	8	s	<6	8	0	0	0
Harford	91	60	31	83	<6	0	<6
Howard	71	45	26	52	10	s	<6
Kent	12	s	<6	12	0	0	0
Montgomery	354	202	152	273	33	36	12
Prince George's	305	207	98	131	153	13	8
Queen Anne's	33	21	12	s	<6	0	0
Saint Mary's	46	38	8	36	s	<6	<6
Somerset	9	s	<6	s	<6	0	<6
Talbot	32	25	7	s	<6	0	0
Washington	76	52	24	69	<6	<6	<6
Wicomico	42	32	10	27	s	<6	0
Worcester	47	34	13	40	<6	0	<6
Unknown	9	<6	<6	6	0	<6	<6

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 53.
Oral Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	10.7	16.1	6.3	10.2	11.2	8.3
Allegany	12.7	21.2	**	12.6	**	0.0
Anne Arundel	11.9	18.5	6.9	11.5	15.2	**
Baltimore City	15.8	25.9	8.0	15.0	15.5	**
Baltimore County	10.7	16.0	6.7	10.0	12.8	**
Calvert	14.1	**	**	14.1	**	0.0
Caroline	**	**	**	**	**	0.0
Carroll	10.3	16.8	**	10.2	0.0	0.0
Cecil	12.3	20.0	**	12.6	0.0	0.0
Charles	8.4	12.1	**	9.3	**	**
Dorchester	14.6	**	**	**	**	**
Frederick	6.4	9.9	**	6.7	**	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	9.1	12.6	5.9	9.0	**	0.0
Howard	7.5	9.7	5.3	6.9	**	**
Kent	**	**	**	**	0.0	0.0
Montgomery	8.5	11.0	6.5	8.3	6.9	8.1
Prince George's	9.3	14.2	5.5	9.8	8.2	**
Queen Anne's	15.1	**	**	15.5	**	0.0
Saint Mary's	12.5	20.8	**	11.9	**	**
Somerset	**	**	**	**	**	0.0
Talbot	14.2	**	**	15.3	**	0.0
Washington	10.8	16.5	**	10.2	**	**
Wicomico	9.9	16.5	**	7.9	**	**
Worcester	15.1	24.0	**	14.8	**	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 54.
Number of Oral Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	755	535	220	510	231	14
Allegany	13	7	6	13	0	0
Anne Arundel	70	51	19	56	14	0
Baltimore City	191	153	38	s	115	<6
Baltimore County	118	77	41	103	s	<6
Calvert	10	s	<6	s	<6	0
Caroline	<6	<6	0	0	<6	0
Carroll	13	s	<6	13	0	0
Cecil	13	s	<6	s	<6	0
Charles	24	18	6	13	11	0
Dorchester	<6	<6	<6	<6	<6	0
Frederick	16	s	<6	16	0	0
Garrett	<6	<6	0	<6	0	0
Harford	22	15	7	s	<6	0
Howard	22	11	11	15	<6	<6
Kent	<6	<6	0	<6	<6	0
Montgomery	71	40	31	60	s	<6
Prince George's	90	64	26	s	47	<6
Queen Anne's	<6	<6	<6	<6	0	0
Saint Mary's	7	<6	<6	s	<6	0
Somerset	<6	<6	0	<6	<6	0
Talbot	11	s	<6	s	<6	0
Washington	20	13	7	s	<6	0
Wicomico	11	<6	s	s	<6	0
Worcester	12	s	<6	s	<6	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Table 55.
Oral Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1997-2001

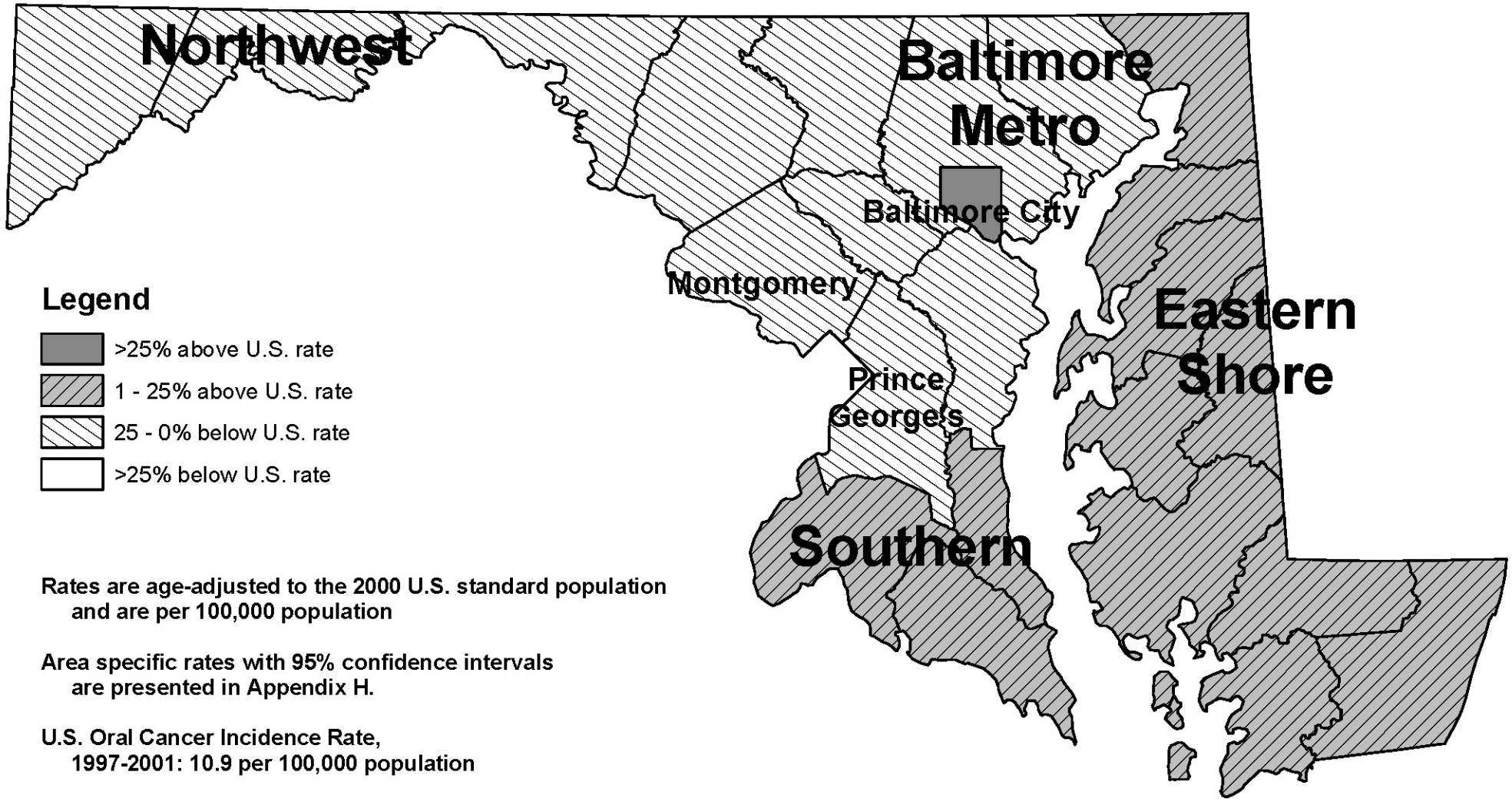
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	3.1	5.1	1.6	2.7	4.4	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	3.5	6.2	**	3.2	**	0.0
Baltimore City	5.8	11.4	1.9	5.2	6.1	**
Baltimore County	2.8	4.6	1.7	2.7	**	**
Calvert	**	**	**	**	**	0.0
Caroline	**	**	0.0	0.0	**	0.0
Carroll	**	**	**	**	0.0	0.0
Cecil	**	**	**	**	**	0.0
Charles	**	**	**	**	**	0.0
Dorchester	**	**	**	**	**	0.0
Frederick	**	**	0.0	**	0.0	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	**	**	**	**	**	0.0
Howard	**	**	**	**	**	**
Kent	**	**	0.0	**	**	0.0
Montgomery	1.8	2.3	1.3	1.8	**	**
Prince George's	3.1	4.9	1.6	3.0	3.2	**
Queen Anne's	**	**	**	**	0.0	0.0
Saint Mary's	**	**	**	**	**	0.0
Somerset	**	**	0.0	**	**	0.0
Talbot	**	**	**	**	**	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 cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Maryland Oral Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



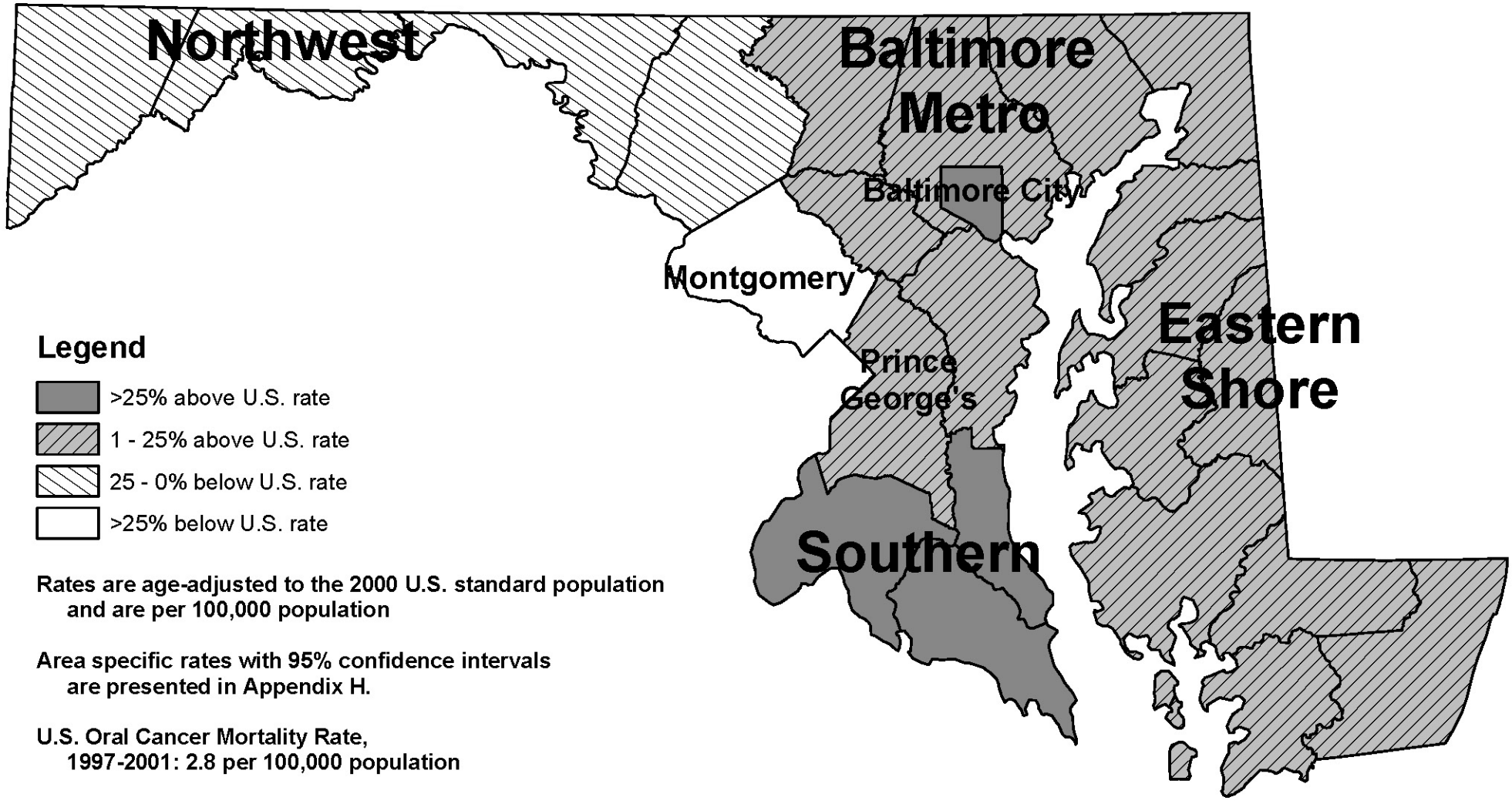
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Oral Cancer Incidence Rate, 1997-2001: 10.9 per 100,000 population

Source: Maryland Cancer Registry, 1997-2001

Maryland Oral Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



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

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Oral Cancer Mortality Rate, 1997-2001: 2.8 per 100,000 population

Source: Maryland Division of Health Statistics, 1997-2001

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. Melanoma is the rarest and most serious type of skin cancer (NCI, PDQ).

Incidence (New Cases)

In 2001, a total of 991 persons in Maryland were diagnosed with melanoma of the skin. The age-adjusted incidence rate for melanoma for 2001 is 18.6 per 100,000 population (17.4-19.8, 95% C.I.). The Maryland rate is similar to the 2001 U.S. SEER age-adjusted incidence rate of 18.7 per 100,000 population for melanoma.

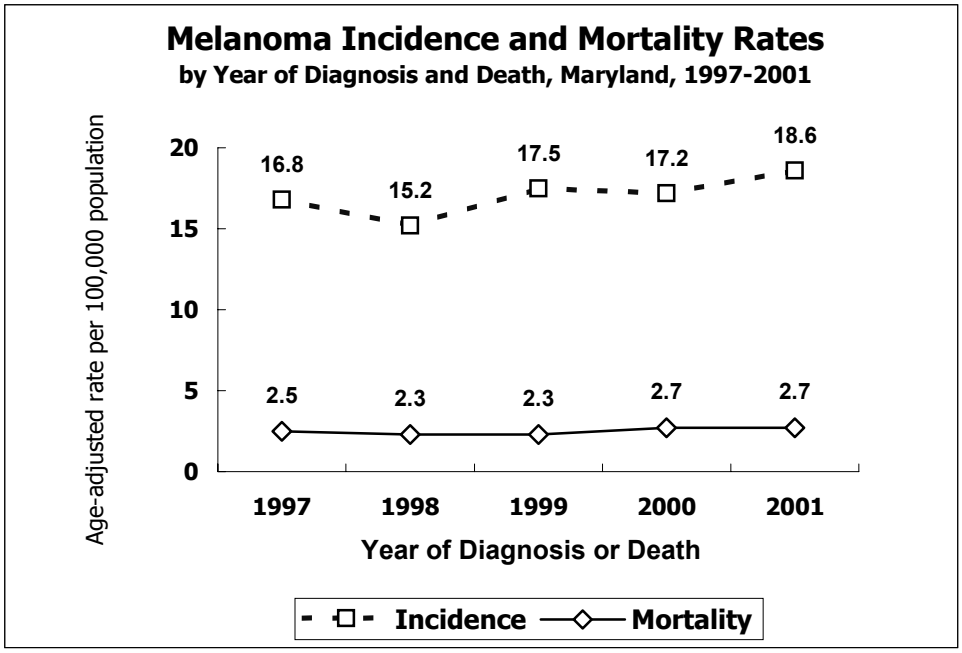
Mortality (Deaths)

In 2001, a total of 137 persons died of melanoma in Maryland. The age-adjusted mortality rate for melanoma in Maryland is 2.7 per 100,000 population (2.2-3.2, 95% C.I.). This rate is the same as the 2001 U.S. melanoma mortality rate of 2.7 per 100,000 population. Maryland is ranked 38th for melanoma mortality among the states and the District of Columbia for the period 1997-2001.

Table 56.
Melanoma Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2001

Incidence 2001	*Total*	*Males*	*Females*	*Whites*	*Blacks*
New Cases (#)	991	561	430	856	16
Incidence Rate*	18.6	23.7	14.9	22.4	**
U.S. SEER Rate*	18.7	23.1	15.6	22.6	-
Mortality 2001	*Total*	*Males*	*Females*	*Whites*	*Blacks*
MD Deaths (#)	137	86	51	129	s
MD Mortality Rate*	2.7	3.9	1.7	3.3	**
U.S. Mortality Rate*	2.7	3.9	1.7	3.0	0.4

* Rates are per 100,000 and are age-adjusted to 2001 U.S. standard population
** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy
- : Statistic not shown. Rate based on less than 25 cases
s=Number was suppressed to ensure confidentiality of cell in other column
Source: Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001
SEER, National Cancer Institute, 2001

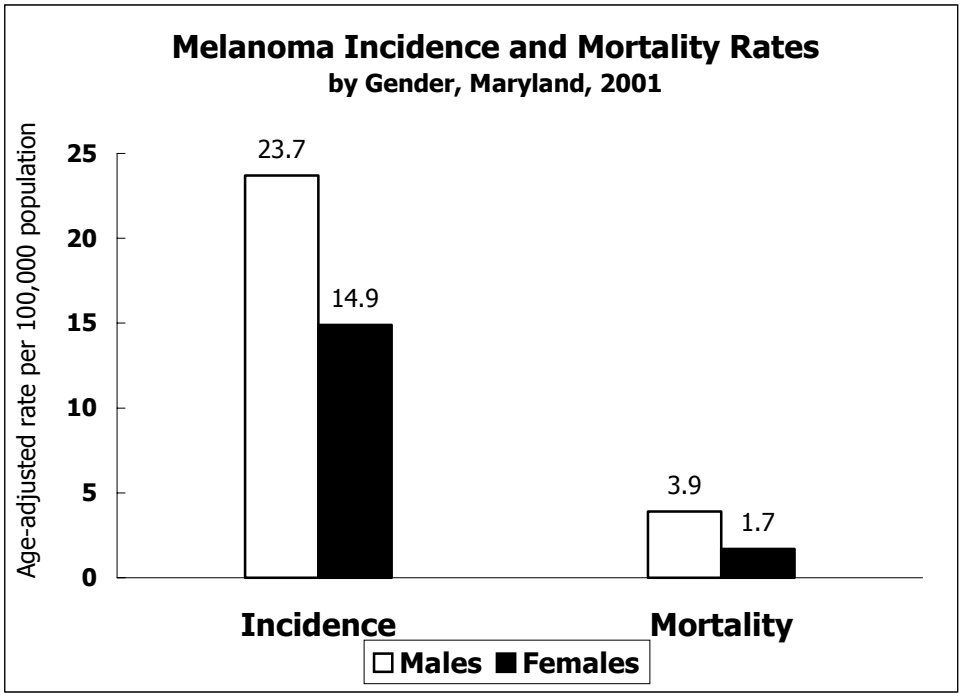


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001

Trend

Melanoma incidence rates have increased an average of 3.3% per year from 1997 to 2001 in Maryland.

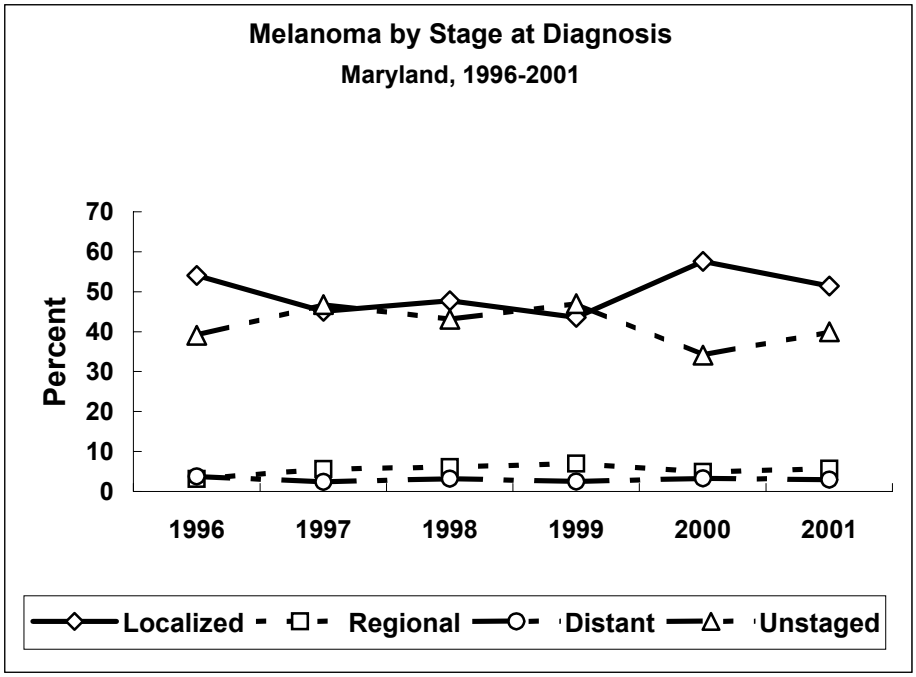
Melanoma mortality rates increased an average of 3.2% per year in Maryland from 1997 to 2001.



Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001

Gender-Specific Rates

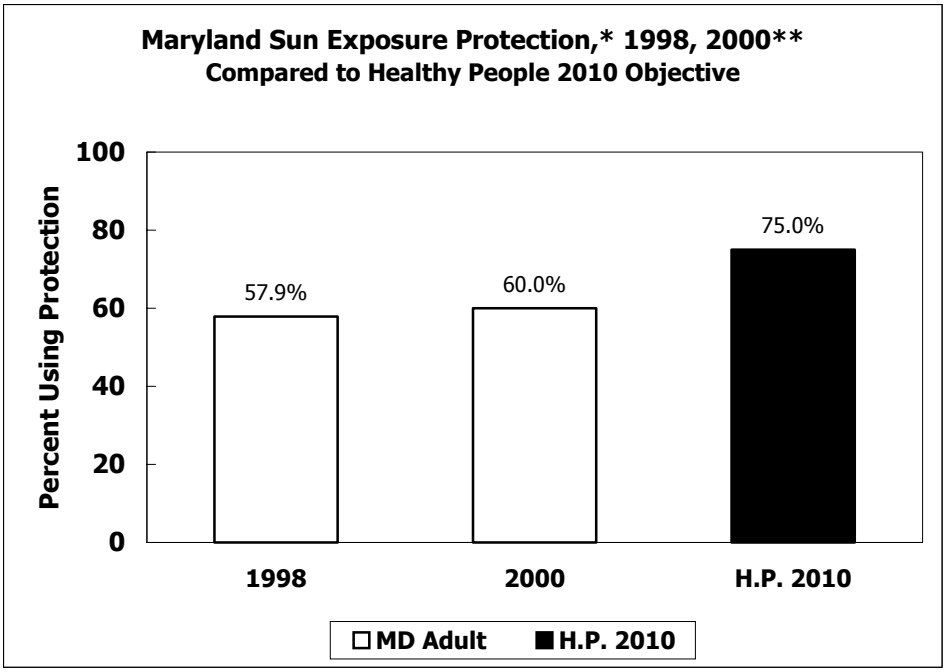
Males had statistically significantly higher incidence and mortality rates for melanoma than females. The mortality rate was more than double for males than for females.



Maryland Cancer Registry, 1996-2001

Stage at Diagnosis

Of the 991 melanoma cases diagnosed in 2001, 51.4% were detected at the localized (early) stage. This compares to 54.1% in 1996. These numbers may be underrepresented due to the high percent of unstaged melanoma (40.0% in 2001; 39.1% in 1996).



Healthy People Objectives

The Healthy People 2010 objective is to increase to 75% the percentage of persons 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).

* Sun Exposure Protection means percent of adults who report "always" or "nearly always" using one or more of the following: 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; the BRFSS survey does not include tanning booths.

** Adult 18 years of age or older

BRFSS, Maryland DHMH Office of Surveillance and Assessment, 1998, 2000

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

Public Health Evidence (quoted from NCI, PDQ, 5/26/2004 and 7/13/2004 and USPSTF 4/2001)

Primary Prevention

Based on poor evidence, avoidance of sunburns, especially in childhood and adolescence, may reduce the incidence of melanoma. Sunburn can be avoided by reducing exposure to high-intensity ultraviolet (UV) radiation (e.g., sunlight, tanning booths), by wearing protective clothing when exposed to sunlight, and by using adequate amounts of sufficiently protective sunscreen. Sunscreen is *not* a substitute for the avoidance of sun exposure and there have been conflicting reports as to the direction of effect of sunscreen use on the risk of developing melanoma.

Based on fair evidence, reduction of exposure to UV radiation may reduce the incidence of non-melanoma skin cancer (basal cell and squamous cell cancer).

Screening

The United States Preventive Services Task Force concludes that the evidence is insufficient to recommend for or against routine screening for skin cancer using a total-body skin examination for the early detection of cutaneous melanoma, basal cell cancer, or squamous cell skin cancer.

Public Health Intervention for Skin Cancer
Reduction of exposure to UV light by: ➢ Avoiding sun exposure, especially between 10 a.m. and 4 p.m. ➢ Wearing sun-protective hat and clothing when exposed to sunlight ➢ Using sunscreens with a SPF of 15 or higher ➢ Avoiding artificial sources of UV light (e.g., tanning booths)

Table 57.
Number of Melanoma Cases
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	991	561	430	856	16	12	107
Allegany	15	7	8	15	0	0	0
Anne Arundel	110	69	41	88	<6	<6	19
Baltimore City	61	28	33	53	<6	<6	<6
Baltimore County	221	121	100	209	<6	0	s
Calvert	11	s	<6	s	0	0	<6
Caroline	11	s	<6	s	0	0	<6
Carroll	37	24	13	s	0	0	<6
Cecil	16	9	7	s	0	0	<6
Charles	14	s	<6	s	<6	0	0
Dorchester	9	s	<6	s	<6	0	0
Frederick	47	32	15	s	0	0	<6
Garrett	<6	<6	<6	<6	0	0	0
Harford	51	23	28	s	0	0	<6
Howard	52	30	22	46	<6	<6	<6
Kent	6	<6	<6	6	0	0	0
Montgomery	134	65	69	98	<6	<6	31
Prince George's	44	27	17	30	7	0	7
Queen Anne's	13	s	<6	s	0	0	<6
Saint Mary's	16	9	7	s	0	0	<6
Somerset	<6	<6	<6	<6	0	0	0
Talbot	15	8	7	s	0	<6	<6
Washington	36	19	17	s	<6	0	<6
Wicomico	45	26	19	45	0	0	0
Worcester	15	9	6	10	0	<6	<6
Unknown	<6	<6	<6	<6	0	0	<6

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 58.
Melanoma Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	18.6	23.7	14.9	22.4	**	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	22.2	30.4	15.8	20.8	**	**
Baltimore City	9.3	11.0	8.7	20.1	**	**
Baltimore County	26.5	32.8	22.1	30.6	**	0.0
Calvert	**	**	**	**	0.0	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	23.5	**	**	21.1	0.0	0.0
Cecil	**	**	**	**	0.0	0.0
Charles	**	**	**	**	**	0.0
Dorchester	**	**	**	**	**	0.0
Frederick	24.9	35.9	**	24.9	0.0	0.0
Garrett	**	**	0.0	**	0.0	0.0
Harford	24.6	**	25.4	26.4	0.0	0.0
Howard	22.5	29.4	**	25.1	**	**
Kent	**	**	**	**	0.0	0.0
Montgomery	15.0	16.0	14.2	14.7	**	**
Prince George's	6.1	8.7	**	11.6	**	0.0
Queen Anne's	**	**	**	**	0.0	0.0
Saint Mary's	**	**	**	**	0.0	0.0
Somerset	**	**	**	**	0.0	0.0
Talbot	**	**	**	**	0.0	**
Washington	25.4	**	**	25.7	**	0.0
Wicomico	53.1	65.6	**	68.5	0.0	0.0
Worcester	**	**	**	**	0.0	**

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 59.
Number of Melanoma Deaths
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	137	86	51	129	s	<6
Allegany	6	<6	<6	6	0	0
Anne Arundel	14	s	<6	14	0	0
Baltimore City	12	<6	s	12	0	0
Baltimore County	18	s	<6	s	<6	0
Calvert	<6	<6	<6	<6	0	0
Caroline	<6	<6	<6	<6	0	0
Carroll	8	s	0	8	0	0
Cecil	<6	<6	<6	<6	0	0
Charles	<6	<6	<6	<6	0	0
Dorchester	<6	<6	0	<6	0	0
Frederick	6	<6	<6	6	0	0
Garrett	0	0	0	0	0	0
Harford	<6	<6	<6	<6	0	0
Howard	<6	<6	<6	<6	0	0
Kent	<6	<6	<6	<6	0	0
Montgomery	26	18	8	23	<6	<6
Prince George's	6	<6	<6	<6	<6	0
Queen Anne's	<6	<6	0	<6	0	0
Saint Mary's	<6	<6	<6	<6	0	0
Somerset	0	0	0	0	0	0
Talbot	<6	<6	<6	<6	0	0
Washington	<6	<6	0	<6	0	0
Wicomico	<6	<6	<6	<6	0	0
Worcester	<6	<6	0	<6	0	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 60.
Melanoma Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.7	3.9	1.7	3.3	**	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	**	**	**	**	0.0	0.0
Baltimore City	**	**	**	**	0.0	0.0
Baltimore County	**	**	**	**	**	0.0
Calvert	**	**	**	**	0.0	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	**	**	**	**	0.0	0.0
Cecil	**	**	**	**	0.0	0.0
Charles	**	**	**	**	0.0	0.0
Dorchester	**	**	**	**	0.0	0.0
Frederick	**	**	**	**	0.0	0.0
Garrett	0.0	0.0	0.0	0.0	0.0	0.0
Harford	**	**	**	**	0.0	0.0
Howard	**	**	**	**	0.0	0.0
Kent	**	**	**	**	0.0	0.0
Montgomery	3.1	**	**	**	**	**
Prince George's	**	**	**	**	**	0.0
Queen Anne's	**	**	0.0	**	0.0	0.0
Saint Mary's	**	**	**	**	0.0	0.0
Somerset	0.0	0.0	0.0	0.0	0.0	0.0
Talbot	**	**	**	**	0.0	0.0
Washington	**	**	0.0	**	0.0	0.0
Wicomico	**	**	**	**	0.0	0.0
Worcester	**	**	0.0	**	0.0	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 61
Number of Melanoma Cases
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	4,359	2,464	1,894	3,755	55	76	473
Allegany	66	32	34	66	0	0	0
Anne Arundel	510	300	210	391	<6	s	100
Baltimore City	285	161	124	250	s	<6	25
Baltimore County	838	442	396	769	8	13	48
Calvert	62	28	34	52	0	<6	s
Caroline	42	30	12	s	0	0	<6
Carroll	174	111	63	153	<6	<6	16
Cecil	75	38	37	69	0	<6	<6
Charles	68	43	25	56	<6	0	s
Dorchester	28	17	11	s	<6	0	0
Frederick	186	119	67	167	<6	0	s
Garrett	22	12	10	s	<6	0	0
Harford	230	110	120	213	<6	0	s
Howard	206	112	94	180	<6	<6	22
Kent	30	21	9	30	0	0	0
Montgomery	704	401	302	558	<6	s	124
Prince George's	217	134	83	163	s	<6	34
Queen Anne's	47	29	18	s	0	0	<6
Saint Mary's	72	46	26	63	0	0	9
Somerset	27	12	15	24	0	<6	<6
Talbot	56	30	26	53	0	<6	<6
Washington	161	92	69	150	<6	0	s
Wicomico	142	80	62	135	<6	<6	<6
Worcester	87	51	36	71	0	7	9
Unknown	24	13	11	11	0	6	7

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 62.
Melanoma Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	16.9	21.9	13.4	20.1	1.0	8.4
Allegany	15.3	15.7	15.4	16.1	0.0	0.0
Anne Arundel	21.7	28.8	16.8	19.3	**	**
Baltimore City	8.6	12.3	6.5	18.5	**	**
Baltimore County	20.6	24.9	18.0	22.8	**	**
Calvert	18.5	20.4	18.3	18.2	0.0	**
Caroline	27.0	41.6	**	31.1	0.0	0.0
Carroll	23.1	32.8	15.7	21.2	**	**
Cecil	18.9	22.9	17.3	18.1	0.0	**
Charles	12.8	19.2	**	14.0	**	0.0
Dorchester	15.8	**	**	20.5	**	0.0
Frederick	21.2	30.6	14.1	20.2	**	0.0
Garrett	**	**	**	**	**	0.0
Harford	22.1	22.9	21.4	22.7	**	0.0
Howard	19.1	23.1	16.0	21.0	**	**
Kent	26.4	**	**	31.7	0.0	0.0
Montgomery	16.4	21.2	12.9	16.8	**	**
Prince George's	6.7	9.7	4.5	12.2	**	**
Queen Anne's	23.4	29.0	**	23.4	0.0	0.0
Saint Mary's	18.5	23.9	13.2	19.3	0.0	0.0
Somerset	21.2	**	**	**	0.0	**
Talbot	26.2	30.2	23.1	29.7	0.0	**
Washington	23.1	28.7	19.9	22.8	**	0.0
Wicomico	34.1	45.4	27.7	41.5	**	**
Worcester	29.5	35.3	25.5	28.5	0.0	**

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 63.
Number of Melanoma Deaths
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	612	382	230	584	s	<6
Allegany	14	8	6	14	0	0
Anne Arundel	57	42	15	s	<6	0
Baltimore City	55	28	27	s	<6	0
Baltimore County	109	63	46	s	<6	0
Calvert	11	<6	s	11	0	0
Caroline	<6	<6	<6	<6	0	0
Carroll	35	23	12	35	0	0
Cecil	20	11	9	20	0	0
Charles	12	s	<6	12	0	0
Dorchester	<6	<6	0	<6	0	0
Frederick	20	s	<6	20	0	0
Garrett	<6	<6	<6	<6	0	0
Harford	22	14	8	22	0	0
Howard	23	14	9	23	0	0
Kent	<6	<6	<6	<6	0	0
Montgomery	105	67	38	99	<6	<6
Prince George's	40	26	14	29	11	0
Queen Anne	8	s	<6	8	0	0
Saint Mary's	15	s	<6	15	0	0
Somerset	<6	<6	<6	<6	0	0
Talbot	12	s	<6	12	0	0
Washington	15	9	6	15	0	0
Wicomico	12	s	<6	s	<6	0
Worcester	10	s	<6	10	0	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Table 64.
Melanoma Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1997-2001

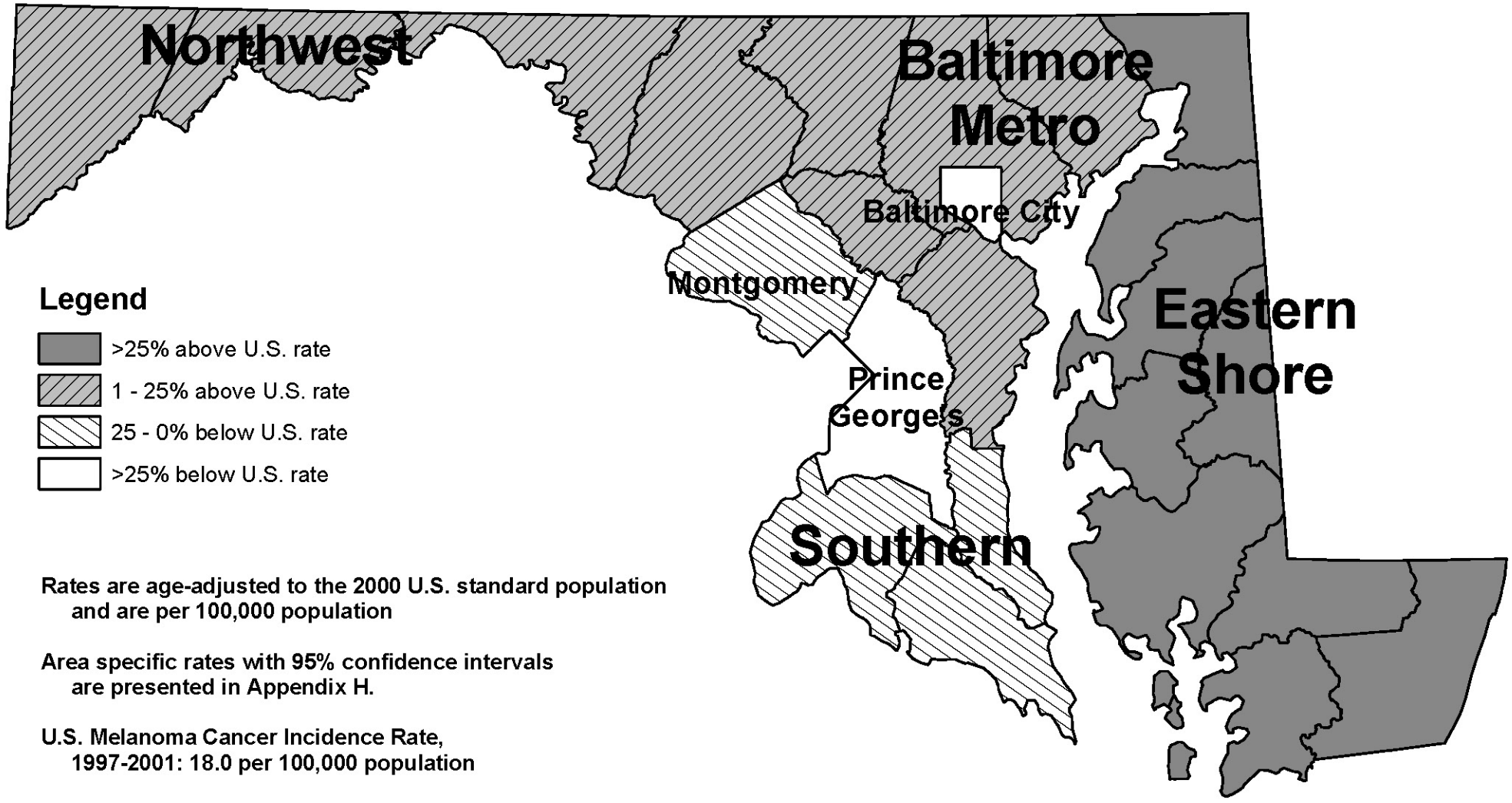
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.5	3.6	1.6	3.1	0.5	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	2.5	4.1	**	2.8	**	0.0
Baltimore City	1.7	2.1	1.4	3.5	**	0.0
Baltimore County	2.6	3.7	1.9	2.9	**	0.0
Calvert	**	**	**	**	0.0	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	5.0	**	**	5.1	0.0	0.0
Cecil	**	**	**	**	0.0	0.0
Charles	**	**	**	**	0.0	0.0
Dorchester	**	**	0.0	**	0.0	0.0
Frederick	**	**	**	**	0.0	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	**	**	**	**	0.0	0.0
Howard	**	**	**	**	0.0	0.0
Kent	**	**	**	**	0.0	0.0
Montgomery	2.6	3.9	1.6	3.0	**	**
Prince George's	1.4	2.3	**	2.2	**	0.0
Queen Anne's	**	**	**	**	0.0	0.0
Saint Mary's	**	**	**	**	0.0	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 cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Maryland Melanoma Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



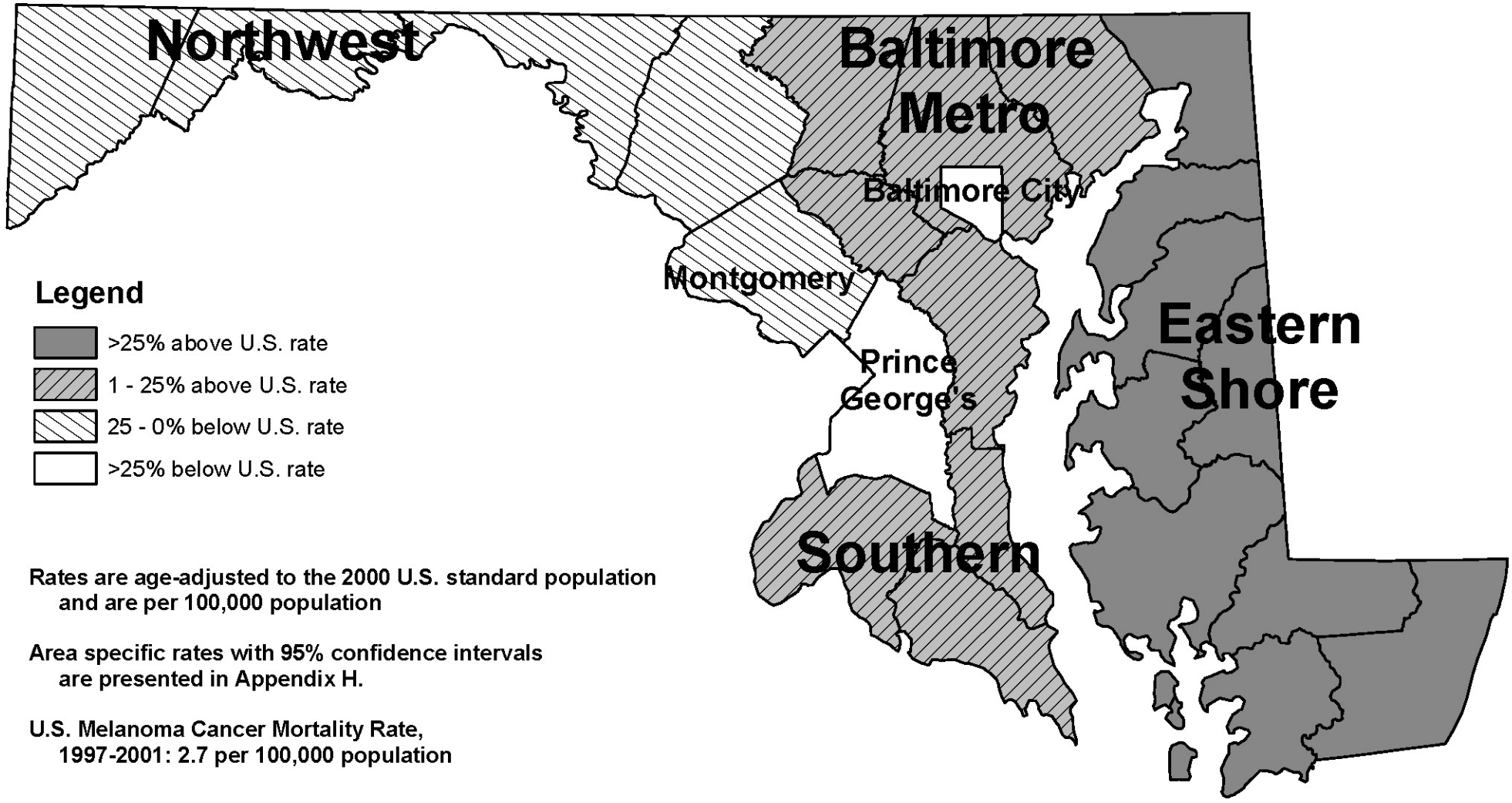
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Melanoma Cancer Incidence Rate, 1997-2001: 18.0 per 100,000 population

Source: Maryland Cancer Registry, 1997-2001

Maryland Melanoma Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



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

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Melanoma Cancer Mortality Rate, 1997-2001: 2.7 per 100,000 population

Source: Maryland Division of Health Statistics, 1997-2001

G. Cervical Cancer

Incidence (New Cases)

A total of 205 women in Maryland were diagnosed with cervical cancer in 2001. The age-adjusted incidence rate for cervical cancer in Maryland for 2001 is 7.0 per 100,000 population of women (6.1-8.0, 95% C.I.). This rate is similar to the 2001 U.S. SEER age-adjusted cervical cancer incidence rate of 7.9 per 100,000 population of women.

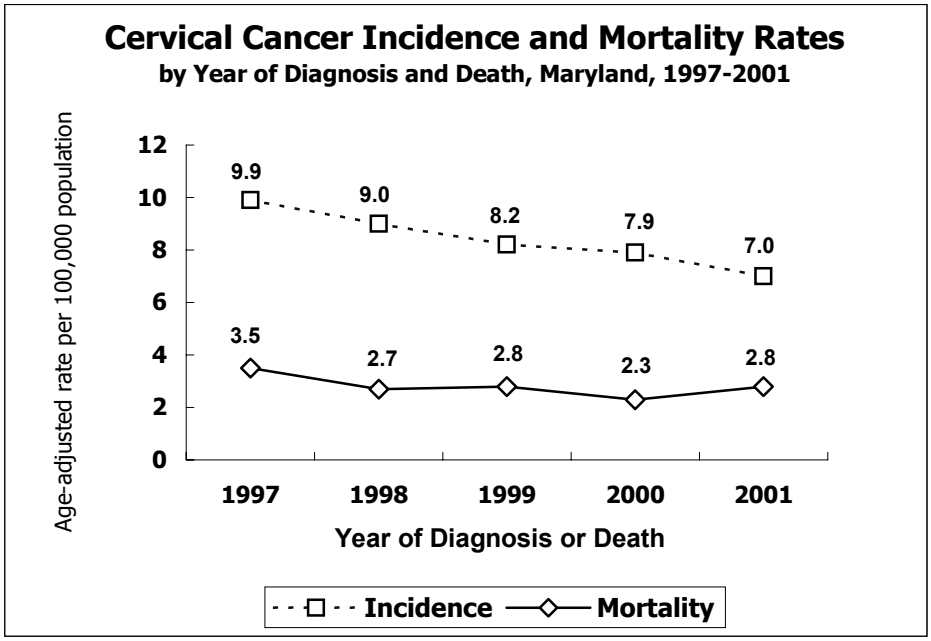
Mortality (Deaths)

In 2001, a total of 82 women died of cervical cancer in Maryland. The age-adjusted cervical cancer mortality rate in Maryland is 2.8 per 100,000 women (2.2-3.5, 95% C.I.). This rate is similar to the 2001 U.S. cervical cancer mortality rate of 2.7 per 100,000 population of women. Maryland women rank 27th highest for cervical cancer mortality rate among the states and the District of Columbia for the period 1997-2001.

Table 65.
Cervical Cancer Incidence and Mortality Rates
by Race, Maryland and the United States, 2001

Incidence 2001	*Total*	*Whites*	*Blacks*
New Cases (#)	205	107	63
Incidence Rate*	7.0	5.4	8.2
U.S. SEER Rate*	7.9	7.3	11.1
Mortality 2001	*Total*	*Whites*	*Blacks*
MD Deaths (#)	82	48	s
MD Mortality Rate*	2.8	2.3	4.6
U.S. Mortality Rate*	2.7	2.4	4.8

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
s=Number was suppressed to ensure confidentiality of cell in other column
Source: Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001
SEER, National Cancer Institute, 2001

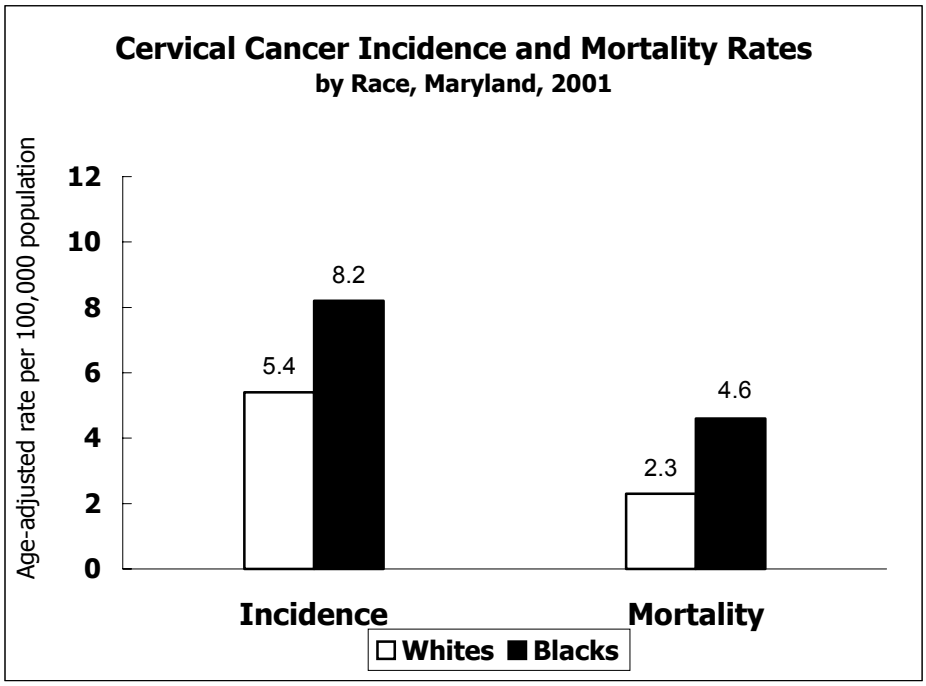


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001

Trend

Cervical cancer incidence rates have decreased an average of 7.9% per year from 1997 to 2001 in Maryland.

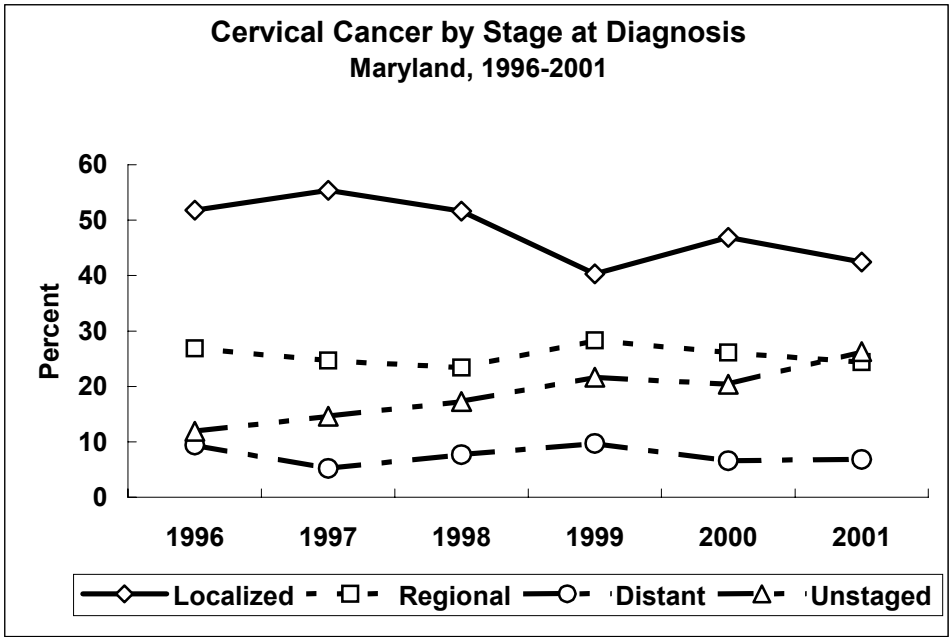
Cervical cancer mortality rates have also decreased an average of 5.9% per year from 1997 to 2001 in Maryland.



Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001

Race-Specific Rates

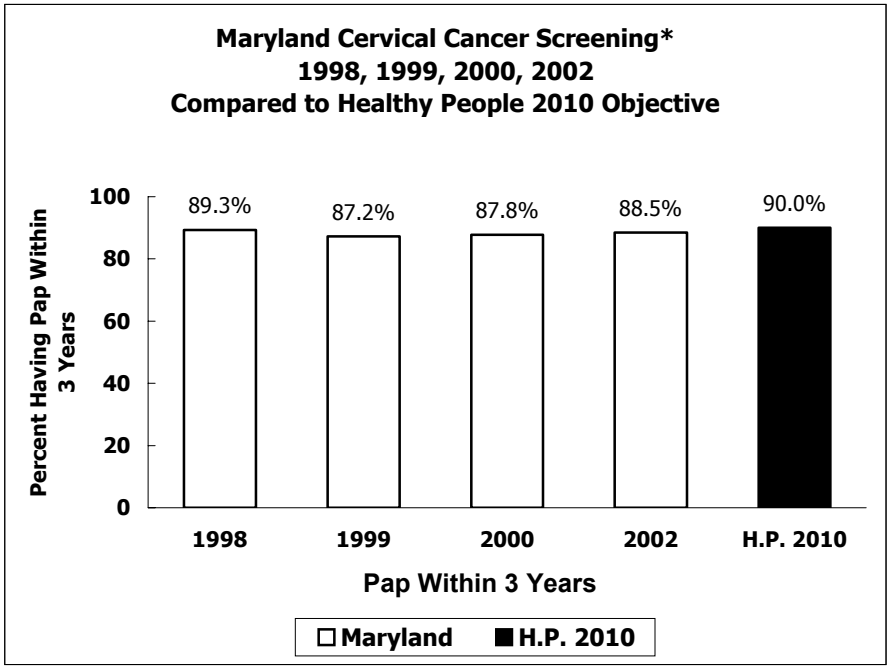
Black women had a higher incidence rate than white women in Maryland, but the difference was not statistically significant. Black women had double the mortality rate of white women although the difference was not statistically significant.



Maryland Cancer Registry, 1996-2001

Stage at Diagnosis

In 2001, 42.4% of all cervical cancer cases were diagnosed in the localized (early) stage, and 26.3% of cases were unstaged the same year. This compares with 51.8% localized cases with 11.9% unstaged in 1996.



* Women 18 years of age and older
BRFSS, Maryland DHMH Office of Surveillance and Assessment, 1998, 1999, 2000, 2002
Healthy People 2010, U.S. Department of Health and Human Services, 2000

Healthy People 2010 Objectives

A Healthy People 2010 objective for cervical cancer is to increase the percent of women 18 years and older who have had a Pap test within the preceding 3 years to 90%. In 2002, 88.5% of women 18 years and older reported they had their Pap smear within the preceding 3 years.

Public Health Evidence (quoted from NCI, PDQ, 2/20/2004 and 7/13/2004 and USPSTF 1/2003)

Screening

Based on good evidence, regular screening of appropriate women for cervical cancer with the Papanicolaou (Pap) test reduces mortality from cervical cancer. Screening is effective when started within three years after beginning vaginal intercourse and becomes much less effective in women ages 65 years and older who have had recent negative Pap tests.

The evidence is insufficient to determine the additional benefits or harms of new technologies for screening, including liquid-based cytology, compared with traditional Pap testing. Although not suitable as a primary screening test, testing for human papillomavirus (HPV) DNA is a promising technology for differentiating between women with atypical squamous cells of undetermined significance (ASCUS) who would more likely benefit from colposcopy and women who would be unlikely to benefit.

Primary Prevention

Evidence supports a sexual mode of transmission of a carcinogen and HPV is strongly implicated epidemiologically as the main infectious etiologic agent. Barrier methods of contraception lower the incidence of cervical neoplasia presumably due to less exposure to HPV. Exposure to cigarette smoke is associated with increased risk. Increased intake of micronutrients and other dietary factors such as carotenoids are associated with decreased risk.

Preliminary evidence suggests a vaccine against HPV-16 using empty-viral capsids, called "virus-like particles," reduces the risk of acquiring transient and persistent HPV-16 infections and cervical neoplasia.

Public Health Intervention for Cervical Cancer (NCI, PDQ, and USPSTF)
Early detection of cervical cancer: ➢ Screen using the Pap test for all women who have a cervix, within three years after onset of sexual activity or by age 21 if not sexually active.

Table 66.
Number of Cervical Cancer Cases
by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	205	107	63	25	10
Allegany	<6	<6	0	0	0
Anne Arundel	21	17	<6	<6	0
Baltimore City	39	11	25	<6	<6
Baltimore County	24	18	<6	<6	0
Calvert	<6	<6	0	0	0
Caroline	0	0	0	0	0
Carroll	<6	<6	0	<6	0
Cecil	<6	<6	0	0	<6
Charles	<6	<6	0	<6	0
Dorchester	<6	<6	0	0	0
Frederick	7	s	0	0	<6
Garrett	<6	<6	0	0	0
Harford	8	<6	<6	0	<6
Howard	10	<6	<6	<6	<6
Kent	<6	<6	0	0	0
Montgomery	36	18	s	9	<6
Prince George's	32	8	18	<6	<6
Queen Anne's	<6	0	<6	0	0
Saint Mary's	<6	<6	0	0	0
Somerset	<6	0	<6	0	0
Talbot	0	0	0	0	0
Washington	<6	<6	0	0	<6
Wicomico	<6	<6	0	0	0
Worcester	<6	<6	<6	0	0
Unknown	0	0	0	0	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 67.
Cervical Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	7.0	5.4	8.2	**
Allegany	**	**	0.0	0.0
Anne Arundel	**	**	**	**
Baltimore City	11.2	**	**	**
Baltimore County	**	**	**	**
Calvert	**	**	0.0	0.0
Caroline	0.0	0.0	0.0	0.0
Carroll	**	**	0.0	**
Cecil	**	**	0.0	0.0
Charles	**	**	0.0	**
Dorchester	**	**	0.0	0.0
Frederick	**	**	0.0	0.0
Garrett	**	**	0.0	0.0
Harford	**	**	**	0.0
Howard	**	**	**	**
Kent	**	**	0.0	0.0
Montgomery	7.1	**	**	**
Prince George's	7.4	**	**	**
Queen Anne's	**	0.0	**	0.0
Saint Mary's	**	**	0.0	0.0
Somerset	**	0.0	**	0.0
Talbot	0.0	0.0	0.0	0.0
Washington	**	**	0.0	0.0
Wicomico	**	**	0.0	0.0
Worcester	**	**	**	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 2001

Table 68.
Number of Cervical Cancer Deaths
by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	82	48	s	<6
Allegany	<6	<6	0	0
Anne Arundel	6	<6	<6	0
Baltimore City	20	<6	s	0
Baltimore County	10	s	<6	0
Calvert	0	0	0	0
Caroline	<6	<6	0	0
Carroll	<6	<6	0	0
Cecil	0	0	0	0
Charles	<6	<6	0	0
Dorchester	<6	0	<6	0
Frederick	<6	<6	0	0
Garrett	<6	<6	0	0
Harford	0	0	0	0
Howard	<6	<6	<6	0
Kent	0	0	0	0
Montgomery	9	s	0	<6
Prince George's	13	<6	s	0
Queen Anne's	0	0	0	0
Saint Mary's	<6	<6	<6	0
Somerset	0	0	0	0
Talbot	0	0	0	0
Washington	<6	<6	0	0
Wicomico	<6	<6	0	0
Worcester	<6	<6	0	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 69.
Cervical Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2.8	2.3	4.6	**
Allegany	**	**	0.0	0.0
Anne Arundel	**	**	**	0.0
Baltimore City	**	**	**	0.0
Baltimore County	**	**	**	0.0
Calvert	0.0	0.0	0.0	0.0
Caroline	**	**	0.0	0.0
Carroll	**	**	0.0	0.0
Cecil	0.0	0.0	0.0	0.0
Charles	**	**	0.0	0.0
Dorchester	**	0.0	**	0.0
Frederick	**	**	0.0	0.0
Garrett	**	**	0.0	0.0
Harford	0.0	0.0	0.0	0.0
Howard	**	**	**	0.0
Kent	0.0	0.0	0.0	0.0
Montgomery	**	**	0.0	**
Prince George's	**	**	**	0.0
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	0.0	0.0
Washington	**	**	0.0	0.0
Wicomico	**	**	0.0	0.0
Worcester	**	**	0.0	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 2001

Table 70.
Number of Cervical Cancer Cases
by Jurisdiction and Race, Maryland, 1997-2001

Jurisdiction	Total	Race			
		Whites	Blacks	Others	Unknown
Maryland	1,172	682	358	76	56
Allegany	16	16	0	0	0
Anne Arundel	97	70	15	s	<6
Baltimore City	215	68	138	s	<6
Baltimore County	144	98	35	<6	s
Calvert	17	s	<6	0	0
Caroline	<6	<6	0	0	0
Carroll	29	s	<6	<6	<6
Cecil	23	19	<6	<6	<6
Charles	26	13	<6	<6	<6
Dorchester	6	<6	<6	0	0
Frederick	46	s	0	<6	<6
Garrett	8	8	0	0	0
Harford	42	32	s	0	<6
Howard	37	21	9	<6	<6
Kent	<6	<6	0	0	0
Montgomery	161	99	21	30	11
Prince George's	174	49	100	15	10
Queen Anne's	9	s	<6	0	0
Saint Mary's	15	11	<6	0	<6
Somerset	7	<6	<6	0	0
Talbot	9	<6	<6	0	0
Washington	28	s	<6	0	<6
Wicomico	28	21	<6	<6	<6
Worcester	18	s	<6	0	0
Unknown	9	<6	0	<6	<6

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 71.
Cervical Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 1997-2001

Jurisdiction	Total	Race		
		Whites	Blacks	Others
Maryland	8.3	7.0	10.1	13.0
Allegany	**	**	0.0	0.0
Anne Arundel	7.7	6.5	**	**
Baltimore City	11.8	10.2	12.3	**
Baltimore County	6.8	5.8	9.5	**
Calvert	**	**	**	0.0
Caroline	**	**	0.0	0.0
Carroll	7.4	6.9	**	**
Cecil	**	**	**	**
Charles	8.9	**	**	**
Dorchester	**	**	**	0.0
Frederick	9.6	9.8	0.0	**
Garrett	**	**	0.0	0.0
Harford	7.5	6.3	**	0.0
Howard	6.1	**	**	**
Kent	**	**	0.0	0.0
Montgomery	6.8	5.6	**	11.6
Prince George's	8.7	7.3	8.7	**
Queen Anne's	**	**	**	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	**	**	0.0
Talbot	**	**	**	0.0
Washington	8.1	7.7	**	0.0
Wicomico	12.6	**	**	**
Worcester	**	**	**	0.0

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001

Table 72.
Number of Cervical Cancer Deaths
by Jurisdiction and Race, Maryland, 1997-2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	391	227	154	10
Allegany	7	7	0	0
Anne Arundel	20	s	<6	0
Baltimore City	108	s	76	<6
Baltimore County	37	29	s	<6
Calvert	<6	0	<6	0
Caroline	<6	<6	<6	0
Carroll	8	s	<6	0
Cecil	8	<6	<6	0
Charles	8	<6	<6	<6
Dorchester	8	<6	<6	0
Frederick	13	13	0	0
Garrett	<6	<6	0	0
Harford	11	s	<6	0
Howard	16	11	<6	<6
Kent	<6	<6	0	0
Montgomery	36	26	<6	<6
Prince George's	53	s	35	<6
Queen Anne's	<6	<6	0	0
Saint Mary's	<6	<6	<6	0
Somerset	<6	<6	<6	0
Talbot	<6	<6	<6	0
Washington	18	18	0	0
Wicomico	11	s	<6	0
Worcester	7	<6	<6	0

s=Number was suppressed to ensure confidentiality of cell in other column

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Table 73.
Cervical Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 1997-2001

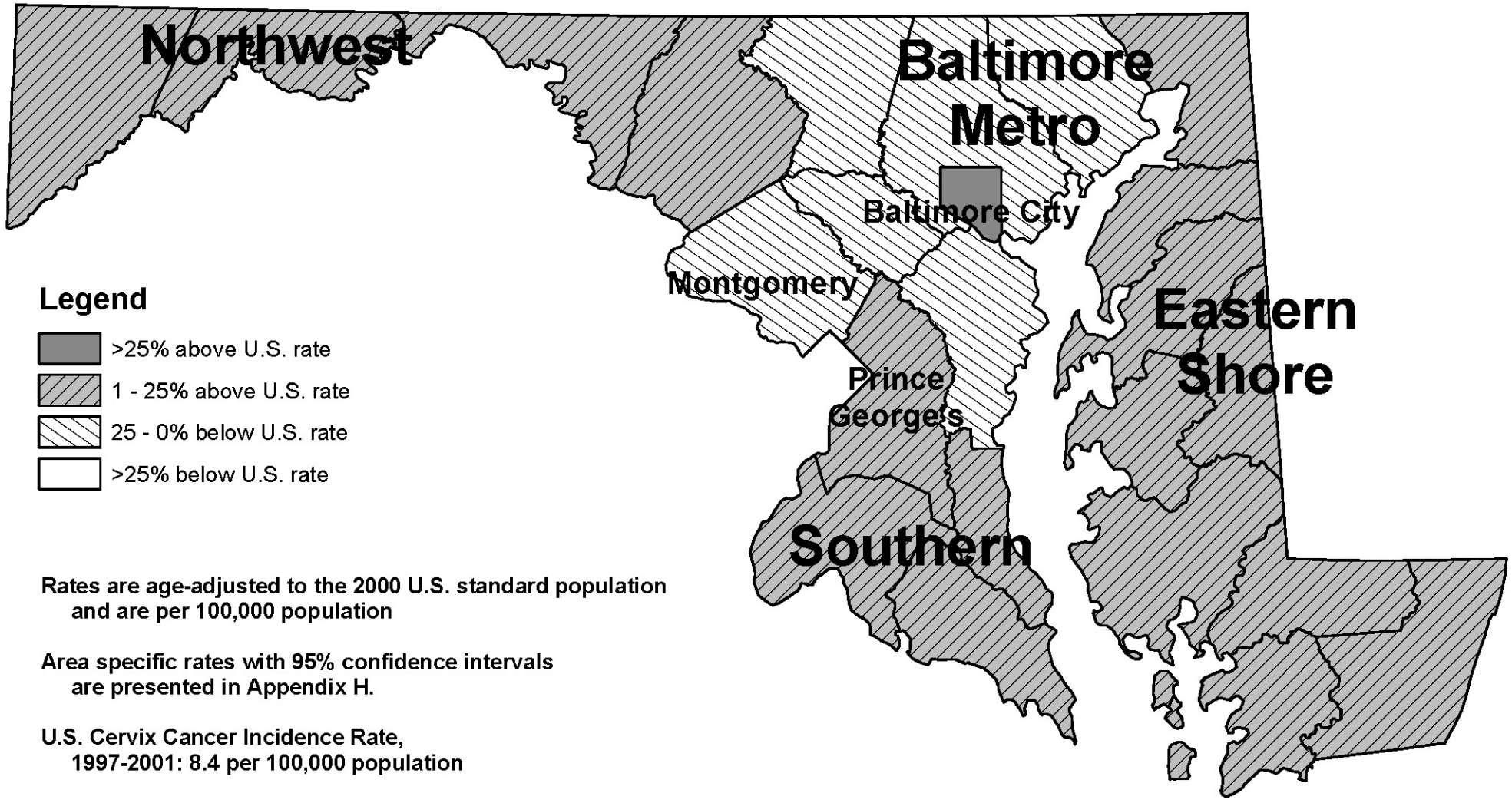
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2.8	2.2	4.6	**
Allegany	**	**	0.0	0.0
Anne Arundel	**	**	**	0.0
Baltimore City	5.9	4.3	6.8	**
Baltimore County	1.7	1.6	**	**
Calvert	**	0.0	**	0.0
Caroline	**	**	**	0.0
Carroll	**	**	**	0.0
Cecil	**	**	**	0.0
Charles	**	**	**	**
Dorchester	**	**	**	0.0
Frederick	**	**	0.0	0.0
Garrett	**	**	0.0	0.0
Harford	**	**	**	0.0
Howard	**	**	**	**
Kent	**	**	0.0	0.0
Montgomery	1.5	1.4	**	**
Prince George's	2.7	**	3.3	**
Queen Anne's	**	**	0.0	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	**	**	0.0
Talbot	**	**	**	0.0
Washington	**	**	0.0	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 cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1997-2001

Maryland Cervical Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



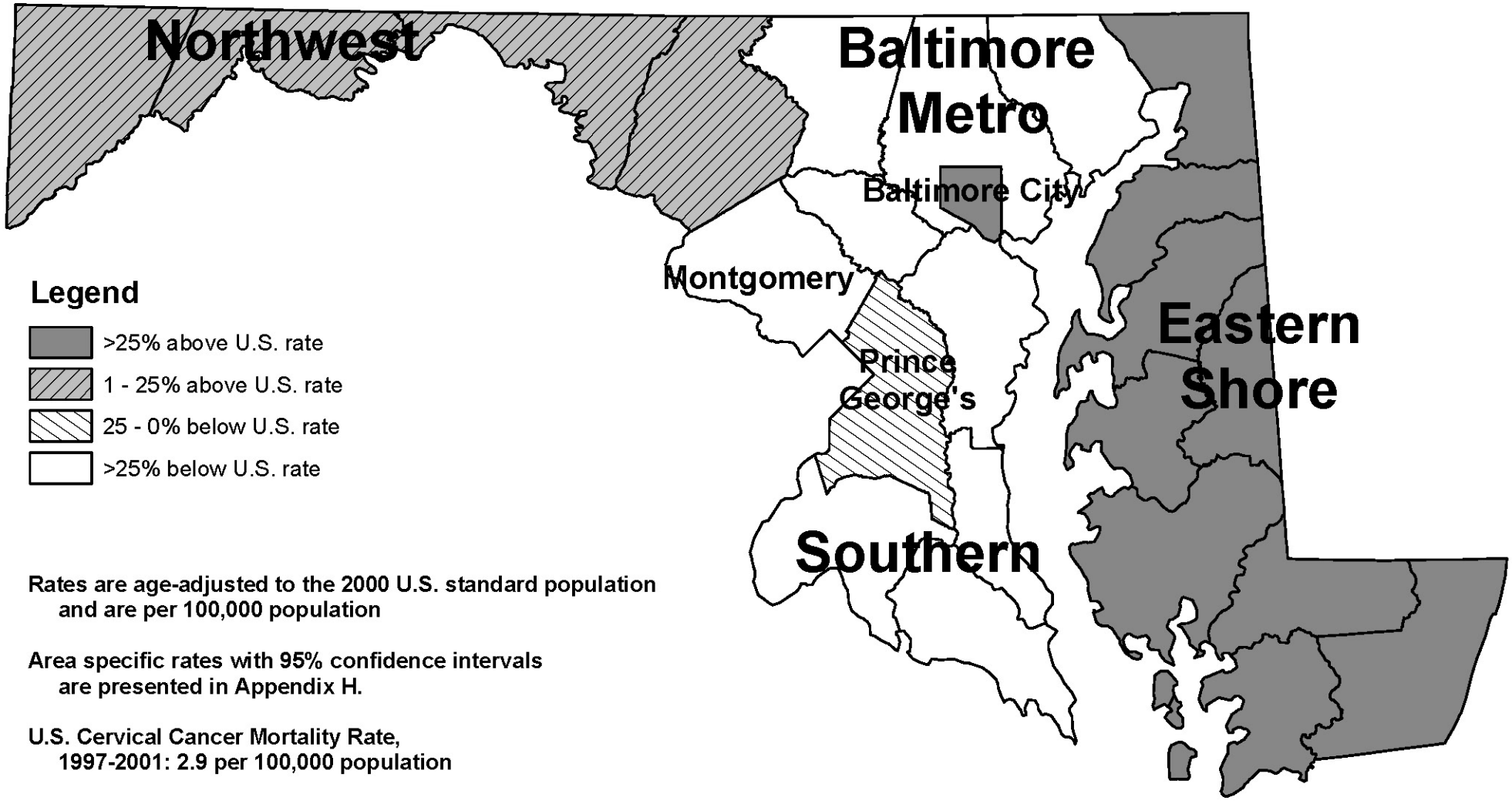
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Cervix Cancer Incidence Rate, 1997-2001: 8.4 per 100,000 population

Source: Maryland Cancer Registry, 1997-2001

Maryland Cervical Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



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

Area specific rates with 95% confidence intervals are presented in Appendix H.

U.S. Cervical Cancer Mortality Rate, 1997-2001: 2.9 per 100,000 population

Source: Maryland Division of Health Statistics, 1997-2001

IV. County-Specific Data

Incidence and Mortality Data by County

Five-year combined incidence and mortality data for 1997 to 2001 by jurisdiction, presented with the rates for Maryland and the U.S., are provided in this section.

The rates for counties and Baltimore City may be based on small numbers of cases or small population sizes. Therefore, comparisons of rates of one jurisdiction to the U.S., Maryland, or another jurisdiction may not be valid. For valid mortality comparisons, refer to Appendix H and the maps.

Table 74.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Allegany County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	2,363	492.9	475.3	479.7	1,000	198.0	209.9	199.8
Lung and Bronchus	392	78.2	70.4	64.8	302	59.7	59.4	56.2
Colorectal	317	63.5	55.7	54.6	131	25.5	23.1	20.8
Female Breast	302	118.1	132.8	137.5	59	19.5	28.5	27.0
Prostate	348	165.1	178.6	175.5	47	26.9	34.3	31.5
Oral	58	12.7	10.7	10.9	13	**	3.1	2.8
Melanoma	66	15.3	16.9	18.0	14	**	2.5	2.7
Cervical	16	**	8.3	8.4	7	**	2.8	2.9

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 75.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Anne Arundel County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	10,691	491.7	475.3	479.7	4,402	218.1	209.9	199.8
Lung and Bronchus	1,671	79.5	70.4	64.8	1,355	66.4	59.4	56.2
Colorectal	1,113	53.7	55.7	54.6	427	21.8	23.1	20.8
Female Breast	1,730	142.3	132.8	137.5	354	29.9	28.5	27.0
Prostate	1,552	160.8	178.6	175.5	202	31.0	34.3	31.5
Oral	266	11.9	10.7	10.9	70	3.5	3.1	2.8
Melanoma	510	21.7	16.9	18.0	57	2.5	2.5	2.7
Cervical	97	7.7	8.3	8.4	20	**	2.8	2.9

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 76.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Baltimore City, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	City Number	City Rate	MD Rate	U.S. SEER Rate	City Number	City Rate	MD Rate	U.S. SEER Rate
All Cancers	17,075	517.1	475.3	479.7	8,959	270.0	209.9	199.8
Lung and Bronchus	3,055	92.3	70.4	64.8	2,697	81.2	59.4	56.2
Colorectal	1,972	59.3	55.7	54.6	957	28.8	23.1	20.8
Female Breast	2,376	126.8	132.8	137.5	702	36.1	28.5	27.0
Prostate	2,614	195.4	178.6	175.5	586	50.1	34.3	31.5
Oral	511	15.8	10.7	10.9	191	5.8	3.1	2.8
Melanoma	285	8.6	16.9	18.0	55	1.7	2.5	2.7
Cervical	215	11.8	8.3	8.4	108	5.9	2.8	2.9

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

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 77.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Baltimore County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	20,794	499.7	475.3	479.7	9,085	214.4	209.9	199.8
Lung and Bronchus	3,182	75.2	70.4	64.8	2,688	63.1	59.4	56.2
Colorectal	2,491	58.9	55.7	54.6	1,014	23.8	23.1	20.8
Female Breast	3,156	138.9	132.8	137.5	697	28.8	28.5	27.0
Prostate	3,292	183.5	178.6	175.5	463	29.6	34.3	31.5
Oral	440	10.7	10.7	10.9	118	2.8	3.1	2.8
Melanoma	838	20.6	16.9	18.0	109	2.6	2.5	2.7
Cervical	144	6.8	8.3	8.4	37	1.7	2.8	2.9

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

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 78.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Calvert County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,492	490.8	475.3	479.7	611	215.3	209.9	199.8
Lung and Bronchus	229	80.1	70.4	64.8	192	67.6	59.4	56.2
Colorectal	165	58.5	55.7	54.6	68	25.6	23.1	20.8
Female Breast	232	134.4	132.8	137.5	35	20.5	28.5	27.0
Prostate	237	177.3	178.6	175.5	39	43.8	34.3	31.5
Oral	42	14.1	10.7	10.9	10	**	3.1	2.8
Melanoma	62	18.5	16.9	18.0	11	**	2.5	2.7
Cervical	17	**	8.3	8.4	<6	**	2.8	2.9

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

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 79.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Caroline County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	782	498.7	475.3	479.7	359	227.8	209.9	199.8
Lung and Bronchus	128	81.2	70.4	64.8	121	76.8	59.4	56.2
Colorectal	121	76.7	55.7	54.6	48	30.4	23.1	20.8
Female Breast	113	136.4	132.8	137.5	24	**	28.5	27.0
Prostate	103	145.7	178.6	175.5	20	**	34.3	31.5
Oral	18	**	10.7	10.9	<6	**	3.1	2.8
Melanoma	42	27.0	16.9	18.0	<6	**	2.5	2.7
Cervical	<6	**	8.3	8.4	<6	**	2.8	2.9

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

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 80.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Carroll County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	3,379	488.5	475.3	479.7	1,318	196.9	209.9	199.8
Lung and Bronchus	426	63.4	70.4	64.8	356	53.6	59.4	56.2
Colorectal	380	56.8	55.7	54.6	155	23.2	23.1	20.8
Female Breast	527	135.5	132.8	137.5	84	21.6	28.5	27.0
Prostate	528	177.7	178.6	175.5	70	30.8	34.3	31.5
Oral	73	10.3	10.7	10.9	13	**	3.1	2.8
Melanoma	174	23.1	16.9	18.0	35	5.0	2.5	2.7
Cervical	29	7.4	8.3	8.4	8	**	2.8	2.9

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 81.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Cecil County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,836	479.5	475.3	479.7	883	244.7	209.9	199.8
Lung and Bronchus	318	83.8	70.4	64.8	269	71.7	59.4	56.2
Colorectal	210	56.0	55.7	54.6	85	24.1	23.1	20.8
Female Breast	236	113.1	132.8	137.5	65	31.8	28.5	27.0
Prostate	285	170.6	178.6	175.5	69	60.1	34.3	31.5
Oral	49	12.3	10.7	10.9	13	**	3.1	2.8
Melanoma	75	18.9	16.9	18.0	20	**	2.5	2.7
Cervical	23	**	8.3	8.4	8	**	2.8	2.9

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 82.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Charles County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	2,126	469.0	475.3	479.7	983	239.6	209.9	199.8
Lung and Bronchus	329	75.5	70.4	64.8	293	69.9	59.4	56.2
Colorectal	228	54.5	55.7	54.6	108	27.7	23.1	20.8
Female Breast	327	121.4	132.8	137.5	79	32.5	28.5	27.0
Prostate	410	221.1	178.6	175.5	60	49.6	34.3	31.5
Oral	40	8.4	10.7	10.9	24	**	3.1	2.8
Melanoma	68	12.8	16.9	18.0	12	**	2.5	2.7
Cervical	26	8.9	8.3	8.4	8	**	2.8	2.9

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 83.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Dorchester County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,024	523.1	475.3	479.7	466	230.4	209.9	199.8
Lung and Bronchus	178	87.4	70.4	64.8	136	67.0	59.4	56.2
Colorectal	143	71.0	55.7	54.6	54	26.1	23.1	20.8
Female Breast	147	144.1	132.8	137.5	24	**	28.5	27.0
Prostate	140	156.5	178.6	175.5	43	56.2	34.3	31.5
Oral	28	14.6	10.7	10.9	<6	**	3.1	2.8
Melanoma	28	15.8	16.9	18.0	<6	**	2.5	2.7
Cervical	6	**	8.3	8.4	8	**	2.8	2.9

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

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 84.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Frederick County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	3,926	476.9	475.3	479.7	1,506	192.2	209.9	199.8
Lung and Bronchus	500	63.0	70.4	64.8	417	53.0	59.4	56.2
Colorectal	496	62.7	55.7	54.6	185	24.1	23.1	20.8
Female Breast	646	138.3	132.8	137.5	110	24.2	28.5	27.0
Prostate	584	172.4	178.6	175.5	71	26.0	34.3	31.5
Oral	53	6.4	10.7	10.9	16	**	3.1	2.8
Melanoma	186	21.2	16.9	18.0	20	**	2.5	2.7
Cervical	46	9.6	8.3	8.4	13	**	2.8	2.9

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 85.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Garrett County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	736	434.6	475.3	479.7	318	184.7	209.9	199.8
Lung and Bronchus	108	62.5	70.4	64.8	92	52.8	59.4	56.2
Colorectal	95	55.6	55.7	54.6	45	26.3	23.1	20.8
Female Breast	108	119.0	132.8	137.5	23	**	28.5	27.0
Prostate	124	155.4	178.6	175.5	20	**	34.3	31.5
Oral	8	**	10.7	10.9	<6	**	3.1	2.8
Melanoma	22	**	16.9	18.0	<6	**	2.5	2.7
Cervical	8	**	8.3	8.4	<6	**	2.8	2.9

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

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 86.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Harford County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	4,727	492.8	475.3	479.7	1,842	206.3	209.9	199.8
Lung and Bronchus	708	75.8	70.4	64.8	559	61.0	59.4	56.2
Colorectal	507	55.7	55.7	54.6	190	22.1	23.1	20.8
Female Breast	670	122.5	132.8	137.5	129	24.5	28.5	27.0
Prostate	782	191.9	178.6	175.5	115	39.0	34.3	31.5
Oral	91	9.1	10.7	10.9	22	**	3.1	2.8
Melanoma	230	22.1	16.9	18.0	22	**	2.5	2.7
Cervical	42	7.5	8.3	8.4	11	**	2.8	2.9

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 87.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Howard County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	4,034	430.1	475.3	479.7	1,561	190.1	209.9	199.8
Lung and Bronchus	483	58.4	70.4	64.8	409	51.2	59.4	56.2
Colorectal	403	47.9	55.7	54.6	150	19.5	23.1	20.8
Female Breast	739	129.2	132.8	137.5	130	25.3	28.5	27.0
Prostate	642	162.7	178.6	175.5	80	32.6	34.3	31.5
Oral	71	7.5	10.7	10.9	22	**	3.1	2.8
Melanoma	206	19.1	16.9	18.0	23	**	2.5	2.7
Cervical	37	6.1	8.3	8.4	16	**	2.8	2.9

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 88.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Kent County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	582	448.5	475.3	479.7	257	187.2	209.9	199.8
Lung and Bronchus	108	77.2	70.4	64.8	83	60.3	59.4	56.2
Colorectal	63	45.0	55.7	54.6	23	**	23.1	20.8
Female Breast	77	121.3	132.8	137.5	13	**	28.5	27.0
Prostate	86	138.3	178.6	175.5	16	**	34.3	31.5
Oral	12	**	10.7	10.9	<6	**	3.1	2.8
Melanoma	30	26.4	16.9	18.0	<6	**	2.5	2.7
Cervical	<6	**	8.3	8.4	<6	**	2.8	2.9

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

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 89.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Montgomery County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	17,364	419.9	475.3	479.7	6,341	157.3	209.9	199.8
Lung and Bronchus	1,815	45.2	70.4	64.8	1,417	35.6	59.4	56.2
Colorectal	1,768	43.5	55.7	54.6	648	16.1	23.1	20.8
Female Breast	3,252	137.9	132.8	137.5	599	25.2	28.5	27.0
Prostate	3,049	174.5	178.6	175.5	357	24.8	34.3	31.5
Oral	354	8.5	10.7	10.9	71	1.8	3.1	2.8
Melanoma	704	16.4	16.9	18.0	105	2.6	2.5	2.7
Cervical	161	6.8	8.3	8.4	36	1.5	2.8	2.9

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

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 90.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Prince George's County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	13,312	441.0	475.3	479.7	5,887	215.3	209.9	199.8
Lung and Bronchus	1,743	60.9	70.4	64.8	1,556	56.3	59.4	56.2
Colorectal	1,579	57.4	55.7	54.6	679	26.1	23.1	20.8
Female Breast	2,266	122.3	132.8	137.5	517	29.4	28.5	27.0
Prostate	2,531	199.7	178.6	175.5	336	41.0	34.3	31.5
Oral	305	9.3	10.7	10.9	90	3.1	3.1	2.8
Melanoma	217	6.7	16.9	18.0	40	1.4	2.5	2.7
Cervical	174	8.7	8.3	8.4	53	2.7	2.8	2.9

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

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 91.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Queen Anne's County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,011	476.0	475.3	479.7	421	205.3	209.9	199.8
Lung and Bronchus	157	73.4	70.4	64.8	129	60.9	59.4	56.2
Colorectal	127	62.9	55.7	54.6	42	21.2	23.1	20.8
Female Breast	140	124.5	132.8	137.5	27	24.5	28.5	27.0
Prostate	149	139.9	178.6	175.5	16	**	34.3	31.5
Oral	33	15.1	10.7	10.9	<6	**	3.1	2.8
Melanoma	47	23.4	16.9	18.0	8	**	2.5	2.7
Cervical	9	**	8.3	8.4	<6	**	2.8	2.9

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

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 92.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Saint Mary's County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,636	464.0	475.3	479.7	661	201.3	209.9	199.8
Lung and Bronchus	256	75.2	70.4	64.8	169	50.8	59.4	56.2
Colorectal	230	69.4	55.7	54.6	79	24.8	23.1	20.8
Female Breast	222	116.9	132.8	137.5	43	22.9	28.5	27.0
Prostate	216	130.6	178.6	175.5	34	27.7	34.3	31.5
Oral	46	12.5	10.7	10.9	7	**	3.1	2.8
Melanoma	72	18.5	16.9	18.0	15	**	2.5	2.7
Cervical	15	**	8.3	8.4	<6	**	2.8	2.9

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

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 93.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Somerset County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	701	532.3	475.3	479.7	322	243.5	209.9	199.8
Lung and Bronchus	138	104.0	70.4	64.8	109	82.0	59.4	56.2
Colorectal	84	63.3	55.7	54.6	29	21.9	23.1	20.8
Female Breast	87	132.9	132.8	137.5	19	**	28.5	27.0
Prostate	89	142.5	178.6	175.5	18	**	34.3	31.5
Oral	9	**	10.7	10.9	<6	**	3.1	2.8
Melanoma	27	21.2	16.9	18.0	<6	**	2.5	2.7
Cervical	7	**	8.3	8.4	<6	**	2.8	2.9

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

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 94.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Talbot County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,216	498.8	475.3	479.7	479	187.0	209.9	199.8
Lung and Bronchus	162	63.5	70.4	64.8	117	45.3	59.4	56.2
Colorectal	158	62.7	55.7	54.6	59	23.2	23.1	20.8
Female Breast	197	155.4	132.8	137.5	30	21.7	28.5	27.0
Prostate	204	178.0	178.6	175.5	36	34.1	34.3	31.5
Oral	32	14.2	10.7	10.9	11	**	3.1	2.8
Melanoma	56	26.2	16.9	18.0	12	**	2.5	2.7
Cervical	9	**	8.3	8.4	<6	**	2.8	2.9

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

Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 95.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Washington County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	3,431	483.0	475.3	479.7	1,479	205.9	209.9	199.8
Lung and Bronchus	511	71.1	70.4	64.8	428	59.3	59.4	56.2
Colorectal	429	59.7	55.7	54.6	157	21.8	23.1	20.8
Female Breast	483	129.1	132.8	137.5	121	30.6	28.5	27.0
Prostate	456	147.7	178.6	175.5	82	32.4	34.3	31.5
Oral	76	10.8	10.7	10.9	20	**	3.1	2.8
Melanoma	161	23.1	16.9	18.0	15	**	2.5	2.7
Cervical	28	8.1	8.3	8.4	18	**	2.8	2.9

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 96.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Wicomico County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	2,103	500.3	475.3	479.7	951	227.7	209.9	199.8
Lung and Bronchus	356	84.2	70.4	64.8	315	74.8	59.4	56.2
Colorectal	208	49.9	55.7	54.6	91	22.1	23.1	20.8
Female Breast	337	144.4	132.8	137.5	95	39.4	28.5	27.0
Prostate	271	150.4	178.6	175.5	54	38.3	34.3	31.5
Oral	42	9.9	10.7	10.9	11	**	3.1	2.8
Melanoma	142	34.1	16.9	18.0	12	**	2.5	2.7
Cervical	28	12.6	8.3	8.4	11	**	2.8	2.9

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Table 97.
Incidence (1997-2001) and Mortality Rates* (1997-2001) by Type of Cancer
Worcester County, Maryland, and U.S.

Type of Cancer	Incidence (1997-2001)				Mortality (1997-2001)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,672	521.0	475.3	479.7	719	220.3	209.9	199.8
Lung and Bronchus	307	91.4	70.4	64.8	229	66.4	59.4	56.2
Colorectal	194	58.8	55.7	54.6	81	25.2	23.1	20.8
Female Breast	213	132.5	132.8	137.5	46	25.1	28.5	27.0
Prostate	238	149.5	178.6	175.5	34	26.7	34.3	31.5
Oral	47	15.1	10.7	10.9	12	**	3.1	2.8
Melanoma	87	29.5	16.9	18.0	10	**	2.5	2.7
Cervical	18	**	8.3	8.4	7	**	2.8	2.9

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

** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
SEER, National Cancer Institute, 1997-2001

Appendix A

Cigarette Restitution Fund
Annual Cancer Report Requirements

Cigarette Restitution Fund Annual 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 creates 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 to conduct a baseline cancer survey (2000) as well as cancer surveys at least every other year thereafter.

The law requires that the survey includes:

(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 Annual Cancer Report as follows:

Required Component of the Annual Cancer Report	***Location of Information in this Report***
1. Number and percent of individuals having each targeted cancer, both statewide and in each jurisdiction.	Tables 1, 2, 3, 4, 7, 8, 11, 12, 13, 16, 17, 20, 21, 22, 25, 26, 29, 30, 31, 34, 35, 38, 39, 40, 43, 44, 47, 48, 49, 52, 53, 56, 57, 58, 61, 62, 65, 66, 67, 70, 71, 74-97
2. Number and percent 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 1, 5, 6, 9, 10, 11, 14, 15, 18, 19, 20, 23, 24, 27, 28, 29, 32, 33, 36, 37, 38, 41, 42, 45, 46, 47, 50, 51, 54, 55, 56, 59, 60, 63, 64, 65, 68, 69, 72, 73, 74-97
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 11, 12, 13, 16, 17 High incidence and effective detection: Colorectal and breast cancer: Tables 20, 21, 22, 25, 26, 29, 30, 31, 34, 35

6. Other aspects of targeted and non-targeted cancers that the Department seeks to measure.	For cancer overall and for each targeted cancer, the report: 1. Compares Maryland incidence and mortality rates to that of the U.S.; 2. Shows 5-year mortality trends and 5-year combined data; 3. Presents 5-year combined incidence data; 4. Tracks stage of disease at diagnosis over a 6-year period; 5. 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); 6. Describes the evidence for screening, primary prevention and chemoprevention for each targeted cancer, based on current scientific literature; and 7. 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 the Department 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

Annual Cancer Report Format

Annual Cancer Report Format

1. Selection of Targeted Cancers

Under the Cigarette Restitution Fund's Cancer Prevention, Education, Screening and Treatment Program, DHMH 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 combined cancer sites reported in Maryland and the seven specific cancer sites targeted by the Cancer Prevention, Education, Screening and Treatment Program.

For each targeted cancer site and all sites combined, the number of new cancers, cancer deaths, and age-adjusted cancer incidence and mortality rates are presented by race, gender, and jurisdiction. All sites incidence is presented also by Hispanic ethnicity. All rates are age-adjusted to the 2000 U.S. standard population. For each targeted cancer site, trends in incidence and mortality, race-specific incidence and mortality rates, trends in stage of disease at diagnosis, public health evidence, recommended areas for public health intervention, and Maryland screening/behavior rates compared to Healthy People 2010 screening/behavior objectives are also presented. Each section also contains 5-year combined data for incidence and mortality. A section with county-specific data portrays 5-year incidence and mortality data along with Maryland and U.S. rates.

Additionally, Maryland 2001 incidence and mortality rates with 95% confidence intervals (95% C.I.) were compared to U.S. 2001 data from the Surveillance, Epidemiology and End Results (SEER) Program Cancer Statistics Review (1997-2001). Maryland rankings on 5-year mortality rates overall and by cancer site were also included. The SEER program does not provide statistics on "other" races for incidence and mortality; therefore, incidence and mortality counts and rates were not presented for the "other" race category. Incidence data on Hispanics have been added for all sites combined using a prescribed methodology for estimating Hispanic ethnicity. See Appendix C, Section D.7 (Data Considerations--Race and Ethnicity), for more information.

Figures (graphs and maps) are also used to display data. Two all cancer sites graphs show age-specific incidence and mortality rates by gender. Graphs are further used to display data on incidence and mortality from 1997-2001 with the estimated annual percentage change (EAPC) (see Appendix D, Glossary, for more information on EAPC); incidence and mortality by race or gender; stage of diagnosis; and behaviors of persons in Maryland as compared to persons in the U.S. Maps portray Maryland incidence and mortality data as compared to the U.S. for the combined years 1997-2001 by

geographical area. Maps denote areas with incidence and mortality grouped into four categories compared to corresponding U.S. rates (see Appendix H for map data).

Maryland population estimates for 2001 by race and gender can be found in Appendix E. Population numbers are denominators for calculating rates. In addition, Appendix F depicts the 2000 U.S. standard population organized by age groupings. There is a listing of International Classification of Diseases for Oncology (ICD-O-3) codes for frequently diagnosed cancer sites (Appendix G). Appendix I shows the age-adjusted cancer incidence and mortality rates for all cancer sites and the targeted cancers for quick comparisons of rates and the estimated annual percent change, 1997-2001, along with direction of the trend for each cancer site. Finally, Appendix J provides the percentages that depict trends in cancer stage at diagnosis for all cancer sites and the targeted cancers from 1996 to 2001.

Appendix C

Annual Cancer Report Data Sources, References, and Data Considerations

Annual 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, the Division of Health Statistics, the Office of Surveillance and Assessment, Center for Health Promotion, Education and Tobacco Use Prevention, and the Center for Cancer Surveillance and Control.

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) diagnosed or treated in Maryland. Incidence rates used in this report are calculated for the year 2001, in which the most complete data are available and includes all cases reported to the MCR as of November 2003.

a. Registry Data Sources

The Maryland cancer reporting law mandates the collection of cancer information from hospitals, radiation therapy centers, diagnostic laboratories (both in-state and out-of-state), 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 neighboring states including Delaware, Pennsylvania, Virginia, and West Virginia as well as the District of Columbia. Information on Maryland residents diagnosed or treated for cancer in these states and the District of Columbia is included in this report.

b. MCR Data Quality and Completeness of Case Ascertainment

MCR 2001 incidence data achieved the "gold" certification for high quality from the North American Association of Central Cancer Registries (NAACCR) certification program. MCR has been awarded the “gold” certification three years in a row, for the years 1998, 1999 and 2000. In 2001, MCR was awarded “gold” status in the areas of timeliness and quality. MCR data were evaluated using the following criteria: data completeness, data quality, and timeliness.

2. Maryland Division of Health Statistics

The Division of Health Statistics in the Vital Statistics Administration of DHMH registers births, deaths, marriages, and divorces. Data provided from this office includes numbers of deaths and Maryland population estimates. MCR used these data to calculate cancer mortality rates.

3. Behavioral Risk Factor Surveillance Survey

The Maryland Behavioral Risk Factor Surveillance Survey (BRFSS) is an annual telephone survey conducted on a random sample of Maryland adult residents. This survey, managed by the

Maryland DHMH, Center for Preventive Health Services, Office of Surveillance and Assessment 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 Web site at: http://www.cdc.gov/brfss.

4. Maryland Cancer Survey

The Maryland Cancer Survey (MCS) is managed by the DHMH, Center for Cancer Surveillance and Control, Surveillance and Evaluation Unit. The purpose of the MCS survey was 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. The methodology used in the MCS is similar to the BRFSS. Unlike the BRFSS, the MCS conducted in 2002, focuses on people age 40 years and over, who have the highest risk of developing cancer.

5. Maryland Youth Tobacco Survey

The Maryland Youth Tobacco Survey (MYTS) was administered for the purpose of gathering attitude, usage, and exposure information regarding tobacco products for Maryland youth grades 9-12 statewide and within each of the 23 counties and Baltimore City in Maryland. Survey results are also used in apportioning Local Tobacco Use Prevention and Cessation grants among Maryland's 24 major political subdivisions.

The most recent survey was conducted in the Fall of 2002. Over 66,000 students in eligible Maryland public middle and high schools completed MYTS questionnaires statewide.

The MYTS is managed by the Center for Health Promotion, Education, and Tobacco Use Prevention. Complete data for the MYTS were published in 2000 and 2002. Copies of published reports are available from the Center at 410-767-1362.
Reports are also available through the DHMH Web site at: http://www.fha.state.md.us/crfp/html/stats.cfm. The most recent report monitors changing tobacco use behaviors in Maryland and can be found at: http://www.mdpublichealth.org/crfp/pdf/Fall2003DataReport.pdf

B. National Data Sources

Statistics for the United States (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).

1. Healthy People 2010

Healthy People 2010 is a collaboration of local and national governmental agencies and private organizations that have developed national health objectives to improve the health of Americans. There are 28 focus areas and 467 specific objectives in Healthy People 2010. Healthy People

2010 objectives now serve as a year 2000 baseline; beginning with the baseline year, National Health Interview Survey and other data being compared against the Healthy People 2010 objectives are age-adjusted to the 2000 U.S. population. The Healthy People initiative is under the Office of Disease Prevention and Health Promotion, DHHS. Further information can be found on the Web site at: http://www.healthypeople.gov/.

2. Surveillance, Epidemiology, and End Results Program (SEER)/National Center for Health Statistics

The Surveillance, Epidemiology, and End Results (SEER) Program of the NCI is an authoritative source of information on cancer incidence, stage, and survival in the U.S. Staff of the NCI manages SEER. The SEER Program collects and publishes cancer incidence and survival data in order to assemble and report estimates of cancer incidence, survival, and mortality in the U.S. The data are collected from 14 U.S. cancer registries and three supplemental registries throughout the U.S. 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. The mortality data reported by SEER are provided by NCHS. The SEER program began in 1973 and, in 1992, was expanded to increase coverage of minority populations, primarily Hispanics. 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://www.seer.cancer.gov/csr/1975_2001/sections.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. 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 Editorial Board has revised its procedure; a two-step process is now in place for evaluating levels of evidence: a) study design, and b) assessment of the evidence. Whereas the Board previously only considered study design (evidence from the best studies available; ranked in descending order of strength), the PDQ Editorial Board now evaluates evidence in two steps. 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 "good," "fair," or "poor." The Board conducts the same process separately for potential benefits and potential harms of each intervention.

Step 1
Step 1 involves evaluating the levels of evidence in five domains; study designs in order of strongest evidence to weakest evidence, are described as follows:

1. Evidence obtained from at least one randomized controlled trial (this is considered the gold standard for scientific research);
2. Evidence obtained from controlled trials without randomization;
3. Evidence obtained from well-designed and conducted cohort or case-control studies, preferably from more than one center or research group;
4. Evidence obtained from multiple time series with or without intervention;
5. Opinions of respected authorities based on clinical experience, descriptive studies, or reports of expert committees.

Step 1 further entails assessing internal validity:

1. Quality of execution within the study design
2. Consistency (coherence)/volume of the evidence
3. Direction and magnitude of effects for health outcomes (both absolute and relative risks; as quantitative as possible; may vary for different populations)
4. External validity

Step 2
Step 2 is an assessment of the level of certainty (good, fair, poor) 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.

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
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 is quoted directly from the Summary of Evidence. This report includes the date(s) of the last update of the PDQ for each targeted cancer site. 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.

3. Additional Medical Literature Quoted or Cited

Lung and Bronchus Cancer: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Best Practices for Comprehensive Tobacco Control Programs (August 1999). http://www.cdc.gov/tobacco/research_data/stat_nat_data/bestprac-execsummay.htm and http://www.ahrq.gov/clinic/uspstf/uspslung.htm.

Colorectal Cancer: U.S. Preventive Services Task Force, Agency for Healthcare Research and Quality, Rockville, MD. Screening for Colorectal Cancer: Recommendations and Rationale (July 2002). Originally in *Annals of Internal Medicine*, 2002;137:129-31. http://www.ahrq.gov/clinic/3rduspstf/colorectal/colorr.htm.

Female Breast Cancer: U.S. Preventive Services Task Force, Agency for Healthcare Research and Quality, Rockville, MD. Screening for Breast Cancer: Recommendations and Rationale (February 2002). http://www.ahrq.gov/clinic/3rduspstf/breastcancer/brcanrr.htm.

Female Breast Cancer: U.S. Preventive Services Task Force, Agency for Healthcare Research and Quality, Rockville, MD. Chemoprevention of Breast Cancer: Recommendations and Rationale (July 2002). http://www.ahrq.gov/clinic/3rduspstf/breastchemo/breastchemorr.htm.

Prostate Cancer: Smith, R.A., Cokkinides, V., Eyre, H.J. American Cancer Society Guidelines for the Early Detection of Cancer (Jan-Feb 2003). *CA Cancer J. Clin.,* 53(1):27-43. http://caonline.amcancersoc.org/cgi/content/full/53/1/27.

Oral Cancer: U.S. Preventive Services Task Force, Agency for Healthcare Research and Quality, Rockville, MD. Screening for Oral Cancer: Recommendation Statement (February 2004). http://www.ahrq.gov/clinic/3rduspstf/oralcan/oralcanrs.htm.

Skin Cancer: U.S. Preventive Services Task Force, Agency for Healthcare Research and Quality, Rockville, MD. Screening for Skin Cancer: Recommendations and Rationale (April 2001). Article originally in *Am J Prev Med* 2001;20(3S):44-6. http://www.ahrq.gov/clinic/ajpmsuppl/skcarr.htm.

Cervical Cancer: U.S. Preventive Services Task Force, Agency for Healthcare Research and Quality, Rockville, MD. Screening for Cervical Cancer (January 2003). Publication No. 03-515A. http://www.ahrq.gov/clinic/3rduspstf/cervcan/cervcanwh.htm.

D. Data Considerations

1. Data Confidentiality

DHMH regards all data received, processed, and reported to and by the MCR and the Division of Health Statistics 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 Code of Maryland Regulations, COMAR 10.14.01 (Cancer Registry) and Health-General Article §§ 18-203 and 18-204, Annotated Code of Maryland.

In order to ensure patient confidentiality and to comply with the *MCR Data Use Policy*, cells with five or fewer cases are presented with "<6." Cell counts that could be used to calculate the number of cases within a restricted cell are suppressed with "s." Rates based on 25 or fewer cases are presented with asterisks (**) because the rates are unstable and do not provide reliable information.

2. Gender

Gender is now reported to the MCR as: a) male, b) female, c) hermaphrodite, d) transsexual, and e) unknown. 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

Incidence rates presented in this report were calculated using Maryland resident cancer cases diagnosed from January 1, 2001 through December 31, 2001, and reported to the MCR as of November 2003. The mortality data consist of deaths that occurred between January 1, 2001 and December 31, 2001.

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 whom age has not been reported. Federal agencies have adopted the year 2000 U.S. standard population as the new standard for age-adjusting incidence and mortality rates, beginning with data year 1999. For consistency and ease of comparison, incidence and mortality rates in this report were calculated and age-adjusted using the 2000 U.S. population as the standard population. This new standard replaces prior standards based on the 1940 or 1970 standard population for the nation.

The age structure of the U.S. population has changed considerably between 1970 and 2000, with the 2000 population having a larger proportion of older persons than the 1970 population standard. Given that age is the most important risk factor for cancer, using the year 2000 U.S. standard population results in higher overall age-adjusted cancer incidence and mortality rates. Additional information on age-adjustment can be found at http://www.cdc.gov/nchs/data/statnt/statnt20.pdf.

Incidence and mortality rates are not presented for cells based on 25 or fewer cases. Rates based on numbers of this size are unstable and do not provide reliable information.

The Estimate Annual Percent Change (EAPC) was calculated for incidence and mortality over time (from 1997 to 2001). See Appendix D, Glossary, for the definition of EAPC.

4. Confidence Intervals and Statistical Significance

A confidence interval is a range of values within which the true rate is expected to fall. Confidence intervals can be used as an indicator of the precision of a value. A small confidence interval enables the rate as a single data point to be used in place of a confidence interval. Conversely, a small sample or population can require a large difference before the difference becomes statistically significant. Many of the tests for statistical significance used in this report are based on relatively small populations; therefore, a test of statistical significance merely serves as a benchmark for evaluating difference. Sample size is closely related to size of the confidence interval. A rate having a larger sample will have a confidence interval that is more narrow and, therefore, more precise. For additional information regarding the formula used to calculate the confidence level, refer to the SEER Web site at:
http://www.seer.cancer.gov/seerstat/WebHelp/Rate_Algorithms.htm

A narrow confidence interval suggests the estimate is more precise than a wider confidence interval. In addition to considerations of precision, confidence intervals are used in this report for determining statistical significance. One way statistical significance is used in this report is for comparing the Maryland incidence and mortality burden by cancer type with its corresponding U.S. rate. If the confidence interval of a Maryland rate includes the U.S. SEER rate, Maryland and the U.S. are considered comparable or not statistically significantly different. This method was used for comparing SEER data to Maryland because only a particular U.S. rate was available for representing the confidence interval. The way the method for testing confidence intervals for statistical significance was applied is different for U.S. SEER data because only a specific rate is known--not the confidence interval itself. Because U.S. data were based on very large numbers, the range for the confidence interval will tend to be narrow. All Maryland rates presented in this report were calculated at the 95 percent confidence level. For example, the 2000 U.S. SEER-reported lung cancer incidence rate was 55.2 per 100,000 population. Maryland's rate is 56.8 per 100,000. The 95% confidence interval for this rate is 56.8 to 58.9. We have, therefore, a 95% degree of certainty that the true (real) rate is between 56.8 and 58.9 per 100,000 age-adjusted population. Another way the test is applied for deciding whether two rates are different and the direction of the difference involves looking for overlapping ranges. If any part of the confidence interval for the two populations overlaps, there is no difference. If no overlapping occurs, then the two groups are statistically significantly different. The numerically larger non-overlapping category is statistically significantly higher.

When data are comparable (not statistically significantly different) the term "similar" is used in this report for describing the comparison.

5. *Year 2000 U.S. Standard Population*

Federal agencies have adopted the year 2000 U.S. standard population as the new standard for age-adjusting incidence and mortality rates, beginning in data year 1999 (see Appendix F). The year 2000 population standard replaces at least three different population standards used in earlier years. The use of multiple standards resulted in difficulties comparing data prepared by national and federal agencies, and caused confusion among data users and the general public. Use of the

2000 standard was recommended to promote uniformity of data among agencies, and to eliminate the need to calculate rates using more than one standard.

6. *National Comparison Data*

Maryland and county incidence and mortality rates are compared to 2001 U.S. SEER incidence rates and 2001 U.S. SEER mortality rates. The SEER program does not provide rates for "other" races, so comparisons are not presented.

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 five-year average. SEER data contained in this report is based on the average annual age-adjusted cancer death rates by state, 1997-2001. Because mortality rates describe the cancer burden better than incidence rates, only Maryland rankings for mortality are presented for each targeted cancer. Data used for Maryland cancer mortality ranking by site were extracted from: http://seer.cancer.gov/faststats/html/mor_all.html.

Area analysis in the report also makes comparisons against national data. For both incidence and mortality rate maps, the U.S. cancer incidence or mortality rate was used as a baseline against which Maryland jurisdictions (county and region) are compared. A ramp is used for grouping Maryland data into categories in reference to baseline. The ramp groups data into four divisions: >25% below U.S. rate; 0-25% below U.S. rate; 1-25% above U.S. rate; and >25% above U.S. rate.

7. Race and Ethnicity

The MCR began requiring submission of more detailed data on race and ethnicity beginning August 1998. Previously, race reported as Native American, Asian, and Pacific Islander were counted in the "other" race category. Because information on ethnicity was not reliably reported to the MCR in 2001, it is not included in this report. The present report does, however, include one table (see Table 4) depicting Hispanic cancer incidence. Only year 2001 new cases and incidence rates were included. The table shows overall counts and incidence rates by county and region for all cancer sites combined.

Hispanic ethnicity data as presented in Table 4 are derived from two sources using Maryland data from the MCR. The first method examines the ethnicity variable as recorded in the MCR that is obtained through chart abstraction/documentation from the reporting source. The second method estimates Hispanic ethnicity via analysis of a person's surname, maiden name, birthplace, and racial coding.

8. Healthy People 2010 Objectives/BRFSS/MCS

Risk behaviors are compared to Healthy People 2010 objectives. Measures for cancer-related behaviors (e.g., screening tests) and the recommendations for their use may change over time. BRFSS and MCS questions that measure screening and other health behaviors are updated to reflect changes in how risk behavior needs to be measured.

In addition, the Healthy People 2010 objectives may change over time to reflect new health-related behavior and screening recommendations. Comparisons in this report are made between the Healthy People 2010 objectives (developed from data age-adjusted to the year 2000 U.S. standard population) and data from the Maryland BRFSS and MCS, which is weighted to the age of Maryland population in that year. Unlike U.S. data used for Healthy People 2010, Maryland BRFSS and MCS data are both age-adjusted to the current Maryland population--not to the year 2000 U.S. standard population.

9. Appendices

Please refer to additional appendices for Cigarette Restitution Fund Program Annual Cancer Report requirements, report format, technical notes and definitions, Maryland population counts, U.S. standard population for 2000, International Classification of Diseases (ICD) codes for cancer (Appendix G), Maryland rates and confidence intervals for incidence and mortality data from 1997-2001 (Appendix H), Maryland Trend in Age-Adjusted Cancer Incidence and Mortality Rates by Cancer Site and Year, 1997-2001 (Appendix I), and Maryland Trend in Cancer Stage of Disease at Diagnosis Year for Each Cancer Site, 1996-2001 (Appendix J).

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. Therefore, 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://www.cdc.gov/nchs/data/statnt/statnt20.pdf and http://www.cdc.gov/nchs/datawh/nchsdefs/ageadjustment.htm.

- **Ascertainment:** Ascertainment refers to the quality assurance procedures Maryland Cancer Registry staff use for insuring 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:** 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.

- **Estimated Annual Percentage Change (EAPC) (5-year trend data):** EAPC is 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 EAPCs are presented for the years 1997 through 2001. A more detailed description of the method can be found at: http://seer.cancer.gov/seerstat/WebHelp/seerstat.htm#EAPC_Calculation_(Rate_Session).htm.

- **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 calendar year 2001. Cancer incidence data are also presented in aggregated form as the average annual incidence for the years 1997 through 2001.

- **Invasive cancer:** 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 would not be 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 calendar year 2001. Data for cancer mortality are also presented in an aggregated form as the average annual mortality for the years 1997 through 2001.

- **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).

- **Rate:** A rate is an estimate of the burden of a given disease on a defined population in a specified period of time. A crude rate is calculated by dividing the number of cases (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. No crude rates are given in this report; all rates are age-adjusted. 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. 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**: Following are definitions for the regional categories:

  BALTIMORE METRO REGION
  Anne Arundel, Baltimore City, Baltimore County, Carroll, Harford, Howard

  Note: Baltimore Metro Region does not include Baltimore City when used in Appendix H and for the incidence and mortality maps.

  EASTERN SHORE REGION
  Caroline, Cecil, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico, Worcester

  NATIONAL CAPITAL REGION
  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 malignancies in situ or in an early stage.

- **Stage at Diagnosis:** 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:** stage of disease at diagnosis was unable to be classified (often due to insufficient information) or not reported to the cancer registry.

Appendix E

Maryland Population Estimates, 2001

Maryland Population Estimates by County, 2001

	Total All Genders	Total Male	Total Female	Total White	White Male	White Female	Total Black	Black Male	Black Female
Maryland	**5,386,079**	**2,602,472**	**2,783,607**	**3,575,438**	**1,752,132**	**1,823,306**	**1,546,650**	**723,280**	**823,370**
Baltimore Metro	**2,538,848**	**1,221,201**	**1,317,647**	**1,732,156**	**845,678**	**886,478**	**718,606**	**332,876**	**385,730**
Anne Arundel County	497,580	247,860	249,720	412,909	205,700	207,209	69,267	34,846	34,421
Baltimore City	645,305	300,676	344,629	209,313	101,530	107,783	422,433	192,508	229,925
Baltimore County	763,113	361,633	401,480	570,864	272,713	298,151	163,161	74,690	88,471
Carroll County	154,639	76,369	78,270	149,097	73,486	75,611	3,685	2,001	1,684
Harford County	222,799	109,252	113,547	196,539	96,601	99,938	21,594	10,492	11,102
Howard County	255,412	125,411	130,001	193,434	95,648	97,786	38,466	18,339	20,127
Eastern Shore	**402,441**	**196,471**	**205,970**	**330,103**	**161,431**	**168,672**	**67,314**	**32,526**	**34,788**
Caroline County	30,042	14,695	15,347	25,329	12,484	12,845	4,364	2,035	2,329
Cecil County	88,365	43,738	44,627	83,871	41,503	42,368	3,507	1,762	1,745
Dorchester County	30,525	14,433	16,092	21,533	10,312	11,221	8,646	3,947	4,699
Kent County	19,486	9,339	10,147	16,065	7,779	8,286	3,257	1,478	1,779
Queen Anne's County	41,464	20,606	20,858	37,446	18,633	18,813	3,589	1,760	1,829
Somerset County	25,246	13,406	11,840	14,295	7,238	7,057	10,695	6,034	4,661
Talbot County	34,057	16,226	17,831	28,393	13,551	14,842	5,276	2,472	2,804
Wicomico County	85,475	40,777	44,698	63,460	30,420	33,040	20,318	9,511	10,807
Worcester County	47,781	23,251	24,530	39,711	19,511	20,200	7,662	3,527	4,135
National Capital	**1,714,817**	**821,894**	**892,923**	**882,852**	**434,059**	**448,793**	**674,662**	**312,251**	**362,411**
Montgomery County	895,021	429,482	465,539	636,188	308,474	327,714	141,002	64,650	76,352
Prince George's County	819,796	392,412	427,384	246,664	125,585	121,079	533,660	247,601	286,059
Northwest	**439,454**	**219,118**	**220,336**	**404,349**	**198,016**	**206,333**	**28,457**	**17,904**	**10,553**
Allegany County	74,431	37,009	37,422	69,891	33,621	36,270	4,023	3,126	897
Frederick County	202,441	99,559	102,882	184,331	90,571	93,760	13,584	6,808	6,776
Garrett County	29,747	14,677	15,070	29,492	14,529	14,963	172	112	60
Washington County	132,835	67,873	64,962	120,635	59,295	61,340	10,678	7,858	2,820
Southern	**290,519**	**143,788**	**146,731**	**225,978**	**112,948**	**113,030**	**57,611**	**27,723**	**29,888**
Calvert County	77,721	38,309	39,412	66,637	33,048	33,589	10,041	4,800	5,241
Charles County	125,232	61,314	63,918	86,287	42,792	43,495	35,224	16,849	18,375
St. Mary's County	87,566	44,165	43,401	73,054	37,108	35,946	12,346	6,074	6,272

Race groupings do not include: a) individuals who have identified themselves as belonging to an "Other" race category, and b) individuals reporting membership in more than one race at the same time.

Source: National Center for Health Statistics, SEER, 2001

Appendix F

U.S. Standard Population, 2000

2000 U.S. Standard Population

Age Group (years)	2000 Population
00-04	69,135
05-09	72,533
10-14	73,032
15-19	72,169
20-24	66,478
25-29	64,529
30-34	71,044
35-39	80,762
40-44	81,851
45-49	72,118
50-54	62,716
55-59	48,454
60-64	38,793
65-69	34,264
70-74	31,773
75-79	26,999
80-84	17,842
85+	15,508
Total	1,000,000

Source: National Center for Health Statistics, SEER, 2000

Appendix G

SEER Definitions (ICD Codes) of Site Categories

ICD-O-3 and ICD-10 Codes Used to Classify Cancer Incidence and Mortality (SEER Definitions of Site Categories)

Cancer Site	ICD-O-3 Codes (Incidence)	ICD-10 Codes (Mortality)
Oral cavity and pharynx	C00.0 -- C14.8*	C00.0 -- C14.8
Esophagus	C15.0 -- C15.9*	C15.0 -- C15.9
Stomach	C16.0 -- C16.8*	C16.0 -- C16.9
Colon, rectum including anus	C17.0 -- C21.8*	C17.0 -- C21.8
Liver, gallbladder and bile-duct	C22.0 -- C24.9*	C22.0 -- C24.9
Pancreas	C25.0 -- C25.9*	C25.0 -- C25.9
Larynx	C32.0 -- C32.9*	C32.0 -- C32.9
Lung and bronchus	C34.0 -- C34.9*	C34.0 -- C34.9
Heart and other soft tissues	C38.0, C49.0 -- C49.9	C38.0, C49.0 -- C49.9
Bones and joints	C40.0 -- C41.9	C40.0 -- C41.9
Melanomas of the skin	C44.0 -- C44.9	C44.0 -- C44.9
Breast	C50.0 -- C50.9*	C50.0 -- C50.9
Cervix	C53.0 -- C53.9*	C53.0 -- C53.9
Uterus	C54.0 -- C54.9, 55.9*	C54.0 -- C54.9, C55
Ovary	C56.9*	C56
Prostate	C61.9*	C61
Testis	C62.0 -- C62.9*	C62.0 -- C62.9
Urinary bladder	C67.0 -- C67.9*	C67.0 -- C67.9
Kidney and renal pelvis	C64.9, C65.9*	C64, C65
Brain and other CNS^	C71.0 -- C72.9*	C71.0 -- C72.9
Thyroid gland	C73.9*	C73
Leukemia**	9800 -- 9948	C91.0 -- C95.9
Hodgkin's disease**	9650 -- 9667	C81.0 -- C81.9
Non-Hodgkin's lymphoma**	9670 -- 9729	C82.0 -- C85.9
Multiple myeloma**	9731 -- 9734	C90.0 -- C90.2

^ Central nervous system.
*Site excludes ICD-O-3 morphology codes 8000-9989.
** Site has only morphology ICD-O-3 code(s) depending on the type of cell.
Most of mortality (ICD-10) codes are similar to cancer incidence topography (ICD-O-3) codes.

Note: There are many cancer incidence and cancer mortality codes for ill defined and unspecific sites which were not included in this table.

ICD-O-3: International Classification of Diseases for Oncology, 3rd Edition
ICD-10: International Classification of Diseases, 10th Edition

Appendix H

Maryland Cancer Incidence and Mortality: Rates and Confidence Intervals, 1997-2001

All Cancer Sites Incidence
Age-Adjusted Incidence Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	475.3	472.6	478.1
Northwest Region	478.3	469.1	487.5
Allegany	492.9	472.9	513.7
Frederick	476.9	461.9	492.3
Garrett	434.6	403.6	467.7
Washington	483.0	466.9	499.5
Baltimore Metropolitan Area**	489.0	484.4	493.6
Anne Arundel	491.7	482.2	501.3
Baltimore City	517.1	509.3	524.9
Baltimore County	499.7	492.9	506.6
Carroll	488.5	472.1	505.4
Harford	492.8	478.6	507.4
Howard	430.1	416.4	444.3
National Capital Area			
Montgomery	419.9	413.7	426.3
Prince George's	441.0	433.2	448.9
Southern Region	472.2	459.2	485.5
Calvert	490.8	465.7	517.1
Charles	469.0	448.5	490.4
Saint Mary's	464.0	441.4	487.5
Eastern Shore	497.2	487.9	506.7
Caroline	498.7	464.4	535.2
Cecil	479.5	457.5	502.4
Dorchester	523.1	491.2	556.9
Kent	448.5	412.1	488.2
Queen Anne's	476.0	446.8	507.0
Somerset	532.3	493.5	573.8
Talbot	498.8	470.5	529.0
Wicomico	500.3	479.1	522.2
Worcester	521.0	495.6	547.7

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

** Region does not include data for Baltimore City

Source: Maryland Cancer Registry, 1997-2001

Lung and Bronchus Incidence
Age-Adjusted Incidence Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	70.4	69.3	71.4
Northwest Region	69.1	65.6	72.7
Allegany	78.2	70.6	86.6
Frederick	63.0	57.6	68.9
Garrett	62.5	51.3	75.9
Washington	71.1	65.1	77.6
Baltimore Metropolitan Area**	73.4	71.6	75.2
Anne Arundel	79.5	75.7	83.5
Baltimore City	92.3	89.1	95.7
Baltimore County	75.2	72.6	77.9
Carroll	63.4	57.5	69.8
Harford	75.8	70.3	81.8
Howard	58.4	53.2	64.1
National Capital Area			
Montgomery	45.2	43.2	47.4
Prince George's	60.9	57.9	63.9
Southern Region	76.7	71.4	82.3
Calvert	80.1	70.0	91.5
Charles	75.5	67.3	84.5
Saint Mary's	75.2	66.2	85.2
Eastern Shore	82.6	78.9	86.5
Caroline	81.2	67.7	96.8
Cecil	83.8	74.7	93.7
Dorchester	87.4	74.9	101.8
Kent	77.2	63.2	94.3
Queen Anne's	73.4	62.3	86.4
Somerset	104.0	87.3	123.4
Talbot	63.5	54.0	75.0
Wicomico	84.2	75.6	93.4
Worcester	91.4	81.3	102.9

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

** Region does not include data for Baltimore City

Source: Maryland Cancer Registry, 1997-2001

Colon and Rectum Incidence
Age-Adjusted Incidence Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	55.7	54.7	56.6
Northwest Region	61.1	57.9	64.5
Allegany	63.5	56.6	71.2
Frederick	62.7	57.3	68.6
Garrett	55.6	45.0	68.4
Washington	59.7	54.2	65.6
Baltimore Metropolitan Area**	56.1	54.5	57.7
Anne Arundel	53.7	50.5	57.0
Baltimore City	59.3	56.7	61.9
Baltimore County	58.9	56.6	61.3
Carroll	56.8	51.2	62.8
Harford	55.7	50.9	60.9
Howard	47.9	43.2	53.1
National Capital Area			
Montgomery	43.5	41.5	45.6
Prince George's	57.4	54.5	60.4
Southern Region	60.4	55.6	65.4
Calvert	58.5	49.7	68.5
Charles	54.5	47.5	62.5
Saint Mary's	69.4	60.6	79.2
Eastern Shore	59.3	56.1	62.7
Caroline	76.7	63.6	91.9
Cecil	56.0	48.6	64.4
Dorchester	71.0	59.8	84.3
Kent	45.0	34.5	58.8
Queen Anne's	62.9	52.4	75.4
Somerset	63.3	50.5	78.9
Talbot	62.7	53.2	74.3
Wicomico	49.9	43.4	57.2
Worcester	58.8	50.7	68.4

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

** Region does not include data for Baltimore City

Source: Maryland Cancer Registry, 1997-2001

Female Breast Cancer Incidence
Age-Adjusted Incidence Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	132.8	130.9	134.7
Northwest Region	130.4	123.9	137.1
Baltimore Metro Region**	137.0	133.7	140.3
Baltimore City	126.8	121.8	132.1
Montgomery County	137.9	133.2	142.8
Prince George's County	122.3	117.2	127.6
Southern Region	123.4	114.8	132.5
Eastern Shore Region	133.2	126.6	140.1

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

** Region does not include data for Baltimore City

Source: Maryland Cancer Registry, 1997-2001

Prostate Cancer Incidence
Age-Adjusted Incidence Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	178.6	176.0	181.2
Northwest Region	160.5	152.4	169.0
Baltimore Metro Region**	176.2	172.0	180.6
Baltimore City	195.4	187.9	203.2
Montgomery County	174.5	168.3	180.9
Prince George's County	199.7	191.4	208.4
Southern Region	177.2	164.9	190.5
Eastern Shore Region	153.6	146.0	161.6

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

** Region does not include data for Baltimore City

Source: Maryland Cancer Registry, 1997-2001

Oral Cancer Incidence
Age-Adjusted Incidence Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	10.7	10.3	11.1
Northwest Region	8.9	7.7	10.3
Baltimore Metro Region**	10.4	9.8	11.1
Baltimore City	15.8	14.4	17.2
Montgomery County	8.5	7.6	9.4
Prince George's County	9.3	8.2	10.5
Southern Region	11.2	9.3	13.4
Eastern Shore Region	12.3	10.8	13.8

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

** Region does not include data for Baltimore City

Source: Maryland Cancer Registry, 1997-2001

Melanoma Incidence
Age-Adjusted Incidence Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	16.9	16.4	17.4
Northwest Region	19.9	18	21.8
Baltimore Metro Region**	21.2	20.3	22.2
Baltimore City	8.6	7.6	9.6
Montgomery County	16.4	15.2	17.6
Prince George's County	6.7	5.8	7.8
Southern Region	16	13.8	18.5
Eastern Shore Region	25.2	23.1	27.4

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

** Region does not include data for Baltimore City

Source: Maryland Cancer Registry, 1997-2001

Cervical Cancer Incidence
Age-Adjusted Incidence Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	8.3	7.8	8.8
Northwest Region	8.6	7	10.5
Baltimore Metro Region**	7	6.3	7.8
Baltimore City	11.8	10.3	13.5
Montgomery County	6.8	5.8	7.9
Prince George's County	8.7	7.4	10.2
Southern Region	8.6	6.5	11.2
Eastern Shore Region	10.1	8.3	12.2

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

** Region does not include data for Baltimore City

Source: Maryland Cancer Registry, 1997-2001

All Cancer Sites Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Lower CI	Upper CI
Maryland	50,810	209.9	208.1	211.8
Northwest Region	4,303	197.5	191.6	203.5
Allegany	1,000	198.0	185.8	211.0
Frederick	1,506	192.2	182.5	202.2
Garrett	318	184.7	164.9	206.5
Washington	1,479	205.9	195.6	216.8
Baltimore Metropolitan Area**	18,207	210.3	207.2	213.4
Anne Arundel	4,402	218.1	211.6	224.8
Baltimore City	8,959	270.0	264.4	275.6
Baltimore County	9,085	214.4	210.0	218.9
Carroll	1,318	196.9	186.4	207.9
Harford	1,842	206.3	196.8	216.3
Howard	1,561	190.1	180.5	200.2
National Capital Area				
Montgomery	6,341	157.3	153.5	161.3
Prince George's	5,887	215.3	209.6	221.1
Southern Region	2,255	220.1	210.9	229.7
Calvert	611	215.3	198.3	233.6
Charles	983	239.6	224.4	255.8
Saint Mary's	661	201.3	186.0	217.6
Eastern Shore	4,857	220.9	214.7	227.3
Caroline	359	227.8	204.8	252.9
Cecil	883	244.7	228.6	261.7
Dorchester	466	230.4	209.8	252.9
Kent	257	187.2	164.7	212.8
Queen Anne's	421	205.3	186.0	226.5
Somerset	322	243.5	217.6	272.2
Talbot	479	187.0	170.4	205.5
Wicomico	951	227.7	213.5	242.7
Worcester	719	220.3	204.1	237.8

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

** Region does not include data for Baltimore City

Source: Maryland Division of Health Statistics, 1997-2001

Lung and Bronchus Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Lower CI	Upper CI
Maryland	14,438	59.4	58.4	60.3
Northwest Region	1,239	56.7	53.6	60.0
Allegany	302	59.7	53.1	67.1
Frederick	417	53.0	48.0	58.4
Garrett	92	52.8	42.5	65.2
Washington	428	59.3	53.8	65.2
Baltimore Metropolitan Area**	5,366	61.6	59.9	63.2
Anne Arundel	1,355	66.4	62.9	70.1
Baltimore City	2,697	81.2	78.1	84.3
Baltimore County	2,688	63.1	60.7	65.6
Carroll	356	53.6	48.1	59.5
Harford	559	61.0	56.0	66.4
Howard	409	51.2	46.2	56.6
National Capital Area				
Montgomery	1,417	35.6	33.8	37.5
Prince George's	1,556	56.3	53.5	59.3
Southern Region	654	63.0	58.2	68.2
Calvert	192	67.6	58.3	78.1
Charles	293	69.9	61.9	78.7
Saint Mary's	169	50.8	43.3	59.2
Eastern Shore	1,508	67.5	64.2	71.0
Caroline	121	76.8	63.7	92.0
Cecil	269	71.7	63.3	81.0
Dorchester	136	67.0	56.1	79.9
Kent	83	60.3	47.9	76.0
Queen Anne's	129	60.9	50.8	72.9
Somerset	109	82.0	67.3	99.5
Talbot	117	45.3	37.4	55.2
Wicomico	315	74.8	66.8	83.6
Worcester	229	66.4	57.9	76.2

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

** Region does not include data for Baltimore City

Source: Maryland Division of Health Statistics, 1997-2001

Colon and Rectum Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Lower CI	Upper CI
Maryland	5,505	23.1	22.5	23.7
Northwest Region	518	23.8	21.8	26.0
Allegany	131	25.5	21.3	30.5
Frederick	185	24.1	20.7	27.9
Garrett	45	26.3	19.1	35.6
Washington	157	21.8	18.5	25.5
Baltimore Metropolitan Area**	1,936	22.8	21.8	23.8
Anne Arundel	427	21.8	19.8	24.1
Baltimore City	957	28.8	27.0	30.7
Baltimore County	1,014	23.8	22.3	25.3
Carroll	155	23.2	19.7	27.3
Harford	190	22.1	19.0	25.7
Howard	150	19.5	16.5	23.1
National Capital Area				
Montgomery	648	16.1	14.9	17.4
Prince George's	679	26.1	24.1	28.3
Southern Region	255	26.1	22.9	29.6
Calvert	68	25.6	19.8	32.7
Charles	108	27.7	22.6	33.8
Saint Mary's	79	24.8	19.6	31.1
Eastern Shore	512	23.5	21.5	25.6
Caroline	48	30.4	22.4	40.6
Cecil	85	24.1	19.2	30.1
Dorchester	54	26.1	19.6	34.8
Kent	23	16.0	10.1	25.4
Queen Anne's	42	21.2	15.2	29.2
Somerset	29	21.9	14.6	32.2
Talbot	59	23.2	17.6	31.0
Wicomico	91	22.1	17.8	27.2
Worcester	81	25.2	19.9	31.9

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

** Region does not include data for Baltimore City

Source: Maryland Division of Health Statistics, 1997-2001

Female Breast Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Lower CI	Upper CI
Maryland	4,025	28.5	27.6	29.4
Northwest Region	313	25.4	22.7	28.4
Baltimore Metro Region**	1,394	27.8	26.3	29.3
Baltimore City	702	36.1	33.5	38.9
Montgomery County	599	25.2	23.2	27.4
Prince George's County	517	29.4	26.9	32.2
Southern Region	157	26.0	22.0	30.5
Eastern Shore Region	343	28.2	25.3	31.4

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

** Region does not include data for Baltimore City

Source: Maryland Division of Health Statistics, 1997-2001

Prostate Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Lower CI	Upper CI
Maryland	2,868	34.3	33.0	35.7
Northwest Region	220	28.9	25.1	33.2
Baltimore Metro Region**	930	31.1	29.0	33.2
Baltimore City	586	50.1	46.1	54.5
Montgomery County	357	24.8	22.2	27.5
Prince George's County	336	41.0	36.4	46.2
Southern Region	133	39.8	33.0	47.8
Eastern Shore Region	306	38.0	33.7	42.7

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

** Region does not include data for Baltimore City

Source: Maryland Division of Health Statistics, 1997-2001

Oral Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Lower CI	Upper CI
Maryland	755	3.1	2.9	3.3
Northwest Region	51	2.3	1.7	3.1
Baltimore Metro Region**	245	2.8	2.5	3.2
Baltimore City	191	5.8	5.0	6.7
Montgomery County	71	1.8	1.4	2.2
Prince George's County	90	3.1	2.5	3.9
Southern Region	41	3.6	2.6	5.0
Eastern Shore Region	66	2.9	2.3	3.8

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

** Region does not include data for Baltimore City

Source: Maryland Division of Health Statistics, 1997-2001

Melanoma Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Lower CI	Upper CI
Maryland	612	2.5	2.3	2.7
Northwest Region	52	2.4	1.8	3.1
Baltimore Metro Region**	246	2.8	2.4	3.1
Baltimore City	55	1.7	1.2	2.2
Montgomery County	105	2.6	2.1	3.1
Prince George's County	40	1.4	1.0	2.0
Southern Region	38	3.3	2.3	4.7
Eastern Shore Region	76	3.5	2.8	4.5

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

** Region does not include data for Baltimore City

Source: Maryland Division of Health Statistics, 1997-2001

Cervical Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1997-2001

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Lower CI	Upper CI
Maryland	391	2.8	2.5	3.1
Northwest Region	41	3.5	2.5	4.8
Baltimore Metro Region**	92	1.8	1.5	2.2
Baltimore City	108	5.9	4.8	7.1
Montgomery County	36	1.5	1.0	2.1
Prince George's County	53	2.7	2.0	3.6
Southern Region	12	1.9	1.0	3.4
Eastern Shore Region	49	4.2	3.1	5.6

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

** Region does not include data for Baltimore City

Source: Maryland Division of Health Statistics, 1997-2001

Appendix I

Maryland Trend in Age-Adjusted Cancer Incidence and Mortality Rates by Cancer Site and Year, 1997-2001

Maryland Trend in Age-Adjusted Cancer Incidence and Mortality Rates by Cancer Site and Year, 1997-2001

Table 1: Age-Adjusted Cancer Incidence Rates, by Cancer Site and Year Maryland, 1997- 2001

Cancer Site	Age-Adjusted Cancer Incidence Rates						
	1997	1998	1999	2000	2001	% Change* 1997 - 2001	Trend
All Cancer Sites	515.0	484.0	476.8	486.0	444.4	-2.9%	↓
Lung	78.8	72.4	71.6	71.1	62.5	-4.7%	↓
Colorectal	61.2	58.1	53.3	56.2	52.5	-3.3%	↓
Breast	146.7	139.0	137.0	133.0	121.6	-4.1%	↓
Prostate	186.6	169.7	185.3	187.2	170.7	-0.8%	--
Oral	11.9	11.1	10.9	11.1	9.4	-4.6%	↓
Melanoma	16.8	15.2	17.5	17.2	18.6	3.3%	↑
Cervical	9.9	9.0	8.2	7.9	7.0	-7.9%	↓

Source: Maryland Cancer Registry, 1997- 2001

* % Change reflects Estimated Annual Percent Change (EAPC)

Table 2: Age-Adjusted Cancer Mortality Rates, by Cancer Site and Year Maryland, 1997- 2001

Cancer Site	Age-Adjusted Cancer Mortality Rates						
	1997	1998	1999	2000	2001	% Change* 1997 - 2001	Trend
All Cancer Sites	219.7	217.5	211.7	209.1	202.2	-2.0%	↓
Lung	61.4	62.9	59.4	59.5	56.8	-2.1%	↓
Colorectal	24.5	23.9	22.5	23.9	21.6	-2.5%	↓
Breast	31.1	30.6	28.5	27.7	27.3	-3.5%	↓
Prostate	37.9	36.1	34.1	31.9	31.3	-4.9%	↓
Oral	3.8	3.1	3.0	3.0	2.8	-6.2%	↓
Melanoma	2.5	2.3	2.3	2.7	2.7	3.2%	↑
Cervical	3.5	2.7	2.8	2.3	2.8	-5.9%	↓

Source: Maryland Cancer Registry, 1997- 2001

* % Change reflects Estimated Annual Percent Change (EAPC)

Appendix J

Maryland Trend in Cancer Stage of Disease at Diagnosis by Year for Each Cancer Site, 1996-2001

Maryland Trend In Cancer Stage of Disease at Diagnosis by Year for each Cancer Site, 1996-2001

Table 1: All Cancer Sites by Percent of Stage of Cancer at Diagnosis and Year Maryland, 1996- 2001

Stage	Year					
	1996	1997	1998	1999	2000	2001
	%	%	%	%	%	%
Local	43.3	44.0	41.3	41.4	43.8	41.9
Regional	22.2	22.4	21.9	20.8	20.9	20.6
Distant	18.3	18.1	17.1	16.5	16.5	16.7
Unstaged	16.3	15.6	19.7	21.4	18.8	20.8

Source: Maryland Cancer Registry, 1996- 2001

Table 2: Lung Cancer by Percent of Stage of Cancer at Diagnosis and Year Maryland, 1996- 2001

Stage	Year					
	1996	1997	1998	1999	2000	2001
	%	%	%	%	%	%
Local	20.7	22.5	22.3	21.0	22.3	19.8
Regional	28.0	27.8	27.7	26.7	26.3	28.3
Distant	37.1	36.8	35.9	35.8	35.0	36.1
Unstaged	14.2	12.8	14.1	16.6	16.4	15.7

Source: Maryland Cancer Registry, 1996- 2001

Table 3: Colorectal Cancer by Percent of Stage of Cancer at Diagnosis and Year Maryland, 1996- 2001

Stage	Year					
	1996	1997	1998	1999	2000	2001
	%	%	%	%	%	%
Local	32.4	32.5	32.8	30.4	31.4	30.1
Regional	41.2	41.3	40.1	37.8	40.0	38.4
Distant	17.7	17.5	15.3	17.8	14.9	14.6
Unstaged	8.6	8.7	11.8	14.1	13.7	16.9

Source: Maryland Cancer Registry, 1996- 2001

Table 4: Breast Cancer by Percent of Stage of Cancer at Diagnosis and Year Maryland, 1996- 2001

Stage	Year					
	1996	1997	1998	1999	2000	2001
	%	%	%	%	%	%
Local	60.6	61.6	59.2	58.4	57.8	56.4
Regional	27.9	27.7	26.4	26.4	28.4	28.2
Distant	4.6	4.1	4.4	3.2	3.8	3.7
Unstaged	6.9	6.6	10.0	12.0	10.1	11.7

Source: Maryland Cancer Registry, 1996- 2001

Maryland Trend In Cancer Stage of Disease at Diagnosis by Year for each Cancer Site, 1996-2001

Table 5: Prostate Cancer by Percent of Stage of Cancer at Diagnosis and Year Maryland, 1996- 2001

Stage	Year					
	1996	1997	1998	1999	2000	2001
	%	%	%	%	%	%
Local	68.7	66.9	58.2	58.4	68.4	62.2
Regional	11.0	9.9	8.5	7.2	6.8	5.8
Distant	5.3	5.0	3.5	2.8	2.8	2.5
Unstaged	15.0	18.3	29.8	31.5	22.1	29.5

Source: Maryland Cancer Registry, 1996- 2001

Table 6: Oral Cancer by Percent of Stage of Cancer at Diagnosis and Year Maryland, 1996- 2001

Stage	Year					
	1996	1997	1998	1999	2000	2001
	%	%	%	%	%	%
Local	35.3	37.7	36.4	34.7	37.0	34.6
Regional	48.1	45.0	41.0	44.7	44.5	43.9
Distant	5.7	6.6	5.9	5.0	6.1	4.8
Unstaged	10.9	10.7	16.8	15.6	12.4	16.7

Source: Maryland Cancer Registry, 1996- 2001

Table 7: Melanoma Cancer by Percent of Stage of Cancer at Diagnosis and Year Maryland, 1996- 2001

Stage	Year					
	1996	1997	1998	1999	2000	2001
	%	%	%	%	%	%
Local	54.1	45.1	47.7	43.6	57.6	51.4
Regional	3.1	5.6	6.1	7.0	4.9	5.7
Distant	3.8	2.4	3.2	2.5	3.3	3.0
Unstaged	39.1	46.8	43.1	47.0	34.1	40.0

Source: Maryland Cancer Registry, 1996- 2001

Table 8: Cervival Cancer by Percent of Stage of Cancer at Diagnosis and Year Maryland, 1996- 2001

Stage	Year					
	1996	1997	1998	1999	2000	2001
	%	%	%	%	%	%
Local	51.8	55.4	51.6	40.3	46.9	42.4
Regional	26.9	24.7	23.4	28.3	26.1	24.4
Distant	9.4	5.2	7.7	9.7	6.6	6.8
Unstaged	11.9	14.6	17.3	21.7	20.4	26.3

Source: Maryland Cancer Registry, 1996- 2001

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