Maryland Department of Health & Mental Hygiene

Annual Cancer Report

Cigarette Restitution Fund Program

Cancer Prevention, Education, Screening and Treatment Program

Parris N. Glendening
Governor
State of Maryland

Kathleen Kennedy Townsend
Lieutenant Governor
State of Maryland

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September, 2001

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:

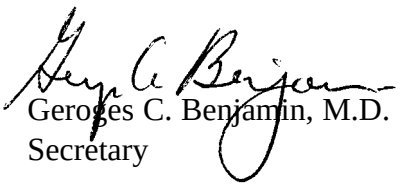
One of my highest priorities for the Maryland Department of Health and Mental Hygiene is the Cigarette Restitution Fund (CRF) Program. Through the Cancer Prevention, Education, Screening and Treatment Program within the CRF Program, we are striving to make an impact on cancer and the burden that cancer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

Cancer remains the second leading cause of death in Maryland and in the nation. It is projected that cancer will become the leading cause of death. In 1998, over 23,000 Marylanders were diagnosed with cancer and more than 10,000 Marylanders died from cancer. Fifty-four percent of cancer deaths are due to cancers of the lung and bronchus, colon and rectum, breast, and prostate. Maryland currently ranks ninth in the nation in overall cancer mortality.

The enclosed Annual Cancer Report, an update of the Baseline Cancer Report published in 2000, focuses on all cancer sites combined and the seven cancers targeted by the Cancer Prevention, Education, Screening and Treatment Program: lung and bronchus, colon and rectum, breast, prostate, oral, melanoma of the skin, and cervix. These cancers were selected based on the ability to prevent (e.g., lung and bronchus, melanoma of the skin) or detect and treat early (e.g., colon and rectum, breast, cervix, oral cavity), or on the impact on incidence and mortality (e.g., prostate).

I hope that you find this resource helpful in preventing and reducing cancer incidence and mortality in our communities.

Sincerely,



Georges C. Benjamin, M.D.
Secretary

Maryland Department of Health & Mental Hygiene

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Cigarette Restitution Fund Program

Cancer Prevention, Education, Screening and Treatment Program

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Acknowledgements

The Maryland Department of Health and Mental Hygiene (DHMH), Center for Cancer Surveillance and Control, is pleased to present the Cigarette Restitution Fund Program Annual Cancer Report for 2001. Our hope is that individuals, groups, and agencies, such as local health departments, community-based organizations, policy makers, the citizens of Maryland, will benefit from the information in this report and will find this report useful in understanding the impact as we combat cancer in Maryland.

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

Division of Health Statistics for the provision of mortality data. Estelle Appleberg and Hal Sommers provided special assistance.

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Surveillance and Evaluation Unit, Center for Cancer Surveillance and Control. Lorraine Underwood provided editorial assistance with preparing the document.

We thank others who contributed to the development and/or careful review of this document.

Dedication

We dedicate this report to all of the cancer patients and their families in Maryland. We hope that by these efforts the burden of cancer will be reduced or lessened in our communities.

Table of Contents

I. Executive Summary

A. Introduction

This document is the Cigarette Restitution Fund Program (CRFP) Annual Cancer Report for 2001, that serves to update the Baseline Cancer Report issued August 14, 2000. Like the baseline report, the purpose of the Annual Cancer Report is to assist local health departments and local 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 and other community organizations in deciding 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 a 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. Maryland was awarded an estimated $4 billion 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 using funds from the tobacco settlement. With the Maryland General Assembly, Governor Glendening established the CRFP to provide for the distribution of funds. This plan 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 Healthy People 2010 screening behaviors objectives.

The CRFP law requires the Department to identify the types of cancers that may be targeted under the CPEST Program. DHMH has selected seven targeted cancers that are examined in this report. The seven targeted cancers are: lung and bronchus, colon and rectum, 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, breast, cervix, oral cavity), or on the impact on incidence and mortality (e.g., prostate).

Additionally, the CRFP law seeks for 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 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. Major findings for **overall** cancers:

- Over 23,000 cases of cancer were diagnosed in Maryland in 1998
- Cancer is the second leading cause of death in Maryland, responsible for 24% of all deaths
- Over 10,000 cancer deaths occurred in 1999
- Maryland is ranked ninth among the states and the District of Columbia in total cancer mortality in 1998
- Lung and bronchus, colon and rectum, breast, and prostate cancers account for 54% of cancer deaths among all cancers
- The 1998 mortality rate for Maryland (173.0 per 100,000 population) is statistically significantly higher than the U.S. rate (161.5 per 100,000 population)
- In 1998, blacks had a statistically significantly higher mortality rate for all combined cancer sites than whites

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

- Lung cancer accounts for approximately 29 percent 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

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

- Colorectal cancer is the second leading cause of cancer death in Maryland
- The recommended public health intervention for colorectal cancer is early detection using colonoscopy or fecal occult blood testing with flexible sigmoidoscopy

4. Major findings for **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

5. 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
- Prostate cancer incidence and mortality rates are significantly higher among black men than white men

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

- There is extensive evidence that tobacco use causes oral cancer

- The recommended public health intervention for oral cancer is 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

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

- The incidence and mortality of melanoma is statistically significantly higher among males than females
- 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)

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

- The cervical cancer mortality 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 all women beginning at the onset of sexual activity or by age 18 if not sexually active

C. Major Changes to the Report from the Baseline Cancer Report

- Combined 5-year cancer incidence data (1994-1998) were added for cancer overall and for each targeted cancer
- Combined 5-year cancer mortality data (1994-1998) were added for cancer overall and for each targeted cancer
- A county-specific section showing 5-year cancer incidence and mortality data compared to Maryland and U.S. data was added
- 1999 cancer mortality data was age-adjusted to both the 1970 and 2000 U.S. standard population (Note: Rates are higher using the 2000 age-adjustment due to population differences from 1970 to 2000.)
- Maps denote rates both statistically significantly *lower and higher* cancer mortality rates when compared to the U.S.
- The following sections have been moved to the Appendix: report requirements, report format, and data sources, references, and considerations

II. All Cancer Sites Combined

Incidence (New Cases)

A total of 23,258 new cancer cases diagnosed in 1998, were reported to the Maryland Cancer Registry. The total age-adjusted cancer incidence rate is 407.8 per 100,000 population [402.5-413.2 95% Confidence Interval (CI)] for Maryland. The 1998 cancer incidence rate is statistically significantly higher than the 1998 U.S. rate of 395.3 per 100,000 population published by the National Cancer Institute, Surveillance Epidemiological End Results (SEER) Program.

Mortality (Deaths)

A total of 10,187 residents of Maryland died from cancer in 1998. The overall cancer mortality rate for 1998 is 173.0 per 100,00 population (169.6-176.5, 95% CI). This rate is statistically significantly higher than the 1998 U.S. cancer mortality rate of 161.5 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 (1998) and Mortality (1998 and 1999) Rates by Gender and Race, Maryland and the United States

Incidence 1998	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
New Cases (#)	23,258	11,664	11,590	17,313	4,736	595
Incidence Rate[1]	407.8	473.3	362.1	399.1	406.5	324.1
U.S. SEER Rate[1]	395.3	452.2	355.9	396.6	421.4	*
Mortality 1998	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	10,187	5,182	5,005	7,623	2,429	135
MD Mortality Rate[1]	173.0	210.4	147.7	165.4	214.7	80.3
1998 U.S. Rate[1]	161.5	198.5	135.3	158.6	208.1	*
Mortality 1999	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	10,096	5,208	4,888	7,560	2,394	142
MD Mortality Rate[1]	168.2	206.6	142.0	161.6	205.9	81.8
MD Mortality Rate[2]	211.7	266.2	177.3	204.0	257.9	105.1
U.S. Mortality Rate	*	*	*	*	*	*

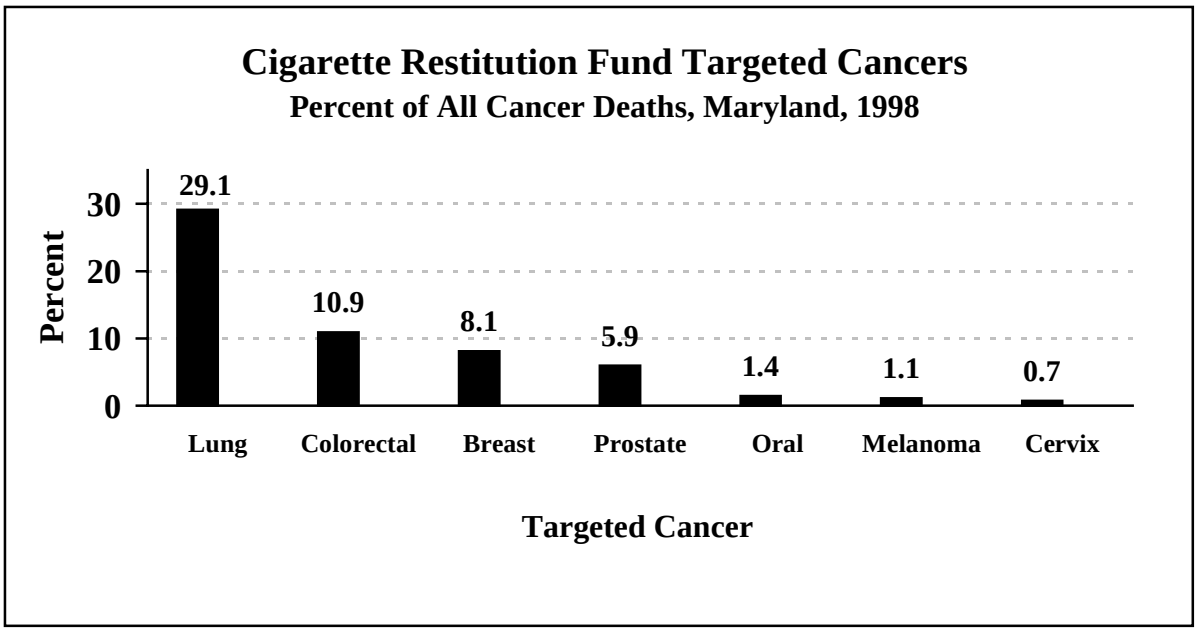
*Rate is not available

[1]Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

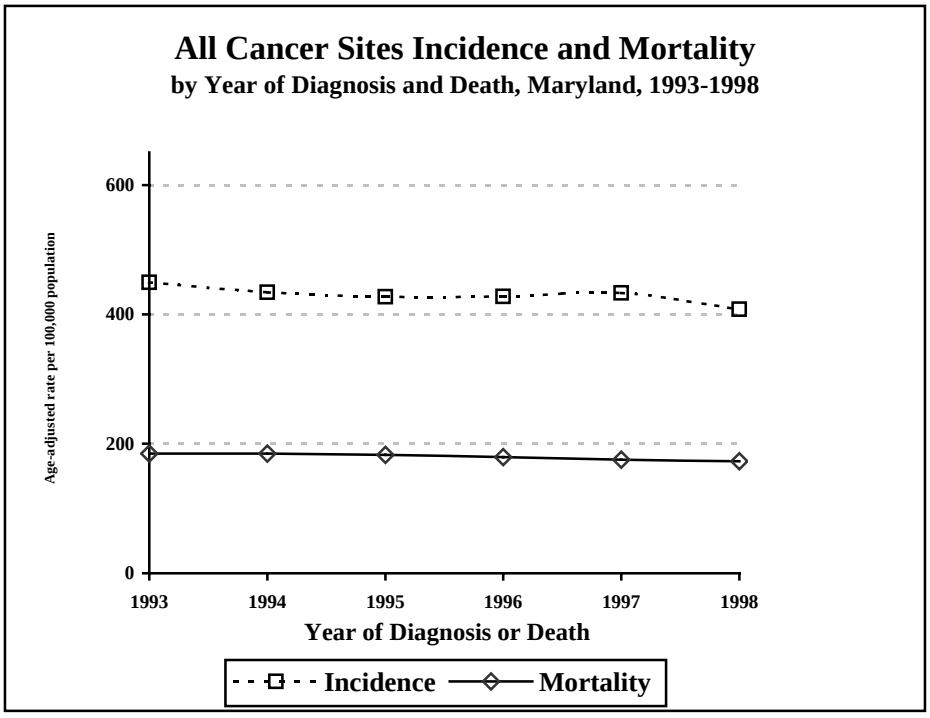
[2]Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

Source: Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998, 1999
SEER, National Cancer Institute, 1998

Cancer is the second leading cause of death in Maryland, accounting for 24% of all deaths. In 1998, the seven targeted cancers represented 57.2% of the 10,187 cancer deaths that occurred in Maryland. Lung and bronchus, colon and rectum, breast, and prostate account for 54% of the all cancer deaths.



Maryland Division of Health Statistics, 1998

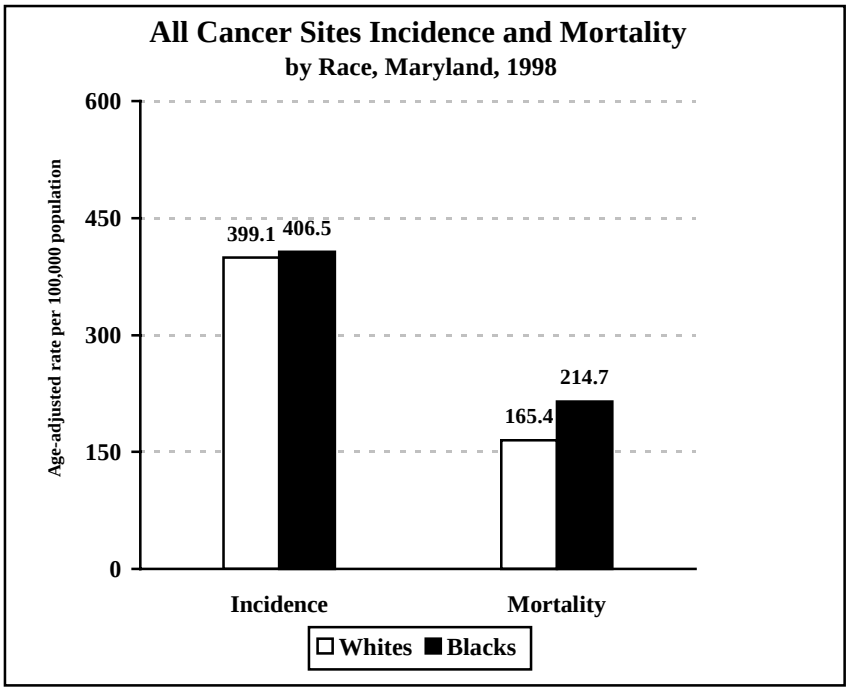


Maryland Cancer Registry, 1993-1998
Maryland Division of Health Statistics, 1993-1998

Trend

Total cancer incidence (new cases) rates in Maryland decreased an average of 1.4% per year from 1993 to 1998. The greatest decrease was noted in 1998.

Total cancer mortality (death) rates decreased an average of 1.4% per year from 1993 to 1998.

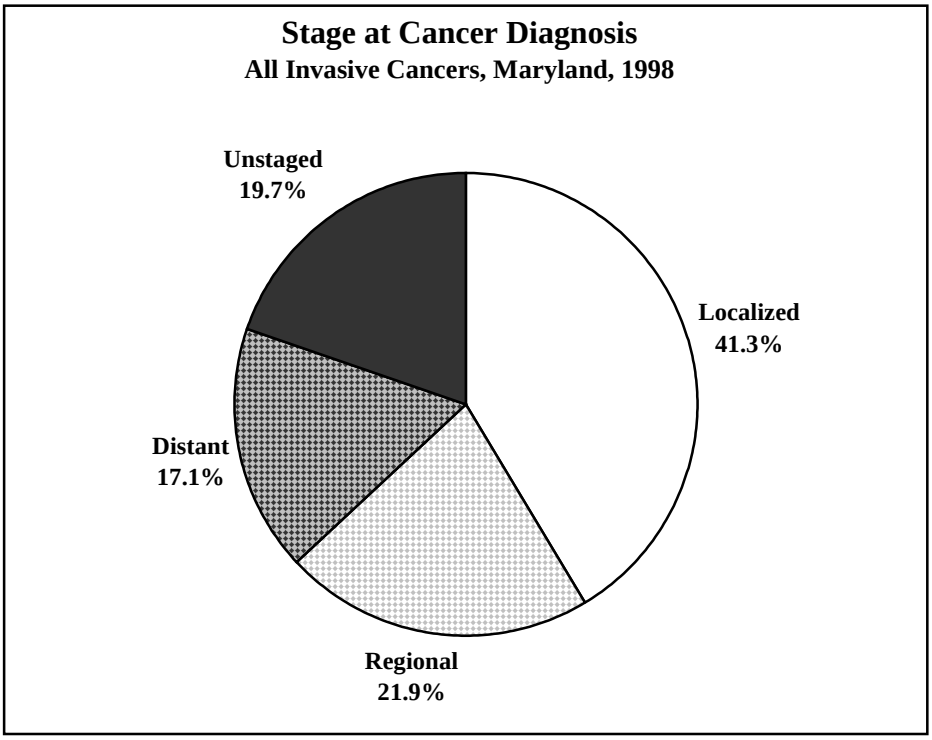


Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998

Race-Specific Rates

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

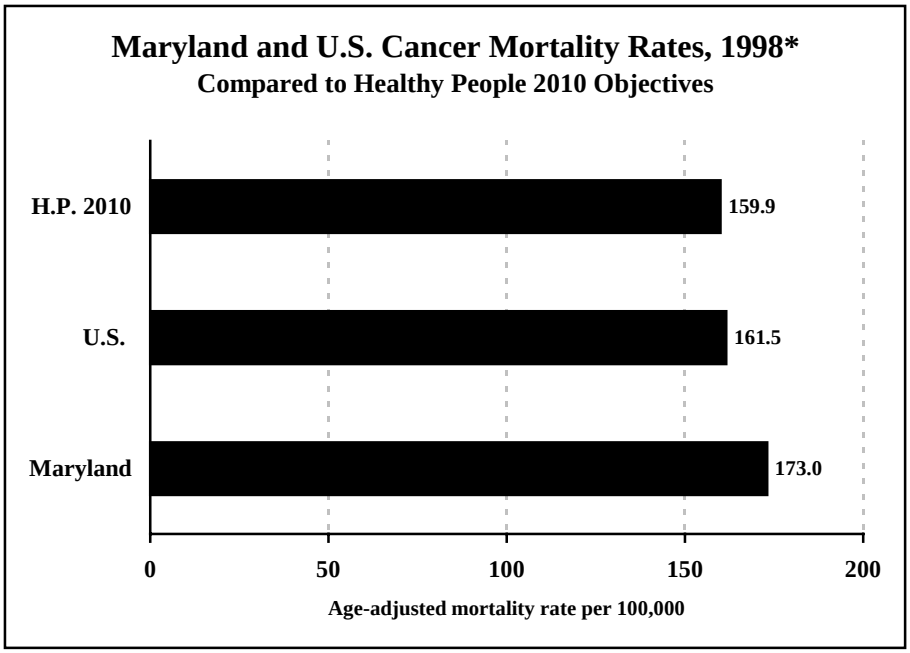
Blacks in Maryland experienced a statistically significantly higher mortality rate than whites in 1998.



Maryland Cancer Registry, 1998

Stage at Diagnosis

The stage of disease at diagnosis is an important predictor of cancer survival. Less than half (41.3%) of the new cancers diagnosed in 1998 were localized (early). This is the stage when most cancers are treatable.



*Maryland and U.S. rates are age-adjusted to the year 1970 standard population
Maryland Division of Health Statistics, 1998
SEER, National Cancer Institute, 1998
Healthy People 2010, U.S. Department of Health and Human Services, 2000

Healthy People 2010 Objectives

The overall cancer mortality rate in 1998 for Maryland is 173.0 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

As previously determined, the cancers targeted as priorities under the Cigarette Restitution Fund in 2002 remain: lung and bronchus, colon and rectum, prostate, breast, cervical, oral, and melanoma of the skin due to the ability to prevent, detect early, and treat these cancers, or due to their impact on incidence and mortality. The remaining sections will deal with these targeted cancers.

The public health prevention priorities are:

- Prevention and cessation of tobacco use
- Early detection and treatment of:
  - colon/rectum cancer
  - breast cancer
  - cervical cancer
  - prostate cancer
  - oral cancer
- Protection of the skin from excessive sun exposure or exposure to ultraviolet light

Table 2.
Number of Cancer Cases for All Cancer Sites by Jurisdiction, Gender and Race, Maryland, 1998

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	23,258	11,664	11,590	17,313	4,736	595	614
Allegany	480	254	226	473	**	**	0
Anne Arundel	2,078	1,027	1,051	1,765	227	30	56
Baltimore City	3,610	1,813	1,797	1,711	1,797	36	66
Baltimore County	3,919	1,910	2,009	3,331	463	52	73
Calvert	306	174	132	245	46	**	s
Caroline	132	70	62	113	s	**	0
Carroll	632	342	290	592	13	8	19
Cecil	343	175	168	322	s	**	11
Charles	427	227	200	314	89	14	10
Dorchester	206	103	103	155	48	**	**
Frederick	787	391	396	700	41	**	s
Garrett	132	84	48	s	**	0	0
Harford	906	487	419	804	66	**	s
Howard	770	351	419	618	90	43	19
Kent	126	64	62	105	s	0	**
Montgomery	3,296	1,602	1,690	2,611	322	255	108
Prince George's	2,623	1,287	1,336	1,243	1,211	93	76
Queen Anne's	197	104	93	167	26	**	**
Saint Mary's	316	174	142	272	37	**	**
Somerset	132	73	59	103	24	**	**
Talbot	218	115	103	182	33	**	**
Washington	656	318	338	625	20	**	s
Wicomico	394	187	207	311	78	**	**
Worcester	328	189	139	271	41	7	9
Unknown	244	143	101	149	17	17	61

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, 1998

Table 3.
All Cancer Sites Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1998

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	407.8	473.3	362.1	399.1	406.5	324.1
Allegany	423.0	529.8	346.3	424.3	**	**
Anne Arundel	424.9	474.6	391.5	426.6	357.2	241.4
Baltimore City	471.0	583.0	395.5	530.7	423.2	447.0
Baltimore County	398.3	442.9	370.2	378.8	566.1	253.8
Calvert	435.5	551.3	338.9	459.1	300.0	**
Caroline	362.7	425.6	313.6	397.3	**	**
Carroll	394.4	499.6	317.6	384.9	**	**
Cecil	392.8	434.0	360.1	391.5	**	**
Charles	430.2	515.5	362.9	432.9	380.6	**
Dorchester	479.1	546.5	422.9	511.3	395.0	**
Frederick	429.8	489.3	385.4	413.0	359.7	**
Garrett	346.9	478.8	240.7	345.8	**	0.0
Harford	420.6	511.7	354.4	419.3	344.3	**
Howard	383.1	415.3	369.2	379.2	335.4	409.0
Kent	428.4	490.0	380.2	474.5	**	0.0
Montgomery	347.9	393.7	317.1	339.3	364.6	301.9
Prince George's	388.4	455.1	342.1	345.6	441.9	285.4
Queen Anne's	390.8	437.4	354.5	404.5	303.5	**
Saint Mary's	388.6	467.0	327.3	415.3	256.1	**
Somerset	431.1	505.7	377.6	527.9	**	**
Talbot	394.3	450.4	357.3	419.9	277.0	**
Washington	394.2	435.0	373.8	391.0	**	**
Wicomico	415.0	472.7	379.4	435.3	339.0	**
Worcester	490.8	623.5	388.4	533.6	276.1	**

* Rates are per 100,000 and are age-adjusted to 1970 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, 1998

Table 4.
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	**	**
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	**
Cecil	174	108	66	166	8	0
Charles	202	99	103	152	s	**
Dorchester	106	62	44	74	32	0
Frederick	308	170	138	283	s	**
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	**
Somerset	64	48	16	46	18	0
Talbot	111	62	49	87	s	**
Washington	290	132	158	286	**	**
Wicomico	198	94	104	160	s	**
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 5.
All Cancer Sites Age-Adjusted (1970) Mortality Rates* by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	168.2	206.6	142.0	161.6	205.9	81.8
Allegany	161.6	205.5	129.1	162.0	**	**
Anne Arundel	176.5	203.7	156.8	182.2	157.0	**
Baltimore City	223.9	295.4	178.7	215.3	235.9	**
Baltimore County	163.5	196.5	142.0	159.7	233.4	**
Calvert	183.2	265.4	123.8	197.9	**	0.0
Caroline	201.0	253.0	152.7	216.8	**	0.0
Carroll	147.1	185.0	122.2	148.2	**	**
Cecil	189.0	258.5	134.8	192.3	**	0.0
Charles	199.0	224.9	179.3	205.0	188.6	**
Dorchester	217.8	296.2	158.2	223.2	226.1	0.0
Frederick	164.4	204.2	131.4	163.1	**	**
Garrett	153.6	216.4	**	154.9	0.0	0.0
Harford	166.9	196.6	149.5	170.3	161.3	0.0
Howard	152.4	177.9	133.1	157.7	148.9	**
Kent	154.2	242.5	**	177.4	**	0.0
Montgomery	117.9	141.1	104.0	117.5	151.0	82.2
Prince George's	175.8	216.5	149.6	145.6	230.1	93.3
Queen Anne's	161.2	173.6	152.0	175.9	**	0.0
Saint Mary's	181.8	210.8	158.8	179.2	196.3	**
Somerset	202.5	340.0	**	234.9	**	0.0
Talbot	159.2	216.3	116.3	160.0	**	**
Washington	158.6	173.8	147.5	161.6	**	**
Wicomico	192.0	228.9	172.6	208.6	147.9	**
Worcester	174.1	227.8	133.8	196.2	**	0.0

* Rates are per 100,000 and are age-adjusted to 1970 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 6.
All Cancer Sites Age-Adjusted (2000) 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 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 7.
Number of Cancer Cases for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 1994-1998

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	120,592	61,969	58,617	89,892	25,041	2,693	2,966
Allegany	2,512	1,337	1,175	2,457	35	11	9
Anne Arundel	10,704	5,449	5,253	9,005	1,237	143	319
Baltimore City	20,132	10,497	9,635	9,808	9,862	174	288
Baltimore County	20,314	10,449	9,865	17,368	2,313	251	382
Calvert	1,364	722	642	1,094	213	14	43
Caroline	795	442	353	658	130	**	**
Carroll	3,471	1,875	1,596	3,253	88	28	102
Cecil	1,803	953	850	1,686	74	16	27
Charles	2,037	1,094	943	1,553	403	44	37
Dorchester	1,060	573	487	783	260	8	9
Frederick	3,602	1,881	1,721	3,167	208	37	190
Garrett	669	348	321	654	s	**	8
Harford	4,508	2,380	2,128	4,058	325	39	86
Howard	3,647	1,758	1,889	2,880	481	152	134
Kent	661	354	307	542	102	**	s
Montgomery	17,797	8,565	9,228	14,313	1,723	1,145	616
Prince George's	13,824	7,117	6,707	6,742	6,176	469	437
Queen Anne's	947	511	436	804	126	**	s
Saint Mary's	1,606	856	750	1,314	232	28	32
Somerset	717	400	317	517	178	12	10
Talbot	1,148	635	513	956	173	10	9
Washington	3,296	1,703	1,593	3,147	86	14	49
Wicomico	2,076	1,008	1,068	1,652	366	34	24
Worcester	1,541	849	692	1,286	211	18	26
Unknown	361	213	148	195	33	33	100

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, 1994-1998

Table 8.
All Cancer Sites Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1994-1998

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	435.8	522.2	375.5	420.9	459.5	336.4
Allegany	436.4	547.3	363.6	435.1	453.9	**
Anne Arundel	457.6	528.6	408.1	449.3	439.8	288.9
Baltimore City	504.2	649.3	408.3	548.3	466.1	413.7
Baltimore County	421.0	498.7	367.2	398.4	643.8	289.8
Calvert	433.1	515.3	369.9	445.1	332.8	**
Caroline	437.3	542.2	355.9	449.3	378.8	**
Carroll	465.7	591.0	376.6	452.4	439.2	741.5
Cecil	434.4	497.1	386.7	430.6	360.9	**
Charles	444.5	552.7	366.2	449.5	402.6	500.9
Dorchester	486.5	598.1	397.4	498.6	438.9	**
Frederick	419.9	503.7	361.7	398.1	411.9	436.6
Garrett	349.5	401.6	313.9	343.5	**	**
Harford	445.7	538.3	379.9	445.8	392.1	228.6
Howard	393.7	449.3	358.4	378.4	406.0	344.1
Kent	461.9	539.1	401.6	489.0	324.6	**
Montgomery	392.5	444.8	359.5	380.9	428.4	314.0
Prince George's	427.7	524.7	358.1	374.7	495.2	315.1
Queen Anne's	405.3	470.4	352.3	411.3	333.9	**
Saint Mary's	425.8	489.8	375.4	427.5	363.9	755.6
Somerset	466.7	559.9	396.3	508.6	350.5	**
Talbot	412.7	507.8	341.8	430.9	318.6	**
Washington	406.0	479.3	357.7	400.8	427.9	**
Wicomico	448.4	518.4	404.5	468.1	344.7	1,350.8
Worcester	489.2	590.0	408.7	522.6	323.6	**

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998

Table 9.
Number of Cancer Deaths for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 1994-98

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	50,658	26,109	24,549	38,000	11,976	682
Allegany	1,001	524	477	978	s	**
Anne Arundel	4,270	2,249	2,021	3,734	491	45
Baltimore City	9,929	5,175	4,754	4,324	5,547	58
Baltimore County	8,832	4,453	4,379	7,977	792	63
Calvert	564	295	269	440	s	**
Caroline	367	193	174	298	69	0
Carroll	1,313	679	634	1,276	s	**
Cecil	808	427	381	760	s	**
Charles	872	449	423	683	178	11
Dorchester	466	262	204	344	s	**
Frederick	1,412	778	634	1,317	85	10
Garrett	279	146	133	s	**	0
Harford	1,796	940	856	1,660	128	8
Howard	1,421	697	724	1,172	196	53
Kent	289	150	139	232	57	0
Montgomery	6,265	3,008	3,257	5,301	679	285
Prince George's	5,858	3,032	2,826	3,055	2,688	115
Queen Anne's	395	220	175	329	s	**
Saint Mary's	654	364	290	538	s	**
Somerset	355	195	160	242	s	**
Talbot	451	242	209	361	s	**
Washington	1,481	784	697	1,448	33	0
Wicomico	939	491	448	733	s	**
Worcester	641	356	285	520	s	**

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, 1994-1998

Table 10.
All Cancer Sites Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1994-98

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	178.9	221.8	150.3	169.8	226.8	93.8
Allegany	158.5	205.6	128.6	157.4	**	**
Anne Arundel	185.2	229.0	155.3	188.0	177.9	105.9
Baltimore City	239.9	318.1	189.9	218.7	263.0	148.9
Baltimore County	172.5	208.9	149.3	169.9	232.4	80.2
Calvert	180.6	211.6	154.5	178.9	188.0	**
Caroline	189.8	231.9	157.2	189.9	196.2	0.0
Carroll	172.9	214.5	143.6	173.6	159.1	**
Cecil	193.1	227.2	170.0	193.0	204.5	**
Charles	198.2	240.3	170.8	205.8	181.0	**
Dorchester	199.0	262.4	150.8	203.6	193.8	**
Frederick	163.0	212.7	126.4	162.8	170.4	**
Garrett	136.2	164.4	116.4	136.7	**	0.0
Harford	179.5	221.4	151.4	184.1	155.3	**
Howard	159.6	189.1	143.4	158.1	177.5	125.9
Kent	182.5	212.0	161.7	188.7	165.4	0.0
Montgomery	133.0	156.8	119.1	132.3	180.6	86.4
Prince George's	187.3	234.5	155.7	165.8	237.9	85.6
Queen Anne's	161.5	201.4	134.0	163.4	156.0	**
Saint Mary's	174.1	212.6	143.3	176.5	176.4	**
Somerset	218.4	267.3	181.7	222.1	214.4	**
Talbot	149.1	183.1	127.1	147.9	154.9	**
Washington	173.7	217.8	143.3	174.5	178.8	0.0
Wicomico	196.9	252.8	159.1	199.3	189.9	**
Worcester	190.6	243.1	151.0	195.9	172.4	**

* Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998

Maryland Overall Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1994-1998

Rates are age-adjusted to the 1970 U.S. standard population and are per 100,000 population.

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

U.S. Overall Mortality Rate, 1994-1998: 166.2 per 100,000

Maryland Division of Health Statistics, 1994-1998

III. Targeted Cancers

A. Lung and Bronchus Cancer

Incidence (New Cases)

There were 3,430 new lung and bronchus cancer cases (called lung cancer) among Maryland residents in 1998. Lung cancer represents 14.7% of new cancers diagnosed in Maryland in 1998. The 1998 age-adjusted lung cancer incidence rate is 61.3 per 100,000 population (59.2-63.4, 95% C.I.) which is statistically significantly higher than the 1998 SEER lung cancer incidence rate of 54.8 per 100,000 population.

Mortality (Deaths)

There were 2,965 lung cancer deaths among Maryland residents in 1998. Lung cancer accounts for approximately 29% of all cancer deaths in Maryland and is the leading cause of cancer deaths in both men and women. The 1998 age-adjusted lung cancer mortality rate is 52.2 per 100,000 population (50.3-54.2, 95% C.I.) in Maryland. This rate is statistically significantly higher than the 1998 U.S. mortality rate for lung and bronchus cancer of 47.9 per 100,000 population. Maryland has the 17th highest lung cancer mortality rate among the states and the District of Columbia.

Table 11.
Lung Cancer Incidence (1998) and Mortality (1998 and 1999) Rates by Gender and Race, Maryland and the United States

Incidence 1998	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
New Cases (#)	3,430	1,879	1,550	2,694	689	41
Incidence Rate[1]	61.3	77.2	49.4	62.3	62.0	24.1
U.S. SEER Rate[1]	54.8	69.8	43.4	55.0	70.1	*
Mortality 1998	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	2,965	1,692	1,273	2,285	654	26
MD Mortality Rate[1]	52.2	69.3	39.7	51.7	59.4	17.3
1998 U.S. Rate[1]	47.9	65.4	34.6	47.8	56.8	*
Mortality 1999	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	2,841	1,624	1,217	2,182	636	23
MD Mortality Rate[1]	48.8	65.3	36.5	48.2	56.1	**
MD Mortality Rate[2]	59.5	81.2	44.4	58.8	68.3	**
U.S. Mortality Rate	*	*	*	*	*	*

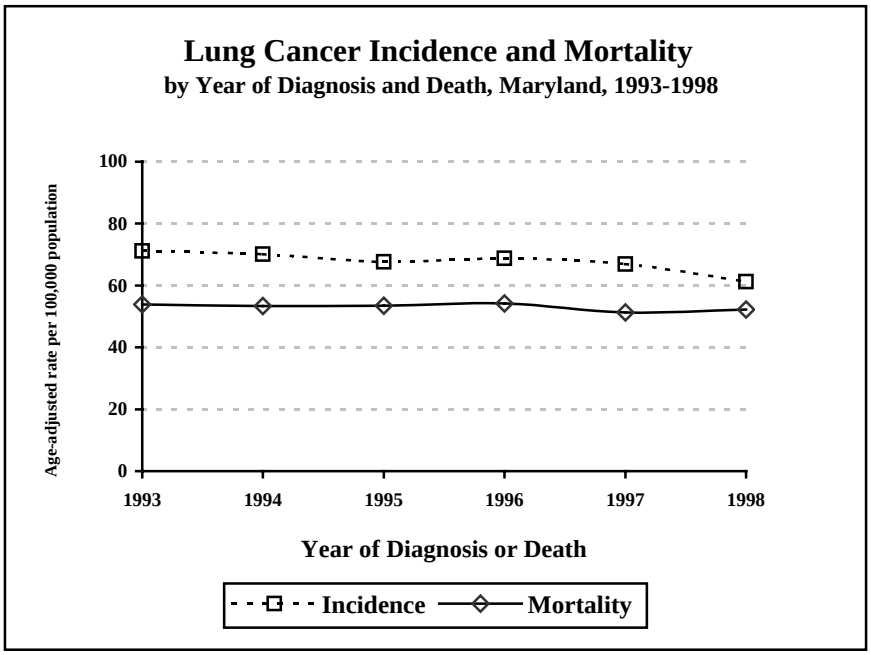
*Rate is not available

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

[1]Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

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

Source: Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998, 1999
SEER, National Cancer Institute, 1998

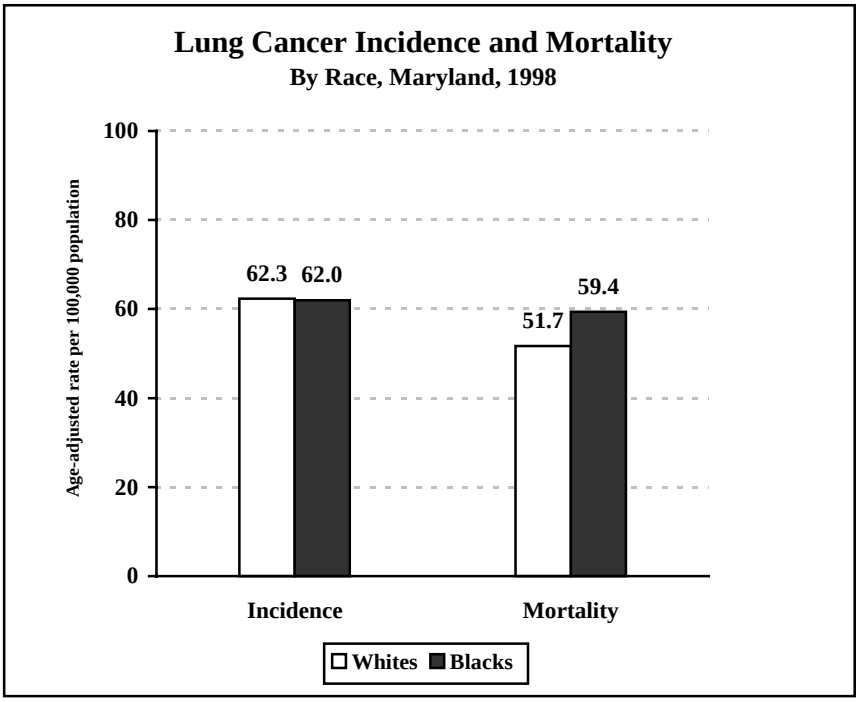


Maryland Cancer Registry, 1993-1998

Trends

Lung cancer incidence rates have decreased an average of 2.4% per year from 1993 to 1998 in Maryland.

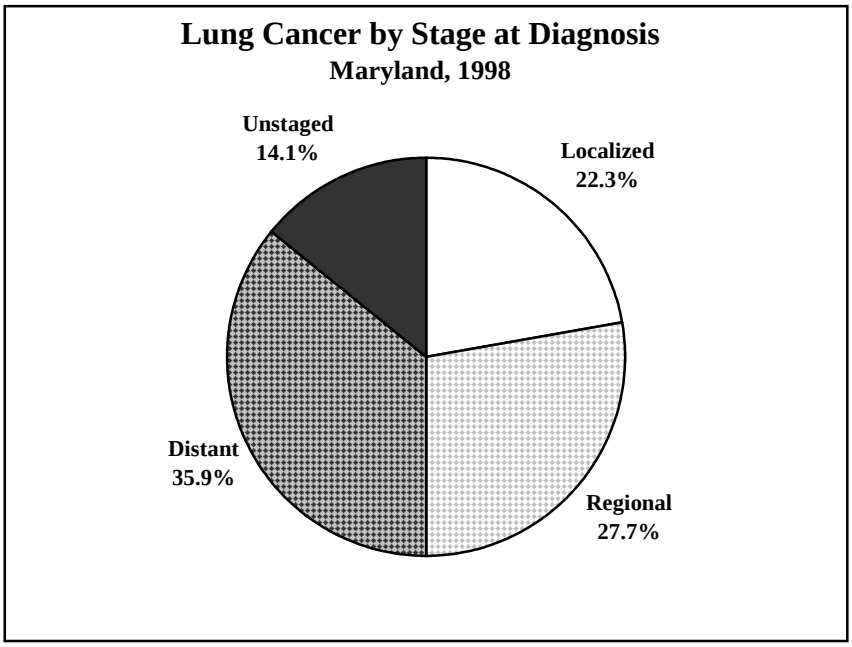
Lung cancer mortality began to decline in the 1990's. In Maryland, lung cancer death rates have decreased an average of 0.7% per year from 1993 to 1998.



Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998

Race-Specific Rates

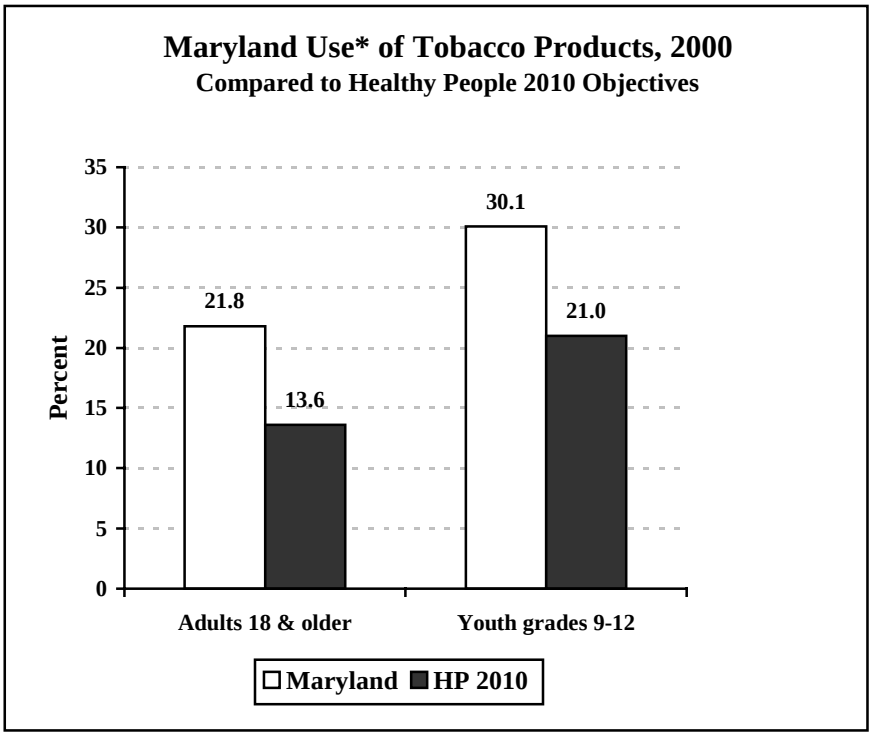
Incidence rates were the same for whites and blacks in 1998 in Maryland whereas blacks had a statistically significantly higher lung cancer mortality rate than whites.



Maryland Cancer Registry, 1998

Stage at Diagnosis

In 1998, 22.3% of lung cancer cases were diagnosed at the localized (early) stage in Maryland.



Healthy People 2010 Objectives

The Healthy People 2010 objectives are to reduce the percentage of adults (≥18 years) who smoke cigarettes, use spit tobacco, and smoke cigars to 12%, 0.4%, and 1.2%, respectively and to reduce tobacco use by students in grades 9-12 to 21%.

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

* "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

Public Health Evidence (from National Cancer Institute, PDQ, 6/2001)

Primary Prevention

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. Cigar and pipe smoking have also been associated with increased lung cancer risk. Tobacco avoidance and cessation will 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 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 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 among 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)

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

through:

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

✓ Adoption of smoke-free laws and policies (e.g., raising the costs of tobacco products, reducing minors access to tobacco products, reducing exposure to environmental smoke)

✓ Individually-focused identification of tobacco use and cessation counseling by medical and dental providers (NCI, PDQ, 6/01)

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

✓ Nicotine replacement and other pharmacotherapy

✓ Effective community-based tobacco use prevention activities encompassing all sectors of the community (e.g., homes, work sites, places of worship and entertainment, civic organizations)

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

✓ Evidence-based tobacco prevention curricula in schools

✓ Evidence-based tobacco cessation programs for youth in schools

- ***Enforcement programs:***

✓ Enforcement of laws and policies to reduce minors access to tobacco products

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

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

✓ Counter tobacco advertisements

✓ Raise awareness of the dangers of environmental tobacco smoke

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

✓ Promote cessation of tobacco use

Table 12.
Number of Lung and Bronchus Cancer Cases by Jurisdiction, Gender and Race, Maryland, 1998

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	3,430	1,879	1,550	2,694	689	41	6
Allegany	85	53	32	85	0	0	0
Anne Arundel	334	170	164	299	s	**	**
Baltimore City	619	344	275	s	310	**	0
Baltimore County	645	342	303	571	70	**	**
Calvert	48	32	16	s	**	0	0
Caroline	16	9	7	13	**	**	0
Carroll	78	51	27	s	**	0	0
Cecil	59	33	26	59	0	0	0
Charles	56	33	23	42	s	**	0
Dorchester	42	22	20	28	14	0	0
Frederick	101	64	37	s	**	0	0
Garrett	25	16	9	25	0	0	0
Harford	152	93	59	146	6	0	0
Howard	88	39	49	76	s	**	0
Kent	24	14	10	s	**	0	0
Montgomery	333	166	166	277	36	20	0
Prince George's	338	189	149	196	136	**	**
Queen Anne's	25	10	15	s	**	0	0
Saint Mary's	57	34	23	51	6	0	0
Somerset	25	15	10	19	6	0	0
Talbot	29	13	16	s	**	0	0
Washington	95	51	44	s	**	0	0
Wicomico	63	31	32	51	12	0	0
Worcester	73	42	31	59	s	**	0
Unknown	20	13	7	17	**	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, 1998

Table 13.
Lung and Bronchus Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender and Race, Maryland, 1998

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	61.3	77.2	49.4	62.3	62.0	24.1
Allegany	73.9	109.6	46.2	75.4	0.0	0.0
Anne Arundel	70.3	81.7	63.4	74.1	52.4	**
Baltimore City	81.6	111.0	61.9	94.5	74.0	**
Baltimore County	64.5	77.9	55.1	62.3	91.3	**
Calvert	73.4	106.8	**	88.8	**	0.0
Caroline	**	**	**	**	**	**
Carroll	51.9	78.9	29.9	53.0	**	0.0
Cecil	69.5	84.9	57.6	74.1	0.0	0.0
Charles	62.1	79.3	**	63.3	**	**
Dorchester	99.0	**	**	93.4	**	0.0
Frederick	57.5	82.7	36.9	59.5	**	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	73.3	100.8	51.8	79.0	**	0.0
Howard	48.5	49.3	49.4	50.7	**	**
Kent	**	**	**	**	**	0.0
Montgomery	35.5	41.2	31.6	35.6	47.2	**
Prince George's	52.4	68.5	40.8	54.5	54.1	**
Queen Anne's	**	**	**	**	**	0.0
Saint Mary's	71.6	90.6	**	80.5	**	0.0
Somerset	**	**	**	**	**	0.0
Talbot	48.0	**	**	**	**	0.0
Washington	60.0	73.2	49.0	59.1	**	0.0
Wicomico	65.6	78.8	55.1	69.3	**	0.0
Worcester	104.8	133.7	79.5	110.1	**	**

* Rates are per 100,000 and are age-adjusted to 1970 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, 1998

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	**	0
Anne Arundel	271	150	121	239	s	**
Baltimore City	533	314	219	s	295	**
Baltimore County	506	292	214	468	38	0
Calvert	42	30	12	s	**	0
Caroline	24	11	13	s	**	0
Carroll	66	37	29	s	**	0
Cecil	61	38	23	s	**	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	**	18	0	0
Harford	118	62	56	111	7	0
Howard	73	38	35	66	s	**
Kent	16	s	**	s	**	0
Montgomery	272	145	127	231	29	12
Prince George's	307	167	140	149	151	7
Queen Anne's	27	11	16	s	**	0
Saint Mary's	28	16	12	s	**	0
Somerset	23	s	**	17	6	0
Talbot	29	16	13	s	**	0
Washington	92	50	42	s	**	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 (1970) Mortality Rates* by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	48.8	65.3	36.5	48.2	56.1	**
Allegany	50.8	78.0	**	50.8	**	0.0
Anne Arundel	55.3	69.9	44.0	57.5	47.3	**
Baltimore City	69.2	102.8	46.5	72.4	70.5	**
Baltimore County	47.0	63.6	35.3	47.7	47.6	0.0
Calvert	61.9	96.1	**	73.5	**	0.0
Caroline	**	**	**	**	**	0.0
Carroll	40.7	55.8	30.0	41.0	**	0.0
Cecil	68.3	92.3	**	69.7	**	0.0
Charles	57.2	63.0	54.3	62.8	**	0.0
Dorchester	74.7	**	**	**	**	0.0
Frederick	46.0	72.7	**	44.9	**	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	53.9	65.4	45.9	56.8	**	0.0
Howard	39.3	45.1	34.1	43.3	**	**
Kent	**	**	**	**	**	0.0
Montgomery	26.6	34.6	20.8	26.9	35.7	**
Prince George's	47.2	60.4	38.4	40.2	59.3	**
Queen Anne's	54.8	**	**	**	**	0.0
Saint Mary's	33.6	**	**	**	**	0.0
Somerset	**	**	**	**	**	0.0
Talbot	42.8	**	**	51.3	**	0.0
Washington	52.4	67.4	40.9	53.6	**	0.0
Wicomico	61.6	85.1	44.6	65.0	**	0.0
Worcester	53.9	**	**	59.5	**	0.0

* Rates are per 100,000 and are age-adjusted to 1970 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.
Lung and Bronchus Cancer Age-Adjusted (2000) 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 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 17.
Number of Lung and Bronchus Cancer Cases by Jurisdiction, Gender and Race, Maryland, 1994-1998

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	18,341	10,483	7,857	14,289	3,770	246	36
Allegany	418	247	171	408	7	**	**
Anne Arundel	1,807	988	819	1,602	188	s	**
Baltimore City	3,650	2,172	1,478	1,854	1,767	23	6
Baltimore County	3,180	1,736	1,444	2,841	312	s	**
Calvert	233	135	98	195	s	**	0
Caroline	140	83	57	122	s	**	0
Carroll	452	281	171	434	s	**	0
Cecil	333	207	126	317	s	**	0
Charles	326	190	136	257	62	7	0
Dorchester	200	133	67	152	s	0	**
Frederick	474	307	167	452	s	**	0
Garrett	99	67	32	99	0	0	0
Harford	683	402	281	640	s	**	0
Howard	461	244	217	390	62	s	**
Kent	116	70	46	97	s	**	0
Montgomery	1,945	960	984	1,650	187	101	7
Prince George's	1,906	1,106	800	1,110	741	46	9
Queen Anne's	162	96	66	139	s	**	0
Saint Mary's	271	165	106	241	s	**	0
Somerset	143	101	42	107	s	**	0
Talbot	154	83	71	126	28	0	0
Washington	539	325	214	525	s	0	**
Wicomico	356	200	156	286	s	**	0
Worcester	266	167	99	223	s	**	0
Unknown	27	18	9	22	**	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, 1994-1998

Table 18.
Lung and Bronchus Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender and Race, Maryland, 1994-1998

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	67.7	89.4	51.5	67.4	72.4	34.4
Allegany	70.0	99.5	48.4	69.6	**	**
Anne Arundel	79.7	98.3	65.7	81.9	70.6	**
Baltimore City	92.7	135.5	63.6	103.7	84.9	**
Baltimore County	65.4	82.3	53.1	63.7	90.4	**
Calvert	76.8	96.5	59.8	82.0	60.1	**
Caroline	78.1	102.2	59.0	83.5	**	**
Carroll	62.7	89.5	41.7	62.1	**	**
Cecil	82.5	109.6	59.4	83.4	**	**
Charles	75.5	101.1	55.8	79.3	65.1	**
Dorchester	91.4	136.5	56.0	95.8	79.2	0.0
Frederick	58.3	85.4	37.0	59.7	**	**
Garrett	50.3	76.0	29.4	50.6	0.0	0.0
Harford	70.2	94.2	52.5	73.0	51.6	**
Howard	55.2	65.9	47.5	56.2	57.5	**
Kent	79.2	105.0	57.9	86.2	**	**
Montgomery	43.6	50.4	38.8	43.8	50.4	30.8
Prince George's	62.5	84.5	46.3	62.1	66.4	35.5
Queen Anne's	69.3	87.8	54.7	71.5	**	**
Saint Mary's	75.5	97.2	56.8	83.0	41.4	**
Somerset	94.3	144.3	50.4	105.4	68.4	**
Talbot	55.5	67.4	46.4	55.9	55.7	0.0
Washington	67.5	92.9	47.9	67.5	**	0.0
Wicomico	78.9	105.7	59.2	82.3	68.7	**
Worcester	83.4	114.3	57.0	88.7	61.6	**

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998

Table 19.
Number of Lung and Brochus Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 1994-98

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	14,481	8,472	6,009	11,147	3,201	133
Allegany	312	187	125	305	s	**
Anne Arundel	1,358	780	578	1,212	133	13
Baltimore City	2,990	1,794	1,196	1,387	1,593	10
Baltimore County	2,608	1,461	1,147	2,391	202	15
Calvert	169	90	79	140	s	**
Caroline	114	70	44	97	17	0
Carroll	345	210	135	337	8	0
Cecil	266	166	100	253	s	**
Charles	271	151	120	228	s	**
Dorchester	138	93	45	103	35	0
Frederick	404	271	133	378	s	**
Garrett	76	49	27	76	0	0
Harford	510	304	206	479	s	**
Howard	359	198	161	304	49	6
Kent	83	46	37	68	15	0
Montgomery	1,401	721	680	1,195	157	49
Prince George's	1,578	948	630	893	659	26
Queen Anne's	136	89	47	116	s	**
Saint Mary's	184	114	70	159	s	**
Somerset	118	80	38	85	33	0
Talbot	115	71	44	91	24	0
Washington	441	268	173	434	7	0
Wicomico	310	179	131	255	s	**
Worcester	195	132	63	161	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, 1994-1998

Table 20.
Lung and Bronchus Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender and Race, Maryland, 1994-98

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	52.9	72.4	38.6	51.6	62.1	19.4
Allegany	50.9	73.5	35.4	50.6	**	**
Anne Arundel	60.0	78.8	45.9	61.9	51.0	**
Baltimore City	75.1	111.5	50.6	75.2	76.5	**
Baltimore County	52.2	68.6	40.6	52.0	61.2	**
Calvert	54.7	63.4	46.0	57.7	42.9	**
Caroline	60.5	84.9	41.4	62.5	**	0.0
Carroll	48.3	67.8	33.3	48.8	**	0.0
Cecil	65.6	88.1	47.2	66.1	**	**
Charles	63.4	80.4	50.5	71.1	42.2	**
Dorchester	61.9	94.5	36.7	63.1	61.4	0.0
Frederick	49.3	76.2	28.8	49.3	**	**
Garrett	38.7	57.6	25.2	39.0	0.0	0.0
Harford	52.5	72.4	38.1	54.7	37.3	**
Howard	42.0	54.8	33.3	42.7	46.2	**
Kent	53.4	66.6	42.6	57.6	**	0.0
Montgomery	31.1	38.1	26.0	31.0	44.0	16.0
Prince George's	52.0	72.8	36.5	49.7	60.6	20.3
Queen Anne's	56.7	79.0	37.6	58.5	**	**
Saint Mary's	51.0	67.5	37.2	54.8	**	**
Somerset	75.9	111.9	44.7	80.9	67.3	0.0
Talbot	40.6	55.7	29.5	38.8	**	0.0
Washington	53.7	75.2	37.8	54.2	**	0.0
Wicomico	67.8	94.9	47.3	72.3	53.8	**
Worcester	58.9	88.0	34.8	61.2	51.2	0.0

* Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998

Maryland Lung Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1994-1998

Rates are age-adjusted to the 1970 U.S. standard population and are per 100,000 population.

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

U.S. Lung Cancer Mortality Rate, 1994-1998: 48.7 per 100,000

Maryland Division of Health Statistics, 1994-1998

B. Colorectal Cancer

Incidence (New Cases)

Cancer of the colon or rectum is often called colorectal cancer. There were 2,728 new cases of colorectal cancers diagnosed among Maryland residents in 1998. Colorectal cancers represent 11.7% of 1998 new cancers. The age-adjusted colorectal cancer incidence rate in Maryland for 1998 is 46.6 per 100,000 population (44.8-48.4, 95% C.I.) which is statistically significantly higher than the 1998 SEER age-adjusted colorectal cancer incidence rate of 44.1 per 100,000 population.

Mortality (Deaths)

A total of 1,106 persons died of colorectal cancer in 1998 in Maryland. Colorectal cancer accounts for 10.9% of all cancer deaths and is the 2nd leading cause of cancer deaths in Maryland. The age-adjusted colorectal mortality rate in Maryland is 18.2 per 100,000 population (17.1-19.3, 95% C.I.). This rate is statistically significantly higher than the 1998 U.S. colorectal cancer mortality rate of 16.3 per 100,000 population. Maryland has the 3rd highest colorectal cancer mortality rate among the states and the District of Columbia.

Table 21.
Colorectal Cancer Incidence (1998) and Mortality (1998 and 1999) Rates by Gender and Race, Maryland and the United States

Incidence 1998	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
New Cases (#)	2,728	1,341	1,387	2,040	572	68
Incidence Rate[1]	46.6	54.2	40.7	44.4	51.4	39.3
U.S. SEER Rate[1]	44.1	51.7	38.2	43.6	48.4	*
Mortality 1998	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	1,106	526	580	826	261	19
MD Mortality Rate[1]	18.2	21.3	15.6	17.0	23.3	**
1998 U.S. Rate[1]	16.3	19.6	13.7	15.8	22.2	*
Mortality 1999	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	1,059	509	550	763	278	18
MD Mortality Rate[1]	17.0	20.1	14.6	15.3	24.2	**
MD Mortality Rate[2]	22.5	26.4	19.6	20.6	31.2	**
U.S. Mortality Rate	*	*	*	*	*	*

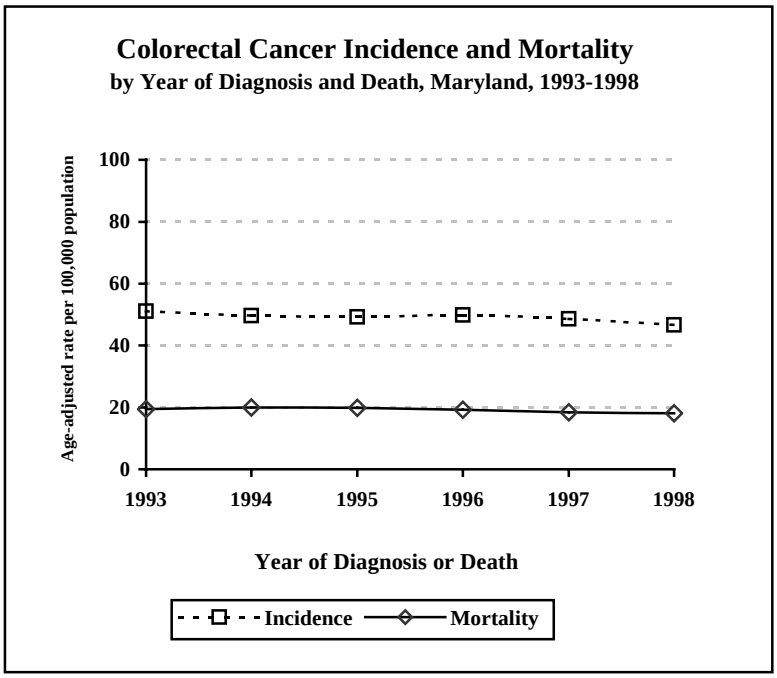
*Rate is not available

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

[1]Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

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

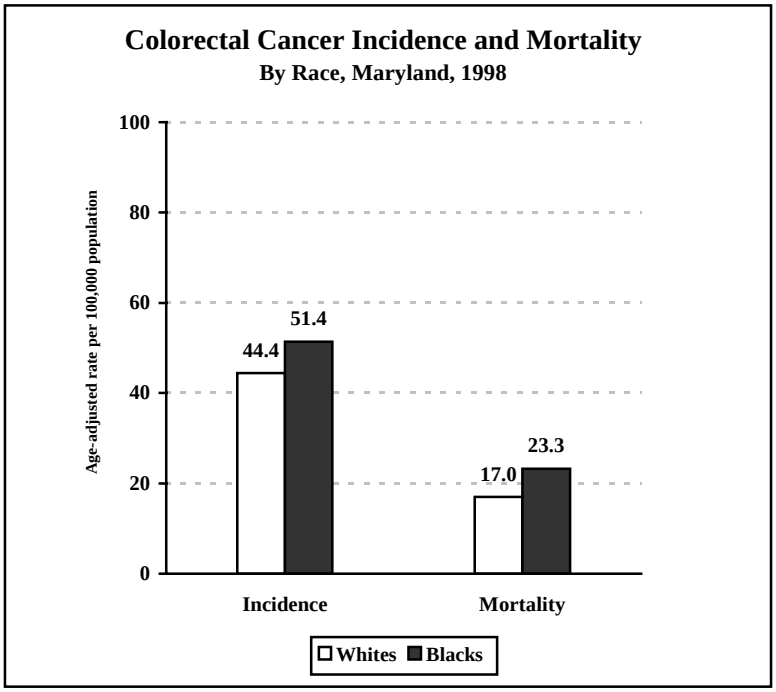
Source: Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998, 1999
SEER, National Cancer Institute, 1998



Maryland Cancer Registry, 1993-1998
Maryland Division of Health Statistics, 1993-1998

Trends

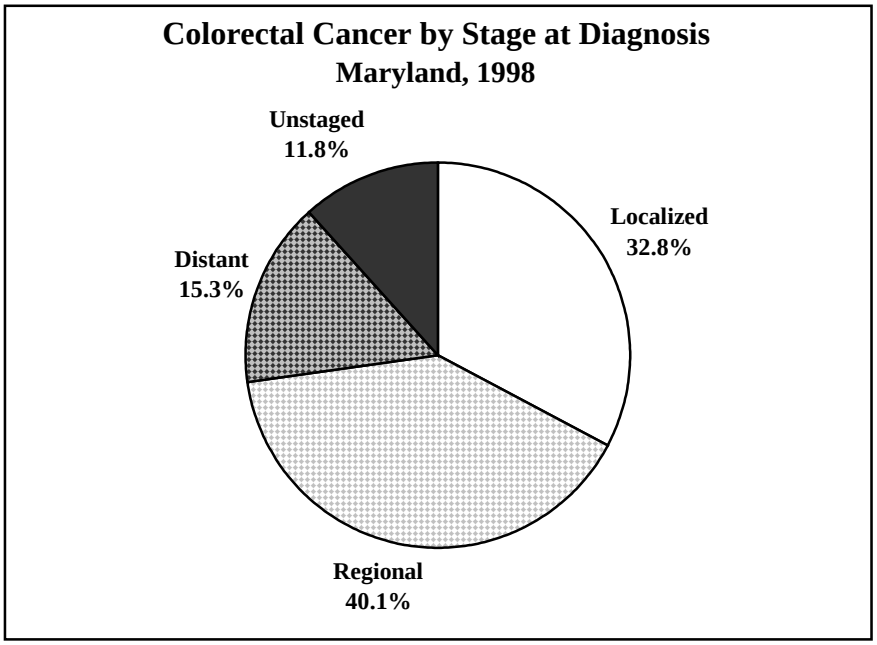
Both incidence and mortality rates for colorectal cancer, have been declining. Incidence rates dropped an average of 1.5% per year from 1993 to 1998 with mortality rates dropping an average of 2.2% per year.



Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998

Race-Specific Rates

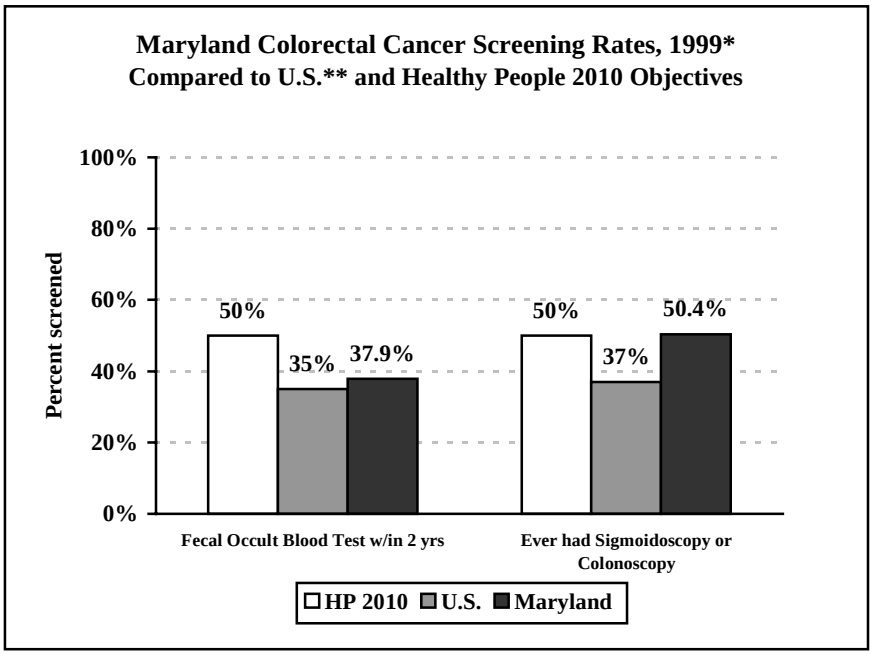
In 1998, blacks had statistically significantly higher incidence and mortality rates than whites in Maryland.



Maryland Cancer Registry, 1998

Stage at Diagnosis

One-third of colorectal cancers were diagnosed at the localized (early) stage in 1998 in Maryland.



*Adults 50 years of age and older
**The U.S. rate is 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

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 who received a sigmoidoscopy.

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 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, 6/2001)

Screening

Randomized controlled clinical trials have shown that guaiac-based fecal occult blood testing either annually or biennially using rehydrated or nonrehydrated stool specimens in people age 50-80 decreases mortality from colorectal cancer. Regular screening by sigmoidoscopy in people over the age of 50 may decrease mortality from colorectal cancer.

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, prevent adenoma formation and 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 Medical Advisory Committee)
Early detection of colorectal cancer: ➢ For those at average risk, screen with colonoscopy or by fecal occult blood testing and flexible sigmoidoscopy ➢ For those at increased risk of colorectal cancer, screen with colonoscopy

Table 22.
Number of Colorectal Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 1998

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	2,728	1,341	1,387	2,040	572	68	48
Allegany	65	29	36	s	**	0	0
Anne Arundel	229	110	119	194	26	**	s
Baltimore City	439	201	238	219	214	**	**
Baltimore County	491	247	244	425	53	s	**
Calvert	30	18	12	s	**	0	0
Caroline	20	10	10	s	**	0	0
Carroll	71	38	33	s	**	**	**
Cecil	34	10	24	s	**	0	**
Charles	46	25	21	32	10	**	**
Dorchester	30	16	14	26	**	0	**
Frederick	95	51	44	82	9	**	**
Garrett	16	9	7	16	0	0	0
Harford	84	46	38	74	10	0	0
Howard	81	35	46	62	12	s	**
Kent	19	7	12	s	**	0	0
Montgomery	335	164	171	266	36	26	7
Prince George's	332	159	173	162	153	11	6
Queen Anne's	26	16	10	s	**	0	0
Saint Mary's	37	21	16	30	s	0	**
Somerset	16	13	**	s	**	0	0
Talbot	27	18	9	19	s	0	**
Washington	87	38	49	87	0	0	0
Wicomico	41	15	26	34	s	**	0
Worcester	43	23	20	37	**	0	**
Unknown	34	22	12	17	**	**	11

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, 1998

Table 23.
Colorectal Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1998

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	46.6	54.2	40.7	44.4	51.4	39.3
Allegany	54.6	60.5	49.8	54.4	**	0.0
Anne Arundel	46.2	50.6	42.8	46.0	42.1	**
Baltimore City	54.6	63.0	49.4	57.3	51.6	**
Baltimore County	46.8	56.4	39.1	44.3	70.7	**
Calvert	44.2	**	**	**	**	0.0
Caroline	**	**	**	**	**	0.0
Carroll	43.8	57.2	33.4	43.8	**	**
Cecil	38.0	**	**	37.8	**	0.0
Charles	46.4	**	**	43.7	**	**
Dorchester	63.7	**	**	78.7	**	0.0
Frederick	51.5	61.5	42.1	47.9	**	**
Garrett	**	**	**	**	0.0	0.0
Harford	39.1	49.2	33.2	38.6	**	0.0
Howard	41.4	40.6	40.3	38.6	**	**
Kent	**	**	**	**	**	0.0
Montgomery	33.9	40.0	29.5	32.4	42.6	34.4
Prince George's	50.4	57.6	45.0	42.0	63.1	**
Queen Anne's	50.2	**	**	**	**	0.0
Saint Mary's	45.5	**	**	46.2	**	0.0
Somerset	**	**	**	**	**	0.0
Talbot	50.3	**	**	**	**	0.0
Washington	49.5	50.7	48.6	51.1	0.0	0.0
Wicomico	39.0	**	39.1	41.8	**	**
Worcester	58.0	**	**	65.5	**	0.0

* Rates are per 100,000 and are age-adjusted to 1970 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, 1998

Table 24.
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	**	0
Anne Arundel	79	42	37	69	s	**
Baltimore City	189	89	100	s	107	**
Baltimore County	189	83	106	168	s	**
Calvert	16	8	8	s	**	0
Caroline	10	s	**	10	0	0
Carroll	22	13	9	22	0	0
Cecil	14	s	**	s	**	0
Charles	22	11	11	s	**	0
Dorchester	14	8	6	s	**	0
Frederick	38	19	19	s	**	0
Garrett	10	s	**	10	0	0
Harford	37	17	20	28	9	0
Howard	30	16	14	23	s	**
Kent	7	**	**	**	**	0
Montgomery	112	46	66	93	9	10
Prince George's	128	62	66	54	s	**
Queen Anne's	9	**	**	s	**	0
Saint Mary's	18	10	8	11	s	**
Somerset	7	**	**	**	**	0
Talbot	15	s	**	**	s	0
Washington	34	14	20	34	0	0
Wicomico	17	**	s	s	**	0
Worcester	15	8	7	s	**	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 25.
Colorectal Cancer Age-Adjusted (1970) Mortality Rates* by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	17.0	20.1	14.6	15.3	24.2	**
Allegany	20.1	**	**	19.9	**	0.0
Anne Arundel	15.3	19.1	12.1	15.5	**	**
Baltimore City	22.5	27.8	19.4	18.5	25.1	**
Baltimore County	16.6	18.3	15.2	16.1	**	**
Calvert	**	**	**	**	**	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	**	**	**	**	0.0	0.0
Cecil	**	**	**	**	**	0.0
Charles	**	**	**	**	**	0.0
Dorchester	**	**	**	**	**	0.0
Frederick	20.0	**	**	20.6	**	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	16.6	**	**	13.4	**	0.0
Howard	14.8	**	**	**	**	**
Kent	**	**	**	**	**	0.0
Montgomery	10.2	10.7	9.8	9.6	**	**
Prince George's	19.1	22.6	16.5	13.2	30.0	**
Queen Anne's	**	**	**	**	**	0.0
Saint Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	0.0
Talbot	**	**	**	**	**	0.0
Washington	17.2	**	**	17.8	0.0	0.0
Wicomico	**	**	**	**	**	0.0
Worcester	**	**	**	**	**	0.0

* Rates are per 100,000 and are age-adjusted to 1970 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 26.
Colorectal Cancer Age-Adjusted (2000) 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 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 27.
Number of Colorectal Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 1994-1998

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	13,871	6,790	7,081	10,524	2,923	279	145
Allegany	350	174	176	340	s	**	**
Anne Arundel	1,172	609	563	984	149	15	24
Baltimore City	2,443	1,099	1,344	1,296	1,115	21	11
Baltimore County	2,455	1,235	1,220	2,145	266	32	12
Calvert	161	92	69	127	s	**	0
Caroline	110	64	46	96	14	0	0
Carroll	428	222	206	410	12	**	**
Cecil	183	83	100	176	**	0	**
Charles	217	108	109	169	43	**	**
Dorchester	132	65	67	105	s	0	**
Frederick	403	201	202	354	39	**	s
Garrett	91	41	50	88	**	0	**
Harford	470	267	203	410	53	**	**
Howard	363	161	202	283	60	s	**
Kent	68	29	39	53	s	**	**
Montgomery	1,815	869	946	1,489	196	111	19
Prince George's	1,638	779	859	828	724	52	34
Queen Anne's	115	54	61	101	14	0	0
Saint Mary's	165	97	68	138	23	**	**
Somerset	71	40	31	55	s	**	0
Talbot	156	86	70	117	s	0	**
Washington	406	194	212	398	8	0	0
Wicomico	232	101	131	190	s	**	0
Worcester	181	92	89	151	27	**	**
Unknown	46	28	18	21	s	**	14

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

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

Source: Maryland Cancer Registry, 1994-1998

Table 28.
Colorectal Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1994-1998

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	48.9	57.3	42.4	46.8	55.4	37.6
Allegany	55.4	69.8	44.7	55.0	**	**
Anne Arundel	50.3	60.3	42.1	49.1	52.8	**
Baltimore City	58.2	67.5	51.7	63.7	53.3	**
Baltimore County	48.1	58.4	40.3	45.5	78.2	36.7
Calvert	51.9	67.7	38.6	52.2	50.2	**
Caroline	59.1	79.6	41.3	63.8	**	0.0
Carroll	55.5	69.4	45.2	54.8	**	**
Cecil	44.1	43.1	45.0	44.8	**	0.0
Charles	49.1	54.2	43.7	50.9	45.0	**
Dorchester	54.4	65.9	43.8	59.4	40.9	0.0
Frederick	47.2	53.4	42.6	44.6	79.7	**
Garrett	43.8	48.0	40.6	43.0	**	0.0
Harford	47.1	60.7	36.8	45.4	66.2	**
Howard	40.4	42.5	38.7	38.0	52.7	**
Kent	43.7	41.7	44.3	42.9	**	**
Montgomery	38.6	45.0	34.2	37.2	50.4	33.0
Prince George's	52.0	58.3	46.7	44.1	62.1	39.2
Queen Anne's	47.2	49.9	47.6	50.1	**	0.0
Saint Mary's	43.4	55.1	33.8	44.6	**	**
Somerset	45.0	56.1	35.6	50.4	**	**
Talbot	51.1	65.4	40.8	47.1	67.3	0.0
Washington	47.3	54.1	41.8	47.6	**	0.0
Wicomico	48.1	51.8	44.8	50.9	32.7	**
Worcester	51.4	60.1	42.7	53.6	40.4	**

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998

Table 29.
Number of Colorectal Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 1994-98

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	5,567	2,752	2,815	4,193	1,304	70
Allegany	136	80	56	s	**	0
Anne Arundel	477	258	219	408	s	**
Baltimore City	1,057	503	554	470	581	6
Baltimore County	1,003	479	524	920	77	6
Calvert	66	30	36	49	17	0
Caroline	48	23	25	40	8	0
Carroll	161	77	84	155	**	**
Cecil	66	29	37	s	**	**
Charles	89	45	44	71	s	**
Dorchester	37	16	21	27	10	0
Frederick	164	81	83	153	11	0
Garrett	41	17	24	41	0	0
Harford	186	107	79	165	s	**
Howard	149	73	76	123	19	7
Kent	30	16	14	24	6	0
Montgomery	676	336	340	561	86	29
Prince George's	633	300	333	324	300	9
Queen Anne's	28	13	15	s	**	0
Saint Mary's	68	40	28	59	s	**
Somerset	33	15	18	25	8	0
Talbot	62	33	29	43	19	0
Washington	178	90	88	s	**	0
Wicomico	112	61	51	82	s	**
Worcester	67	30	37	55	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, 1994-1998

Table 30.
Colorectal Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1994-98

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	19.1	23.5	15.9	18.0	25.1	9.9
Allegany	21.1	30.9	15.4	21.0	**	0.0
Anne Arundel	20.5	26.8	15.8	20.3	23.6	**
Baltimore City	24.7	31.1	20.1	21.8	27.7	**
Baltimore County	18.8	22.5	16.2	18.6	22.0	**
Calvert	21.5	23.7	19.1	20.2	**	0.0
Caroline	24.1	**	**	24.5	**	0.0
Carroll	20.2	24.4	16.5	20.0	**	**
Cecil	15.5	15.4	15.6	16.0	**	**
Charles	21.0	25.5	18.6	22.4	**	**
Dorchester	13.5	**	**	13.6	**	0.0
Frederick	18.5	22.6	15.3	18.6	**	0.0
Garrett	20.8	**	**	20.9	0.0	0.0
Harford	18.5	25.7	13.4	18.2	**	**
Howard	16.9	20.0	14.9	17.0	**	**
Kent	17.9	**	**	**	**	0.0
Montgomery	13.8	17.5	11.2	13.3	23.7	9.6
Prince George's	20.3	23.3	18.0	16.8	27.1	**
Queen Anne's	10.9	**	**	**	**	0.0
Saint Mary's	18.1	23.7	13.6	19.7	**	**
Somerset	20.4	**	**	**	**	0.0
Talbot	18.3	23.3	15.0	15.8	**	0.0
Washington	20.0	24.6	16.2	20.3	**	0.0
Wicomico	22.5	30.4	17.1	21.4	26.0	**
Worcester	19.1	20.5	18.2	19.7	**	0.0

* Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998

Maryland Colorectal Cancer Mortality Rates by Geographical Area Comparison to U.S. Rates, 1994-1998

Rates are age-adjusted to the 1970 U.S. standard population and are per 100,000 population.

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

U.S. Colorectal Cancer Mortality Rate, 1994-1998: 16.9 per 100,000

Maryland Division of Health Statistics, 1994-1998

C. Female Breast Cancer

Incidence (New Cases)

Breast cancer is the most common reportable cancer among women. A total of 3,716 women in Maryland were diagnosed with breast cancer in 1998. Female breast cancers represent 16.0% of all cancers in 1998. The 1998 age-adjusted incidence rate in Maryland is 118.0 per 100,000 women (114.1-122.0, 95% C.I.); this is similar to the 1998 SEER age-adjusted incidence rate for breast cancer of 118.1 per 100,000 women.

Mortality (Deaths)

In 1998, a total of 826 women died of breast cancer in Maryland. Female breast cancer accounts for 8.1% 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 24.7 per 100,000 women (23.0-26.6, 95% C.I.). This rate is statistically significantly higher than the 1998 U.S. mortality rate for breast cancer of 22.7 per 100,000 population of women. Maryland women rank 5th highest for breast cancer mortality among the states and the District of Columbia.

Table 31.
Female Breast Cancer Incidence (1998) and Mortality (1998 and 1999) Rates by Race, Maryland and the United States

Incidence 1998	*Total*	*Whites*	*Blacks*	*Other*
New Cases (#)	3,716	2,795	747	127
Incidence Rate[1]	118.0	121.1	101.9	112.3
U.S. SEER Rate[1]	118.1	121.3	99.2	*
Mortality 1998	*Total*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	826	592	227	7
MD Mortality Rate[1]	24.7	23.1	32.2	**
1998 U.S. Rate[1]	22.7	22.2	29.6	*
Mortality 1999	*Total*	*Whites*	*Blacks*	*Other*
MD Deaths (#)	782	567	211	**
MD Mortality Rate[1]	23.3	22.3	29.1	**
MD Mortality Rate[2]	28.5	27.4	35.5	**
U.S. Mortality Rate	*	*	*	*

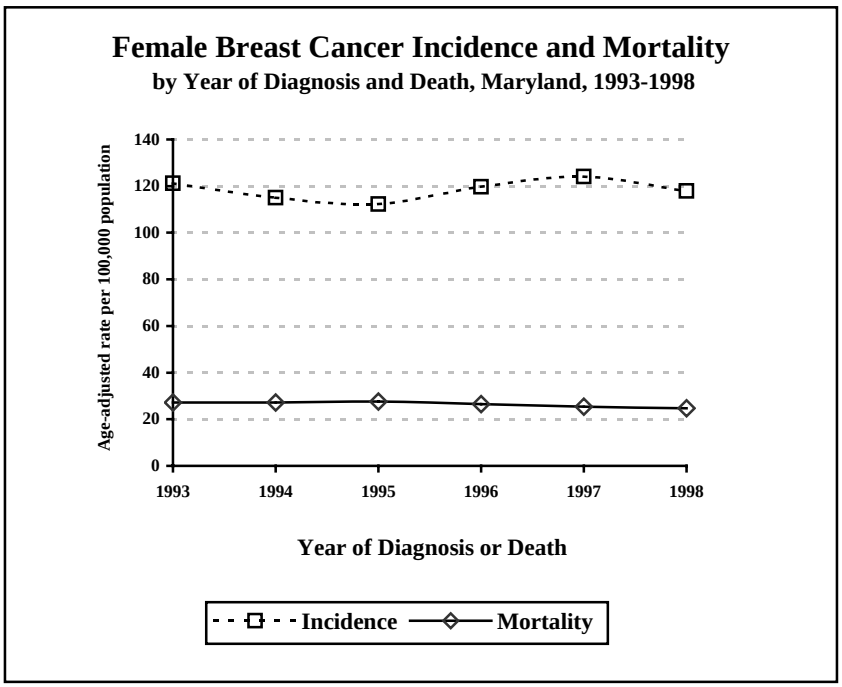
*Rate is not available

**Cells with 5 or fewer non-zero cases and rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

[1]Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

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

Source: Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998, 1999
SEER, National Cancer Institute, 1998

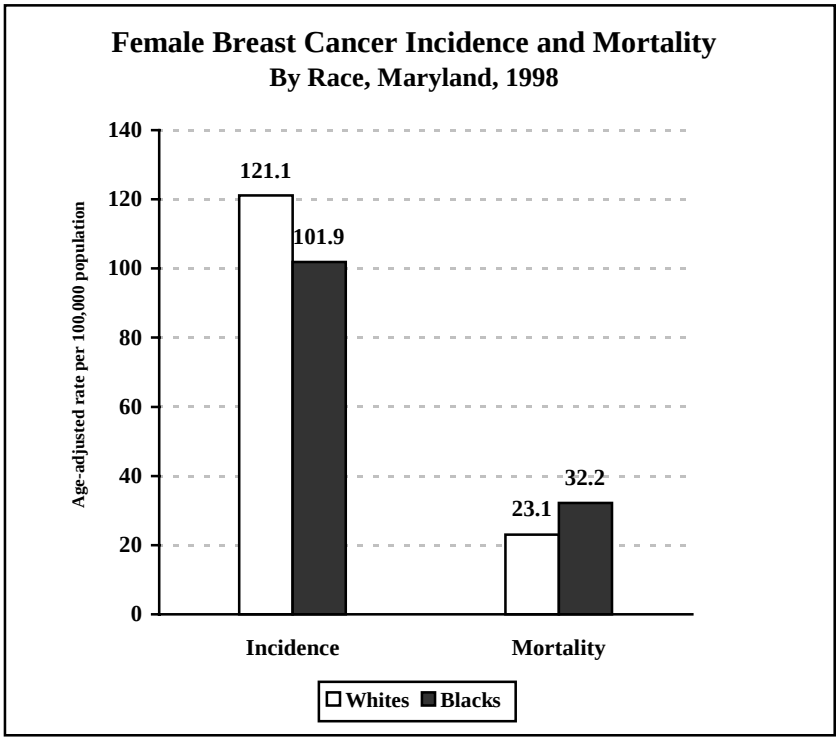


Maryland Cancer Registry, 1993-1998
Maryland Division of Health Statistics, 1993-1998

Trends

From 1993 to 1998, there has been a slight increase of 0.4% annually in breast cancer incidence among Maryland women.

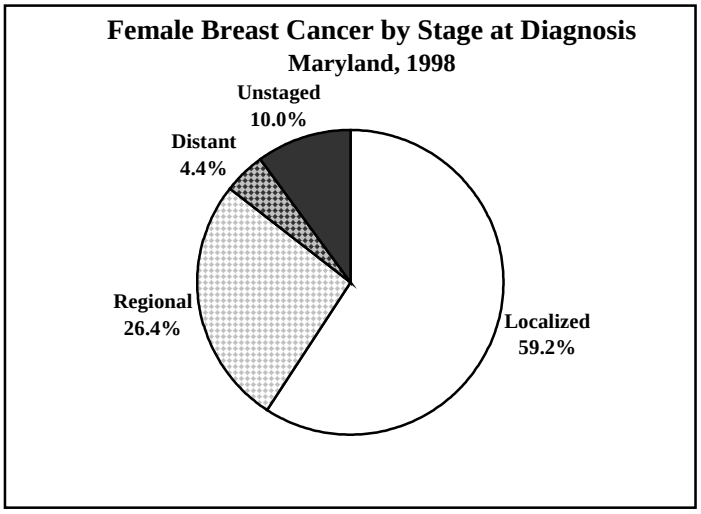
On the other hand, breast cancer mortality has been slightly decreasing an average of 1.9% per year between 1993 and 1998.



Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998

Race-Specific Rates

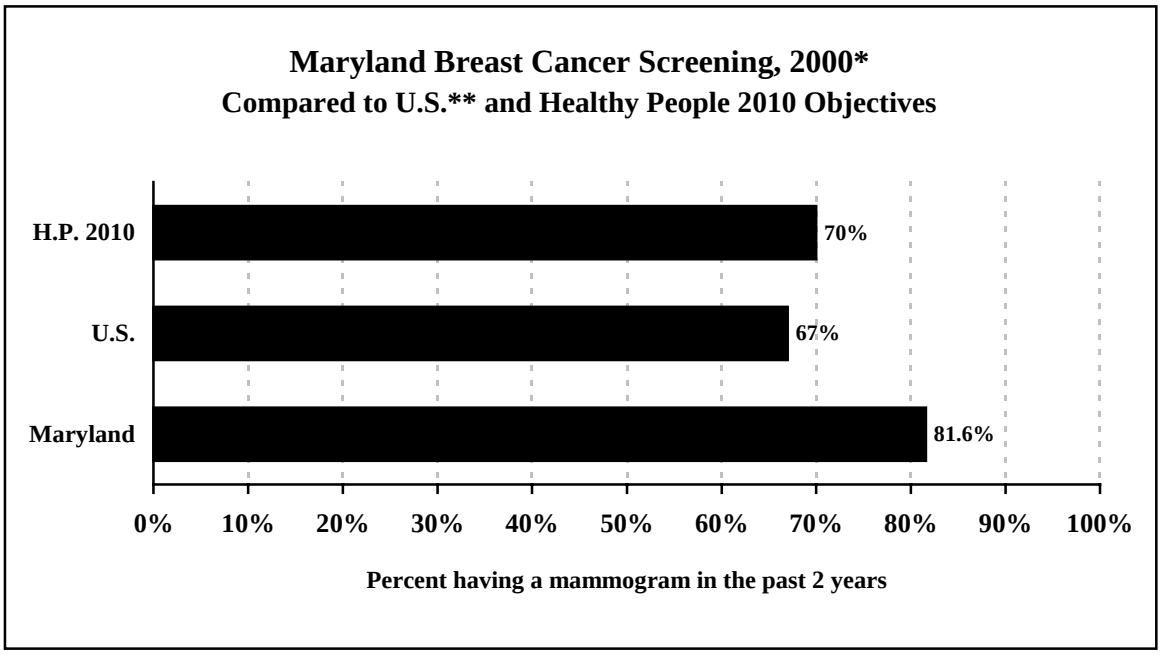
White women have a statistically significantly higher incidence of breast cancer than black women while black women have a statistically significantly higher mortality rate than white women.



Maryland Cancer Registry, 1998

Stage of Disease at Diagnosis

In 1998, 59.2% of female breast cancer cases were diagnosed at the localized (early) stage, slightly lower than the 61.2% in 1997.



*Women 40 years of age and older
**The U.S. rate is age-adjusted to the year 2000 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, 6/2001)

Screening

Mammography, with or without clinical breast examination, has been shown in several controlled clinical trials to reduce breast cancer mortality. Monthly breast self examination (BSE) is frequently advocated, but there is no evidence for its effectiveness as a single modality. Two randomized trials showed that BSE alone had no effect on breast cancer diagnosis or mortality.

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. 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.

The use of 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 related to combination therapy. Patients considering HRT should weigh its potential effects on breast cancer risk with evidence that it reduces overall mortality.

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

Table 32.
Number of Female Breast Cancer Cases by Jurisdiction and Race, Maryland, 1998

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	3,716	2,795	747	127	47
Allegany	70	70	0	0	0
Anne Arundel	353	308	37	**	**
Baltimore City	508	266	231	s	**
Baltimore County	633	546	72	8	7
Calvert	38	30	s	**	0
Caroline	17	14	**	**	0
Carroll	91	86	**	**	**
Cecil	47	s	0	**	0
Charles	70	53	s	**	0
Dorchester	25	20	**	0	**
Frederick	138	123	10	**	**
Garrett	8	8	0	0	0
Harford	120	111	s	0	**
Howard	140	111	17	s	**
Kent	18	s	**	0	0
Montgomery	616	487	58	60	11
Prince George's	485	221	240	s	**
Queen Anne's	31	24	s	0	**
Saint Mary's	37	s	**	0	0
Somerset	22	18	**	**	0
Talbot	36	31	**	**	0
Washington	96	s	**	0	0
Wicomico	55	40	s	**	0
Worcester	32	23	s	**	0
Unknown	30	17	**	**	8

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, 1998

Table 33.
Female Breast Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 1998

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	118.0	121.1	101.9	112.3
Allegany	108.0	110.3	0.0	0.0
Anne Arundel	131.6	137.5	100.1	**
Baltimore City	115.2	159.1	90.1	**
Baltimore County	120.5	118.8	139.1	**
Calvert	98.7	105.3	**	**
Caroline	**	**	**	**
Carroll	102.8	101.6	**	**
Cecil	99.9	101.9	0.0	**
Charles	126.1	136.6	**	**
Dorchester	**	**	**	0.0
Frederick	135.7	132.1	**	**
Garrett	**	**	0.0	0.0
Harford	98.3	103.8	**	0.0
Howard	117.5	123.1	**	**
Kent	**	**	**	0.0
Montgomery	118.5	117.7	96.0	116.2
Prince George's	122.2	117.9	125.2	**
Queen Anne's	118.4	**	**	0.0
Saint Mary's	83.5	93.3	**	0.0
Somerset	**	**	**	**
Talbot	138.1	152.2	**	**
Washington	108.6	110.5	**	0.0
Wicomico	105.7	101.0	**	**
Worcester	106.7	**	**	**

* Rates are per 100,000 and are age-adjusted to 1970 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, 1998

Table 34.
Number of Female Breast Cancer Deaths by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	782	567	s	**
Allegany	14	14	0	0
Anne Arundel	77	64	13	0
Baltimore City	140	59	81	0
Baltimore County	128	118	10	0
Calvert	**	**	0	0
Caroline	**	**	0	0
Carroll	12	12	0	0
Cecil	10	10	0	0
Charles	13	**	s	0
Dorchester	6	6	0	0
Frederick	27	s	**	0
Garrett	**	**	0	0
Harford	23	23	0	0
Howard	26	22	**	**
Kent	**	**	0	0
Montgomery	117	92	s	**
Prince George's	96	s	60	**
Queen Anne's	**	**	0	0
Saint Mary's	11	s	**	0
Somerset	**	**	0	0
Talbot	7	**	**	0
Washington	22	s	**	0
Wicomico	23	s	**	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 35.
Female Breast Cancer Age-Adjusted (1970) Mortality Rates* by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	23.3	22.3	29.1	**
Allegany	**	**	0.0	0.0
Anne Arundel	26.8	26.6	**	0.0
Baltimore City	30.6	32.9	30.8	0.0
Baltimore County	20.5	21.3	**	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	27.6	**	**	0.0
Garrett	**	**	0.0	0.0
Harford	**	**	0.0	0.0
Howard	20.2	**	**	**
Kent	**	**	0.0	0.0
Montgomery	21.5	20.6	**	**
Prince George's	24.0	16.8	33.6	**
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 1970 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 36.
Female Breast Cancer Age-Adjusted (2000) 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 37.
Number of Female Breast Cancer Cases
by Jurisdiction and Race, Maryland, 1994-1998

Jurisdiction	Total	Race			
		Whites	Blacks	Others	Unknown
Maryland	18,397	14,049	3,653	497	198
Allegany	322	319	**	**	0
Anne Arundel	1,706	1,476	194	23	13
Baltimore City	2,695	1,430	1,225	27	13
Baltimore County	2,955	2,543	349	41	22
Calvert	186	159	23	**	**
Caroline	106	92	s	**	0
Carroll	491	476	6	s	**
Cecil	251	240	8	**	**
Charles	303	238	53	s	**
Dorchester	144	113	s	**	**
Frederick	552	501	41	**	**
Garrett	106	103	0	**	**
Harford	613	564	42	**	**
Howard	664	528	90	36	10
Kent	89	74	15	0	0
Montgomery	3,324	2,740	311	209	64
Prince George's	2,264	1,065	1,066	97	36
Queen Anne's	141	122	s	0	**
Saint Mary's	204	170	25	s	**
Somerset	86	66	s	**	0
Talbot	175	154	s	**	0
Washington	448	434	8	**	**
Wicomico	340	265	66	s	**
Worcester	192	156	30	**	**
Unknown	40	21	**	**	11

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, 1994-1998

Table 38.
Female Breast Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 1994-1998

Jurisdiction	Total	Race		
		Whites	Blacks	Others
Maryland	119.9	123.0	106.9	97.0
Allegany	103.9	104.6	**	**
Anne Arundel	132.1	134.6	119.1	**
Baltimore City	119.5	158.8	96.2	105.1
Baltimore County	114.7	111.4	149.1	76.2
Calvert	104.4	115.9	**	**
Caroline	115.4	126.3	**	**
Carroll	116.8	117.4	**	**
Cecil	113.8	115.3	**	**
Charles	118.5	126.2	89.3	**
Dorchester	121.8	132.5	92.2	**
Frederick	116.5	114.5	136.1	**
Garrett	104.9	103.5	0.0	**
Harford	107.6	111.5	84.5	**
Howard	120.9	122.6	104.4	119.1
Kent	121.9	132.0	**	0.0
Montgomery	131.8	135.0	110.7	90.8
Prince George's	117.7	110.0	125.0	102.0
Queen Anne's	113.4	117.5	**	0.0
Saint Mary's	103.9	107.0	**	**
Somerset	111.1	130.3	**	**
Talbot	124.4	139.0	**	**
Washington	103.4	102.9	**	**
Wicomico	133.5	138.4	107.3	**
Worcester	119.6	125.5	82.8	**

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998

Table 39.
Number of Female Breast Cancer Deaths
by Jurisdiction and Race, Maryland, 1994-98

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	4,199	3,094	1,054	51
Allegany	62	s	**	0
Anne Arundel	328	285	s	**
Baltimore City	766	332	427	7
Baltimore County	728	650	s	**
Calvert	30	22	s	**
Caroline	25	s	**	0
Carroll	104	s	**	0
Cecil	63	s	**	0
Charles	55	37	18	0
Dorchester	32	27	**	**
Frederick	116	108	s	**
Garrett	23	s	**	0
Harford	142	128	s	**
Howard	130	102	s	**
Kent	20	13	7	0
Montgomery	637	538	81	18
Prince George's	567	261	297	9
Queen Anne's	28	s	**	0
Saint Mary's	45	s	**	0
Somerset	24	s	**	0
Talbot	37	s	**	0
Washington	120	s	**	0
Wicomico	78	60	18	0
Worcester	39	s	**	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, 1994-1998

Table 40.
Female Breast Cancer Age-Adjusted Mortality Rates* by Jurisdiction and Race, Maryland, 1994-98

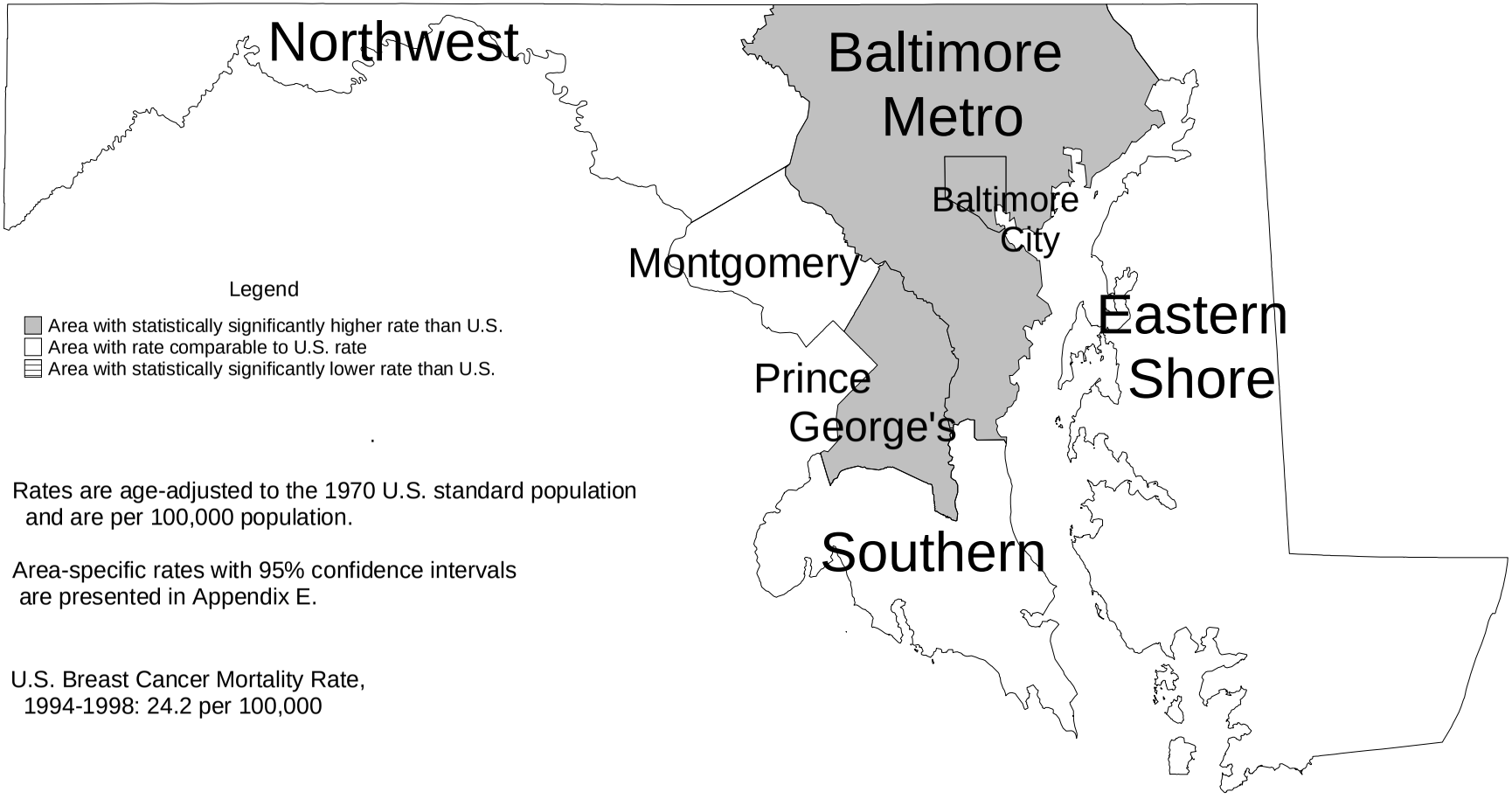
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	26.2	25.0	31.8	10.4
Allegany	16.6	15.7	**	0.0
Anne Arundel	25.1	25.4	25.6	**
Baltimore City	31.8	29.5	33.1	**
Baltimore County	26.1	25.7	33.5	**
Calvert	17.7	**	**	**
Caroline	**	**	**	0.0
Carroll	25.0	25.4	**	0.0
Cecil	27.7	27.1	**	0.0
Charles	22.3	20.2	**	0.0
Dorchester	26.2	31.1	**	**
Frederick	23.4	23.3	**	**
Garrett	**	**	**	0.0
Harford	24.5	24.9	**	**
Howard	25.0	24.2	**	**
Kent	**	**	**	0.0
Montgomery	23.8	24.4	31.7	**
Prince George's	30.1	25.6	37.7	**
Queen Anne's	20.6	**	**	0.0
Saint Mary's	22.8	24.6	**	0.0
Somerset	**	**	**	0.0
Talbot	24.9	29.8	**	0.0
Washington	25.0	25.2	**	0.0
Wicomico	29.3	29.3	**	0.0
Worcester	19.9	22.5	**	0.0

* Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998

Maryland Breast Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1994-1998



Rates are age-adjusted to the 1970 U.S. standard population and are per 100,000 population.

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

U.S. Breast Cancer Mortality Rate, 1994-1998: 24.2 per 100,000

Maryland Division of Health Statistics, 1994-1998

D. Prostate Cancer

Incidence (New Cases)

A total of 3,504 cases of prostate cancer were diagnosed among men during 1997 in Maryland. Prostate cancer is the most common reportable cancer among men. Prostate cancers accounts for 15.1% of all cancers in 1998. The age-adjusted prostate cancer incidence rate in Maryland for 1998 is 146.5 per 100,000 men (141.7-151.5, 95% C.I.) in Maryland; this is statistically significantly higher than the 1998 SEER age-adjusted incidence rate for prostate cancer of 137.3 per 100,000 population of men.

Mortality (Deaths)

Prostate cancer is the 2nd leading cause of cancer deaths in Maryland among men. In 1998, 599 men died of prostate cancer in Maryland; this accounts for 5.9% of all cancer deaths in Maryland. The age-adjusted mortality rate for prostate cancer is 24.4 per 100,000 men (22.5-26.5, 95% C.I.). This rate is statistically significantly higher than the 1998 U.S. mortality rate for prostate cancer of 21.5 per 100,000 men. Maryland has the 10th highest mortality rate for prostate cancer among the states and the District of Columbia.

Table 41.
Prostate Cancer Incidence (1998) and Mortality (1998 and 1999) Rates by Race, Maryland and the United States

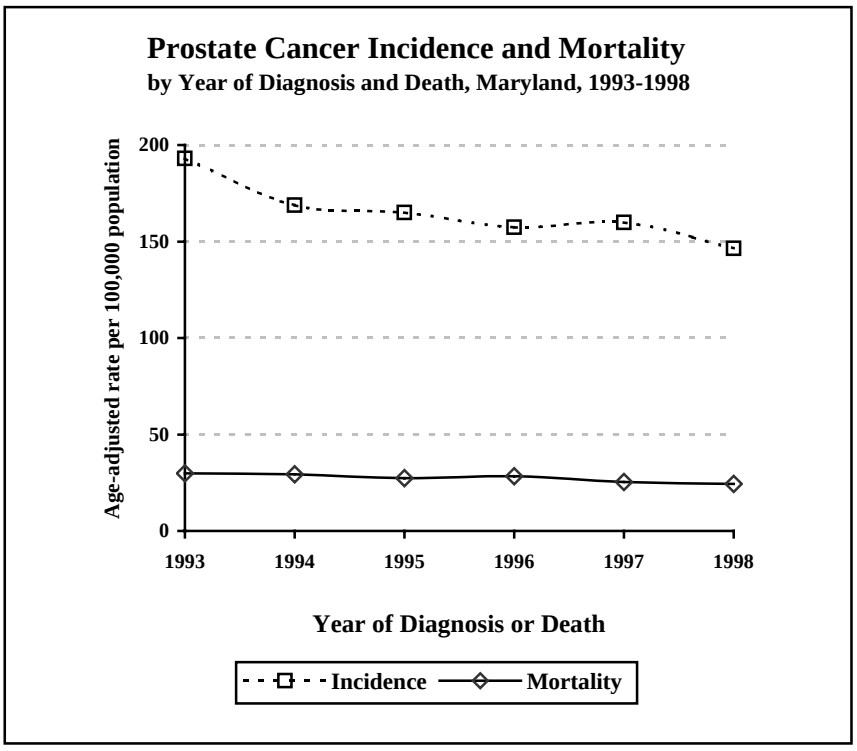
Incidence 1998	*Total*	*Whites*	*Blacks*
New Cases (#)	3,504	2,244	847
Incidence Rate[1]	146.5	121.1	187.2
SEER Rate[1]	137.3	130.9	216.2
Mortality 1998	*Total*	*Whites*	*Blacks*
MD Deaths (#)	599	407	188
MD Mortality Rate[1]	24.4	20.3	47.2
1998 U.S. Rate[1]	21.5	19.6	48.7
Mortality 1999	*Total*	*Whites*	*Blacks*
MD Deaths (#)	574	380	188
MD Mortality Rate[1]	22.7	18.5	45.3
MD Mortality Rate[2]	34.1	28.1	67.4
US Mortality Rate	*	*	*

*Rate is not available

[1]Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

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

Source: Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998, 1999
SEER, National Cancer Institute, 1998

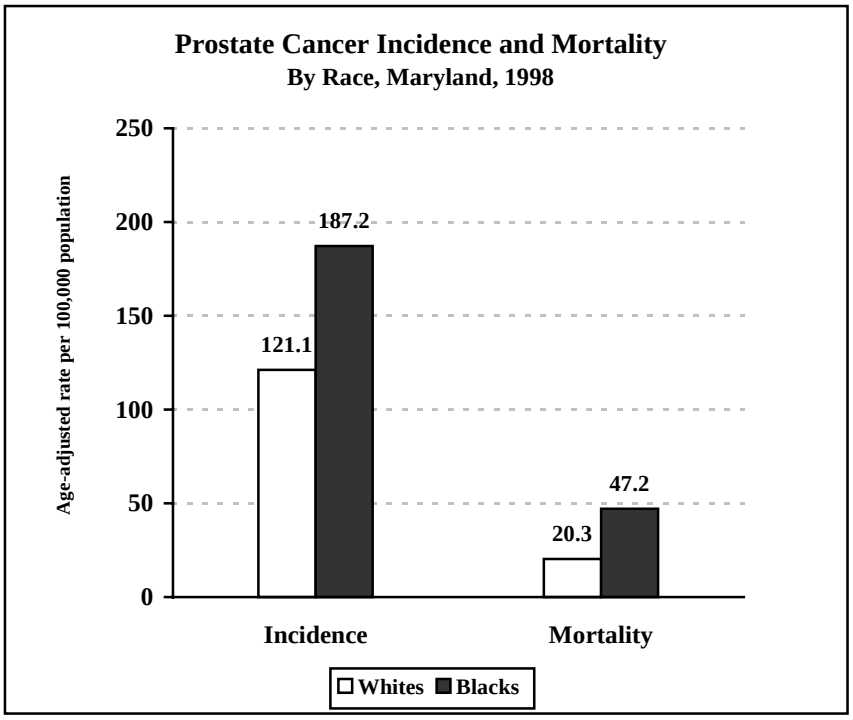


Maryland Cancer Registry, 1993-1998
Maryland Division of Health Statistics, 1993-1998

Trends

Prostate cancer incidence rates have decreased an average of 4.0% per year from 1993 to 1998 in Maryland.

Prostate mortality rates declined an average of 4.2% among men from 1993 to 1998.

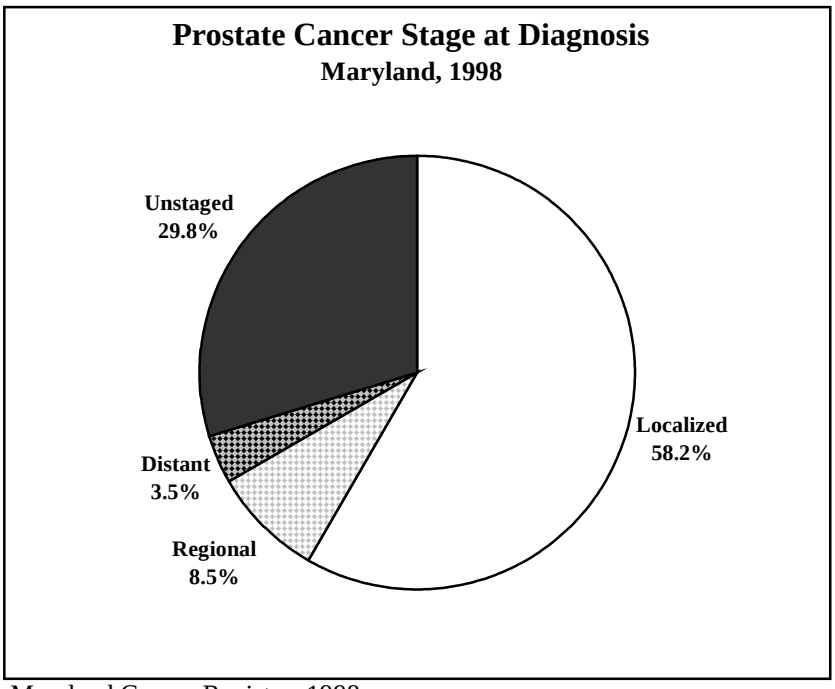


Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998

Race-Specific Rates

The incidence rate for prostate cancer for black men is statistically significantly higher than for white men in 1998.

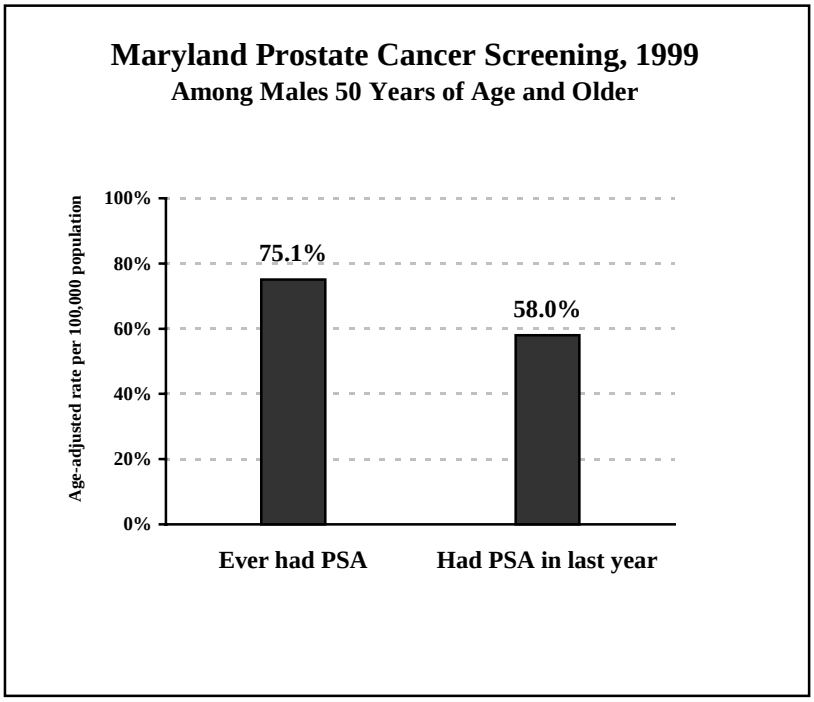
The mortality rate for prostate cancer which is more than twice as high for black men than for white men is statistically significantly higher.



Maryland Cancer Registry, 1998

Stage at Diagnosis

During 1998 in Maryland, approximately 58% of prostate cancer cases were diagnosed at the localized (early) stage.



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

Healthy People 2010 Objectives

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

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 all men had had a PSA in the past year. This rate is comparable to the 1996 rates for these two measures of 66.2% and 52.1%, respectively.

Public Health Evidence (from National Cancer Institute, PDO, 6/2001)

Screening

Digital rectal examination (DRE) and the serum prostate specific antigen (PSA) test are two commonly used methods of detecting prostate cancer. There is currently 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 fall 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)
On the basis of available data, men … should be made aware of the availability of the PSA test and its potential harms and benefits, so that they can make an informed choice about screening.

Table 42.
Number of Prostate Cancer Cases
by Jurisdiction and Race, Maryland, 1998

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	3,504	2,244	847	67	346
Allegany	58	55	**	**	0
Anne Arundel	281	208	37	7	29
Baltimore City	534	197	277	9	51
Baltimore County	520	389	85	**	s
Calvert	50	32	9	0	9
Caroline	18	18	0	0	0
Carroll	94	83	0	0	11
Cecil	60	49	**	**	8
Charles	91	68	20	**	**
Dorchester	26	16	10	0	0
Frederick	103	71	**	**	26
Garrett	20	20	0	0	0
Harford	142	104	s	**	22
Howard	114	85	17	**	s
Kent	14	9	**	0	**
Montgomery	555	413	66	18	58
Prince George's	458	163	237	18	40
Queen Anne's	33	24	s	**	**
Saint Mary's	45	35	s	0	**
Somerset	14	8	6	0	0
Talbot	36	28	8	0	0
Washington	83	73	**	0	**
Wicomico	54	38	s	0	**
Worcester	42	32	s	0	**
Unknown	59	26	s	**	23

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

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

Source: Maryland Cancer Registry, 1998

Table 43.
Prostate Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 1998

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	146.5	121.1	180.0	92.8
Allegany	121.0	117.1	**	**
Anne Arundel	135.3	118.3	141.5	**
Baltimore City	175.1	152.9	168.3	**
Baltimore County	121.3	99.7	249.7	**
Calvert	166.2	145.2	**	0.0
Caroline	**	**	0.0	0.0
Carroll	140.6	130.0	0.0	0.0
Cecil	153.8	133.4	**	**
Charles	221.2	223.6	**	**
Dorchester	134.9	**	**	0.0
Frederick	137.9	104.4	**	**
Garrett	**	**	0.0	0.0
Harford	154.5	125.1	**	**
Howard	145.4	130.8	**	**
Kent	**	**	**	0.0
Montgomery	141.5	127.5	211.7	**
Prince George's	167.2	105.5	240.7	**
Queen Anne's	133.8	**	**	**
Saint Mary's	127.8	123.0	**	0.0
Somerset	**	**	**	0.0
Talbot	143.7	143.0	**	0.0
Washington	115.9	106.3	**	0.0
Wicomico	139.4	131.6	**	0.0
Worcester	134.8	133.9	**	0.0

* Rates are per 100,000 and are age-adjusted to 1970 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, 1998

Table 44.
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	**
Baltimore City	121	43	78	0
Baltimore County	88	71	17	0
Calvert	10	s	**	0
Caroline	**	**	**	0
Carroll	14	s	**	0
Cecil	13	s	**	0
Charles	8	**	**	0
Dorchester	11	s	**	0
Frederick	14	s	**	0
Garrett	**	**	0	0
Harford	23	s	**	0
Howard	16	s	**	0
Kent	**	**	**	0
Montgomery	77	63	s	**
Prince George's	71	s	38	**
Queen Anne's	**	**	**	0
Saint Mary's	9	s	**	0
Somerset	**	**	**	0
Talbot	7	s	**	0
Washington	11	11	0	0
Wicomico	13	s	**	0
Worcester	9	s	**	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 45.
Prostate Cancer Age-Adjusted (1970) Mortality Rates* by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	22.7	18.5	45.3	**
Allegany	**	**	0.0	0.0
Anne Arundel	17.4	16.2	**	**
Baltimore City	35.9	24.5	50.6	0.0
Baltimore County	18.5	16.1	**	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	18.1	17.1	**	**
Prince George's	28.7	20.1	49.2	**
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 1970 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 46.
Prostate Cancer Age-Adjusted (2000) 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 47.
Number of Prostate Cancer Cases
by Jurisdiction and Race, Maryland, 1994-1998

Jurisdiction	Total	Race			
		Whites	Blacks	Others	Unknown
Maryland	18,982	12,581	4,784	336	1,281
Allegany	382	370	7	**	**
Anne Arundel	1,532	1,211	200	25	96
Baltimore City	3,085	1,143	1,752	28	162
Baltimore County	3,175	2,461	479	34	201
Calvert	200	138	40	**	s
Caroline	132	99	s	**	**
Carroll	582	510	s	**	54
Cecil	270	230	18	**	s
Charles	361	251	95	6	9
Dorchester	144	90	s	0	**
Frederick	552	410	s	**	100
Garrett	91	s	0	0	**
Harford	724	600	65	9	50
Howard	552	392	95	9	56
Kent	95	60	23	**	s
Montgomery	2,998	2,323	357	120	198
Prince George's	2,440	937	1,245	65	193
Queen Anne's	151	118	29	**	**
Saint Mary's	200	143	47	**	s
Somerset	83	51	s	0	**
Talbot	226	179	38	**	s
Washington	419	378	s	**	23
Wicomico	259	182	61	6	10
Worcester	230	177	43	0	10
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, 1994-1998

Table 48.
Prostate Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 1994-1998

Jurisdiction	Total	Race		
		Whites	Blacks	Others
Maryland	164.3	137.9	228.1	110.3
Allegany	151.7	149.2	**	**
Anne Arundel	153.5	140.7	171.5	**
Baltimore City	192.3	150.8	211.8	173.9
Baltimore County	150.9	127.3	337.6	99.0
Calvert	148.7	133.2	146.1	**
Caroline	164.1	150.8	208.6	**
Carroll	191.2	173.9	**	**
Cecil	145.5	131.4	**	**
Charles	200.1	185.2	230.9	**
Dorchester	146.1	126.4	195.0	0.0
Frederick	156.7	125.9	184.4	**
Garrett	103.4	103.0	0.0	0.0
Harford	170.8	154.8	212.0	**
Howard	153.6	131.0	211.1	**
Kent	142.3	117.0	**	**
Montgomery	161.2	147.8	262.4	88.3
Prince George's	189.4	122.2	278.0	106.1
Queen Anne's	136.5	126.1	177.2	**
Saint Mary's	118.8	103.9	169.4	**
Somerset	116.0	107.0	124.7	0.0
Talbot	178.2	175.7	164.0	**
Washington	119.3	111.0	**	**
Wicomico	135.1	123.9	148.2	**
Worcester	155.4	152.1	143.4	0.0

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998

Table 49.
Number of Prostate Cancer Deaths
by Jurisdiction and Race, Maryland, 1994-98

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	3,115	2,058	1,033	24
Allegany	51	51	0	0
Anne Arundel	222	179	s	**
Baltimore City	686	s	484	**
Baltimore County	521	446	75	0
Calvert	29	21	8	0
Caroline	22	s	**	0
Carroll	85	79	6	0
Cecil	53	46	7	0
Charles	65	44	21	0
Dorchester	33	21	12	0
Frederick	75	67	s	**
Garrett	19	19	0	0
Harford	105	90	s	**
Howard	83	62	s	**
Kent	23	15	8	0
Montgomery	385	327	50	8
Prince George's	355	s	200	**
Queen Anne's	23	15	8	0
Saint Mary's	46	33	13	0
Somerset	18	7	11	0
Talbot	33	28	**	**
Washington	89	82	7	0
Wicomico	51	32	s	**
Worcester	43	24	19	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, 1994-1998

Table 50.
Prostate Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 1994-98

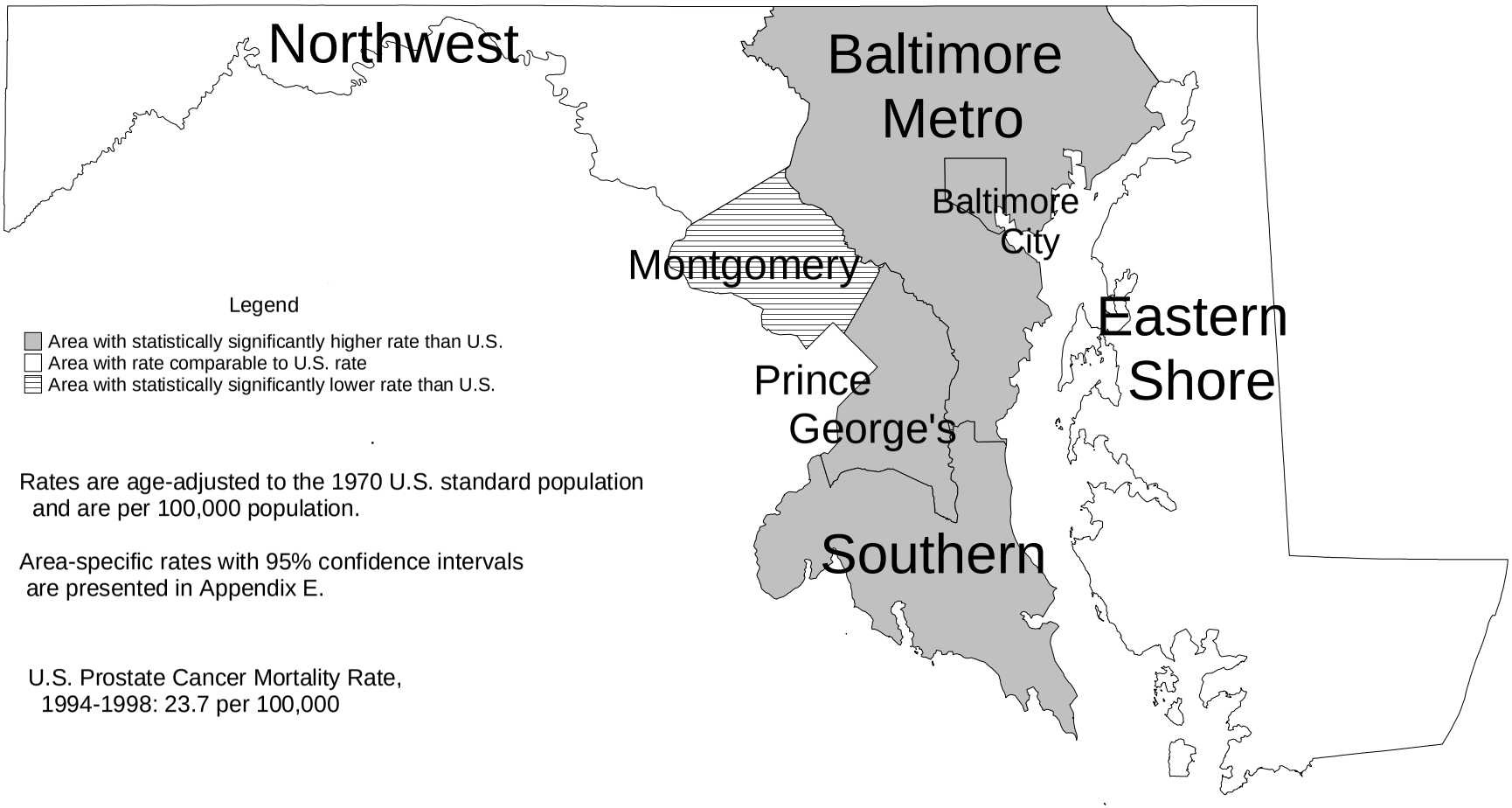
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	26.9	21.7	56.0	9.4
Allegany	17.9	18.2	0.0	0.0
Anne Arundel	24.9	23.2	34.7	**
Baltimore City	39.9	21.1	62.8	**
Baltimore County	23.8	21.9	60.3	0.0
Calvert	22.6	**	**	0.0
Caroline	**	**	**	0.0
Carroll	25.9	24.8	**	0.0
Cecil	28.9	26.5	**	0.0
Charles	42.4	38.5	**	0.0
Dorchester	28.2	**	**	0.0
Frederick	20.7	19.8	**	**
Garrett	**	**	0.0	0.0
Harford	27.1	25.2	**	**
Howard	26.5	23.2	**	**
Kent	**	**	**	0.0
Montgomery	20.1	19.3	45.4	**
Prince George's	32.2	21.4	63.7	**
Queen Anne's	**	**	**	0.0
Saint Mary's	27.0	23.5	**	0.0
Somerset	**	**	**	0.0
Talbot	22.5	23.2	**	**
Washington	23.2	21.8	**	0.0
Wicomico	25.5	20.4	**	**
Worcester	27.9	**	**	0.0

* Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998

Maryland Prostate Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1994-1998



Rates are age-adjusted to the 1970 U.S. standard population and are per 100,000 population.

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

U.S. Prostate Cancer Mortality Rate, 1994-1998: 23.7 per 100,000

Maryland Division of Health Statistics, 1994-1998

E. Oral Cancer

Incidence (New Cases)

A total of 542 cases of oral cavity and pharynx cancer (called oral cancer) were diagnosed in Maryland in 1998. The age-adjusted incidence rate for oral cancer in Maryland in 1998 is 9.6 per 100,000 population (8.8-10.4, 95% C.I.) which is similar to the 1998 SEER age-adjusted oral cancer incidence rate of 9.3 per 100,000 population.

Mortality (Deaths)

In 1998, 144 persons in Maryland died of oral cancer. The age-adjusted mortality rate of 2.5 per 100,000 population (2.1-3.0, 95% C.I.) in Maryland is the same as the 1998 U.S. oral cancer mortality rate. Maryland ranks 8th highest for oral cancer mortality among the states and the District of Columbia.

Table 51.
Oral Cancer Incidence (1998) and Mortality (1998 and 1999) Rates by Gender and Race, Maryland and the United States

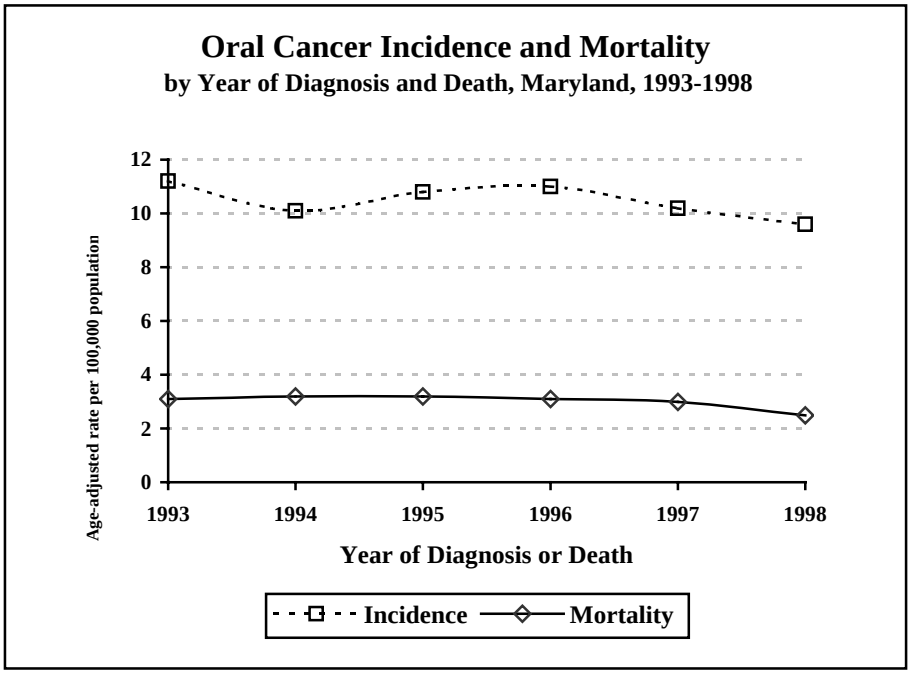
Incidence 1998	*Total*	*Males*	*Females*	*Whites*	*Blacks*
New Cases (#)	542	363	179	383	126
Incidence Rate[1]	9.6	14.2	5.7	9.0	10.4
U.S. SEER Rate[1]	9.3	13.6	5.6	9.2	11.1
Mortality 1998	*Total*	*Males*	*Females*	*Whites*	*Blacks*
MD Deaths (#)	144	94	50	98	42
MD Mortality Rate[1]	2.5	3.8	1.5	2.2	3.7
1998 U.S. Rate[1]	2.5	3.8	1.4	2.3	4.0
Mortality 1999	*Total*	*Males*	*Females*	*Whites*	*Blacks*
MD Deaths (#)	144	98	46	100	43
MD Mortality Rate[1]	2.4	3.8	1.4	2.2	3.4
MD Mortality Rate[2]	3.0	4.7	1.7	2.7	4.1
U.S. Mortality Rate	*	*	*	*	*

*Rate is not available

[1]Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

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

Source: Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998, 1999
SEER, National Cancer Institute, 1998

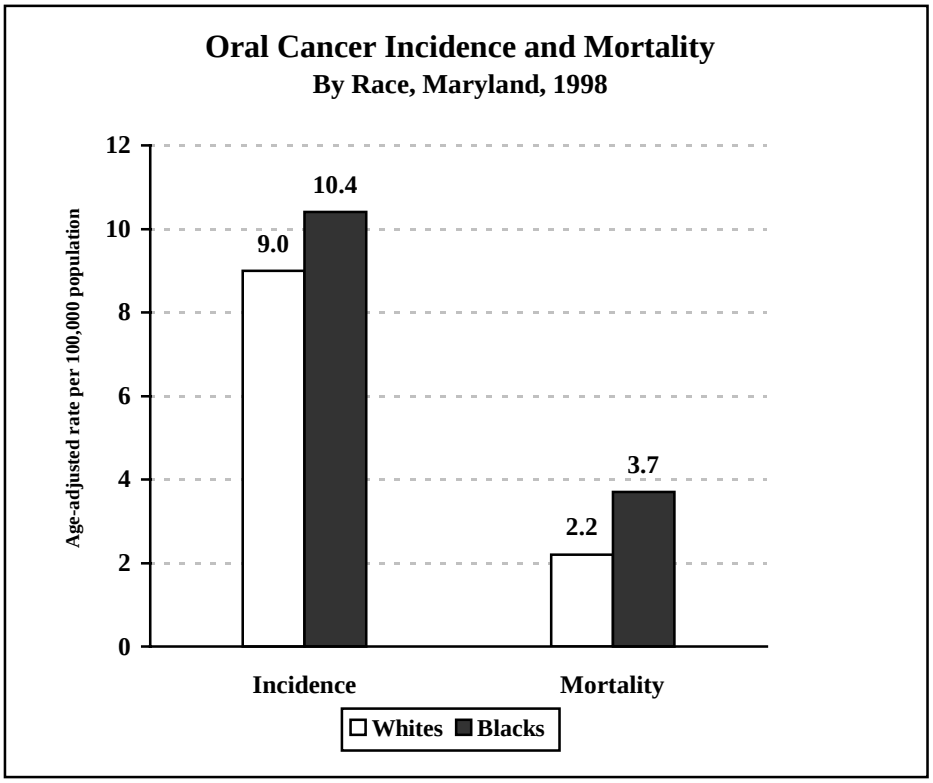


Maryland Cancer Registry, 1993-1998
Maryland Division of Health Statistics, 1993-1998

Trends

The incidence of oral cancer has decreased an average of 2.0% per year from 1993 to 1998 in Maryland.

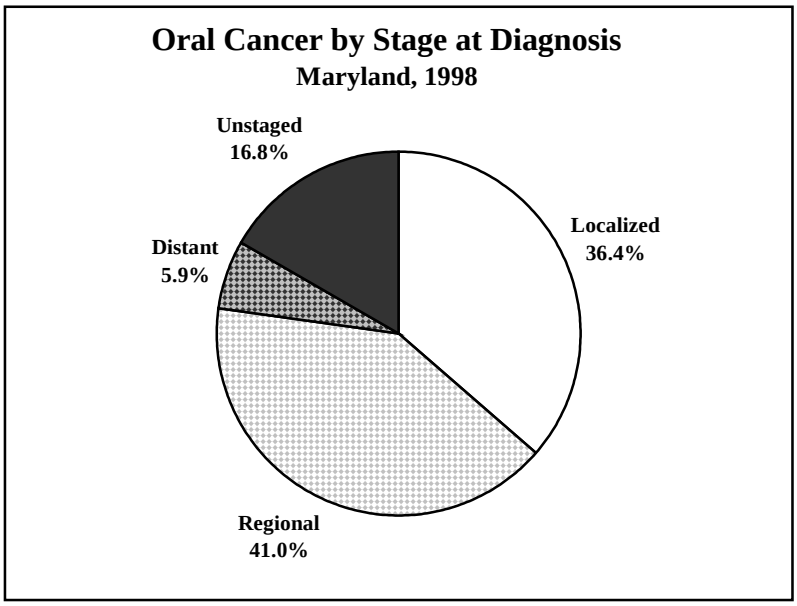
Mortality rates for oral cancer overall declined an average of 3.7% per year from 1993 to 1998.



Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998

Race-Specific Rates

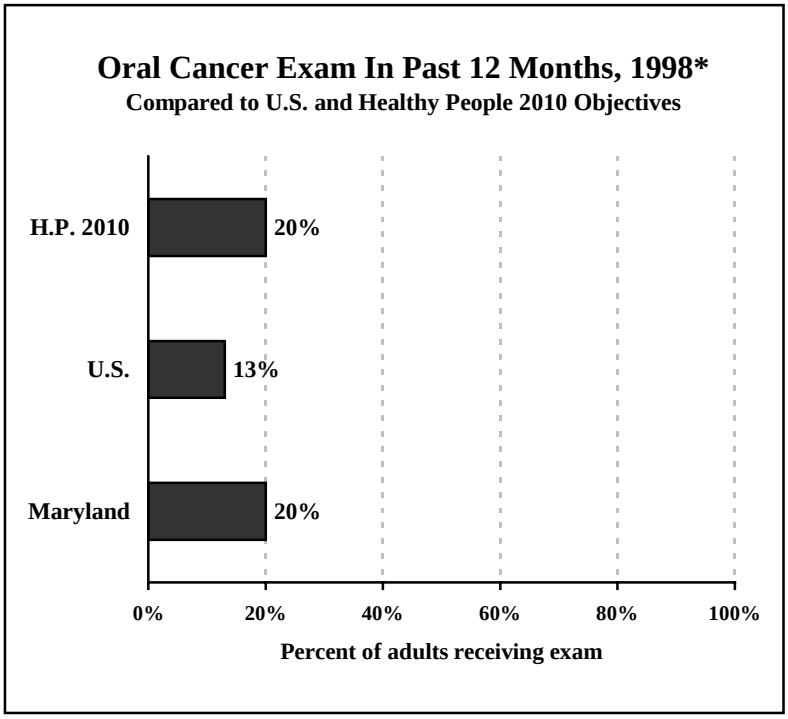
Incidence and mortality rates for oral cancer are not statistically significantly different between blacks and whites.



Maryland Cancer Registry, 1998

Stage at Diagnosis

Of the 542 cases of oral cancer in 1998, 36.4% were diagnosed at the localized (early) stage.



Healthy People 2010 Objectives

The Healthy People 2010 objective for oral cancer is to increase 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 from the baseline of 13% to the target of 20%.

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 this 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, 6/2001)

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 the use of tobacco will decrease the risk of oral cancer. There is evidence that a diet high in fruits and fiber is associated with a decreased risk of oral cancer, particularly among smokers.

Screening

Screening for oral cancer is easy, inexpensive, and noninvasive. Screening may be done by a medical or dental professional. It involves inspecting high-risk sites where 90% of all oral squamous cell cancers arise (i.e., the floor of the mouth, the ventrolateral aspect of the tongue, and the soft palate complex), and also the face, head and neck, lips, labial and buccal mucosa, and gingival tissue. Currently, the majority of reported oral cancers in Maryland are detected at regional or distant stages that have a poorer prognosis. While clinical studies have yet to establish the sensitivity and specificity of the oral cancer examination, 5-year survival rates by stage of diagnosis supports a better prognosis with early detection and treatment of oral cancer (Healthy People 2010).

However, no clinical trial has been conducted to determine whether oral cancer screening reduces mortality. For this reason, there is insufficient evidence to establish whether screening will result in a decrease in mortality from oral cancer.

Public Health Intervention for Oral Cancer (DHMH Medical Advisory Committee)
➢ Avoidance and cessation of tobacco use ➢ Avoidance and reduction of alcohol consumption ➢ Screening for oral cancer targeted to individuals 40 years of age and older

Table 52.
Number of Oral Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 1998

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	542	363	179	383	126	14	19
Allegany	9	s	**	9	0	0	0
Anne Arundel	52	37	15	40	s	**	0
Baltimore City	116	80	36	s	62	**	**
Baltimore County	103	69	34	84	10	**	s
Calvert	10	**	**	s	**	0	**
Caroline	**	**	0	**	0	0	0
Carroll	13	s	**	s	0	0	**
Cecil	12	s	**	s	0	0	**
Charles	8	**	**	8	0	0	0
Dorchester	**	**	**	**	0	0	0
Frederick	**	**	**	**	0	0	0
Garrett	**	**	0	**	0	0	0
Harford	22	16	6	s	0	0	**
Howard	16	s	**	11	**	**	0
Kent	**	**	**	**	0	0	0
Montgomery	58	28	30	43	8	7	0
Prince George's	51	36	15	s	27	0	**
Queen Anne's	**	0	**	**	0	0	0
Saint Mary's	**	**	**	**	**	0	**
Somerset	**	**	**	**	0	0	**
Talbot	7	s	**	7	0	0	0
Washington	18	s	**	s	0	0	**
Wicomico	7	**	**	**	**	0	0
Worcester	9	8	**	s	0	0	**
Unknown	**	**	**	**	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, 1998

Table 53.
Oral Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1998

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	9.6	14.2	5.7	9.0	10.4	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	10.2	15.9	**	9.7	**	**
Baltimore City	16.2	25.9	8.6	19.0	14.4	**
Baltimore County	10.5	15.9	6.6	9.6	**	**
Calvert	**	**	**	**	**	0.0
Caroline	**	**	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
Frederick	**	**	**	**	0.0	0.0
Garrett	**	**	0.0	**	0.0	0.0
Harford	**	**	**	**	0.0	0.0
Howard	**	**	**	**	**	**
Kent	**	**	**	**	0.0	0.0
Montgomery	6.3	6.7	5.9	5.9	**	**
Prince George's	7.1	11.1	**	**	8.4	0.0
Queen Anne's	**	0.0	**	**	0.0	0.0
Saint Mary's	**	**	**	**	**	0.0
Somerset	**	**	**	**	0.0	0.0
Talbot	**	**	**	**	0.0	0.0
Washington	**	**	**	**	0.0	0.0
Wicomico	**	**	**	**	**	0.0
Worcester	**	**	**	**	0.0	0.0

* Rates are per 100,000 and are age-adjusted to 1970 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, 1998

Table 54.
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	**
Allegany	**	**	**	**	0	0
Anne Arundel	8	**	**	8	0	0
Baltimore City	30	22	8	13	17	0
Baltimore County	26	16	10	s	**	0
Calvert	**	**	0	**	0	0
Caroline	0	0	0	0	0	0
Carroll	**	**	**	**	0	0
Cecil	**	**	0	**	**	0
Charles	7	**	**	**	**	0
Dorchester	**	**	0	0	**	0
Frederick	**	**	0	**	0	0
Garrett	**	**	0	**	0	0
Harford	**	**	**	**	0	0
Howard	**	**	**	**	**	**
Kent	**	**	0	**	0	0
Montgomery	14	7	7	s	**	0
Prince George's	20	s	**	9	11	0
Queen Anne's	**	**	**	**	0	0
Saint Mary's	**	**	0	**	**	0
Somerset	**	**	0	**	0	0
Talbot	**	**	**	**	0	0
Washington	**	**	**	**	0	0
Wicomico	**	0	**	**	0	0
Worcester	**	**	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 Division of Health Statistics, 1999

Table 55.
Oral Cancer Age-Adjusted (1970) Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.4	3.8	1.4	2.2	3.4	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	**	**	**	**	0.0	0.0
Baltimore City	3.9	**	**	**	**	0.0
Baltimore County	2.5	**	**	**	**	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 1970 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 56.
Oral Cancer Age-Adjusted (2000) 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 57.
Number of Oral Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 1994-1998

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	2,771	1,869	902	2,003	648	64	56
Allegany	48	36	12	s	**	0	0
Anne Arundel	248	167	81	196	45	**	**
Baltimore City	525	376	149	219	298	**	**
Baltimore County	445	291	154	370	57	**	s
Calvert	40	24	16	28	s	0	**
Caroline	22	s	**	18	**	0	**
Carroll	58	43	15	s	0	0	**
Cecil	51	40	11	47	**	**	**
Charles	49	31	18	40	s	**	0
Dorchester	25	18	7	20	**	**	0
Frederick	74	50	24	67	**	**	**
Garrett	11	**	s	s	0	0	**
Harford	103	61	42	94	**	**	**
Howard	79	49	30	60	12	**	**
Kent	18	s	**	15	**	**	0
Montgomery	341	195	146	264	35	30	12
Prince George's	319	220	99	180	129	**	**
Queen Anne's	26	15	11	s	**	0	0
Saint Mary's	50	41	9	35	s	0	**
Somerset	20	s	**	17	**	0	**
Talbot	42	30	12	s	**	0	0
Washington	77	56	21	72	**	0	**
Wicomico	45	33	12	39	**	**	0
Worcester	46	36	10	40	**	0	**
Unknown	9	**	**	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 Cancer Registry, 1994-1998

Table 58.
Oral Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1994-1998

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	10.2	15.4	6.0	9.6	11.4	6.8
Allegany	9.4	16.2	**	9.3	**	0.0
Anne Arundel	10.6	15.5	6.5	9.9	15.8	**
Baltimore City	14.3	24.0	7.0	13.9	14.2	**
Baltimore County	9.5	14.1	6.0	8.8	15.9	**
Calvert	12.9	**	**	11.9	**	0.0
Caroline	**	**	**	**	**	0.0
Carroll	7.9	13.2	**	8.1	0.0	0.0
Cecil	12.5	20.7	**	12.2	**	**
Charles	9.8	12.8	**	10.4	**	**
Dorchester	**	**	**	**	**	**
Frederick	8.7	12.9	**	8.5	**	**
Garrett	**	**	**	**	0.0	0.0
Harford	10.2	12.8	8.1	10.4	**	**
Howard	8.5	11.3	6.1	8.1	**	**
Kent	**	**	**	**	**	**
Montgomery	7.6	9.7	5.8	7.1	8.4	6.7
Prince George's	9.8	15.0	5.3	10.4	9.3	**
Queen Anne's	11.5	**	**	**	**	0.0
Saint Mary's	13.3	23.4	**	11.4	**	0.0
Somerset	**	**	**	**	**	0.0
Talbot	14.8	23.8	**	17.3	**	0.0
Washington	9.6	15.6	**	9.2	**	0.0
Wicomico	9.7	16.5	**	10.6	**	**
Worcester	14.5	24.7	**	16.2	**	0.0

*Rates are per 100,00 and are age-adjusted to 1970 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, 1994-1998

Table 59.
Number of Oral Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 1994-98

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	830	557	273	560	256	14
Allegany	14	s	**	s	**	0
Anne Arundel	67	49	18	56	s	**
Baltimore City	204	150	54	s	127	**
Baltimore County	129	76	53	119	10	0
Calvert	8	s	**	**	**	0
Caroline	7	7	0	**	**	0
Carroll	15	s	**	s	**	0
Cecil	13	s	**	13	0	0
Charles	20	12	8	12	8	0
Dorchester	**	**	**	**	**	0
Frederick	26	16	10	s	**	0
Garrett	**	**	**	**	0	0
Harford	27	18	9	s	**	0
Howard	18	**	s	12	**	**
Kent	**	**	**	**	0	0
Montgomery	71	40	31	56	s	**
Prince George's	116	85	31	59	s	**
Queen Anne's	6	**	**	**	**	0
Saint Mary's	11	s	**	s	**	0
Somerset	**	**	**	**	**	0
Talbot	12	s	**	s	**	0
Washington	23	16	7	s	**	0
Wicomico	17	11	6	s	**	0
Worcester	10	s	**	s	**	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, 1994-1998

Table 60.
Oral Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1994-98

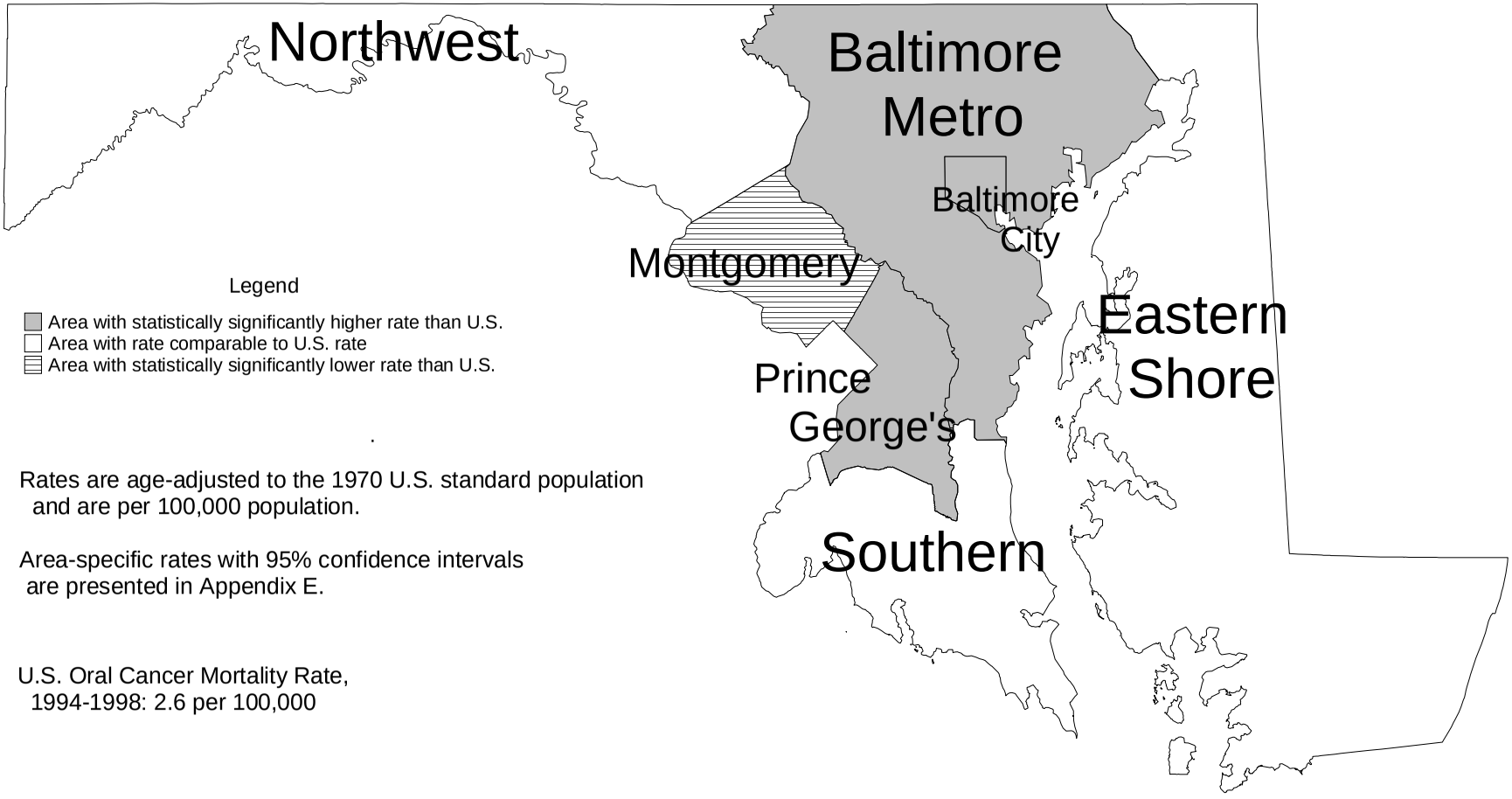
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	3.0	4.7	1.7	2.6	4.7	**
Allegany	**	**	**	**	**	0.0
Anne Arundel	2.9	5.0	**	2.9	**	**
Baltimore City	5.3	9.5	2.2	4.2	6.1	**
Baltimore County	2.6	3.6	1.9	2.6	**	0.0
Calvert	**	**	**	**	**	0.0
Caroline	**	**	0.0	**	**	0.0
Carroll	**	**	**	**	**	0.0
Cecil	**	**	**	**	0.0	0.0
Charles	**	**	**	**	**	0.0
Dorchester	**	**	**	**	**	0.0
Frederick	3.0	**	**	**	**	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	2.8	**	**	3.0	**	0.0
Howard	**	**	**	**	**	**
Kent	**	**	**	**	0.0	0.0
Montgomery	1.5	2.1	1.0	1.4	**	**
Prince George's	3.7	6.1	1.7	3.3	4.2	**
Queen Anne's	**	**	**	**	**	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 1970 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, 1994-1998

Maryland Oral Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1994-1998



Rates are age-adjusted to the 1970 U.S. standard population and are per 100,000 population.

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

U.S. Oral Cancer Mortality Rate, 1994-1998: 2.6 per 100,000

Maryland Division of Health Statistics, 1994-1998

F. Melanoma of the Skin

Incidence (New Cases)

Of the three 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 1998, a total of 762 persons in Maryland were diagnosed with melanoma of the skin. The age-adjusted incidence rate for melanoma for 1998 is 12.9 per 100,000 population (12.0-13.9, 95% C.I.). The Maryland rate is statistically significantly lower than the 1998 SEER age-adjusted incidence rate of 14.3 per 100,000 population for melanoma.

Mortality (Deaths)

In 1998, a total of 111 persons died of melanoma in Maryland. The age-adjusted mortality rate for melanoma in Maryland is 2.0 per 100,000 women (1.6-2.4, 95% C.I.). This rate is similar to the 1998 U.S. melanoma mortality rate of 2.3 per 100,000 population. Maryland is ranked 36th for melanoma mortality among the states and the District of Columbia.

Table 61.
Melanoma Cancer Incidence (1998) and Mortality (1998 and 1999) Rates by Gender and Race, Maryland and the United States

Incidence 1998	*Total*	*Males*	*Females*	*Whites*	*Blacks*
New Cases (#)	762	448	313	732	7
Incidence Rate[1]	12.9	17.1	9.8	17.0	**
U.S. SEER Rate[1]	14.3	17.3	12.0	16.0	1.0
Mortality 1998	*Total*	*Males*	*Females*	*Whites*	*Blacks*
MD Deaths (#)	111	70	41	s	**
MD Mortality Rate[1]	2.0	2.8	1.3	2.5	**
1998 U.S. Rate[1]	2.3	3.3	1.4	2.6	0.4
Mortality 1999	*Total*	*Males*	*Females*	*Whites*	*Blacks*
MD Deaths (#)	112	67	45	s	**
MD Mortality Rate[1]	1.9	2.5	1.4	2.5	**
MD Mortality Rate[2]	2.3	3.3	1.7	3.0	**
U.S. Mortality Rate	*	*	*	*	*

*Rate is not available

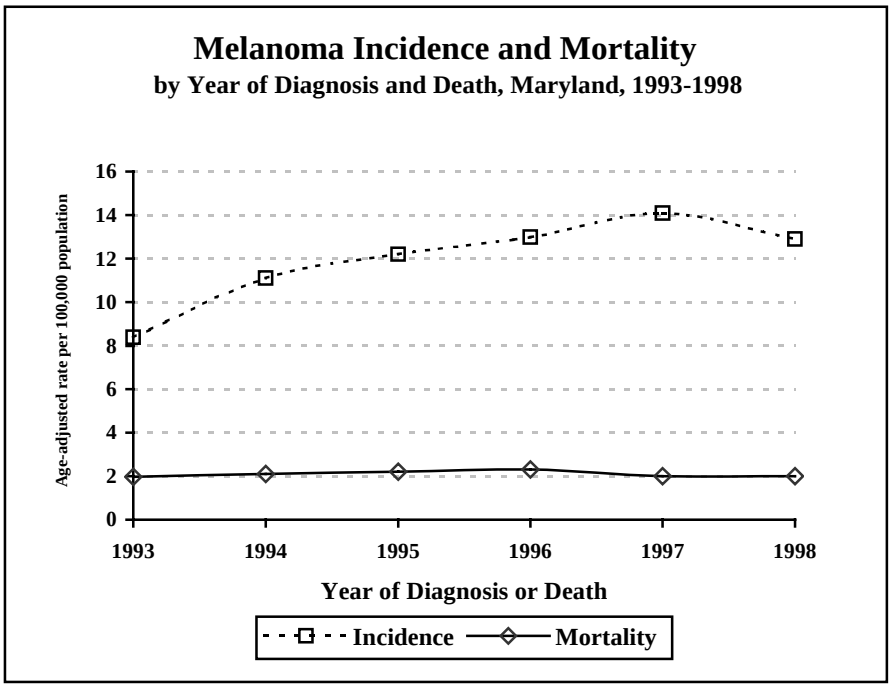
**Cells with 5 or fewer non-zero cases and rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

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

[1]Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

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

Source: Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998, 1999
SEER, National Cancer Institute, 1998

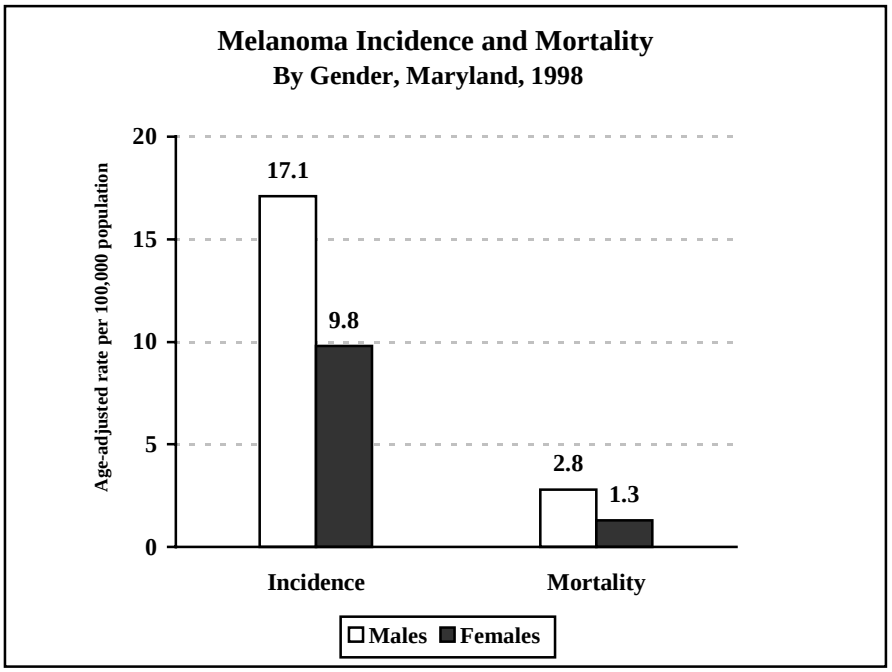


Maryland Cancer Registry, 1993-1998
Maryland Division of Health Statistics, 1993-1998

Trend

The melanoma incidence rates have increased an average of 8.7% per year from 1993 to 1998 in Maryland. This trend has also been observed nationally, although the increase in Maryland is greater.

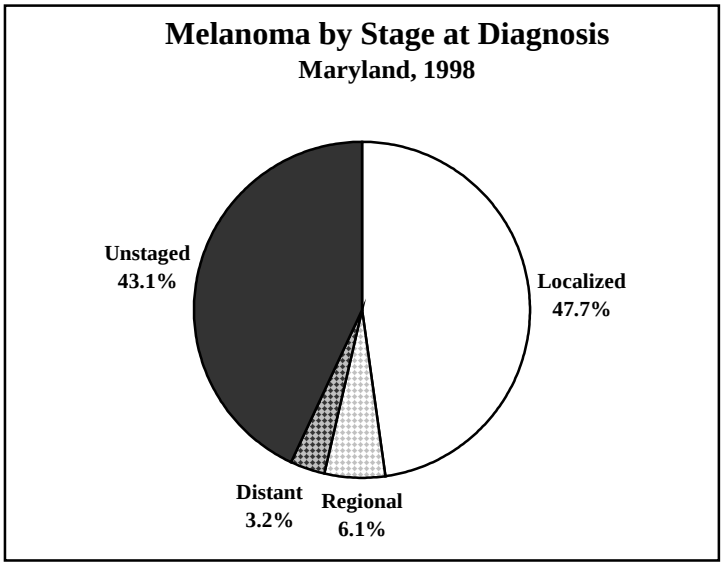
Melanoma mortality rates dropped an average of 0.4% per year in Maryland from 1993 to 1998.



Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998

Gender-Specific Rates

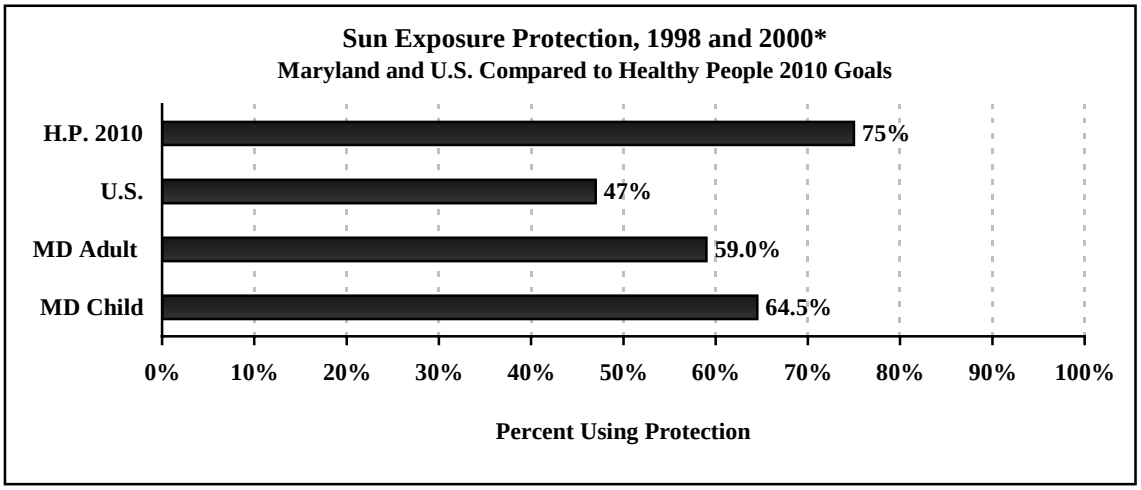
Males have statistically significantly higher incidence and mortality rates than females due to melanoma. The rate of deaths is twice for males than females.



Maryland Cancer Registry, 1998

Stage at Diagnosis

Of the 762 melanoma cases diagnosed in 1998, 47.7% were detected at the localized (early) stage. This figure may be underrepresented due to the high percent of unstaged melanoma (43.1%).



*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 Objective

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

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

In 1998, 59% of adults used one or more of the first three measures listed above. In 2000, 64.5% of 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, 6/2001)

Primary Prevention

Avoidance of sunburns, especially in childhood and adolescence, may reduce the incidence of melanoma. Sunburn can be avoided by reducing exposure to ultraviolet (UV) light by the methods listed below. Sunscreen is *not* a substitute for the avoidance of sun exposure.

Evidence suggests that reduction of exposure to UV radiation will additionally reduce the incidence of basal cell and squamous cell cancer.

Screening

There is insufficient data to determine whether a decrease in mortality from melanoma occurs with routine examination of the skin (by self or provider).

Public Health Intervention for Skin Cancer (Healthy People 2010)

Reduction of exposure to UV light by:

- Avoiding sun between 10 a.m. and 4 p.m.
- Wearing sun-protective clothing when exposed to sunlight
- Using sun screens with a SPF of 15 or higher
- Avoiding artificial sources of UV light (e.g., tanning booths)

Table 62.
Number of Melanoma Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 1998

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	762	448	313	732	s	18	**
Allegany	15	8	7	15	0	0	0
Anne Arundel	85	44	41	s	**	**	**
Baltimore City	52	30	22	s	**	0	0
Baltimore County	136	69	67	131	**	**	0
Calvert	13	6	7	s	0	**	0
Caroline	9	s	**	9	0	0	0
Carroll	36	21	15	s	0	**	0
Cecil	14	s	**	14	0	0	0
Charles	9	s	**	s	**	0	0
Dorchester	**	**	**	**	0	0	0
Frederick	26	16	10	26	0	0	0
Garrett	9	**	**	s	**	0	0
Harford	23	14	9	23	0	0	0
Howard	31	14	17	31	0	0	0
Kent	8	s	**	8	0	0	0
Montgomery	142	93	48	137	0	**	**
Prince George's	40	26	14	36	**	**	**
Queen Anne's	9	s	**	9	0	0	0
Saint Mary's	14	s	**	14	0	0	0
Somerset	8	**	**	s	0	**	0
Talbot	10	**	**	10	0	0	0
Washington	21	13	8	21	0	0	0
Wicomico	18	8	10	s	0	**	0
Worcester	16	s	**	16	0	0	0
Unknown	13	9	**	s	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, 1998

Table 63.
Melanoma Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender and Race, Maryland, 1998

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	12.9	17.1	9.8	17.0	**	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	16.4	18.6	15.2	18.8	**	**
Baltimore City	6.5	9.6	**	16.4	**	0.0
Baltimore County	14.0	15.3	13.6	15.8	**	**
Calvert	**	**	**	**	0.0	**
Caroline	**	**	**	**	0.0	0.0
Carroll	19.4	**	**	19.2	0.0	**
Cecil	**	**	**	**	0.0	0.0
Charles	**	**	**	**	**	0.0
Dorchester	**	**	**	**	0.0	0.0
Frederick	13.7	**	**	14.9	0.0	0.0
Garrett	**	**	**	**	**	0.0
Harford	**	**	**	**	0.0	0.0
Howard	13.6	**	**	17.1	0.0	0.0
Kent	**	**	**	**	0.0	0.0
Montgomery	14.6	21.2	9.3	18.2	0.0	**
Prince George's	5.5	7.8	**	10.3	**	**
Queen Anne's	**	**	**	**	0.0	0.0
Saint Mary's	**	**	**	**	0.0	0.0
Somerset	**	**	**	**	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 1970 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, 1998

Table 64.
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	**	0
Allegany	**	0	**	**	0	0
Anne Arundel	12	s	**	s	**	0
Baltimore City	8	**	**	8	0	0
Baltimore County	25	13	12	s	**	0
Calvert	**	**	0	**	0	0
Caroline	0	0	0	0	0	0
Carroll	6	**	**	6	0	0
Cecil	**	**	**	**	0	0
Charles	**	**	**	**	0	0
Dorchester	0	0	0	0	0	0
Frederick	**	**	**	**	0	0
Garrett	0	0	0	0	0	0
Harford	**	**	**	**	0	0
Howard	**	**	**	**	0	0
Kent	0	0	0	0	0	0
Montgomery	23	15	8	23	0	0
Prince George's	6	**	**	6	0	0
Queen Anne's	**	**	**	**	0	0
Saint Mary's	**	**	0	**	0	0
Somerset	**	0	**	**	0	0
Talbot	**	**	0	**	0	0
Washington	**	**	**	**	0	0
Wicomico	**	**	**	**	0	0
Worcester	**	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 Division of Health Statistics, 1999

Table 65.
Melanoma Cancer Age-Adjusted (1970) Mortality Rates* by Jurisdiction, Gender and Race, Maryland, 1999

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	1.9	2.5	1.4	2.5	**	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 1970 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 66.
Melanoma Cancer Age-Adjusted (2000) 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 67.
Number of Melanoma Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 1994-1998

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	3,694	2,114	1,579	2,995	40	51	608
Allegany	56	31	25	s	0	0	**
Anne Arundel	421	236	185	287	**	s	122
Baltimore City	297	160	137	250	s	**	38
Baltimore County	665	381	284	591	**	s	63
Calvert	42	19	23	27	**	**	12
Caroline	28	18	10	s	0	0	**
Carroll	156	92	64	134	**	**	18
Cecil	80	34	46	76	0	**	**
Charles	53	33	20	44	**	0	s
Dorchester	28	18	10	s	0	0	**
Frederick	144	89	55	106	0	0	38
Garrett	22	12	10	s	**	0	0
Harford	197	102	95	182	**	0	s
Howard	171	95	76	126	0	**	s
Kent	33	19	14	s	**	0	0
Montgomery	583	356	226	406	**	s	163
Prince George's	225	126	99	164	s	**	44
Queen Anne's	41	23	18	s	0	0	**
Saint Mary's	54	31	23	48	**	0	**
Somerset	25	12	13	s	0	**	**
Talbot	41	23	18	s	0	0	**
Washington	142	92	50	131	0	0	11
Wicomico	89	46	43	77	**	**	7
Worcester	85	56	29	75	0	**	s
Unknown	16	10	6	10	0	**	**

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

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

Source: Maryland Cancer Registry, 1994-1998

Table 68.
Melanoma Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1994-1998

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	12.9	16.7	10.1	14.1	0.7	6.4
Allegany	12.5	14.6	**	12.5	0.0	0.0
Anne Arundel	16.6	21.1	13.5	13.4	**	**
Baltimore City	7.3	9.7	6.0	15.6	**	**
Baltimore County	14.2	18.1	11.5	14.6	**	**
Calvert	11.8	**	**	10.0	**	**
Caroline	15.5	**	**	18.6	0.0	0.0
Carroll	19.5	26.1	14.2	17.4	**	**
Cecil	18.6	16.7	20.7	18.8	0.0	**
Charles	9.0	12.9	**	10.0	**	0.0
Dorchester	14.9	**	**	20.7	0.0	0.0
Frederick	16.1	22.5	11.0	12.8	0.0	0.0
Garrett	**	**	**	**	**	0.0
Harford	17.2	19.0	15.7	17.6	**	0.0
Howard	15.7	19.9	12.4	14.5	0.0	**
Kent	27.9	**	**	35.6	**	0.0
Montgomery	12.4	17.0	8.8	10.8	**	**
Prince George's	6.3	8.2	4.9	9.1	**	**
Queen Anne's	19.7	**	**	19.1	0.0	0.0
Saint Mary's	13.5	16.3	**	14.8	**	0.0
Somerset	**	**	**	**	0.0	**
Talbot	17.2	21.0	**	21.3	0.0	0.0
Washington	18.5	25.5	12.9	17.7	0.0	0.0
Wicomico	19.3	22.4	17.5	21.9	**	**
Worcester	28.6	40.3	18.5	33.0	0.0	**

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998

Table 69.
Number of Melanoma Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 1994-98

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	601	387	214	585	s	**
Allegany	10	s	**	10	0	0
Anne Arundel	60	44	16	60	0	0
Baltimore City	53	28	25	s	**	0
Baltimore County	112	70	42	s	**	0
Calvert	13	s	**	s	**	0
Caroline	**	**	0	**	0	0
Carroll	29	16	13	29	0	0
Cecil	13	7	6	13	0	0
Charles	9	s	**	9	0	0
Dorchester	**	**	**	**	0	0
Frederick	26	s	**	26	0	0
Garrett	**	**	0	**	0	0
Harford	31	18	13	31	0	0
Howard	33	16	17	33	0	0
Kent	**	**	0	**	0	0
Montgomery	98	65	33	94	**	**
Prince George's	38	24	14	s	**	0
Queen Anne's	7	s	**	7	0	0
Saint Mary's	11	s	**	11	0	0
Somerset	**	**	0	**	0	0
Talbot	8	**	**	8	0	0
Washington	12	s	**	12	0	0
Wicomico	14	s	**	s	**	0
Worcester	9	s	**	9	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, 1994-1998

Table 70.
Melanoma Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1994-98

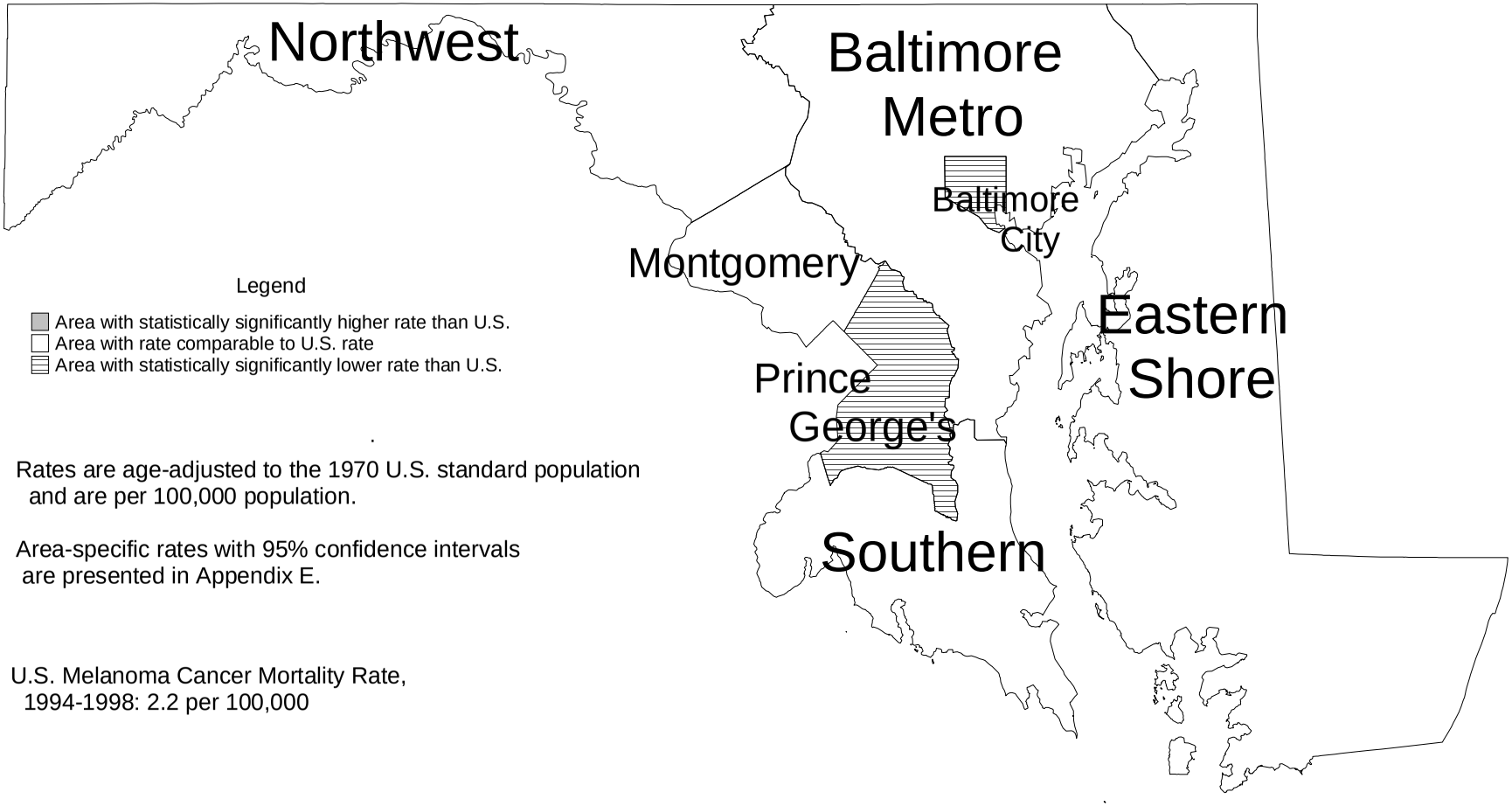
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.1	3.1	1.3	2.7	**	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	2.6	4.2	**	3.0	0.0	0.0
Baltimore City	1.3	1.7	**	2.9	**	0.0
Baltimore County	2.2	3.2	1.5	2.5	**	0.0
Calvert	**	**	**	**	**	0.0
Caroline	**	**	0.0	**	0.0	0.0
Carroll	3.7	**	**	3.9	0.0	0.0
Cecil	**	**	**	**	0.0	0.0
Charles	**	**	**	**	0.0	0.0
Dorchester	**	**	**	**	0.0	0.0
Frederick	2.8	**	**	3.0	0.0	0.0
Garrett	**	**	0.0	**	0.0	0.0
Harford	3.0	**	**	3.4	0.0	0.0
Howard	2.9	**	**	3.6	0.0	0.0
Kent	**	**	0.0	**	0.0	0.0
Montgomery	2.1	3.3	1.2	2.4	**	**
Prince George's	1.0	1.6	**	1.7	**	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
Worcester	**	**	**	**	0.0	0.0

* Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998

Maryland Melanoma Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1994-1998



Rates are age-adjusted to the 1970 U.S. standard population and are per 100,000 population.

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

U.S. Melanoma Cancer Mortality Rate, 1994-1998: 2.2 per 100,000

Maryland Division of Health Statistics, 1994-1998

G. Cervical Cancer

Incidence (New Cases)

A total of 248 women in Maryland were diagnosed with cervical cancer in 1998. The age-adjusted incidence rate for cervical cancer in Maryland for 1998 is 7.5 per 100,000 population of women (6.6-8.6, 95% C.I.). This rate equals the 1998 SEER age-adjusted cervical cancer incidence rate of 7.5 per 100,000 population of women.

Mortality (Deaths)

In 1998, a total of 74 women died of cervical cancer in Maryland. The age-adjusted cervical cancer mortality rate in Maryland is 2.2 per 100,000 women (1.7-2.8, 95% C.I.). This rate is similar to the 1998 U.S. cervical cancer mortality rate of 2.5 per 100,000 population of women. Maryland women rank 26th highest for cervical cancer mortality rate among the states and the District of Columbia.

Table 71.
Cervical Cancer Incidence (1998) and Mortality (1998 and 1999) Rates by Race, Maryland and the United States

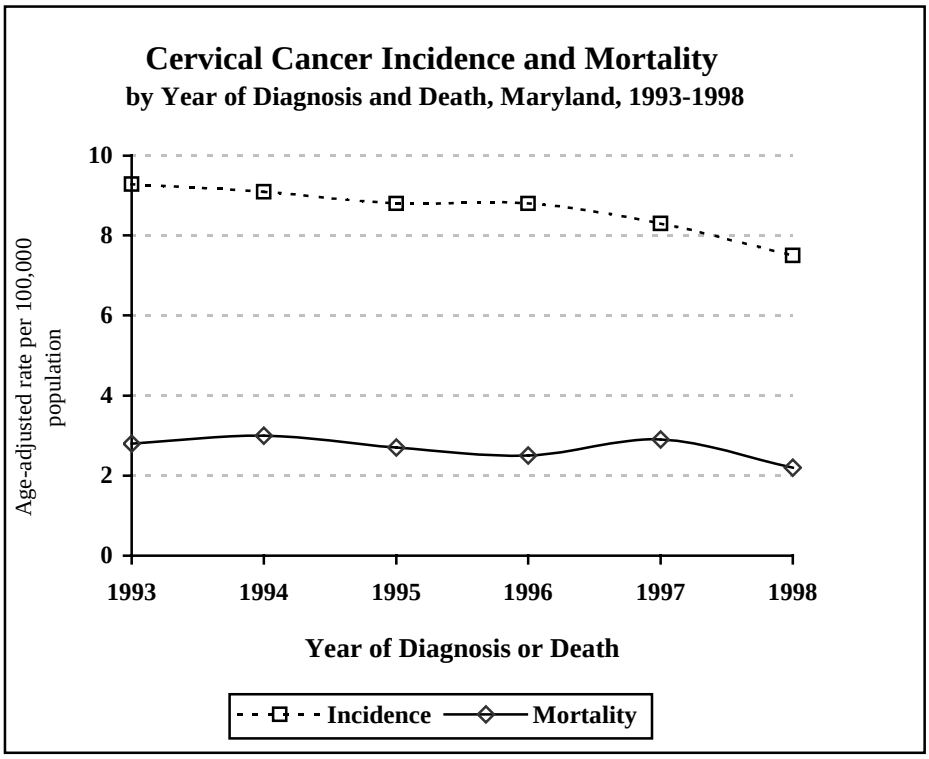
Incidence 1998	*Total*	*Whites*	*Blacks*
New Cases (#)	248	151	74
Incidence Rate[1]	7.5	6.5	8.8
U.S. SEER Rate[1]	7.5	6.7	10.5
Mortality 1998	*Total*	*Whites*	*Blacks*
MD Deaths (#)	74	39	32
MD Mortality Rate[1]	2.2	1.5	4.4
1998 U.S. Rate[1]	2.5	2.2	4.9
Mortality 1999	*Total*	*Whites*	*Blacks*
MD Deaths (#)	77	49	26
MD Mortality Rate[1]	2.3	2.0	3.6
MD Mortality Rate[2]	2.8	2.4	4.2
U.S. Mortality Rate	*	*	*

*Rate is not available

[1]Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

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

Source: Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998, 1999
SEER, National Cancer Institute, 1998

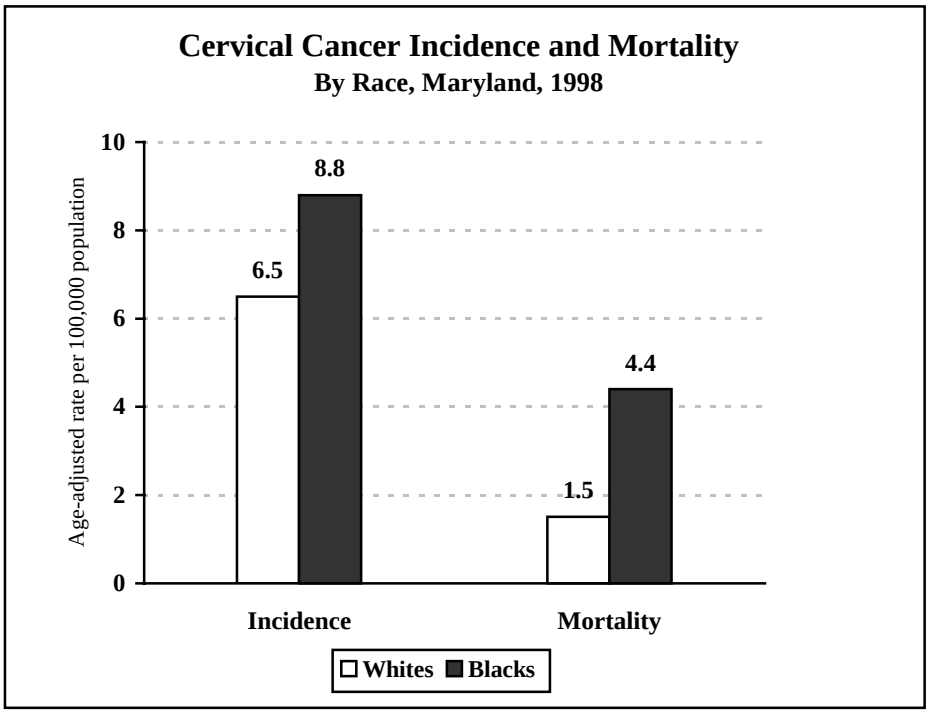


Maryland Cancer Registry, 1993-1998
Maryland Division of Health Statistics, 1993-1998

Trend

Cervical cancer incidence rates have decreased an average of 3.8% per year from 1993 to 1998 in Maryland.

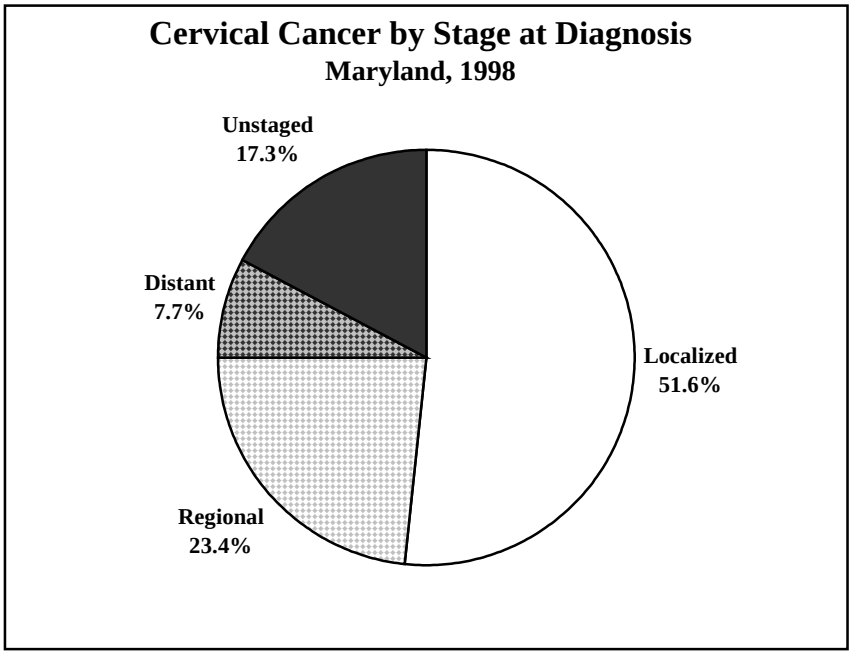
Mortality rates have also decreased an average of 3.8% per year from 1993 to 1998 in Maryland.



Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998

Race-Specific Rates

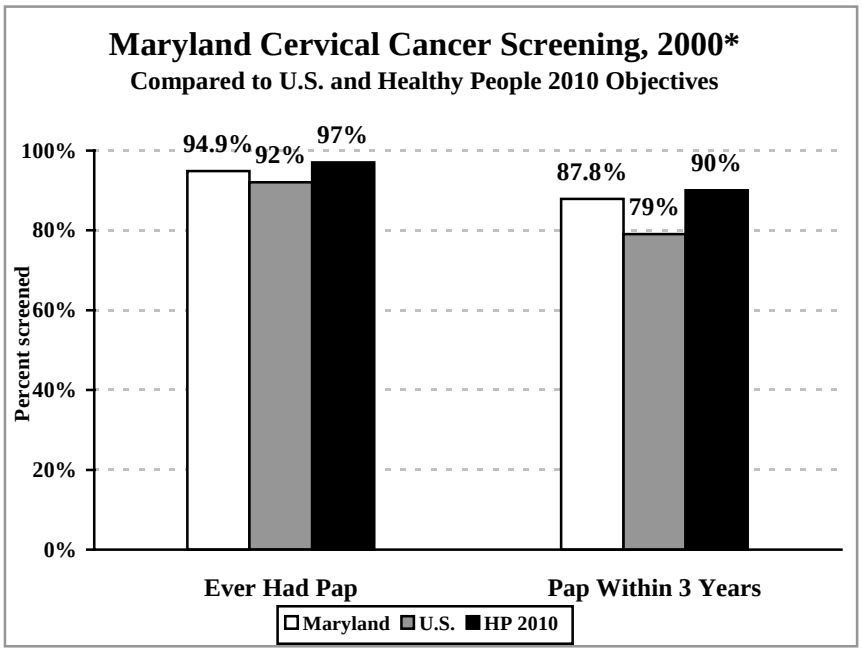
Incidence rates between blacks and whites for cervical cancer are similar whereas the mortality rate is statistically significantly higher among black women than white women in Maryland in 1998.



Maryland Cancer Registry, 1998
Maryland Division of Health Statistics, 1998

Stage at Diagnosis

Slightly more than half of all cervical cancer cases were diagnosed in the localized (early) stage in 1998.



*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

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 3 years to 90%.

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 all women said they had had their Pap smear within the preceding 3 years compared to 87.2% in 1999 and 88.2% in 1998.

Public Health Evidence (from National Cancer Institute, PDO, 6/2001)

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 preventing cervical cancer.

Primary Prevention

Cervical infection with the human papilloma virus (HPV) is a primary risk factor for cervical cancer. However, HPV is very common, and only a small percentage of women infected with HPV will develop 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 are in clinical trials that would immunize against HPV infection. Such vaccines would offer a primary prevention strategy for cervical cancer.

Public Health Intervention (from National Cancer Institute, PDQ, 6/2001)
Early detection of cervical cancer: ➢ Screen using the Pap test for all women, beginning at the onset of sexual activity or by age 18 if not sexually active

Table 72.
Number of Cervical Cancer Cases
by Jurisdiction and Race, Maryland, 1998

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	248	151	74	13	10
Allegany	**	**	0	0	0
Anne Arundel	21	15	**	**	**
Baltimore City	49	s	30	**	0
Baltimore County	27	15	9	**	**
Calvert	7	7	0	0	0
Caroline	**	**	0	0	0
Carroll	10	8	**	0	**
Cecil	**	**	0	0	0
Charles	7	**	**	**	**
Dorchester	**	**	**	0	0
Frederick	10	s	0	**	0
Garrett	**	**	0	0	0
Harford	7	**	**	0	0
Howard	7	s	**	0	0
Kent	0	0	0	0	0
Montgomery	30	19	**	s	0
Prince George's	34	13	17	**	**
Queen Anne's	**	**	0	0	0
Saint Mary's	**	**	0	0	**
Somerset	0	0	0	0	0
Talbot	**	0	**	0	0
Washington	6	6	0	0	0
Wicomico	7	**	**	0	0
Worcester	**	**	0	0	0
Unknown	**	**	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, 1998

Table 73.
Cervical Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 1998

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	7.5	6.5	8.8	**
Allegany	**	**	0.0	0.0
Anne Arundel	**	**	**	**
Baltimore City	11.3	**	10.8	**
Baltimore County	5.3	**	**	**
Calvert	**	**	0.0	0.0
Caroline	**	**	0.0	0.0
Carroll	**	**	**	0.0
Cecil	**	**	0.0	0.0
Charles	**	**	**	**
Dorchester	**	**	**	0.0
Frederick	**	**	0.0	**
Garrett	**	**	0.0	0.0
Harford	**	**	**	0.0
Howard	**	**	**	0.0
Kent	0.0	0.0	0.0	0.0
Montgomery	5.4	**	**	**
Prince George's	7.3	**	**	**
Queen Anne's	**	**	0.0	0.0
Saint Mary's	**	**	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 1970 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, 1998

Table 74.
Number of Cervical Cancer Deaths
by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	77	49	s	**
Allegany	**	**	0	0
Anne Arundel	**	**	0	0
Baltimore City	18	7	11	0
Baltimore County	11	s	**	0
Calvert	0	0	0	0
Caroline	0	0	0	0
Carroll	**	**	0	0
Cecil	**	**	0	0
Charles	11	s	**	**
Dorchester	**	**	0	0
Frederick	0	0	0	0
Garrett	0	0	0	0
Harford	**	**	**	0
Howard	**	**	0	0
Kent	0	0	0	0
Montgomery	9	6	**	**
Prince George's	11	**	s	0
Queen Anne's	0	0	0	0
Saint Mary's	0	0	0	0
Somerset	0	0	0	0
Talbot	**	0	**	0
Washington	**	**	0	0
Wicomico	**	**	**	0
Worcester	**	**	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 75.
Cervical Cancer Age-Adjusted (1970) Mortality Rates*
by Jurisdiction and Race, Maryland, 1999

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2.3	2.0	3.6	**
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 1970 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 76.
Cervical Cancer Age-Adjusted (2000) 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 77.
Number of Cervical Cancer Cases
by Jurisdiction and Race, Maryland, 1994-1998

Jurisdiction	Total	Race			
		Whites	Blacks	Others	Unknown
Maryland	1,360	841	404	70	45
Allegany	33	s	0	0	**
Anne Arundel	135	101	24	**	s
Baltimore City	269	97	165	**	**
Baltimore County	157	116	29	**	s
Calvert	23	s	**	0	0
Caroline	11	s	**	0	0
Carroll	37	32	**	0	**
Cecil	18	15	**	**	0
Charles	29	20	**	**	**
Dorchester	11	s	**	0	0
Frederick	48	45	0	**	**
Garrett	6	6	0	0	0
Harford	42	35	7	0	0
Howard	32	22	6	**	**
Kent	**	**	**	0	0
Montgomery	185	117	27	35	6
Prince George's	174	60	97	s	**
Queen Anne's	9	s	**	0	**
Saint Mary's	22	17	**	0	**
Somerset	14	**	7	**	**
Talbot	**	**	**	0	0
Washington	38	s	**	0	**
Wicomico	33	21	s	**	0
Worcester	16	s	**	0	0
Unknown	9	**	0	**	**

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

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

Source: Maryland Cancer Registry, 1994-1998

Table 78.
Cervical Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 1994-1998

Jurisdiction	Total	Race		
		Whites	Blacks	Others
Maryland	8.5	7.3	10.7	13.9
Allegany	13.2	13.4	0.0	0.0
Anne Arundel	9.6	8.5	**	**
Baltimore City	12.1	12.2	12.3	**
Baltimore County	6.4	5.6	11.6	**
Calvert	**	**	**	0.0
Caroline	**	**	**	0.0
Carroll	8.6	8.0	**	0.0
Cecil	**	**	**	**
Charles	9.2	**	**	**
Dorchester	**	**	**	0.0
Frederick	9.6	9.6	0.0	**
Garrett	**	**	0.0	0.0
Harford	6.5	6.1	**	0.0
Howard	4.8	**	**	**
Kent	**	**	**	0.0
Montgomery	7.0	5.5	8.8	16.2
Prince George's	8.0	6.4	9.2	**
Queen Anne's	**	**	**	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	**	**	**
Talbot	**	**	**	0.0
Washington	9.5	9.3	**	0.0
Wicomico	12.6	**	**	**
Worcester	**	**	**	0.0

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998

Table 79.
Number of Cervical Cancer Deaths
by Jurisdiction and Race, Maryland, 1994-98

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	428	245	172	11
Allegany	11	11	0	0
Anne Arundel	31	24	7	0
Baltimore City	128	s	90	**
Baltimore County	33	26	**	**
Calvert	6	**	0	**
Caroline	7	7	0	0
Carroll	7	**	**	0
Cecil	7	**	**	0
Charles	11	s	**	**
Dorchester	7	**	**	0
Frederick	11	s	**	0
Garrett	**	**	0	0
Harford	15	12	**	**
Howard	13	9	**	**
Kent	**	**	**	0
Montgomery	34	25	s	**
Prince George's	46	s	30	**
Queen Anne's	0	0	0	0
Saint Mary's	9	s	**	0
Somerset	7	**	**	0
Talbot	**	**	0	0
Washington	15	s	**	0
Wicomico	13	7	6	0
Worcester	8	**	**	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, 1994-1998

Table 80.
Cervical Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 1994-98

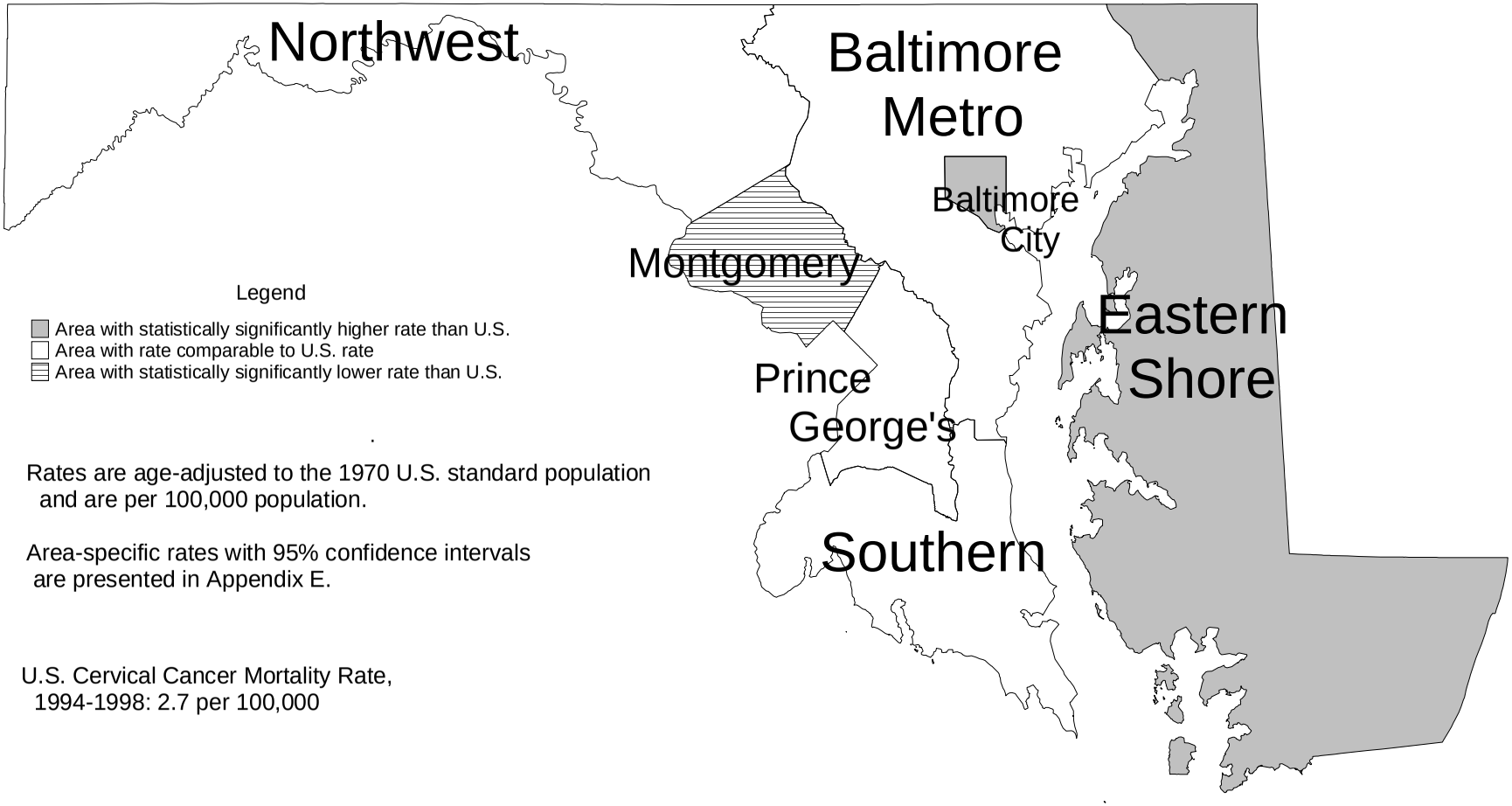
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2.6	2.0	4.8	**
Allegany	**	**	0.0	0.0
Anne Arundel	2.3	**	**	0.0
Baltimore City	5.6	4.4	6.6	**
Baltimore County	1.3	1.2	**	**
Calvert	**	**	0.0	**
Caroline	**	**	0.0	0.0
Carroll	**	**	**	0.0
Cecil	**	**	**	0.0
Charles	**	**	**	**
Dorchester	**	**	**	0.0
Frederick	**	**	**	0.0
Garrett	**	**	0.0	0.0
Harford	**	**	**	**
Howard	**	**	**	**
Kent	**	**	**	0.0
Montgomery	1.3	**	**	**
Prince George's	2.3	**	3.4	**
Queen Anne's	0.0	0.0	0.0	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	**	**	0.0
Talbot	**	**	0.0	0.0
Washington	**	**	**	0.0
Wicomico	**	**	**	0.0
Worcester	**	**	**	0.0

* Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998

Maryland Cervical Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1994-1998



Rates are age-adjusted to the 1970 U.S. standard population and are per 100,000 population.

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

U.S. Cervical Cancer Mortality Rate, 1994-1998: 2.7 per 100,000

Maryland Division of Health Statistics, 1994-1998

IV. County-Specific Data

Five-year combined incidence and mortality data for 1994 to 1998 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 and/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 81.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Allegany County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	2,512	436.4	435.8	400.5	1,001	158.5	178.9	166.2
Lung and Bronchus	418	70.0	67.7	56.1	312	50.9	52.9	48.7
Colorectal	350	55.4	48.9	43.9	136	21.1	19.1	16.9
Female Breast	322	103.9	119.9	114.3	62	16.6	26.2	24.2
Prostate	382	151.7	164.3	142.0	51	17.9	26.9	23.7
Oral	48	9.4	10.2	9.9	14	**	3.0	2.6
Melanoma	56	12.5	12.9	14.1	10	**	2.1	2.2
Cervical	33	13.2	8.5	7.7	11	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 82.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Anne Arundel County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	10,704	457.6	435.8	400.5	4,270	185.2	178.9	166.2
Lung and Bronchus	1,807	50.3	67.7	56.1	1,358	60.0	52.9	48.7
Colorectal	1,172	49.6	48.9	43.9	477	20.5	19.1	16.9
Female Breast	1,706	132.1	119.9	114.3	328	25.1	26.2	24.2
Prostate	1,532	153.5	164.3	142.0	222	24.9	26.9	23.7
Oral	248	10.6	10.2	9.9	67	2.9	3.0	2.6
Melanoma	421	16.6	12.9	14.1	60	2.6	2.1	2.2
Cervical	135	9.6	8.5	7.7	31	2.3	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

Source: Maryland Cancer Registry, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 83.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Baltimore City, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	20,132	504.2	435.8	400.5	9,929	239.9	178.9	166.2
Lung and Bronchus	3,650	92.7	67.7	56.1	2,990	75.1	52.9	48.7
Colorectal	2,443	58.2	48.9	43.9	1,057	24.7	19.1	16.9
Female Breast	2,695	119.5	119.9	114.3	766	31.8	26.2	24.2
Prostate	3,085	192.3	164.3	142.0	686	39.9	26.9	23.7
Oral	525	14.3	10.2	9.9	204	5.3	3.0	2.6
Melanoma	297	7.3	12.9	14.1	53	1.3	2.1	2.2
Cervical	269	12.1	8.5	7.7	128	5.6	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

Source: Maryland Cancer Registry, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 84.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Baltimore County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	20,314	421.0	435.8	400.5	8,832	172.5	178.9	166.2
Lung and Bronchus	3,180	65.4	67.7	56.1	2,608	52.2	52.9	48.7
Colorectal	2,455	48.1	48.9	43.9	1,003	18.8	19.1	16.9
Female Breast	2,955	114.7	119.9	114.3	728	26.1	26.2	24.2
Prostate	3,175	150.9	164.3	142.0	521	23.8	26.9	23.7
Oral	445	9.5	10.2	9.9	129	2.6	3.0	2.6
Melanoma	665	14.2	12.9	14.1	112	2.2	2.1	2.2
Cervical	157	6.4	8.5	7.7	33	1.3	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

Source: Maryland Cancer Registry, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 85.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Calvert County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,364	433.1	435.8	400.5	564	180.6	178.9	166.2
Lung and Bronchus	233	76.8	67.7	56.1	169	54.7	52.9	48.7
Colorectal	161	51.9	48.9	43.9	66	21.5	19.1	16.9
Female Breast	186	104.4	119.9	114.3	30	17.7	26.2	24.2
Prostate	200	148.7	164.3	142.0	29	22.6	26.9	23.7
Oral	40	12.9	10.2	9.9	8	**	3.0	2.6
Melanoma	42	11.8	12.9	14.1	13	**	2.1	2.2
Cervical	23	**	8.5	7.7	6	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 86.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Caroline County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	495	437.3	435.8	400.5	367	189.8	178.9	166.2
Lung and Bronchus	140	78.1	67.7	56.1	114	60.5	52.9	48.7
Colorectal	110	59.1	48.9	43.9	48	24.1	19.1	16.9
Female Breast	106	115.4	119.9	114.3	25	**	26.2	24.2
Prostate	132	164.1	164.3	142.0	22	**	26.9	23.7
Oral	22	**	10.2	9.9	7	**	3.0	2.6
Melanoma	28	15.2	12.9	14.1	**	**	2.1	2.2
Cervical	11	**	8.5	7.7	7	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

**Cells with 5 or fewer non-zero cases and rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 87.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Carroll County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	3,471	465.7	435.8	400.5	1,313	172.9	178.9	166.2
Lung and Bronchus	452	62.7	67.7	56.1	345	48.3	52.9	48.7
Colorectal	428	55.5	48.9	43.9	161	20.2	19.1	16.9
Female Breast	491	116.8	119.9	114.3	104	25.0	26.2	24.2
Prostate	582	191.2	164.3	142.0	85	25.9	26.9	23.7
Oral	58	7.9	10.2	9.9	15	**	3.0	2.6
Melanoma	156	19.5	12.9	14.1	29	3.7	2.1	2.2
Cervical	37	8.6	8.5	7.7	7	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 88.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Cecil County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,803	434.4	435.8	400.5	808	193.1	178.9	166.2
Lung and Bronchus	333	82.5	67.7	56.1	266	65.6	52.9	48.7
Colorectal	183	44.1	48.9	43.9	66	15.5	19.1	16.9
Female Breast	251	113.8	119.9	114.3	63	27.7	26.2	24.2
Prostate	270	145.5	164.3	142.0	53	28.9	26.9	23.7
Oral	51	12.5	10.2	9.9	13	**	3.0	2.6
Melanoma	80	18.6	12.9	14.1	13	**	2.1	2.2
Cervical	18	**	8.5	7.7	7	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 89.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Charles County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	2,037	444.5	435.8	400.5	872	198.2	178.9	166.2
Lung and Bronchus	326	75.5	67.7	56.1	271	63.4	52.9	48.7
Colorectal	217	49.1	48.9	43.9	89	21.0	19.1	16.9
Female Breast	303	118.5	119.9	114.3	55	22.3	26.2	24.2
Prostate	361	200.1	164.3	142.0	65	42.4	26.9	23.7
Oral	49	9.8	10.2	9.9	20	**	3.0	2.6
Melanoma	53	9.0	12.9	14.1	9	**	2.1	2.2
Cervical	29	9.2	8.5	7.7	11	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 90.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Dorchester County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,060	486.5	435.8	400.5	466	199.0	178.9	166.2
Lung and Bronchus	200	91.4	67.7	56.1	138	61.9	52.9	48.7
Colorectal	132	54.4	48.9	43.9	37	13.5	19.1	16.9
Female Breast	144	121.8	119.9	114.3	32	26.2	26.2	24.2
Prostate	144	146.1	164.3	142.0	33	28.2	26.9	23.7
Oral	25	**	10.2	9.9	**	**	3.0	2.6
Melanoma	28	14.9	12.9	14.1	**	**	2.1	2.2
Cervical	11	**	8.5	7.7	7	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

**Cells with 5 or fewer non-zero cases and rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 91.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Frederick County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	3,602	419.9	435.8	400.5	1,412	163.0	178.9	166.2
Lung and Bronchus	474	58.3	67.7	56.1	404	49.3	52.9	48.7
Colorectal	403	47.2	48.9	43.9	164	18.5	19.1	16.9
Female Breast	552	116.5	119.9	114.3	116	23.4	26.2	24.2
Prostate	552	156.7	164.3	142.0	75	20.7	26.9	23.7
Oral	74	8.7	10.2	9.9	26	3.0	3.0	2.6
Melanoma	144	16.1	12.9	14.1	26	2.8	2.1	2.2
Cervical	48	9.6	8.5	7.7	11	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 92.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Garrett County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	669	349.5	435.8	400.5	279	136.2	178.9	166.2
Lung and Bronchus	99	50.3	67.7	56.1	76	38.7	52.9	48.7
Colorectal	91	43.8	48.9	43.9	41	20.8	19.1	16.9
Female Breast	106	104.9	119.9	114.3	23	**	26.2	24.2
Prostate	91	103.4	164.3	142.0	19	**	26.9	23.7
Oral	11	**	10.2	9.9	**	**	3.0	2.6
Melanoma	22	**	12.9	14.1	**	**	2.1	2.2
Cervical	6	**	8.5	7.7	**	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

**Cells with 5 or fewer non-zero cases and rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 93.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Harford County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	4,508	445.7	435.8	400.5	1,796	179.5	178.9	166.2
Lung and Bronchus	683	70.2	67.7	56.1	510	52.5	52.9	48.7
Colorectal	470	47.1	48.9	43.9	186	18.5	19.1	16.9
Female Breast	613	107.6	119.9	114.3	142	24.5	26.2	24.2
Prostate	724	170.8	164.3	142.0	105	27.1	26.9	23.7
Oral	103	10.2	10.2	9.9	27	2.8	3.0	2.6
Melanoma	187	17.2	12.9	14.1	31	3.0	2.1	2.2
Cervical	42	6.5	8.5	7.7	15	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 94.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Howard County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	3,647	393.7	435.8	400.5	1,421	159.6	178.9	166.2
Lung and Bronchus	461	55.2	67.7	56.1	359	42.0	52.9	48.7
Colorectal	363	40.4	48.9	43.9	149	16.9	19.1	16.9
Female Breast	664	120.9	119.9	114.3	130	25.0	26.2	24.2
Prostate	552	153.6	164.3	142.0	83	26.5	26.9	23.7
Oral	79	8.5	10.2	9.9	18	**	3.0	2.6
Melanoma	171	15.7	12.9	14.1	33	2.9	2.1	2.2
Cervical	32	4.8	8.5	7.7	13	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 95.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Kent County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	661	461.9	435.8	400.5	289	182.5	178.9	166.2
Lung and Bronchus	116	79.2	67.7	56.1	83	53.4	52.9	48.7
Colorectal	68	43.7	48.9	43.9	30	17.9	19.1	16.9
Female Breast	89	121.9	119.9	114.3	20	**	26.2	24.2
Prostate	95	142.3	164.3	142.0	23	**	26.9	23.7
Oral	18	**	10.2	9.9	**	**	3.0	2.6
Melanoma	33	27.9	12.9	14.1	**	**	2.1	2.2
Cervical	**	7.0	8.5	7.7	**	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

**Cells with 5 or fewer non-zero cases and rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 96.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Montgomery County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	17,797	392.5	435.8	400.5	6,265	133.0	178.9	166.2
Lung and Bronchus	1,945	43.6	67.7	56.1	1,401	31.1	52.9	48.7
Colorectal	1,815	38.6	48.9	43.9	676	13.8	19.1	16.9
Female Breast	3,324	131.8	119.9	114.3	637	23.8	26.2	24.2
Prostate	2,998	161.2	164.3	142.0	385	20.1	26.9	23.7
Oral	341	7.6	10.2	9.9	71	1.5	3.0	2.6
Melanoma	583	12.4	12.9	14.1	98	2.1	2.1	2.2
Cervical	185	7.0	8.5	7.7	34	1.3	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

Source: Maryland Cancer Registry, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 97.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Prince George's County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	13,824	427.7	435.8	400.5	5,858	187.3	178.9	166.2
Lung and Bronchus	1,906	62.5	67.7	56.1	1,578	52.0	52.9	48.7
Colorectal	1,638	52.0	48.9	43.9	633	20.3	19.1	16.9
Female Breast	2,264	117.7	119.9	114.3	567	30.1	26.2	24.2
Prostate	2,440	189.4	164.3	142.0	355	32.2	26.9	23.7
Oral	319	9.8	10.2	9.9	116	3.7	3.0	2.6
Melanoma	225	6.3	12.9	14.1	38	1.0	2.1	2.2
Cervical	174	8.0	8.5	7.7	46	2.3	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

Source: Maryland Cancer Registry, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 98.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Queen Anne's County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	947	405.3	435.8	400.5	395	161.5	178.9	166.2
Lung and Bronchus	162	69.3	67.7	56.1	136	56.7	52.9	48.7
Colorectal	115	47.2	48.9	43.9	28	10.9	19.1	16.9
Female Breast	141	113.4	119.9	114.3	28	20.6	26.2	24.2
Prostate	151	136.5	164.3	142.0	23	**	26.9	23.7
Oral	26	11.5	10.2	9.9	6	**	3.0	2.6
Melanoma	41	19.7	12.9	14.1	7	**	2.1	2.2
Cervical	9	**	8.5	7.7	0	0.0	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 99.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Saint Mary's County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,606	425.8	435.8	400.5	654	174.1	178.9	166.2
Lung and Bronchus	271	75.5	67.7	56.1	184	51.0	52.9	48.7
Colorectal	165	43.4	48.9	43.9	68	18.1	19.1	16.9
Female Breast	204	103.9	119.9	114.3	45	22.8	26.2	24.2
Prostate	200	118.8	164.3	142.0	46	27.0	26.9	23.7
Oral	50	13.3	10.2	9.9	11	**	3.0	2.6
Melanoma	54	13.5	12.9	14.1	11	**	2.1	2.2
Cervical	22	**	8.5	7.7	9	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 100.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Somerset County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	717	466.7	435.8	400.5	355	218.4	178.9	166.2
Lung and Bronchus	143	94.3	67.7	56.1	118	75.9	52.9	48.7
Colorectal	71	45.0	48.9	43.9	33	20.4	19.1	16.9
Female Breast	86	111.1	119.9	114.3	24	**	26.2	24.2
Prostate	83	116.0	164.3	142.0	18	**	26.9	23.7
Oral	20	**	10.2	9.9	**	**	3.0	2.6
Melanoma	25	**	12.9	14.1	**	**	2.1	2.2
Cervical	14	**	8.5	7.7	7	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

**Cells with 5 or fewer non-zero cases and rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 101.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Talbot County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,148	412.7	435.8	400.5	451	149.1	178.9	166.2
Lung and Bronchus	154	55.5	67.7	56.1	115	40.6	52.9	48.7
Colorectal	156	51.1	48.9	43.9	62	18.3	19.1	16.9
Female Breast	175	124.4	119.9	114.3	37	24.9	26.2	24.2
Prostate	226	178.2	164.3	142.0	33	22.5	26.9	23.7
Oral	42	14.8	10.2	9.9	12	**	3.0	2.6
Melanoma	41	17.2	12.9	14.1	8	**	2.1	2.2
Cervical	**	**	8.5	7.7	**	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 U.S. standard population

**Cells with 5 or fewer non-zero cases and rates based on cells with 25 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy

Source: Maryland Cancer Registry, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 102.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Washington County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	3,296	406.0	435.8	400.5	1,481	173.7	178.9	166.2
Lung and Bronchus	539	67.5	67.7	56.1	441	53.7	52.9	48.7
Colorectal	406	47.3	48.9	43.9	178	20.0	19.1	16.9
Female Breast	448	103.4	119.9	114.3	120	25.0	26.2	24.2
Prostate	419	119.3	164.3	142.0	89	23.2	26.9	23.7
Oral	77	9.6	10.2	9.9	23	**	3.0	2.6
Melanoma	142	18.5	12.9	14.1	12	**	2.1	2.2
Cervical	38	9.5	8.5	7.7	15	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 103.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Wicomico County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	2,076	448.4	435.8	400.5	939	196.9	178.9	166.2
Lung and Bronchus	356	78.9	67.7	56.1	310	67.8	52.9	48.7
Colorectal	232	48.1	48.9	43.9	112	22.5	19.1	16.9
Female Breast	340	133.5	119.9	114.3	78	29.3	26.2	24.2
Prostate	259	135.1	164.3	142.0	51	25.5	26.9	23.7
Oral	45	9.7	10.2	9.9	17	**	3.0	2.6
Melanoma	89	19.3	12.9	14.1	14	**	2.1	2.2
Cervical	33	12.6	8.5	7.7	13	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Table 104.
Incidence (1994-98) and Mortality Rates* (1994-98) by Type of Cancer
Worcester County, Maryland, and U.S.

Type of Cancer	Incidence (1994-98)				Mortality (1994-98)			
	County Number	County Rate	MD Rate	U.S. SEER Rate	County Number	County Rate	MD Rate	U.S. SEER Rate
All Cancers	1,541	489.2	435.8	400.5	641	190.6	178.9	166.2
Lung and Bronchus	266	83.4	67.7	56.1	195	58.9	52.9	48.7
Colorectal	181	51.4	48.9	43.9	67	19.1	19.1	16.9
Female Breast	192	119.6	119.9	114.3	39	19.9	26.2	24.2
Prostate	230	155.4	164.3	142.0	43	27.9	26.9	23.7
Oral	46	14.5	10.2	9.9	10	**	3.0	2.6
Melanoma	85	28.6	12.9	14.1	9	**	2.1	2.2
Cervical	16	**	8.5	7.7	8	**	2.6	2.7

*Rates are per 100,000 and are age-adjusted to 1970 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, 1994-1998
Maryland Division of Health Statistics, 1994-1998
SEER, National Cancer Institute, 1994-1998

Appendix A

Cigarette Restitution Fund
Annual Cancer Report Requirements

Cigarette Restitution Fund Annual Cancer Report Requirements

The Maryland General Assembly established a Cigarette Restitution Fund (CRF) to provide for the distribution of funds from the tobacco settlement (Chapter 173). The law creates a Tobacco Use Prevention and Cessation Program and a Cancer Prevention, Education, Screening and Treatment Program and provides parameters on how the funds may be spent. One provision of the law requires the Maryland Department of Health and Mental Hygiene to conduct a baseline cancer survey as well as an annual cancer survey.

The law requires that the annual survey include:

(1) The number and percentage of individuals who have each targeted cancer, both statewide and in each county;
(2) The number and percentage of individuals within each minority population who have each targeted cancer, both statewide and in each county;
(3) The mortality rate for each targeted cancer, both statewide and in each county;
(4) The mortality rate for the different minority populations for each targeted cancer, both statewide and in each county;
(5) The number of identifiable cancers with a high incidence in the state for which there are effective methods of prevention and early detection, and treatment after detection;
(6) Any aspect of targeted and non-targeted cancers that the Department seeks to measure; and
(7) Any other factor that the Department determines to be important for measuring rates of cancer in the State or for evaluating whether the program meets its objectives.

This information is provided in this first Annual Cancer Report as follows:

Required Component of the Annual Cancer Report	***Location of Information in this Report***
1. Number and percent of individuals having each targeted cancer, both statewide and in each jurisdiction.	Tables 1, 2, 3, 7, 8, 11, 12, 13, 17, 18, 21, 22, 22, 27, 28, 31, 32, 33, 37, 38, 41, 42, 43, 47, 48, 51, 52, 53, 57, 58, 61, 62, 63, 67, 68, 71, 72, 73, 77, 78, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93. 94. 95, 96, 97, 98, 99, 100, 101, 102, 103, 104
2. Number and percent of individuals within each minority population having each targeted cancer, both statewide and in each jurisdiction.	Same as above.
3. Mortality rate for each targeted cancer both statewide and in each jurisdiction.	Tables 1, 4, 5, 6, 9, 10, 11, 14, 15, 16, 19, 20, 21, 24, 25, 26, 29, 30, 31, 34, 35, 36, 39, 40, 41, 44, 45, 46, 49, 50, 51, 54, 55, 56, 59, 60, 61, 64, 65, 66, 69, 70, 71, 74, 75, 76, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93. 94. 95, 96, 97, 98, 99, 100, 101, 102, 103, 104
4. Mortality rate for the different minority populations for each targeted cancer, both statewide and in each county.	Same as above.
5. Number of identifiable cancers with a high incidence in the State for which there are effective methods of prevention and early detection, and	High incidence and effective prevention: Lung cancer: Tables 11, 12, 13, 17, 18 High incidence and effective detection:

Required Component of the Annual Cancer Report	***Location of Information in this Report***
treatment after detection.	Colorectal and breast cancer: Tables 21, 22, 23, 27, 28, 31, 32, 33, 37, 38
6. Other aspects of targeted and non-targeted cancers that the Department seeks to measure.	For cancer overall and for each targeted cancer, the report: 1. Compares Maryland incidence and mortality rates to that of the U.S.; 2. Shows 6-year mortality trends and 5-year combined data; 3. Presents 5-year combined incidence data; 4. Shows stage of disease at diagnosis; 5. Lists appropriate Healthy People 2010 objective(s) for each targeted cancer and identifies where Maryland and the U.S. currently are in meeting the respective objective(s); 6. Describes the current evidence for screening, primary prevention and chemoprevention for each targeted cancer, based on scientific literature; and 7. Describes the recommended public health intervention for each targeted cancer based on the evidence referenced above. This information is located throughout the report.
7. Other factors that the Department determines to be important for measuring rates of cancer in the State or for evaluating whether the program meets its objectives.	Same as above.

Appendix B

Annual Cancer Report Format

Annual Cancer Report Format

1. Selection of Targeted Cancers

Under the Cigarette Restitution Fund Program, Cancer Prevention, Education, Screening and Treatment Program, seven cancer sites are targeted: lung and bronchus, colon and rectum, breast, prostate, oral, melanoma of the skin, and cervix. These cancers are targeted because they can be prevented (e.g., lung and bronchus, melanoma of the skin) or detected and treated early (e.g., colon and rectum, breast, cervical, oral), or are a major cause of cancer cases and death (e.g., prostate).

2. Report Format

Information provided in this report focuses on all combined cancer sites reported in Maryland and the seven specific cancer sites targeted by the Cancer Prevention, Education, Screening and Treatment Program.

For each targeted cancer site, the number of new cancers, cancer deaths, and age-adjusted cancer incidence and mortality rates are presented by race, gender, and jurisdiction. All rates are age-adjusted to the 1970 U.S. standard population. Additionally, 1999 mortality rates are age-adjusted to the 2000 U.S. standard population. For each targeted cancer site, trends in incidence and mortality, race-specific incidence and mortality rates, stage of disease at diagnosis, public health evidence, recommended areas for public health intervention, and Maryland screening/behavior rates compared to Healthy People 2010 screening/behavior objectives are also presented. New tables have been added to each section with 5-year combined data for incidence and mortality. A new section with county-specific data has also been added that portrays 5-year incidence and mortality data along with Maryland and U.S. rates.

Maryland 1998 incidence and mortality rates with 95% confidence intervals (95% C.I.) were compared to U.S. 1998 data from the Surveillance, Epidemiology and End Results (SEER) Program Cancer Statistics Review (1973-1998).

Figures (graphs and maps) are also used to display data. Graphs are used to display data on incidence and mortality from 1993-1998 with the estimated annual percent change (EAPC) (see Appendix D, Glossary for more information on EAPC); incidence and mortality by race or gender; stage of diagnosis; and behaviors of persons in Maryland as compared to persons in the U.S. Maps portray Maryland mortality data as compared to the U.S. for the combined years 1994-1998 by geographical area. Maps now denote areas with rates statistically significantly lower than that of the U.S. in addition to rates that are statistically significantly higher.

Appendix C

Annual Cancer Report Data Sources, References, and Considerations

Annual Cancer Report Data Sources, References, and 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 Maryland 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), DHMH, is a computerized data system that registers all new cases of reportable cancers (excludes non-genital squamous cell or basal cell carcinoma) diagnosed or treated in Maryland. Incidence rates used in this report are calculated for the year 1998 (the year for which the most complete data are available) and include all cases reported to the MCR as of November 22, 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 1998 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 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. Complete data are published for the MYTS and MATS in the *Initial Findings from the Baseline Tobacco Study,* February 8, 2001 which can be found on the Internet at: www.dhmh.state.md.us/esm.

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)

The Surveillance, Epidemiology, and End Results Program (SEER) collects and publishes information on cancer incidence, stage and survival in the United States. The data are collected from 11 cancer registries throughout the United States and are estimated to represent approximately 14% of the U.S. population. The National Cancer Institute manages the SEER Program. The web site for further information is www.seer.cancer.gov.

4. National Center for Health Statistics/CDC Wonder

National cancer mortality data were obtained from the National Center for Health Statistics (NCHS). CDC WONDER, an interactive on-line database managed by NCHS, provided the mortality information. SEER publishes mortality data taken from NCHS public use tapes. The NCHS web site is www.cdc.gov/nchs.

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, and Oral Cancer

The Center for Cancer Surveillance and Control has convened three Medical Advisory Committees to formulate guidelines for breast, cervical, and colorectal 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.

Prostate Cancer: Barry, MJ. Prostate-specific-antigen testing for early diagnosis of prostate cancer. New England Journal of Medicine 2001;344:1373-7.

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 10.14.01, Cancer Registry and Md. Code Ann., Health-General §§18-203 and 18-204.

In order to ensure patient confidentiality and to comply with the *Maryland Cancer Registry Data Use Policy*, cells with five or fewer non-zero cases are presented with asterisks (**). Numbers of cases in a cell that may be used to calculate the number of cases within a restricted cell are also suppressed. Similarly, rates based on 25 or fewer non-zero cases are presented with asterisks (**) to avoid a breach of confidentiality.

2. Rate Analysis

Incidence data presented in this report were calculated using Maryland resident cancer cases diagnosed from January 1, 1998 through December 31, 1998 and reported to the MCR as of

November 22, 2000. The mortality data consist of deaths which occurred between January 1, 1998 and December 31, 1998 and January 1, 1999 and December 31, 1999.

Incidence and mortality rates were calculated and age-adjusted using the 1970 U.S. population as the standard population. Mortality rates for 1999 were also age-adjusted using the new 2000 U.S. standard population in addition to the 1970 standard. The new standard is based on the year 2000 population and, beginning with data year 1999, will replace the existing standard based on the 1940 or 1970 standard population for the nation. 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. Age standardization, also called age-adjustment, is one of the tools used to control for the changing age distribution of the population, and therefore to make meaningful comparisons of vital rates over time and between groups.

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 1993 to 1998). See Appendix D, Glossary, p. 161 for the definition of EAPC.

NCHS updated 1998 population estimates after the issuance of the 2000 Baseline Cancer Report. This Annual Cancer Report (September 2001) used the updated population estimates to calculate 1998 mortality rates. Therefore, these rates may differ from those published in the Baseline Cancer Report but are the most current rates.

3. National Comparison Data

Incidence and mortality rates are compared to 1998 SEER incidence rates and 1998 U.S. mortality rates (NCHS) for Maryland and the jurisdictions. National mortality data for the year 1999 are not available yet. In addition, the SEER program does not provide statistics on "other" races; therefore, these rates are not presented.

4. Race and Ethnicity

MCR began requiring submission of more detailed race and ethnicity data in August 1998. Race reported as Native American, Asian, and Pacific Islander are counted in the category called "other" race in this report. Because information on ethnicity was not reliably reported to the MCR in 1998, it is not included in this report.

5. Healthy People 2010 Objectives/BRFSS

As measures for cancer-related behaviors (e.g., screening tests) and the recommendations for their use change, the BRFSS questions that measure screening and other health behaviors also change to reflect these modifications. Also, the Healthy People 2010 objectives may change to reflect new recommendations over time.

6. 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 1970 and 2000, International Classification of Diseases (ICD) codes for cancer, and Maryland counts, rates, and confidence intervals for mortality data from 1994-1998.

Appendix D

Glossary

Glossary

- **Age-Adjustment:** Age is the most important risk factor for cancer incidence for most cancers. Cancer rates derived from populations that differ in age 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 1970 U.S. standard population; 1999 mortality rates are also age-adjusted to the 2000 U.S. standard population (Appendix F). Additional information on age-adjustment can be found on the following web sites: http://www.cdc.gov/nchs/data/statnt/statnt20.pdf and http://www.cdc.gov/nchs/products/pubs/workpap/ageadjust.htm.

- **Chemoprevention:** The use of drugs, vitamins, or other agents to try to reduce the risk of cancer or to delay the development or recurrence of cancer.

- **Confidence Intervals:** 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 not different. All rates presented in this report were calculated at the 95% confidence level. For example, the 1998 age-adjusted lung cancer rate in Maryland is 61.3 per 100,000 population. The 95% confidence interval for this rate is 59.2 to 63.4. We have, therefore, a 95% degree of certainty that the true (real) rate is between 59.2 and 63.4. 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.

- **Estimated Annual Percentage Change (EAPC) (6-year trend data):** The EAPC is a measure of the annual percent increase or decrease in cancer rates over time. The EAPC is calculated by fitting a regression line to the natural logarithm of the rates, using the year of diagnosis as the independent variable. For the purpose of this report, the EAPC has been calculated using 6-year trend data for the years 1993 through 1998.

- **Incidence:** 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 1998. Cancer incidence data are also presented in an aggregated form for the years 1994 through 1998.

- **Mortality:** Refers to the number of deaths during a defined time period, usually one year. For the purposes of this report, cancer mortality data are presented for the years 1998 and 1999. Cancer mortality data are also presented in an aggregated form for the years 1994 through 1998.

- **Primary prevention:** The prevention of cancer before it has developed such as through avoiding carcinogens (e.g., avoiding tobacco, promoting a healthy lifestyle through exercise and diet), preventing the harmful effects of carcinogens (e.g., using sunscreen), and detecting and removing precancerous lesions (e.g., removing polyps in the colon).

- **Rate:** 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 and are usually age-adjusted (see above).

- **Screening:** The checking for disease when there are no symptoms resulting in detection of malignancies in situ or in an early stage.

- **Stage at Diagnosis:** The extent to which the cancer has spread from the organ of origin at the time of diagnosis. The stage information used in this report is based on the SEER Summary Stage Guidelines:

    1. **In situ**: the cancerous cells have not invaded the tissue basement 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. **Regiona**l: 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, 1998 and 1999

Maryland Population Estimates by County, 1998

	Total All Genders	Total Male	Total Female	Total White	White Male	White Female	Total Black	Black Male	Black Female
Maryland	**5,130,072**	**2,492,276**	**2,637,796**	**3,485,711**	**1,716,745**	**1,768,966**	**1,426,478**	**670,752**	**755,726**
Baltimore Metro	**2,441,279**	**1,182,574**	**1,258,705**	**1,688,725**	**830,192**	**858,533**	**682,567**	**319,135**	**363,432**
Anne Arundel County	474,682	238,876	235,806	388,462	196,329	192,133	72,478	36,391	36,087
Baltimore City	645,664	301,246	344,418	205,023	98,299	106,724	430,092	197,645	232,447
Baltimore County	721,556	345,146	376,410	581,428	279,280	302,148	115,754	54,063	61,691
Carroll County	149,690	74,197	75,493	143,521	71,106	72,415	4,550	2,372	2,178
Harford County	214,569	106,303	108,266	185,852	92,734	93,118	23,752	11,436	12,316
Howard County	235,118	116,806	118,312	184,439	92,444	91,995	35,941	17,228	18,713
EasternShore	**379,763**	**186,185**	**193,578**	**290,285**	**143,361**	**146,924**	**85,996**	**41,053**	**44,943**
Caroline County	29,519	14,435	15,084	22,886	11,313	11,573	6,440	3,035	3,405
Cecil County	82,348	41,292	41,056	76,864	38,504	38,360	4,703	2,412	2,291
Dorchester County	29,584	14,036	15,548	18,993	9,179	9,814	10,361	4,739	5,622
Kent County	19,002	9,171	9,831	14,027	6,886	7,141	4,839	2,224	2,615
Queen Anne's County	39,692	19,679	20,013	33,399	16,739	16,660	6,027	2,821	3,206
Somerset County	24,252	13,084	11,168	12,744	6,644	6,100	11,329	6,340	4,989
Talbot County	33,154	15,811	17,343	25,091	12,092	12,999	7,859	3,609	4,250
Wicomico County	79,441	38,129	41,312	55,630	26,981	28,649	22,691	10,541	12,150
Worcester County	42,771	20,548	22,223	30,651	15,023	15,628	11,747	5,332	6,415
National Capital	**1,616,065**	**778,465**	**837,600**	**907,338**	**445,370**	**461,968**	**575,534**	**268,547**	**306,987**
Montgomery County	839,158	404,159	434,999	616,519	299,650	316,869	128,786	59,230	69,556
Prince George's County	776,907	374,306	402,601	290,819	145,720	145,099	446,748	209,317	237,431
Northwest	**415,503**	**206,049**	**209,454**	**385,595**	**189,339**	**196,256**	**24,549**	**14,177**	**10,372**
Allegany County	72,130	34,309	37,821	69,634	33,007	36,627	1,956	1,025	931
Frederick County	186,621	92,554	94,067	170,052	84,669	85,383	13,405	6,492	6,913
Garrett County	29,275	14,407	14,868	29,019	14,229	14,790	152	132	20
Washington County	127,477	64,779	62,698	116,890	57,434	59,456	9,036	6,528	2,508
Southern	**277,462**	**139,003**	**138,459**	**213,768**	**108,483**	**105,285**	**57,832**	**27,840**	**29,992**
Calvert County	71,757	35,849	35,908	56,268	28,380	27,888	14,695	7,113	7,582
Charles County	118,060	58,750	59,310	87,294	44,074	43,220	27,601	13,239	14,362
St Mary's County	87,645	44,404	43,241	70,206	36,029	34,177	15,536	7,488	8,048

Source: Maryland Division of Health Statistics

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

1970 and 2000 U.S. Standard Population

U.S. Standard Population
1970 and 2000

Age Group (years)	1970 Population	2000 Population
00-04	84,416	69,135
05-09	98,204	72,533
10-14	102,304	73,032
15-19	93,845	72,169
20-24	80,561	66,478
25-29	66,320	64,529
30-34	56,249	71,044
35-39	54,656	80,762
40-44	58,958	81,851
45-49	59,622	72,118
50-54	54,643	62,716
55-59	49,077	48,454
60-64	42,403	38,793
65-69	34,406	34,264
70-74	26,789	31,773
75-79	18,871	26,999
80-84	11,241	17,842
85+	7,435	15,508
Total	1,000,000	1,000,000

Source: SEER, National Cancer Institute

Appendix G

SEER Definition of Site Categories
ICD-O-2 and ICD-9 Codes

ICD-O-2 and ICD-9 Codes Used to Classify Primary Sites (SEER Definitions)

Cancer Site	ICD-O-2 Codes	ICD-9 Codes
Oral Cavity and Pharynx		
Oral cavity	C03.0-C06.9, C07.9-C08.9, C09.0-C09.9, C14.0, C14.2-C14.8	142.0-145.6, 145.8-145.9, 149.0-149.9
Lip	C00.0-C00.9	140.0-140.9
Tongue	C01.9-C02.9	141.0-141.9
Pharynx	C10.0-C10.9, C11.0-C11.9, C12.9, C13.0-C13.9, C14.1	146.3-146.9, 147.0-148.9
Digestive System		
Esophagus	C15.0-C15.9	150.0-150.9
Stomach	C16.0-C16.9	151.0-151.9
Small intestine	C17.0-C17.9	152.0-152.9
Colon, excluding rectum	C18.0-C18.9, C26.0	153.0-153.9, 159.0
Rectum & rectosigmoid	C19.9, C20.9	154.0-154.1
Liver and intrahepatic bile duct	C22.0-C22.1	155.0-155.2
Pancreas	C25.0-C25.9	157.0-157.9
Other digestive	C21.0-C21.2, C21.8, C23.9-C24.9, C48.0-C48.2, C26.8-C26.9, C48.8	154.2-154.3, 154.8, 156.0-156.9, 158.0, 158.8-158.9, 159.8-159.9
Respiratory System		
Larynx	C32.0-C32.9	161.0-161.9
Lung and bronchus	C34.0-C34.9	162.2-162.9
Other respiratory	C30.0-C30.1, C31.0-C31.9, C38.4, C33.9, C38.1-C38.3, C38.8, C39.0, C39.8, C39.9	160-160.9, 162.0, 163.0-163.9, 164.2-165.9
Bone and joint	C40.0-C41.9	170.0-170.9
Soft tissue, including heart	C38.0, C47.0-C47.9, C49.0-C49.9	164.1, 171.0-171.9
Skin, excluding basal and squamous		
Melanomas	C44.0-C44.9 (TYPES 872-879)	172.0-172.9
Other skin	C44.0-C44.9 (EXCLUDING TYPES 8000-8004, 8010-8012, 8070-8076, 8090-8096, 8720-8790)	173.0-173.9
Breast	C50.0-C50.9	174.0-174.9, 175.0, 175.9
Female genital system		
Cervix, invasive	C53.0-C53.9	180.0-180.9
Uterus	C54.0-C54.9, C55.9	179._, 182.0-182.1, 182.8
Ovary	C56.9	183.0
Other female genital	C52.9, C51.0-51.9, C57.0-58.9	181._, 183.2-184.4, 184.8-184.9
Male Genital System		
Prostate	C61.9	185._
Testis	C62.0-C62.9	186.0-186.9
Other male genital	C60.0-C60.9, C63.0-C63.9	187.1-187.9
Urinary System		
Bladder	C67.0-C67.9	188.0-188.9

Cancer Site	ICD-O-2 Codes	ICD-9 Codes
Kidney and renal pelvis	C64.9, C65.9	189.0-189.1
Other urinary	C66.9, C68.0-68.9	189.2-189.4, 189.8-189.9
Eye	C69.0-C69.9	190.0-190.9
Brain and other nervous system	C70.0-C72.9	191.0-192.3, 192.8-192.9
Endocrine Glands		
Thyroid	C73.9	193._
Other endocrine	C37.9, C74.0-74.9, C75.0-C75.9	164.0, 194.0-194.9
Leukemia	TYPES 9800-9941	202.4, 203.1, 204.0-206.9, 207.0-207.2, 207.8, 208.0-208.9
Lymphoma		
Hodgkin's disease	TYPES 9650-9667	201.0-201.9
Non-Hodgkin's lymphoma	TYPES 9590-9595, 9670-9717	200.0-200.8, 202.0-202.2, 202.8-202.9
Multiple myeloma	TYPES 9731-9732	203.0, 203.2-203.8
Ill defined and unspecified sites	TYPES 9720-9723, 9740, 9741, 9950, 9760-9764, 9950-9989 C76.0-C76.8, C80.9 (TYPES 8000-9589) C42.0-C42.4 (TYPES 8000-9589) C77.0-C77.9 (TYPES 8000-9589)	159.1, 195.0-195.8, 196.0-196.9, 199.0-199.1, 202.3, 202.5-202.6

Note: Sites Oral Cavity and Pharynx though Endocrine Glands exclude ICD-O-2 morphology types 9590-9989.

Appendix H

Maryland Cancer Mortality (1994-1998)
Rates and Confidence Intervals
By Geographical Area

All Cancer Sites Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1994-1998

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	50,658	178.9	177.3	180.5
Northwest Region	4,173	162.8	157.8	168.0
Garrett	279	136.2	120.1	154.6
Allegany	1,001	158.5	148.3	169.5
Washington	1,481	173.7	164.6	183.2
Frederick	1,412	163.0	154.4	172.0
Baltimore Metropolitan Area	27,561	192.9	190.6	195.2
Baltimore City	9,929	239.9	235.0	244.8
Baltimore County	8,832	172.5	168.8	176.3
Anne Arundel	4,270	185.2	179.6	190.9
Carroll	1,313	172.9	163.3	182.9
Howard	1,421	159.6	151.1	168.4
Harford	1,796	179.5	171.2	188.1
National Capital Area	12,123	155.7	152.9	158.6
Montgomery	6,265	133.0	129.6	136.4
Prince George's	5,858	187.3	182.5	192.3
Southern Region	2,090	184.9	176.9	193.1
Calvert	564	180.6	165.8	196.6
Charles	872	198.2	185.0	212.1
Saint Mary's	654	174.1	160.8	188.4
Eastern Shore	4,711	186.0	180.6	191.6
Cecil	808	193.1	179.9	207.2
Kent	289	182.5	161.1	207.3
Queen Anne's	395	161.5	145.8	179.1
Caroline	367	189.8	170.3	211.7
Talbot	451	149.1	134.8	165.4
Dorchester	466	199.0	180.6	219.6
Wicomico	939	196.9	184.2	210.4
Somerset	355	218.4	195.4	244.2
Worcester	641	190.6	175.6	207.3

*Rates are per 100,000 population and are age-adjusted to 1970 U.S. standard population

Source: Maryland Division of Health Statistics, 1994-1998

Lung and Bronchus Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1994-1998

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	14,481	52.9	52.0	53.8
Northwest Region	1,233	50.4	47.5	53.4
Garrett	76	38.7	30.2	49.7
Allegany	312	50.9	45.2	57.5
Washington	441	53.7	48.7	59.3
Frederick	404	49.3	44.5	54.4
Baltimore Metropolitan Area	8,170	58.9	57.6	60.2
Baltimore City	2,990	75.1	72.4	78.0
Baltimore County	2,608	52.2	50.1	54.3
Anne Arundel	1,358	60.0	56.8	63.3
Carroll	345	48.3	43.2	53.9
Howard	359	42.0	37.7	46.7
Harford	510	525.0	48.0	57.3
National Capital Area	2,979	39.8	38.4	41.3
Montgomery	1,401	31.1	29.4	32.8
Prince George's	1,578	52.0	49.4	54.7
Southern Region	624	56.8	52.4	61.5
Calvert	169	54.7	46.7	63.9
Charles	271	63.4	56.0	71.6
Saint Mary's	184	51.0	43.8	59.1
Eastern Shore	1,475	60.7	57.6	64.0
Cecil	266	65.6	57.9	74.1
Kent	83	53.4	42.1	68.4
Queen Anne's	136	56.7	47.5	67.9
Caroline	114	60.5	49.6	73.8
Talbot	115	40.6	33.2	50.3
Dorchester	138	61.9	51.7	74.5
Wicomico	310	67.8	60.3	76.1
Somerset	118	75.9	62.5	92.9
Worcester	195	58.9	50.7	68.8

*Rates are per 100,000 population and are age-adjusted to 1970 U.S. standard population

Source: Maryland Division of Health Statistics, 1994-1998

Colon and Rectum Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1994-1998

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	5,567	19.1	18.6	19.7
Northwest Region	519	19.6	17.9	21.4
Garrett	41	20.8	14.7	29.4
Allegany	136	21.1	17.5	25.6
Washington	178	20.0	17.0	23.4
Frederick				
Baltimore Metropolitan Area	3,033	20.6	19.9	21.4
Baltimore City	1,057	24.7	23.1	26.3
Baltimore County	1,003	18.8	17.6	20.1
Anne Arundel	477	20.5	18.6	22.4
Carroll	161	20.2	17.1	23.8
Howard	149	16.9	14.2	19.9
Harford	186	18.5	15.9	21.4
National Capital Area	1,309	16.5	15.6	17.4
Montgomery	676	13.8	12.8	14.9
Prince George's	633	20.3	18.8	22.0
Southern Region	223	20.1	17.5	22.9
Calvert	66	21.5	16.6	27.7
Charles	89	21.0	16.8	26.0
Saint Mary's	68	18.1	14.0	23.2
Eastern Shore	483	18.1	16.5	19.9
Cecil	66	15.5	12.0	20.0
Kent	30	17.9	11.9	27.9
Queen Anne's	28	10.9	7.2	16.7
Caroline	48	24.1	17.5	33.1
Talbot	62	18.3	13.8	25.2
Dorchester	37	13.5	9.3	20.1
Wicomico	112	22.5	18.4	27.3
Somerset	33	20.4	13.8	30.1
Worcester	67	19.1	14.7	25.4

*Rates are per 100,000 population and are age-adjusted to 1970 U.S. standard population

Source: Maryland Division of Health Statistics, 1994-1998

Female Breast Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1994-1998

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	4,199	26.2	25.4	27.1
Northwest Region	321	22.0	19.5	24.7
Baltimore Metro Region	2,198	27.2	26.1	28.5
Baltimore City	766	31.8	29.5	34.3
Montgomery County	637	23.8	21.9	25.9
Prince George's County	567	30.1	27.6	32.8
Southern Region	130	20.9	17.4	25.1
Eastern Shore Region	346	25.9	23.1	29.0

*Rates are per 100,000 population and are age-adjusted to 1970 U.S. standard population

Source: Maryland Division of Health Statistics, 1994-1998

Prostate Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1994-1998

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	3,114	26.9	25.9	27.8
Northwest Region	234	20.8	18.2	23.7
Baltimore Metro Region	1,701	29.1	27.7	30.5
Baltimore City	686	39.9	36.9	43.0
Montgomery County	385	20.1	18.1	22.2
Prince George's County	355	32.2	28.9	35.8
Southern Region	140	30.6	25.7	36.2
Eastern Shore Region	299	25.9	23.0	29.1

*Rates are per 100,000 population and are age-adjusted to 1970 U.S. standard population

Source: Maryland Division of Health Statistics, 1994-1998

Oral Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1994-1998

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	830	3.0	2.8	3.2
Northwest Region	65	2.6	2.0	3.4
Baltimore Metro Region	460	3.3	3.0	3.7
Baltimore City	204	5.3	4.6	6.1
Montgomery County	71	1.5	1.2	2.0
Prince George's County	116	3.7	3.1	4.5
Southern Region	39	3.5	2.4	4.8
Eastern Shore Region	79	3.3	2.6	4.1

*Rates are per 100,000 population and are age-adjusted to 1970 U.S. standard population

Source: Maryland Division of Health Statistics, 1994-1998

Melanoma Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1994-1998

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	601	2.1	1.9	2.3
Northwest Region	49	1.9	1.4	2.6
Baltimore Metro Region	318	2.2	2.0	2.5
Baltimore City	53	1.3	1.0	1.8
Montgomery County	98	2.1	1.7	2.6
Prince George's County	38	1.0	0.7	1.5
Southern Region	33	2.8	1.9	4.0
Eastern Shore Region	65	2.7	2.0	3.5

*Rates are per 100,000 population and are age-adjusted to 1970 U.S. standard population

Source: Maryland Division of Health Statistics, 1994-1998

Cervical Cancer Mortality
Number of Cancer Deaths and Age-Adjusted Mortality Rates*
by Geographical Area, Maryland, 1994-1998

Geographical Area	Number of Deaths	Mortality Rates*	95% Confidence Interval	
			Upper CI	Lower CI
Maryland	428	2.6	2.4	2.9
Northwest Region	40	2.9	2.0	4.0
Baltimore Metro Region	227	2.8	2.5	3.2
Baltimore City	128	5.6	4.6	6.8
Montgomery County	34	1.3	0.9	1.9
Prince George's County	46	2.3	1.6	3.1
Southern Region	26	4.2	2.7	6.3
Eastern Shore Region	55	4.1	3.0	5.5

*Rates are per 100,000 population and are age-adjusted to 1970 U.S. standard population

Source: Maryland Division of Health Statistics, 1994-1998