Maryland Department of Health & Mental Hygiene

Annual Cancer Report

Cigarette Restitution Fund Program

Cancer Prevention, Education, Screening and Treatment Program

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State of Maryland

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September, 2002

STATE OF MARYLAND
DHMH
Maryland Department of Health and Mental Hygiene
201 W. Preston Street • Baltimore, Maryland 21201
Parris N. Glendening, Governor - Georges C. Benjamin, M.D., Secretary

Dear Fellow Marylanders:

One of my highest priorities for the Maryland Department of Health and Mental Hygiene is the Cigarette Restitution Fund (CRF) Program. Through the Cancer Prevention, Education, Screening and Treatment Program within the CRF Program, we are striving to make an impact on cancer and the burden that cancer places on our lives.

Cancer is currently the second leading cause of death in Maryland and in the nation. New data show that death rates for all cancers combined continued to decline in the United States; however, the numbers of cancer cases and cancer deaths are expected to increase in coming decades due to the aging of the population. In 1999, over 23,000 Marylanders were diagnosed with cancer and more than 10,000 Marylanders died from this disease. Maryland currently ranks ninth in the nation in overall cancer mortality. Fifty-two percent of cancer deaths in Maryland are due to cancers of the lung and bronchus, colon and rectum, female breast, and prostate.

The enclosed Annual Cancer Report, an update of the Annual Cancer Report published in 2001, 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).

I hope that you find this a helpful resource as you join us in preventing and reducing cancer incidence and mortality, and in diminishing the devastating toll that cancer takes on our communities.

Sincerely,

Georges C. Benjamin, M.D.
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

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

- Maryland Cancer Registry, DHMH, for providing data for the tables and graphs. Stacey Neloms provided coordination, and Ryan Colvin contributed special assistance by developing tables and resolving technical data issues.

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- Information Resources Management Administration, DHMH, for developing regional and county maps. Parveeza Shaikh and Ismaila Adebowale provided special assistance.

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

Dedication

We dedicate this report to all cancer patients and their families in Maryland. We hope that by the efforts of the Cigarette Restitution Fund Program, the burden of cancer will be reduced in our communities.

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I. Executive Summary

A. Introduction

This document is the Cigarette Restitution Fund Program (CRFP) Annual Cancer Report for 2002, that serves to update the Baseline Cancer Report issued August 14, 2000 and the 2001 Annual Cancer Report. Like the baseline report, 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 primary goal of this program is to reduce cancer mortality in the State of Maryland. 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 State of Maryland is a signatory party to the master settlement agreement reached in multi-state litigation against the tobacco industry. The purpose of the litigation was to recover Medicaid costs associated with the treatment of smoking-related illness. In 1999, Maryland was awarded an estimated $4 billion to be distributed over 25 years as a result of this settlement.

On June 3, 1999, Governor Parris N. Glendening presented a 10-year vision focused on making substantial advances in education, health, and tobacco crop conversion within the State by using funds from the tobacco settlement. With the Maryland General Assembly, Governor Glendening established the CRFP to provide for the distribution of funds. This program provides $40 million annually 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).

Under the CPEST Program, an annual cancer report is required. 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.

The CRFP law requires DHMH to identify the types of cancers that may be targeted under the CPEST Program. 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 cavity, melanoma of the skin, and cervix. These cancers were selected based on the ability to prevent (e.g., lung and bronchus, melanoma) or detect and treat early (e.g., colon and rectum, female breast, cervix, oral cavity), or on the impact on incidence and mortality (e.g., prostate).

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

B. Major Highlights of the Report

1. New rate calculation:

- In previous years, age-adjusted rates were based on the 1970 U.S. census. Age-adjusted rates are now calculated using the 2000 U.S. census. This is being done nationally. Rates adjusted to the 2000 census are higher than those based on the 1970 census; therefore, the cancer rates for Maryland in this report are higher compared to the 2001 Annual Cancer Report. Nonetheless, Maryland's relative national position for cancer rates has not changed.

2. Major findings for **overall** cancers:

- 23,267 cases of cancer were reported in Maryland in 1999 (excluding non-melanoma skin cancer).
- Cancer is the second leading cause of death in Maryland, responsible for 24% of all deaths.
- 10,096 cancer deaths occurred in 1999.
- Maryland is ranked ninth among states and the District of Columbia in total cancer mortality in 1999, unchanged from 1998.
- Lung and bronchus, colon and rectum, female breast, and prostate cancers account for 52% of cancer deaths among all cancers.
- The 1999 mortality rate for Maryland (211.7 per 100,000 population) is statistically significantly higher than the U.S. rate (202.8 per 100,000 population). The Healthy People 2010 goal is to reduce cancer mortality to 159.9 per 100,000 population.
- In 1999, blacks had a statistically significantly higher mortality rate than whites (257.9 vs. 204.0 per 100,000 population) for all combined cancer sites.
- In 1999, males had a statistically significantly higher mortality rate than females (266.2 vs. 177.3 per 100,000 population) for all combined cancer sites.
- In 1999, there were 329 new cancer cases among individuals of Hispanic ethnicity for all sites combined with a corresponding incidence rate of 284.1 per 100,000 population (Table 3, page 10).

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

- Lung cancer accounts for approximately 28% of all cancer deaths in Maryland and is the leading cause of cancer deaths in both men and women in Maryland.
- 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.

4. 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, preferred among screening methods, or fecal occult blood testing with flexible sigmoidoscopy.

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

- Breast cancer is the most common reportable cancer among women and 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.

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

- Prostate cancer is the most common reportable cancer among men and the second leading cause of cancer death among men after lung cancer.
- Prostate cancer incidence and mortality rates are significantly higher among black men than white men.

7. 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, and screening for oral cancer targeted to individuals 40 years of age and older.

8. 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.
- The recommended public health intervention for skin cancer is reduction of ultraviolet (UV) 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 UV light (e.g., tanning booths).

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

- The cervical cancer incidence rate is statistically significantly higher among black women than white women.
- 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 18 if not sexually active.

C. Major Changes to this Report from the 2001 Annual Cancer Report

- Trend data showing total cancer incidence and mortality rates use the 2000 U.S. standard population (instead of the 1970 U.S. standard population).
- 1999 cancer incidence and mortality data were age-adjusted only to the 2000 U.S. standard population. (Note: Rates are higher using the 2000 age-adjustment due to population differences from 1970 to 2000; see page 158.) Additionally, all rates for 1995-1999 have been updated to the 2000 U.S. standard population. This change will make rates different than rates published in the 2001 Annual Cancer Report.
- A Maryland statewide summary table was added to describe overall cancer incidence counts and rates by county for Hispanics (Table 3, page 10).
- 1999 mortality data are used because 2000 incidence data were not available; these data were also published in the 2001 Annual Cancer Report.

II. All Cancer Sites Combined

Incidence (New Cases)

A total of 23,267 new cancer cases diagnosed in 1999 were reported to the Maryland Cancer Registry. The total age-adjusted cancer incidence rate for Maryland in 1999 was 476.8 per 100,000 population [470.7-483.0, 95% Confidence Interval (C.I.)]. The 1999 Maryland cancer incidence rate is comparable to (not significantly different from) the 1999 U.S. rate of 476.1 per 100,000 population published by the National Cancer Institute, Surveillance Epidemiological End Results (SEER) Program.

Mortality (Deaths)

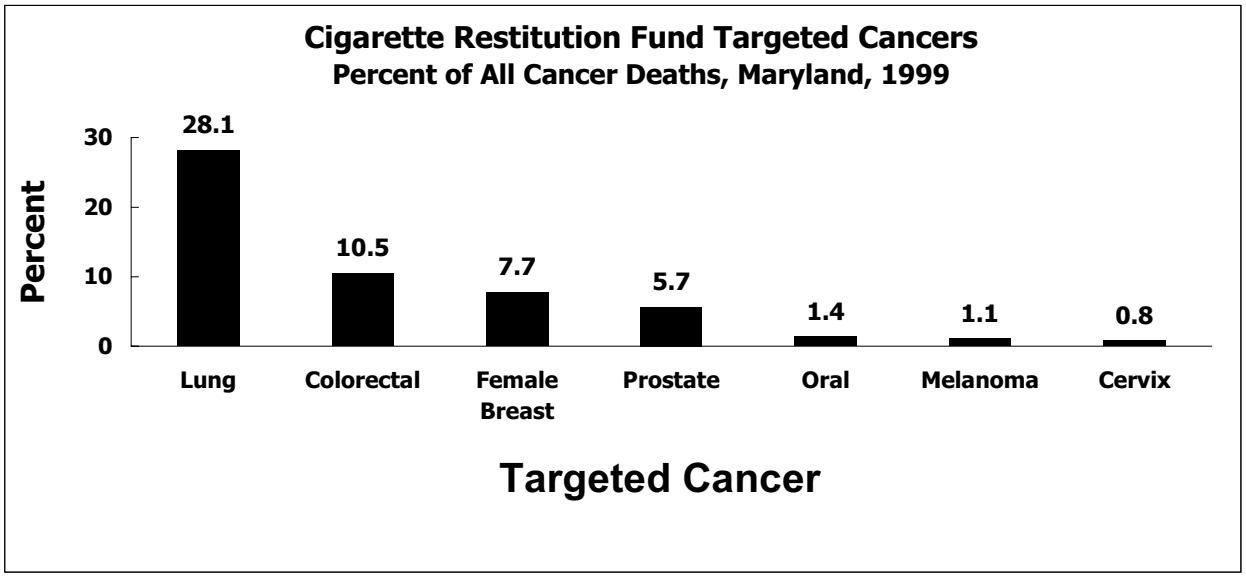
A total of 10,096 Maryland residents died from cancer in 1999. The overall cancer mortality rate for 1999 is 211.7 per 100,00 population (207.6-215.9, 95% C.I.). This rate is statistically significantly higher than the 1999 U.S. cancer mortality rate of 202.8 per 100,000 population. Currently, Maryland is ranked 9th highest among all states and the District of Columbia in total cancer mortality.

Table 1.
Overall Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 1999

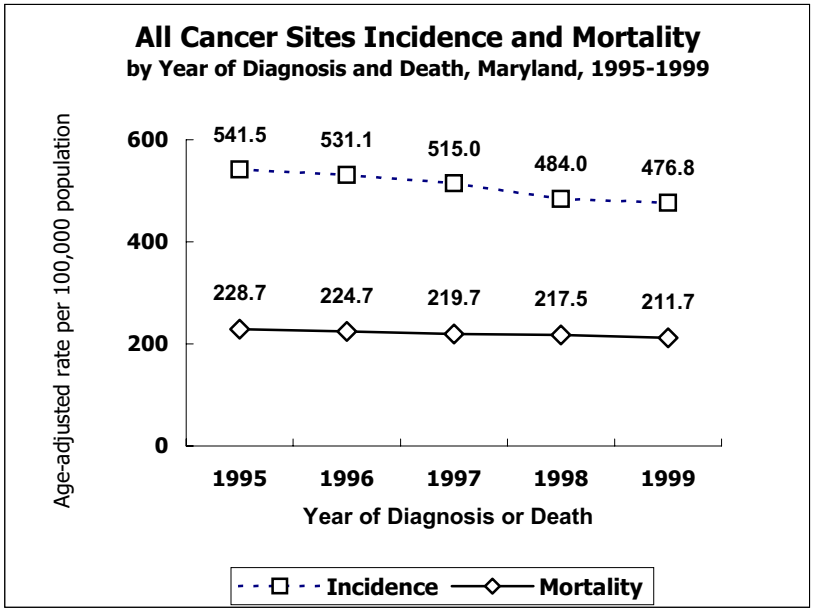
Incidence 1999	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
New Cases (#)	23,267	11,964	11,300	17,313	4,807	592
Incidence Rate*	476.8	569.3	414.8	469.7	468.1	370.2
U.S. SEER Rate*	476.1	555.8	422.3	478.3	519.1	NA
Mortality 1999	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	10,096	5,208	4,888	7,560	2,394	142
MD Mortality Rate*	211.7	266.2	177.3	204.0	257.9	105.1
U.S. Mortality Rate*	202.8	252.6	169.6	199.8	256.5	NA

Total includes cases with transexual, hermaphrodite, unknown gender, and unknown race
(see page 157)
* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
NA: Data were not available
Source: Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999
SEER, National Cancer Institute, 1999

Cancer is the second leading cause of death in Maryland, accounting for 24% of all deaths. In 1999, the seven targeted cancers represented 55.3% of the 10,096 cancer deaths that occurred in Maryland. Lung and bronchus, colon and rectum, female breast, and prostate account for 52.0% of the all cancer deaths.



Maryland Division of Health Statistics, 1999

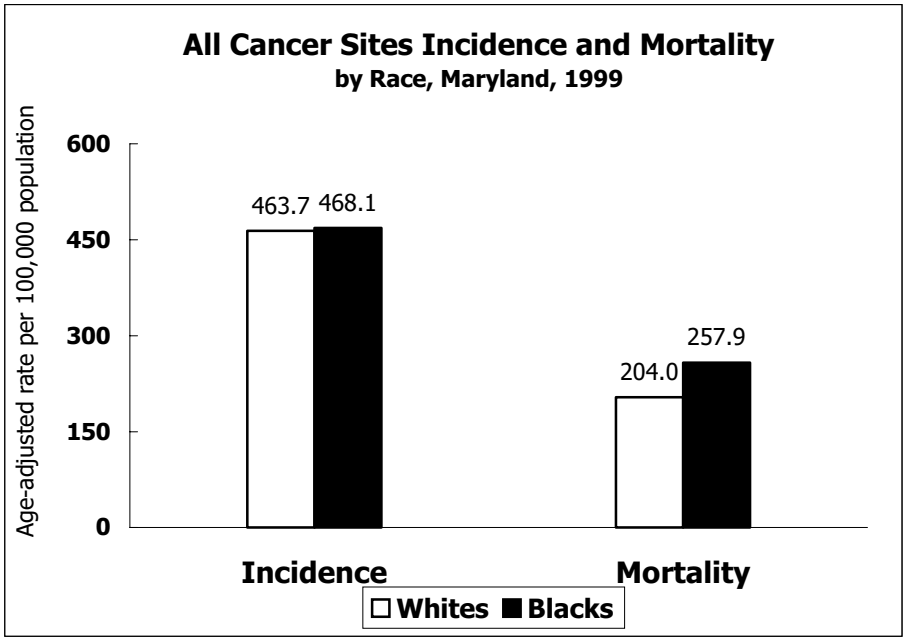


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1995-1999
Maryland Division of Health Statistics, 1995-1999

Trend

Total cancer incidence (new cases) rates in Maryland decreased an average of 1.6% per year from 1995 to 1999.

Total cancer mortality (death) rates decreased an average of 2.0% per year from 1995 to 1999.

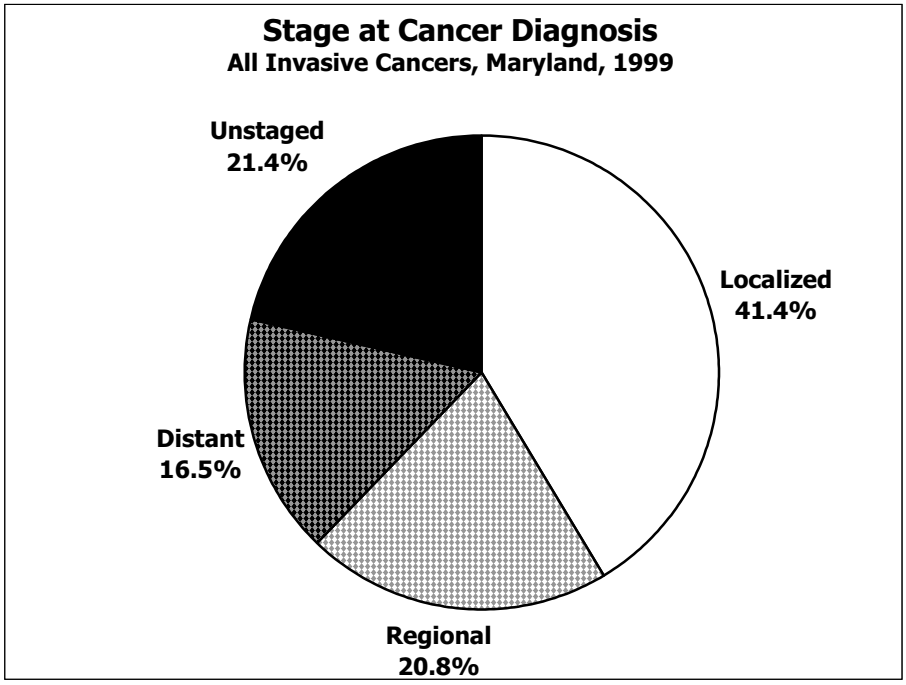


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999

Race-Specific Rates

For all cancer sites combined, whites and blacks had similar incidence rates.

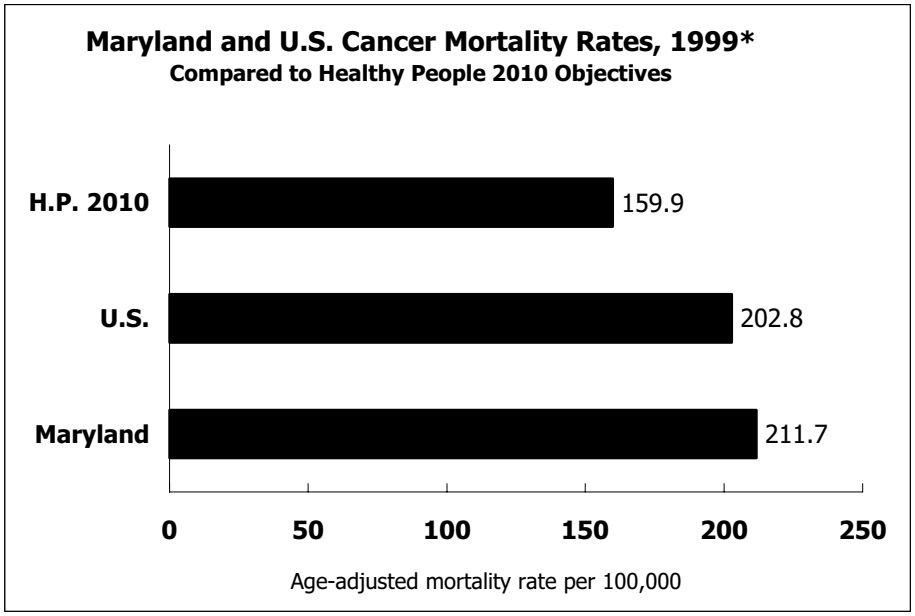
Blacks in Maryland experienced a statistically significantly higher mortality rate than whites in 1999.



Maryland Cancer Registry, 1999

Stage at Diagnosis

The stage of disease at diagnosis is an important predictor of cancer survival. Less than half (41.4%) of the new cancers diagnosed in 1999 were localized (early stage). This is the stage when most cancers are treatable.



*Maryland and U.S. rates are age-adjusted to 2000 U.S. standard population
Maryland Division of Health Statistics, 1999
SEER, National Cancer Institute, 1999
Healthy People 2010, U.S. Department of Health and Human Services, 2000

Healthy People 2010 Objectives

The overall cancer mortality rate in 1999 for Maryland is 211.7 per 100,000 population. The Healthy People 2010 goal is to reduce cancer mortality to 159.9 per 100,000 population.

Summary – Identification of Targeted Cancers

The cancers targeted under the Cigarette Restitution Fund in 2003 will remain: 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:

- ü Prevention and cessation of tobacco use
- ü Early detection and treatment of:
  - colon/rectum cancer
  - breast cancer
  - cervical cancer
  - prostate cancer
  - oral cancer
- ü 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, 1999

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	23,267	11,964	11,300	17,313	4,807	592	555
Allegany	494	255	239	482	7	<6	<6
Anne Arundel	1,984	1,018	965	1,694	204	23	63
Baltimore City	3,268	1,707	1,561	1,384	1,797	26	61
Baltimore County	4,158	2,111	2,047	3,601	412	54	91
Calvert	271	146	125	231	29	<6	s
Caroline	176	95	81	145	s	<6	0
Carroll	622	359	263	584	s	<6	20
Cecil	400	216	184	365	18	<6	s
Charles	424	217	207	311	84	15	14
Dorchester	199	110	89	152	45	<6	<6
Frederick	784	412	372	698	49	<6	s
Garrett	162	86	76	s	<6	0	0
Harford	976	529	447	884	67	7	18
Howard	851	435	416	679	107	40	25
Kent	117	56	61	101	s	0	<6
Montgomery	3,386	1,672	1,713	2,672	335	272	107
Prince George's	2,666	1,352	1,313	1,161	1,325	101	79
Queen Anne's	198	97	101	169	22	0	7
Saint Mary's	306	156	150	259	35	s	<6
Somerset	139	82	57	104	s	<6	0
Talbot	244	133	111	211	30	<6	<6
Washington	649	303	346	630	s	<6	0
Wicomico	456	230	226	358	93	<6	<6
Worcester	334	186	148	277	42	s	<6
Unknown	<6	<6	<6	0	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, 1999

Table 3.
All Sites Cancer Cases and Age-Adjusted Incidence Rates* Among Hispanics
Maryland and Jurisdictions, 1999

Jurisdiction	Number	Rate
Maryland	329	284.1
Allegany	<6	**
Anne Arundel	23	**
Baltimore City	23	**
Baltimore County	28	295.4
Calvert	<6	**
Caroline	0	**
Carroll	<6	**
Cecil	<6	**
Charles	<6	**
Dorchester	<6	**
Frederick	<6	**
Garrett	0	**
Harford	6	**
Howard	14	**
Kent	0	**
Montgomery	140	249.0
Prince George's	63	310.0
Queen Anne's	0	**
St. Mary's	<6	**
Somerset	<6	**
Talbot	<6	**
Washington	<6	**
Wicomico	0	**
Worcester	0	**
Region	**Number**	**Rate**
BALTIMORE METRO REGION	98	325.0
EASTERN SHORE REGION	11	**
NATIONAL CAPITAL REGION	203	263.4
NORTHWEST REGION	7	**
SOUTHERN REGION	10	**

* 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

** 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 page 159)

Source: Maryland Cancer Registry, 1999

Table 4.
All Cancer Sites Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	476.8	569.3	414.8	469.7	468.1	370.2
Allegany	522.1	646.3	434.0	520.5	**	**
Anne Arundel	466.3	539.7	416.4	472.0	355.8	**
Baltimore City	516.0	662.6	422.5	531.8	505.5	367.6
Baltimore County	496.4	576.8	445.4	484.9	563.1	292.0
Calvert	442.3	540.1	377.4	492.0	223.1	**
Caroline	561.9	659.5	477.4	589.9	457.2	**
Carroll	456.0	601.6	347.1	445.7	**	**
Cecil	535.6	631.5	463.3	522.6	**	**
Charles	482.0	558.4	424.9	487.1	389.1	**
Dorchester	531.4	657.2	430.9	586.5	412.4	**
Frederick	490.1	586.3	423.5	472.4	471.4	**
Garrett	494.5	582.9	435.3	495.1	**	0.0
Harford	519.7	653.4	433.4	530.3	379.3	**
Howard	476.6	566.2	415.9	473.6	403.0	398.0
Kent	468.3	468.9	465.3	547.3	**	0.0
Montgomery	417.3	487.8	373.2	407.7	418.2	377.0
Prince George's	453.6	549.2	390.4	380.7	534.4	363.1
Queen Anne's	466.8	507.2	456.4	490.4	**	0.0
Saint Mary's	442.8	478.0	414.4	475.2	272.1	**
Somerset	542.9	686.5	419.8	641.7	332.0	**
Talbot	502.2	610.6	414.1	552.4	303.5	**
Washington	459.4	488.2	449.1	463.8	**	**
Wicomico	567.8	688.4	498.9	603.0	455.4	**
Worcester	580.5	703.1	486.7	634.6	323.9	**

* 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, 1999

Table 5.
Number of Cancer Deaths for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	10,096	5,208	4,888	7,560	2,394	142
Allegany	212	105	107	208	<6	<6
Anne Arundel	883	441	442	771	104	8
Baltimore City	1,783	928	855	773	1,002	8
Baltimore County	1,776	893	883	1,575	191	10
Calvert	128	83	45	106	22	0
Caroline	78	42	36	68	10	0
Carroll	248	132	116	240	s	<6
Cecil	174	108	66	166	8	0
Charles	202	99	103	152	s	<6
Dorchester	106	62	44	74	32	0
Frederick	308	170	138	283	s	<6
Garrett	65	41	24	65	0	0
Harford	371	186	185	339	32	0
Howard	305	152	153	259	38	8
Kent	50	36	14	41	9	0
Montgomery	1,201	591	610	1,002	132	67
Prince George's	1,181	606	575	558	594	29
Queen Anne's	81	41	40	71	10	0
Saint Mary's	150	80	70	117	s	<6
Somerset	64	48	16	46	18	0
Talbot	111	62	49	87	s	<6
Washington	290	132	158	286	<6	<6
Wicomico	198	94	104	160	s	<6
Worcester	131	76	55	113	18	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, 1999

Table 6.
All Cancer Sites Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	211.7	266.2	177.3	204.0	257.9	105.1
Allegany	206.8	263.2	167.7	207.0	**	**
Anne Arundel	221.5	258.1	196.5	228.1	197.4	**
Baltimore City	279.6	376.2	222.3	268.4	295.9	**
Baltimore County	208.2	258.4	178.3	203.5	299.4	**
Calvert	227.6	352.7	144.5	247.5	**	0.0
Caroline	244.1	293.2	196.4	268.7	**	0.0
Carroll	183.7	237.5	150.1	184.8	**	**
Cecil	241.6	341.9	168.4	246.0	**	0.0
Charles	251.5	284.0	229.4	258.2	238.3	**
Dorchester	277.9	383.2	200.2	279.1	302.8	0.0
Frederick	201.5	252.2	162.0	199.9	**	**
Garrett	190.4	274.2	**	191.9	0.0	0.0
Harford	209.4	255.6	183.9	214.8	186.9	0.0
Howard	193.1	227.0	169.8	200.0	183.4	**
Kent	190.3	310.3	**	211.9	**	0.0
Montgomery	151.2	187.5	131.0	151.0	192.7	104.4
Prince George's	218.7	277.0	183.6	184.3	286.4	119.3
Queen Anne's	194.8	215.1	181.5	212.2	**	0.0
Saint Mary's	225.8	264.1	197.0	223.7	238.4	**
Somerset	243.1	406.0	**	270.5	**	0.0
Talbot	212.9	291.2	159.1	211.3	**	**
Washington	200.4	216.9	188.0	203.9	**	**
Wicomico	244.2	303.1	216.4	264.0	190.7	**
Worcester	214.8	289.8	162.0	241.1	**	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, 1999

Table 7.
Number of Cancer Cases for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 1995-1999

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	120,182	61,574	58,598	89,224	25,021	2,853	3,084
Allegany	2,503	1,305	1,198	2,447	34	12	10
Anne Arundel	10,673	5,426	5,244	8,971	1,203	147	352
Baltimore City	18,603	9,609	8,994	8,662	9,475	163	303
Baltimore County	20,806	10,610	10,196	17,780	2,354	267	405
Calvert	1,389	749	640	1,133	198	17	41
Caroline	818	456	362	680	132	<6	<6
Carroll	3,422	1,856	1,566	3,205	87	27	103
Cecil	1,830	969	861	1,704	67	17	42
Charles	2,119	1,141	978	1,595	422	54	48
Dorchester	1,031	559	472	766	249	7	9
Frederick	3,788	1,988	1,800	3,334	220	38	196
Garrett	686	362	324	672	s	<6	7
Harford	4,607	2,435	2,172	4,144	331	39	93
Howard	3,704	1,816	1,888	2,945	467	162	130
Kent	645	336	309	539	88	<6	s
Montgomery	17,737	8,625	9,107	14,115	1,755	1,222	645
Prince George's	13,992	7,171	6,820	6,510	6,544	493	445
Queen Anne's	979	512	467	831	124	<6	s
Saint Mary's	1,587	832	754	1,310	215	33	29
Somerset	713	414	299	528	168	s	<6
Talbot	1,187	647	540	997	169	12	9
Washington	3,291	1,649	1,642	3,159	80	17	35
Wicomico	2,117	1,020	1,097	1,676	388	34	19
Worcester	1,591	873	718	1,326	212	31	22
Unknown	364	214	150	195	33	33	103

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, 1995-1999

Table 8.
All Cancer Sites Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1995-1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	509.0	610.7	442.2	492.9	527.6	405.7
Allegany	521.1	645.7	440.6	519.4	562.1	**
Anne Arundel	527.9	612.9	472.9	521.0	471.6	333.1
Baltimore City	566.7	723.3	467.7	600.3	536.4	469.6
Baltimore County	509.0	602.3	449.5	485.1	732.1	343.6
Calvert	498.8	605.6	422.9	520.3	350.9	**
Caroline	533.4	658.4	434.3	554.2	439.2	**
Carroll	530.5	675.9	432.8	515.6	483.6	868.7
Cecil	514.8	594.9	454.6	509.5	373.8	**
Charles	531.5	661.6	439.8	532.6	474.3	728.2
Dorchester	556.5	678.6	462.9	576.5	491.3	**
Frederick	507.9	615.8	435.8	481.5	484.7	570.1
Garrett	426.8	500.7	377.7	420.6	**	**
Harford	524.5	639.5	449.1	526.6	437.0	271.3
Howard	454.5	529.2	408.9	442.4	431.6	406.4
Kent	531.0	592.8	481.4	582.6	308.8	**
Montgomery	456.8	528.1	414.1	442.5	487.9	380.6
Prince George's	501.4	616.2	425.2	429.1	597.4	375.3
Queen Anne's	484.1	545.4	440.6	498.8	361.9	**
Saint Mary's	484.9	549.9	435.4	495.4	376.8	1021.4
Somerset	547.2	683.5	438.8	617.8	382.6	**
Talbot	507.5	620.5	427.4	537.1	366.0	**
Washington	476.1	548.0	433.4	473.5	457.4	**
Wicomico	536.4	618.6	489.4	562.5	414.6	1348.4
Worcester	575.7	691.6	487.8	619.7	356.4	**

* 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, 1995-1999

Table 9.
Number of Cancer Deaths for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 1995-1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	50,694	26,109	24,585	37,969	12,067	658
Allegany	1,029	528	501	1,006	s	<6
Anne Arundel	4,286	2,251	2,035	3,746	500	40
Baltimore City	9,666	5,005	4,661	4,193	5,440	33
Baltimore County	8,854	4,453	4,401	7,962	835	57
Calvert	582	319	263	459	s	<6
Caroline	357	188	169	296	61	0
Carroll	1,276	661	615	1,243	s	<6
Cecil	847	468	379	802	s	<6
Charles	911	475	436	705	195	11
Dorchester	469	266	203	342	s	<6
Frederick	1,449	801	648	1,347	93	9
Garrett	289	159	130	289	0	0
Harford	1,827	942	885	1,682	139	6
Howard	1,486	747	739	1,238	203	45
Kent	281	149	132	225	56	0
Montgomery	6,270	3,036	3,234	5,287	682	301
Prince George's	5,883	3,042	2,841	2,966	2,795	122
Queen Anne's	384	202	182	323	s	<6
Saint Mary's	670	373	297	538	126	6
Somerset	354	211	143	244	110	0
Talbot	486	264	222	387	s	<6
Washington	1,469	741	728	1,440	s	<6
Wicomico	922	461	461	721	s	<6
Worcester	647	367	280	528	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, 1995-1999

Table 10.
All Cancer Sites Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1995-1999

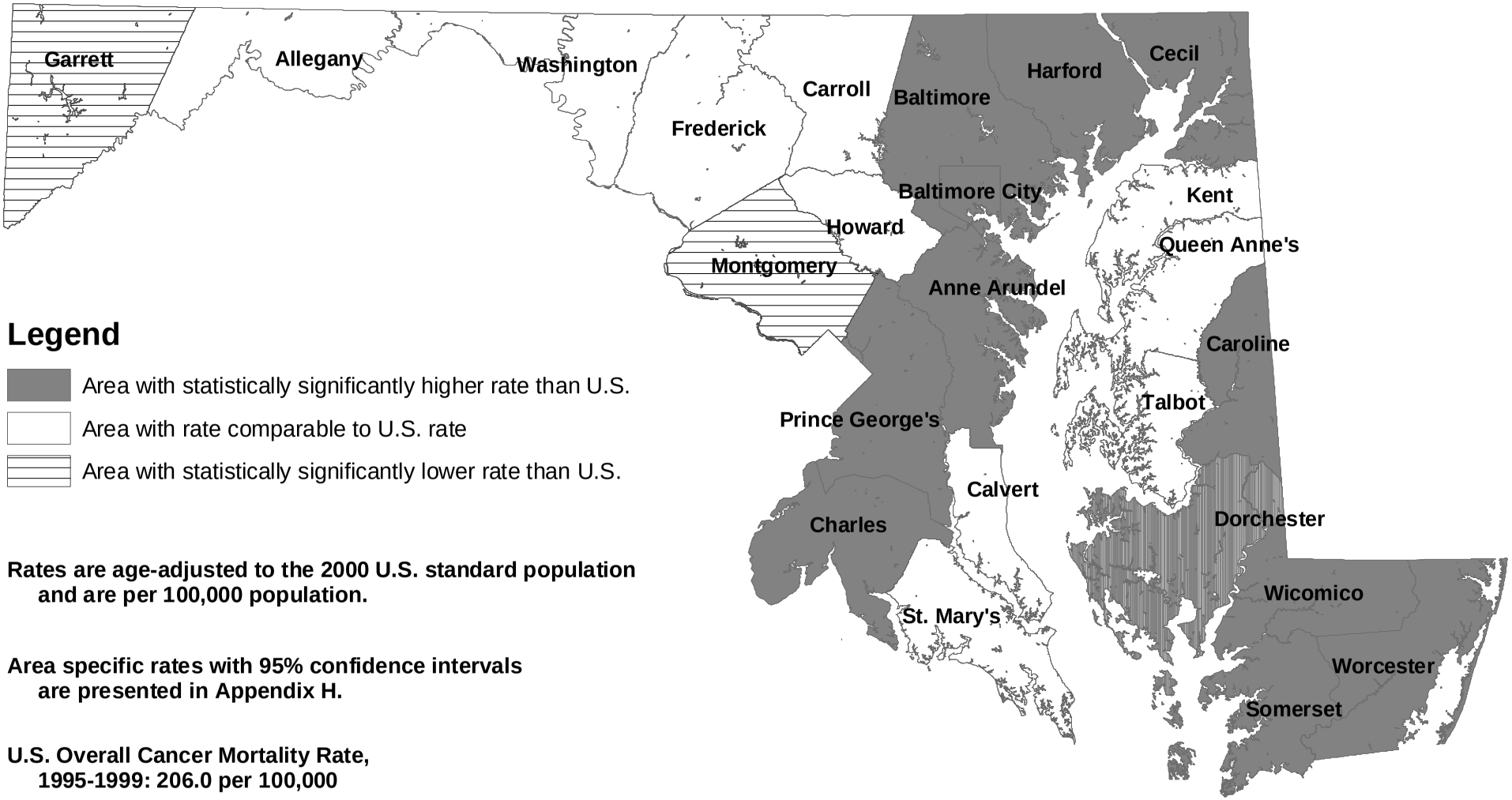
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	220.3	278.1	184.3	210.3	276.9	107.2
Allegany	203.8	264.5	167.4	202.7	**	**
Anne Arundel	227.0	284.4	190.1	231.7	211.5	115.7
Baltimore City	293.8	392.8	234.3	271.3	322.3	110.7
Baltimore County	214.5	266.3	183.9	211.3	288.4	85.6
Calvert	222.5	278.5	182.0	225.5	213.0	**
Caroline	230.4	279.2	190.2	237.5	207.3	0.0
Carroll	202.9	256.5	168.5	204.6	162.8	**
Cecil	249.1	316.3	203.7	250.5	238.4	**
Charles	248.0	309.7	210.6	256.4	229.3	**
Dorchester	246.7	330.1	186.2	248.8	254.0	**
Frederick	203.7	266.4	158.9	203.5	217.4	**
Garrett	176.0	224.1	142.8	177.2	0.0	0.0
Harford	221.3	275.4	188.5	226.9	191.3	**
Howard	204.9	255.1	176.3	206.1	221.9	117.8
Kent	221.0	265.9	188.3	231.2	196.2	0.0
Montgomery	165.9	202.6	145.8	165.4	217.2	109.6
Prince George's	228.4	290.5	190.0	198.7	297.2	105.0
Queen Anne's	196.4	236.1	170.5	202.8	173.9	**
Saint Mary's	214.9	264.5	176.5	213.4	233.6	**
Somerset	267.3	356.0	199.0	275.9	258.3	0.0
Talbot	197.5	258.4	159.4	196.6	204.1	**
Washington	209.5	253.5	179.9	211.4	169.8	**
Wicomico	233.1	291.6	198.0	239.0	215.9	**
Worcester	228.8	298.5	178.4	238.6	201.0	**

* 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, 1995-1999

Maryland Overall Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1995-1999



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, 1995-1999: 206.0 per 100,000

Source: Maryland Division of Health Statistics, 1995-1999

III. Targeted Cancers

A. Lung and Bronchus Cancer

Incidence (New Cases)

There were 3,447 new lung and bronchus cancer cases (called lung cancer) among Maryland residents in 1999. Lung cancer represents 14.8% of new cancers diagnosed in Maryland in 1999. The 1999 Maryland age-adjusted lung cancer incidence rate is 71.6 per 100,000 population (69.2-74.0, 95% C.I.) which is statistically significantly higher than the 1999 U.S. SEER lung cancer incidence rate of 63.5 per 100,000 population.

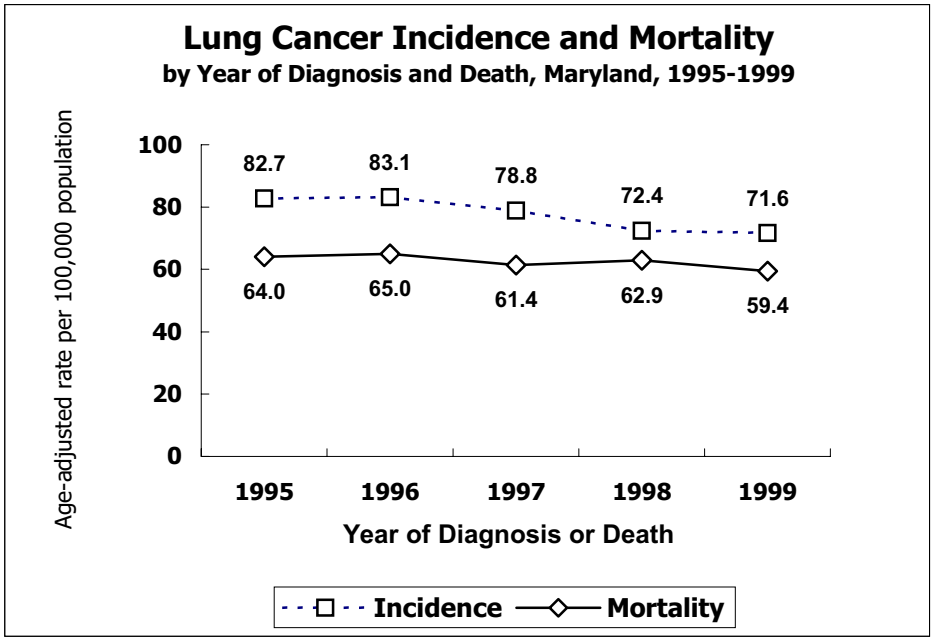
Mortality (Deaths)

There were 2,841 lung cancer deaths among Maryland residents in 1999. 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 1999 age-adjusted lung cancer mortality rate is 59.4 per 100,000 population (57.3-61.7, 95% C.I.) in Maryland. This rate is statistically significantly higher than the 1999 U.S. mortality rate for lung and bronchus cancer of 56.0 per 100,000 population. Maryland has the 18th highest lung cancer mortality rate among the states and the District of Columbia.

Table 11.
Lung Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 1999

Incidence 1999	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
New Cases (#)	3,447	1,904	1,542	2,650	736	53
Incidence Rate*	71.6	92.4	56.8	71.5	75.8	39.3
U.S. SEER Rate*	63.5	81.1	50.7	63.5	81.4	NA
Mortality 1999	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	2,841	1,624	1,217	2,182	636	23
MD Mortality Rate*	59.4	81.2	44.4	58.8	68.3	**
U.S. Mortality Rate*	56.0	77.2	40.7	55.9	65.5	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
Source: Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999
SEER, National Cancer Institute, 1999

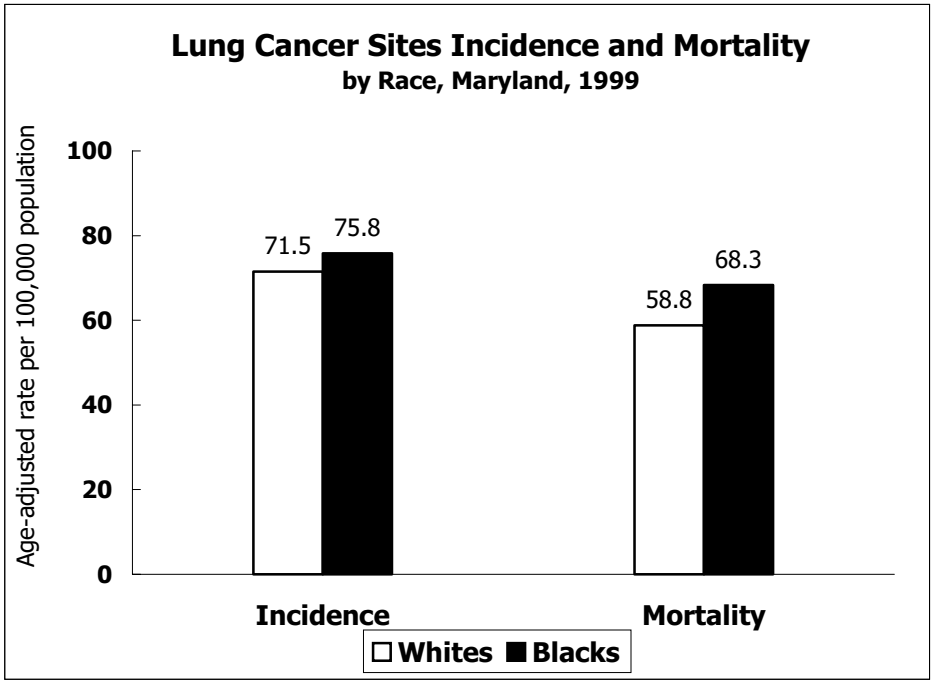


Rates are age-adjusted to the 2000 U.S. standard population
Maryland Cancer Registry, 1995-1999
Maryland Division of Health Statistics, 1995-1999

Trends

Lung cancer incidence rates have decreased an average of 3.3% per year from 1995 to 1999 in Maryland.

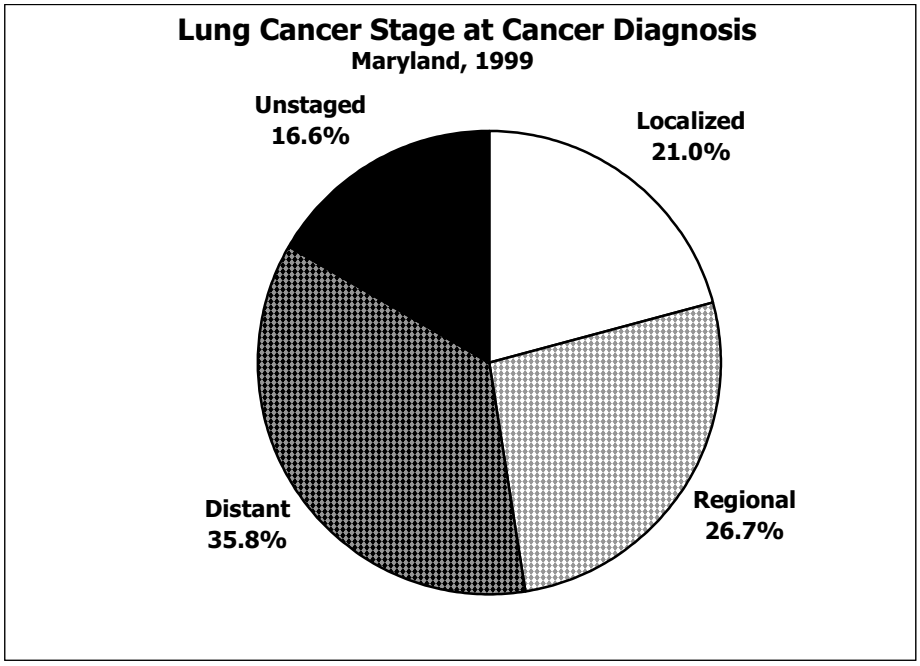
Lung cancer mortality began to decline in the 1990's. In Maryland, lung cancer death rates have decreased an average of 2.2% per year from 1995 to 1999.



Rates are age-adjusted to the 2000 U.S. standard population
Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999

Race-Specific Rates

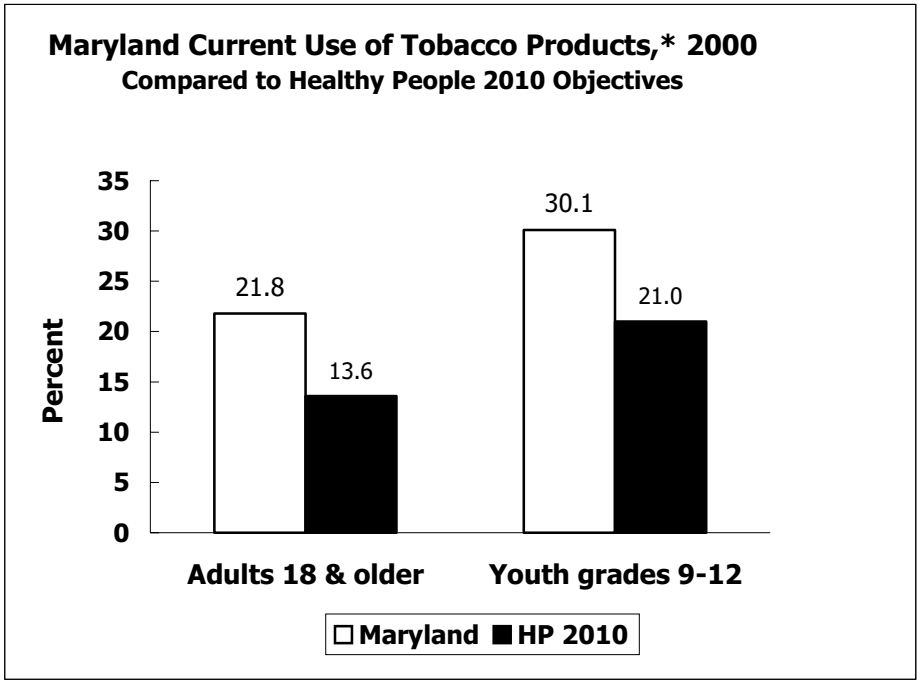
Incidence rates were similar for whites and blacks in 1999 in Maryland, whereas blacks had a statistically significantly higher lung cancer mortality rate than whites.



Maryland Cancer Registry, 1999

Stage at Diagnosis

In 1999, 21.0% of lung cancer cases were diagnosed at the localized (early) stage in Maryland.



* "Current" use of cigarettes, smokeless or spit tobacco, and other tobacco products

DHMH, Initial Findings from the Baseline Tobacco Study, 2001

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

Healthy People 2010 Objectives

The Healthy People 2010 objectives are to reduce the percentage of adults (≥18 years) who use any tobacco products to 13.6%, and to reduce tobacco use by youth in grades 9-12 to 21%.

Based on DHMH surveys in 2000, use of tobacco products by adults and youths in Maryland exceeded the Healthy People 2010 objectives.

Public Health Evidence (from National Cancer Institute [NCI], Physician Data Query [PDQ], 6/2002)

Primary Prevention

Tobacco use is the primary cause of lung cancer. 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. Tobacco 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.

Environmental, or second-hand, tobacco smoke contains the same components as inhaled mainstream smoke, in lower concentrations. Environmental smoke is associated with increased lung cancer risk. 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. Epidemiological data show that high dietary intake of beta carotene-rich foods such as vegetables and fruits are associated with reduced lung cancer risk.

Chemoprevention

Two randomized controlled clinical trials have studied beta-carotene supplements for chemoprevention of lung cancer. They have shown that pharmacological doses ($\geq$ 20 mg/day) of beta-carotene supplementation may, in fact, *increase* lung cancer incidence and mortality among high-intensity smokers (one or more packs per day).

Screening

Current evidence does not support lung cancer screening. Screening for lung cancer with chest X-ray and/or sputum cytology in randomized, controlled trials has not demonstrated a reduction in cancer mortality. Spiral computerized tomography (CT) scanning has emerged as a promising possibility for lung cancer screening, but its effectiveness in reducing lung cancer mortality remains to be proven.

Public Health Intervention for Lung Cancer (CDC Best Practice Guidelines)

- ü **Prevention of initiation of tobacco use among youth**
- ü **Cessation of tobacco use among adults and youth**
- ü **Reduction of exposure to environmental tobacco smoke**
- ü **Elimination of tobacco-related health disparities through:**

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

V 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)

V Individually-focused identification of tobacco use and cessation counseling by medical and dental providers (NCI, PDQ, 6/02)

V Effective smoking cessation programs for current tobacco users (individual/group counseling)

V Nicotine replacement and other pharmacotherapy

V 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)

Á ***School-based programs:***

V Evidence-based tobacco prevention curricula in schools

V Evidence-based tobacco cessation programs for youth in schools

Á ***Enforcement programs:***

V Enforcement of laws and policies to reduce minors' access to tobacco products

V Enforcement of laws and policies to reduce exposure to environmental tobacco smoke

Á ***Counter-marketing programs:***

V Counter tobacco advertisements

V Raise awareness of the dangers of environmental tobacco smoke

V Discourage the use of tobacco products and promote smoke-free behavior as the norm

V Promote cessation of tobacco use

Table 12.
Number of Lung and Bronchus Cancer Cases by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	3,447	1,904	1,542	2,650	736	53	8
Allegany	75	44	31	72	<6	0	<6
Anne Arundel	304	159	144	271	28	<6	<6
Baltimore City	603	326	277	269	328	<6	<6
Baltimore County	608	332	276	565	40	<6	<6
Calvert	44	28	16	38	<6	<6	0
Caroline	30	15	15	23	7	0	0
Carroll	77	46	31	70	s	<6	0
Cecil	82	42	40	s	<6	0	0
Charles	60	37	23	47	13	0	0
Dorchester	37	26	11	28	9	0	0
Frederick	106	71	35	92	s	<6	0
Garrett	22	14	8	s	<6	0	0
Harford	140	70	70	131	9	0	0
Howard	116	62	54	96	s	<6	0
Kent	19	9	10	s	<6	0	0
Montgomery	379	199	180	315	42	s	<6
Prince George's	369	208	161	187	164	s	<6
Queen Anne's	32	16	16	s	<6	0	0
St Mary's	53	33	20	47	6	0	0
Somerset	31	18	13	s	<6	0	0
Talbot	25	15	10	s	<6	<6	0
Washington	92	48	44	s	<6	0	0
Wicomico	87	47	40	69	18	0	0
Worcester	56	39	17	44	12	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, 1999

Table 13.
Lung and Bronchus Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	71.6	92.4	56.8	71.5	75.8	39.3
Allegany	76.6	106.3	51.5	75.3	**	0.0
Anne Arundel	73.8	86.1	63.8	77.6	52.1	**
Baltimore City	94.7	128.0	73.8	101.8	93.2	**
Baltimore County	70.3	90.6	56.3	72.1	65.6	**
Calvert	76.2	115.2	**	86.4	**	**
Caroline	94.4	**	**	**	**	0.0
Carroll	58.6	80.2	44.2	55.8	**	**
Cecil	110.1	123.0	102.2	112.2	**	0.0
Charles	72.3	99.6	**	79.2	**	0.0
Dorchester	95.8	149.7	**	109.0	**	0.0
Frederick	68.5	103.5	40.8	64.0	**	**
Garrett	**	**	**	**	**	0.0
Harford	77.4	92.7	70.1	81.4	**	0.0
Howard	71.4	88.6	60.4	73.2	**	**
Kent	**	**	**	**	**	0.0
Montgomery	47.8	59.5	39.1	47.8	62.5	**
Prince George's	66.8	86.6	51.9	60.6	72.5	**
Queen Anne's	75.3	**	**	91.2	**	0.0
Saint Mary's	77.5	102.1	**	88.7	**	0.0
Somerset	121.0	**	**	155.7	**	0.0
Talbot	**	**	**	**	**	**
Washington	64.0	79.5	55.7	64.7	**	0.0
Wicomico	107.1	145.9	85.3	113.7	**	0.0
Worcester	96.8	146.6	**	99.6	**	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 Cancer Registry, 1999

Table 14.
Number of Lung and Bronchus Cancer Deaths by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2,841	1,624	1,217	2,182	636	23
Allegany	61	38	23	s	<6	0
Anne Arundel	271	150	121	239	s	<6
Baltimore City	533	314	219	s	295	<6
Baltimore County	506	292	214	468	38	0
Calvert	42	30	12	s	<6	0
Caroline	24	11	13	s	<6	0
Carroll	66	37	29	s	<6	0
Cecil	61	38	23	s	<6	0
Charles	55	26	29	44	11	0
Dorchester	34	22	12	25	9	0
Frederick	85	60	25	77	8	0
Garrett	18	s	<6	18	0	0
Harford	118	62	56	111	7	0
Howard	73	38	35	66	s	<6
Kent	16	s	<6	s	<6	0
Montgomery	272	145	127	231	29	12
Prince George's	307	167	140	149	151	7
Queen Anne's	27	11	16	s	<6	0
Saint Mary's	28	16	12	s	<6	0
Somerset	23	s	<6	17	6	0
Talbot	29	16	13	s	<6	0
Washington	92	50	42	s	<6	0
Wicomico	60	34	26	47	13	0
Worcester	40	21	19	33	7	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, 1999

Table 15.
Lung and Bronchus Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	59.5	81.2	44.4	58.8	68.3	**
Allegany	60.1	91.7	**	59.5	**	0.0
Anne Arundel	67.8	86.5	54.0	70.2	58.3	**
Baltimore City	83.2	124.3	56.9	85.8	85.6	**
Baltimore County	58.5	81.7	42.9	59.4	57.3	0.0
Calvert	72.7	118.7	**	85.9	**	0.0
Caroline	**	**	**	**	**	0.0
Carroll	50.0	68.8	37.4	50.3	**	0.0
Cecil	83.0	114.3	**	84.0	**	0.0
Charles	68.9	77.6	65.1	76.7	**	0.0
Dorchester	89.8	**	**	**	**	0.0
Frederick	55.8	88.3	**	54.6	**	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	64.8	80.4	54.8	68.6	**	0.0
Howard	47.1	54.0	41.2	51.8	**	**
Kent	**	**	**	**	**	0.0
Montgomery	34.4	45.2	27.1	34.7	48.5	**
Prince George's	56.3	75.0	44.9	48.1	71.6	**
Queen Anne's	63.5	**	**	**	**	0.0
Saint Mary's	42.3	**	**	**	**	0.0
Somerset	**	**	**	**	**	0.0
Talbot	56.6	**	**	65.8	**	0.0
Washington	63.8	82.4	50.0	64.9	**	0.0
Wicomico	74.2	104.9	54.6	78.1	**	0.0
Worcester	62.5	**	**	68.2	**	0.0

* Rates 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, 1999

Table 16.
Number of Lung and Bronchus Cancer Cases by Jurisdiction, Gender and Race, Maryland, 1995-1999

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	18,139	10,238	7,899	14,092	3,761	248	38
Allegany	419	244	175	411	<6	<6	<6
Anne Arundel	1,789	962	826	1,588	184	11	6
Baltimore City	3,371	1,941	1,430	1,637	1,706	22	6
Baltimore County	3,215	1,736	1,479	2,879	310	s	<6
Calvert	226	133	93	192	s	<6	0
Caroline	137	80	57	116	s	<6	0
Carroll	443	276	167	423	s	<6	0
Cecil	344	202	142	333	s	<6	0
Charles	330	198	132	258	s	<6	0
Dorchester	196	130	66	147	49	0	0
Frederick	490	325	165	457	s	<6	0
Garrett	105	71	34	s	<6	0	0
Harford	705	400	305	665	40	0	0
Howard	462	246	216	392	60	s	<6
Kent	113	68	45	98	s	<6	0
Montgomery	1,948	980	967	1,637	202	101	8
Prince George's	1,918	1,113	805	1,067	787	55	9
Queen Anne's	164	91	73	144	s	<6	0
Saint Mary's	268	166	102	238	s	<6	0
Somerset	146	101	45	114	s	<6	0
Talbot	152	80	72	128	s	<6	0
Washington	515	297	218	503	12	0	0
Wicomico	378	204	174	307	s	<6	0
Worcester	278	176	102	232	s	<6	0
Unknown	27	18	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, 1995-1999

Table 17.
Lung and Bronchus Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender and Race, Maryland, 1995-1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	77.6	102.8	59.8	77.4	82.4	41.3
Allegany	83.1	116.3	58.6	83.1	**	**
Anne Arundel	91.6	112.4	76.5	95.0	74.8	**
Baltimore City	102.2	147.3	73.3	111.1	97.0	**
Baltimore County	76.8	97.9	62.4	75.3	100.2	**
Calvert	83.9	109.6	64.3	91.5	57.9	**
Caroline	88.4	115.2	66.8	93.1	**	**
Carroll	70.7	101.5	47.6	69.9	**	**
Cecil	97.1	123.4	75.6	100.0	**	**
Charles	87.5	122.3	62.6	92.0	78.2	**
Dorchester	102.5	154.8	62.9	107.3	94.8	0.0
Frederick	68.3	103.6	41.4	68.6	69.7	**
Garrett	63.7	98.7	37.8	63.5	**	0.0
Harford	83.0	110.4	64.9	87.3	53.5	0.0
Howard	63.2	79.0	53.2	64.9	60.8	**
Kent	88.2	117.4	64.0	99.4	**	**
Montgomery	51.2	61.3	44.2	51.2	61.0	36.8
Prince George's	72.2	98.4	53.7	69.3	79.5	48.3
Queen Anne's	80.6	97.6	67.7	86.2	**	**
Saint Mary's	84.3	112.8	61.4	93.5	47.8	**
Somerset	110.9	166.2	61.7	130.3	66.2	**
Talbot	62.8	76.7	53.3	65.8	**	**
Washington	73.4	98.5	55.4	73.8	**	0.0
Wicomico	95.3	124.8	75.8	102.2	75.4	**
Worcester	96.4	133.6	64.0	103.7	68.7	**

* 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, 1995-1999

Table 18.
Number of Lung and Bronchus Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 1995-1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	14,505	8,401	6,104	11,153	3,224	128
Allegany	321	191	130	313	s	<6
Anne Arundel	1,379	791	588	1,228	140	11
Baltimore City	2,931	1,747	1,184	1,340	1,585	6
Baltimore County	2,607	1,455	1,152	2,391	204	12
Calvert	169	94	75	143	s	<6
Caroline	111	64	47	95	16	0
Carroll	337	201	136	330	7	0
Cecil	284	178	106	271	s	<6
Charles	287	153	134	236	s	<6
Dorchester	140	93	47	102	38	0
Frederick	419	282	137	394	s	<6
Garrett	80	54	26	80	0	0
Harford	531	311	220	502	s	<6
Howard	370	199	171	320	44	6
Kent	81	49	32	68	13	0
Montgomery	1,407	725	682	1,198	156	53
Prince George's	1,563	915	648	851	683	29
Queen Anne's	133	76	57	113	s	<6
Saint Mary's	169	107	62	145	s	<6
Somerset	119	87	32	87	32	0
Talbot	120	69	51	96	24	0
Washington	436	253	183	430	6	0
Wicomico	311	178	133	254	57	0
Worcester	200	129	71	166	34	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, 1995-1999

Table 19.
Lung and Bronchus Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender and Race, Maryland, 1995-1999

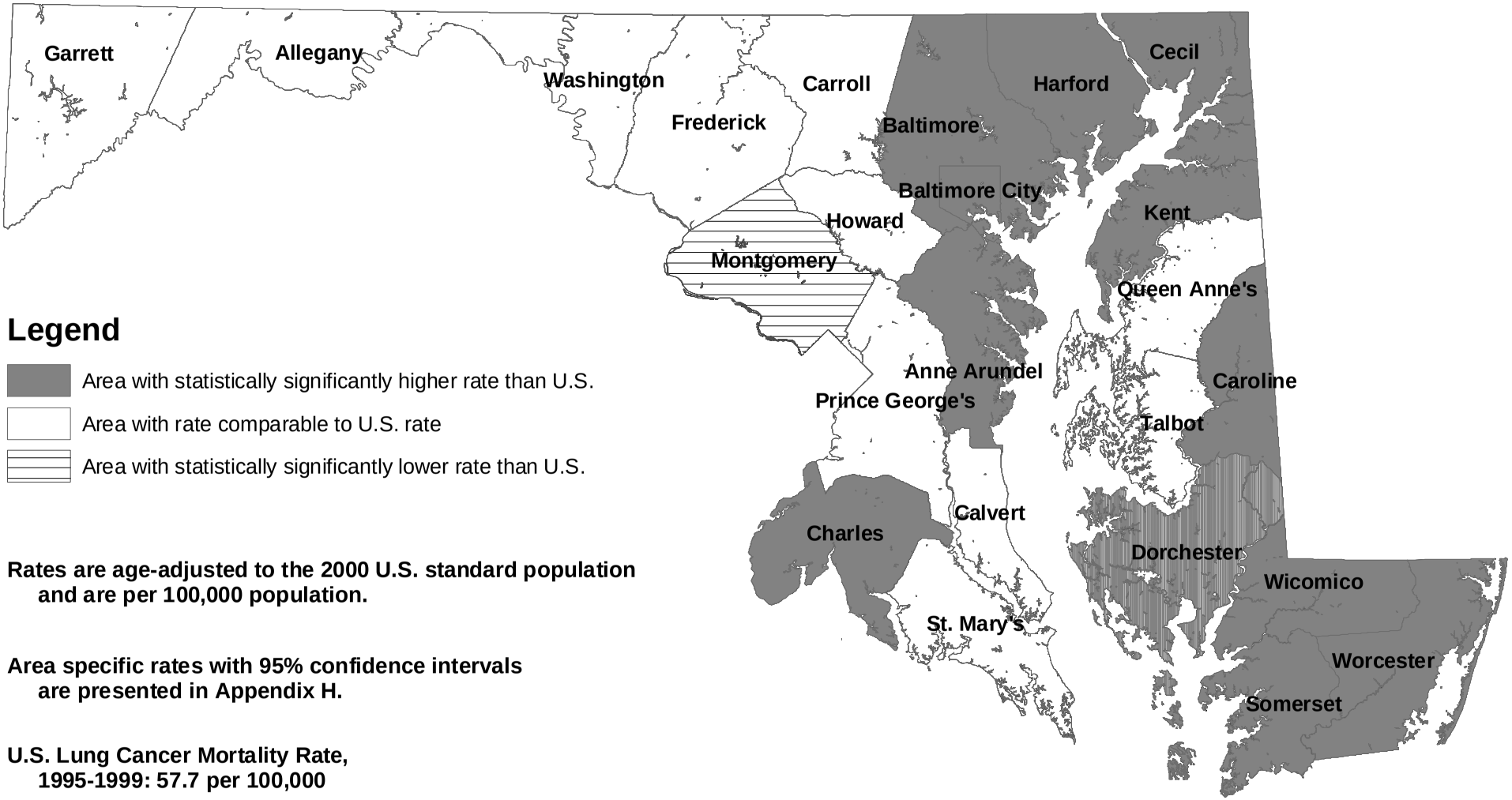
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	62.5	86.4	46.0	61.3	72.5	22.0
Allegany	62.7	91.2	43.5	62.2	**	**
Anne Arundel	71.9	95.8	54.8	74.6	58.9	**
Baltimore City	88.8	133.6	59.9	89.4	91.2	**
Baltimore County	62.2	83.6	47.8	62.2	68.5	**
Calvert	63.6	76.0	52.5	69.1	**	**
Caroline	71.0	93.9	52.9	75.3	**	0.0
Carroll	54.3	77.1	38.2	55.0	**	0.0
Cecil	81.5	113.7	56.7	82.8	**	**
Charles	76.7	95.0	64.5	85.0	55.7	**
Dorchester	74.6	114.6	44.6	74.0	79.1	0.0
Frederick	59.1	92.8	34.4	59.8	**	**
Garrett	48.8	75.7	30.1	49.1	0.0	0.0
Harford	63.6	88.8	46.7	67.0	37.1	**
Howard	52.5	68.6	42.8	54.6	50.5	**
Kent	62.4	84.6	44.2	68.4	**	0.0
Montgomery	37.3	46.8	31.1	37.5	50.2	20.8
Prince George's	60.0	83.5	43.9	55.6	72.7	25.6
Queen Anne's	65.5	81.4	52.7	67.8	**	**
Saint Mary's	53.6	74.6	37.1	57.9	**	**
Somerset	90.2	144.5	44.8	99.1	75.2	0.0
Talbot	48.6	65.9	37.9	48.5	**	0.0
Washington	61.8	84.3	45.5	62.6	**	0.0
Wicomico	78.5	109.9	57.0	84.4	61.0	0.0
Worcester	67.1	98.6	43.4	71.1	54.3	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, 1995-1999

Maryland Lung Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1995-1999



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, 1995-1999: 57.7 per 100,000

Source: Maryland Division of Health Statistics, 1995-1999

B. Colon and Rectum Cancer

Incidence (New Cases)

Cancer of the colon or rectum is often referred to as colorectal cancer. There were 2,547 new cases of colorectal cancer diagnosed among Maryland residents in 1999. Colorectal cancer cases represent 10.9% of 1999 new cancers. The age-adjusted colorectal cancer incidence rate in Maryland for 1999 is 53.3 per 100,000 population (51.6-61.6, 95% C.I.) which is comparable to the 1999 U.S. SEER age-adjusted colorectal cancer incidence rate of 54.3 per 100,000 population.

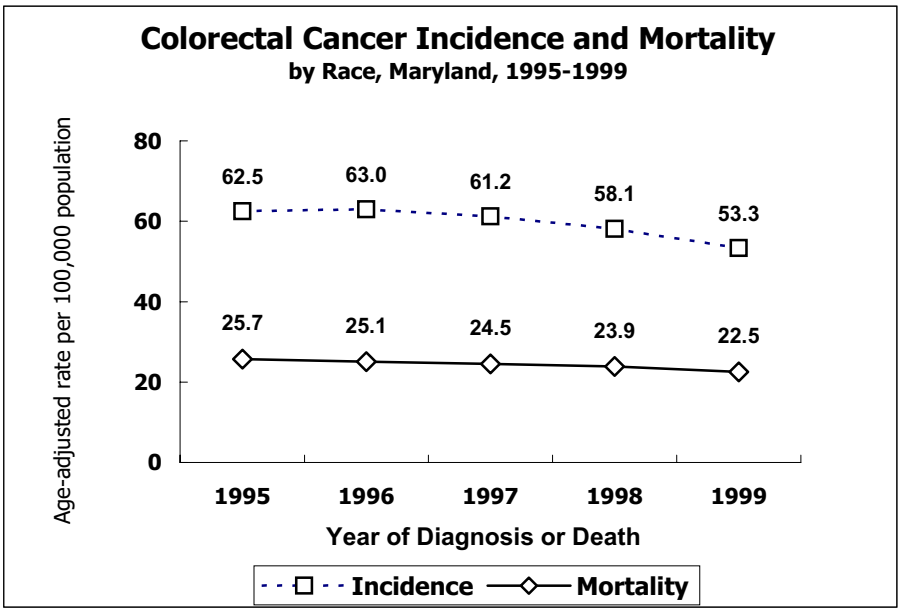
Mortality (Deaths)

A total of 1,059 persons died of colorectal cancer in 1999 in Maryland. Colorectal cancer accounts for 10.5% of all cancer deaths and is the 2nd leading cause of cancer deaths in Maryland. The age-adjusted colorectal mortality rate in Maryland is 22.5 per 100,000 population (21.2-23.9, 95% C.I.). This rate is statistically significantly higher than the 1999 U.S. colorectal cancer mortality rate of 21.1 per 100,000 population. Maryland has the 6th highest colorectal cancer mortality rate among the states and the District of Columbia.

Table 20.
Colorectal Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 1999

Incidence 1999	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
New Cases (#)	2,547	1,291	1,256	1,882	540	76
Incidence Rate*	53.3	63.4	45.4	50.8	56.4	52.9
U.S. SEER Rate*	54.3	63.7	47.1	53.8	61.7	NA
Mortality 1999	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	1,059	509	550	763	278	18
MD Mortality Rate*	22.5	26.4	19.6	20.6	31.2	**
U.S. Mortality Rate*	21.1	25.4	18.0	20.6	28.8	NA

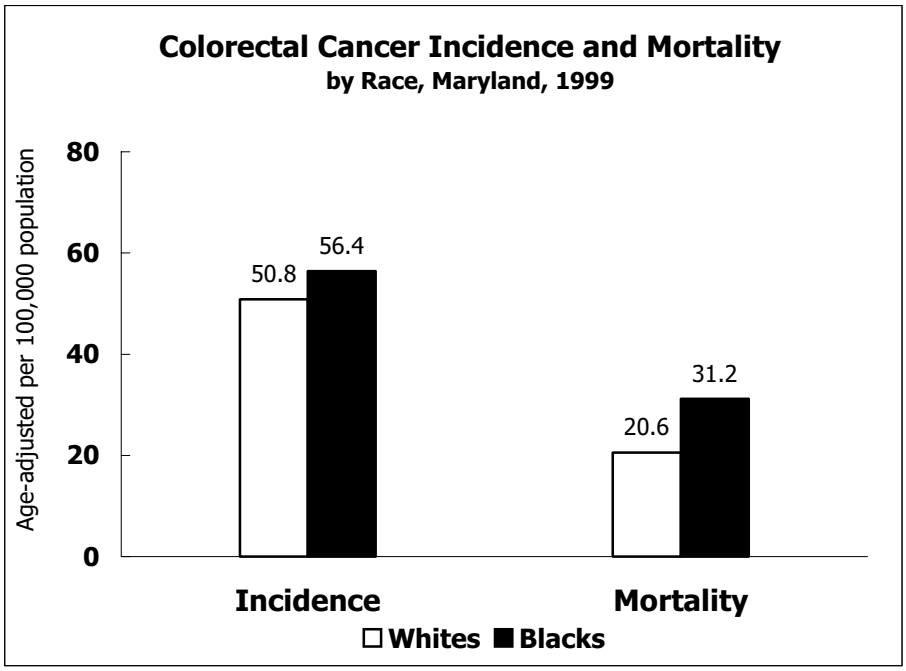
* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
** Rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy
Source: Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999
SEER, National Cancer Institute, 1999



Rates are age-adjusted to the 2000 U.S. standard population
Maryland Cancer Registry, 1995-1999
Maryland Division of Health Statistics, 1995-1999

Trends

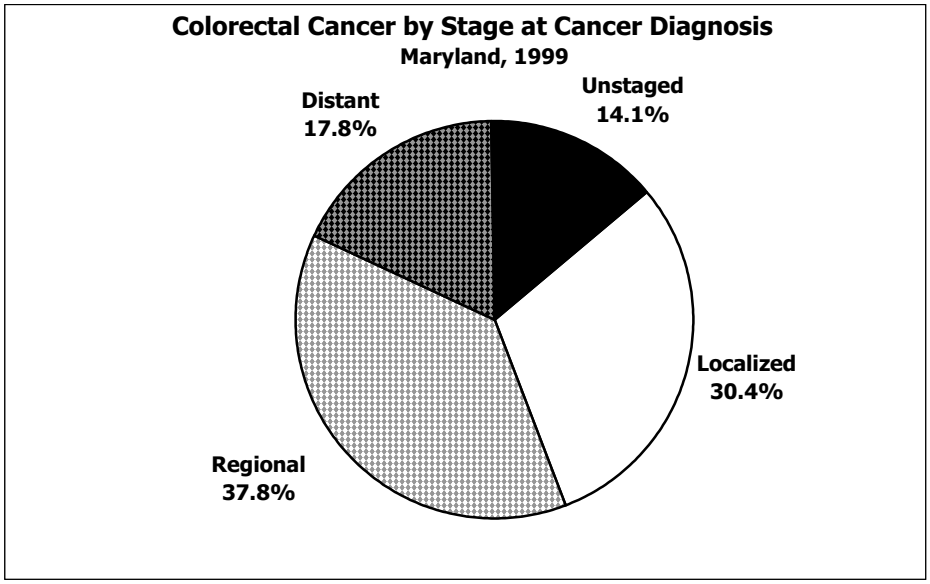
Both incidence and mortality rates for colorectal cancer have been declining. Incidence rates dropped an average of 3.4% per year from 1995 to 1999 with mortality rates dropping an average of 3.7% per year.



Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999

Race-Specific Rates

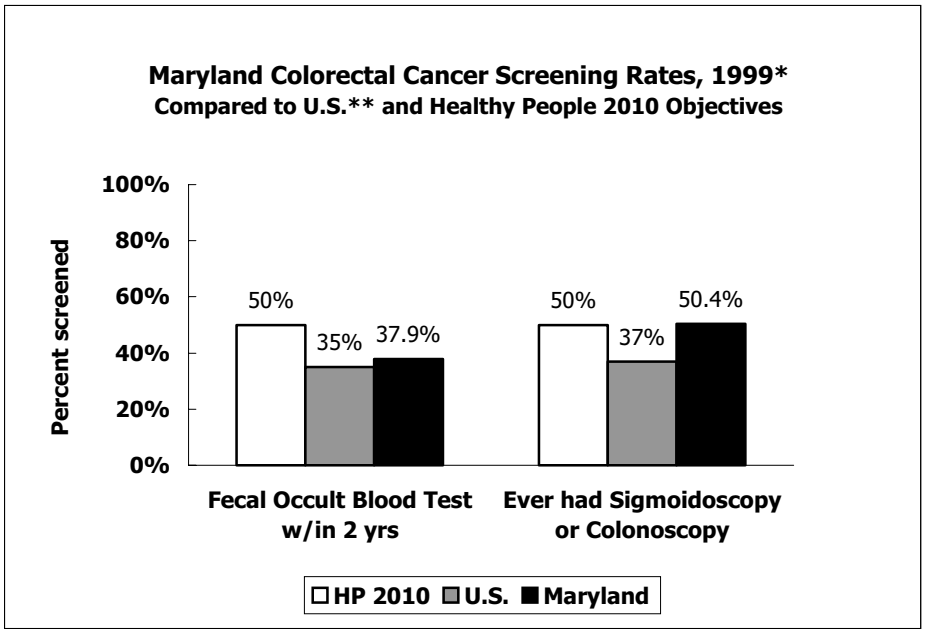
In 1999, blacks had an incidence rate comparable to that of whites. Blacks had a mortality rate statistically significantly higher than whites in Maryland.



Maryland Cancer Registry, 1999

Stage at Diagnosis

In 1999, 30.4% of colorectal cancers were diagnosed at the localized (early) stage in Maryland.



Healthy People 2010 Objectives

Healthy People 2010 objectives for colorectal cancer are 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 and those who received a sigmoidoscopy or colonoscopy.

* Adults 50 years of age and older
** The U.S. and Maryland rates are age-adjusted to the year 2000 standard population
Maryland Office of Public Health Assessment, BRFSS, 1999
National Health Interview Survey, 1998
Healthy People 2010, U.S. Department of Health and Human Services, 2000

Of adults 50 years and older surveyed in 1999, 37.9% reported having had a home test kit for fecal occult blood testing within the preceding 2 years. This compares to 32.1% in the 1997 BRFSS survey. In 1999, 50.4% reported having *ever* had a "sigmoidoscopy or colonoscopy," compared to 37.1% who, in 1997, said they had *ever* had a "proctoscopy or sigmoidoscopy."

Public Health Evidence (from National Cancer Institute, PDQ, 6/2002 and the U.S. Preventive Services Task Force, 7/2002)

Screening

The United States Preventive Services Task Force (USPSFT) strongly recommends that clinicians screen men and women 50 years of age and older for colorectal cancer. The USPSFT 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, are effective in improving health outcome (July, 2002, USPSTF).

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. Randomized controlled trials among those who had had adenomas demonstrated that wheat-bran fiber supplementation and diets low in fat (20% of total calories) and high in fiber, fruits, and vegetables, however, did not reduce the risk of adenoma recurrence during a 3-4 year period. Cigarette smoking is associated with an increased tendency to form adenomas and to develop colorectal cancer.

Chemoprevention

Nonsteroidal anti-inflammatory drugs (NSAIDS) and aspirin may prevent adenoma formation or cause adenomatous polyps to regress in the setting of familial adenomatous polyposis and may be associated with a reduced risk of colorectal cancer. The potential use of NSAIDS as a primary prevention measure is being studied. The potential preventive benefits must be balanced with the long-term risks such as gastrointestinal ulceration.

Public Health Intervention for Colorectal Cancer (DHMH Colorectal Cancer Medical Advisory Committee)
Early detection of colorectal cancer: ü For those at average risk, screen with colonoscopy, or with FOBT (three sample) and flexible sigmoidoscopy. ü For those unable or unwilling to undergo colonoscopy or sigmoidoscopy—FOBT (three sample) is an alternative initial screening method. ü 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, 1999

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	2,547	1,291	1,256	1,882	540	76	49
Allegany	70	35	35	s	<6	0	<6
Anne Arundel	185	99	86	153	18	<6	s
Baltimore City	360	162	198	166	190	<6	<6
Baltimore County	472	226	246	410	48	6	8
Calvert	26	16	10	s	<6	<6	0
Caroline	21	10	11	s	<6	0	0
Carroll	59	29	30	s	<6	0	0
Cecil	49	29	20	46	<6	<6	0
Charles	45	18	27	32	s	0	<6
Dorchester	31	17	14	25	6	0	0
Frederick	87	42	45	77	7	<6	<6
Garrett	19	13	6	19	0	0	0
Harford	99	60	39	89	s	0	<6
Howard	75	40	35	55	11	s	<6
Kent	13	<6	s	s	<6	0	0
Montgomery	335	160	175	255	33	39	8
Prince George's	303	163	140	133	158	s	<6
Queen Anne's	25	10	15	19	<6	0	<6
St Mary's	48	23	25	37	s	<6	<6
Somerset	21	s	<6	18	<6	<6	0
Talbot	35	22	13	29	6	0	0
Washington	79	42	37	s	<6	0	0
Wicomico	49	23	26	40	9	0	0
Worcester	40	29	11	25	8	7	0
Unknown	<6	<6	0	0	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, 1999

Table 22.
Colorectal Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	53.3	63.4	45.4	50.8	56.4	52.9
Allegany	68.5	85.5	55.9	68.0	**	0.0
Anne Arundel	45.2	55.3	37.8	44.5	**	**
Baltimore City	56.7	64.0	51.9	57.6	55.6	**
Baltimore County	55.5	62.6	49.3	53.4	74.6	**
Calvert	46.5	**	**	**	**	**
Caroline	**	**	**	**	**	0.0
Carroll	43.8	51.1	36.6	44.8	**	0.0
Cecil	66.8	80.4	50.8	67.0	**	**
Charles	55.5	**	60.0	56.5	**	0.0
Dorchester	80.8	**	**	**	**	0.0
Frederick	57.4	62.3	53.3	55.3	**	**
Garrett	**	**	**	**	0.0	0.0
Harford	55.0	75.6	38.9	55.6	**	0.0
Howard	46.8	61.2	36.0	43.5	**	**
Kent	**	**	**	**	**	0.0
Montgomery	42.0	48.4	37.1	38.2	44.8	60.7
Prince George's	55.0	70.8	45.0	43.6	72.8	**
Queen Anne's	**	**	**	**	**	0.0
Saint Mary's	75.0	**	71.8	73.6	**	**
Somerset	**	**	**	**	**	**
Talbot	70.9	**	**	73.7	**	0.0
Washington	54.1	66.2	42.0	53.0	**	0.0
Wicomico	60.4	**	54.4	66.4	**	0.0
Worcester	66.7	109.8	**	**	**	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, 1999

Table 23.
Number of Colorectal Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	1,059	509	550	763	278	18
Allegany	27	10	17	s	<6	0
Anne Arundel	79	42	37	69	s	<6
Baltimore City	189	89	100	s	107	<6
Baltimore County	189	83	106	168	s	<6
Calvert	16	8	8	s	<6	0
Caroline	10	s	<6	10	0	0
Carroll	22	13	9	22	0	0
Cecil	14	s	<6	s	<6	0
Charles	22	11	11	s	<6	0
Dorchester	14	8	6	s	<6	0
Frederick	38	19	19	s	<6	0
Garrett	10	s	<6	10	0	0
Harford	37	17	20	28	9	0
Howard	30	16	14	23	s	<6
Kent	7	<6	<6	<6	<6	0
Montgomery	112	46	66	93	9	10
Prince George's	128	62	66	s	73	<6
Queen Anne's	9	<6	<6	s	<6	0
Saint Mary's	18	10	8	11	s	<6
Somerset	7	<6	<6	<6	<6	0
Talbot	15	s	<6	<6	s	0
Washington	34	14	20	34	0	0
Wicomico	17	<6	s	s	<6	0
Worcester	15	8	7	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, 1999

Table 24.
Colorectal Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	22.5	26.4	19.6	20.6	31.2	**
Allegany	26.2	**	**	25.9	**	0.0
Anne Arundel	20.5	24.9	16.8	21.3	**	**
Baltimore City	29.8	37.3	25.6	25.2	32.7	**
Baltimore County	22.1	24.3	20.5	21.5	**	**
Calvert	**	**	**	**	**	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	**	**	**	**	0.0	0.0
Cecil	**	**	**	**	**	0.0
Charles	**	**	**	**	**	0.0
Dorchester	**	**	**	**	**	0.0
Frederick	25.6	**	**	26.2	**	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	21.1	**	**	18.0	**	0.0
Howard	19.5	**	**	**	**	**
Kent	**	**	**	**	**	0.0
Montgomery	14.3	14.9	13.6	13.8	**	**
Prince George's	25.4	29.8	22.2	18.5	39.5	**
Queen Anne's	**	**	**	**	**	0.0
Saint Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	0.0
Talbot	**	**	**	**	**	0.0
Washington	23.1	**	**	23.9	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, 1999

Table 25.
Number of Colorectal Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 1995-1999

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	13,707	6,759	6,948	10,303	2,903	319	182
Allegany	344	175	169	335	6	<6	<6
Anne Arundel	1,125	586	539	950	127	14	34
Baltimore City	2,210	996	1,214	1,116	1,063	17	14
Baltimore County	2,511	1,253	1,258	2,188	270	33	20
Calvert	160	97	63	129	s	<6	0
Caroline	117	67	50	103	14	0	0
Carroll	397	205	192	382	9	<6	<6
Cecil	192	96	96	184	<6	<6	<6
Charles	221	106	115	170	42	<6	s
Dorchester	140	69	71	110	s	0	<6
Frederick	426	210	216	374	s	<6	9
Garrett	91	46	45	s	0	0	<6
Harford	472	263	209	413	52	<6	<6
Howard	363	162	201	285	52	20	6
Kent	66	26	40	55	s	<6	0
Montgomery	1,826	874	952	1,470	190	140	26
Prince George's	1,658	816	842	789	787	52	30
Queen Anne's	119	54	65	101	16	0	<6
Saint Mary's	180	98	82	146	28	<6	<6
Somerset	79	52	27	64	s	<6	0
Talbot	151	83	68	114	s	0	<6
Washington	400	197	203	388	12	0	0
Wicomico	226	94	132	183	37	6	0
Worcester	186	105	81	144	32	s	<6
Unknown	47	29	18	21	s	<6	15

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, 1995-1999

Table 26.
Colorectal Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1995-1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	59.5	69.7	52.0	57.0	66.0	50.0
Allegany	68.5	86.2	55.4	67.9	**	**
Anne Arundel	59.2	70.2	50.6	58.4	53.0	**
Baltimore City	67.0	76.5	60.6	70.6	63.3	**
Baltimore County	60.9	72.8	52.0	58.1	93.0	41.3
Calvert	62.4	84.8	44.5	63.2	55.6	**
Caroline	75.8	96.9	57.8	83.3	**	0.0
Carroll	62.9	77.8	52.0	62.6	**	**
Cecil	55.4	58.9	51.7	56.4	**	**
Charles	58.7	60.9	55.3	61.0	48.9	**
Dorchester	73.5	86.9	61.8	79.1	60.1	0.0
Frederick	59.1	66.6	53.9	56.1	90.1	**
Garrett	55.1	64.9	48.0	54.3	0.0	0.0
Harford	56.3	72.3	45.1	55.0	72.6	**
Howard	49.4	52.9	47.2	47.4	52.7	**
Kent	51.1	44.4	55.3	55.5	**	**
Montgomery	48.1	56.6	42.6	45.9	58.0	48.8
Prince George's	64.4	74.3	57.0	53.1	81.0	49.4
Queen Anne's	60.9	67.1	60.4	63.9	**	0.0
Saint Mary's	58.2	69.3	48.9	58.3	51.5	**
Somerset	59.5	87.6	35.7	70.5	**	**
Talbot	62.0	77.8	51.5	58.0	76.1	0.0
Washington	57.1	66.2	49.4	57.0	**	0.0
Wicomico	57.2	57.3	54.9	60.8	39.8	**
Worcester	63.9	80.9	48.6	62.2	54.1	**

* 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, 1995-1999

Table 27.
Number of Colorectal Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 1995-1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	5,507	2,713	2,794	4,112	1,326	69
Allegany	134	74	60	s	<6	0
Anne Arundel	455	249	206	395	s	<6
Baltimore City	1,004	481	523	s	555	<6
Baltimore County	1,002	460	542	910	84	8
Calvert	73	35	38	53	20	0
Caroline	48	27	21	s	<6	0
Carroll	144	69	75	140	<6	<6
Cecil	72	35	37	69	<6	<6
Charles	98	55	43	80	s	<6
Dorchester	42	20	22	29	13	0
Frederick	171	85	86	159	12	0
Garrett	43	19	24	43	0	0
Harford	185	97	88	156	s	<6
Howard	151	76	75	123	21	7
Kent	33	17	16	23	10	0
Montgomery	662	333	329	550	83	29
Prince George's	646	303	343	314	324	8
Queen Anne's	29	11	18	s	<6	0
Saint Mary's	75	44	31	60	s	<6
Somerset	30	16	14	23	7	0
Talbot	67	43	24	43	24	0
Washington	174	83	91	s	<6	0
Wicomico	101	47	54	72	s	<6
Worcester	68	34	34	56	12	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, 1995-1999

Table 28.
Colorectal Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1995-1999

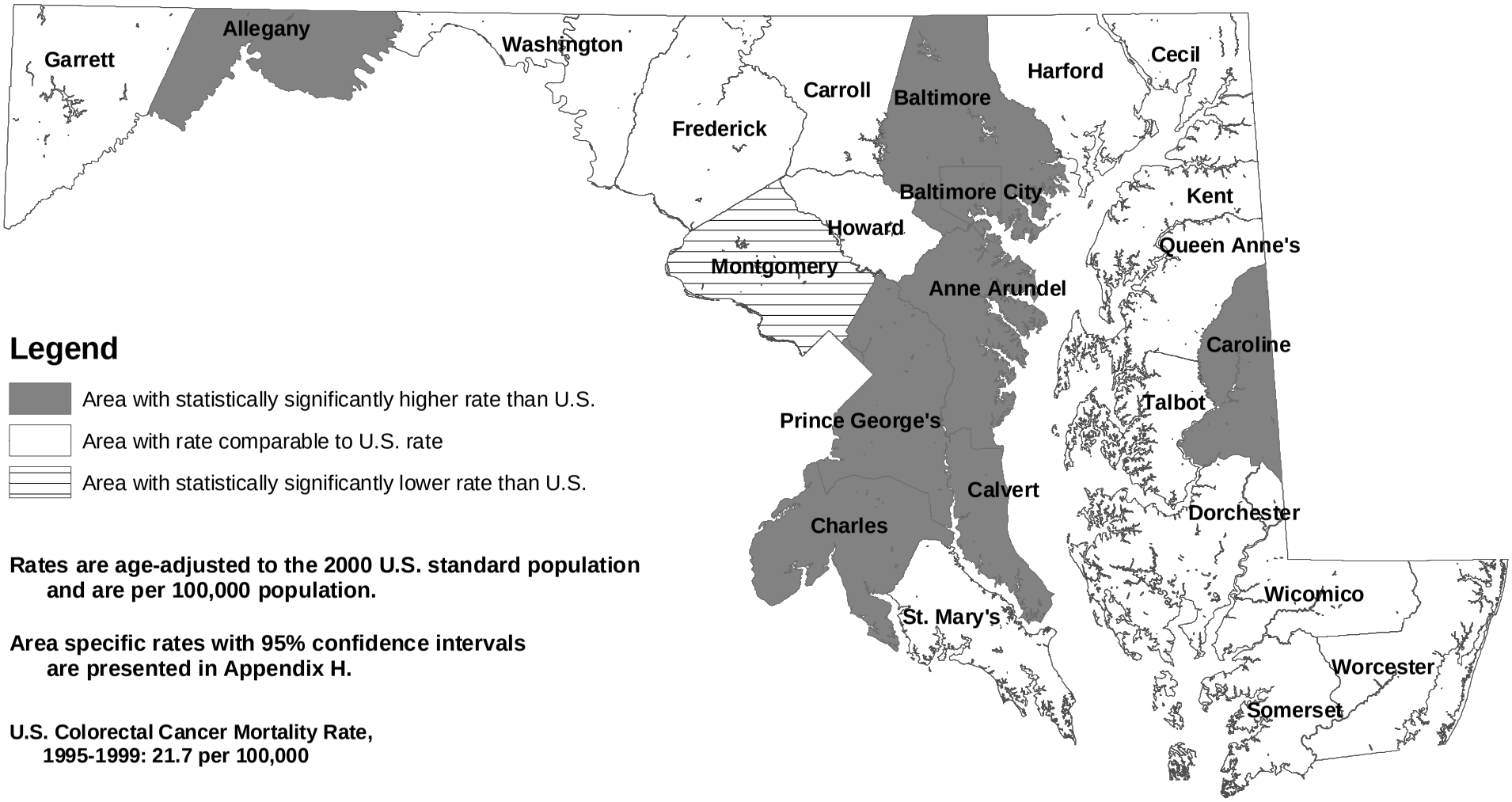
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	24.3	29.4	20.7	22.9	31.9	11.7
Allegany	26.8	38.1	20.1	26.5	**	0.0
Anne Arundel	25.4	33.4	19.7	25.7	25.6	**
Baltimore City	30.5	37.8	25.5	27.3	33.9	**
Baltimore County	24.3	27.8	21.9	24.0	29.7	**
Calvert	29.3	32.1	26.7	28.0	**	0.0
Caroline	31.2	39.8	**	35.2	**	0.0
Carroll	23.1	27.0	19.9	23.3	**	**
Cecil	21.5	23.0	20.2	21.9	**	**
Charles	28.7	39.7	21.9	31.4	**	**
Dorchester	21.4	**	**	20.4	**	0.0
Frederick	24.4	29.3	20.9	24.3	**	0.0
Garrett	26.5	**	**	26.7	0.0	0.0
Harford	22.7	28.9	18.8	21.5	36.8	**
Howard	21.6	25.7	18.6	21.6	**	**
Kent	24.8	**	**	**	**	0.0
Montgomery	17.7	22.6	14.5	17.2	28.3	11.5
Prince George's	26.5	29.4	24.0	21.6	37.0	**
Queen Anne's	15.5	**	**	**	**	0.0
Saint Mary's	24.5	31.4	18.4	24.2	**	**
Somerset	22.3	**	**	**	**	0.0
Talbot	27.0	41.3	**	22.0	**	0.0
Washington	24.6	28.0	21.8	25.0	**	0.0
Wicomico	25.5	29.3	22.2	23.8	31.7	**
Worcester	24.2	29.6	20.5	25.2	**	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, 1995-1999

Maryland Colorectal Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1995-1999



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, 1995-1999: 21.7 per 100,000

Source: Maryland Division of Health Statistics, 1995-1999

C. Female Breast Cancer

Incidence (New Cases)

Breast cancer is the most common reportable cancer among women. A total of 3,714 women in Maryland were diagnosed with breast cancer in 1999. Female breast cancers represent 16.0% of all cancers in 1999. The 1999 age-adjusted incidence rate in Maryland is 137.0 per 100,000 women (132.7-141.5, 95% C.I.); this is similar to the 1999 SEER age-adjusted incidence rate for breast cancer of 139.1 per 100,000 women.

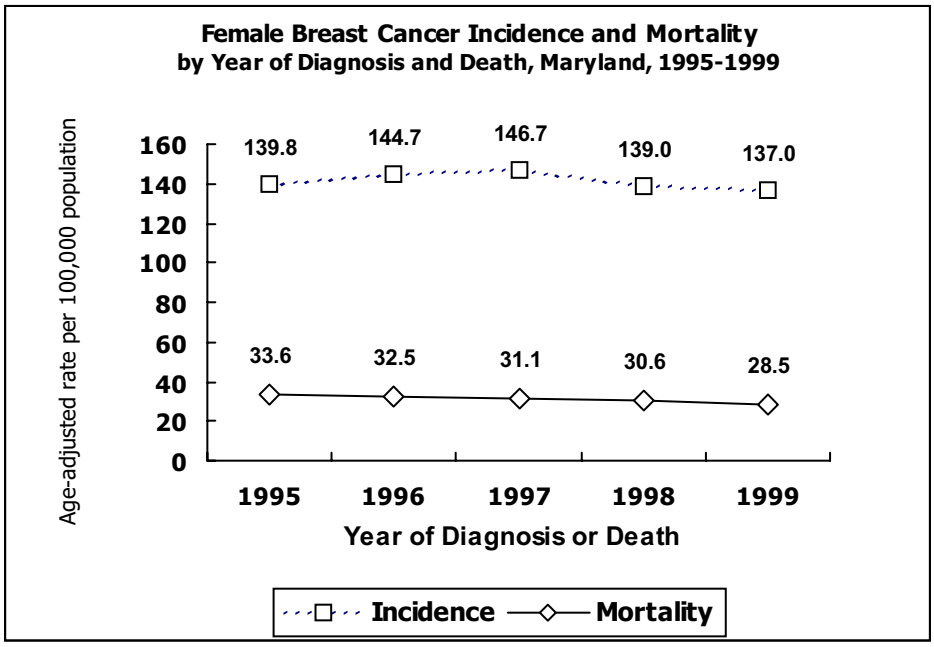
Mortality (Deaths)

In 1999, a total of 782 women died of breast cancer in Maryland. Female breast cancer accounts for 7.7% 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 28.5 per 100,000 women (26.5-30.6, 95% C.I.). This rate is equivalent to the 1999 U.S. mortality rate for breast cancer of 27.0 per 100,000 population of women. Maryland women rank 5th highest for breast cancer mortality among the states and the District of Columbia.

Table 29.
Female Breast Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 1999

Incidence 1999	*Total*	*Whites*	*Blacks*	*Other*
New Cases (#)	3,714	2,752	822	96
Incidence Rate*	137.0	139.5	127.7	92.8
U.S. SEER Rate*	139.1	143.0	123.9	NA
Mortality 1999	*Total*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	782	567	211	**
MD Mortality Rate*	28.5	27.4	35.5	**
U.S. Mortality Rate*	27.0	26.3	35.8	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
Source: Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999
SEER, National Cancer Institute, 1999

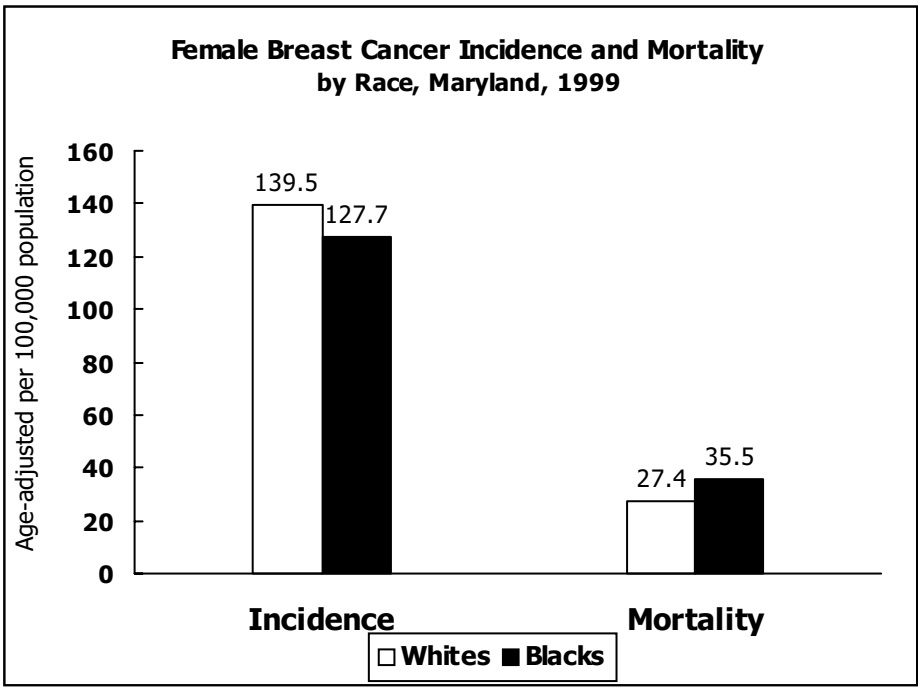


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1995-1999
Maryland Division of Health Statistics, 1995-1999

Trends

From 1995 to 1999, there has been a slight increase of 0.7% annually in breast cancer incidence among Maryland women.

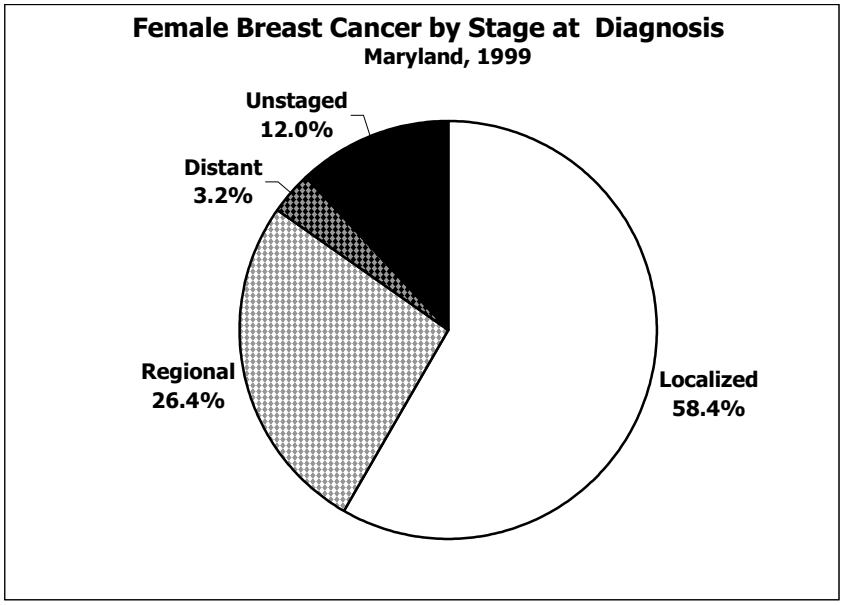
On the other hand, breast cancer mortality has been decreasing an average of 4.0% per year between 1995 and 1999.



Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999

Race-Specific Rates

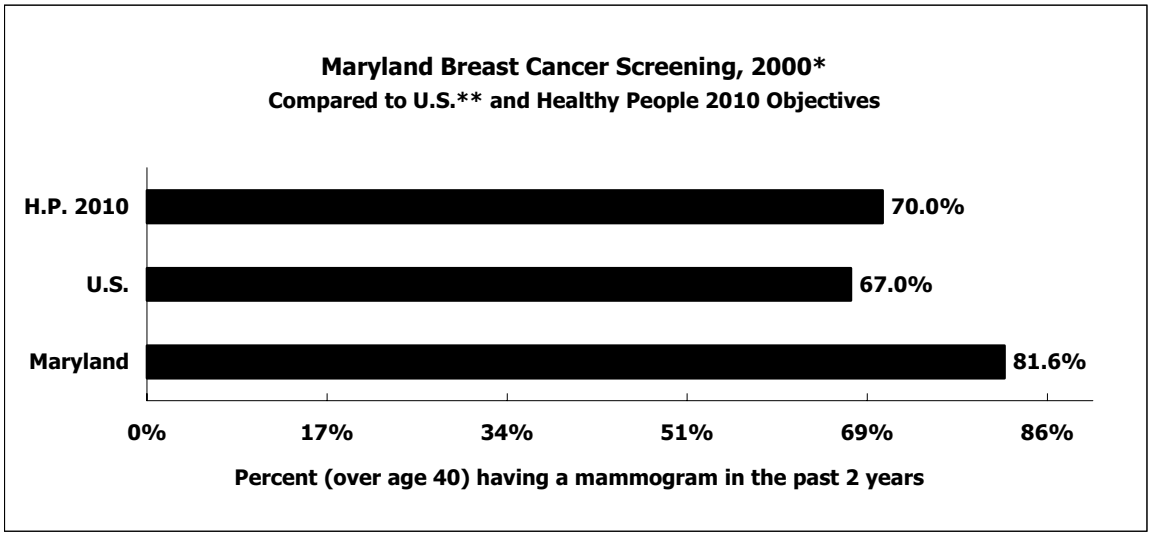
White and black women had comparable incidence of breast cancer while black women had a statistically significantly higher mortality rate than white women.



Maryland Cancer Registry, 1999

Stage of Disease at Diagnosis

In 1999, 58.4% of female breast cancer cases were diagnosed at the localized (early) stage.



* Women 40 years of age and older
** The U.S. rate is age-adjusted to 2000 U.S. standard population
Maryland Office of Public Health Assessment, BRFSS, 2000
National Health Interview Survey, 1998
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 ages 40 and older who received a mammogram within the preceding 2 years.

In 2000, 81.6% of Maryland women 40 years and older reported receiving a mammogram within the previous 2 years, exceeding the Healthy People 2010 goal of 70%. This rate compares to 80.9% of women 40 years and older in Maryland in 1999, and 79.4% in 1998.

Public Health Evidence (from National Cancer Institute, PDQ, 6/2002, and the U.S. Preventive Services Task Force, 2/2002)

Screening

The United States Preventive Services Task Force (USPSTF) updated its recommendations on mammography, and 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 judgment and should take into account patient preferences. 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 (February, 2002, USPSTF).

Chemoprevention

A randomized controlled trial has shown that tamoxifen lowers the risk of developing breast cancer in women who are at elevated risk of developing the disease. However, tamoxifen may also increase the risk of developing endometrial cancer, stroke, and blood clots in the veins and lungs. 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 (July, 2002, USPSTF). 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 as a preventive measure. Other drugs, such as raloxifene are being studied for their potential usefulness as breast cancer prevention measures.

Primary Prevention

Diet is being studied as a risk factor for breast cancer. The role of a low fat diet in breast cancer prevention remains to be determined. Exercise at certain ages may contribute to a decreased risk of breast cancer. Exposure to alcohol may be associated with increased breast cancer risk.

Postmenopausal hormone replacement therapy (HRT) with estrogen may be associated with *increased* risk of developing breast cancer. This risk may be proportionate to the duration of use and worse for combination therapy.

Public Health Intervention (DHMH, Medical Advisory Committee)
Early detection of breast cancer: ü Screen using mammography and a clinical breast examination by a health professional

Table 30.
Number of Female Breast Cancer Cases by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	3,714	2,752	822	96	44
Allegany	73	s	0	<6	0
Anne Arundel	329	287	33	<6	<6
Baltimore City	453	182	267	<6	<6
Baltimore County	646	557	76	7	6
Calvert	43	35	6	<6	<6
Caroline	25	s	<6	0	0
Carroll	88	s	0	0	<6
Cecil	39	s	<6	0	0
Charles	61	45	s	<6	0
Dorchester	34	25	9	0	0
Frederick	132	125	<6	0	<6
Garrett	32	32	0	0	0
Harford	142	128	s	<6	<6
Howard	144	111	22	s	<6
Kent	23	17	6	0	0
Montgomery	661	529	73	49	10
Prince George's	444	165	256	14	9
Queen Anne's	26	21	<6	0	<6
St Mary's	50	42	s	<6	0
Somerset	8	s	<6	0	0
Talbot	41	s	<6	0	0
Washington	101	s	0	<6	0
Wicomico	73	57	s	0	<6
Worcester	45	37	s	<6	<6
Unknown	<6	0	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, 1999

Table 31.
Female Breast Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	137.0	139.5	127.7	92.8
Allegany	144.8	146.5	0.0	**
Anne Arundel	139.2	145.5	99.3	**
Baltimore City	126.8	131.9	126.6	**
Baltimore County	146.9	147.6	157.3	**
Calvert	129.3	140.4	**	**
Caroline	**	**	**	0.0
Carroll	116.3	115.8	0.0	0.0
Cecil	95.3	94.1	**	0.0
Charles	121.0	125.7	**	**
Dorchester	168.6	**	**	0.0
Frederick	148.3	153.7	**	0.0
Garrett	188.9	190.0	0.0	0.0
Harford	136.4	140.6	**	**
Howard	137.3	136.4	**	**
Kent	**	**	**	0.0
Montgomery	145.2	148.2	135.0	107.5
Prince George's	123.6	101.1	148.1	**
Queen Anne's	116.6	**	**	0.0
Saint Mary's	137.7	151.2	**	**
Somerset	**	**	**	0.0
Talbot	163.1	185.5	**	0.0
Washington	135.1	136.9	0.0	**
Wicomico	163.2	172.3	**	0.0
Worcester	156.1	173.6	**	**

* 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, 1999

Table 32.
Number of Female Breast Cancer Deaths by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	782	567	s	<6
Allegany	14	14	0	0
Anne Arundel	77	64	13	0
Baltimore City	140	59	81	0
Baltimore County	128	118	10	0
Calvert	<6	<6	0	0
Caroline	<6	<6	0	0
Carroll	12	12	0	0
Cecil	10	10	0	0
Charles	13	<6	s	0
Dorchester	6	6	0	0
Frederick	27	s	<6	0
Garrett	<6	<6	0	0
Harford	23	23	0	0
Howard	26	22	<6	<6
Kent	<6	<6	0	0
Montgomery	117	92	s	<6
Prince George's	96	s	60	<6
Queen Anne's	<6	<6	0	0
Saint Mary's	11	s	<6	0
Somerset	<6	<6	0	0
Talbot	7	<6	<6	0
Washington	22	s	<6	0
Wicomico	23	s	<6	0
Worcester	8	8	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, 1999

Table 33.
Female Breast Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	28.5	27.4	35.5	**
Allegany	**	**	0.0	0.0
Anne Arundel	33.1	32.9	**	0.0
Baltimore City	37.9	40.1	38.8	0.0
Baltimore County	26.1	26.9	**	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
Dorchester	**	**	0.0	0.0
Frederick	32.0	**	**	0.0
Garrett	**	**	0.0	0.0
Harford	**	**	0.0	0.0
Howard	24.7	**	**	**
Kent	**	**	0.0	0.0
Montgomery	25.6	24.7	**	**
Prince George's	28.8	20.6	40.4	**
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	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, 1999

Table 34.
Number of Female Breast Cancer Cases
by Jurisdiction and Race, Maryland, 1995-1999

Jurisdiction	Total	Race			
		Whites	Blacks	Others	Unknown
Maryland	18,605	14,070	3,810	514	211
Allegany	335	332	<6	<6	0
Anne Arundel	1,719	1,490	186	25	18
Baltimore City	2,538	1,264	1,236	25	13
Baltimore County	3,092	2,652	373	41	26
Calvert	197	166	25	<6	<6
Caroline	116	102	s	<6	0
Carroll	498	480	s	<6	7
Cecil	242	231	8	<6	<6
Charles	321	245	63	s	<6
Dorchester	144	112	30	<6	<6
Frederick	591	544	37	<6	s
Garrett	115	112	0	<6	<6
Harford	630	578	45	<6	<6
Howard	662	526	90	39	7
Kent	97	79	18	0	0
Montgomery	3,307	2,693	332	215	67
Prince George's	2,309	1,022	1,154	103	30
Queen Anne's	148	125	s	0	<6
Saint Mary's	220	180	29	s	<6
Somerset	81	64	s	<6	0
Talbot	188	166	s	<6	0
Washington	465	453	<6	6	<6
Wicomico	345	268	67	s	<6
Worcester	204	165	33	<6	<6
Unknown	41	21	<6	<6	12

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, 1995-1999

Table 35.
Female Breast Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 1995-1999

Jurisdiction	Total	Race		
		Whites	Blacks	Others
Maryland	141.4	144.2	128.6	112.5
Allegany	127.0	128.4	**	**
Anne Arundel	152.4	155.9	129.9	**
Baltimore City	136.9	171.0	117.3	**
Baltimore County	141.3	138.0	179.2	87.0
Calvert	127.5	139.4	**	**
Caroline	143.3	159.9	**	**
Carroll	138.3	138.4	**	**
Cecil	126.5	128.0	**	**
Charles	140.9	145.4	121.7	**
Dorchester	147.7	160.3	111.0	**
Frederick	142.7	142.3	141.7	**
Garrett	135.0	132.7	0.0	**
Harford	128.1	132.8	99.4	**
Howard	135.6	136.6	121.9	146.2
Kent	157.2	170.1	**	0.0
Montgomery	151.3	154.1	131.6	102.9
Prince George's	137.1	124.7	152.2	117.4
Queen Anne's	139.2	142.3	**	0.0
Saint Mary's	127.6	131.0	95.2	**
Somerset	123.7	149.1	**	**
Talbot	157.3	177.0	**	**
Washington	125.9	126.4	**	**
Wicomico	157.9	163.3	126.3	**
Worcester	144.0	150.9	105.3	**

* 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, 1995-1999

Table 36.
Number of Female Breast Cancer Deaths
by Jurisdiction and Race, Maryland, 1995-1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	4,138	3,028	1,071	39
Allegany	65	s	<6	0
Anne Arundel	348	295	s	<6
Baltimore City	758	s	426	<6
Baltimore County	685	616	s	<6
Calvert	31	24	s	<6
Caroline	23	s	<6	0
Carroll	94	s	<6	0
Cecil	64	s	<6	0
Charles	58	34	24	0
Dorchester	32	28	<6	<6
Frederick	115	106	s	<6
Garrett	22	22	0	0
Harford	147	133	s	<6
Howard	132	104	s	<6
Kent	19	13	6	0
Montgomery	635	533	87	15
Prince George's	534	228	297	9
Queen Anne's	26	s	<6	0
Saint Mary's	48	39	9	0
Somerset	22	s	<6	0
Talbot	39	s	<6	0
Washington	119	s	<6	0
Wicomico	84	65	19	0
Worcester	38	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, 1995-1999

Table 37.
Female Breast Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 1995-1999

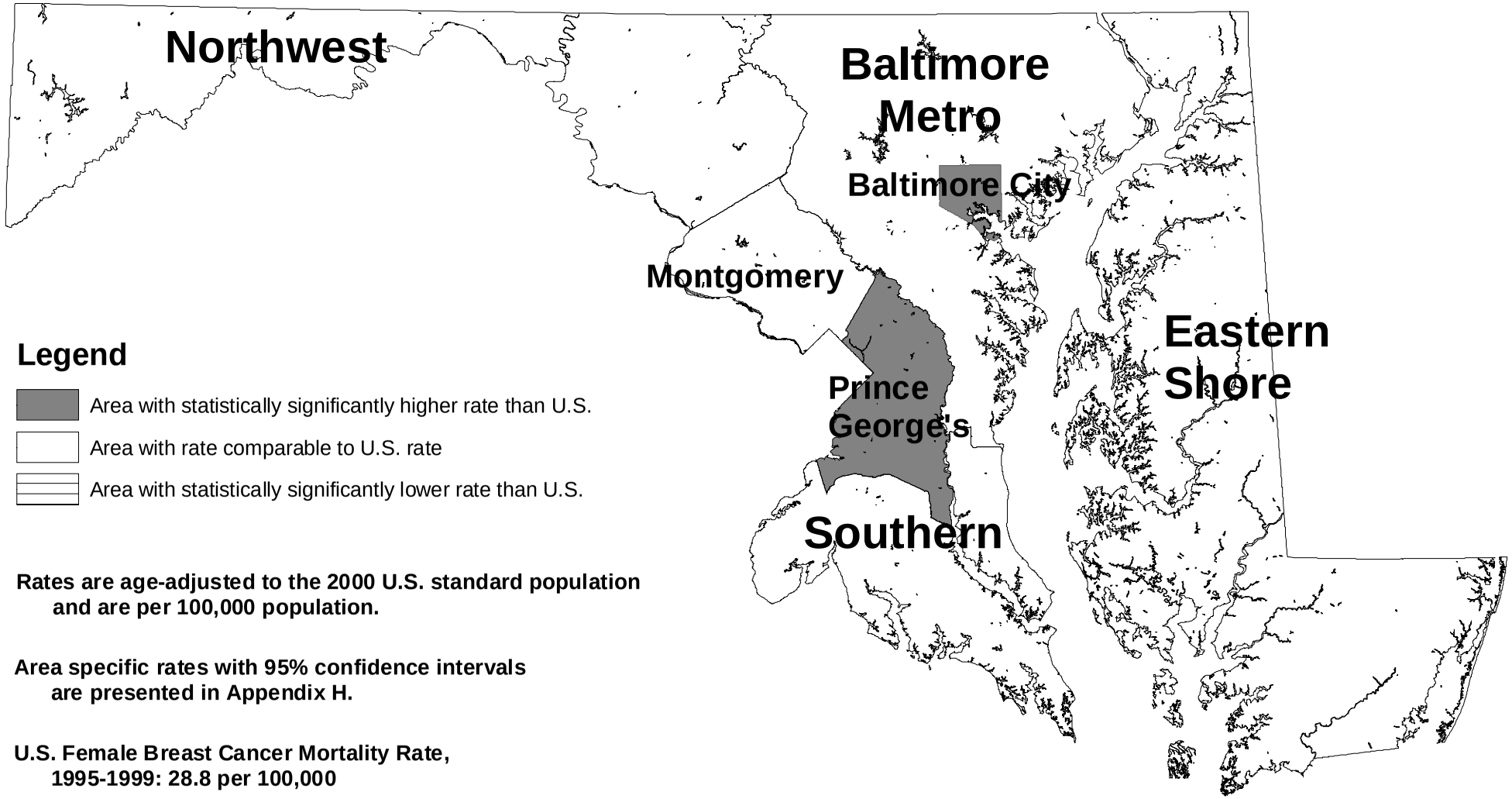
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	31.2	29.8	38.3	9.1
Allegany	22.2	21.0	**	0.0
Anne Arundel	31.8	31.8	35.8	**
Baltimore City	39.3	37.6	40.9	**
Baltimore County	29.7	29.7	36.4	**
Calvert	20.5	**	**	**
Caroline	**	**	**	0.0
Carroll	26.8	27.2	**	0.0
Cecil	33.7	33.5	**	0.0
Charles	27.4	21.3	**	0.0
Dorchester	30.6	37.4	**	**
Frederick	28.0	27.8	**	**
Garrett	**	**	0.0	0.0
Harford	30.4	30.9	**	**
Howard	29.2	28.8	**	**
Kent	**	**	**	0.0
Montgomery	28.8	29.3	39.8	**
Prince George's	33.7	27.1	44.1	**
Queen Anne's	24.5	**	**	0.0
Saint Mary's	27.5	27.8	**	0.0
Somerset	**	**	**	0.0
Talbot	29.3	32.4	**	0.0
Washington	30.6	30.6	**	0.0
Wicomico	37.6	38.7	**	0.0
Worcester	23.9	27.4	**	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, 1995-1999

Maryland Female Breast Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1995-1999



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. Female Breast Cancer Mortality Rate, 1995-1999: 28.8 per 100,000

Source: Maryland Division of Health Statistics, 1995-1999

D. Prostate Cancer

Incidence (New Cases)

A total of 3,869 cases of prostate cancer were diagnosed among men during 1999 in Maryland. Prostate cancer is the most common reportable cancer among men. Excluding non-melanoma skin cancer, prostate cancer accounts for 16.6% of all reportable cancers in 1999. The age-adjusted prostate cancer incidence rate in Maryland for 1999 is 185.3 per 100,000 men (179.4-191.4, 95% C.I.); this is statistically significantly higher than the 1999 U.S. SEER age-adjusted incidence rate for prostate cancer of 174.8 per 100,000 men.

Mortality (Deaths)

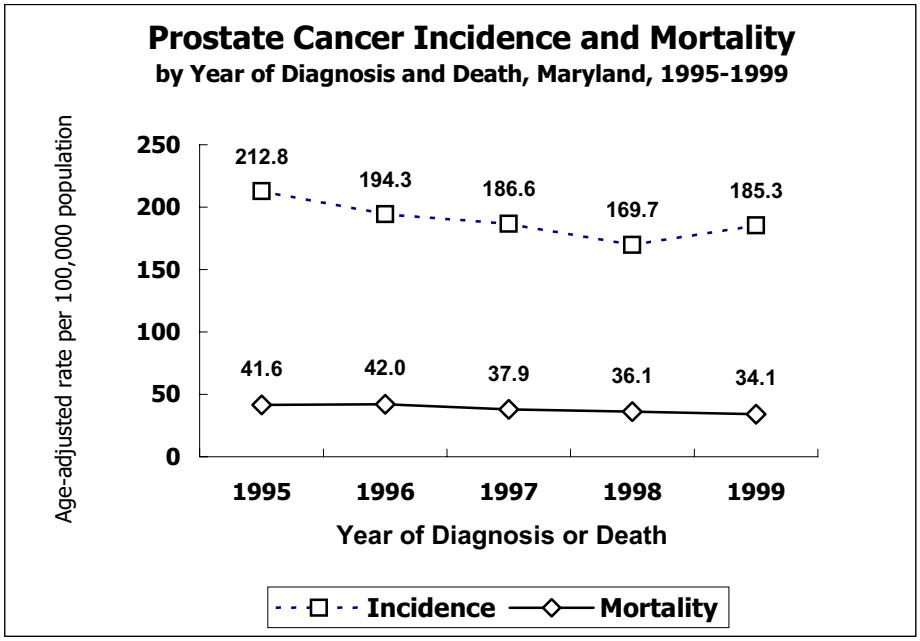
Prostate cancer is the 2nd leading cause of cancer deaths in Maryland among men. In 1999, 574 men died of prostate cancer in Maryland; this accounts for 5.7% of all cancer deaths in Maryland. The age-adjusted mortality rate for prostate cancer is 34.1 per 100,000 men (31.2-37.1, 95% C.I.). This rate is statistically significantly higher than the 1999 U.S. mortality rate for prostate cancer of 31.1 per 100,000 men. Maryland has the 10th highest mortality rate for prostate cancer among the states and the District of Columbia.

Table 38.
Prostate Cancer Incidence and Mortality Rates
by Race, Maryland and the United States, 1999

Incidence 1999	*Total*	*Whites*	*Blacks*
New Cases (#)	3,869	2,556	904
Incidence Rate*	185.3	157.4	226.8
U.S. SEER Rate*	174.8	167.8	265.6
Mortality 1999	*Total*	*Whites*	*Blacks*
MD Deaths (#)	574	380	188
MD Mortality Rate*	34.1	28.1	67.4
U.S. Mortality Rate*	31.1	28.6	67.8

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

Source: Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999
SEER, National Cancer Institute, 1999

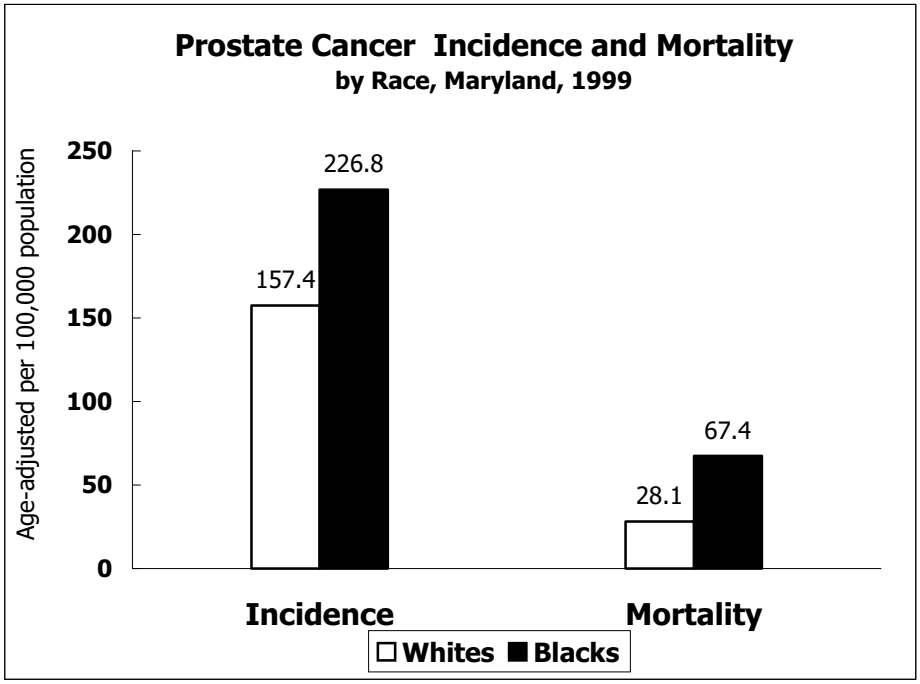


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1995-1999
Maryland Division of Health Statistics, 1995-1999

Trends

Prostate cancer incidence rates have decreased an average of 1.4% per year from 1995 to 1999 in Maryland.

Prostate cancer mortality rates declined an average of 5.1% per year among men from 1995 to 1999.

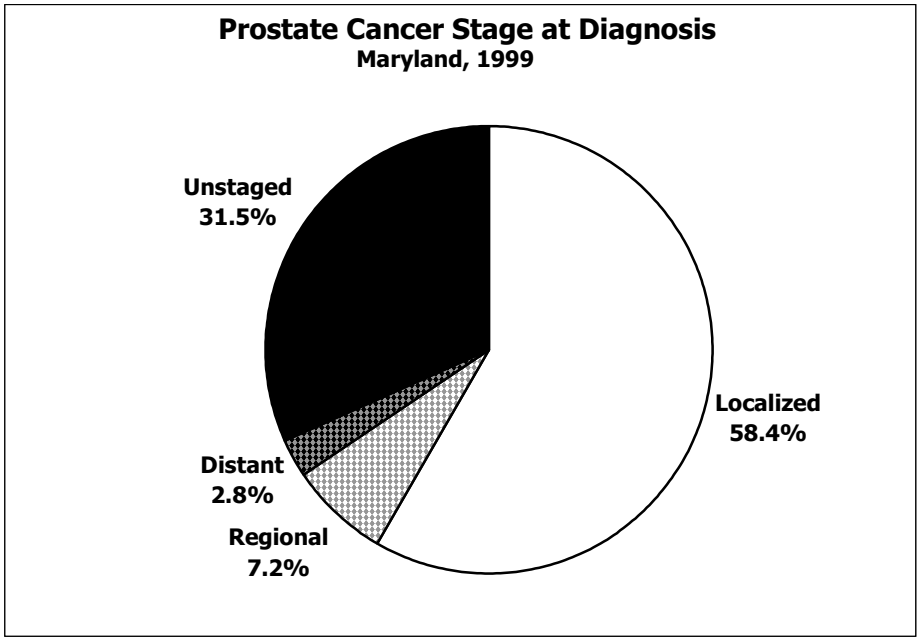


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999

Race-Specific Rates

The prostate cancer incidence rate for black men was statistically significantly higher than for white men in 1999.

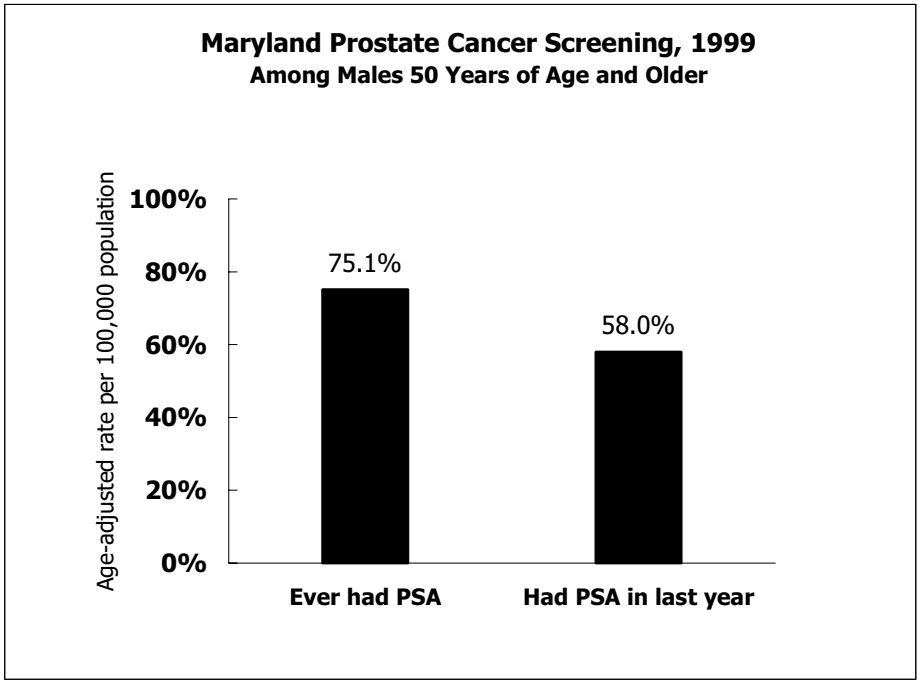
The 1999 prostate cancer mortality rate for black men was statistically significantly higher than the corresponding rate for white men. In fact, the prostate cancer mortality rate was more than twice as high among black men than among white men.



Maryland Cancer Registry, 1999

Stage at Diagnosis

During 1999, 58.4% of prostate cancer cases were diagnosed at the localized (early) stage in Maryland.



No comparable national data are available
There are no Healthy People 2010 prostate cancer screening guidelines
Office of Public Health Assessment, BRFSS, 1999

Healthy People 2010 Objectives

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

In 1999, 75.1% of Maryland men 50 years of age and older reported that they have *ever* had a prostate specific antigen (PSA) test, and 58.0% of men 50 years and older had a PSA in the past year. This rate is higher than the 1996 rates for these two measures of 66.2% and 52.1%, respectively.

Public Health Evidence (from National Cancer Institute, PDQ, 6/2002)

Screening

Digital rectal examination (DRE) and the serum prostate specific antigen (PSA) test are two commonly used methods of detecting prostate cancer. There is insufficient evidence to establish whether a decrease in mortality from prostate cancer occurs with screening by DRE or PSA. Clinical trials investigating the benefit of DRE and PSA are underway. While some observational studies of cohorts of men among whom prostate cancer screening was performed have witnessed a decline in prostate cancer mortality, these observations have not been consistent in all populations or within a given population.

Primary Prevention

A diet high in fat, especially animal fat, may increase the risk of prostate cancer. It is not known whether modifying one's diet by eating a low fat, plant-based diet will reduce prostate cancer risk.

Chemoprevention

Several agents such as alpha-tocopherol (vitamin E) and selenium may reduce the risk of prostate cancer, but studies have been inconsistent. These and other agents such as lycopene, difluoromethylornithine (DFMO), isoflavonoids, and vitamin D are being studied.

Public Health Intervention for Prostate Cancer (NEJM 2001; 344:1376 and DHMH Prostate Cancer Medical Advisory Committee)
ü On the basis of available data, men should be made aware of the availability of the PSA and DRE tests and their potential risks and benefits, in order to make an informed choice about screening

Table 39.
Number of Prostate Cancer Cases
by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	3,869	2,556	904	79	330
Allegany	78	s	<6	<6	0
Anne Arundel	317	241	51	<6	s
Baltimore City	557	190	319	<6	s
Baltimore County	698	554	75	<6	s
Calvert	50	37	6	<6	s
Caroline	20	14	6	0	0
Carroll	121	108	<6	<6	10
Cecil	70	55	<6	0	s
Charles	86	56	19	s	<6
Dorchester	37	20	s	<6	<6
Frederick	104	71	s	<6	25
Garrett	23	23	0	0	0
Harford	162	130	18	0	14
Howard	129	95	s	<6	18
Kent	18	14	<6	0	<6
Montgomery	614	447	76	37	54
Prince George's	482	173	246	17	46
Queen Anne's	28	25	<6	0	<6
St Mary's	41	31	s	<6	<6
Somerset	18	11	7	0	0
Talbot	38	31	s	0	<6
Washington	85	s	<6	0	0
Wicomico	51	33	s	<6	0
Worcester	42	39	<6	<6	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, 1999

Table 40.
Prostate Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	185.3	157.4	226.8	118.8
Allegany	192.2	191.7	**	**
Anne Arundel	168.8	149.8	207.6	**
Baltimore City	216.8	168.8	236.7	**
Baltimore County	186.9	163.0	253.2	**
Calvert	188.0	178.6	**	**
Caroline	**	**	**	0.0
Carroll	210.6	195.8	**	**
Cecil	207.6	173.1	**	0.0
Charles	237.4	217.9	**	**
Dorchester	216.8	**	**	**
Frederick	157.6	114.3	**	**
Garrett	**	**	0.0	0.0
Harford	202.9	180.8	**	0.0
Howard	174.1	151.3	**	**
Kent	**	**	**	0.0
Montgomery	178.1	157.6	289.5	121.1
Prince George's	199.0	129.1	257.0	**
Queen Anne's	142.0	**	**	0.0
Saint Mary's	127.3	120.1	**	**
Somerset	**	**	**	0.0
Talbot	167.9	174.8	**	0.0
Washington	136.9	136.5	**	0.0
Wicomico	149.4	131.3	**	**
Worcester	147.2	172.8	**	**

* 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, 1999

Table 41.
Number of Prostate Cancer Deaths
by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	574	380	188	6
Allegany	7	7	0	0
Anne Arundel	35	28	s	<6
Baltimore City	121	43	78	0
Baltimore County	88	71	17	0
Calvert	10	s	<6	0
Caroline	<6	<6	<6	0
Carroll	14	s	<6	0
Cecil	13	s	<6	0
Charles	8	<6	<6	0
Dorchester	11	s	<6	0
Frederick	14	s	<6	0
Garrett	<6	<6	0	0
Harford	23	s	<6	0
Howard	16	s	<6	0
Kent	<6	<6	<6	0
Montgomery	77	63	s	<6
Prince George's	71	s	38	<6
Queen Anne's	<6	<6	<6	0
Saint Mary's	9	s	<6	0
Somerset	<6	<6	<6	0
Talbot	7	s	<6	0
Washington	11	11	0	0
Wicomico	13	s	<6	0
Worcester	9	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, 1999

Table 42.
Prostate Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	34.1	28.1	67.4	**
Allegany	**	**	0.0	0.0
Anne Arundel	25.8	24.2	**	**
Baltimore City	54.3	37.4	77.4	0.0
Baltimore County	27.7	24.4	**	0.0
Calvert	**	**	**	0.0
Caroline	**	**	**	0.0
Carroll	**	**	**	0.0
Cecil	**	**	**	0.0
Charles	**	**	**	0.0
Dorchester	**	**	**	0.0
Frederick	**	**	**	0.0
Garrett	**	**	0.0	0.0
Harford	**	**	**	0.0
Howard	**	**	**	0.0
Kent	**	**	**	0.0
Montgomery	27.1	25.5	**	**
Prince George's	42.8	31.7	70.5	**
Queen Anne's	**	**	**	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, 1999

Table 43.
Number of Prostate Cancer Cases
by Jurisdiction and Race, Maryland, 1995-1999

Jurisdiction	Total	Race			
		Whites	Blacks	Others	Unknown
Maryland	19,003	12,483	4,739	375	1,406
Allegany	354	340	8	<6	<6
Anne Arundel	1,557	1,213	213	26	105
Baltimore City	2,876	1,013	1,657	28	178
Baltimore County	3,247	2,515	474	33	225
Calvert	217	154	38	<6	s
Caroline	119	90	27	<6	<6
Carroll	560	492	s	<6	51
Cecil	275	225	s	<6	31
Charles	393	264	104	13	12
Dorchester	154	93	56	<6	<6
Frederick	555	403	39	6	107
Garrett	96	s	0	0	<6
Harford	736	604	69	8	55
Howard	566	402	89	9	66
Kent	91	59	18	<6	s
Montgomery	3,087	2,342	372	141	232
Prince George's	2,468	894	1,289	71	214
Queen Anne's	145	116	23	<6	<6
Saint Mary's	197	145	44	<6	<6
Somerset	82	52	30	0	0
Talbot	229	187	33	<6	s
Washington	423	391	s	<6	16
Wicomico	262	182	68	6	6
Worcester	215	174	33	<6	s
Unknown	99	38	12	9	40

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, 1995-1999

Table 44.
Prostate Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 1995-1999

Jurisdiction	Total	Race		
		Whites	Blacks	Others
Maryland	189.3	158.4	255.0	137.4
Allegany	170.0	166.6	**	**
Anne Arundel	177.6	161.4	193.9	164.2
Baltimore City	214.7	164.1	238.7	201.7
Baltimore County	179.2	152.0	360.6	100.3
Calvert	174.5	159.6	147.8	**
Caroline	171.2	160.0	198.2	**
Carroll	210.4	191.7	**	**
Cecil	174.2	151.7	**	**
Charles	247.6	223.3	278.1	**
Dorchester	179.5	146.4	251.3	**
Frederick	181.1	139.7	212.8	**
Garrett	128.1	127.7	0.0	0.0
Harford	198.5	178.2	254.3	**
Howard	171.0	145.1	210.4	**
Kent	152.7	128.0	**	**
Montgomery	189.3	171.1	305.5	114.5
Prince George's	217.9	137.2	320.3	131.4
Queen Anne's	144.0	137.2	**	**
Saint Mary's	131.1	119.8	173.6	**
Somerset	132.7	124.6	156.5	0.0
Talbot	211.2	214.9	168.6	**
Washington	141.4	134.6	**	**
Wicomico	159.9	145.2	189.4	**
Worcester	163.4	167.9	123.8	**

* 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, 1995-1999

Table 45.
Number of Prostate Cancer Deaths
by Jurisdiction and Race, Maryland, 1995-1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	3,049	2,001	1,023	25
Allegany	45	45	0	0
Anne Arundel	211	173	s	<6
Baltimore City	668	s	471	<6
Baltimore County	496	421	75	0
Calvert	32	23	9	0
Caroline	21	s	<6	0
Carroll	78	72	6	0
Cecil	59	52	7	0
Charles	59	40	19	0
Dorchester	38	24	14	0
Frederick	76	67	s	<6
Garrett	18	18	0	0
Harford	112	97	15	0
Howard	90	65	s	<6
Kent	18	11	7	0
Montgomery	379	317	52	10
Prince George's	363	s	204	<6
Queen Anne's	21	14	7	0
Saint Mary's	40	29	11	0
Somerset	20	8	12	0
Talbot	33	28	<6	<6
Washington	79	73	6	0
Wicomico	50	32	s	<6
Worcester	43	25	18	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, 1995-1999

Table 46.
Prostate Cancer Age-Adjusted Mortality Rates* by Jurisdiction and Race, Maryland, 1995-1999

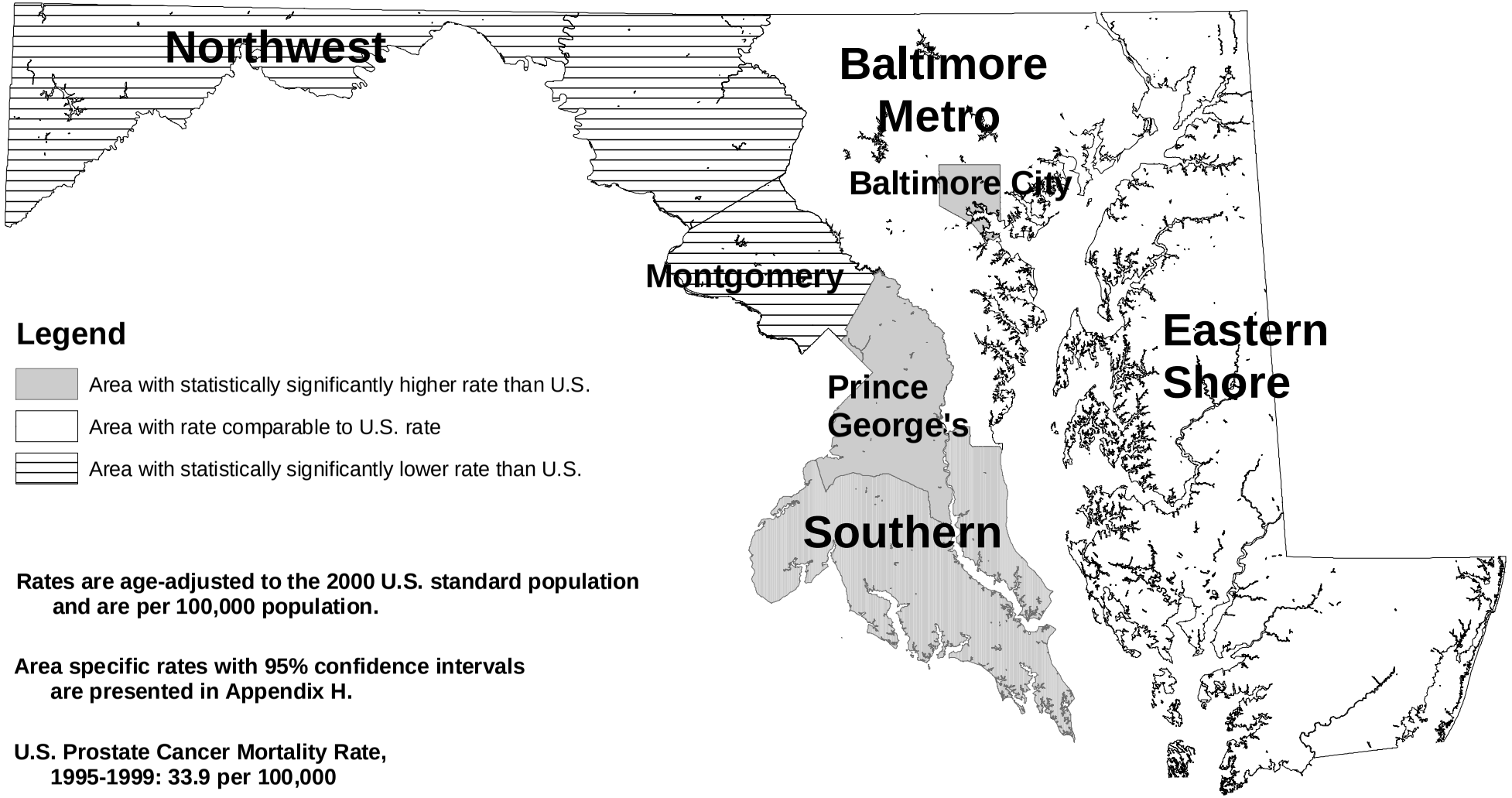
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	38.2	31.1	78.5	**
Allegany	24.3	24.8	0.0	0.0
Anne Arundel	34.3	32.6	42.8	**
Baltimore City	57.7	32.3	90.0	**
Baltimore County	32.4	29.8	79.5	0.0
Calvert	36.9	**	**	0.0
Caroline	**	**	**	0.0
Carroll	34.5	33.7	**	0.0
Cecil	49.1	45.8	**	0.0
Charles	56.5	52.4	**	0.0
Dorchester	48.9	**	**	0.0
Frederick	28.9	27.4	**	**
Garrett	**	**	0.0	0.0
Harford	39.4	37.4	**	0.0
Howard	40.5	34.9	**	**
Kent	**	**	**	0.0
Montgomery	29.6	28.1	72.8	**
Prince George's	47.2	33.0	88.5	**
Queen Anne's	**	**	**	0.0
Saint Mary's	32.6	28.1	**	0.0
Somerset	**	**	**	0.0
Talbot	31.9	33.6	**	**
Washington	30.6	29.1	**	0.0
Wicomico	36.9	30.6	**	**
Worcester	36.3	**	**	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, 1995-1999

Maryland Prostate Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1995-1999



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, 1995-1999: 33.9 per 100,000

Source: Maryland Division of Health Statistics, 1995-1999

E. Oral Cancer

Incidence (New Cases)

A total of 539 cases of oral cavity and pharynx cancer (called oral cancer) were diagnosed in Maryland in 1999. The age-adjusted incidence rate for oral cancer in Maryland in 1999 is 10.9 per 100,000 population (10.0-11.9, 95% C.I.) which is similar to the 1999 SEER age-adjusted oral cancer incidence rate of 10.3 per 100,000 population.

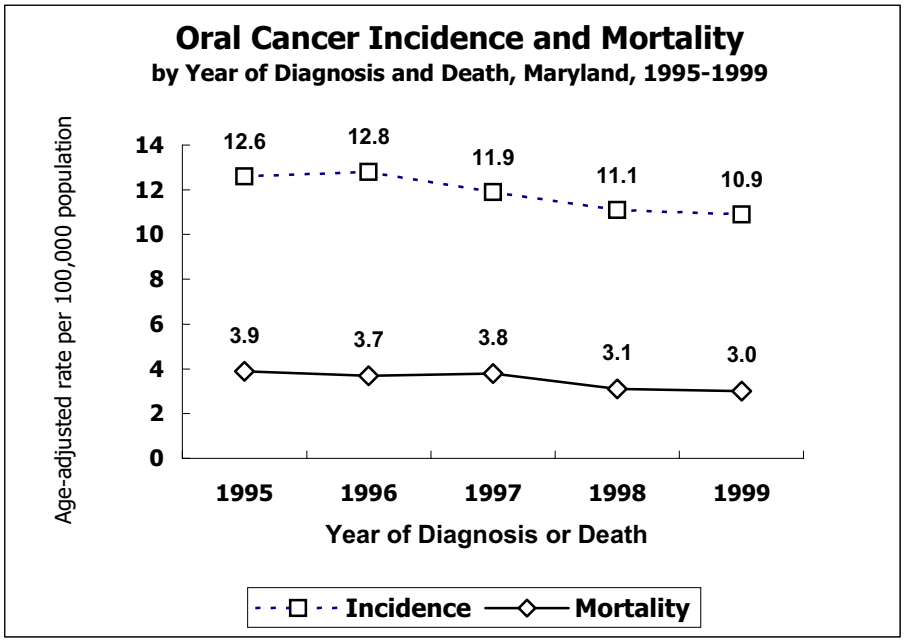
Mortality (Deaths)

In 1999, 144 persons in Maryland died of oral cancer. The age-adjusted mortality rate of 3.0 per 100,000 population (2.5-3.5, 95% C.I.) in Maryland is similar to the 1999 U.S. oral cancer mortality rate. Maryland ranks 8th highest for oral cancer mortality among the states and the District of Columbia.

Table 47.
Oral Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 1999

Incidence 1999	*Total*	*Males*	*Females*	*Whites*	*Blacks*
New Cases (#)	539	372	167	381	132
Incidence Rate*	10.9	16.5	6.2	10.4	11.7
U.S. SEER Rate*	10.3	15.2	6.3	10.1	11.8
Mortality 1999	*Total*	*Males*	*Females*	*Whites*	*Blacks*
MD Deaths (#)	144	98	46	100	43
MD Mortality Rate*	3.0	4.7	1.7	2.7	4.1
U.S. Mortality Rate*	2.8	4.2	1.6	2.6	4.4

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
Source: Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999
SEER, National Cancer Institute, 1999

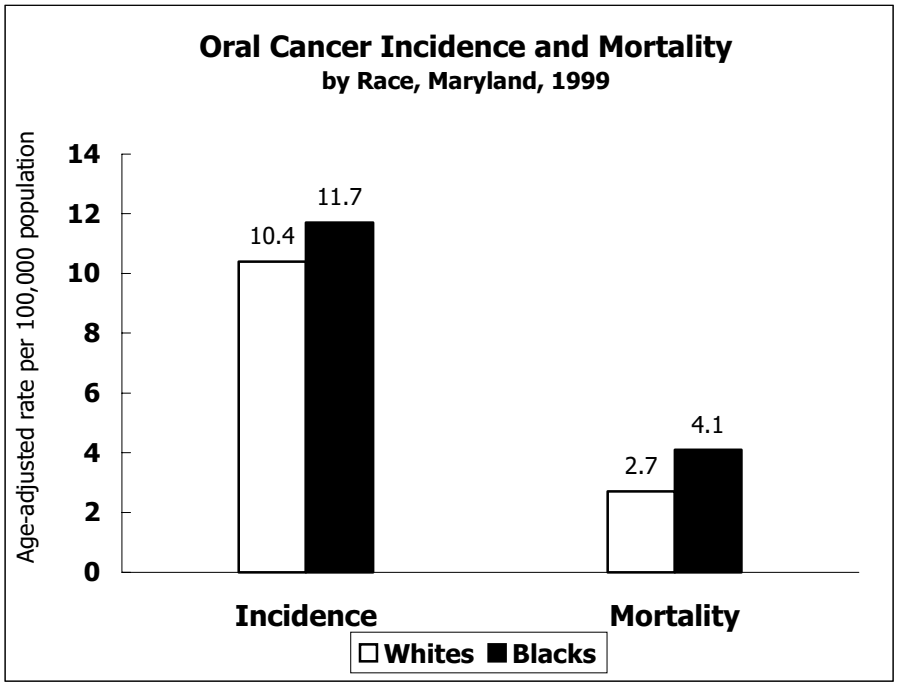


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1995-1999
Maryland Division of Health Statistics, 1995-1999

Trends

The incidence of oral cancer has decreased an average of 3.3% per year from 1995 to 1999 in Maryland.

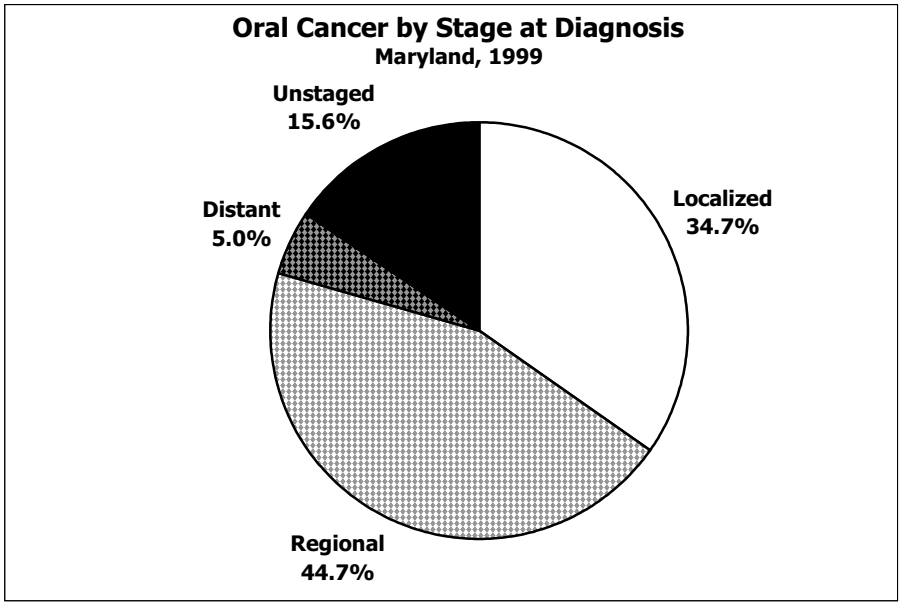
Mortality rates for oral cancer overall declined an average of 7.6% per year from 1995 to 1999.



Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999

Race-Specific Rates

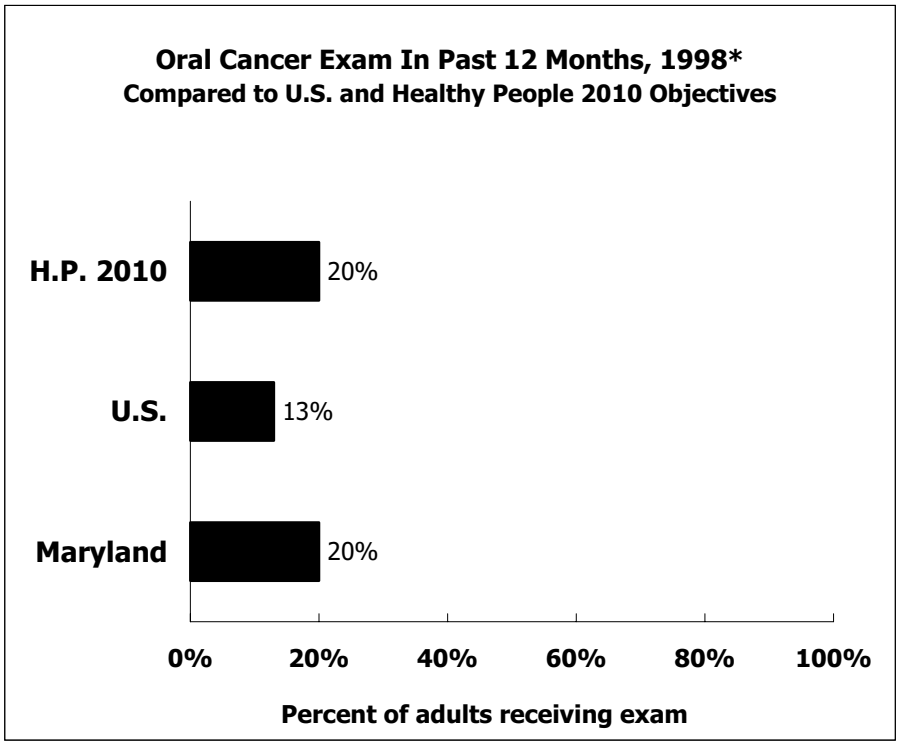
Incidence and mortality rates for oral cancer for blacks and whites were not statistically significantly different.



Maryland Cancer Registry, 1999

Stage at Diagnosis

Of the 539 cases of oral cancer in 1999, 34.7% were diagnosed at the localized (early) stage.



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 National Institute of Dental Research survey in 1998, 20% of persons 40 years of age and older in Maryland reported that they had an oral cancer exam in the past year.

* Adults 40 years of age and older

Horowitz, AM, et al. Maryland Adults' Knowledge of Oral Cancer and Having Oral Cancer Examinations, Journal of Public Health Dentistry, Vol. 58, No. 4, Fall 1998
National Health Interview Survey, 1998
Healthy People 2010, U.S. Department of Health and Human Services, 2000

Public Health Evidence (from National Cancer Institute, PDQ, 6/2002)

Primary Prevention

There is extensive evidence that tobacco use (including cigarettes, cigars, pipes, and smokeless or spit tobacco) causes oral cancer. Tobacco use 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 is associated with an increased risk.

Avoiding or stopping smoking and the use of other tobacco products will decrease the risk 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 non-smoker risk noted after 10 years of cessation. There is evidence that a diet high in fruits and fiber is associated with a decreased risk of oral cancer, particularly among smokers.

Screening

Oral cancer occurs in a region of the body that is generally accessible to physical examination by the patient, dentist, and physician. Screening involves inspecting the floor of the mouth, the ventrolateral aspect of the tongue, the soft palate complex, and the face, head and neck, lips, labial and buccal mucosa, and gingival tissue.

There is insufficient evidence to establish that screening would result in a decrease in mortality from oral cancer.

Public Health Intervention for Oral Cancer (DHMH Oral Cancer Medical Advisory Committee)
ü Avoidance and cessation of tobacco use ü Avoidance and reduction of alcohol consumption ü Use of sun block lip balm ü 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, 1999

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	539	372	167	381	132	19	7
Allegany	12	s	<6	12	0	0	0
Anne Arundel	47	35	12	42	<6	0	<6
Baltimore City	86	64	22	s	60	<6	<6
Baltimore County	93	60	33	76	s	<6	0
Calvert	6	<6	<6	6	0	0	0
Caroline	<6	<6	<6	<6	0	0	0
Carroll	18	s	<6	18	0	0	0
Cecil	8	s	<6	8	0	0	0
Charles	10	s	<6	s	0	<6	0
Dorchester	6	<6	<6	<6	<6	0	0
Frederick	16	s	<6	s	<6	0	0
Garrett	<6	<6	0	<6	0	0	0
Harford	21	s	<6	s	<6	0	0
Howard	17	11	6	12	<6	<6	0
Kent	<6	<6	<6	<6	0	0	0
Montgomery	59	33	26	46	<6	<6	<6
Prince George's	74	46	28	30	38	<6	<6
Queen Anne's	8	s	<6	8	0	0	0
St Mary's	8	s	<6	s	0	<6	0
Somerset	<6	<6	0	<6	0	0	0
Talbot	<6	<6	<6	<6	0	0	0
Washington	11	s	<6	11	0	0	0
Wicomico	17	s	<6	11	6	0	0
Worcester	10	s	<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, 1999

Table 49.
Oral Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	10.9	16.5	6.2	10.4	11.7	10.0
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	10.8	17.0	**	11.6	**	0.0
Baltimore City	14.1	23.9	**	**	15.6	**
Baltimore County	11.2	16.5	7.1	10.4	**	**
Calvert	**	**	**	**	0.0	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	**	**	**	**	0.0	0.0
Cecil	**	**	**	**	0.0	0.0
Charles	**	**	**	**	0.0	**
Dorchester	**	**	**	**	**	0.0
Frederick	**	**	**	**	**	0.0
Garrett	**	**	0.0	**	0.0	0.0
Harford	**	**	**	**	**	0.0
Howard	**	**	**	**	**	**
Kent	**	**	**	**	0.0	0.0
Montgomery	7.3	9.2	5.7	7.1	**	**
Prince George's	11.7	15.0	8.6	10.0	13.7	**
Queen Anne's	**	**	**	**	0.0	0.0
Saint Mary's	**	**	**	**	0.0	**
Somerset	**	**	0.0	**	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 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, 1999

Table 50.
Number of Oral Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	144	98	46	100	s	<6
Allegany	<6	<6	<6	<6	0	0
Anne Arundel	8	<6	<6	8	0	0
Baltimore City	30	22	8	13	17	0
Baltimore County	26	16	10	s	<6	0
Calvert	<6	<6	0	<6	0	0
Caroline	0	0	0	0	0	0
Carroll	<6	<6	<6	<6	0	0
Cecil	<6	<6	0	<6	<6	0
Charles	7	<6	<6	<6	<6	0
Dorchester	<6	<6	0	0	<6	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	0	0
Montgomery	14	7	7	s	<6	0
Prince George's	20	s	<6	9	11	0
Queen Anne's	<6	<6	<6	<6	0	0
Saint Mary's	<6	<6	0	<6	<6	0
Somerset	<6	<6	0	<6	0	0
Talbot	<6	<6	<6	<6	0	0
Washington	<6	<6	<6	<6	0	0
Wicomico	<6	0	<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, 1999

Table 51.
Oral Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	3.0	4.7	1.7	2.7	4.1	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	**	**	**	**	0.0	0.0
Baltimore City	5.0	**	**	**	**	0.0
Baltimore County	3.1	**	**	**	**	0.0
Calvert	**	**	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
Charles	**	**	**	**	**	0.0
Dorchester	**	**	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	0.0
Montgomery	**	**	**	**	**	0.0
Prince George's	**	**	**	**	**	0.0
Queen Anne's	**	**	**	**	0.0	0.0
Saint Mary's	**	**	0.0	**	**	0.0
Somerset	**	**	0.0	**	0.0	0.0
Talbot	**	**	**	**	0.0	0.0
Washington	**	**	**	**	0.0	0.0
Wicomico	**	0.0	**	**	0.0	0.0
Worcester	**	**	0.0	**	0.0	0.0

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

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

Source: Maryland Division of Health Statistics, 1999

Table 52.
Number of Oral Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 1995-1999

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	2,825	1,918	907	2,024	666	76	59
Allegany	54	40	14	s	<6	0	0
Anne Arundel	257	179	78	207	42	<6	<6
Baltimore City	503	364	139	192	302	<6	<6
Baltimore County	473	307	166	392	60	9	12
Calvert	40	24	16	32	s	0	<6
Caroline	19	s	<6	s	<6	0	0
Carroll	72	59	13	s	0	0	<6
Cecil	49	37	12	47	0	<6	<6
Charles	55	36	19	45	s	<6	0
Dorchester	26	17	9	22	<6	<6	0
Frederick	78	52	26	73	<6	<6	<6
Garrett	11	s	<6	s	0	0	<6
Harford	106	68	38	97	6	<6	<6
Howard	79	48	31	59	11	s	<6
Kent	16	s	<6	14	<6	<6	0
Montgomery	343	197	146	263	34	31	15
Prince George's	332	224	108	166	151	8	7
Queen Anne's	29	18	11	s	<6	0	0
Saint Mary's	49	40	9	35	12	<6	<6
Somerset	15	s	<6	12	<6	0	<6
Talbot	40	30	10	s	<6	0	0
Washington	78	54	24	73	<6	0	<6
Wicomico	45	34	11	35	s	<6	0
Worcester	47	38	9	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, 1995-1999

Table 53.
Oral Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1995-1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	11.8	18.0	6.9	11.2	12.8	8.9
Allegany	11.8	20.2	**	11.7	**	0.0
Anne Arundel	12.4	19.0	7.1	11.9	15.4	**
Baltimore City	15.9	26.9	7.5	14.9	16.1	**
Baltimore County	11.7	17.4	7.3	10.9	17.2	**
Calvert	14.1	**	**	14.4	**	0.0
Caroline	**	**	**	**	**	0.0
Carroll	11.1	20.1	**	11.4	0.0	0.0
Cecil	13.7	21.9	**	14.0	0.0	**
Charles	12.5	16.7	**	13.8	**	**
Dorchester	14.8	**	**	**	**	**
Frederick	10.4	15.1	6.3	10.5	**	**
Garrett	**	**	**	**	0.0	0.0
Harford	11.6	15.8	8.2	12.0	**	**
Howard	9.3	12.5	6.8	8.8	**	**
Kent	**	**	**	**	**	**
Montgomery	8.7	11.4	6.6	8.2	9.0	7.6
Prince George's	11.1	16.3	6.7	10.9	12.0	**
Queen Anne's	14.0	**	**	15.8	**	0.0
Saint Mary's	15.0	26.2	**	13.1	**	**
Somerset	**	**	**	**	**	0.0
Talbot	17.3	29.3	**	20.2	**	0.0
Washington	11.4	17.9	**	11.1	**	0.0
Wicomico	11.4	19.6	**	11.6	**	**
Worcester	16.4	29.4	**	18.0	**	0.0

* Rates are per 100,00 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, 1995-1999

Table 54.
Number of Oral Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 1995-1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	805	543	262	553	240	12
Allegany	18	12	6	s	<6	0
Anne Arundel	60	44	16	52	8	0
Baltimore City	183	138	45	s	109	<6
Baltimore County	125	72	53	112	13	0
Calvert	10	s	<6	<6	<6	0
Caroline	6	6	0	<6	<6	0
Carroll	13	s	<6	13	0	0
Cecil	15	s	<6	s	<6	0
Charles	23	15	8	13	10	0
Dorchester	<6	<6	0	<6	<6	0
Frederick	22	13	9	s	<6	0
Garrett	<6	<6	<6	<6	0	0
Harford	27	17	10	s	<6	0
Howard	19	8	11	13	<6	<6
Kent	<6	<6	<6	<6	0	0
Montgomery	74	42	32	61	s	<6
Prince George's	117	85	32	57	s	<6
Queen Anne's	9	<6	<6	s	<6	0
Saint Mary's	11	s	<6	s	<6	0
Somerset	<6	<6	0	<6	<6	0
Talbot	13	s	<6	s	<6	0
Washington	22	14	8	s	<6	0
Wicomico	12	s	<6	s	<6	0
Worcester	10	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, 1995-1999

Table 55.
Oral Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1995-1999

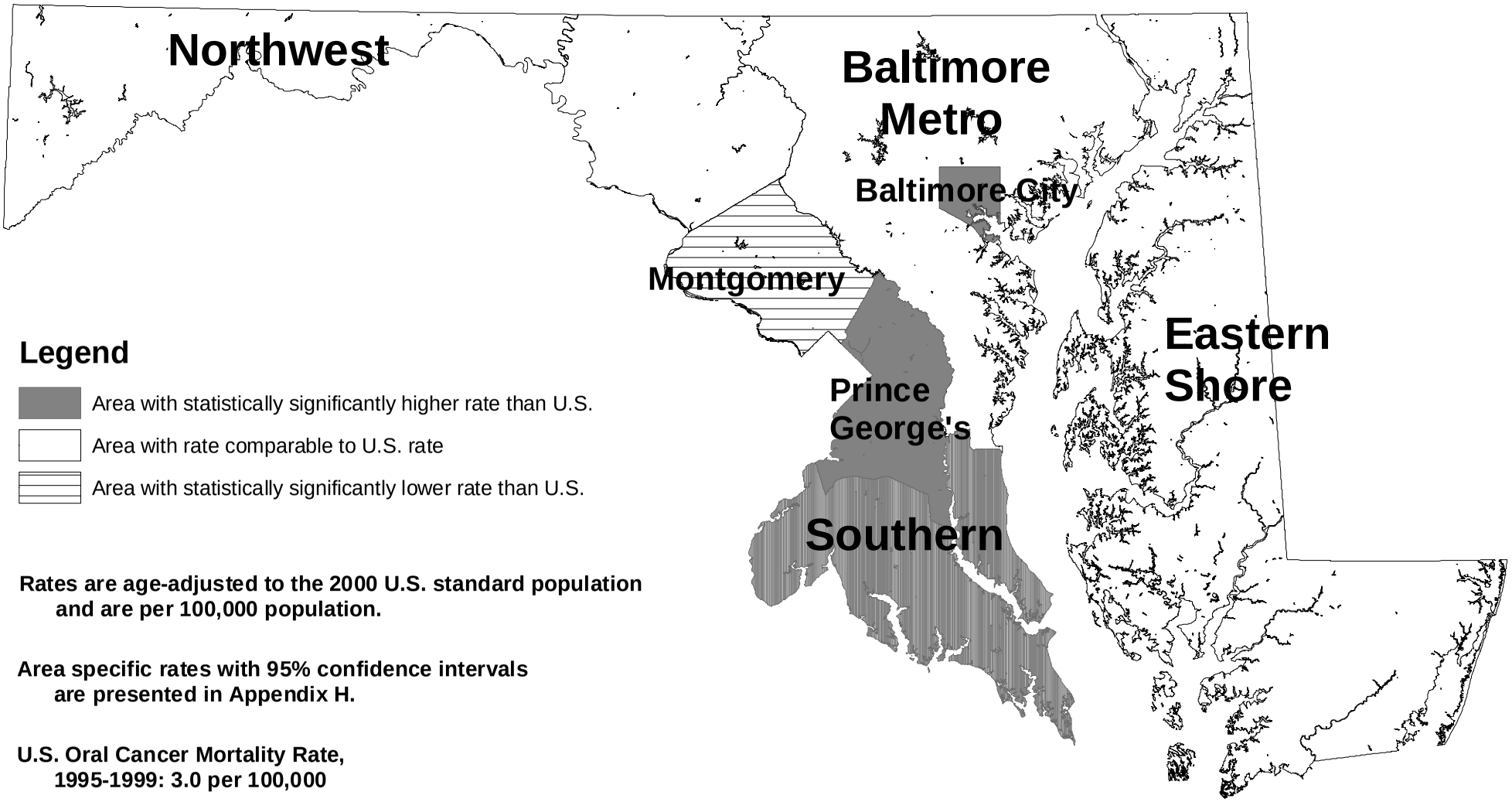
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	3.5	5.5	2.0	3.1	5.0	**
Allegany	**	**	**	**	**	0.0
Anne Arundel	3.3	5.7	**	3.4	**	0.0
Baltimore City	5.7	10.6	2.3	4.9	6.1	**
Baltimore County	3.0	4.3	2.2	3.0	**	0.0
Calvert	**	**	**	**	**	0.0
Caroline	**	**	0.0	**	**	0.0
Carroll	**	**	**	**	0.0	0.0
Cecil	**	**	**	**	**	0.0
Charles	**	**	**	**	**	0.0
Dorchester	**	**	0.0	**	**	0.0
Frederick	**	**	**	**	**	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	3.1	**	**	3.4	**	0.0
Howard	**	**	**	**	**	**
Kent	**	**	**	**	0.0	0.0
Montgomery	2.0	2.8	1.4	1.9	**	**
Prince George's	4.3	6.9	2.2	3.7	4.9	**
Queen Anne's	**	**	**	**	**	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, 1995-1999

Maryland Oral Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1995-1999



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, 1995-1999: 3.0 per 100,000

Source: Maryland Division of Health Statistics, 1995-1999

F. Melanoma of the Skin

Incidence (New Cases)

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).

In 1999, a total of 884 persons in Maryland were diagnosed with melanoma of the skin. The age-adjusted incidence rate for melanoma for 1999 is 17.5 per 100,000 population (16.4-18.7, 95% C.I.). The Maryland rate is similar to the 1999 U.S. SEER age-adjusted incidence rate of 17.4 per 100,000 population for melanoma.

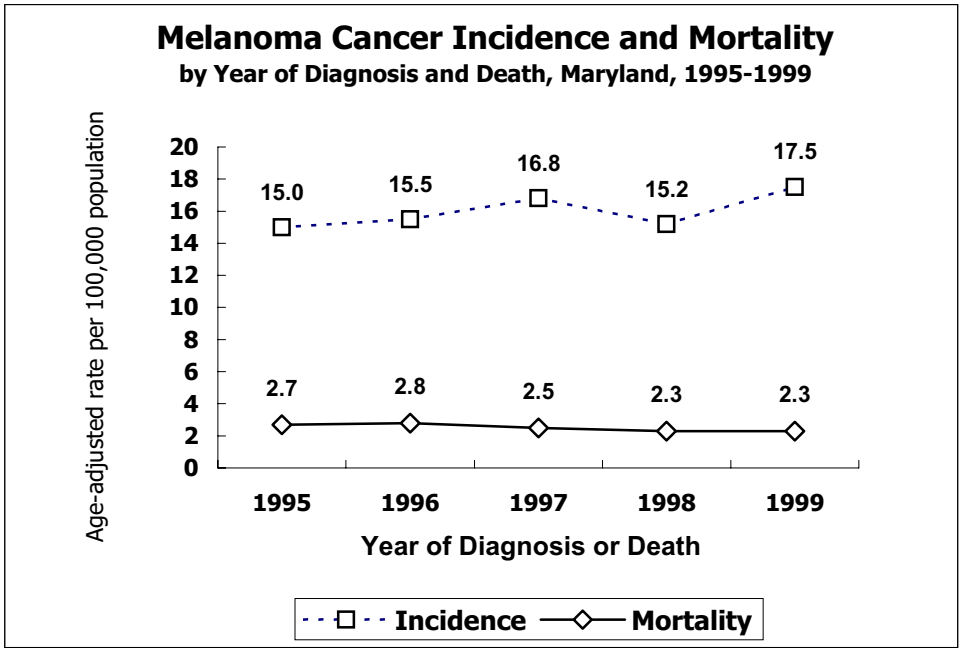
Mortality (Deaths)

In 1999, a total of 112 persons died of melanoma in Maryland. The age-adjusted mortality rate for melanoma in Maryland is 2.3 per 100,000 population (1.9-2.8, 95% C.I.). This rate is similar to the 1999 U.S. melanoma mortality rate of 2.7 per 100,000 population. Maryland is ranked 42nd for melanoma mortality among the states and the District of Columbia.

Table 56.
Melanoma Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 1999

Incidence 1999	*Total*	*Males*	*Females*	*Whites*	*Blacks*
New Cases (#)	884	487	397	858	16
Incidence Rate*	17.5	22.1	14.5	23.3	**
U.S. SEER Rate*	17.4	21.7	14.2	20.1	1.2
Mortality 1999	*Total*	*Males*	*Females*	*Whites*	*Blacks*
MD Deaths (#)	112	67	45	s	<6
MD Mortality Rate*	2.3	3.3	1.7	3.0	**
U.S. Mortality Rate*	2.7	3.8	1.8	3.0	0.4

* 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
s=Number was suppressed to ensure confidentiality of cell in other column
Source: Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999
SEER, National Cancer Institute, 1999

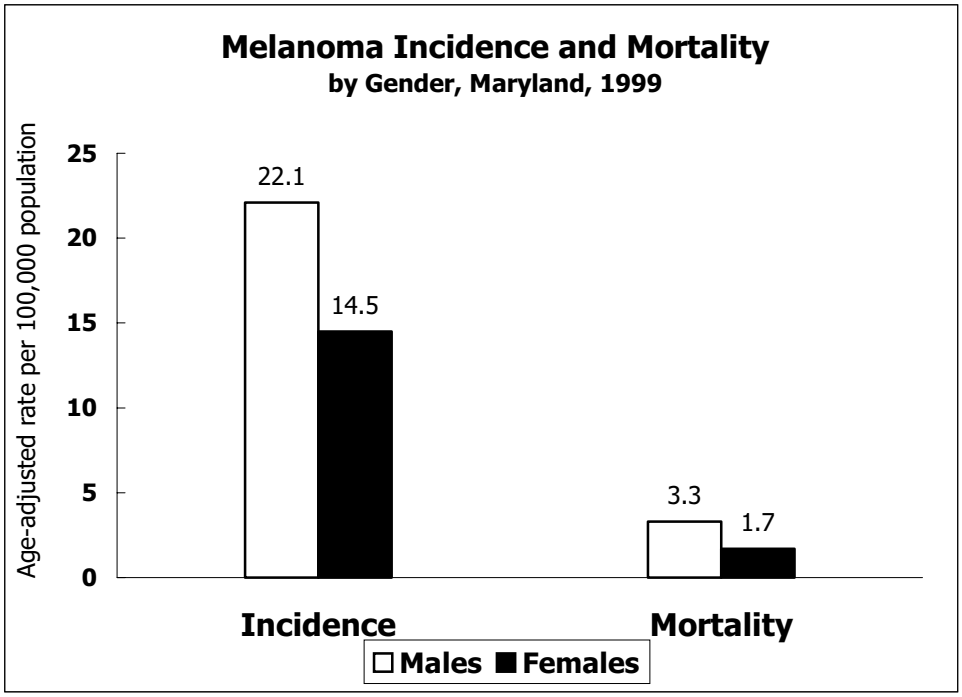


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1995-1999
Maryland Division of Health Statistics, 1995-1999

Trend

Melanoma incidence rates have increased an average of 3.9% per year from 1995 to 1999 in Maryland.

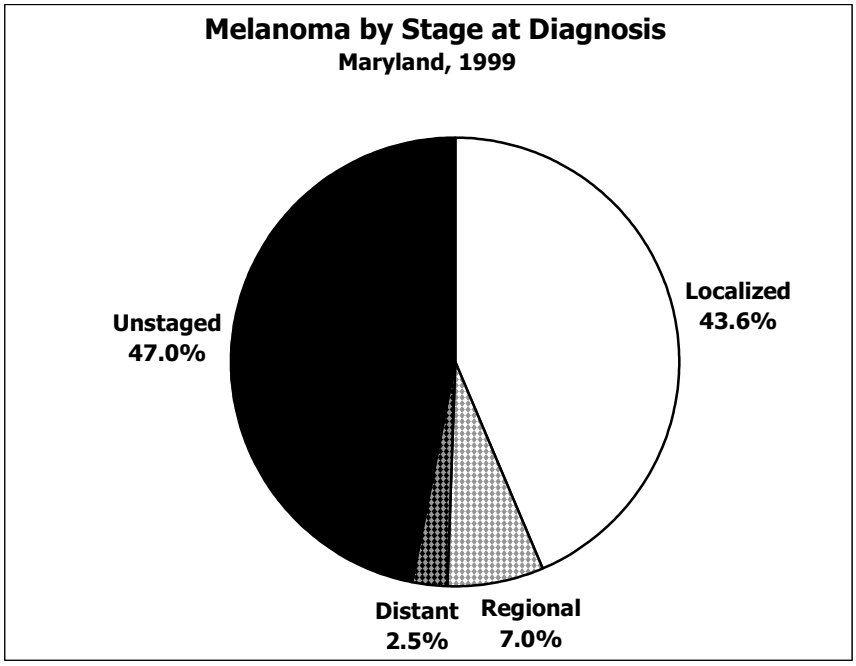
Melanoma mortality rates dropped an average of 4.2% per year in Maryland from 1995 to 1999.



Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999

Gender-Specific Rates

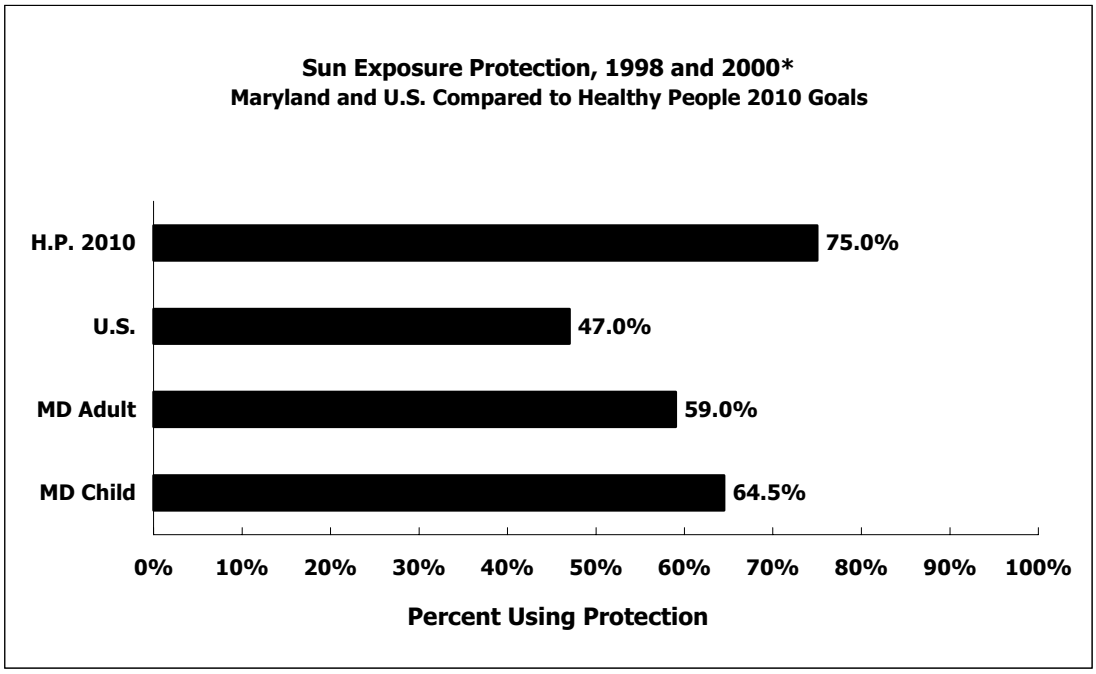
Males had statistically significantly higher incidence and mortality rates for melanoma than females. The mortality rate was nearly twice as high for males than for females.



Maryland Cancer Registry, 1999

Stage at Diagnosis

Of the 884 melanoma cases diagnosed in 1999, 43.6% were detected at the localized (early) stage. This present figure may be underrepresented due to the high percent of unstaged melanoma (47.0%).



*Adult 18 years of age or older; Maryland child under the age of 13 years
Maryland Office of Public Health Assessment, BRFSS, 1998, 2000
National Health Interview Survey, 1998
Healthy People 2010, U.S. Department of Health and Human Services, 2000

Healthy People 2010 Objectives

The Healthy People 2010 objective is to increase to 75% the percentage of persons 18 and older who use at least one of the following measures that may reduce the risk of skin cancer:

- Á Avoid sun between 10 a.m. and 4 p.m.;
- Á Wear sun-protective clothing when exposed to sunlight;
- Á Use sunscreen with a sun protective factor of 15 or higher; and
- Á Avoid artificial sources of ultraviolet light (e.g., tanning booths).

In 1998, 59% of Maryland adults reported using one or more of the first three measures listed above. In 2000, parents reported that 64.5% of Maryland children under age 13 when outdoors on a sunny day for an hour or more always or nearly always had their skin protected from the sun with protection such as sunscreen or sunblock or wearing hats or protective clothing.

Public Health Evidence (National Cancer Institute, PDQ, 6/2002)

Primary Prevention

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.

Evidence suggests that reduction of exposure to UV radiation will reduce the incidence of non-melanoma skin cancer (basal cell and squamous cell cancer).

Screening

There is insufficient evidence to determine whether a decrease in mortality from melanoma occurs with routine examination of the skin (by self or provider). There is also insufficient evidence to establish whether other theoretical benefits (such as decreased morbidity from less aggressive treatments) or harms associated with incorrect diagnosis occur.

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

Table 57.
Number of Melanoma Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	884	487	397	858	16	10
Allegany	16	8	8	16	0	0
Anne Arundel	96	58	38	s	<6	0
Baltimore City	56	34	22	53	<6	<6
Baltimore County	176	90	86	169	<6	<6
Calvert	16	<6	s	16	0	0
Caroline	<6	<6	<6	<6	0	0
Carroll	33	21	12	33	0	0
Cecil	13	6	7	13	0	0
Charles	20	8	12	s	<6	0
Dorchester	<6	<6	0	<6	0	0
Frederick	42	28	14	s	<6	0
Garrett	<6	<6	<6	<6	0	0
Harford	59	27	32	s	<6	0
Howard	42	28	14	s	<6	0
Kent	<6	<6	<6	<6	0	0
Montgomery	155	89	66	151	<6	<6
Prince George's	35	20	15	s	<6	0
Queen Anne's	8	<6	<6	8	0	0
Saint Mary's	16	11	<6	16	0	0
Somerset	<6	0	<6	<6	0	<6
Talbot	9	<6	<6	9	0	0
Washington	32	14	18	32	0	0
Wicomico	25	15	10	25	0	0
Worcester	18	9	9	s	0	<6
Unknown	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, 1999

Table 58.
Melanoma Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	17.5	22.1	14.5	23.3	**	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	21.3	29.4	15.7	24.8	**	0.0
Baltimore City	8.7	12.9	**	21.8	**	**
Baltimore County	21.7	24.9	19.9	24.3	**	**
Calvert	**	**	**	**	0.0	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	21.6	**	**	22.5	0.0	0.0
Cecil	**	**	**	**	0.0	0.0
Charles	**	**	**	**	**	0.0
Dorchester	**	**	**	**	0.0	0.0
Frederick	24.4	37.1	**	26.0	6.0	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	28.6	28.4	29.0	32.1	**	0.0
Howard	18.9	27.5	12.1	23.2	**	0.0
Kent	**	**	**	**	0.0	0.0
Montgomery	18.3	24.5	14.2	22.9	**	**
Prince George's	5.6	**	**	10.7	**	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	23.4	**	**	24.9	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, 1999

Table 59.
Number of Melanoma Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	112	67	45	s	<6	0
Allegany	<6	0	<6	<6	0	0
Anne Arundel	12	s	<6	s	<6	0
Baltimore City	8	<6	<6	8	0	0
Baltimore County	25	13	12	s	<6	0
Calvert	<6	<6	0	<6	0	0
Caroline	0	0	0	0	0	0
Carroll	6	<6	<6	6	0	0
Cecil	<6	<6	<6	<6	0	0
Charles	<6	<6	<6	<6	0	0
Dorchester	0	0	0	0	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	0	0	0	0	0	0
Montgomery	23	15	8	23	0	0
Prince George's	6	<6	<6	6	0	0
Queen Anne's	<6	<6	<6	<6	0	0
Saint Mary's	<6	<6	0	<6	0	0
Somerset	<6	0	<6	<6	0	0
Talbot	<6	<6	0	<6	0	0
Washington	<6	<6	<6	<6	0	0
Wicomico	<6	<6	<6	<6	0	0
Worcester	<6	0	<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, 1999

Table 60.
Melanoma Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.3	3.3	1.7	3.0	**	0.0
Allegany	**	0.0	**	**	0.0	0.0
Anne Arundel	**	**	**	**	**	0.0
Baltimore City	**	**	**	**	0.0	0.0
Baltimore County	**	**	**	**	**	0.0
Calvert	**	**	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
Charles	**	**	**	**	0.0	0.0
Dorchester	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Montgomery	**	**	**	**	0.0	0.0
Prince George's	**	**	**	**	0.0	0.0
Queen Anne's	**	**	**	**	0.0	0.0
Saint Mary's	**	**	0.0	**	0.0	0.0
Somerset	**	0.0	**	**	0.0	0.0
Talbot	**	**	0.0	**	0.0	0.0
Washington	**	**	**	**	0.0	0.0
Wicomico	**	**	**	**	0.0	0.0
Worcester	**	0.0	**	**	0.0	0.0

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

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

Source: Maryland Division of Health Statistics, 1999

Table 61.
Number of Melanoma Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 1995-1999

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	3,932	2,222	1,709	3,314	50	58	510
Allegany	65	36	29	65	0	0	0
Anne Arundel	469	261	208	342	<6	s	113
Baltimore City	282	159	123	239	s	<6	32
Baltimore County	728	398	330	659	7	10	52
Calvert	49	19	30	39	0	<6	s
Caroline	31	20	11	31	0	0	0
Carroll	165	102	63	146	<6	<6	15
Cecil	78	35	43	74	0	<6	<6
Charles	62	36	26	51	<6	0	s
Dorchester	24	15	9	s	0	0	<6
Frederick	163	105	58	128	<6	0	s
Garrett	22	13	9	s	<6	0	0
Harford	218	109	109	202	<6	0	s
Howard	177	100	77	144	<6	<6	s
Kent	34	19	15	33	<6	0	0
Montgomery	620	368	251	473	<6	s	130
Prince George's	217	120	97	166	s	<6	34
Queen Anne's	44	25	19	s	0	0	<6
Saint Mary's	59	36	23	s	0	0	<6
Somerset	21	9	12	18	0	<6	<6
Talbot	44	22	22	s	0	0	<6
Washington	150	90	60	140	0	0	10
Wicomico	103	55	48	92	<6	<6	7
Worcester	91	60	31	81	0	<6	s
Unknown	16	10	6	10	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, 1995-1999

Table 62.
Melanoma Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1995-1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	16.0	20.8	12.7	18.3	1.0	8.2
Allegany	16.0	19.0	13.7	16.5	0.0	0.0
Anne Arundel	21.3	27.5	17.3	18.4	**	**
Baltimore City	8.6	12.2	6.6	18.2	**	**
Baltimore County	18.4	23.0	15.5	19.3	**	**
Calvert	15.7	**	16.8	15.8	0.0	**
Caroline	20.9	**	**	26.1	0.0	0.0
Carroll	23.4	32.4	16.4	21.7	**	**
Cecil	21.4	21.8	22.4	21.6	0.0	**
Charles	13.2	17.3	10.1	14.8	**	0.0
Dorchester	**	**	**	**	0.0	0.0
Frederick	20.7	30.7	13.3	17.6	**	0.0
Garrett	**	**	**	**	**	0.0
Harford	21.7	22.8	20.7	22.6	**	0.0
Howard	18.0	23.3	14.2	18.3	**	**
Kent	32.8	**	**	42.6	**	0.0
Montgomery	15.2	20.7	11.3	14.6	**	**
Prince George's	7.1	9.4	5.6	10.9	**	**
Queen Anne's	22.2	**	**	22.8	0.0	0.0
Saint Mary's	16.8	20.4	**	19.3	0.0	0.0
Somerset	**	**	**	**	0.0	**
Talbot	21.5	**	**	26.9	0.0	0.0
Washington	22.3	28.7	17.8	21.9	0.0	0.0
Wicomico	26.4	34.1	22.7	31.4	**	**
Worcester	35.3	50.2	23.0	41.1	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, 1995-1999

Table 63.
Number of Melanoma Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 1995-1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	595	370	225	579	s	<6
Allegany	9	<6	<6	9	0	0
Anne Arundel	60	46	14	s	<6	0
Baltimore City	53	26	27	s	<6	0
Baltimore County	120	69	51	s	<6	0
Calvert	11	s	<6	s	<6	0
Caroline	<6	<6	0	<6	0	0
Carroll	28	17	11	28	0	0
Cecil	15	8	7	15	0	0
Charles	9	<6	<6	9	0	0
Dorchester	<6	<6	<6	<6	0	0
Frederick	23	17	6	23	0	0
Garrett	<6	<6	0	<6	0	0
Harford	27	15	12	27	0	0
Howard	30	18	12	30	0	0
Kent	<6	<6	0	<6	0	0
Montgomery	101	66	35	97	<6	<6
Prince George's	35	20	15	s	<6	0
Queen Anne's	7	<6	<6	7	0	0
Saint Mary's	11	s	<6	11	0	0
Somerset	<6	<6	<6	<6	0	0
Talbot	9	s	<6	9	0	0
Washington	11	s	<6	11	0	0
Wicomico	13	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, 1995-1999

Table 64.
Melanoma Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1995-1999

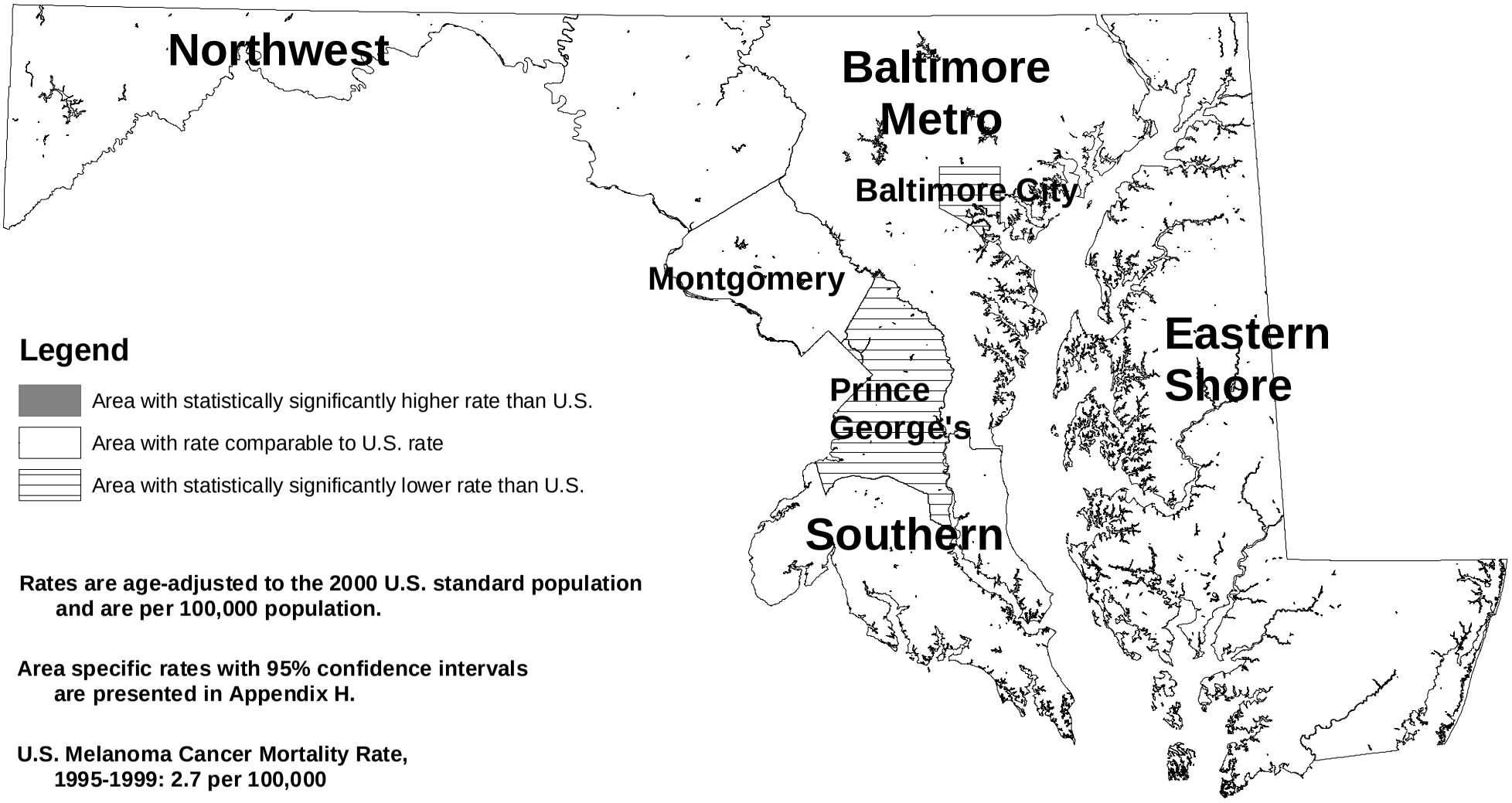
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.5	3.7	1.7	3.2	**	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	2.9	5.0	**	3.3	**	0.0
Baltimore City	1.6	2.0	1.4	3.5	**	0.0
Baltimore County	3.0	4.1	2.2	3.3	**	0.0
Calvert	**	**	**	**	**	0.0
Caroline	**	**	0.0	**	0.0	0.0
Carroll	4.2	**	**	4.3	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
Harford	3.0	**	**	3.3	0.0	0.0
Howard	3.4	**	**	4.1	0.0	0.0
Kent	**	**	0.0	**	0.0	0.0
Montgomery	2.6	4.2	1.5	3.0	**	**
Prince George's	1.3	**	**	2.1	**	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, 1995-1999

Maryland Melanoma Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1995-1999



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, 1995-1999: 2.7 per 100,000

Source: Maryland Division of Health Statistics, 1995-1999

G. Cervical Cancer

Incidence (New Cases)

A total of 226 women in Maryland were diagnosed with cervical cancer in 1999. The age-adjusted incidence rate for cervical cancer in Maryland for 1999 is 8.2 per 100,000 population of women (7.2-9.4, 95% C.I.). This rate is similar to the 1999 U.S. SEER age-adjusted cervical cancer incidence rate of 8.0 per 100,000 population of women.

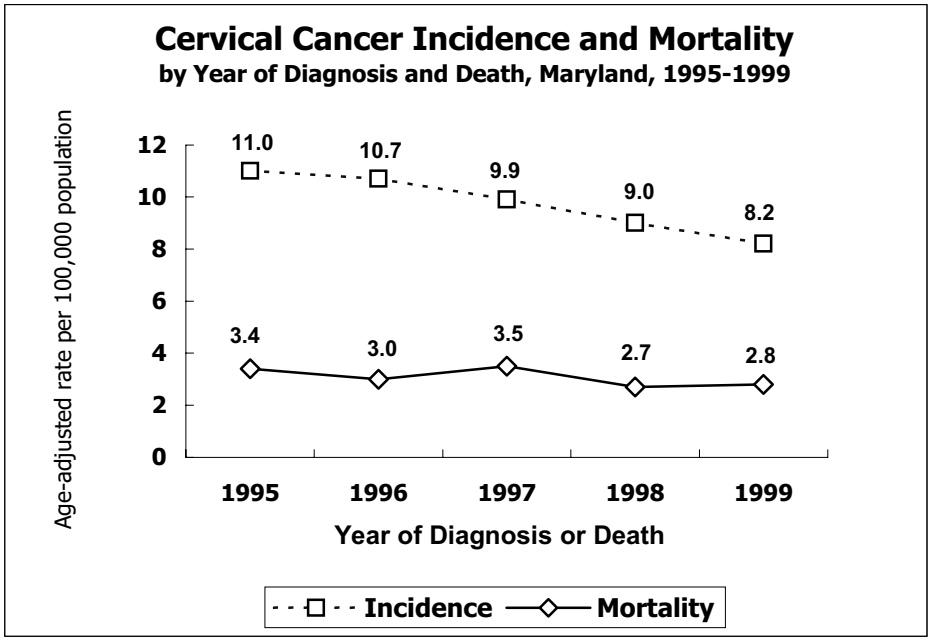
Mortality (Deaths)

In 1999, a total of 77 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 1999 U.S. cervical cancer mortality rate of 2.9 per 100,000 population of women. Maryland women rank 25th highest for cervical cancer mortality rate among the states and the District of Columbia.

Table 65.
Cervical Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 1999

Incidence 1999	*Total*	*Whites*	*Blacks*
New Cases (#)	226	130	73
Incidence Rate*	8.2	6.7	10.8
U.S. SEER Rate*	8.0	7.4	13.3
Mortality 1999	*Total*	*Whites*	*Blacks*
MD Deaths (#)	77	49	26
MD Mortality Rate*	2.8	2.4	4.2
U.S. Mortality Rate*	2.9	2.6	5.5

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
Source: Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999
SEER, National Cancer Institute, 1999

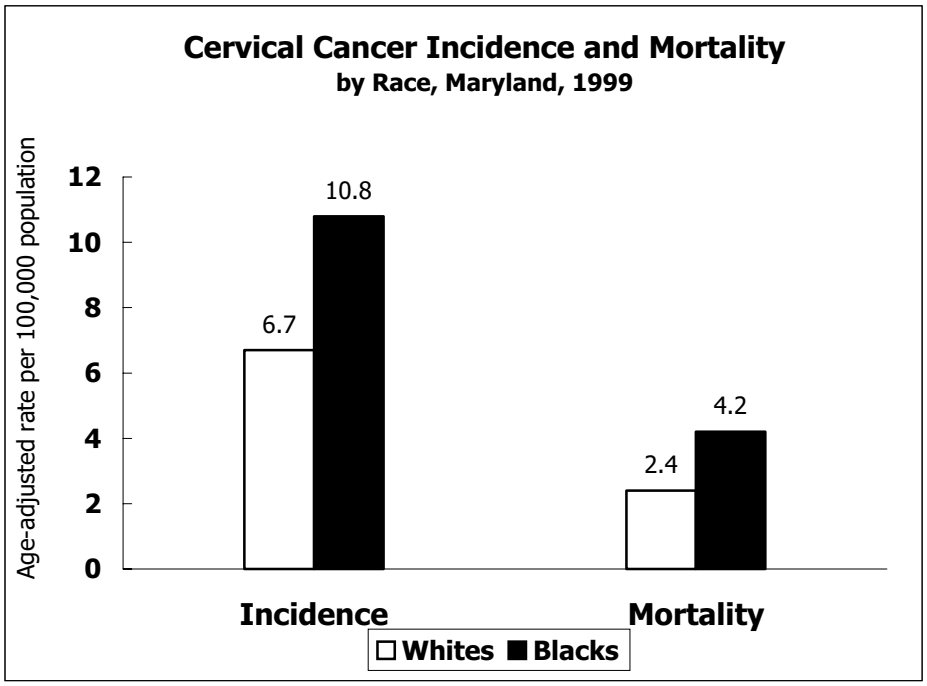


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1995-1999
Maryland Division of Health Statistics, 1995-1999

Trend

Cervical cancer incidence rates have decreased an average of 6.0% per year from 1995 to 1999 in Maryland.

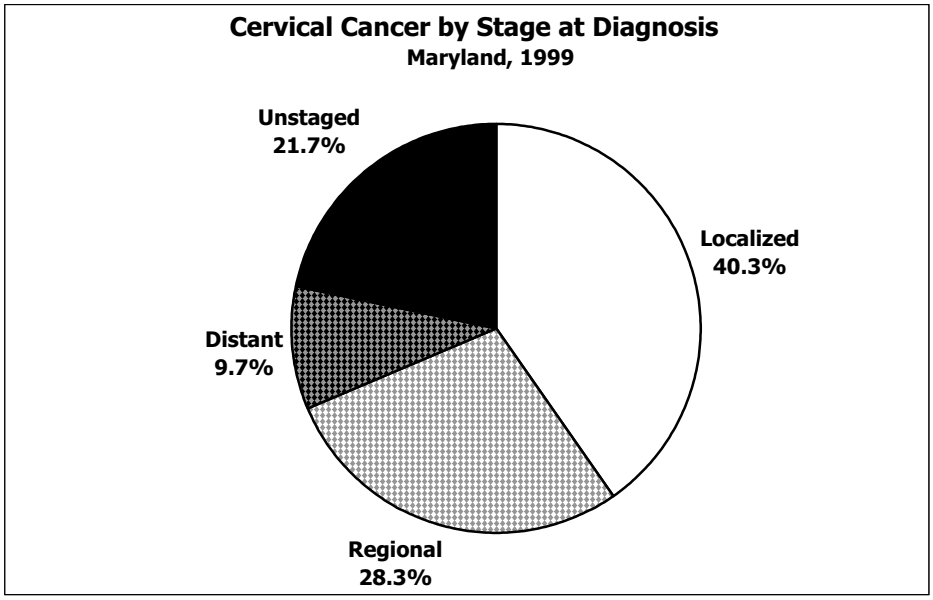
Mortality rates have also decreased an average of 4.4% per year from 1995 to 1999 in Maryland.



Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1999
Maryland Division of Health Statistics, 1999

Race-Specific Rates

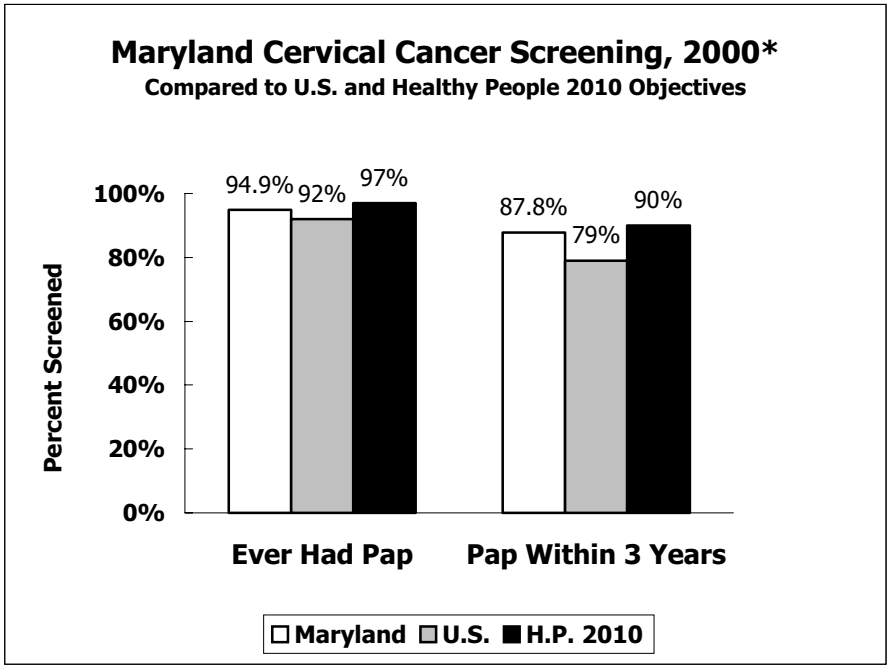
Incidence rates for black women were statistically significantly higher than for whites, whereas the mortality rate was similar for both white and black women in Maryland in 1999.



Maryland Cancer Registry, 1999

Stage at Diagnosis

In 1999, 40.3% of all cervical cancer cases were diagnosed in the localized (early) stage.



Healthy People 2010 Objectives

The Healthy People 2010 objectives for cervical cancer are to increase the percent of women 18 years and older who have *ever* received a Pap test to 97%, and to increase the percent of women 18 years and older who have received a Pap test within the preceding three years to 90%.

* Women 18 years of age and older
Maryland Office of Public Health Assessment, BRFSS, 2000
National Health Interview Survey, 1998
Healthy People 2010, U.S. Department of Health and Human Services, 2000

In 2000, 94.9% of Maryland women 18 years and older report *ever* having a Pap smear compared to 94.2% in 1999 and 95.1% in 1998. In 2000, 87.8% of women 18 years and older said they had had their Pap smear within the preceding three years compared to 87.2% in 1999 and 88.2% in 1998.

Public Health Evidence (from National Cancer Institute, PDQ, 6/2002)

Screening

Evidence strongly suggests that regular screening using the Pap smear test decreases incidence and mortality due to cervical cancer. The upper age limit at which such screening ceases to be effective is unknown. Women who have not had regular Pap tests are at increased risk of cervical cancer. Receiving regular Pap tests is the most important step in detecting and preventing cervical cancer.

Primary Prevention

Cervical infection with the human papilloma virus (HPV) is the primary causative infectious agent for cervical cancer. However, HPV is very common, and only a small percentage of women infected with HPV will develop cervical cancer. HPV types 16 and 18 are most often associated with invasive cervical cancer. Women who have sexual intercourse before age 16 and women who have many sexual partners are at greater risk of HPV infection and developing cervical cancer. Women who are infected with the human immunodeficiency virus (HIV) are at increased risk for development of cervical cancer. Exposure to cigarette smoke is associated with increased risk. Education regarding risk factors for cervical cancer may lead to behavioral modification resulting in diminished exposure.

Vaccines that would immunize against HPV infection are in clinical trials. Such vaccines would offer a primary prevention strategy for cervical cancer.

Public Health Intervention (National Cancer Institute, PDQ, 6/2002
Early detection of cervical cancer: ü Screen using the Pap test for all women, beginning at the onset of sexual activity or by age 18 if not sexually active

Table 66.
Number of Cervical Cancer Cases
by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	226	130	73	12	11
Allegany	<6	<6	0	0	0
Anne Arundel	15	s	<6	<6	<6
Baltimore City	39	12	24	<6	<6
Baltimore County	28	20	s	<6	0
Calvert	<6	<6	<6	0	0
Caroline	0	0	0	0	0
Carroll	<6	<6	0	0	0
Cecil	<6	<6	<6	0	0
Charles	8	<6	<6	0	<6
Dorchester	0	0	0	0	0
Frederick	8	8	0	0	0
Garrett	<6	<6	0	0	0
Harford	9	s	<6	0	<6
Howard	7	s	<6	0	0
Kent	0	0	0	0	0
Montgomery	28	s	<6	<6	<6
Prince George's	39	10	23	<6	<6
Queen Anne's	<6	<6	<6	0	0
Saint Mary's	<6	<6	<6	0	0
Somerset	<6	<6	<6	0	0
Talbot	<6	0	<6	0	0
Washington	8	8	0	0	0
Wicomico	7	<6	<6	0	<6
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, 1999

Table 67.
Cervical Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	8.2	6.7	10.8	**
Allegany	**	**	0.0	0.0
Anne Arundel	**	**	**	**
Baltimore City	10.8	**	**	**
Baltimore County	6.7	**	**	**
Calvert	**	**	**	0.0
Caroline	0.0	0.0	0.0	0.0
Carroll	**	**	0.0	0.0
Cecil	**	**	**	0.0
Charles	**	**	**	0.0
Dorchester	0.0	0.0	0.0	0.0
Frederick	**	**	0.0	0.0
Garrett	**	**	0.0	0.0
Harford	**	**	**	0.0
Howard	**	**	**	0.0
Kent	0.0	0.0	0.0	0.0
Montgomery	6.1	**	**	**
Prince George's	11.2	**	**	**
Queen Anne's	**	**	**	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	**	**	0.0
Talbot	**	0.0	**	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 Cancer Registry, 1999

Table 68.
Number of Cervical Cancer Deaths
by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	77	49	s	<6
Allegany	<6	<6	0	0
Anne Arundel	<6	<6	0	0
Baltimore City	18	7	11	0
Baltimore County	11	s	<6	0
Calvert	0	0	0	0
Caroline	0	0	0	0
Carroll	<6	<6	0	0
Cecil	<6	<6	0	0
Charles	<6	<6	<6	<6
Dorchester	<6	<6	0	0
Frederick	0	0	0	0
Garrett	0	0	0	0
Harford	<6	<6	<6	0
Howard	<6	<6	0	0
Kent	0	0	0	0
Montgomery	9	6	<6	<6
Prince George's	11	<6	s	0
Queen Anne's	0	0	0	0
Saint Mary's	0	0	0	0
Somerset	0	0	0	0
Talbot	<6	0	<6	0
Washington	<6	<6	0	0
Wicomico	<6	<6	<6	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, 1999

Table 69.
Cervical Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2.8	2.4	4.2	**
Allegany	**	**	0.0	0.0
Anne Arundel	**	**	0.0	0.0
Baltimore City	**	**	**	0.0
Baltimore County	**	**	**	0.0
Calvert	0.0	0.0	0.0	0.0
Caroline	0.0	0.0	0.0	0.0
Carroll	**	**	0.0	0.0
Cecil	**	**	0.0	0.0
Charles	**	**	**	**
Dorchester	**	**	0.0	0.0
Frederick	0.0	0.0	0.0	0.0
Garrett	0.0	0.0	0.0	0.0
Harford	**	**	**	0.0
Howard	**	**	0.0	0.0
Kent	0.0	0.0	0.0	0.0
Montgomery	**	**	**	**
Prince George's	**	**	**	0.0
Queen Anne's	0.0	0.0	0.0	0.0
Saint Mary's	0.0	0.0	0.0	0.0
Somerset	0.0	0.0	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, 1999

Table 70.
Number of Cervical Cancer Cases
by Jurisdiction and Race, Maryland, 1995-1999

Jurisdiction	Total	Race			
		Whites	Blacks	Others	Unknown
Maryland	1,314	801	391	70	52
Allegany	33	s	0	0	<6
Anne Arundel	119	86	21	<6	s
Baltimore City	242	85	148	<6	<6
Baltimore County	154	112	31	<6	s
Calvert	18	s	<6	0	0
Caroline	9	s	<6	0	0
Carroll	36	32	<6	0	<6
Cecil	15	12	<6	<6	0
Charles	30	18	<6	<6	<6
Dorchester	9	s	<6	0	0
Frederick	51	48	0	<6	<6
Garrett	7	7	0	0	0
Harford	40	33	s	0	<6
Howard	34	24	6	<6	<6
Kent	<6	<6	<6	0	0
Montgomery	172	108	25	32	7
Prince George's	189	59	109	13	8
Queen Anne's	9	7	<6	0	<6
Saint Mary's	21	17	<6	0	<6
Somerset	13	6	7	0	0
Talbot	<6	<6	<6	0	0
Washington	42	s	<6	0	<6
Wicomico	36	24	s	<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, 1995-1999

Table 71.
Cervical Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 1995-1999

Jurisdiction	Total	Race		
		Whites	Blacks	Others
Maryland	9.7	8.4	12.2	15.1
Allegany	15.2	15.3	0.0	0.0
Anne Arundel	9.9	8.5	**	**
Baltimore City	13.3	13.2	13.4	**
Baltimore County	7.4	6.5	13.0	**
Calvert	**	**	**	0.0
Caroline	**	**	**	0.0
Carroll	9.8	9.1	**	0.0
Cecil	**	**	**	**
Charles	10.8	**	**	**
Dorchester	**	**	**	0.0
Frederick	11.8	12.0	0.0	**
Garrett	**	**	0.0	0.0
Harford	7.5	7.0	**	0.0
Howard	6.1	**	**	**
Kent	**	**	**	0.0
Montgomery	7.6	6.2	**	15.5
Prince George's	10.4	7.5	13.1	**
Queen Anne's	**	**	**	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	**	**	0.0
Talbot	**	**	**	0.0
Washington	12.3	12.2	**	0.0
Wicomico	**	**	**	**
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, 1995-1999

Table 72.
Number of Cervical Cancer Deaths
by Jurisdiction and Race, Maryland, 1995-1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	410	239	158	13
Allegany	10	10	0	0
Anne Arundel	21	s	<6	0
Baltimore City	114	s	75	<6
Baltimore County	35	26	s	<6
Calvert	<6	<6	0	<6
Caroline	6	6	0	0
Carroll	10	s	<6	0
Cecil	8	<6	<6	0
Charles	10	7	<6	<6
Dorchester	8	s	<6	0
Frederick	9	s	<6	0
Garrett	<6	<6	0	0
Harford	15	11	<6	<6
Howard	13	10	<6	<6
Kent	<6	<6	<6	0
Montgomery	35	24	s	<6
Prince George's	51	s	31	<6
Queen Anne's	0	0	0	0
Saint Mary's	7	<6	<6	0
Somerset	<6	<6	<6	0
Talbot	<6	<6	<6	0
Washington	18	s	<6	0
Wicomico	12	s	<6	0
Worcester	9	<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, 1995-1999

Table 73.
Cervical Cancer Age-Adjusted Mortality Rates* by Jurisdiction and Race, Maryland, 1995-1999

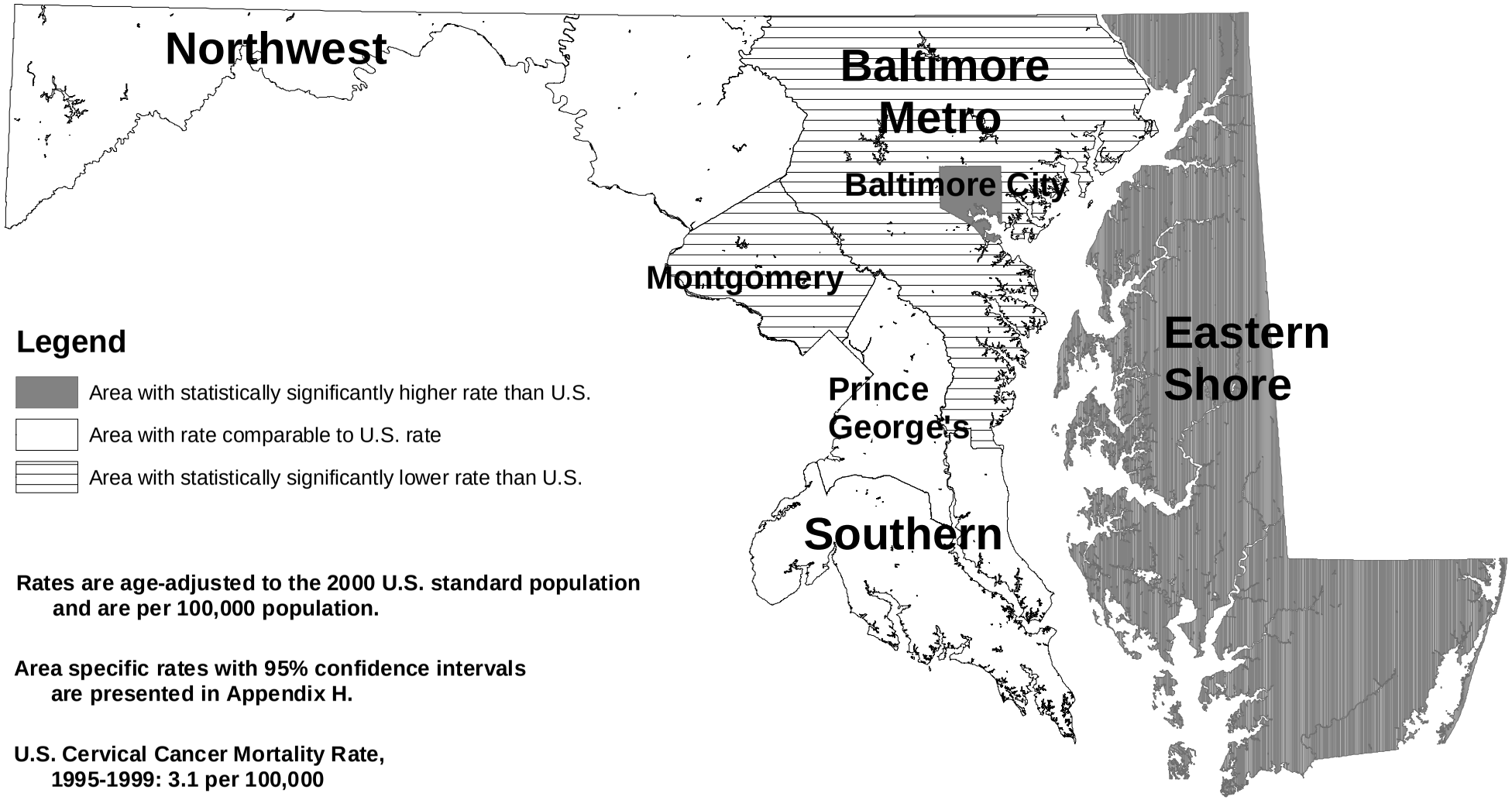
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	3.1	2.4	5.3	**
Allegany	**	**	0.0	0.0
Anne Arundel	**	**	**	0.0
Baltimore City	6.3	5.3	7.0	**
Baltimore County	1.6	1.4	**	**
Calvert	**	**	0.0	**
Caroline	**	**	0.0	0.0
Carroll	**	**	**	0.0
Cecil	**	**	**	0.0
Charles	**	**	**	**
Dorchester	**	**	**	0.0
Frederick	**	**	**	0.0
Garrett	**	**	0.0	0.0
Harford	**	**	**	**
Howard	**	**	**	**
Kent	**	**	**	0.0
Montgomery	1.6	**	**	**
Prince George's	2.9	**	3.9	**
Queen Anne's	0.0	0.0	0.0	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	**	**	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 cares are not presented per DHMH/MCR Data Use Policy

Source: Maryland Division of Health Statistics, 1995-1999

Maryland Cervical Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1995-1999



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, 1995-1999: 3.1 per 100,000

Source: Maryland Division of Health Statistics, 1995-1999

IV. County-Specific Data

Five-year combined incidence and mortality data for 1995 to 1999 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 (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Allegany County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	2,503	521.1	509.0	479.3	1,029	203.8	220.3	206.0
Lung and Bronchus	419	83.1	77.6	65.9	321	62.7	62.5	57.7
Colorectal	344	68.5	59.5	55.1	134	26.8	24.3	21.7
Female Breast	335	127.0	141.4	136.7	65	22.2	31.2	28.8
Prostate	354	170.0	189.3	168.9	45	24.3	38.2	33.9
Oral	54	11.8	11.8	11.3	18	**	3.5	3.0
Melanoma	65	16.0	16.0	17.2	9	**	2.5	2.7
Cervical	33	15.2	9.7	9.0	10	**	3.1	3.1

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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 75.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Anne Arundel County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	10,673	527.9	509.0	479.3	4,286	227.0	220.3	206.0
Lung and Bronchus	1,789	91.6	77.6	65.9	1,379	71.9	62.5	57.7
Colorectal	1,125	59.2	59.5	55.1	455	25.4	24.3	21.7
Female Breast	1,719	152.4	141.4	136.7	348	31.8	31.2	28.8
Prostate	1,557	177.6	189.3	168.9	211	34.3	38.2	33.9
Oral	257	12.4	11.8	11.3	60	3.3	3.5	3.0
Melanoma	469	21.3	16.0	17.2	60	2.9	2.5	2.7
Cervical	119	9.9	9.7	9.0	21	**	3.1	3.1

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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 76.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Baltimore City, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	City Number	City Rate	MD Rate	U.S. SEER Rate	City Number	City Rate	MD Rate	U.S. SEER Rate
All Cancers	18,603	566.7	509.0	479.3	9,666	293.8	220.3	206.0
Lung and Bronchus	3,371	102.2	77.6	65.9	2,931	88.8	62.5	57.7
Colorectal	2,210	67.0	59.5	55.1	1,004	30.5	24.3	21.7
Female Breast	2,538	136.9	141.4	136.7	758	39.3	31.2	28.8
Prostate	2,876	214.7	189.3	168.9	668	57.7	38.2	33.9
Oral	503	15.9	11.8	11.3	183	5.7	3.5	3.0
Melanoma	282	8.6	16.0	17.2	53	1.6	2.5	2.7
Cervical	242	13.3	9.7	9.0	114	6.3	3.1	3.1

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

Source: Maryland Cancer Registry, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 77.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Baltimore County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	20,806	509.0	509.0	479.3	8,854	214.5	220.3	206.0
Lung and Bronchus	3,215	76.8	77.6	65.9	2,607	62.2	62.5	57.7
Colorectal	2,511	60.9	59.5	55.1	1,002	24.3	24.3	21.7
Female Breast	3,092	141.3	141.4	136.7	685	29.7	31.2	28.8
Prostate	3,247	179.2	189.3	168.9	496	32.4	38.2	33.9
Oral	473	11.7	11.8	11.3	125	3.0	3.5	3.0
Melanoma	728	18.4	16.0	17.2	120	3.0	2.5	2.7
Cervical	154	7.4	9.7	9.0	35	1.6	3.1	3.1

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

Source: Maryland Cancer Registry, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 78.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Calvert County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,389	498.8	509.0	479.3	582	222.5	220.3	206.0
Lung and Bronchus	226	83.9	77.6	65.9	169	63.6	62.5	57.7
Colorectal	160	62.4	59.5	55.1	73	29.3	24.3	21.7
Female Breast	197	127.5	141.4	136.7	31	20.5	31.2	28.8
Prostate	217	174.5	189.3	168.9	32	36.9	38.2	33.9
Oral	40	14.1	11.8	11.3	10	**	3.5	3.0
Melanoma	49	15.7	16.0	17.2	11	**	2.5	2.7
Cervical	18	**	9.7	9.0	<6	**	3.1	3.1

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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 79.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Caroline County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	818	533.4	509.0	479.3	357	230.4	220.3	206.0
Lung and Bronchus	137	88.4	77.6	65.9	111	71.0	62.5	57.7
Colorectal	117	75.8	59.5	55.1	48	31.2	24.3	21.7
Female Breast	116	143.3	141.4	136.7	23	**	31.2	28.8
Prostate	119	171.2	189.3	168.9	21	**	38.2	33.9
Oral	19	**	11.8	11.3	6	**	3.5	3.0
Melanoma	31	20.9	16.0	17.2	<6	**	2.5	2.7
Cervical	9	**	9.7	9.0	6	**	3.1	3.1

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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 80.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Carroll County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	3,422	530.5	509.0	479.3	1,276	202.9	220.3	206.0
Lung and Bronchus	443	70.7	77.6	65.9	337	54.3	62.5	57.7
Colorectal	397	62.9	59.5	55.1	144	23.1	24.3	21.7
Female Breast	498	138.3	141.4	136.7	94	26.8	31.2	28.8
Prostate	560	210.4	189.3	168.9	78	34.5	38.2	33.9
Oral	72	11.1	11.8	11.3	13	**	3.5	3.0
Melanoma	165	23.4	16.0	17.2	28	4.2	2.5	2.7
Cervical	36	9.8	9.7	9.0	10	**	3.1	3.1

* 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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 81.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Cecil County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,830	514.8	509.0	479.3	847	249.1	220.3	206.0
Lung and Bronchus	344	97.1	77.6	65.9	284	81.5	62.5	57.7
Colorectal	192	55.4	59.5	55.1	72	21.5	24.3	21.7
Female Breast	242	126.5	141.4	136.7	64	33.7	31.2	28.8
Prostate	275	174.2	189.3	168.9	59	49.1	38.2	33.9
Oral	49	13.7	11.8	11.3	15	**	3.5	3.0
Melanoma	78	21.4	16.0	17.2	15	**	2.5	2.7
Cervical	15	**	9.7	9.0	8	**	3.1	3.1

* 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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 82.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Charles County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	2,119	531.5	509.0	479.3	911	248.0	220.3	206.0
Lung and Bronchus	330	87.5	77.6	65.9	287	76.7	62.5	57.7
Colorectal	221	58.7	59.5	55.1	98	28.7	24.3	21.7
Female Breast	321	140.9	141.4	136.7	58	27.4	31.2	28.8
Prostate	393	247.6	189.3	168.9	59	56.5	38.2	33.9
Oral	55	12.5	11.8	11.3	23	**	3.5	3.0
Melanoma	62	13.2	16.0	17.2	9	**	2.5	2.7
Cervical	30	10.8	9.7	9.0	10	**	3.1	3.1

* 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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 83.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Dorchester County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,031	556.5	509.0	479.3	469	246.7	220.3	206.0
Lung and Bronchus	196	102.5	77.6	65.9	140	74.6	62.5	57.7
Colorectal	140	73.5	59.5	55.1	42	21.4	24.3	21.7
Female Breast	144	147.7	141.4	136.7	32	30.6	31.2	28.8
Prostate	154	179.5	189.3	168.9	38	48.9	38.2	33.9
Oral	26	14.8	11.8	11.3	<6	**	3.5	3.0
Melanoma	24	**	16.0	17.2	<6	**	2.5	2.7
Cervical	9	**	9.7	9.0	8	**	3.1	3.1

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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 84.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Frederick County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	3,788	507.9	509.0	479.3	1,449	203.7	220.3	206.0
Lung and Bronchus	490	68.3	77.6	65.9	419	59.1	62.5	57.7
Colorectal	426	59.1	59.5	55.1	171	24.4	24.3	21.7
Female Breast	591	142.7	141.4	136.7	115	28.0	31.2	28.8
Prostate	555	181.1	189.3	168.9	76	28.9	38.2	33.9
Oral	78	10.4	11.8	11.3	22	**	3.5	3.0
Melanoma	163	20.7	16.0	17.2	23	**	2.5	2.7
Cervical	51	11.8	9.7	9.0	9	**	3.1	3.1

* 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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 85.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Garrett County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	686	426.8	509.0	479.3	289	176.0	220.3	206.0
Lung and Bronchus	105	63.7	77.6	65.9	80	48.8	62.5	57.7
Colorectal	91	55.1	59.5	55.1	43	26.5	24.3	21.7
Female Breast	115	135.0	141.4	136.7	22	**	31.2	28.8
Prostate	96	128.1	189.3	168.9	18	**	38.2	33.9
Oral	11	**	11.8	11.3	<6	**	3.5	3.0
Melanoma	22	**	16.0	17.2	<6	**	2.5	2.7
Cervical	7	**	9.7	9.0	<6	**	3.1	3.1

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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 86.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Harford County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	4,607	524.5	509.0	479.3	1,827	221.3	220.3	206.0
Lung and Bronchus	705	83.0	77.6	65.9	531	63.6	62.5	57.7
Colorectal	472	56.3	59.5	55.1	185	22.7	24.3	21.7
Female Breast	630	128.1	141.4	136.7	147	30.4	31.2	28.8
Prostate	736	198.5	189.3	168.9	112	39.4	38.2	33.9
Oral	106	11.6	11.8	11.3	27	3.1	3.5	3.0
Melanoma	218	21.7	16.0	17.2	27	3.0	2.5	2.7
Cervical	40	7.5	9.7	9.0	15	**	3.1	3.1

* 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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 87.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Howard County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	3,704	454.5	509.0	479.3	1,486	204.9	220.3	206.0
Lung and Bronchus	462	63.2	77.6	65.9	370	52.5	62.5	57.7
Colorectal	363	49.4	59.5	55.1	151	21.6	24.3	21.7
Female Breast	662	135.6	141.4	136.7	132	29.2	31.2	28.8
Prostate	566	171.0	189.3	168.9	90	40.5	38.2	33.9
Oral	79	9.3	11.8	11.3	19	**	3.5	3.0
Melanoma	177	18.0	16.0	17.2	30	3.4	2.5	2.7
Cervical	34	6.1	9.7	9.0	13	**	3.1	3.1

* 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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 88.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Kent County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	645	531.0	509.0	479.3	281	221.0	220.3	206.0
Lung and Bronchus	113	88.2	77.6	65.9	81	62.4	62.5	57.7
Colorectal	66	51.1	59.5	55.1	33	24.8	24.3	21.7
Female Breast	97	157.2	141.4	136.7	19	**	31.2	28.8
Prostate	91	152.7	189.3	168.9	18	**	38.2	33.9
Oral	16	**	11.8	11.3	<6	**	3.5	3.0
Melanoma	34	32.8	16.0	17.2	<6	**	2.5	2.7
Cervical	<6	**	9.7	9.0	<6	**	3.1	3.1

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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 89.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Montgomery County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	17,737	456.8	509.0	479.3	6,270	165.9	220.3	206.0
Lung and Bronchus	1,948	51.2	77.6	65.9	1,407	37.3	62.5	57.7
Colorectal	1,826	48.1	59.5	55.1	662	17.7	24.3	21.7
Female Breast	3,307	151.3	141.4	136.7	635	28.8	31.2	28.8
Prostate	3,087	189.3	189.3	168.9	379	29.6	38.2	33.9
Oral	343	8.7	11.8	11.3	74	2.0	3.5	3.0
Melanoma	620	15.2	16.0	17.2	101	2.6	2.5	2.7
Cervical	172	7.6	9.7	9.0	35	1.6	3.1	3.1

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

Source: Maryland Cancer Registry, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 90.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Prince George's County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	13,992	501.4	509.0	479.3	5,883	228.4	220.3	206.0
Lung and Bronchus	1,918	72.2	77.6	65.9	1,563	60.0	62.5	57.7
Colorectal	1,658	64.4	59.5	55.1	646	26.5	24.3	21.7
Female Breast	2,309	137.1	141.4	136.7	534	33.7	31.2	28.8
Prostate	2,468	217.9	189.3	168.9	363	47.2	38.2	33.9
Oral	332	11.1	11.8	11.3	117	4.3	3.5	3.0
Melanoma	217	7.1	16.0	17.2	35	1.3	2.5	2.7
Cervical	189	10.4	9.7	9.0	51	2.9	3.1	3.1

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

Source: Maryland Cancer Registry, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 91.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Queen Anne's County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	979	484.1	509.0	479.3	384	196.4	220.3	206.0
Lung and Bronchus	164	80.6	77.6	65.9	133	65.5	62.5	57.7
Colorectal	119	60.9	59.5	55.1	29	15.5	24.3	21.7
Female Breast	148	139.2	141.4	136.7	26	24.5	31.2	28.8
Prostate	145	144.0	189.3	168.9	21	**	38.2	33.9
Oral	29	14.0	11.8	11.3	9	**	3.5	3.0
Melanoma	44	22.2	16.0	17.2	7	**	2.5	2.7
Cervical	9	**	9.7	9.0	0	0.0	3.1	3.1

* 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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 92.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Saint Mary's County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,587	484.9	509.0	479.3	670	214.9	220.3	206.0
Lung and Bronchus	268	84.3	77.6	65.9	169	53.6	62.5	57.7
Colorectal	180	58.2	59.5	55.1	75	24.5	24.3	21.7
Female Breast	220	127.6	141.4	136.7	48	27.5	31.2	28.8
Prostate	197	131.1	189.3	168.9	40	32.6	38.2	33.9
Oral	49	15.0	11.8	11.3	11	**	3.5	3.0
Melanoma	59	16.8	16.0	17.2	11	**	2.5	2.7
Cervical	21	**	9.7	9.0	7	**	3.1	3.1

* 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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 93.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Somerset County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	713	547.2	509.0	479.3	354	267.3	220.3	206.0
Lung and Bronchus	146	110.9	77.6	65.9	119	90.2	62.5	57.7
Colorectal	79	59.5	59.5	55.1	30	22.3	24.3	21.7
Female Breast	81	123.7	141.4	136.7	22	**	31.2	28.8
Prostate	82	132.7	189.3	168.9	20	**	38.2	33.9
Oral	15	**	11.8	11.3	<6	**	3.5	3.0
Melanoma	21	**	16.0	17.2	<6	**	2.5	2.7
Cervical	13	**	9.7	9.0	<6	**	3.1	3.1

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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 94.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Talbot County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,187	507.5	509.0	479.3	486	197.5	220.3	206.0
Lung and Bronchus	152	62.8	77.6	65.9	120	48.6	62.5	57.7
Colorectal	151	62.0	59.5	55.1	67	27.0	24.3	21.7
Female Breast	188	157.3	141.4	136.7	39	29.3	31.2	28.8
Prostate	229	211.2	189.3	168.9	33	31.9	38.2	33.9
Oral	40	17.3	11.8	11.3	13	**	3.5	3.0
Melanoma	44	21.5	16.0	17.2	9	**	2.5	2.7
Cervical	<6	**	9.7	9.0	<6	**	3.1	3.1

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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 95.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Washington County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	3,291	476.1	509.0	479.3	1,469	209.5	220.3	206.0
Lung and Bronchus	515	73.4	77.6	65.9	436	61.8	62.5	57.7
Colorectal	400	57.1	59.5	55.1	174	24.6	24.3	21.7
Female Breast	465	125.9	141.4	136.7	119	30.6	31.2	28.8
Prostate	423	141.4	189.3	168.9	79	30.6	38.2	33.9
Oral	78	11.4	11.8	11.3	22	**	3.5	3.0
Melanoma	150	22.3	16.0	17.2	11	**	2.5	2.7
Cervical	42	12.3	9.7	9.0	18	**	3.1	3.1

* 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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 96.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Wicomico County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	2,117	536.4	509.0	479.3	922	233.1	220.3	206.0
Lung and Bronchus	378	95.3	77.6	65.9	311	78.5	62.5	57.7
Colorectal	226	57.2	59.5	55.1	101	25.5	24.3	21.7
Female Breast	345	157.9	141.4	136.7	84	37.6	31.2	28.8
Prostate	262	159.9	189.3	168.9	50	36.9	38.2	33.9
Oral	45	11.4	11.8	11.3	12	**	3.5	3.0
Melanoma	103	26.4	16.0	17.2	13	**	2.5	2.7
Cervical	36	**	9.7	9.0	12	**	3.1	3.1

* 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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

Table 97.
Incidence (1995-99) and Mortality Rates* (1995-99) by Type of Cancer
Worcester County, Maryland, and U.S.

Type of Cancer	Incidence (1995-99)				Mortality (1995-99)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,591	575.7	509.0	479.3	647	228.8	220.3	206.0
Lung and Bronchus	278	96.4	77.6	65.9	200	67.1	62.5	57.7
Colorectal	186	63.9	59.5	55.1	68	24.2	24.3	21.7
Female Breast	204	144.0	141.4	136.7	38	23.9	31.2	28.8
Prostate	215	163.4	189.3	168.9	43	36.3	38.2	33.9
Oral	47	16.4	11.8	11.3	10	**	3.5	3.0
Melanoma	91	35.3	16.0	17.2	10	**	2.5	2.7
Cervical	18	**	9.7	9.0	9	**	3.1	3.1

* 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, 1995-1999
Maryland Division of Health Statistics, 1995-1999
SEER, National Cancer Institute, 1995-1999

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 Public Health Assessment, and the Office of Health Promotion and Prevention.

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 1999, in which the most complete data are available and includes all cases reported to the MCR as of November, 2000.

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, West Virginia, and the District of Columbia. Information on Maryland residents diagnosed or treated for cancer in these states is included in this report.

b. MCR Data Quality and Completeness of Case Ascertainment

MCR 1999 incidence data achieved the "gold" certification for high quality from the North American Association of Central Cancer Registries (NAACCR) certification program. MCR data were evaluated using the following criteria: data completeness, data quality, and timeliness.

2. Maryland Division of Health Statistics

This office in the Vital Statistics Administration of DHMH registers births, deaths, marriages, and divorces. Data provided from this office including 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 Office of Public Health Assessment, DHMH, provided cancer screening information for this report.

4. Maryland Youth Tobacco Survey and Maryland Adult Tobacco Survey

The purpose of the Maryland Youth Tobacco Survey (MYTS) and the Maryland Adult Tobacco Survey (MATS) was to gather attitude, usage, and exposure information regarding tobacco products statewide and within each of the 23 counties and Baltimore City in Maryland. For MYTS, sampling was conducted in eligible public middle and high schools. A total of 55,967 students completed survey questionnaires statewide in the Fall of 2000. The MATS was a computer assisted telephone survey conducted between October 2000 and January 2001. A total of 16,596 respondents completed the telephone interviews. This survey is managed by the Office of Health Promotion. Complete data are published for the MYTS and MATS in the *Initial Findings from the Baseline Tobacco Study*, February 8, 2001.

B. National Data Sources

National statistics 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), the National Center for Health Statistics (NCHS), and the National Cancer Institute (NCI).

1. National Health Interview Survey (NHIS)

The National Health Interview Survey (NHIS) is a continuous in-person interview survey conducted on a random sample of households in the United States. The survey gathers information on the amount, distribution, and effects of illness and disability in the United States. It is conducted and managed by the National Center for Health Statistics (NCHS). The NCHS web site is www.cdc.gov/nchs.

2. 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. The Healthy People initiative is under the Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services. Further information can be found on the web site at www.health.gov/healthypeople.

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

The Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute is an authoritative source of information on cancer incidence, stage, and survival in the United States. Staff of the National Cancer Institute 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 United States. The data are collected from 11 cancer registries throughout the United States and are estimated to represent approximately 14 percent of the U.S. population. SEER states that their 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 the National Center for Health Statistics. 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/1973_1999/sections.html#sections. Further information about about SEER can 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 (PDQ)

The information provided under the sections for "Public Health Evidence" and "Public Health Intervention" was taken primarily from the National Cancer Institute's Physician Data Query (PDQ® CancerNet|) web site. This source provides information for health professionals and the public on various aspects of cancer control such as prevention, screening, treatment, genetics, and clinical trials. The information is reviewed by a scientific editorial board and is updated as new research becomes available. Each statement listed in the PDQ is based on research with certain levels of evidence. The levels of evidence used by the National Cancer Institute's PDQ, in order of strongest evidence to weakest evidence, is 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.

This reference is used throughout the report for consistency in interpreting the results of scientific literature. For additional information, the web site is www.cancernet.nci.nih.gov.

Definitions include:

> *"Screening"* is checking for disease when there are no symptoms resulting in detection of malignancies in situ or in an early stage.

"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).

"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.

2. *Maryland Department of Health and Mental Hygiene, Medical Advisory Committees for Breast, Cervical, Colorectal Cancer, 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 Cited*

Lung and Bronchus Cancer: Centers for Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control Programs – August 1999*. Atlanta GA: 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, August 1999.

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

Breast Cancer: *Screening for Breast Cancer. Recommendations and Rationale*. February 2002. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/clinic/3rduspstf/breastcancer/brcanrr.htm

Breast Cancer: *Chemoprevention of Breast Cancer. Recommendations and Rationale*. July 2002. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/clinic/3rduspstf/breastchemo/breastchemorr.htm

D. Data Considerations

1. Data Confidentiality

The Maryland Department of Health and Mental Hygiene (DHMH) regards all data received, processed, and reported to and by the Maryland Cancer Registry and the Division of Health Statistics as confidential. Data are secured from unauthorized access and disclosure.

The Maryland Cancer Registry manages and releases cancer information in accordance with the laws, rules, and regulations established for and 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 *Maryland Cancer Registry 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. 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 Maryland Cancer Registry 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 data presented in this report were calculated using Maryland resident cancer cases diagnosed from January 1, 1999 through December 31, 1999, and reported to the MCR as of November 22, 2000. The mortality data consist of deaths that occurred between January 1, 1999 and December 31, 1999.

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. Incidence and mortality rates in this report were calculated and age-adjusted using the 2000 U.S. population as the standard population. The new standard is based on the year 2000 population and will replace the existing standards based on the 1940 or 1970 standard population for the nation. Rates presented for 1995-1999 have all been recalculated using the 2000 standard population, so rates presented will differ from prior baseline and annual reports for the same year. Use of the 2000 standard will also result in age-adjusted death rates that are substantially higher than those based on other standards. Please note that the new standard may affect trends and will narrow race differentials in age-adjusted death rates.

Incidence and mortality rates are not presented for cells with less than 26 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 1995 to 1999). 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. 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. All rates presented in this report were calculated at the 95 percent confidence level. For example, based on Maryland Cancer Registry reports, the 1999 age-adjusted lung cancer rate in Maryland is 71.6 per 100,000 population. The 95% confidence interval for this rate is 69.2 to 74.0. We have, therefore, a 95% degree of certainty that the true (real) rate is between 69.2 and 74.0 per 100,000 age-adjusted population. The U.S. SEER-reported rate was 63.5 per 100,000. Maryland's rate was, therefore, statistically significantly higher than the U.S. rate. For additional information regarding the formula used to calculate the confidence level, refer to the National Cancer Institute/SEER web site:
http://seer.cancer.gov/ScientificSystems/SEERStat/WebHelp/SeerstatAlgorithms_for_Rates.htm.

5. Year 2000 U.S. Population Standard

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.

The age structure of the U.S. population has changed considerably between 1970 and 2000, and incidence and mortality for the years 1995-1999 presented in this report are all adjusted to the 2000 U.S. population and will differ from rates for the same year in prior reports. The 2000 population has 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 standard results in higher overall age-adjusted cancer incidence and mortality rates.

6. National Comparison Data

Maryland and county incidence and mortality rates are compared to 1999 SEER incidence rates and 1999 U.S. mortality rates (NCHS). National mortality data for the year 2000 are not available yet. In addition, the SEER program does not provide rates for "other" races, so comparisons are not presented.

7. Race and Ethnicity

MCR began requiring submission of more detailed data on race and ethnicity beginning August 1998. Race reported as Native American, Asian, and Pacific Islander are counted in the category called "other" race. Because information on ethnicity was not reliably reported to the MCR in 1999, it is not included in this report. The present report does, however, include one table (see Table 3, page 10) depicting Hispanic cancer incidence. The table shows overall counts and incidence rates by county and region for all cancer sites combined. Only 1999 new cases and incidence rates were included.

Hispanic ethnicity data as presented in Table 3 is 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 adds Hispanic individuals by employing an independent procedure using surname, maiden name, birthplace, and race code to estimate Hispanic ethnicity.

8. Healthy People 2010 Objectives/BRFSS

As measures for cancer-related behaviors (e.g., screening tests) and the recommendations for their use change, the Behavioral Risk Factor Surveillance System (BRFSS) questions that measure screening and other health behaviors also change to reflect these modifications. In addition, the Healthy People 2010 objectives may change to reflect new health-related behavior and screening recommendations over time. Comparisons in this report are made between the Healthy People 2010 objectives (age-adjusted to the year 2000 U.S. standard population) and data from the Maryland BRFSS, which is weighted to the age of Maryland population in that year, but not age-adjusted 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, and Maryland counts, rates, and confidence intervals for mortality data from 1995-1999.

Appendix D

Glossary

Glossary

- **Age-Adjustment:** Age is the most important risk factor for cancer incidence for most sites. Cancer rates derived from populations that differ in underlying age structure are not comparable. Age-adjustment is a statistical technique that allows for the comparison of rates among populations having different age distributions by weighting the age-specific rates in each population to one standard population. All rates presented in this report are age-adjusted to the 2000 U.S. standard population. Additional information on age-adjustment can be found on the following web sites: www.cdc.gov/nchs/data/statnt/statnt20.pdf and www.cdc.gov/nchs/products/pubs/workpap/ageadjust.htm.

- **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 trend data are presented for the years 1995 through 1999.

- **Incidence:** Incidence is the number of new cases of a given event during a defined time period, usually one year. For the purpose of this report, cancer incidence refers to the number of new cases diagnosed during 1999. Cancer incidence data are also presented in an aggregated form for the years 1995 through 1999.

- **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 the year 1999. Data for cancer mortality are also presented in an aggregated form for the years 1995 through 1999.

- **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 (see above).

- **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 membranes. 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 or not reported.

Appendix E

Maryland Population Estimates, 1999

Maryland Population Estimates by County, 1999

	Total All Genders	Total Male	Total Female	Total White	White Male	White Female	Total Black	Black Male	Black Female
Maryland	**5,171,634**	**2,513,133**	**2,658,501**	**3,492,062**	**1,720,367**	**1,771,695**	**1,454,381**	**684,664**	**769,717**
Baltimore Metro	**2,450,566**	**1,187,782**	**1,262,784**	**1,688,278**	**830,476**	**857,802**	**689,915**	**322,981**	**366,934**
Anne Arundel County	480,483	241,770	238,713	390,632	197,486	193,146	75,568	37,892	37,676
Baltimore City	632,681	295,281	337,400	195,655	93,858	101,797	426,637	196,220	230,417
Baltimore County	723,914	346,347	377,567	579,215	278,256	300,959	119,592	55,946	63,646
Carroll County	152,468	75,609	76,859	145,958	72,355	73,603	4,792	2,487	2,305
Harford County	217,908	107,966	109,942	187,745	93,712	94,033	24,967	12,030	12,937
Howard County	243,112	120,809	122,303	189,073	94,809	94,264	38,359	18,406	19,953
EasternShore	**384,450**	**188,522**	**195,928**	**291,644**	**144,123**	**147,521**	**89,173**	**42,564**	**46,609**
Caroline County	29,708	14,529	15,179	22,822	11,289	11,533	6,687	3,155	3,532
Cecil County	84,238	42,271	41,967	78,450	39,336	39,114	4,968	2,548	2,420
Dorchester County	29,709	14,101	15,608	18,777	9,080	9,697	10,682	4,889	5,793
Kent County	19,089	9,215	9,874	13,932	6,840	7,092	5,011	2,310	2,701
Queen Anne's County	40,688	20,172	20,516	33,997	17,049	16,948	6,408	2,999	3,409
Somerset County	24,236	13,075	11,161	12,529	6,532	5,997	11,521	6,438	5,083
Talbot County	33,550	16,005	17,545	25,137	12,124	13,013	8,207	3,774	4,433
Wicomico County	79,560	38,171	41,389	55,068	26,704	28,364	23,338	10,841	12,497
Worcester County	43,672	20,983	22,689	30,932	15,169	15,763	12,351	5,610	6,741
National Capital	**1,633,955**	**786,821**	**847,134**	**907,731**	**445,213**	**462,518**	**588,725**	**275,049**	**313,676**
Montgomery County	852,174	410,148	442,026	620,805	301,535	319,270	133,854	61,626	72,228
Prince George's County	781,781	376,673	405,108	286,926	143,678	143,248	454,871	213,423	241,448
Northwest	**419,211**	**208,000**	**211,211**	**387,982**	**190,674**	**197,308**	**25,634**	**14,706**	**10,928**
Allegany County	71,162	33,865	37,297	68,612	32,543	36,069	2,000	1,042	958
Frederick County	190,869	94,717	96,152	173,324	86,384	86,940	14,213	6,878	7,335
Garrett County	29,389	14,463	14,926	29,115	14,278	14,837	164	136	28
Washington County	127,791	64,955	62,836	116,931	57,469	59,462	9,257	6,650	2,607
Southern	**283,452**	**142,008**	**141,444**	**216,427**	**109,881**	**106,546**	**60,934**	**29,364**	**31,570**
Calvert County	73,748	36,870	36,878	57,320	28,945	28,375	15,599	7,556	8,043
Charles County	120,946	60,186	60,760	88,555	44,726	43,829	29,105	13,974	15,131
St Mary's County	88,758	44,952	43,806	70,552	36,210	34,342	16,230	7,834	8,396

Source: Maryland Division of Health Statistics

Appendix F

2000 U.S. Standard Population

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: SEER, National Cancer Institute

Appendix G

SEER Definitions (ICD Codes) of Site Categories

ICD-O-2 and ICD-10 Codes Used to Classify Primary Sites
(SEER Definitions)

Cancer Site	ICD-O-2 Codes (Incidence)	ICD-10 Codes (Mortality)
Oral Cavity and Pharynx	C00.0-C14.8*	Same as ICD-O-2 code
Esophagus	C15.0-C15.9*	Same as ICD-O-2 code
Stomach	C16.0-C16.9*	Same as ICD-O-2 code
Colon, excluding rectum	C18.0-C18.9, C19.9, C20.9, C26.0*	Same as ICD-O-2 code
Liver and intrahepatic bile duct	C22.0-C22.1*	C22.0-C22.9
Pancreas	C25.0-C25.9*	Same as ICD-O-2 code
Larynx	C32.0-C32.9*	Same as ICD-O-2 code
Lung and bronchus	C34.0-C34.9*	Same as ICD-O-2 code
Bone and joint	C40.0-C41.9*	Same as ICD-O-2 code
Soft tissue, including heart	C38.0, C47.0-C47.9, C49.0-C49.9*	C38.0, C45.2, C47.0-C47.9, C49.0-C49.9
Melanomas of the skin	C44.0-C44.9 (only types 8720-8790)	C43.0-C43.9
Breast	C50.0-C50.9*	Same as ICD-O-2 code
Cervix	C53.0-C53.9*	Same as ICD-O-2 code
Uterus	C54.0-C54.9, C55.9*	Same as ICD-O-2 code
Ovary	C56.9*	Same as ICD-O-2 code
Prostate	C61.9*	Same as ICD-O-2 code
Testis	C62.0-C62.9*	Same as ICD-O-2 code
Bladder	C67.0-C67.9*	Same as ICD-O-2 code
Kidney and renal pelvis	C64.9, C65.9*	Same as ICD-O-2 code
Eye	C69.0-C69.9*	Same as ICD-O-2 code
Brain and other nervous system	C70.0-C72.9*	Same as ICD-O-2 code
Thyroid	C73.9*	Same as ICD-O-2 code
Leukemia	types 9800-9941	C90.1, C91.0-C95.9
Hodgkin's disease	types 9650-9667	C81.0-C81.9
Non-Hodgkin's lymphoma	types 9590-9595, 9670-9717	C82.0-C85.9, C96.3
Multiple Myeloma	types 9731-9732	C90.1, C90.2
Ill defined and unspecified sites	types 9720-9723, 9740, 9741, 9950, 9760-9764, 9950-9989 C76.0-C76.8, C80.9 (only types 8000-9589) C42.0-C42.4 (only types 8000-9589) C77.0-C77.9 (only types 8000-9589)	C26.1, C45.7, C45.9, C76.0-C78.9, C80.9, C88.0-C88.9, C96.0-C96.2, C96.7, C96.9, C97.9

* Sites exclude ICD-O-2 morphology types 9590-9989.

Appendix H

Maryland Cancer Mortality (1995-1999): Rates and Confidence Intervals

All Cancer Sites Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1995-1999

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	50,694	220.3	222.3	218.4
Northwest Region	4,236	203.0	209.2	196.9
Garrett	289	176.0	198.0	156.2
Allegany	1,029	203.8	217.1	191.4
Washington	1,469	209.5	220.6	198.9
Frederick	1,449	203.7	214.5	193.2
Baltimore Metropolitan Area	27,395	237.1	240.0	234.3
Baltimore City	9,666	293.8	299.7	287.9
Baltimore County	8,854	214.5	219.1	210.0
Anne Arundel	4,286	227.0	234.0	220.1
Carroll	1,276	202.9	214.4	191.9
Howard	1,486	204.9	216.0	194.2
Harford	1,827	221.3	231.9	211.0
National Capital Area	12,153	191.6	195.1	188.2
Montgomery	6,270	165.9	170.1	161.8
Prince George's	5,883	228.4	234.5	222.4
Southern Region	2,163	229.3	239.4	219.5
Calvert	582	222.5	241.9	204.4
Charles	911	248.0	265.3	231.6
Saint Mary's	670	214.9	232.0	198.8
Eastern Shore	4,747	229.4	236.0	222.9
Cecil	847	249.1	266.7	232.4
Kent	281	221.0	249.4	195.6
Queen Anne's	384	196.4	217.6	177.1
Caroline	357	230.4	255.9	207.0
Talbot	486	197.5	216.9	180.1
Dorchester	469	246.7	270.8	224.6
Wicomico	922	233.1	248.7	218.3
Somerset	354	267.3	297.3	239.9
Worcester	647	228.8	247.9	211.2

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

Source: Maryland Division of Health Statistics, 1995-1999

Lung and Bronchus Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1995-1999

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	14,505	62.5	63.6	61.5
Northwest Region	1,256	60.1	63.5	56.8
Garrett	80	48.8	61.2	38.6
Allegany	321	62.7	70.3	56.0
Washington	436	61.8	68.0	56.1
Frederick	419	59.1	65.1	53.6
Baltimore Metropolitan Area	8,155	69.9	71.4	68.4
Baltimore City	2,931	88.8	92.0	85.6
Baltimore County	2,607	62.2	64.6	59.8
Anne Arundel	1,379	71.9	75.8	68.1
Carroll	337	54.3	60.5	48.7
Howard	370	52.5	58.4	47.2
Harford	531	63.6	69.4	58.2
National Capital Area	2,970	46.8	48.5	45.1
Montgomery	1,407	37.3	39.4	35.4
Prince George's	1,563	60.0	63.2	57.0
Southern Region	625	65.4	70.8	60.3
Calvert	169	63.6	74.4	54.3
Charles	287	76.7	86.5	67.9
Saint Mary's	169	53.6	62.5	45.8
Eastern Shore	1,499	71.7	75.5	68.1
Cecil	284	81.5	91.8	72.3
Kent	81	62.4	78.4	49.4
Queen Anne's	133	65.5	78.1	54.8
Caroline	111	71.0	85.9	58.4
Talbot	120	48.6	59.0	40.2
Dorchester	140	74.6	88.7	62.6
Wicomico	311	78.5	87.8	70.0
Somerset	119	90.2	108.6	74.6
Worcester	200	67.1	77.7	58.0

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

Source: Maryland Division of Health Statistics, 1995-1999

Colon and Rectum Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1995-1999

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	5,507	24.3	25.0	23.7
Northwest Region	522	25.0	27.2	22.9
Garrett	43	26.5	36.1	19.1
Allegany	134	26.8	32.1	22.4
Washington	174	24.6	28.6	21.1
Frederick	171	24.4	28.4	20.9
Baltimore Metropolitan Area	2,941	25.8	26.8	24.9
Baltimore City	1,004	30.5	32.4	28.6
Baltimore County	1,002	24.3	25.9	22.8
Anne Arundel	455	25.4	27.9	23.0
Carroll	144	23.1	27.3	19.5
Howard	151	21.6	25.5	18.2
Harford	185	22.7	26.4	19.5
National Capital Area	1,308	21.2	22.4	20.1
Montgomery	662	17.7	19.1	16.4
Prince George's	646	26.5	28.7	24.4
Southern Region	246	27.3	31.0	23.9
Calvert	73	29.3	37.2	22.9
Charles	98	28.7	35.3	23.2
Saint Mary's	75	24.5	30.9	19.2
Eastern Shore	490	23.6	25.8	21.6
Cecil	72	21.5	27.2	16.8
Kent	33	24.8	35.8	17.0
Queen Anne's	29	15.5	22.8	10.3
Caroline	48	31.2	41.8	23.0
Talbot	67	27.0	35.3	20.8
Dorchester	42	21.4	29.7	15.4
Wicomico	101	25.5	31.1	20.8
Somerset	30	22.3	32.5	15.0
Worcester	68	24.2	31.3	18.7

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

Source: Maryland Division of Health Statistics, 1995-1999

Female Breast Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1995-1999

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	4,138	31.2	32.2	30.3
Northwest Region	321	27.2	30.4	24.3
Baltimore Metro Region	1,406	30.0	31.6	28.4
Baltimore City	758	39.3	42.2	36.5
Montgomery County	635	28.8	31.2	26.6
Prince George's County	534	33.7	36.8	30.9
Southern Region	137	25.2	29.8	21.1
Eastern Shore Region	347	30.9	34.4	27.7

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

Source: Maryland Division of Health Statistics, 1995-1999

Prostate Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1995-1999

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	3,049	38.2	39.6	36.8
Northwest Region	218	28.3	32.5	24.6
Baltimore Metro Region	987	34.3	36.6	32.1
Baltimore City	668	57.7	62.4	53.3
Montgomery County	379	29.6	32.9	26.7
Prince George's County	363	47.2	52.8	42.0
Southern Region	131	41.4	49.8	34.2
Eastern Shore Region	303	38.2	43.0	33.9

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

Source: Maryland Division of Health Statistics, 1995-1999

Oral Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1995-1999

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	805	3.5	3.7	3.2
Northwest Region	65	3.1	4.0	2.4
Baltimore Metro Region	244	3.0	3.4	2.6
Baltimore City	183	5.7	6.6	4.9
Montgomery County	74	2.0	2.5	1.6
Prince George's County	117	4.3	5.2	3.5
Southern Region	44	4.4	6.0	3.2
Eastern Shore Region	78	3.8	4.8	3.0

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

Source: Maryland Division of Health Statistics, 1995-1999

Melanoma Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1995-1999

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	595	2.5	2.7	2.3
Northwest Region	44	2.1	2.8	1.5
Baltimore Metro Region	265	3.1	3.5	2.7
Baltimore City	53	1.6	2.1	1.2
Montgomery County	101	2.6	3.2	2.1
Prince George's County	35	1.3	1.8	0.9
Southern Region	31	2.9	4.2	1.9
Eastern Shore Region	66	3.3	4.2	2.5

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

Source: Maryland Division of Health Statistics, 1995-1999

Cervical Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1995-1999

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	410	3.1	3.4	2.8
Northwest Region	40	3.6	4.9	2.5
Baltimore Metro Region	94	2.0	2.4	1.6
Baltimore City	114	6.3	7.6	5.2
Montgomery County	35	1.6	2.2	1.1
Prince George's County	51	2.9	3.9	2.2
Southern Region	22	4.1	6.2	2.5
Eastern Shore Region	54	5.0	6.6	3.7

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

Source: Maryland Division of Health Statistics, 1995-1999

The services and facilities of the Maryland State Department of Health and Mental Hygiene (DHMH) are operated on a non-discriminatory basis. This policy prohibits discrimination on the basis of race, color, sex, or national origin and applies to the provisions of employment and granting of advantages, privileges and accommodations.

The Department, in compliance with the Americans with Disabilities Act, ensures that qualified individuals with disabilities are given on opportunity to participate in and benefit from DHMH services, programs, benefits, and employment opportunities.