

Maryland Department of Health and Mental Hygiene
2013 Cancer Data
Cigarette Restitution Fund Program
Cancer Prevention, Education, Screening and Treatment Program

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I. Major Findings

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

- In 2010, a total of 27,801 new cases of cancer were diagnosed in Maryland.
- From 2001 to 2010, the annual overall cancer incidence rates declined in Maryland at a pace comparable to the decline in the U.S. rates.
- In 2010, the incidence rate for all cancer sites among blacks in Maryland surpassed the incidence rate for whites for the first time since 2006; rates increased for blacks and remained about the same for whites in 2010 compared to 2009.
- Mortality rates for all cancer sites decreased slightly more from 2001 to 2010 in Maryland than in the U.S (-1.9% vs. -1.5%). In 2010, the Maryland all cancer sites mortality rate was lower than the U.S. rate (170.9 vs. 171.8 per 100,000) for the first time in the 10 year period but remained above the U.S. 2010 Health People target of 158.6.
- Blacks have higher all cancer sites mortality rates than whites from 2006 to 2010; the annual percent change decreased for both races over the period.

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

- Lung cancer is the leading cause of cancer death in both men and women in Maryland; it accounts for 26.7% of all cancer deaths in 2010.
- Lung cancer incidence and mortality rates decreased in Maryland from 2006 to 2010.
- From 2006 to 2010, lung cancer incidence rates in Maryland declined for whites and rose slightly for blacks.
- Smoking rates among Maryland youth continue to decline, while smoking rates among adults had a slight increase from 2008 to 2010. In 2010, 15.2% of adults age 18 years and older were current smokers; Maryland had not yet attained the Healthy People 2020 goal of reducing the percentage of adult smokers to 12%.

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

- Incidence and mortality rates for colorectal cancer declined in Maryland from 2006 to 2010. Incidence and mortality rates had a greater decrease among Maryland whites than blacks over the period.
- Maryland continues to surpass the Healthy People 2020 target for up-to-date colorectal cancer screening; in 2010, 70.9% of adults age 50 years and older report having been up-to-date.

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

- Breast cancer is the second leading cause of cancer death among women in Maryland after lung cancer.
- Incidence rates for female breast cancer increased from 2006 to 2010 with the incidence rate for black females increasing at a greater rate per year than white females.
- From 2006 to 2010, mortality rates for female breast cancer declined for white females and increased for black females.
- Maryland women continue to surpass the Healthy People 2020 target for mammography screening; in 2010, 85.6% of women age 50 to 74 years report having had a mammogram within the past 2 years.

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

- Prostate cancer is the second leading cause of cancer death among men in Maryland after lung cancer.
- Incidence and mortality rates for prostate cancer decreased from 2006 to 2010.
- Racial disparities in prostate cancer incidence and mortality were present, with the rates for black males remaining much higher than for white males in the years 2006 to 2010.
- From 2006 to 2010, there was a greater decrease in mortality rates for white men than for black men (-5.1% vs. -1.9%).

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

- From 2006 to 2010, Maryland oral cancer incidence rates increased for all races; however, rates decreased for blacks and increased for whites.
- From 2006 to 2010, oral cancer mortality rates decreased among both whites and blacks.
- Marylanders were below the Maryland Comprehensive Cancer Control Plan target of 48.0% for 2015 for oral cancer screening: In 2010, 37.8% of adults age 40 years and older reported having an oral cancer exam in the past year.

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

- Melanoma incidence rates in Maryland increased from 2006 to 2010. The incidence rate slightly increased among both males and females. Males had incidence rates almost 54% higher than females.
- From 2006 to 2010, the overall mortality rates decreased among both males and females.
- In 2010, 68.4% of Marylanders aged 18 years and older used at least one sun protective measure “always” or “nearly always,” below the Healthy People 2020 target of 80.1%.

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

- Cervical cancer incidence among Maryland females increased from 2006 to 2010.
- The increase in incidence rates for black females was greater than for white females.
- Mortality rates for cervical cancer decreased from 2006 to 2010 and differed by race; mortality rates among black women remained higher than among white women, but declined more.
- In 2010, close to 91% of Maryland women age 21 to 65 years had a Pap test within the past 3 years, slightly below the Healthy People 2020 target of 93%.

Important note: The 2006 case counts presented in this report for Montgomery and Prince George's counties are underreported for each cancer site due to delay in case reporting. Cancers reported to the MCR after the annual cutoff date are not included in the MCR official Maryland case counts and rates. The case undercounts resulted in lower than actual age-adjusted incidence rates for Montgomery and Prince George's counties, for the National Capital geographic region, and to a lesser degree, for Maryland, for 2006, thereby affecting the 5-year period 2006-2010.

II. All Cancer Sites

Incidence (New Cases)

A total of 27,801 new cases of cancer diagnosed in 2010 in Maryland residents were reported to the Maryland Cancer Registry. The total age-adjusted cancer incidence rate for Maryland was 449.8 per 100,000 population (444.4-455.2, 95% Confidence Interval [C.I.]) in 2010. The 2010 Maryland cancer incidence rate is similar to the 2010 United States (U.S.) Surveillance Epidemiology and End Results (SEER) rate of 445.0 per 100,000 population (443.6-446.4, 95% C.I.).

Mortality (Deaths)

Cancer is the second leading cause of death in Maryland, accounting for 23.7% of all deaths in 2010. A total of 10,249 Maryland residents died from cancer in 2010. The Maryland mortality rate for all cancer sites was 170.9 per 100,000 population (165.6-174.3, 95% C.I.) for 2010. This rate is similar to the 2010 U.S. mortality rate for all cancer sites of 171.8 per 100,000 population (171.3-172.2, 95% C.I.). Maryland ranks 24th highest among all states and the District of Columbia in total cancer mortality for the period 2006-2010. For the first time, Maryland's all cancer mortality rate has fallen below the U.S. rate.

Table 1.
All Cancer Sites Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2010

<i>Incidence 2010</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
New Cases (count)	27,801	13,917	13,878	19,240	7,067	1,142
MD Incidence Rate	449.8	507.5	409.0	449.0	451.5	352.7
U.S. SEER Rate	445.0	506.9	401.0	452.0	461.1	N/A
<i>Mortality 2010</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
Deaths (count)	10,249	5,200	5,049	7,165	2,808	276
MD Mortality Rate	170.9	205.9	147.3	166.1	197.0	101.7
U.S. Mortality Rate	171.8	208.8	145.8	171.4	203.0	N/A

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

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

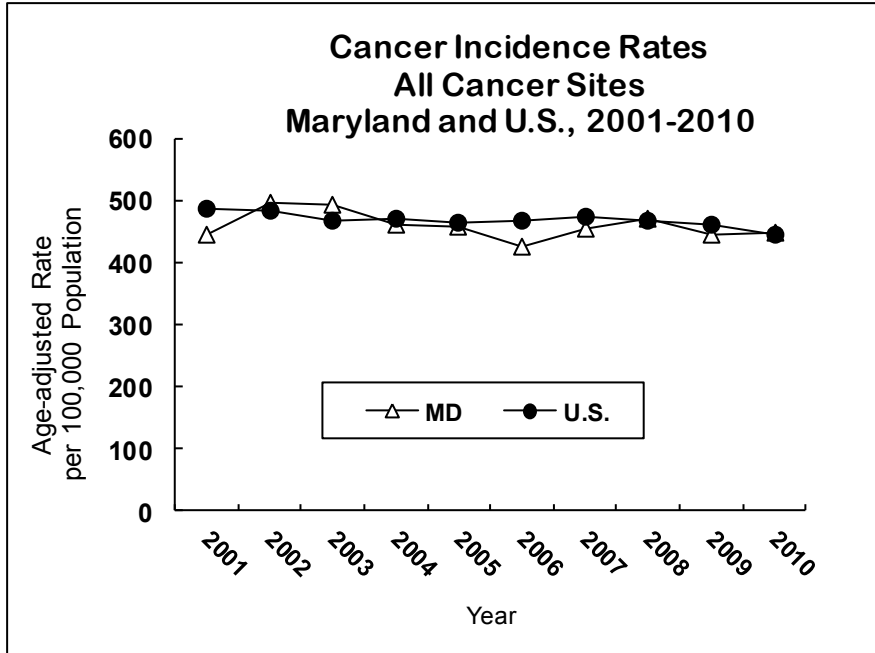
N/A = Data were not available

Source: Maryland Cancer Registry

U.S. SEER, SEER*Stat

Maryland Vital Statistics Administration from MATCH

U.S. SEER, Cancer Statistics Review

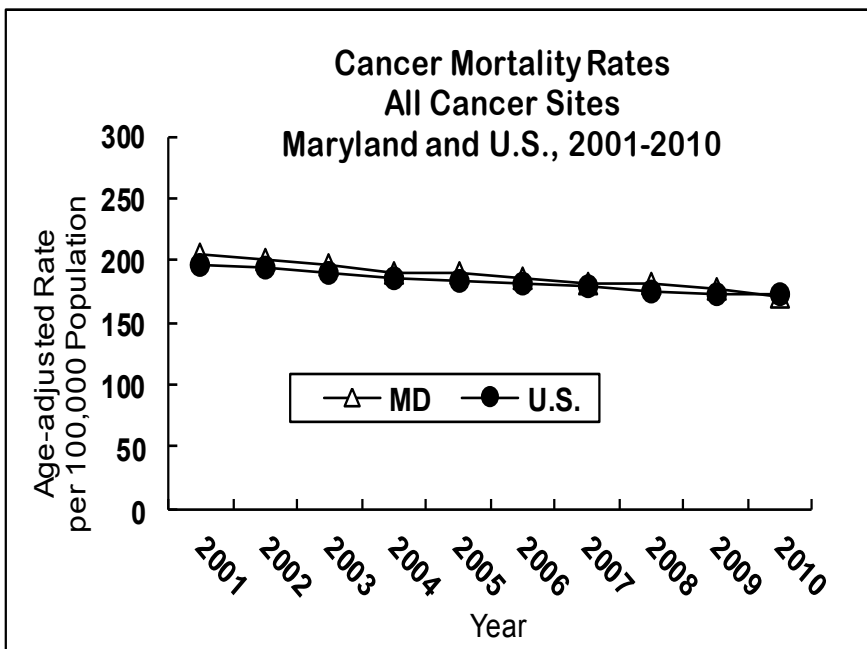


Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat

Maryland vs. U.S., All Cancer Sites Incidence Rates, All Age Groups

All cancer sites incidence rates in Maryland and the U.S. declined over the 10-year period from 2001 to 2010. Maryland incidence rates decreased at a rate of 0.6% per year; U.S. incidence rates decreased at a rate of 0.6% per year.

See Appendix I, Table 1.

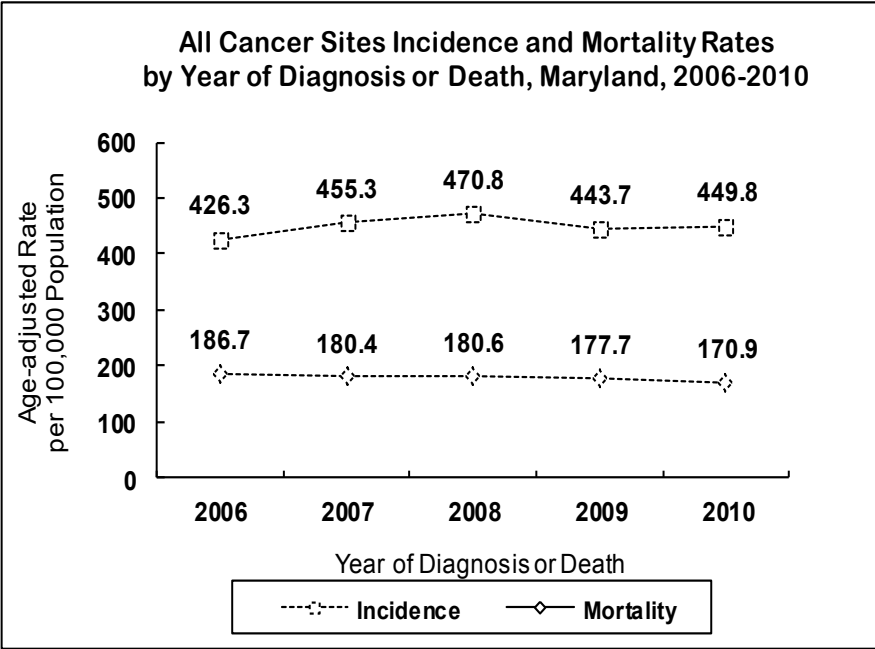


Source: NCHS Compressed Mortality File in CDC WONDER, 2001-2007 (MD)
Maryland Vital Statistics Administration from MATCH, 2008-2010 (MD)
NCHS Compressed Mortality File in CDC WONDER, 2001-2008 (U.S.)
U.S. SEER, Cancer Statistics Review, 2009-2010 (U.S.)

Maryland vs. U.S., All Cancer Sites Mortality Rates, All Age Groups

Maryland cancer mortality rates have declined since 2001. From 2001 to 2010, all cancer sites mortality rates in Maryland decreased at a rate of 1.9% per year, a greater decrease than the U.S. mortality rates which decreased at a rate of 1.5% for the same time period.

See Appendix I, Table 2.



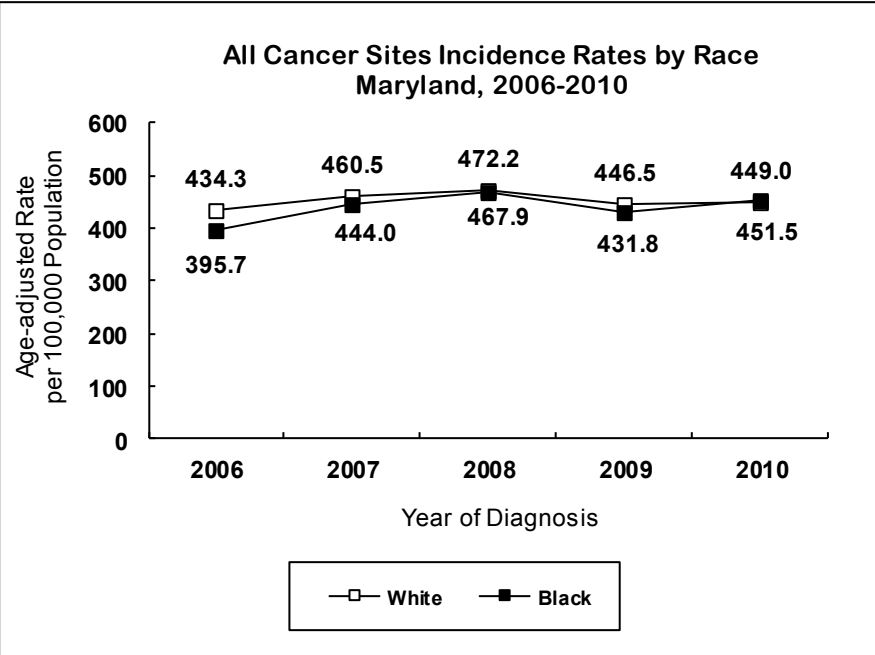
Incidence and Mortality Trends

In Maryland, the incidence rate for all cancer sites increased at a rate of 0.8% per year from 2006 to 2010.

Cancer mortality rates decreased at a rate of 1.9% per year from 2006 to 2010.

See Appendix G, Tables 1 and 2.

Source: Maryland Cancer Registry
NCHS Compressed Mortality File in CDC WONDER, 2006-2007
Maryland Vital Statistics Administration from MATCH, 2008-2010

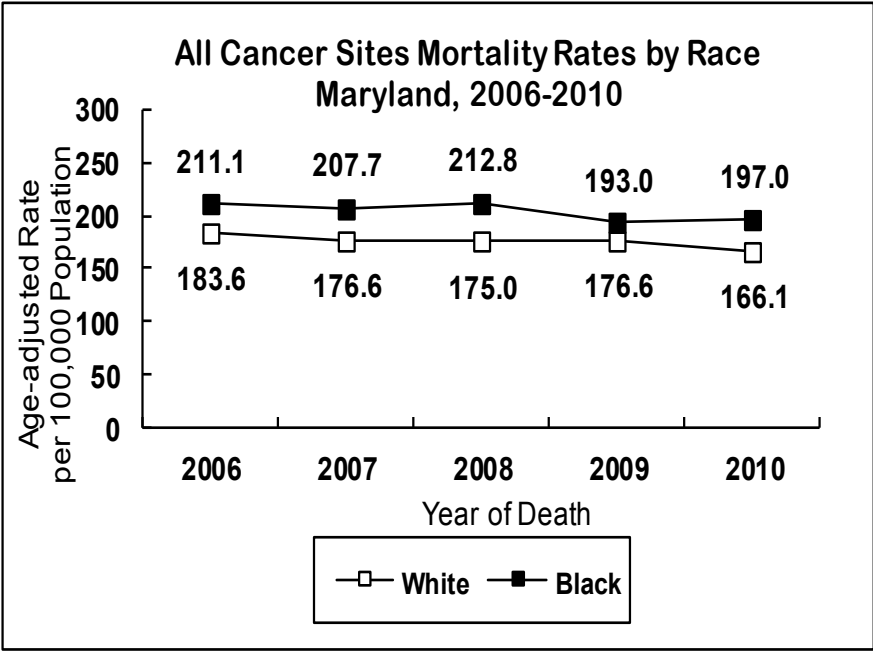


Incidence Trends by Race

Incidence rates for all cancer sites remained higher among whites than blacks in Maryland until 2010, when the trend reversed. From 2006 to 2010, incidence rates for all cancer sites remained stable among whites and increased at a rate of 2.4% per year among blacks.

See Appendix G, Table 3.

Source: Maryland Cancer Registry



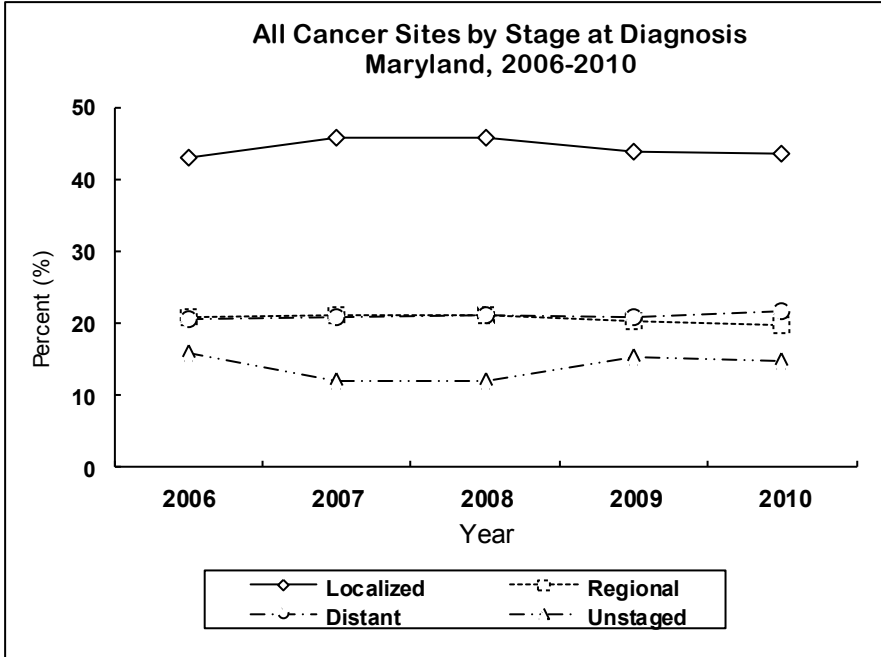
Source: NCHS Compressed Mortality File in CDC WONDER, 2006-2007
Maryland Vital Statistics Administration from MATCH, 2008-2010

Mortality Trends by Race

Both blacks and whites showed declines in cancer mortality from 2006 to 2010, with a decrease of 2.1% per year for blacks and 2.0% per year for whites.

Blacks have higher mortality rates of all cancer sites than whites.

See Appendix G, Table 5.

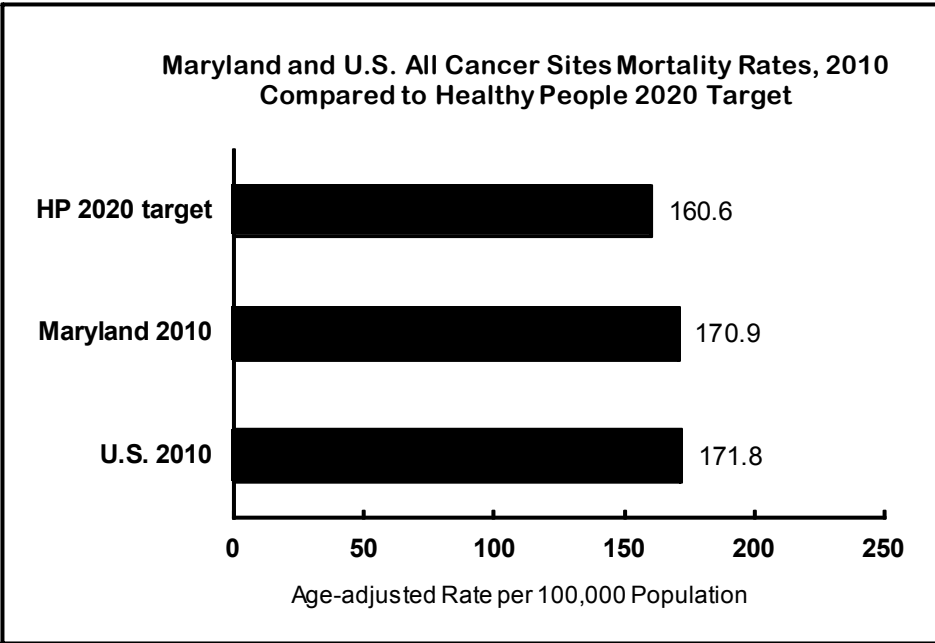


Source: Maryland Cancer Registry

Stage at Diagnosis

Of all cancers diagnosed in Maryland in 2010, 43.6% were found at the localized (early) stage, 19.8% at the regional stage, and 21.8% at the distant (late) stage. The proportion of all cancers reported as unstaged has slightly decreased in 2010.

See Appendix H, Table 1.



Source: Healthy People 2020, U.S. Department of Health and Human Services
 Maryland Vital Statistics Administration from MATCH
 U.S. SEER, Cancer Statistics Review

Mortality Rates
Compared to
Healthy People 2020
Target

For the first time, Maryland’s all cancer mortality rate has fallen below the U.S. rate for 2010. The mortality rate for all cancer sites in Maryland for 2010 was 170.9 per 100,000 population and the U.S. rate was 171.8 per 100,000 population. The Healthy People 2020 target is to reduce cancer mortality to 160.6 per 100,000 population.

Incidence by Ethnicity

The age-adjusted all cancer sites incidence rate for Hispanics in Maryland in 2010 was 260.3 per 100,000 population (Table 4).

Table 2.
Number of Cancer Cases for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 2010

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	27,801	13,917	13,878	19,240	7,067	1,142	352
Allegany	568	297	271	516	45	<6	<6
Anne Arundel	2,674	1,401	1,273	2,292	307	55	20
Baltimore City	3,113	1,484	1,629	1,042	1,995	53	23
Baltimore County	4,412	2,122	2,290	3,412	814	130	56
Calvert	389	186	203	330	51	<6	<6
Caroline	147	63	83	131	s	0	<6
Carroll	808	407	401	768	20	12	8
Cecil	537	283	252	499	27	<6	s
Charles	611	309	302	373	209	20	9
Dorchester	208	123	85	161	s	<6	0
Frederick	1,038	535	503	923	78	26	11
Garrett	155	78	77	s	0	<6	0
Harford	1,289	627	662	1,132	122	15	20
Howard	1,160	571	589	857	175	109	19
Kent	123	68	55	104	19	0	0
Montgomery	4,102	1,983	2,118	2,937	610	479	76
Prince George's	3,233	1,663	1,568	909	2,134	141	49
Queen Anne's	262	135	127	238	21	<6	<6
Saint Mary's	427	220	207	355	58	8	6
Somerset	158	83	75	118	34	6	0
Talbot	298	165	133	266	s	<6	0
Washington	790	410	380	729	48	s	<6
Wicomico	538	288	250	414	111	s	<6
Worcester	448	268	180	380	43	s	<6
Unknown	313	148	165	s	59	25	s

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

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

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

Source: Maryland Cancer Registry

Table 3.
All Cancer Sites Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	449.8	507.5	409.0	449.0	451.5	352.7
Allegany	576.5	663.6	511.5	550.1	1,851.3	**
Anne Arundel	466.7	536.8	412.1	474.2	448.7	275.0
Baltimore City	494.4	552.3	458.5	484.1	496.8	421.4
Baltimore County	465.6	511.6	436.1	464.8	466.3	364.6
Calvert	416.2	447.1	403.2	418.9	383.1	**
Caroline	398.7	378.2	417.1	411.7	**	0.0
Carroll	427.2	473.9	394.1	423.9	393.1	**
Cecil	506.2	570.2	451.4	503.5	480.3	**
Charles	451.3	525.1	395.2	430.4	484.2	382.0
Dorchester	488.4	617.9	385.8	498.9	431.7	**
Frederick	437.6	505.3	386.4	433.2	487.8	343.0
Garrett	382.7	408.8	361.8	382.3	0.0	**
Harford	480.4	517.0	454.3	477.6	518.6	**
Howard	405.0	436.5	381.9	416.7	402.1	313.6
Kent	409.7	477.1	350.5	401.3	455.6	0.0
Montgomery	388.8	429.3	362.2	385.9	407.8	333.1
Prince George's	403.5	483.5	346.3	388.0	404.8	340.3
Queen Anne's	442.1	476.9	412.4	442.6	437.9	**
Saint Mary's	413.2	448.2	383.0	410.1	427.3	**
Somerset	536.2	590.8	515.1	545.1	427.8	**
Talbot	487.5	589.2	402.5	496.5	432.9	**
Washington	462.7	524.6	422.5	453.4	508.9	**
Wicomico	507.8	619.8	427.2	503.4	522.6	**
Worcester	531.3	649.5	437.1	505.6	479.1	4,485.7

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

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

Source: Maryland Cancer Registry

Table 4.
All Cancer Sites Cases and Age-Adjusted Incidence Rates*
Among Hispanics[§] by Geographical Area in Maryland, 2010

Jurisdiction	Cases	Rate
Maryland	595	260.3
Allegany	<6	**
Anne Arundel	46	352.9
Baltimore City	31	196.8
Baltimore County	47	279.8
Calvert	<6	**
Caroline	<6	**
Carroll	<6	**
Cecil	6	**
Charles	<6	**
Dorchester	<6	**
Frederick	18	268.5
Garrett	<6	**
Harford	16	355.8
Howard	21	234.0
Kent	<6	**
Montgomery	258	273.5
Prince George's	95	169.4
Queen Anne's	<6	**
St. Mary's	<6	**
Somerset	0	0.0
Talbot	7	**
Washington	<6	**
Wicomico	<6	**
Worcester	<6	**
Region	Cases	Rate
Baltimore Metropolitan Area [^]	164	274.4
Eastern Shore Region	33	510.3
National Capital Area	353	243.2
Northwest Region	26	299.5
Southern Region	10	**

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

§ Case counts were prepared using MCR data and an algorithm to determine Hispanic ethnicity.

(See Appendix A, Section D.6.)

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

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

[^] Includes Baltimore City

Source: Maryland Cancer Registry

Table 5.
Number of Deaths for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	10,249	5,200	5,049	7,165	2,808	276
Allegany	184	99	85	s	<5	0
Anne Arundel	894	459	435	754	121	19
Baltimore City	1,356	673	683	429	913	14
Baltimore County	1,751	868	883	1,410	310	31
Calvert	145	80	65	120	s	<5
Caroline	62	27	35	50	12	0
Carroll	326	173	153	316	10	0
Cecil	199	117	82	189	s	<5
Charles	241	130	111	163	s	<5
Dorchester	83	48	35	62	21	0
Frederick	333	167	166	305	s	<5
Garrett	65	31	34	65	0	0
Harford	444	218	226	391	48	5
Howard	328	147	181	260	44	24
Kent	63	36	27	51	12	0
Montgomery	1,378	657	721	1,058	188	132
Prince George's	1,275	638	637	378	860	37
Queen Anne's	104	62	42	97	7	0
Saint Mary's	150	87	63	128	s	<5
Somerset	69	41	28	s	20	<5
Talbot	100	55	45	88	12	0
Washington	336	186	150	327	s	<5
Wicomico	191	102	89	150	s	<5
Worcester	172	99	73	145	s	<5

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

Source: Maryland Vital Statistics Administration from MATCH

Table 6.
All Cancer Sites Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	170.9	205.9	147.3	166.1	197.0	101.7
Allegany	176.3	224.4	143.6	179.2	**	**
Anne Arundel	165.5	196.6	145.5	162.6	197.1	**
Baltimore City	218.9	267.2	189.5	197.3	233.9	**
Baltimore County	179.0	216.4	154.2	178.1	202.4	110.6
Calvert	166.9	213.9	131.9	164.0	179.0	**
Caroline	174.7	174.3	165.6	164.6	**	**
Carroll	175.2	217.9	146.9	177.0	**	**
Cecil	191.4	242.9	147.5	193.8	**	**
Charles	198.2	252.3	161.1	202.1	206.6	**
Dorchester	190.6	244.6	153.5	183.0	225.9	**
Frederick	148.1	170.2	128.3	148.8	203.2	**
Garrett	165.2	185.5	152.7	166.0	**	**
Harford	173.9	195.5	157.8	170.5	251.6	**
Howard	132.8	140.7	129.9	142.4	110.6	94.4
Kent	199.1	254.6	158.3	185.7	**	**
Montgomery	131.9	152.0	119.6	135.0	140.0	103.7
Prince George's	176.5	218.2	150.1	163.1	187.1	103.6
Queen Anne's	188.3	245.4	140.0	193.0	**	**
Saint Mary's	155.2	191.3	123.3	157.5	**	**
Somerset	234.8	326.6	166.6	216.4	275.9	**
Talbot	146.7	185.1	122.1	144.1	**	**
Washington	195.3	248.9	158.2	199.7	**	**
Wicomico	178.5	223.3	147.1	177.6	189.3	**
Worcester	200.7	255.8	157.9	190.4	273.1	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Table 7.
Number of Cancer Cases for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 2006-2010

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	132,869	66,915	65,802	94,403	31,979	5,153	1,334
Allegany	2,482	1,290	1,191	2,385	83	s	<6
Anne Arundel	12,727	6,563	6,127	10,913	1,448	284	82
Baltimore City	15,100	7,442	7,647	5,488	9,288	228	96
Baltimore County	21,312	10,394	10,903	16,988	3,546	598	180
Calvert	1,941	983	948	1,666	247	16	12
Caroline	831	421	408	724	96	s	<6
Carroll	4,121	2,110	2,007	3,928	104	54	35
Cecil	2,490	1,277	1,211	2,348	116	13	13
Charles	2,580	1,391	1,184	1,661	798	86	35
Dorchester	963	517	445	718	231	8	6
Frederick	4,874	2,401	2,469	4,412	305	109	48
Garrett	780	392	388	773	<6	<6	<6
Harford	6,157	3,157	2,999	5,439	561	103	54
Howard	5,543	2,705	2,833	4,190	817	466	70
Kent	690	381	309	585	99	<6	<6
Montgomery †	20,073	9,732	10,331	14,784	2,822	2,148	319
Prince George's †	15,301	7,747	7,538	4,813	9,609	688	191
Queen Anne's	1,284	700	581	1,159	107	9	9
Saint Mary's	2,155	1,132	1,022	1,834	267	33	21
Somerset	714	397	317	512	175	s	<6
Talbot	1,379	765	614	1,212	152	s	<6
Washington	3,796	1,977	1,817	3,562	181	45	8
Wicomico	2,568	1,371	1,194	2,012	500	48	8
Worcester	1,999	1,125	871	1,683	202	101	13
Unknown	1,009	545	448	614	s	s	112

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

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

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

† 2006 case counts for Montgomery and Prince George's counties are underreported. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 8.
All Cancer Sites Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2006-2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	449.2	514.8	403.2	452.4	438.5	354.6
Allegany	517.9	607.4	459.5	517.0	745.4	**
Anne Arundel	477.9	541.6	428.7	483.6	452.9	352.3
Baltimore City	470.6	559.1	413.0	478.0	462.0	408.1
Baltimore County	464.9	519.0	428.5	465.6	462.8	378.1
Calvert	453.6	513.0	410.4	463.4	401.9	224.8
Caroline	463.3	521.8	418.5	475.4	389.0	**
Carroll	454.9	515.3	412.5	453.2	366.0	533.1
Cecil	489.2	542.0	450.3	491.4	451.3	**
Charles	414.6	513.0	341.3	400.9	432.9	418.5
Dorchester	452.0	551.6	379.9	445.2	458.3	**
Frederick	446.8	500.6	413.0	448.2	415.3	343.6
Garrett	407.7	438.1	387.7	407.2	**	**
Harford	489.8	556.1	441.9	487.7	497.2	371.7
Howard	417.3	451.8	393.2	423.9	410.4	325.4
Kent	482.8	580.7	409.8	484.8	457.4	**
Montgomery †	393.8	439.3	364.4	393.4	421.6	320.1
Prince George's †	405.6	482.4	353.4	386.1	414.2	366.3
Queen Anne's	467.8	538.3	406.2	470.8	430.8	**
Saint Mary's	458.2	511.4	415.0	471.8	396.1	247.9
Somerset	499.8	596.5	436.6	505.9	453.1	1,800.3
Talbot	481.3	584.7	397.1	484.5	441.2	**
Washington	468.1	545.0	419.7	466.3	505.7	497.7
Wicomico	507.3	623.6	426.5	513.0	480.7	543.6
Worcester	515.7	614.4	439.2	494.8	434.1	3,860.3

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

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

† 2006-2010 incidence rates for Montgomery County and Prince George's County are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 9.
Number of Cancer Deaths for All Cancer Sites
by Jurisdiction, Gender and Race, Maryland, 2006-2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	51,448	26,026	25,422	36,758	13,516	1,174
Allegany	934	467	467	918	s	<5
Anne Arundel	4,721	2,430	2,291	4,113	544	64
Baltimore City	7,000	3,539	3,461	2,359	4,601	40
Baltimore County	8,862	4,368	4,494	7,329	1,400	133
Calvert	748	381	367	635	s	<5
Caroline	364	196	168	309	s	<5
Carroll	1,571	860	711	1,526	39	6
Cecil	1,034	581	453	987	s	<5
Charles	1,082	563	519	744	322	16
Dorchester	423	225	198	307	s	<5
Frederick	1,780	895	885	1,634	125	21
Garrett	331	174	157	s	<5	0
Harford	2,183	1,113	1,070	1,949	213	21
Howard	1,762	834	928	1,381	273	108
Kent	315	173	142	258	57	0
Montgomery	6,655	3,157	3,498	5,114	971	570
Prince George's	6,095	3,033	3,062	2,005	3,930	160
Queen Anne's	520	305	215	470	s	<5
Saint Mary's	815	457	358	692	117	6
Somerset	305	160	145	s	88	<5
Talbot	529	283	246	467	62	0
Washington	1,512	811	701	1,444	61	7
Wicomico	1,127	585	542	903	218	6
Worcester	780	436	344	670	s	<5

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

Source: Maryland Vital Statistics Administration from MATCH

Table 10.
All Cancer Sites Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2006-2010

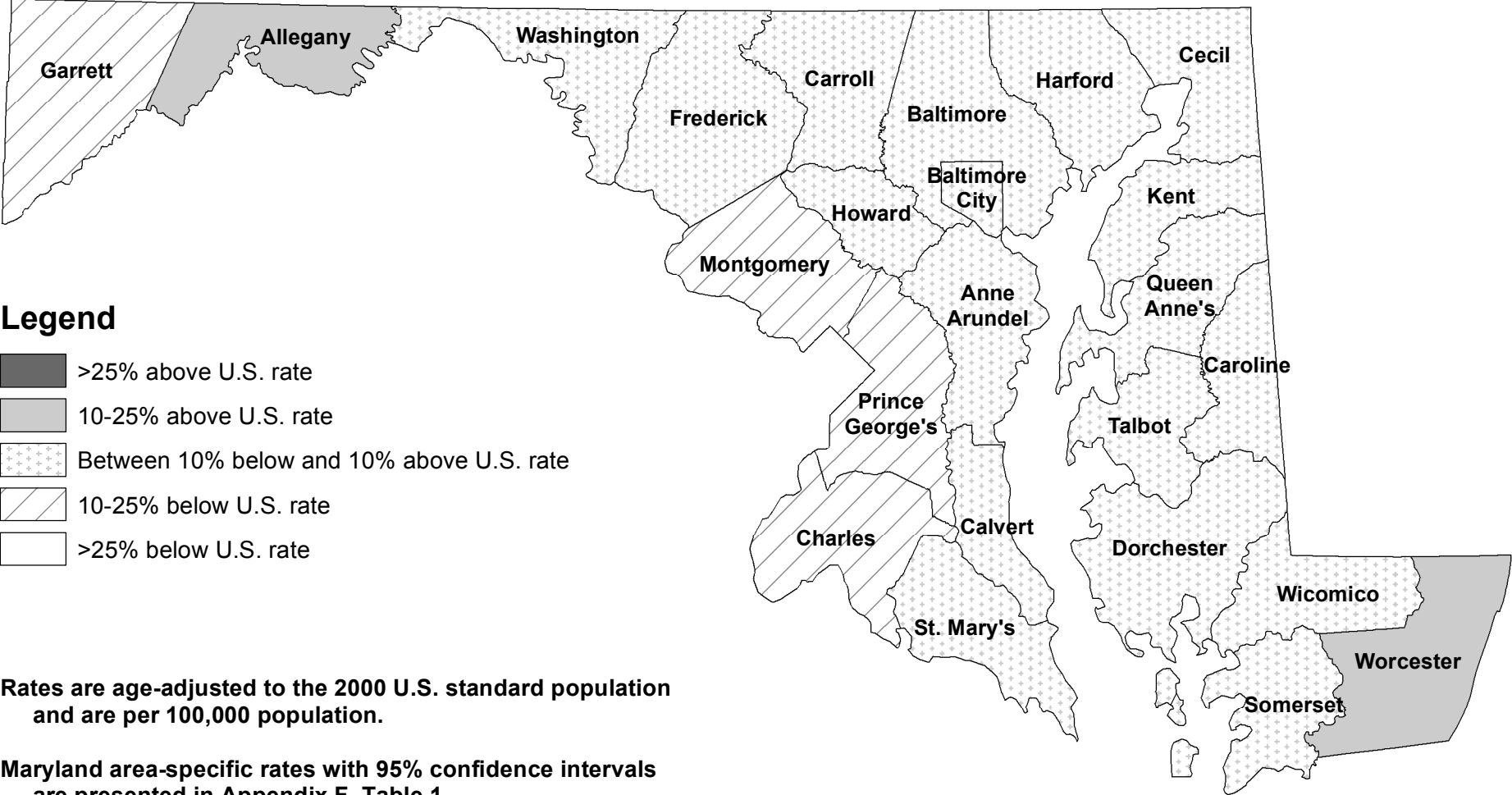
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	179.0	217.0	153.9	175.4	203.8	92.9
Allegany	185.8	223.9	161.9	187.9	**	**
Anne Arundel	189.2	225.2	164.3	192.0	191.4	88.2
Baltimore City	220.3	282.1	182.1	198.2	236.2	77.3
Baltimore County	187.7	223.4	164.4	187.2	207.4	95.7
Calvert	188.3	223.3	164.6	189.9	193.1	**
Caroline	206.8	260.3	166.6	206.4	210.9	**
Carroll	179.2	230.5	143.4	181.1	153.3	**
Cecil	212.5	269.7	169.9	214.9	197.4	**
Charles	195.5	247.4	163.4	197.2	201.9	**
Dorchester	192.4	241.5	157.1	180.6	231.6	**
Frederick	172.8	207.4	149.7	173.9	192.0	74.7
Garrett	170.3	202.8	147.3	170.5	**	**
Harford	182.8	215.1	159.9	182.2	210.3	93.7
Howard	152.8	173.5	140.9	158.2	161.3	95.8
Kent	206.3	261.7	170.5	196.8	260.8	**
Montgomery	132.6	154.1	119.7	132.5	160.3	96.2
Prince George's	177.5	218.6	152.4	161.1	195.5	96.7
Queen Anne's	199.3	254.0	152.8	202.1	196.7	**
Saint Mary's	185.0	230.7	150.9	189.1	184.0	**
Somerset	216.6	257.4	186.6	208.2	243.0	**
Talbot	167.7	208.3	138.3	168.3	169.8	**
Washington	184.1	232.4	151.9	184.7	222.1	**
Wicomico	220.4	274.9	184.0	226.1	212.1	**
Worcester	193.2	243.7	152.4	190.3	221.3	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Maryland All Cancer Sites Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010

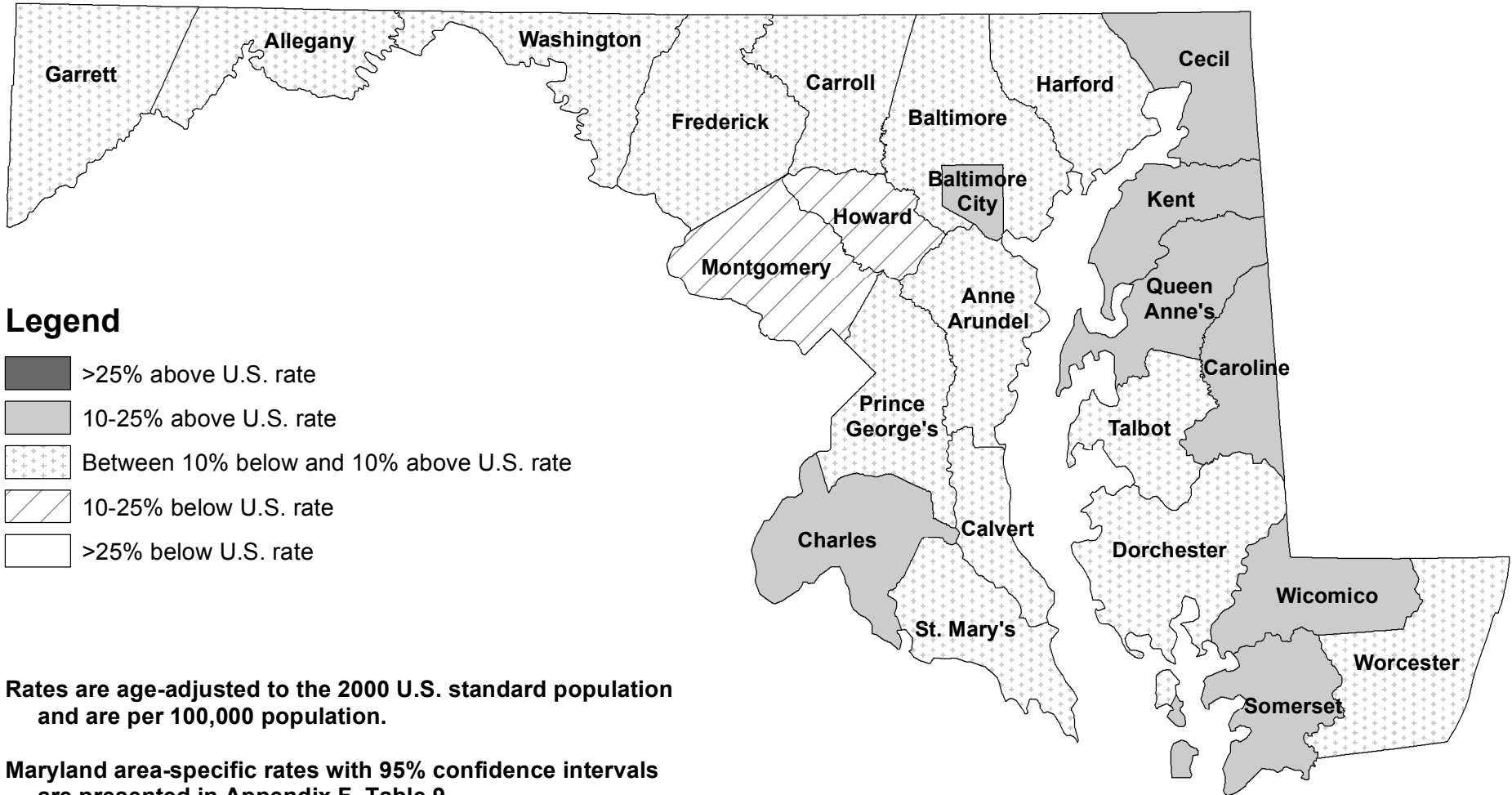


U.S. all cancer sites incidence rate, 2006-2010: 463.0/100,000

Maryland all cancer sites incidence rate, 2006-2010: 449.2/100,000

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat

Maryland All Cancer Sites Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010



U.S. all cancer sites mortality rate, 2006-2010: 176.4/100,000

Maryland all cancer sites mortality rate, 2006-2010: 179.0/100,000

Source: MD mortality rates from Maryland Vital Statistics Administration from MATCH, 2006-2010
U.S. rate from SEER, Cancer Statistics Review, 2006-2010

III. Targeted Cancers

A. Lung and Bronchus Cancer

Incidence (New Cases)

There were 3,482 new cases of lung and bronchus cancer (called lung cancer) reported among Maryland residents in 2010. The 2010 Maryland age-adjusted lung cancer incidence rate was 57.6 per 100,000 population (55.7-59.6, 95% C.I.), which is similar to the 2010 U.S. SEER lung cancer incidence rate of 57.2 per 100,000 population (56.7-57.8, 95% C.I.).

Mortality (Deaths)

There were 2,738 lung cancer deaths among Maryland residents in 2010. In 2010, lung cancer accounted for 26.7% of all cancer deaths in Maryland and was the leading cause of cancer death in both men and women. The 2010 age-adjusted lung cancer mortality rate was 46.0 per 100,000 population (44.3-47.8, 95% C.I.) in Maryland. This rate is similar to the 2010 U.S. mortality rate for lung and bronchus cancer of 47.4 per 100,000 population (47.2-47.7, 95% C.I.). Maryland had the 28th highest lung cancer mortality rate among the states and the District of Columbia for the period 2006-2010.

Note: Maryland 2008, 2009, and 2010 lung cancer mortality data include lung, bronchus, and trachea primary sites. Incidence data only includes lung and bronchus primary sites.

Table 11.
Lung Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2010

<i>Incidence 2010</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
New Cases (count)	3,482	1,778	1,703	2,511	873	s
MD Incidence Rate	57.6	67.8	50.1	58.5	59.2	34.5
U.S. SEER Rate	57.2	68.7	48.7	58.7	65.3	N/A
<i>Mortality 2010</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
Deaths (count)	2,738	1,450	1,288	1,989	689	60
MD Mortality Rate	46.0	56.2	38.2	46.5	48.5	22.9
U.S. Mortality Rate	47.4	60.1	38.0	48.1	51.2	N/A

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

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

s = Counts are suppressed to prevent disclosure of data in other cell(s) based on Table 12

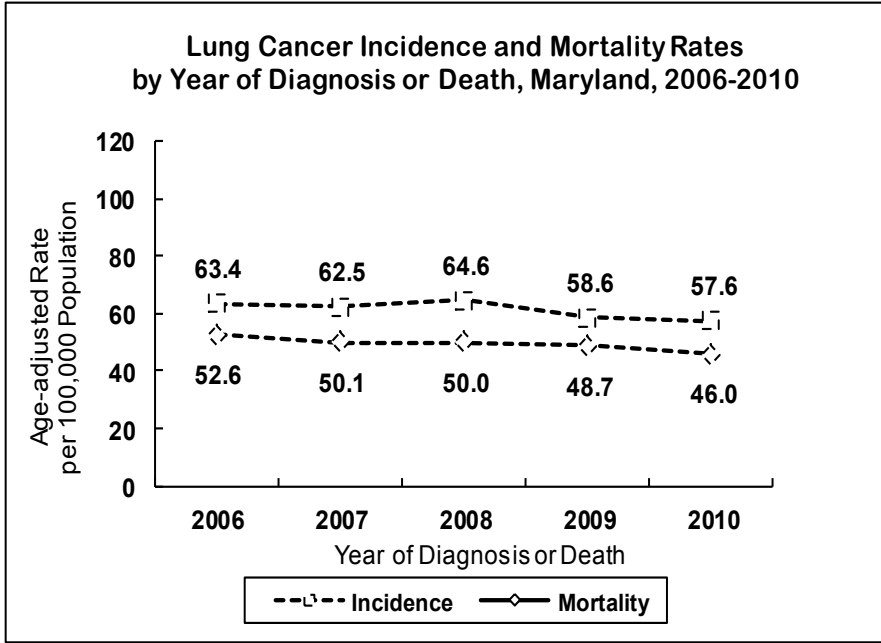
N/A = Data were not available

Source: Maryland Cancer Registry

U.S. SEER, SEER*Stat

Maryland Vital Statistics Administration from MATCH

U.S. SEER, Cancer Statistics Review



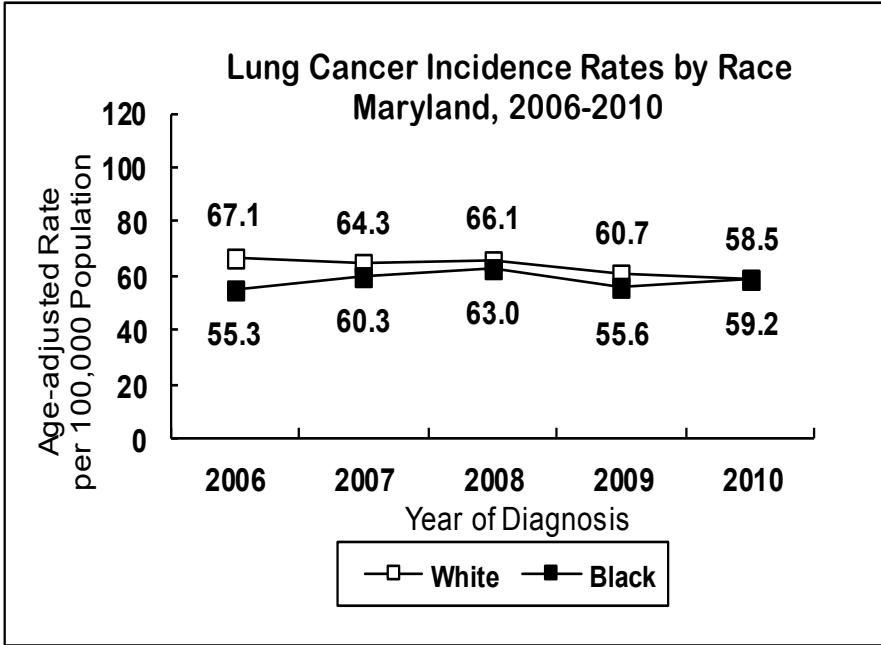
Incidence and Mortality Trends

Lung cancer incidence rates in Maryland decreased at a rate of 2.5% per year from 2006 to 2010.

Lung cancer mortality rates decreased at a rate of 2.9% per year from 2006 to 2010.

See Appendix G, Tables 1 and 2.

Source: Maryland Cancer Registry
NCHS Compressed Mortality File in CDC WONDER, 2006-2007
Maryland Vital Statistics Administration from MATCH, 2008-2010

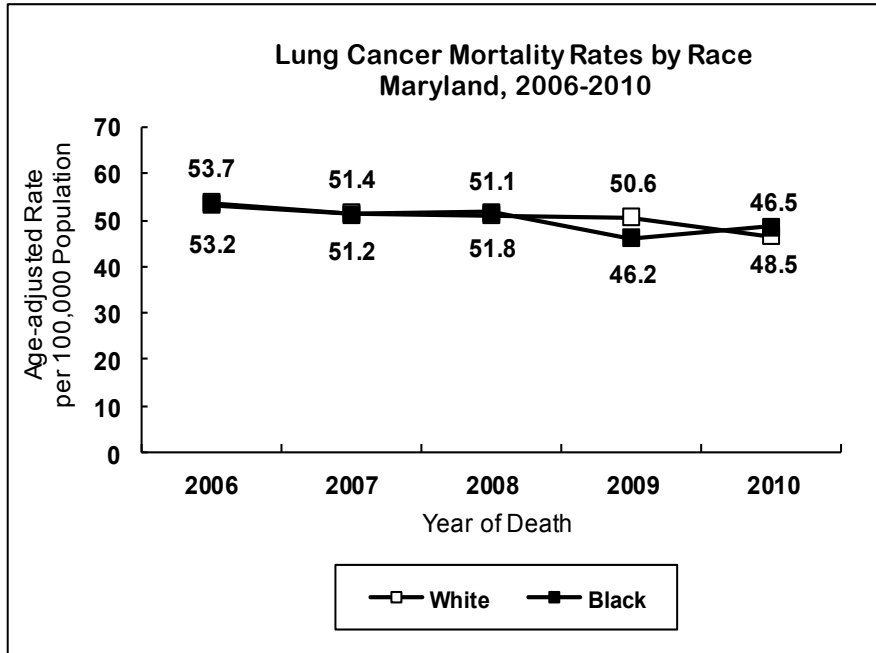


Incidence Trends by Race

In 2010, the incidence rate among blacks surpassed whites for the first time since 2006. From 2006 to 2010, lung cancer incidence rates for blacks rose at a rate of 0.6% per year, compared to a decline of 3.3% per year among whites.

See Appendix G, Table 3.

Source: Maryland Cancer Registry

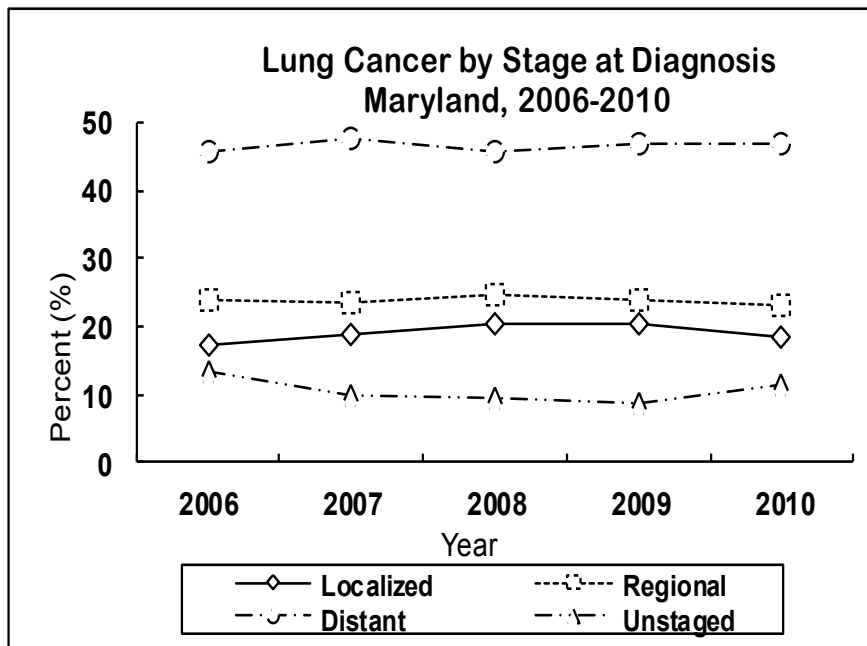


Source: NCHS Compressed Mortality File in CDC WONDER, 2006-2007
Maryland Vital Statistics Administration from MATCH, 2008-2010

Mortality Trends by Race

Lung cancer mortality rates are declining for both blacks and whites. From 2006 to 2010, rates decreased at a rate of 2.8% per year for blacks, and 3.0% per year for whites.

See Appendix G, Table 5.

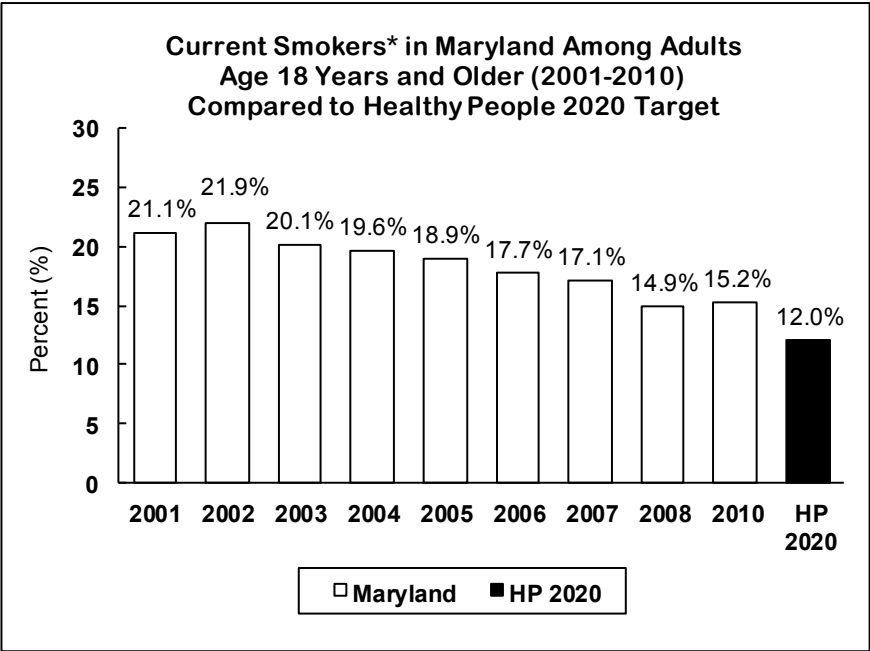


Source: Maryland Cancer Registry

Stage at Diagnosis

A higher proportion of lung cancer cases were diagnosed at the distant stage than at the localized or regional stage of cancer. In 2010, 18.3% of lung cancer cases in Maryland were diagnosed at the local stage, 23.1% were detected at the regional stage, and 47.0% were found at the distant stage. The proportion of lung cancers reported as unstaged rose in 2010.

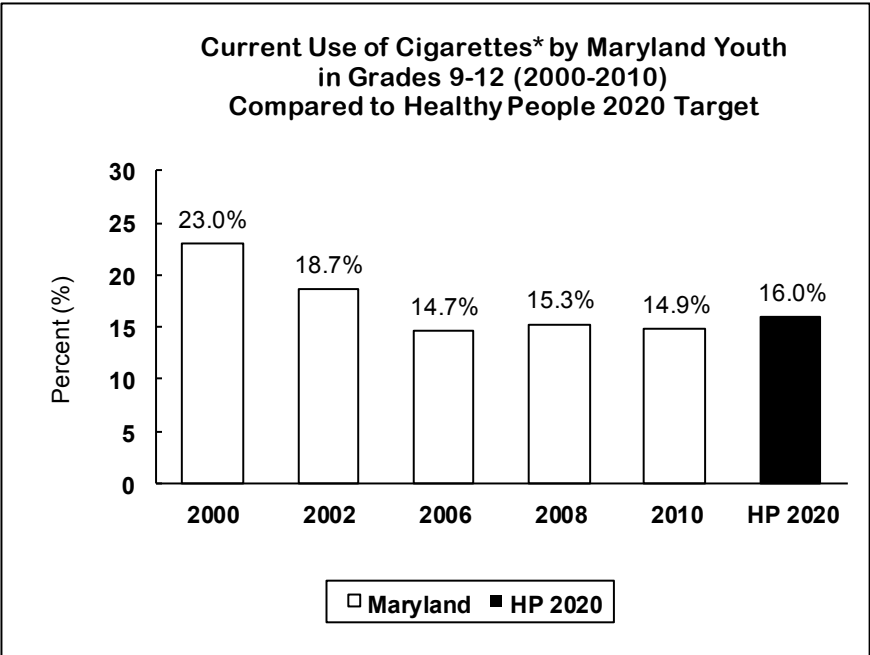
See Appendix H, Table 2.



**Smoking Prevalence
Among Maryland Adults**

One Healthy People 2020 target is to reduce the percentage of adults who are current smokers to 12%. Although Maryland has not yet attained this goal, the percentage of adult smokers has decreased from 21.1% in 2001 to 15.2% in 2010.

* Current smoker is defined as a person who smokes cigarettes every day or some days.
Source: Maryland BRFSS
Healthy People 2020, U.S. Department of Health and Human Services



Cigarette Use by Maryland Youth

Healthy People 2020 has established a target of reducing the percentage of youth in grades 9-12 who have smoked cigarettes in the previous 30 days to 16%.

Based on results of the 2006, 2008 and 2010 Maryland Youth Tobacco Surveys, Maryland has met the Healthy People 2020 target for reducing current cigarette use among high school students.

* Current use of cigarettes is defined as smoking cigarettes on 1 or more days in the previous 30 days.
Source: MYTS
Healthy People 2020, U.S. Department of Health and Human Services

**Table 12.
Number of Lung and Bronchus Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2010**

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	3,482	1,778	1,703	2,511	873	s	<6
Allegany	96	46	50	86	10	0	0
Anne Arundel	321	175	146	285	s	<6	0
Baltimore City	454	226	228	140	310	<6	<6
Baltimore County	619	307	312	511	96	12	0
Calvert	52	31	21	s	<6	0	0
Caroline	16	8	8	s	<6	0	0
Carroll	107	61	46	s	<6	0	0
Cecil	97	52	45	90	<6	<6	<6
Charles	75	44	31	50	s	<6	0
Dorchester	34	22	12	25	s	<6	0
Frederick	118	66	52	107	s	<6	0
Garrett	18	s	<6	18	0	0	0
Harford	171	74	97	153	s	<6	0
Howard	100	45	55	75	15	s	<6
Kent	23	10	13	s	<6	0	0
Montgomery	360	147	213	268	48	s	<6
Prince George's	348	188	159	119	223	6	0
Queen Anne's	48	25	23	s	<6	0	0
Saint Mary's	69	42	27	55	s	<6	0
Somerset	34	18	16	29	<6	<6	0
Talbot	33	13	20	27	6	0	0
Washington	114	67	47	105	9	0	0
Wicomico	87	46	41	72	s	<6	0
Worcester	68	42	26	52	10	6	0
Unknown	20	s	s	17	<6	0	<6

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

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

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

Source: Maryland Cancer Registry

Table 13.
Lung and Bronchus Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	57.6	67.8	50.1	58.5	59.2	34.5
Allegany	91.7	101.9	84.0	84.4	**	0.0
Anne Arundel	58.8	71.9	48.4	61.1	50.5	**
Baltimore City	73.3	86.4	64.2	68.0	77.5	**
Baltimore County	63.9	74.5	55.9	66.1	61.9	**
Calvert	61.9	89.5	42.2	66.9	**	0.0
Caroline	45.4	**	**	**	**	0.0
Carroll	55.1	71.5	43.6	55.4	**	0.0
Cecil	95.5	114.0	80.7	95.1	**	**
Charles	61.4	79.3	45.8	60.2	67.7	**
Dorchester	75.5	104.1	**	72.1	**	**
Frederick	50.1	62.4	39.7	49.9	**	**
Garrett	45.3	**	**	45.5	0.0	0.0
Harford	64.8	67.0	64.5	64.7	80.0	**
Howard	40.9	40.9	40.2	42.3	**	**
Kent	73.9	**	**	75.9	**	0.0
Montgomery	34.9	32.9	36.9	34.9	33.5	34.1
Prince George's	47.4	60.6	38.1	51.9	45.8	**
Queen Anne's	81.6	95.5	71.7	81.1	**	0.0
Saint Mary's	73.0	94.1	53.6	69.0	**	**
Somerset	112.5	127.7	99.7	131.3	**	**
Talbot	49.1	**	54.0	45.6	**	0.0
Washington	66.1	88.3	50.9	64.4	**	0.0
Wicomico	81.6	100.5	67.5	86.4	**	**
Worcester	74.9	100.4	53.4	65.1	**	**

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

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

Source: Maryland Cancer Registry

**Table 14.
Number of Lung and Bronchus Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2010**

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2,738	1,450	1,288	1,989	689	60
Allegany	50	29	21	50	0	0
Anne Arundel	253	129	124	222	26	5
Baltimore City	369	181	188	s	243	<5
Baltimore County	500	267	233	421	72	7
Calvert	40	26	14	33	s	<5
Caroline	18	11	7	12	6	0
Carroll	80	48	32	s	<5	0
Cecil	64	33	31	59	<5	<5
Charles	71	36	35	56	s	<5
Dorchester	25	14	11	19	6	0
Frederick	89	50	39	83	6	0
Garrett	20	11	9	20	0	0
Harford	138	71	67	125	s	<5
Howard	71	36	35	51	11	9
Kent	27	15	12	21	6	0
Montgomery	296	141	155	233	38	25
Prince George's	305	173	132	100	199	6
Queen Anne's	29	22	7	s	<5	0
Saint Mary's	39	20	19	33	6	0
Somerset	20	11	9	s	<5	0
Talbot	26	13	13	21	5	0
Washington	89	44	45	s	<5	0
Wicomico	63	35	28	52	11	0
Worcester	56	34	22	46	s	<5

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

Source: Maryland Vital Statistics Administration from MATCH

Table 15.
Lung and Bronchus Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	46.0	56.2	38.2	46.5	48.5	22.9
Allegany	47.6	64.6	34.3	49.0	**	**
Anne Arundel	46.4	52.7	41.8	47.2	44.1	**
Baltimore City	59.6	70.0	52.4	58.3	61.6	**
Baltimore County	52.0	66.8	41.7	53.8	49.6	**
Calvert	46.0	68.2	**	45.1	**	**
Caroline	**	**	**	**	**	**
Carroll	42.1	57.7	30.5	41.8	**	**
Cecil	61.2	66.2	55.9	60.5	**	**
Charles	59.9	70.4	53.4	70.5	**	**
Dorchester	56.2	**	**	**	**	**
Frederick	38.9	48.7	30.3	39.3	**	**
Garrett	52.1	**	**	52.3	**	**
Harford	53.5	61.4	47.3	53.9	**	**
Howard	29.2	30.7	27.6	29.5	**	**
Kent	89.4	**	**	79.6	**	**
Montgomery	28.9	32.3	26.2	30.4	30.2	20.3
Prince George's	42.5	56.2	32.3	43.9	43.3	**
Queen Anne's	54.5	91.1	**	56.5	**	**
Saint Mary's	42.4	46.0	**	42.6	**	**
Somerset	68.2	**	**	**	**	**
Talbot	37.8	**	**	33.8	**	**
Washington	52.0	57.4	47.7	54.0	**	**
Wicomico	59.0	76.4	45.6	61.9	**	**
Worcester	61.6	82.9	44.9	56.7	**	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Table 16.
Number of Lung and Bronchus Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2006-2010

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	17,694	8,972	8,694	13,185	4,023	453	33
Allegany	420	218	202	406	s	<6	0
Anne Arundel	1,802	895	896	1,627	152	23	0
Baltimore City	2,493	1,258	1,234	930	1,540	s	<6
Baltimore County	3,159	1,573	1,586	2,695	411	s	<6
Calvert	251	116	133	220	s	<6	0
Caroline	129	75	54	111	s	<6	0
Carroll	569	316	253	552	14	<6	<6
Cecil	436	216	220	416	15	<6	<6
Charles	306	176	129	218	78	10	0
Dorchester	156	94	62	110	s	<6	<6
Frederick	637	336	300	589	42	6	0
Garrett	98	54	44	s	0	<6	0
Harford	835	425	410	761	59	15	0
Howard	540	259	281	437	67	s	<6
Kent	111	50	61	91	20	0	0
Montgomery †	1,860	832	1,027	1,395	275	182	8
Prince George's †	1,723	892	828	680	991	s	<6
Queen Anne's	199	110	88	183	s	<6	0
Saint Mary's	307	175	132	264	38	<6	<6
Somerset	129	73	56	94	25	10	0
Talbot	180	75	105	155	25	0	0
Washington	564	323	240	532	s	<6	0
Wicomico	426	229	197	347	71	8	0
Worcester	293	166	127	235	37	s	<6
Unknown	71	36	29	s	14	s	10

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

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

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

† 2006 case counts for Montgomery and Prince George's counties are underreported. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 17.
Lung and Bronchus Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2006-2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	61.2	72.1	53.5	63.2	58.7	34.7
Allegany	83.7	102.0	70.2	83.2	**	**
Anne Arundel	70.5	78.8	64.1	74.1	51.9	35.4
Baltimore City	78.5	97.3	65.9	82.4	76.8	41.7
Baltimore County	68.3	79.8	60.2	71.2	60.0	34.9
Calvert	62.3	65.7	59.6	65.1	50.7	**
Caroline	72.1	97.7	53.9	72.9	66.7	**
Carroll	64.1	80.5	52.7	64.9	**	**
Cecil	87.7	96.6	82.0	89.1	**	**
Charles	53.4	70.7	40.4	55.6	48.3	**
Dorchester	69.8	96.7	49.9	63.8	86.0	**
Frederick	61.6	74.4	52.2	62.3	71.3	**
Garrett	49.8	60.5	42.0	49.7	0.0	**
Harford	68.1	78.8	60.7	69.2	56.3	**
Howard	45.4	49.4	43.0	48.5	37.8	29.3
Kent	74.8	76.2	74.7	72.1	90.8	0.0
Montgomery †	37.7	39.7	36.6	37.4	45.5	29.8
Prince George's †	49.5	61.4	41.7	54.9	47.5	28.7
Queen Anne's	73.5	88.0	60.5	75.7	**	**
Saint Mary's	69.3	83.5	56.8	72.2	58.2	**
Somerset	89.2	109.6	70.6	89.3	66.0	**
Talbot	55.9	52.0	59.6	54.9	66.9	0.0
Washington	69.2	90.8	53.5	68.5	94.1	**
Wicomico	83.5	105.5	68.3	87.3	69.6	**
Worcester	70.7	88.1	56.8	64.2	75.6	743.4

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

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

† 2006-2010 incidence rates for Montgomery County and Prince George's County are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 18.
Number of Lung and Bronchus Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2006-2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	14,140	7,529	6,611	10,549	3,339	252
Allegany	278	157	121	274	<5	<5
Anne Arundel	1,474	776	698	1,328	131	15
Baltimore City	2,029	1,093	936	741	1,279	9
Baltimore County	2,496	1,290	1,206	2,130	337	29
Calvert	217	108	109	193	s	<5
Caroline	115	73	42	94	s	<5
Carroll	455	265	190	439	s	<5
Cecil	326	171	155	312	s	<5
Charles	306	165	141	232	67	7
Dorchester	133	70	63	95	38	0
Frederick	502	273	229	462	35	5
Garrett	90	51	39	90	0	0
Harford	650	351	299	596	46	8
Howard	402	199	203	324	53	25
Kent	90	46	44	62	28	0
Montgomery	1,439	694	745	1,129	196	114
Prince George's	1,469	807	662	569	869	31
Queen Anne's	153	97	56	141	s	<5
Saint Mary's	238	133	105	204	s	<5
Somerset	93	50	43	76	17	0
Talbot	149	73	76	127	22	0
Washington	440	248	192	424	16	0
Wicomico	348	187	161	290	s	<5
Worcester	248	152	96	217	s	<5

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

Source: Maryland Vital Statistics Administration from MATCH

**Table 19.
Lung and Bronchus Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2006-2010**

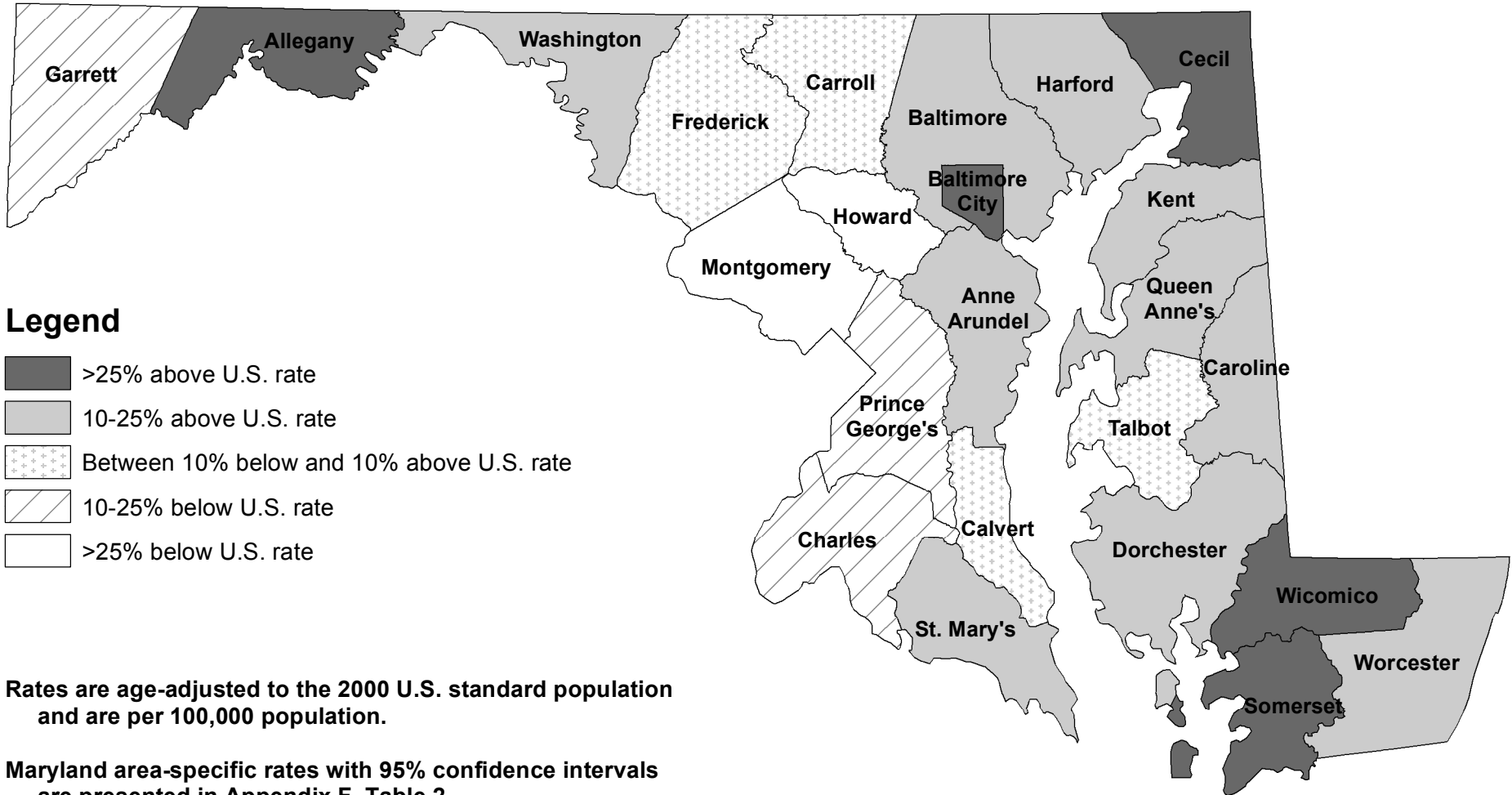
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	49.4	61.7	40.5	50.6	50.1	20.5
Allegany	55.2	74.5	41.3	55.9	**	**
Anne Arundel	58.7	70.1	50.3	61.4	46.7	**
Baltimore City	64.1	85.8	49.6	63.9	64.9	**
Baltimore County	53.4	65.8	44.8	55.1	51.3	19.4
Calvert	53.9	59.6	48.8	56.7	39.9	**
Caroline	65.3	96.5	41.9	62.5	79.8	**
Carroll	51.7	68.8	39.2	51.9	**	**
Cecil	66.3	76.9	58.6	67.4	**	**
Charles	56.2	73.0	45.6	61.6	43.5	**
Dorchester	60.6	72.9	51.4	56.8	75.3	**
Frederick	49.2	61.9	39.5	49.5	56.3	**
Garrett	46.2	57.9	36.4	46.6	**	**
Harford	54.0	66.2	44.8	55.1	45.8	**
Howard	35.9	39.9	32.8	38.4	31.1	20.9
Kent	59.6	70.6	52.2	47.2	129.2	**
Montgomery	29.2	33.8	26.0	29.9	33.6	20.1
Prince George's	43.1	57.3	33.6	46.0	42.4	18.9
Queen Anne's	58.4	78.8	40.2	60.3	**	**
Saint Mary's	55.2	66.2	46.0	57.1	51.7	**
Somerset	65.8	78.1	53.4	73.0	**	**
Talbot	46.4	52.1	42.0	44.8	58.8	**
Washington	54.2	69.9	42.3	54.8	**	**
Wicomico	67.8	85.9	55.4	72.3	55.2	**
Worcester	59.4	82.4	41.0	59.3	61.6	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Maryland Lung Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010

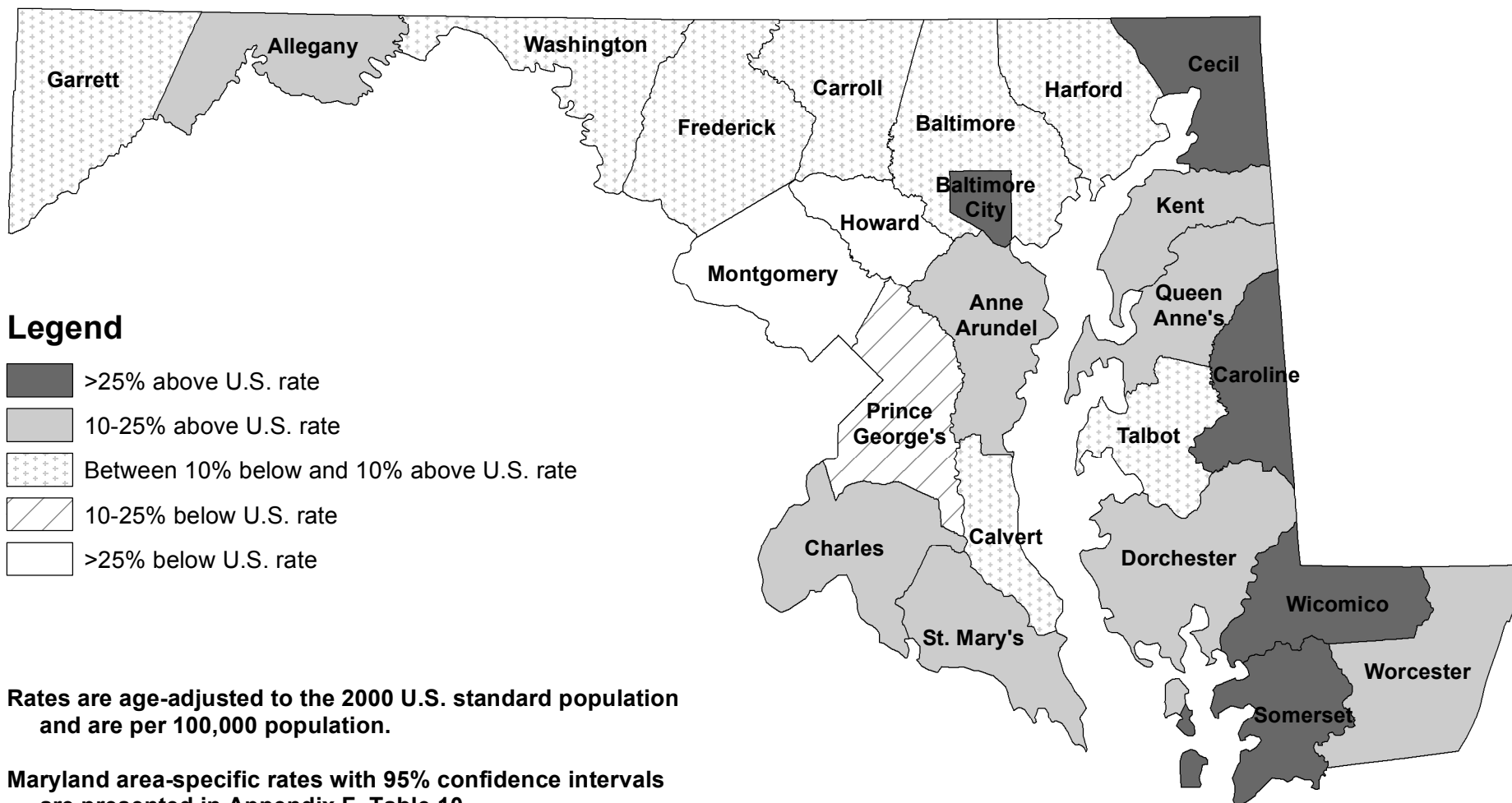


U.S. lung cancer incidence rate, 2006-2010: 61.4/100,000

Maryland lung cancer incidence rate, 2006-2010: 61.2/100,000

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat

Maryland Lung Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010



U.S. lung cancer mortality rate, 2006-2010: 49.5/100,000

Maryland lung cancer mortality rate, 2006-2010: 49.4/100,000

Source: MD mortality rates from Maryland Vital Statistics Administration from MATCH, 2006-2010
U.S. rate from SEER, Cancer Statistics Review, 2006-2010

B. Colon and Rectum Cancer

Incidence (New Cases)

In 2010, there were 2,289 new cases of cancer of the colon or rectum (called colorectal cancer) reported among Maryland residents. The age-adjusted colorectal cancer incidence rate in Maryland for 2010 was 37.4 per 100,000 population (35.9-39.0, 95% C.I.), which is statistically significantly lower than the 2010 U.S. SEER age-adjusted colorectal cancer incidence rate of 41.3 per 100,000 population (40.9-41.8, 95% C.I.).

Mortality (Deaths)

A total of 896 persons died of colorectal cancer in 2010 in Maryland. In 2010, colorectal cancer accounted for 8.9% of all cancer deaths and was the second leading cause of cancer death in Maryland. The age-adjusted colorectal cancer mortality rate in Maryland was 14.9 per 100,000 population (13.9-15.9, 95% C.I.). This rate is similar to the 2010 U.S. colorectal cancer mortality rate of 15.5 per 100,000 population (15.4-15.6, 95% C.I.). Maryland had the 22nd highest colorectal cancer mortality rate among the states and the District of Columbia for the period 2006-2010.

Table 20.
Colorectal Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2010

<i>Incidence 2010</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
New Cases (count)	2,289	1,172	1,116	1,547	635	96
MD Incidence Rate	37.4	43.5	32.6	35.9	43.0	33.2
U.S. SEER Rate	41.3	47.6	36.3	40.4	50.6	N/A
<i>Mortality 2010</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
Deaths (count)	896	458	438	567	302	27
MD Mortality Rate	14.9	18.0	12.5	12.9	21.9	11.4
U.S. Mortality Rate	15.5	18.8	13.0	15.0	21.5	N/A

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

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

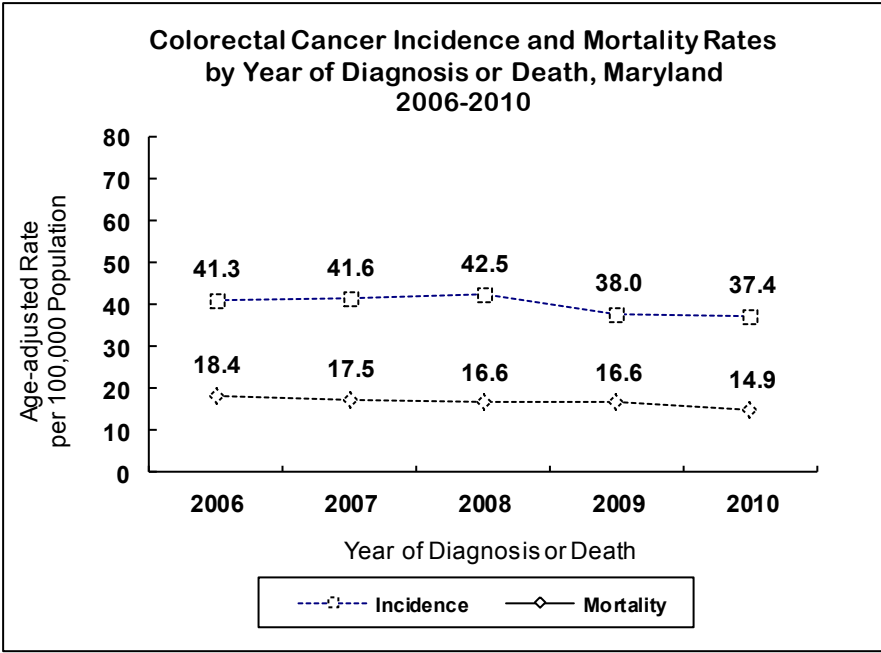
N/A = Data were not available

Source: Maryland Cancer Registry

U.S. SEER, SEER*Stat

Maryland Vital Statistics Administration

U.S. SEER, Cancer Statistics Review



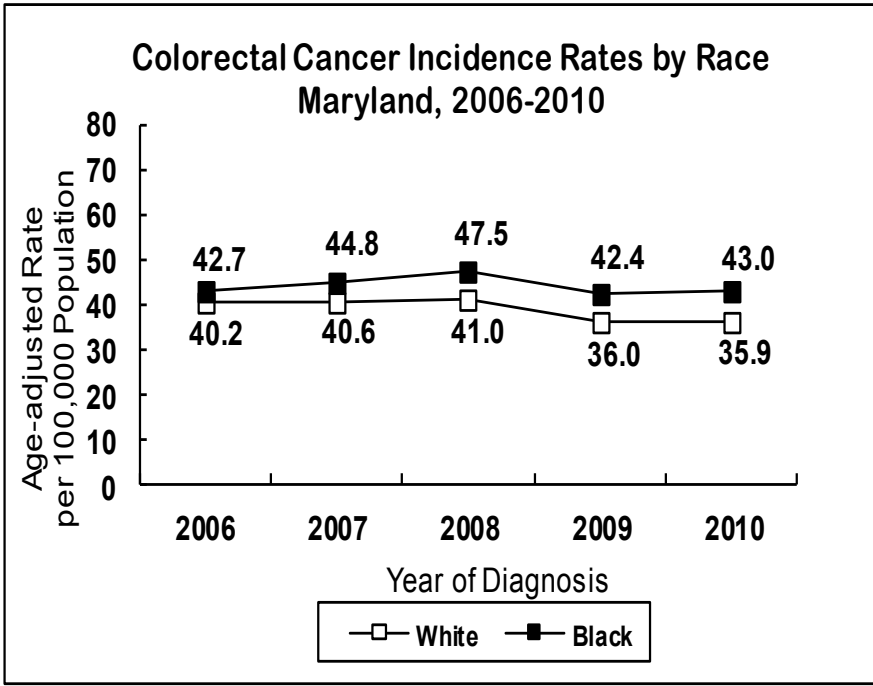
Incidence and Mortality Trends

Incidence rates for colorectal cancer have been declining in Maryland. From 2006 to 2010, incidence rates declined at a rate of 2.8% per year.

Colorectal cancer mortality rates declined at a rate of 4.6% per year from 2006 to 2010.

See Appendix G, Tables 1 and 2.

Source: Maryland Cancer Registry
 NCHS Compressed Mortality File in CDC WONDER, 2006-2007
 Maryland Vital Statistics Administration, 2008-2010

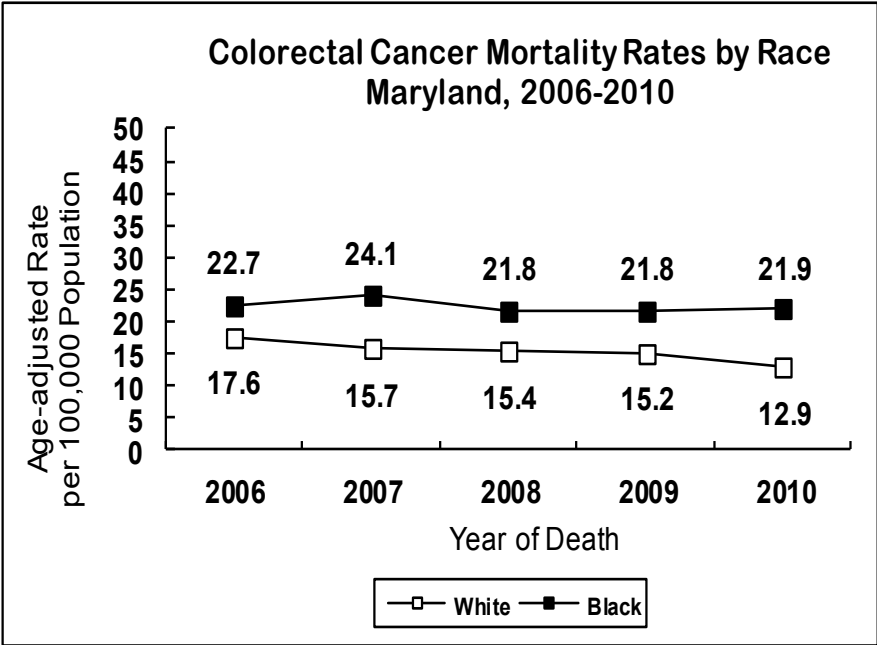


Incidence Trends by Race

From 2006 to 2010, colorectal cancer incidence rates declined at a rate of 0.4% per year for blacks and 3.4% per year among whites. In 2010, the incidence rate for colorectal cancer was 35.9 for whites and 43.0 for blacks in Maryland.

See Appendix G, Table 3.

Source: Maryland Cancer Registry

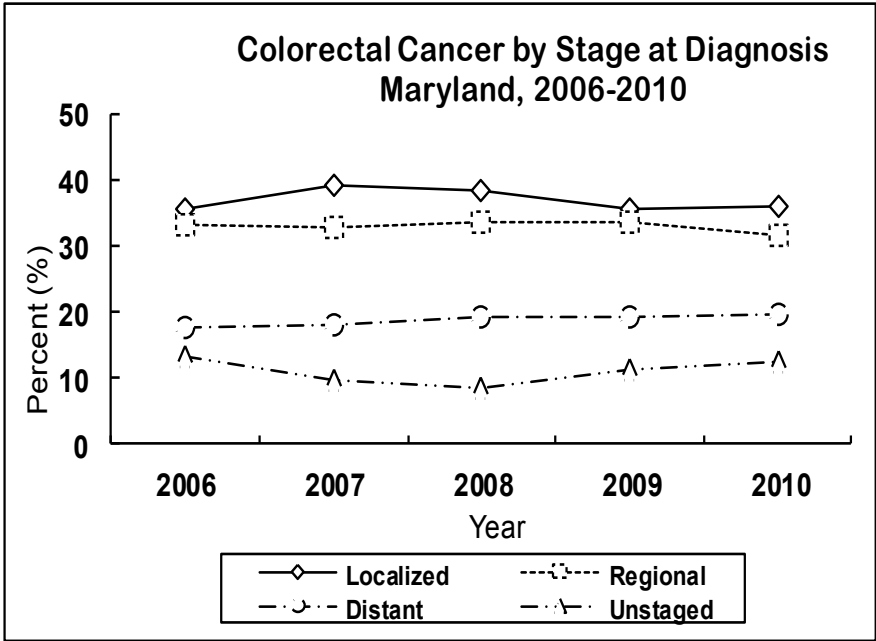


Source: NCHS Compressed Mortality File in CDC WONDER, 2006-2007
Maryland Vital Statistics Administration, 2008-2010

Mortality Trends by Race

From 2006 to 2010, colorectal cancer mortality rates declined for blacks and whites. Mortality rates in blacks decreased at a rate of 1.7% per year; whereas, among whites, the decline was 6.3% per year.

See Appendix G, Table 5.

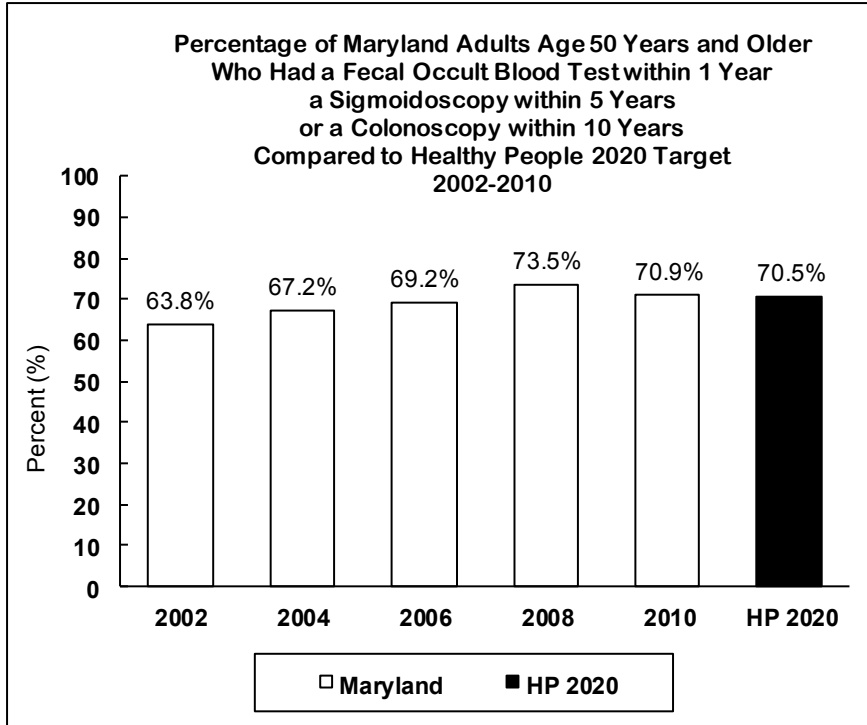


Source: Maryland Cancer Registry

Stage at Diagnosis

In 2010, 36.0% of colorectal cancers diagnosed in Maryland were detected at the localized stage, 31.7% were detected at the regional stage, and 19.8% were found at the distant stage. The proportion of colorectal cancers reported as unstaged increased in 2010.

See Appendix H, Table 3.



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

Source: Maryland Cancer Survey, 2002, 2004, 2006 and 2008
 Maryland BRFSS, 2010
 Healthy People 2020, U.S. Department of Health and Human Services

**Up-to-Date Screening for
Colorectal Cancer**

The Healthy People 2020 target for colorectal cancer screening is to increase to 70.5% the proportion of adults age 50 years and older who are screened based on recent guidelines. Based on guidelines provided by the American Cancer Society (ACS), up-to-date screening was defined as having a fecal occult blood test (FOBT) within 1 year, a sigmoidoscopy within 5 years, and a colonoscopy within 10 years. Up-to-date screening in Maryland increased steadily from 63.8% in 2002 to 73.5% in 2008, but declined in 2010 to 70.9%, while remaining above the Healthy People 2020 target of 70.5%.

**Table 21.
Number of Colorectal Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2010**

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	2,289	1,172	1,116	1,547	635	96	11
Allegany	56	30	26	s	<6	0	0
Anne Arundel	173	92	81	145	21	7	0
Baltimore City	296	148	148	s	210	<6	0
Baltimore County	365	182	183	288	69	s	<6
Calvert	30	19	11	21	s	<6	0
Caroline	15	<6	s	s	<6	0	0
Carroll	72	35	37	69	<6	0	<6
Cecil	46	26	20	43	<6	0	<6
Charles	39	22	17	24	s	<6	0
Dorchester	19	13	6	13	6	0	0
Frederick	115	67	48	100	s	<6	0
Garrett	19	11	8	s	0	<6	0
Harford	119	61	58	106	s	<6	0
Howard	81	44	37	57	11	13	0
Kent	9	s	<6	s	<6	0	0
Montgomery	324	159	165	234	46	s	<6
Prince George's	258	119	139	60	182	s	<6
Queen Anne's	15	6	9	s	<6	0	0
Saint Mary's	37	21	16	s	<6	0	0
Somerset	17	s	<6	11	6	0	0
Talbot	19	10	9	s	<6	0	0
Washington	75	31	44	72	<6	<6	0
Wicomico	49	25	24	39	7	<6	<6
Worcester	30	19	11	24	<6	<6	0
Unknown	11	s	<6	<6	s	0	0

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

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

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

Source: Maryland Cancer Registry

Table 22.
Colorectal Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	37.4	43.5	32.6	35.9	43.0	33.2
Allegany	54.8	69.8	41.4	53.2	**	0.0
Anne Arundel	30.8	35.3	26.3	30.4	33.3	**
Baltimore City	47.0	56.5	40.1	38.0	53.1	**
Baltimore County	38.0	44.7	33.4	39.0	42.8	**
Calvert	32.5	44.0	**	26.1	**	**
Caroline	**	**	**	**	**	0.0
Carroll	39.3	42.9	35.8	38.9	**	0.0
Cecil	41.6	50.5	34.8	41.9	**	0.0
Charles	30.6	44.9	23.0	30.5	**	**
Dorchester	43.6	**	**	**	**	0.0
Frederick	49.8	63.7	38.1	48.7	**	**
Garrett	45.8	**	**	43.4	0.0	**
Harford	45.7	49.8	40.0	45.3	**	**
Howard	29.1	32.0	26.6	27.0	**	**
Kent	**	**	**	**	**	0.0
Montgomery	30.8	35.4	27.4	30.4	33.0	29.2
Prince George's	33.3	35.5	31.8	25.1	37.8	**
Queen Anne's	**	**	**	**	**	0.0
Saint Mary's	35.6	41.0	30.1	40.1	**	0.0
Somerset	56.0	**	**	**	**	0.0
Talbot	32.5	**	**	**	**	0.0
Washington	43.4	39.5	46.2	43.8	**	**
Wicomico	46.5	52.7	41.4	47.7	**	**
Worcester	35.8	47.1	**	30.9	**	**

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

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

Source: Maryland Cancer Registry

Table 23.
Number of Colorectal Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	896	458	438	567	302	27
Allegany	21	15	6	21	0	0
Anne Arundel	63	34	29	46	s	<5
Baltimore City	130	63	67	s	96	<5
Baltimore County	148	72	76	116	s	<5
Calvert	14	<5	s	s	<5	0
Caroline	9	<5	s	s	<5	0
Carroll	26	10	16	26	0	0
Cecil	15	s	<5	15	0	0
Charles	13	8	5	<5	s	0
Dorchester	<5	<5	<5	<5	<5	0
Frederick	38	21	17	s	<5	0
Garrett	7	s	<5	7	0	0
Harford	32	13	19	24	s	<5
Howard	33	12	21	25	s	<5
Kent	5	5	0	<5	<5	0
Montgomery	106	51	55	72	21	13
Prince George's	139	73	66	33	100	6
Queen Anne's	7	<5	<5	7	0	0
Saint Mary's	11	6	5	11	0	0
Somerset	s	7	<5	6	<5	0
Talbot	11	5	6	s	<5	0
Washington	26	20	6	26	0	0
Wicomico	19	11	8	s	<5	0
Worcester	11	<5	s	s	<5	0

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

Source: Maryland Vital Statistics Administration from MATCH

**Table 24.
Colorectal Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2010**

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	14.9	18.0	12.5	12.9	21.9	11.4
Allegany	19.5	**	**	20.0	**	**
Anne Arundel	11.7	13.4	10.0	10.1	**	**
Baltimore City	21.2	25.6	18.6	14.8	25.2	**
Baltimore County	14.8	18.0	12.8	14.3	19.9	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	14.1	**	**	14.7	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	17.6	22.3	**	18.7	**	**
Garrett	**	**	**	**	**	**
Harford	12.7	**	**	10.3	**	**
Howard	12.9	**	13.8	12.5	**	**
Kent	**	**	**	**	**	**
Montgomery	9.8	11.0	8.6	8.7	15.1	**
Prince George's	19.1	24.0	15.8	13.8	22.0	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	14.8	27.7	**	15.4	**	**
Wicomico	**	**	**	**	**	**
Worcester	**	**	**	**	**	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Table 25.
Number of Colorectal Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2006-2010

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	11,722	5,849	5,861	8,123	3,050	482	67
Allegany	263	143	120	251	s	<6	0
Anne Arundel	964	510	453	779	150	s	<6
Baltimore City	1,436	659	775	493	921	s	<6
Baltimore County	1,930	946	983	1,517	353	48	12
Calvert	167	84	80	133	s	<6	0
Caroline	77	33	43	s	<6	0	0
Carroll	349	176	172	335	8	<6	<6
Cecil	227	128	99	212	s	0	<6
Charles	250	141	109	160	80	s	<6
Dorchester	102	53	49	75	27	0	0
Frederick	509	265	244	467	34	s	<6
Garrett	80	44	36	s	<6	<6	0
Harford	565	285	280	502	53	10	0
Howard	443	242	201	316	72	s	<6
Kent	64	38	26	54	10	0	0
Montgomery †	1,605	775	830	1,151	234	203	17
Prince George's †	1,371	658	712	421	874	62	14
Queen Anne's	115	54	61	98	17	0	0
Saint Mary's	196	109	87	167	s	<6	0
Somerset	68	40	28	48	20	0	0
Talbot	122	63	59	105	17	0	0
Washington	340	169	171	327	s	<6	0
Wicomico	241	109	132	190	45	<6	<6
Worcester	178	97	81	144	s	18	<6
Unknown	60	28	30	s	22	<6	<6

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

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

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

† 2006 case counts for Montgomery and Prince George's counties are underreported. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 26.
Colorectal Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2006-2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	40.1	46.2	35.4	38.7	44.0	35.5
Allegany	52.5	67.7	41.6	51.3	**	**
Anne Arundel	37.6	43.4	32.3	35.4	52.2	46.9
Baltimore City	44.8	51.3	40.7	41.8	46.7	36.0
Baltimore County	41.3	47.5	36.5	39.9	48.5	31.0
Calvert	40.2	44.5	35.3	38.5	51.5	**
Caroline	43.6	43.6	43.7	47.7	**	0.0
Carroll	39.5	44.7	35.0	39.4	**	**
Cecil	45.1	54.0	37.0	45.2	**	0.0
Charles	43.3	58.9	32.4	41.9	45.5	**
Dorchester	46.7	57.6	39.6	44.5	54.9	0.0
Frederick	47.9	56.4	41.3	48.5	45.4	**
Garrett	41.3	50.2	35.0	40.6	**	**
Harford	46.8	52.7	41.5	46.6	49.6	**
Howard	35.4	42.5	29.9	33.6	39.0	41.2
Kent	42.5	59.3	28.4	43.1	**	0.0
Montgomery †	31.5	35.6	28.5	30.0	36.8	32.0
Prince George's †	37.8	41.9	34.5	33.9	41.0	33.4
Queen Anne's	42.8	42.7	42.9	40.9	66.9	0.0
Saint Mary's	42.1	48.7	35.7	43.3	35.5	**
Somerset	47.8	62.6	37.5	46.5	53.5	0.0
Talbot	41.5	49.9	33.3	40.4	51.5	0.0
Washington	41.5	47.4	37.0	42.0	**	**
Wicomico	47.7	50.6	45.7	48.2	42.6	**
Worcester	44.4	52.9	36.6	41.3	**	774.3

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

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

† 2006-2010 incidence rates for Montgomery County and Prince George's County are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 27.
Number of Colorectal Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2006-2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	4,819	2,474	2,345	3,232	1,459	128
Allegany	94	53	41	s	<5	0
Anne Arundel	387	210	177	313	68	6
Baltimore City	696	339	357	212	478	6
Baltimore County	823	394	429	660	148	15
Calvert	70	31	39	55	15	0
Caroline	36	17	19	s	<5	0
Carroll	148	78	70	143	5	0
Cecil	84	53	31	s	<5	0
Charles	109	56	53	68	41	0
Dorchester	41	20	21	27	14	0
Frederick	171	86	85	161	s	<5
Garrett	41	24	17	s	<5	0
Harford	184	96	88	158	s	<5
Howard	171	81	90	124	36	11
Kent	28	16	12	s	<5	0
Montgomery	573	294	279	414	97	62
Prince George's	634	328	306	172	442	20
Queen Anne's	49	27	22	40	9	0
Saint Mary's	63	37	26	s	<5	0
Somerset	34	17	17	21	13	0
Talbot	49	26	23	41	8	0
Washington	145	94	51	138	s	<5
Wicomico	125	61	64	97	28	0
Worcester	64	36	28	59	5	0

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

Source: Maryland Vital Statistics Administration from MATCH

Table 28.
Colorectal Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2006-2010

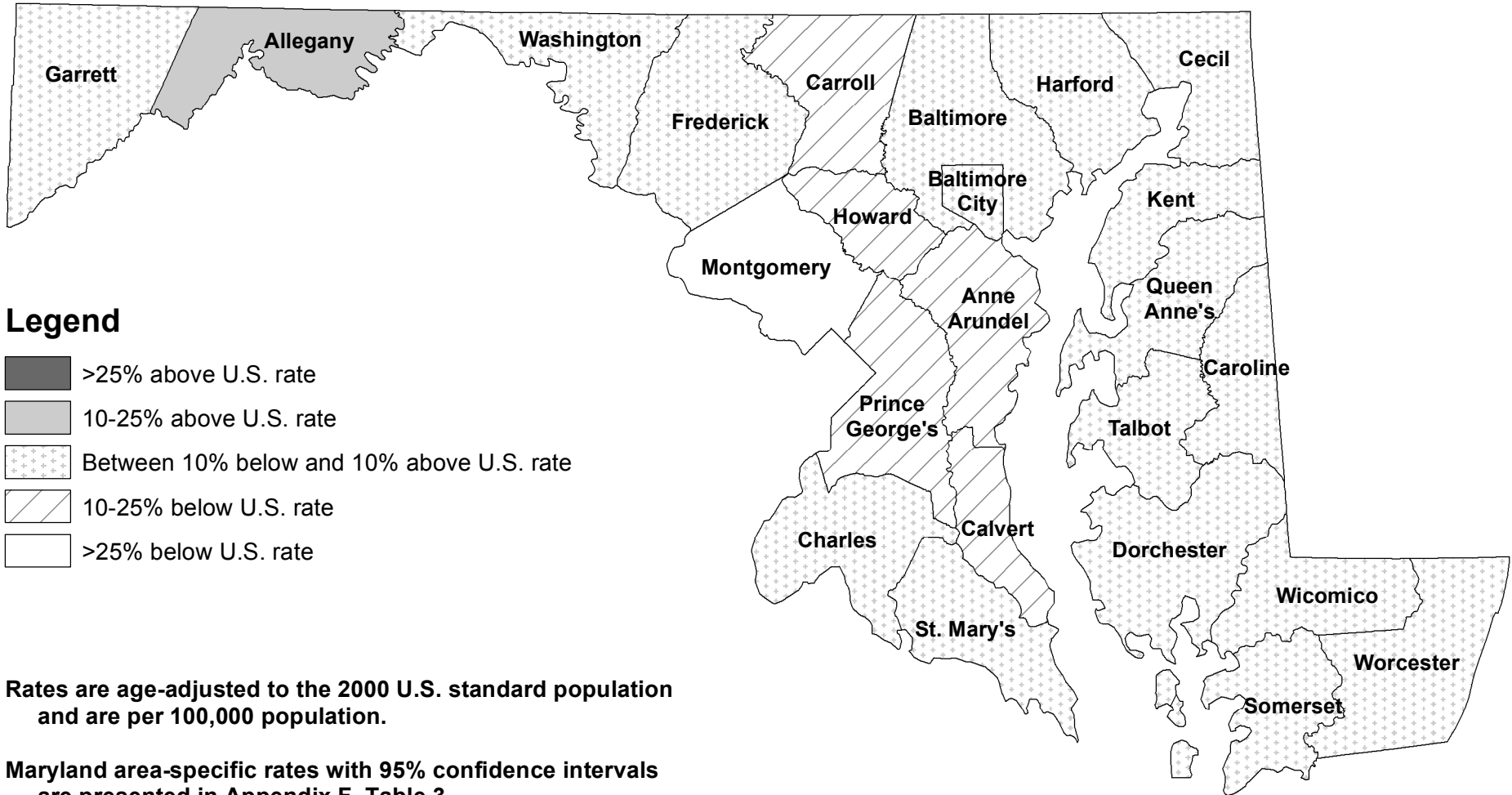
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	16.8	20.6	14.0	15.3	22.6	10.4
Allegany	18.2	25.6	13.1	18.4	**	**
Anne Arundel	16.1	19.3	13.3	15.1	25.0	**
Baltimore City	21.6	27.4	18.1	16.8	24.9	**
Baltimore County	17.3	20.0	15.2	16.5	22.5	**
Calvert	18.3	19.6	18.0	17.4	**	**
Caroline	20.5	**	**	22.1	**	**
Carroll	17.3	21.4	14.3	17.4	**	**
Cecil	17.7	25.8	11.2	17.8	**	**
Charles	20.4	27.4	16.8	19.1	26.2	**
Dorchester	18.9	23.5	15.6	15.6	**	**
Frederick	17.1	20.5	14.2	17.8	**	**
Garrett	20.7	28.1	**	20.4	**	**
Harford	16.2	18.5	13.9	15.6	23.4	**
Howard	15.3	16.8	14.0	14.2	23.2	**
Kent	18.9	**	**	18.4	**	**
Montgomery	11.1	13.8	9.2	10.3	15.8	10.6
Prince George's	18.5	22.3	15.6	13.3	22.9	11.8
Queen Anne's	19.0	22.4	15.8	17.7	**	**
Saint Mary's	14.1	18.4	10.9	16.0	**	**
Somerset	24.6	**	**	20.6	**	**
Talbot	15.8	20.0	12.0	15.1	**	**
Washington	17.6	27.5	10.7	17.5	**	**
Wicomico	23.9	28.5	20.7	23.6	26.4	**
Worcester	15.6	19.7	11.8	16.4	**	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Maryland Colorectal Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010

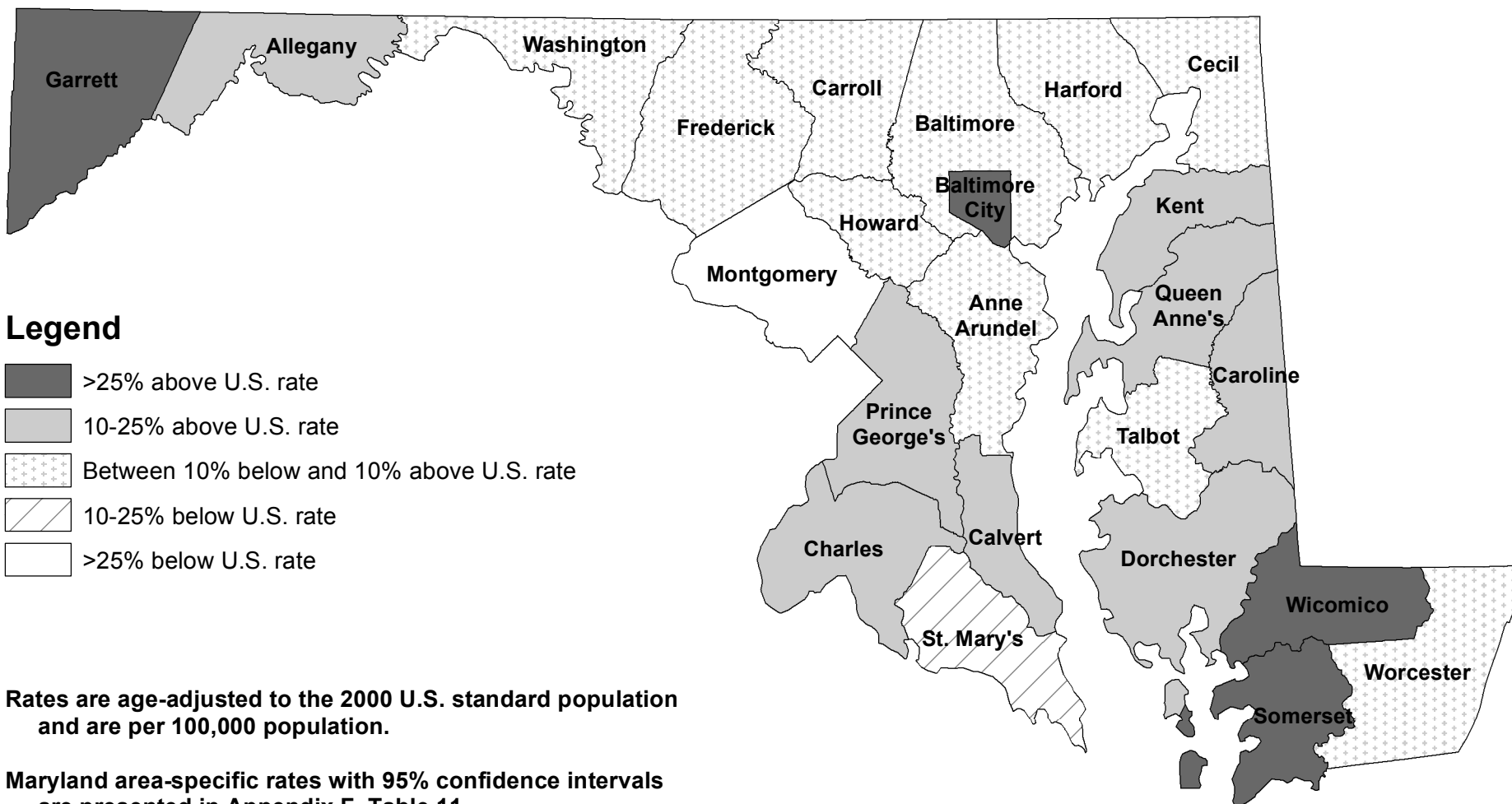


U.S. colorectal cancer incidence rate, 2006-2010: 45.0/100,000

Maryland colorectal cancer incidence rate, 2006-2010: 40.1/100,000

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat

Maryland Colorectal Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010



U.S. colorectal cancer mortality rate, 2006-2010: 16.4/100,000

Maryland colorectal cancer mortality rate, 2006-2010: 16.8/100,000

Source: MD mortality rates from Maryland Vital Statistics Administration, 2006-2010
U.S. rate from SEER, Cancer Statistics Review, 2006-2010

C. Female Breast Cancer

Incidence (New Cases)

In 2010, a total of 4,390 cases of breast cancer were reported among Maryland women. The 2010 age-adjusted incidence rate in Maryland was 129.0 per 100,000 women (125.2-133.0, 95% C.I.), which is statistically significantly higher than the 2010 U.S. SEER age-adjusted female breast cancer incidence rate of 120.9 per 100,000 population (119.9-121.9, 95% C.I.).

Mortality (Deaths)

In 2010, a total of 839 women died of breast cancer in Maryland. Female breast cancer accounted for 16.6% of cancer deaths among women and 8.2% of all cancer deaths in Maryland in 2010. Breast cancer is the second leading cause of cancer death among women in Maryland after lung cancer. The 2010 age-adjusted mortality rate for breast cancer in Maryland was 24.2 per 100,000 women (22.6-25.9, 95% C.I.). This rate is statistically significantly higher than the U.S. female breast cancer mortality rate of 21.9 per 100,000 women (21.7-22.1, 95% C.I.). Maryland had the 6th highest female breast cancer mortality rate among the states and the District of Columbia for the period 2006-2010.

Table 29.
Female Breast Incidence and Mortality Rates
by Race, Maryland and the United States, 2010

<i>Incidence 2010</i>	<i>Total</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
New Cases (count)	4,390	2,894	1,219	226
MD Incidence Rate	129.0	127.6	129.4	117.6
U.S. SEER Rate	120.9	124.1	117.6	N/A
<i>Mortality 2010</i>	<i>Total</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
Deaths (count)	839	516	309	14
MD Mortality Rate	24.2	21.1	34.1	**
U.S. Mortality Rate	21.9	21.3	30.2	N/A

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

Total includes unknown race

** MD mortality rates based on death counts of 0-19 are suppressed per DHMH/CCPC

Mortality Data Suppression Policy

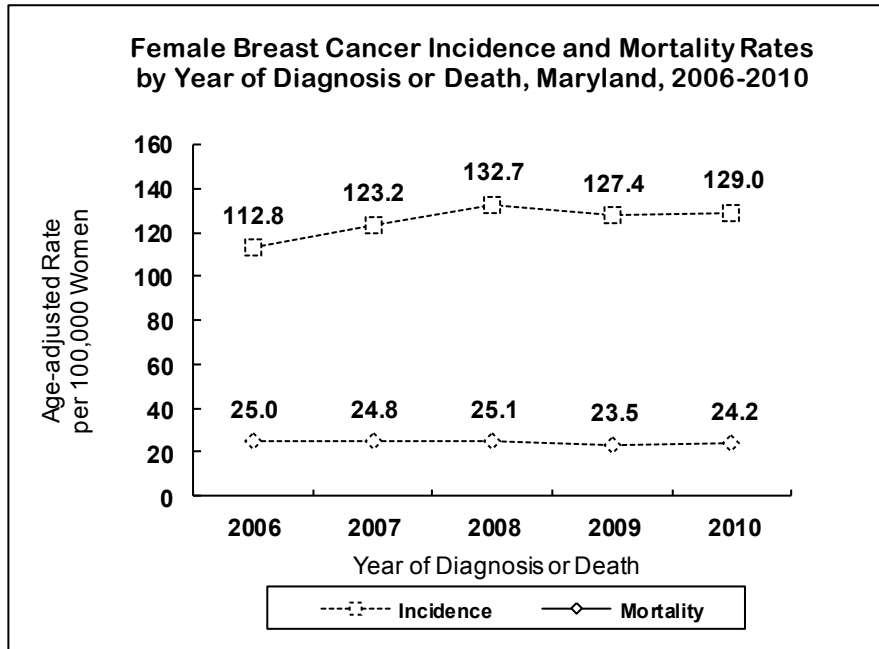
N/A = Data were not available

Source: Maryland Cancer Registry

U.S. SEER, SEER*Stat

Maryland Vital Statistics Administration from MATCH

U.S. SEER, Cancer Statistics Review



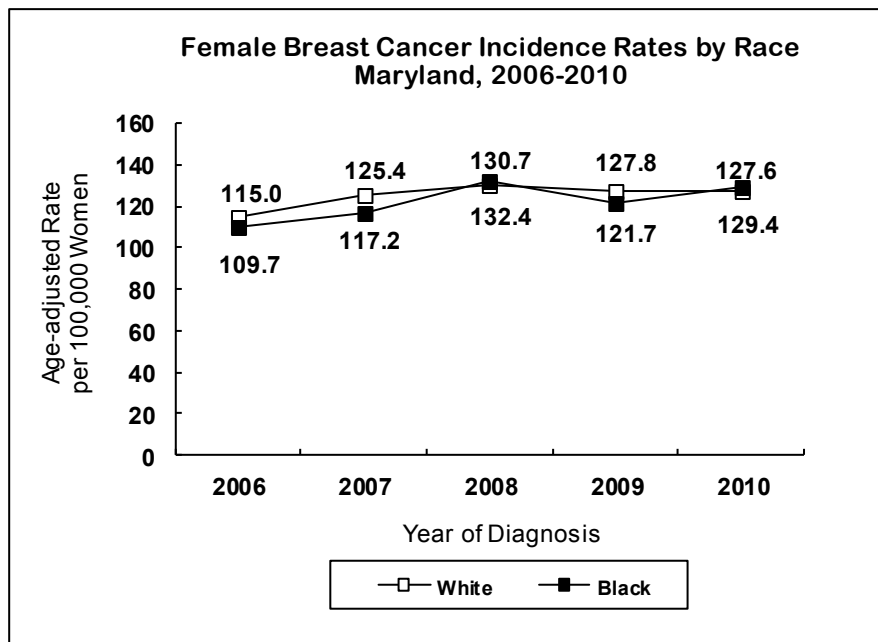
Source: Maryland Cancer Registry
 NCHS Compressed Mortality File in CDC WONDER, 2006-2007
 Maryland Vital Statistics Administration from MATCH, 2008-2010

Incidence and Mortality Trends

From 2006 to 2010, incidence rates for female breast cancer increased in Maryland at a rate of 3.1% annually.

Breast cancer mortality rates for females decreased at a rate of 1.2% per year.

See Appendix G, Tables 1 and 2.

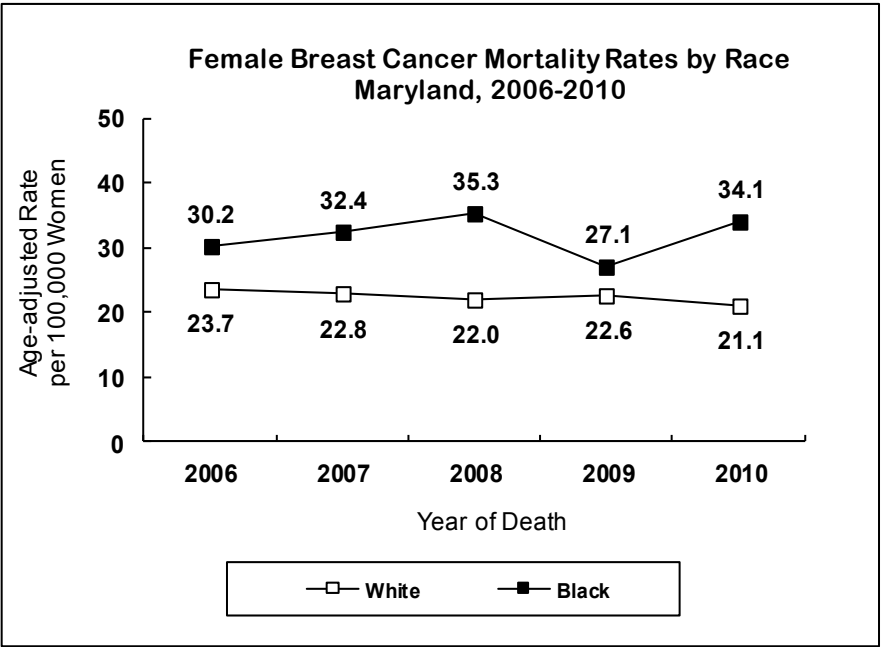


Source: Maryland Cancer Registry

Incidence Trends by Race

The increase in female breast cancer incidence rates differed by race in Maryland from 2006 to 2010. Incidence rates increased at a rate of 2.3% per year among white females and 3.7% among black females. In 2010, the breast cancer incidence rate for white females in Maryland was 127.6 per 100,000 women compared to 129.4 per 100,000 women for black females.

See Appendix G, Table 3.

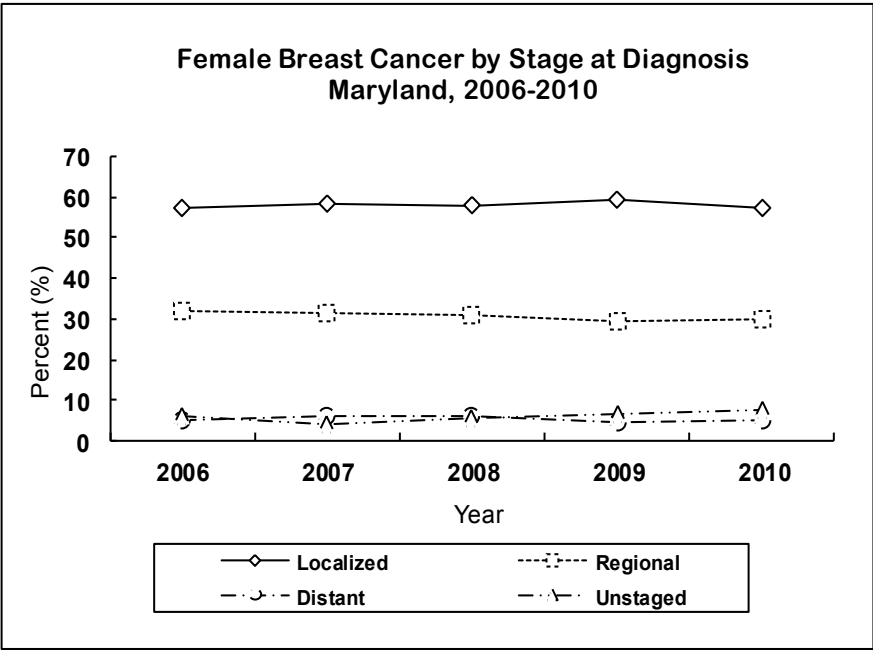


Source: NCHS Compressed Mortality File in CDC WONDER, 2006-2007
Maryland Vital Statistics Administration from MATCH, 2008-2010

Mortality Trends by Race

Female breast cancer mortality trends differed by race from 2006 to 2010. Mortality rates in blacks rose in 2010 and increased at a rate of 0.6% per year, compared to whites who had a decrease of 2.4% per year between 2006-2010.

See Appendix G, Table 5.

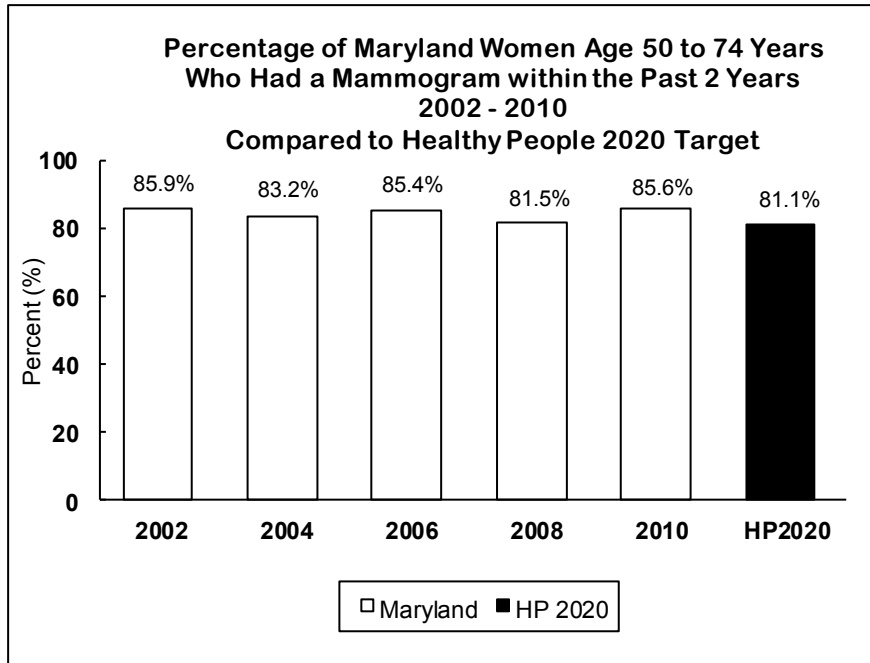


Source: Maryland Cancer Registry

Stage at Diagnosis

In 2010, 57.4% of all female breast cancer cases in Maryland were diagnosed at the local stage, 29.7% were found at the regional stage, and 5.1% were diagnosed at the distant stage. The proportion of female breast cancers reported as unstaged remained low in 2010 at 7.8%.

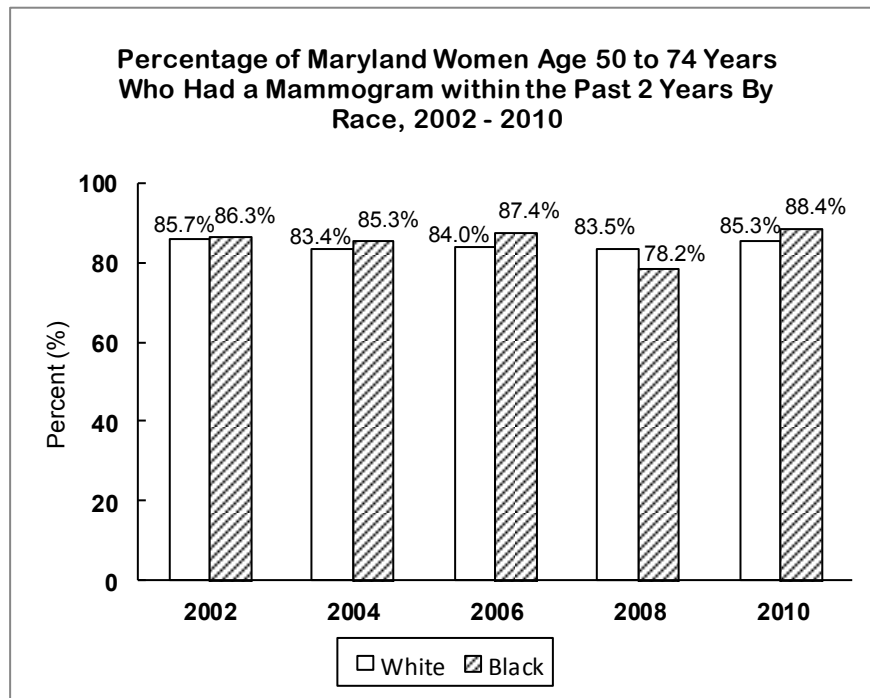
See Appendix H, Table 4.



Source: Maryland BRFS
Healthy People 2020, U.S. Department of Health and Human Services

Breast Cancer Screening

The Healthy People 2020 target for breast cancer is to increase to 81.1% the proportion of women who had a breast cancer screening based on most recent guidelines. As of May 2012, the U.S. Preventive Task Force guideline includes biennial mammography for women age 50 to 74 years. Maryland women have consistently surpassed this target. In 2010, 85.6% of Maryland women age 50 to 74 years reported receiving a mammogram within the past 2 years.



Source: Maryland BRFS

The percentage of women who had a mammogram in the past 2 years differed by race from 2002 to 2010. With the exception of 2008, black women have consistently had a higher proportion of women with a mammogram in the past 2 years compared to white women.

Table 30.
Number of Female Breast Cancer Cases
by Jurisdiction and Race, Maryland, 2010

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	4,390	2,894	1,219	226	51
Allegany	56	s	<6	0	0
Anne Arundel	384	339	36	<6	<6
Baltimore City	474	148	311	s	<6
Baltimore County	694	488	164	33	9
Calvert	82	72	s	0	<6
Caroline	23	s	<6	0	0
Carroll	147	142	0	<6	<6
Cecil	60	54	6	0	0
Charles	109	57	45	<6	<6
Dorchester	28	22	<6	<6	0
Frederick	160	145	8	s	<6
Garrett	21	21	0	0	0
Harford	208	177	25	<6	<6
Howard	206	144	36	s	<6
Kent	9	s	<6	0	0
Montgomery	711	489	122	92	8
Prince George's	547	119	393	21	14
Queen Anne's	38	34	<6	<6	0
Saint Mary's	58	50	8	0	0
Somerset	21	s	<6	0	0
Talbot	41	39	<6	<6	0
Washington	106	101	<6	<6	0
Wicomico	62	43	s	<6	0
Worcester	57	48	<6	<6	0
Unknown	88	62	12	14	0

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

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

Source: Maryland Cancer Registry

**Table 31.
Female Breast Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 2010**

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	129.0	127.6	129.4	117.6
Allegany	113.1	112.6	**	0.0
Anne Arundel	122.1	131.0	88.3	**
Baltimore City	134.7	135.3	133.1	**
Baltimore County	134.8	127.3	146.6	155.0
Calvert	159.6	169.6	**	0.0
Caroline	117.6	119.7	**	0.0
Carroll	146.1	147.6	0.0	**
Cecil	103.3	99.3	**	0.0
Charles	137.7	118.0	154.7	**
Dorchester	124.8	127.1	**	**
Frederick	120.8	123.5	**	**
Garrett	111.6	112.3	0.0	0.0
Harford	143.2	139.6	168.8	**
Howard	124.7	124.7	126.9	107.4
Kent	**	**	**	0.0
Montgomery	121.2	118.2	134.9	110.4
Prince George's	115.6	98.6	122.5	80.1
Queen Anne's	125.7	125.7	**	**
Saint Mary's	107.6	113.2	**	0.0
Somerset	148.6	178.7	**	0.0
Talbot	132.7	145.8	**	**
Washington	118.8	118.8	**	**
Wicomico	106.6	93.2	139.3	**
Worcester	134.7	130.9	**	**

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

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

Source: Maryland Cancer Registry

Table 32.
Number of Female Breast Cancer Deaths
by Jurisdiction and Race, Maryland, 2010

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	839	516	309	14
Allegany	6	6	0	0
Anne Arundel	66	51	s	<5
Baltimore City	117	33	84	0
Baltimore County	130	89	s	<5
Calvert	11	s	<5	0
Caroline	<5	<5	<5	0
Carroll	27	s	<5	0
Cecil	14	s	<5	0
Charles	23	14	9	0
Dorchester	<5	<5	<5	0
Frederick	32	27	5	0
Garrett	7	7	0	0
Harford	36	s	<5	0
Howard	31	28	<5	<5
Kent	<5	<5	<5	0
Montgomery	128	92	28	8
Prince George's	130	s	109	<5
Queen Anne's	7	7	0	0
Saint Mary's	12	s	<5	0
Somerset	<5	<5	<5	0
Talbot	5	5	0	0
Washington	20	20	0	0
Wicomico	11	6	5	0
Worcester	11	s	<5	0

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

Source: Maryland Vital Statistics Administration from MATCH

Table 33.
Female Breast Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2010

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	24.2	21.1	34.1	**
Allegany	**	**	**	**
Anne Arundel	21.8	20.0	**	**
Baltimore City	33.4	26.0	37.1	**
Baltimore County	23.5	20.1	36.5	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	25.1	25.1	**	**
Cecil	**	**	**	**
Charles	31.5	**	**	**
Dorchester	**	**	**	**
Frederick	24.4	22.7	**	**
Garrett	**	**	**	**
Harford	23.8	26.2	**	**
Howard	19.9	24.4	**	**
Kent	**	**	**	**
Montgomery	21.1	20.7	32.4	**
Prince George's	29.0	15.8	36.4	**
Queen Anne's	**	**	**	**
Saint Mary's	**	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	20.5	21.3	**	**
Wicomico	**	**	**	**
Worcester	**	**	**	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Table 34.
Number of Female Breast Cancer Cases
by Jurisdiction and Race, Maryland, 2006-2010

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	20,515	14,004	5,425	957	129
Allegany	291	286	<6	<6	0
Anne Arundel	1,876	1,569	229	72	6
Baltimore City	2,105	705	1,358	31	11
Baltimore County	3,275	2,497	656	105	17
Calvert	323	272	47	<6	<6
Caroline	132	111	s	<6	0
Carroll	661	635	17	s	<6
Cecil	325	302	s	<6	0
Charles	388	215	153	s	<6
Dorchester	144	104	s	<6	0
Frederick	730	663	38	s	<6
Garrett	114	s	<6	<6	<6
Harford	942	807	113	16	6
Howard	991	719	165	99	8
Kent	88	76	12	0	0
Montgomery †	3,521	2,579	515	399	28
Prince George's †	2,560	642	1,785	112	21
Queen Anne's	171	158	s	<6	0
Saint Mary's	305	258	39	8	0
Somerset	87	59	s	<6	0
Talbot	198	175	s	<6	0
Washington	499	478	15	6	0
Wicomico	326	243	71	s	<6
Worcester	272	221	33	18	0
Unknown	191	s	37	18	s

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

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

† 2006 case counts for Montgomery and Prince George's counties are underreported. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 35.
Female Breast Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 2006-2010

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	125.1	125.3	122.4	110.9
Allegany	117.4	118.6	**	**
Anne Arundel	127.6	127.7	121.1	138.9
Baltimore City	115.6	115.8	114.9	99.8
Baltimore County	131.6	129.3	136.8	121.5
Calvert	136.1	138.1	131.3	**
Caroline	136.0	135.0	148.9	**
Carroll	134.1	134.5	112.7	**
Cecil	119.2	118.2	152.3	**
Charles	107.0	93.1	133.4	**
Dorchester	128.2	123.0	136.0	**
Frederick	119.3	120.5	86.3	136.8
Garrett	115.9	113.9	**	**
Harford	136.1	132.6	167.1	94.0
Howard	130.8	130.5	130.7	111.1
Kent	127.7	132.7	**	0.0
Montgomery †	122.9	125.7	120.1	101.6
Prince George's †	114.7	100.6	121.9	98.4
Queen Anne's	119.0	124.1	**	**
Saint Mary's	121.6	126.4	104.4	**
Somerset	118.7	111.7	135.6	**
Talbot	137.2	142.4	103.1	**
Washington	117.7	118.8	**	**
Wicomico	117.9	113.7	120.6	**
Worcester	142.2	133.8	133.1	1,269.0

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

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

† 2006-2010 incidence rates for Montgomery County and Prince George's County are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 36.
Number of Female Breast Cancer Deaths
by Jurisdiction and Race, Maryland, 2006-2010

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	4,064	2,645	1,350	69
Allegany	53	s	<5	0
Anne Arundel	335	271	56	8
Baltimore City	544	s	379	<5
Baltimore County	682	525	147	10
Calvert	63	51	12	0
Caroline	24	19	<5	<5
Carroll	115	s	<5	0
Cecil	63	s	<5	0
Charles	83	49	34	0
Dorchester	22	17	5	0
Frederick	141	124	s	<5
Garrett	33	33	0	0
Harford	171	149	22	0
Howard	161	129	24	8
Kent	14	s	<5	0
Montgomery	599	436	137	26
Prince George's	592	133	450	9
Queen Anne's	40	s	<5	0
Saint Mary's	55	45	10	0
Somerset	18	9	s	<5
Talbot	32	s	<5	0
Washington	95	92	<5	<5
Wicomico	70	55	15	0
Worcester	59	47	12	0

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

Source: Maryland Vital Statistics Administration from MATCH

**Table 37.
Female Breast Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2006-2010**

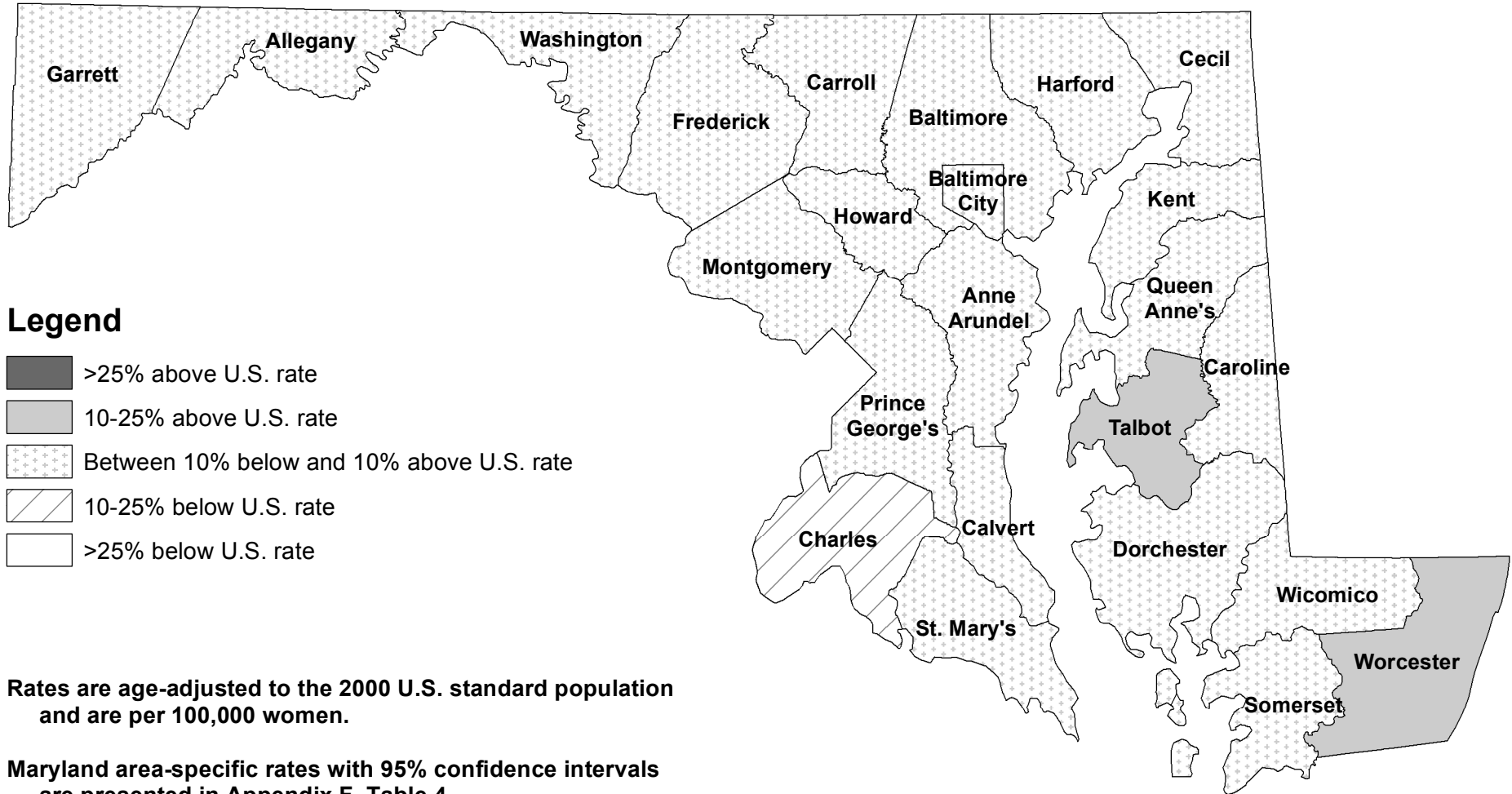
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	24.5	22.4	31.7	8.3
Allegany	18.7	18.8	**	**
Anne Arundel	23.5	22.6	30.2	**
Baltimore City	29.3	23.6	32.3	**
Baltimore County	25.7	24.5	32.0	**
Calvert	28.3	27.9	**	**
Caroline	24.1	**	**	**
Carroll	23.0	23.2	**	**
Cecil	23.1	23.4	**	**
Charles	24.5	22.2	30.2	**
Dorchester	17.7	**	**	**
Frederick	23.4	22.7	**	**
Garrett	32.9	33.1	**	**
Harford	24.9	24.6	34.3	**
Howard	22.5	24.2	21.1	**
Kent	**	**	**	**
Montgomery	20.3	19.4	32.5	6.7
Prince George's	27.5	19.7	33.2	**
Queen Anne's	28.3	30.5	**	**
Saint Mary's	22.0	21.8	**	**
Somerset	**	**	**	**
Talbot	20.6	21.5	**	**
Washington	20.5	20.8	**	**
Wicomico	24.3	24.8	**	**
Worcester	27.4	25.5	**	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Maryland Female Breast Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010

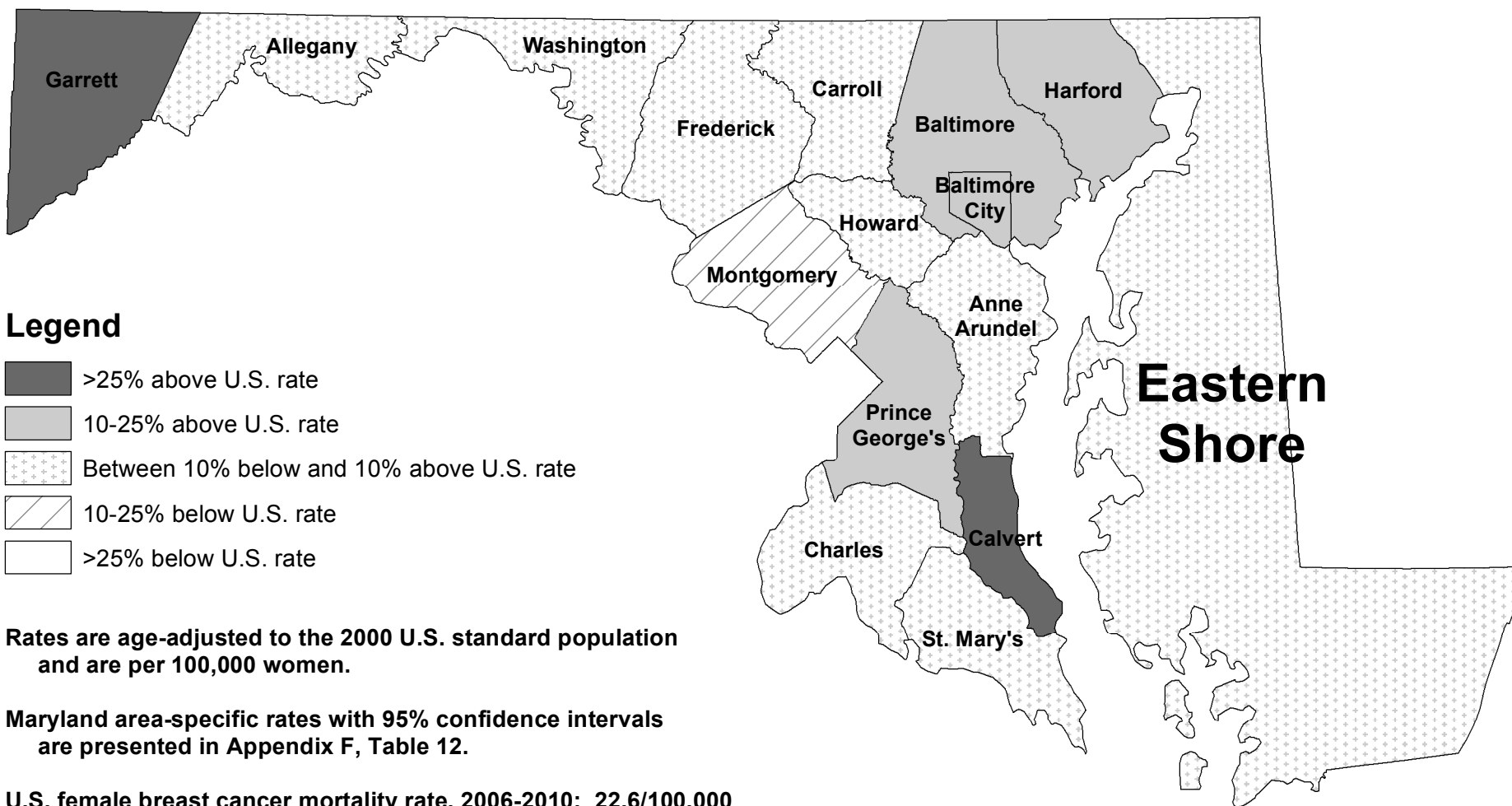


U.S. female breast cancer incidence rate, 2006-2010: 123.8/100,000

Maryland female breast cancer incidence rate, 2006-2010: 125.1/100,000

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat

Maryland Female Breast Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010



Source: MD mortality rates from Maryland Vital Statistics Administration from MATCH, 2006-2010
U.S. rate from SEER, Cancer Statistics Review, 2006-2010

Note: Regional rates are presented when one or more counties within the region have a suppressed rate.

D. Prostate Cancer

Incidence (New Cases)

In 2010, a total of 4,111 cases of prostate cancer were reported among men in Maryland. The age-adjusted prostate cancer incidence rate in Maryland for 2010 was 140.6 per 100,000 men (136.2-145.1, 95% C.I.), which is similar to the 2010 U.S. SEER age-adjusted prostate cancer incidence rate of 136.6 per 100,000 population (135.5-137.8, 95% C.I.).

Mortality (Deaths)

Prostate cancer is the second leading cause of cancer death among men in Maryland after lung cancer. In 2010, 507 men died of prostate cancer in Maryland, accounting for 4.9% of all cancer deaths and 9.8% of cancer deaths among men in Maryland. The 2010 age-adjusted mortality rate for prostate cancer in Maryland was 22.3 per 100,000 men (20.4-24.4, 95% C.I.). This rate is similar to the 2010 U.S. prostate cancer mortality rate of 21.8 per 100,000 men (21.6-22.1, 95% C.I.). Maryland had the 13th highest prostate cancer mortality rate among the states and the District of Columbia for the period 2006-2010.

Table 38.
Prostate Cancer Incidence and Mortality Rates
by Race, Maryland and the United States, 2010

<i>Incidence 2010</i>	<i>Total</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
New Cases (count)	4,111	2,541	1,332	142
MD Incidence Rate	140.6	122.0	195.0	90.1
U.S. SEER Rate	136.6	128.2	206.8	N/A
<i>Mortality 2010</i>	<i>Total</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
Deaths (count)	507	304	s	s
MD Mortality Rate	22.3	17.6	44.4	**
U.S. Mortality Rate	21.8	20.1	48.2	N/A

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

Total includes unknown race

s = Counts are suppressed to prevent disclosure of data in other cell(s) based on Table 41

** MD mortality rates based on death counts of 0-19 are suppressed per DHMH/CCPC

Mortality Data Suppression Policy

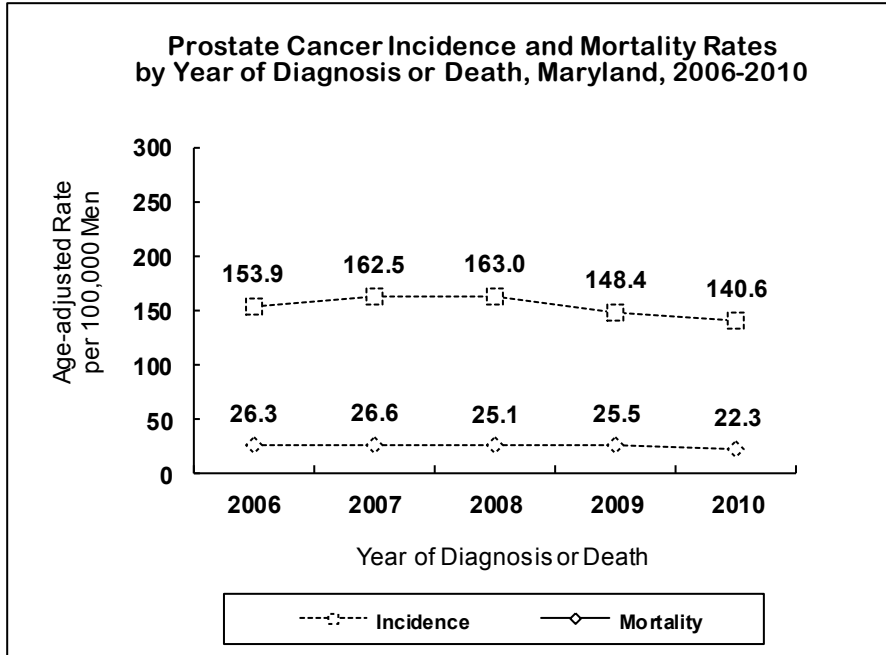
N/A = Data were not available

Source: Maryland Cancer Registry

U.S. SEER, SEER*Stat

Maryland Vital Statistics Administration from MATCH

U.S. SEER, Cancer Statistics Review



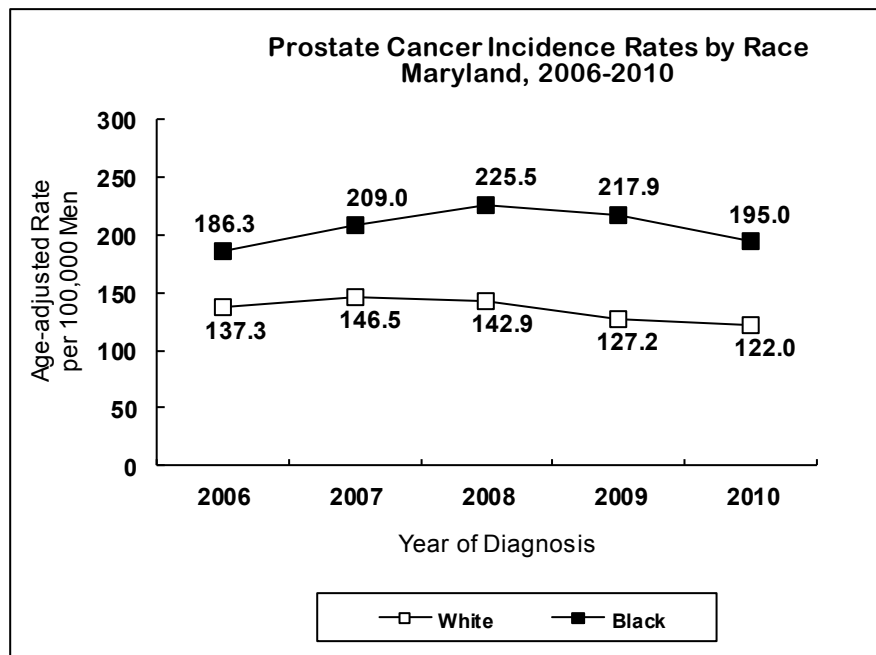
Source: Maryland Cancer Registry
 NCHS Compressed Mortality File in CDC WONDER, 2006-2007
 Maryland Vital Statistics Administration from MATCH, 2008-2010

Incidence and Mortality Trends

The prostate cancer incidence rate in Maryland decreased at a rate of 2.7% per year from 2006 to 2010.

Prostate cancer mortality rates decreased from 2006 to 2010, with a yearly decline of 3.7%.

See Appendix G, Tables 1 and 2.



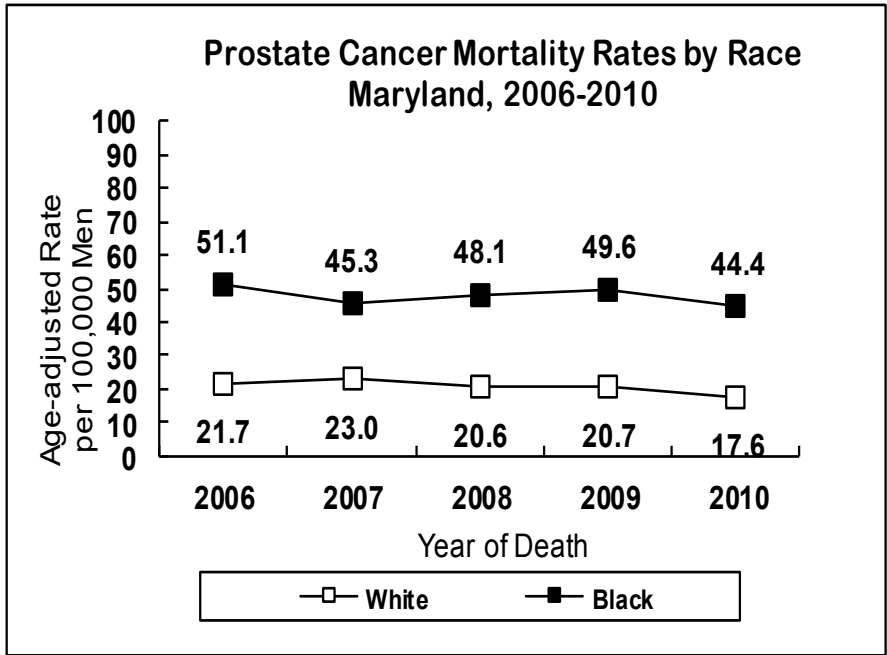
Source: Maryland Cancer Registry

Incidence Trends by Race

From 2006 to 2010, black men had consistently higher prostate cancer incidence rates than white men.

During this 5-year period, incidence rates for black men increased at a rate of 1.3% and decreased for white men at a rate of 3.7% per year, respectively.

See Appendix G, Table 3.



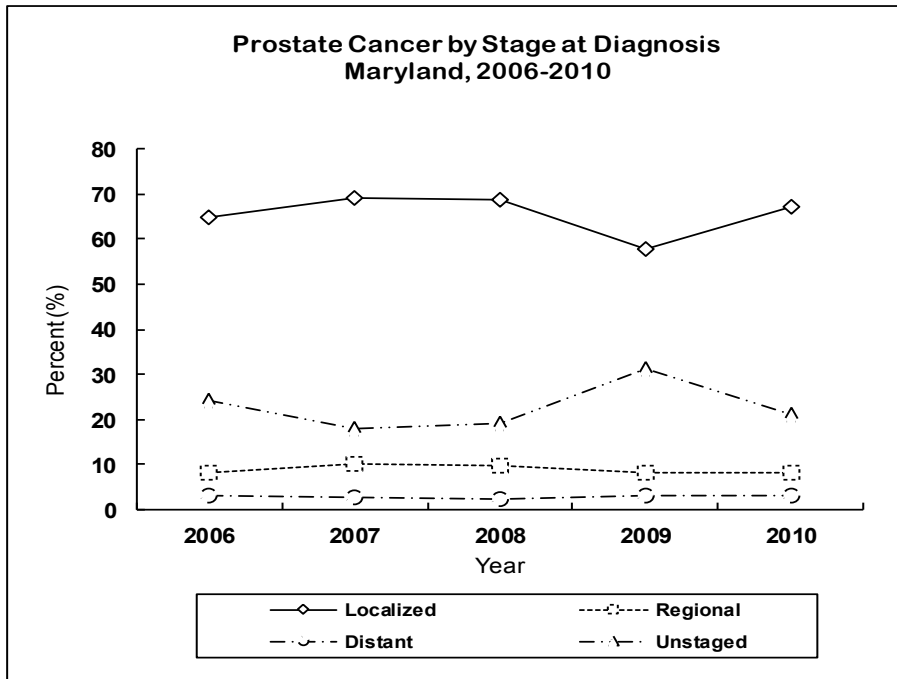
Source: NCHS Compressed Mortality File in CDC WONDER, 2006-2007
Maryland Vital Statistics Administration from MATCH, 2008-2010

Mortality Trends by Race

From 2006 to 2010, black men had consistently higher prostate cancer mortality rates than white men.

During this 5-year period, mortality rates for black and white men declined at a rate of 1.9% and 5.1%, respectively.

See Appendix G, Table 5.

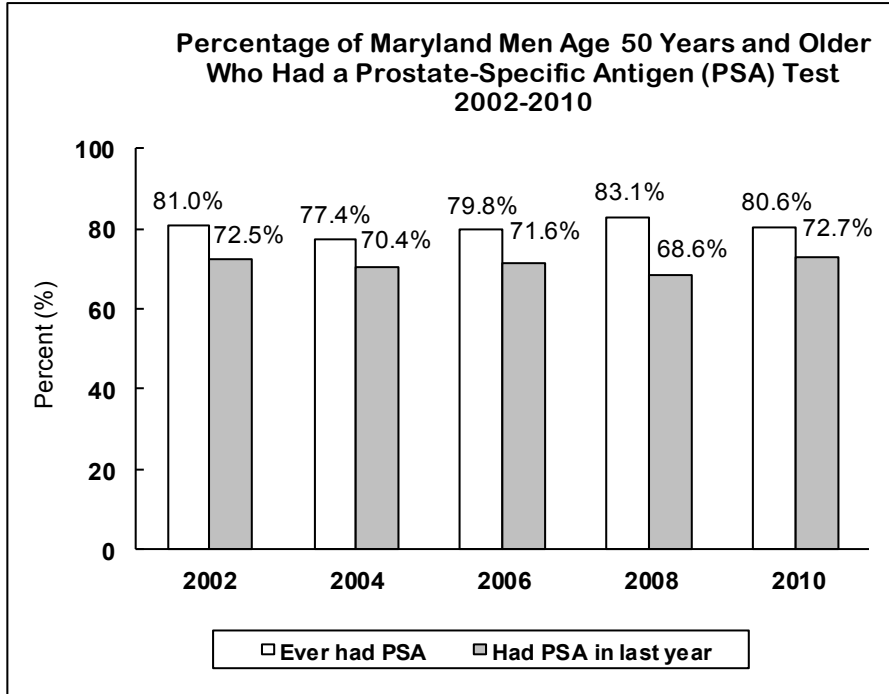


Source: Maryland Cancer Registry

Stage at Diagnosis

Of prostate cancers diagnosed in Maryland in 2010, 67.3% were detected at the localized stage, 8.3% were found at the regional stage, and 3.2% were diagnosed at the distant stage. The proportion of prostate cancers reported as unstaged decreased in 2010 to 21.2% of cases.

See Appendix H, Table 5.



Source: Maryland BRFSS

Prostate-Specific Antigen Test

There is no Healthy People 2020 objective for prostate cancer detection.

In 2010, 80.6% of Maryland men age 50 years and older reported that they have ever had a prostate-specific antigen (PSA) test, and 72.7% of men age 50 years and older had a PSA test within the last year.

Table 39.
Number of Prostate Cancer Cases
by Jurisdiction and Race, Maryland, 2010

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	4,111	2,541	1,332	142	96
Allegany	79	68	s	<6	<6
Anne Arundel	427	351	67	<6	<6
Baltimore City	375	83	275	6	11
Baltimore County	547	386	129	14	18
Calvert	44	33	s	0	<6
Caroline	19	s	<6	0	0
Carroll	87	78	<6	<6	<6
Cecil	64	60	<6	0	<6
Charles	101	50	s	<6	0
Dorchester	30	23	7	0	0
Frederick	135	114	15	<6	<6
Garrett	19	19	0	0	0
Harford	178	149	21	<6	s
Howard	175	125	31	11	8
Kent	22	s	<6	0	0
Montgomery	643	447	121	55	20
Prince George's	665	128	503	27	7
Queen Anne's	38	s	<6	0	0
Saint Mary's	59	44	10	<6	<6
Somerset	14	9	<6	<6	0
Talbot	48	42	<6	<6	0
Washington	94	83	8	<6	<6
Wicomico	86	58	s	0	<6
Worcester	103	88	s	<6	0
Unknown	59	33	14	<6	s

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

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

Source: Maryland Cancer Registry

Table 40.
Prostate Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 2010

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	140.6	122.0	195.0	90.1
Allegany	168.1	151.4	**	**
Anne Arundel	151.5	144.7	213.5	**
Baltimore City	135.1	81.1	162.9	**
Baltimore County	125.1	111.5	179.7	**
Calvert	101.3	92.0	**	0.0
Caroline	96.7	100.2	**	0.0
Carroll	91.8	84.6	**	**
Cecil	115.0	114.2	**	0.0
Charles	155.6	113.3	273.8	**
Dorchester	140.3	138.5	**	0.0
Frederick	122.6	115.1	**	**
Garrett	88.2	88.7	0.0	0.0
Harford	137.9	130.4	201.2	**
Howard	119.0	116.1	161.8	**
Kent	139.0	126.5	**	0.0
Montgomery	132.1	126.2	191.6	80.2
Prince George's	182.0	114.6	217.5	145.2
Queen Anne's	122.8	122.8	**	0.0
Saint Mary's	107.8	92.9	**	**
Somerset	**	**	**	**
Talbot	151.3	146.1	**	**
Washington	112.2	107.2	**	**
Wicomico	174.4	151.1	249.8	0.0
Worcester	229.4	217.0	**	**

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

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

Source: Maryland Cancer Registry

Table 41.
Number of Prostate Cancer Deaths
by Jurisdiction and Race, Maryland, 2010

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	507	304	s	s
Allegany	5	5	0	0
Anne Arundel	34	28	s	<5
Baltimore City	81	s	67	<5
Baltimore County	93	71	22	0
Calvert	7	<5	<5	0
Caroline	<5	0	<5	0
Carroll	12	12	0	0
Cecil	11	s	<5	0
Charles	11	<5	s	0
Dorchester	7	<5	<5	0
Frederick	19	16	<5	<5
Garrett	<5	<5	0	0
Harford	15	s	<5	0
Howard	11	s	<5	0
Kent	<5	<5	0	0
Montgomery	64	51	8	5
Prince George's	79	s	58	<5
Queen Anne's	<5	<5	0	0
Saint Mary's	9	s	<5	0
Somerset	<5	<5	<5	0
Talbot	5	5	0	0
Washington	10	10	0	0
Wicomico	10	s	<5	0
Worcester	10	s	<5	0

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy
s = Death counts are suppressed to prevent disclosure of data in other cell(s). (See Appendix A for methods.)
Source: Maryland Vital Statistics Administration from MATCH

Table 42.
Prostate Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2010

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	22.3	17.6	44.4	**
Allegany	**	**	**	**
Anne Arundel	16.0	15.0	**	**
Baltimore City	35.5	**	51.3	**
Baltimore County	23.4	20.8	50.0	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	**	**	**	**
Cecil	**	**	**	**
Charles	**	**	**	**
Dorchester	**	**	**	**
Frederick	**	**	**	**
Garrett	**	**	**	**
Harford	**	**	**	**
Howard	**	**	**	**
Kent	**	**	**	**
Montgomery	15.9	15.9	**	**
Prince George's	34.1	22.2	45.1	**
Queen Anne's	**	**	**	**
Saint Mary's	**	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	**	**	**	**
Wicomico	**	**	**	**
Worcester	**	**	**	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Table 43.
Number of Prostate Cancer Cases
by Jurisdiction and Race, Maryland, 2006-2010

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	20,928	13,328	6,353	814	433
Allegany	337	314	20	<6	<6
Anne Arundel	1,984	1,638	300	26	20
Baltimore City	2,099	585	1,411	58	45
Baltimore County	2,856	1,979	665	138	74
Calvert	263	209	49	<6	<6
Caroline	116	100	s	<6	<6
Carroll	539	486	27	16	10
Cecil	318	294	17	<6	<6
Charles	478	270	184	12	12
Dorchester	129	86	39	<6	<6
Frederick	650	567	59	s	<6
Garrett	107	s	0	0	<6
Harford	949	789	119	19	22
Howard	831	586	164	52	29
Kent	124	102	s	0	<6
Montgomery †	3,585	2,542	625	310	108
Prince George's †	3,077	692	2,213	116	56
Queen Anne's	221	194	22	<6	<6
Saint Mary's	323	256	56	<6	s
Somerset	98	64	30	<6	<6
Talbot	267	230	33	<6	<6
Washington	535	492	35	s	<6
Wicomico	393	275	113	<6	<6
Worcester	368	306	53	<6	<6
Unknown	281	s	85	15	s

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

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

† 2006 case counts for Montgomery and Prince George's counties are underreported. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 44.
Prostate Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 2006-2010

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	153.4	135.0	206.4	123.5
Allegany	152.7	146.9	337.9	**
Anne Arundel	151.3	144.8	205.5	74.5
Baltimore City	155.2	113.4	173.4	253.5
Baltimore County	137.6	118.4	206.6	191.0
Calvert	132.5	122.6	192.4	**
Caroline	134.8	135.0	**	**
Carroll	123.5	116.0	195.8	449.9
Cecil	126.8	123.1	158.0	**
Charles	164.2	133.1	235.1	**
Dorchester	130.4	112.4	174.3	**
Frederick	128.6	124.6	168.4	131.7
Garrett	110.3	110.0	0.0	0.0
Harford	158.5	147.4	246.5	158.3
Howard	126.4	116.3	190.1	72.5
Kent	178.9	171.5	212.8	0.0
Montgomery †	155.1	147.3	233.5	97.9
Prince George's †	181.5	118.8	221.6	145.4
Queen Anne's	159.2	153.2	213.4	**
Saint Mary's	138.9	130.6	182.3	**
Somerset	143.4	127.3	174.6	**
Talbot	190.1	185.1	201.9	**
Washington	144.8	140.5	226.8	**
Wicomico	170.8	151.5	256.7	**
Worcester	190.8	177.4	274.6	**

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

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

† 2006-2010 incidence rates for Montgomery County and Prince George's County are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 45.
Number of Prostate Cancer Deaths
by Jurisdiction and Race, Maryland, 2006-2010

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2,662	1,681	951	30
Allegany	31	s	<5	0
Anne Arundel	205	165	s	<5
Baltimore City	429	s	331	<5
Baltimore County	431	340	s	<5
Calvert	36	21	15	0
Caroline	20	s	<5	0
Carroll	71	s	<5	0
Cecil	49	43	6	0
Charles	54	26	28	0
Dorchester	18	9	9	0
Frederick	79	70	s	<5
Garrett	17	17	0	0
Harford	92	78	s	<5
Howard	79	55	s	<5
Kent	26	s	<5	0
Montgomery	348	277	55	16
Prince George's	378	108	264	6
Queen Anne's	25	s	<5	0
Saint Mary's	56	37	19	0
Somerset	13	7	6	0
Talbot	37	s	<5	0
Washington	72	66	6	0
Wicomico	57	44	13	0
Worcester	39	27	12	0

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

Source: Maryland Vital Statistics Administration from MATCH

Table 46.
Prostate Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2006-2010

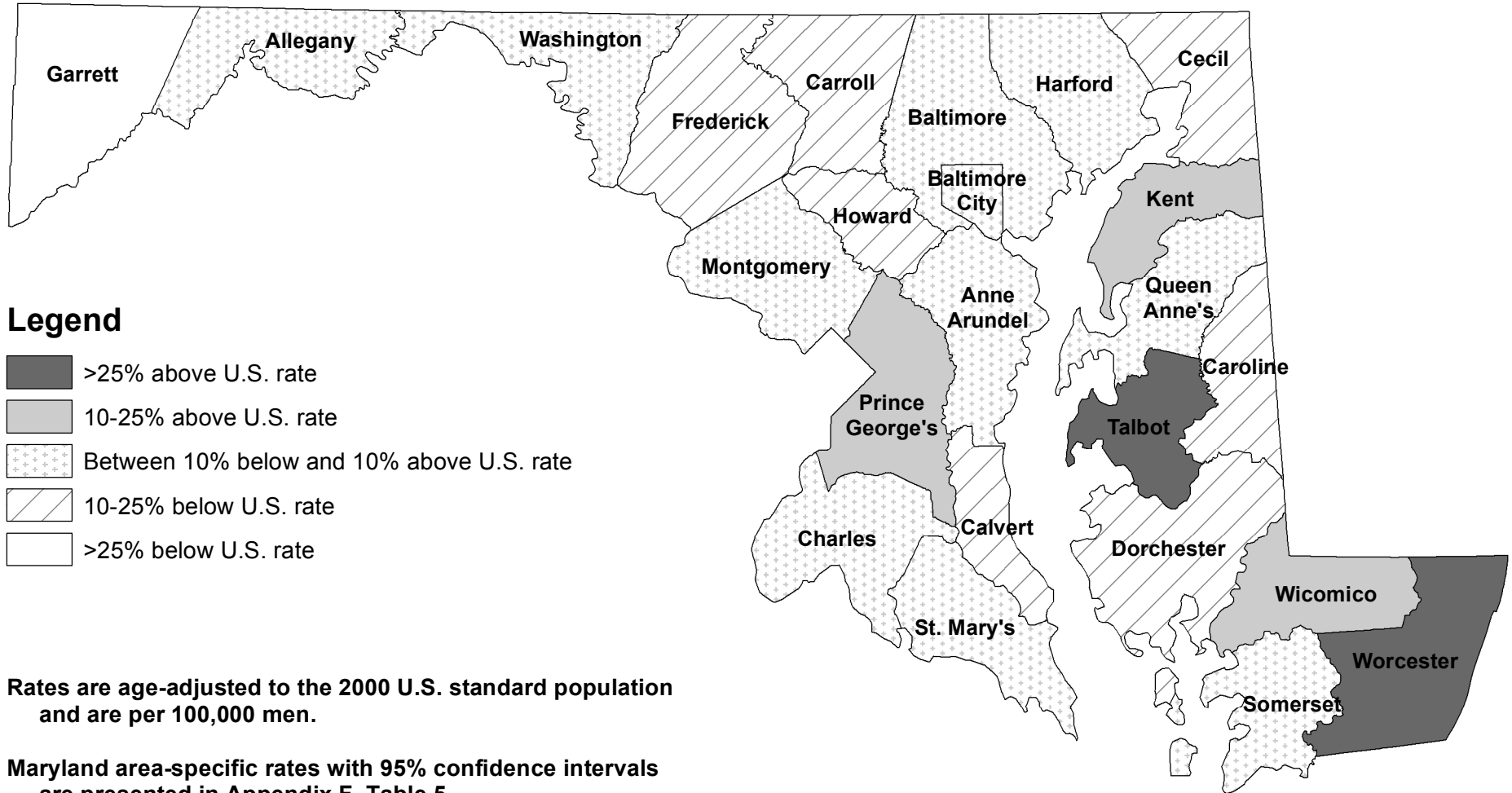
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	25.0	20.6	47.1	6.8
Allegany	15.2	14.6	**	**
Anne Arundel	22.5	20.7	42.0	**
Baltimore City	37.8	20.2	51.6	**
Baltimore County	22.8	20.6	46.5	**
Calvert	25.4	17.0	**	**
Caroline	28.0	**	**	**
Carroll	22.9	23.1	**	**
Cecil	28.8	27.3	**	**
Charles	26.7	20.5	47.5	**
Dorchester	**	**	**	**
Frederick	21.4	20.8	**	**
Garrett	**	**	**	**
Harford	22.1	20.8	**	**
Howard	21.6	20.6	41.6	**
Kent	38.8	36.9	**	**
Montgomery	18.1	18.0	32.0	**
Prince George's	34.9	22.4	50.4	**
Queen Anne's	24.6	26.5	**	**
Saint Mary's	35.0	29.2	**	**
Somerset	**	**	**	**
Talbot	26.3	26.9	**	**
Washington	22.5	21.3	**	**
Wicomico	29.4	28.3	**	**
Worcester	21.1	15.8	**	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Maryland Prostate Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010

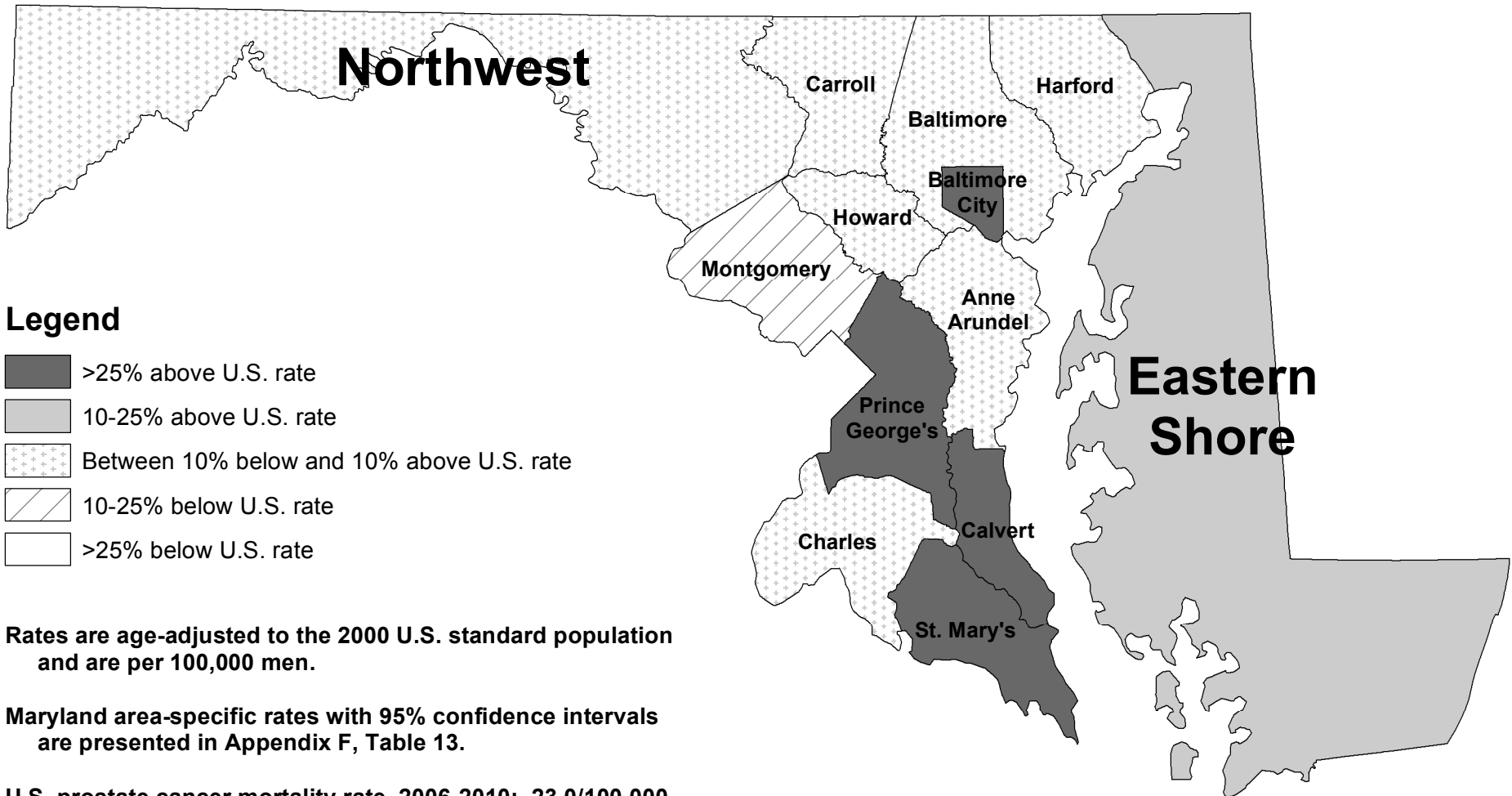


U.S. prostate cancer incidence rate, 2006-2010: 152.0/100,000

Maryland prostate cancer incidence rate, 2006-2010: 153.4/100,000

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat

Maryland Prostate Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010



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

Maryland area-specific rates with 95% confidence intervals are presented in Appendix F, Table 13.

U.S. prostate cancer mortality rate, 2006-2010: 23.0/100,000

Maryland prostate cancer mortality rate, 2006-2010: 25.0/100,000

Source: MD mortality rates from Maryland Vital Statistics Administration from MATCH, 2006-2010
U.S. rate from SEER, Cancer Statistics Review, 2006-2010

Note: Regional rates are presented when one or more counties within the region have a suppressed rate.

E. Oral Cancer

Incidence (New Cases)

In 2010, a total of 669 cases of cancer of the oral cavity and pharynx (called oral cancer) were reported in Maryland. The age-adjusted incidence rate for oral cancer in Maryland in 2010 was 10.6 per 100,000 population (9.8-11.5, 95% C.I.), which is similar to the 2010 U.S. SEER age-adjusted oral cancer incidence rate of 10.7 per 100,000 population (10.5-10.9, 95% C.I.).

Mortality (Deaths)

In 2010, 141 persons in Maryland died of oral cancer. The 2010 age-adjusted mortality rate for oral cancer in Maryland was 2.3 per 100,000 population (1.9-2.7, 95% C.I.), which accounted for 1.4% of Maryland cancer deaths in 2010. This rate is similar to the U.S. oral cancer mortality rate of 2.5 per 100,000 population (2.4-2.5, 95% C.I.). Maryland had the 21th highest oral cancer mortality among the states and the District of Columbia for the period 2006-2010.

Table 47.
Oral Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2010

<i>Incidence 2010</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
New Cases (count)	669	467	202	505	121	35
MD Incidence Rate	10.6	16.3	6.0	11.6	7.5	9.2
U.S. SEER Rate	10.7	16.0	6.0	11.0	9.1	N/A
<i>Mortality 2010</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
Deaths (count)	141	86	55	97	39	5
MD Mortality Rate	2.3	3.2	1.6	2.2	2.5	**
U.S. Mortality Rate	2.5	3.8	1.4	2.5	2.8	N/A

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

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

** MD mortality rates based on death counts of 0-19 are suppressed per DHMH/CCPC

Mortality Data Suppression Policy

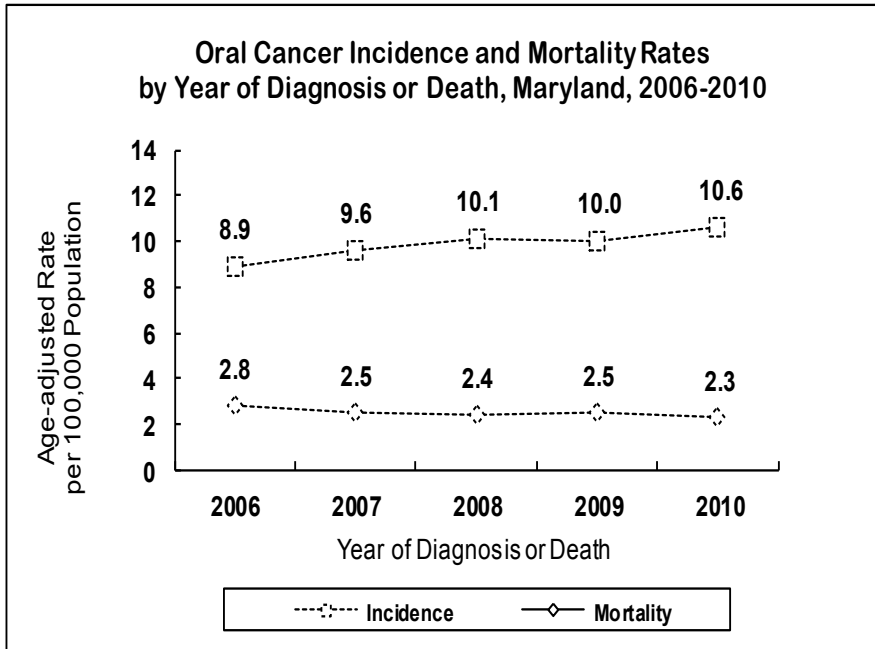
N/A = Data were not available

Source: Maryland Cancer Registry

U.S. SEER, SEER*Stat

Maryland Vital Statistics Administration from MATCH

U.S. SEER, Cancer Statistics Review



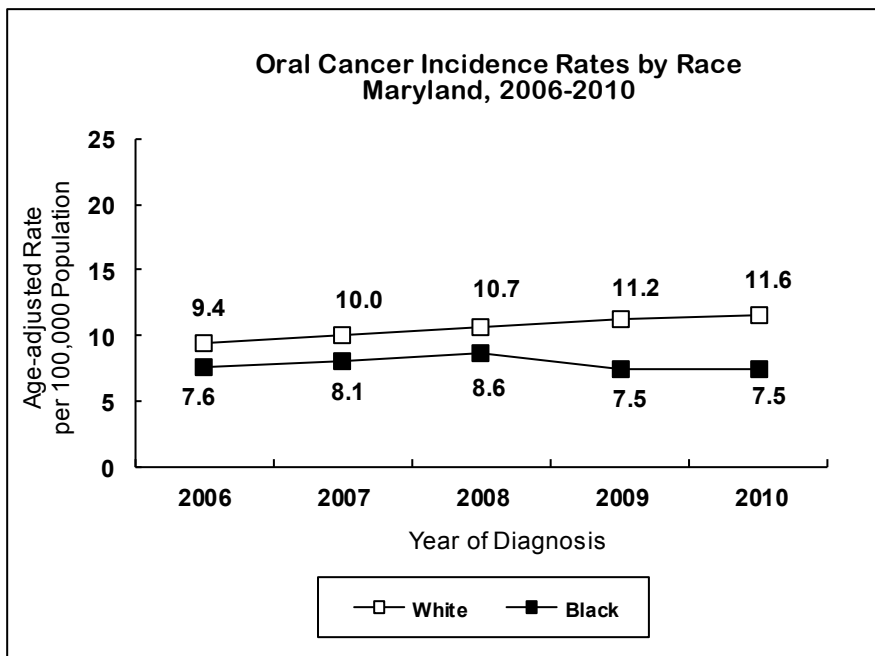
Source: Maryland Cancer Registry
 NCHS Compressed Mortality File in CDC WONDER, 2006-2007
 Maryland Vital Statistics Administration from MATCH, 2008-2010

Incidence and Mortality Trends

The incidence of oral cancer in Maryland increased at a rate of 4.0% per year from 2006 to 2010.

Oral cancer mortality rates have decreased from 2006 to 2010, with a rate decrease of 3.9% annually.

See Appendix G, Tables 1 and 2.

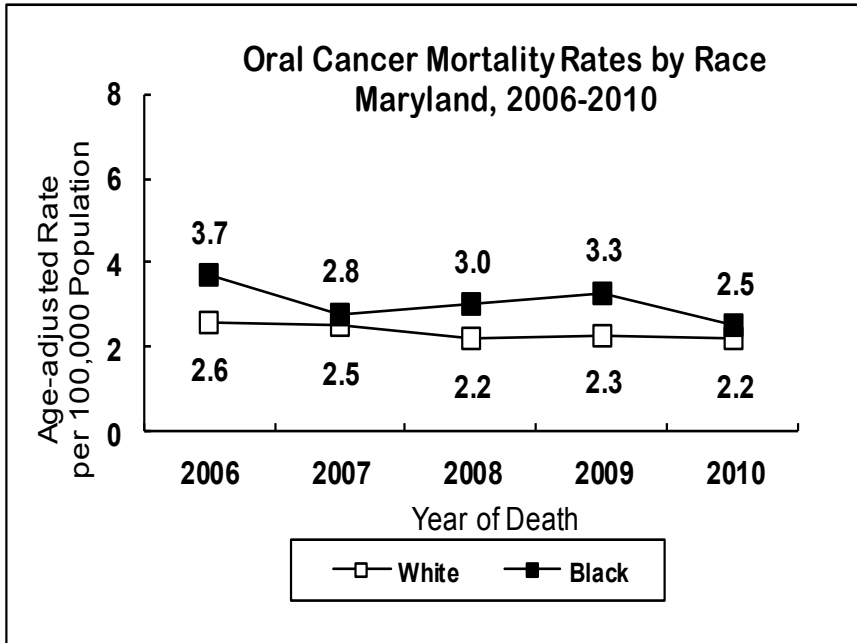


Source: Maryland Cancer Registry

Incidence Trends by Race

Over the 5-year period from 2006 to 2010, oral cancer incidence rates in Maryland decreased at a rate of 1.0% per year for blacks, and increased 5.5% per year for whites.

See Appendix G, Table 3.

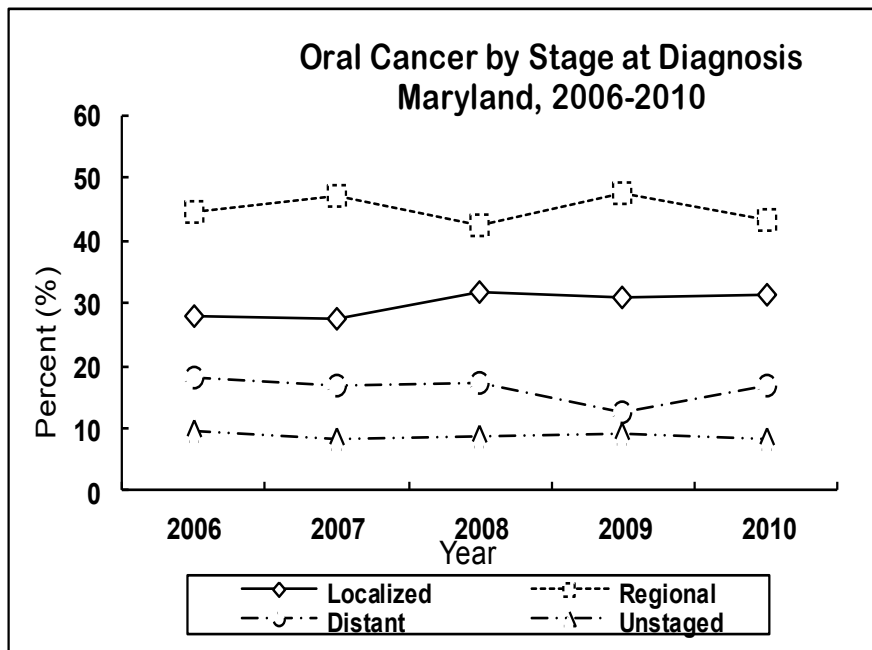


Source: NCHS Compressed Mortality File in CDC WONDER, 2006-2007
Maryland Vital Statistics Administration from MATCH, 2008-2010

Mortality Trends by Race

Over the 5-year period from 2006 to 2010, oral cancer mortality rates decreased at a rate of 6.0% per year for blacks and 4.1% per year for whites.

See Appendix G, Table 5.

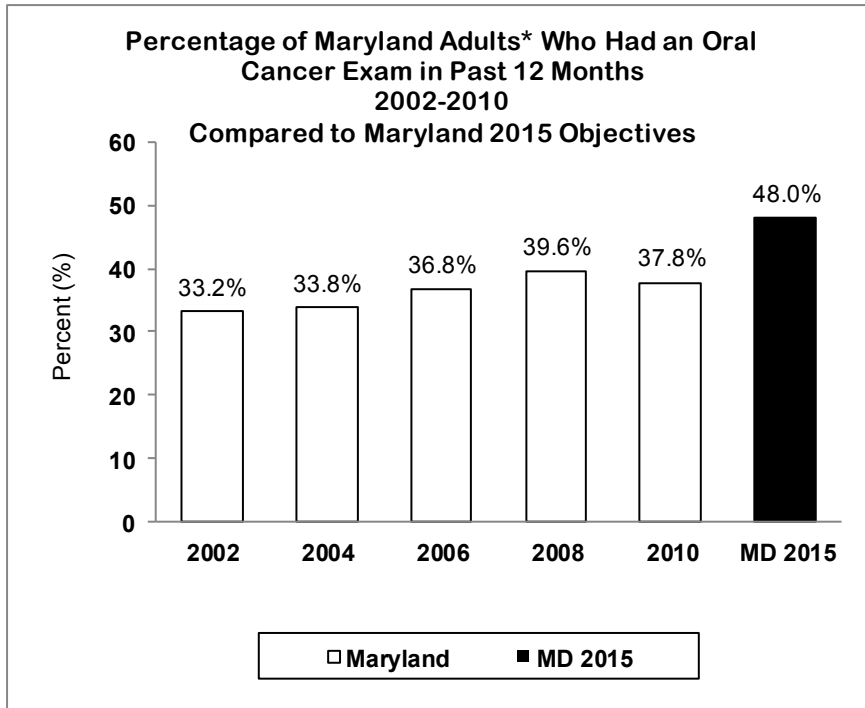


Source: Maryland Cancer Registry

Stage at Diagnosis

In 2010, 31.2% of oral cancers in Maryland were diagnosed at the localized stage, 43.4% were diagnosed at the regional stage, and 17.0% were diagnosed at the distant stage. From 2006 to 2010, the proportion of oral cancers reported as unstaged gradually decreased.

See Appendix H, Table 6.



* Adults age 40 years and older

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

Source: Maryland Cancer Survey, 2002, 2004, 2006 and 2008
Maryland BRFSS, 2010
Maryland Comprehensive Cancer Control Plan

Oral Cancer Screening

There is no current Healthy People 2020 target for oral cancer screening. The Maryland 2015 objective from the Comprehensive Cancer Control Plan is to increase to 48.0% the proportion of adults age 40 years and older who report having had an oral cancer screening examination in the past 12 months to detect oral cancer.

In 2010, only 37.8% of persons in Maryland 40 years of age and older reported they had an oral cancer exam in the past year, therefore not attaining the Maryland 2015 target of 48.0%.

Table 48.
Number of Oral Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2010

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	669	467	202	505	121	35	8
Allegany	16	s	<6	16	0	0	0
Anne Arundel	78	52	26	68	s	<6	0
Baltimore City	87	63	24	s	47	<6	<6
Baltimore County	95	68	27	79	s	<6	0
Calvert	15	s	<6	s	<6	0	0
Caroline	<6	<6	<6	<6	0	0	0
Carroll	12	s	<6	s	<6	0	0
Cecil	19	11	8	s	<6	0	<6
Charles	17	11	6	s	<6	0	0
Dorchester	<6	<6	0	<6	<6	0	0
Frederick	23	13	10	s	<6	<6	0
Garrett	<6	<6	<6	<6	0	0	0
Harford	29	23	6	s	<6	<6	0
Howard	35	24	11	30	<6	<6	0
Kent	<6	<6	<6	<6	0	0	0
Montgomery	89	64	25	64	s	15	<6
Prince George's	70	48	22	33	31	<6	<6
Queen Anne's	7	s	<6	7	0	0	0
Saint Mary's	8	<6	<6	s	<6	0	0
Somerset	<6	<6	<6	<6	0	0	0
Talbot	<6	<6	<6	<6	0	0	0
Washington	19	13	6	s	<6	0	0
Wicomico	8	s	<6	s	<6	0	0
Worcester	8	s	<6	s	<6	<6	0
Unknown	9	s	<6	s	0	0	<6

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

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

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

Source: Maryland Cancer Registry

Table 49.
Oral Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	10.6	16.3	6.0	11.6	7.5	9.2
Allegany	18.2	**	**	19.4	0.0	0.0
Anne Arundel	13.9	19.4	9.0	14.4	**	**
Baltimore City	13.5	23.0	6.9	17.1	11.4	**
Baltimore County	10.1	16.4	5.4	10.9	**	**
Calvert	**	**	**	**	**	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	**	**	**	**	**	0.0
Cecil	16.4	**	**	15.9	**	0.0
Charles	11.1	**	**	**	**	0.0
Dorchester	**	**	0.0	**	**	0.0
Frederick	9.5	**	**	9.9	**	**
Garrett	**	**	**	**	0.0	0.0
Harford	10.2	18.5	**	10.7	**	**
Howard	10.6	14.6	**	12.6	**	**
Kent	**	**	**	**	0.0	0.0
Montgomery	8.2	12.9	4.5	8.4	**	**
Prince George's	8.7	13.4	5.1	14.2	5.9	**
Queen Anne's	**	**	**	**	0.0	0.0
Saint Mary's	**	**	**	**	**	0.0
Somerset	**	**	**	**	0.0	0.0
Talbot	**	**	**	**	0.0	0.0
Washington	10.9	**	**	10.0	**	0.0
Wicomico	**	**	**	**	**	0.0
Worcester	**	**	**	**	**	**

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

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

Source: Maryland Cancer Registry

Table 50.
Number of Oral Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	141	86	55	97	39	5
Allegany	<5	<5	<5	<5	0	0
Anne Arundel	16	9	7	s	0	<5
Baltimore City	23	14	9	5	18	0
Baltimore County	19	9	10	14	5	0
Calvert	5	<5	<5	<5	<5	0
Caroline	0	0	0	0	0	0
Carroll	<5	0	<5	<5	0	0
Cecil	<5	<5	0	<5	0	0
Charles	<5	<5	0	<5	0	0
Dorchester	0	0	0	0	0	0
Frederick	<5	<5	0	<5	<5	0
Garrett	<5	<5	0	<5	0	0
Harford	6	<5	<5	s	0	<5
Howard	<5	<5	<5	<5	0	0
Kent	0	0	0	0	0	0
Montgomery	22	10	12	18	<5	<5
Prince George's	17	s	<5	6	11	0
Queen Anne's	0	0	0	0	0	0
Saint Mary's	0	0	0	0	0	0
Somerset	0	0	0	0	0	0
Talbot	<5	<5	0	<5	0	0
Washington	6	<5	<5	6	0	0
Wicomico	5	<5	<5	<5	<5	0
Worcester	<5	<5	<5	<5	<5	0

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

Source: Maryland Vital Statistics Administration from MATCH

**Table 51.
Oral Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2010**

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.3	3.2	1.6	2.2	2.5	**
Allegany	**	**	**	**	**	**
Anne Arundel	**	**	**	**	**	**
Baltimore City	3.6	**	**	**	**	**
Baltimore County	**	**	**	**	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	**	**	**	**	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	**	**	**	**	**	**
Garrett	**	**	**	**	**	**
Harford	**	**	**	**	**	**
Howard	**	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	2.2	**	**	**	**	**
Prince George's	**	**	**	**	**	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	**	**	**	**	**	**
Wicomico	**	**	**	**	**	**
Worcester	**	**	**	**	**	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Table 52.
Number of Oral Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2006-2010

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	2,995	2,068	925	2,255	600	117	23
Allegany	55	42	13	55	0	0	0
Anne Arundel	344	245	99	305	28	s	<6
Baltimore City	389	271	116	148	234	s	<6
Baltimore County	453	305	148	383	60	10	0
Calvert	55	37	18	s	<6	0	0
Caroline	20	14	6	s	<6	0	0
Carroll	92	69	23	87	<6	0	<6
Cecil	62	41	21	59	<6	0	<6
Charles	68	51	17	57	s	0	<6
Dorchester	22	s	<6	15	7	0	0
Frederick	115	80	35	107	s	<6	0
Garrett	12	s	<6	12	0	0	0
Harford	135	103	32	125	s	<6	0
Howard	141	94	47	110	s	19	<6
Kent	10	<6	s	s	<6	0	0
Montgomery †	388	252	136	294	s	50	<6
Prince George's †	314	216	98	141	155	s	<6
Queen Anne's	31	19	12	s	<6	0	0
Saint Mary's	57	36	21	49	s	0	<6
Somerset	16	s	<6	10	<6	<6	0
Talbot	27	16	11	s	<6	0	0
Washington	78	54	24	74	<6	<6	0
Wicomico	42	34	8	s	<6	0	0
Worcester	44	31	13	37	<6	<6	0
Unknown	25	15	10	20	<6	0	<6

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

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

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

† 2006 case counts for Montgomery and Prince George's counties are underreported. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 53.
Oral Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2006-2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	9.8	15.0	5.6	10.6	7.8	7.5
Allegany	12.4	19.9	**	13.0	0.0	0.0
Anne Arundel	12.5	19.0	6.9	13.2	8.0	**
Baltimore City	11.7	19.4	6.0	12.6	11.1	**
Baltimore County	9.9	14.9	5.9	10.7	7.4	**
Calvert	11.6	16.1	7.6	12.6	**	0.0
Caroline	11.3	**	**	12.8	**	0.0
Carroll	9.7	14.9	4.5	9.5	**	0.0
Cecil	11.8	15.9	8.0	12.0	**	0.0
Charles	10.4	16.8	5.3	12.6	**	0.0
Dorchester	9.9	19.9	**	**	**	0.0
Frederick	9.9	14.7	5.8	10.2	**	**
Garrett	**	**	**	**	0.0	0.0
Harford	10.2	16.9	4.6	10.7	**	**
Howard	9.7	13.2	6.5	10.3	**	11.2
Kent	**	**	**	**	**	0.0
Montgomery †	7.5	11.0	4.8	7.6	6.1	7.0
Prince George's †	7.9	12.3	4.6	11.2	6.2	**
Queen Anne's	10.4	13.9	**	10.8	**	0.0
Saint Mary's	10.9	14.9	7.4	11.5	**	0.0
Somerset	10.7	**	**	**	**	**
Talbot	10.0	13.7	**	10.1	**	0.0
Washington	9.5	14.4	5.3	9.5	**	**
Wicomico	8.3	14.9	**	9.9	**	0.0
Worcester	12.6	19.4	**	11.5	**	**

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

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

† 2006-2010 incidence rates for Montgomery County and Prince George's County are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 54.
Number of Oral Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2006-2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	745	493	252	503	218	24
Allegany	13	6	7	13	0	0
Anne Arundel	87	58	29	77	s	<5
Baltimore City	121	85	36	38	83	0
Baltimore County	116	62	54	95	s	<5
Calvert	14	s	<5	s	<5	0
Caroline	<5	<5	<5	<5	0	0
Carroll	14	s	<5	s	<5	0
Cecil	13	s	<5	13	0	0
Charles	14	s	<5	s	<5	0
Dorchester	6	<5	<5	<5	<5	0
Frederick	14	s	<5	s	<5	0
Garrett	<5	<5	<5	<5	0	0
Harford	37	27	10	35	<5	<5
Howard	20	15	5	16	<5	<5
Kent	5	<5	<5	5	0	0
Montgomery	87	53	34	63	12	12
Prince George's	97	65	32	s	66	<5
Queen Anne's	9	s	<5	s	<5	0
Saint Mary's	8	s	<5	s	<5	0
Somerset	5	<5	<5	<5	<5	0
Talbot	6	<5	<5	6	0	0
Washington	24	15	9	21	<5	<5
Wicomico	18	13	5	14	<5	<5
Worcester	11	s	<5	s	<5	0

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

Source: Maryland Vital Statistics Administration from MATCH

Table 55.
Oral Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2006-2010

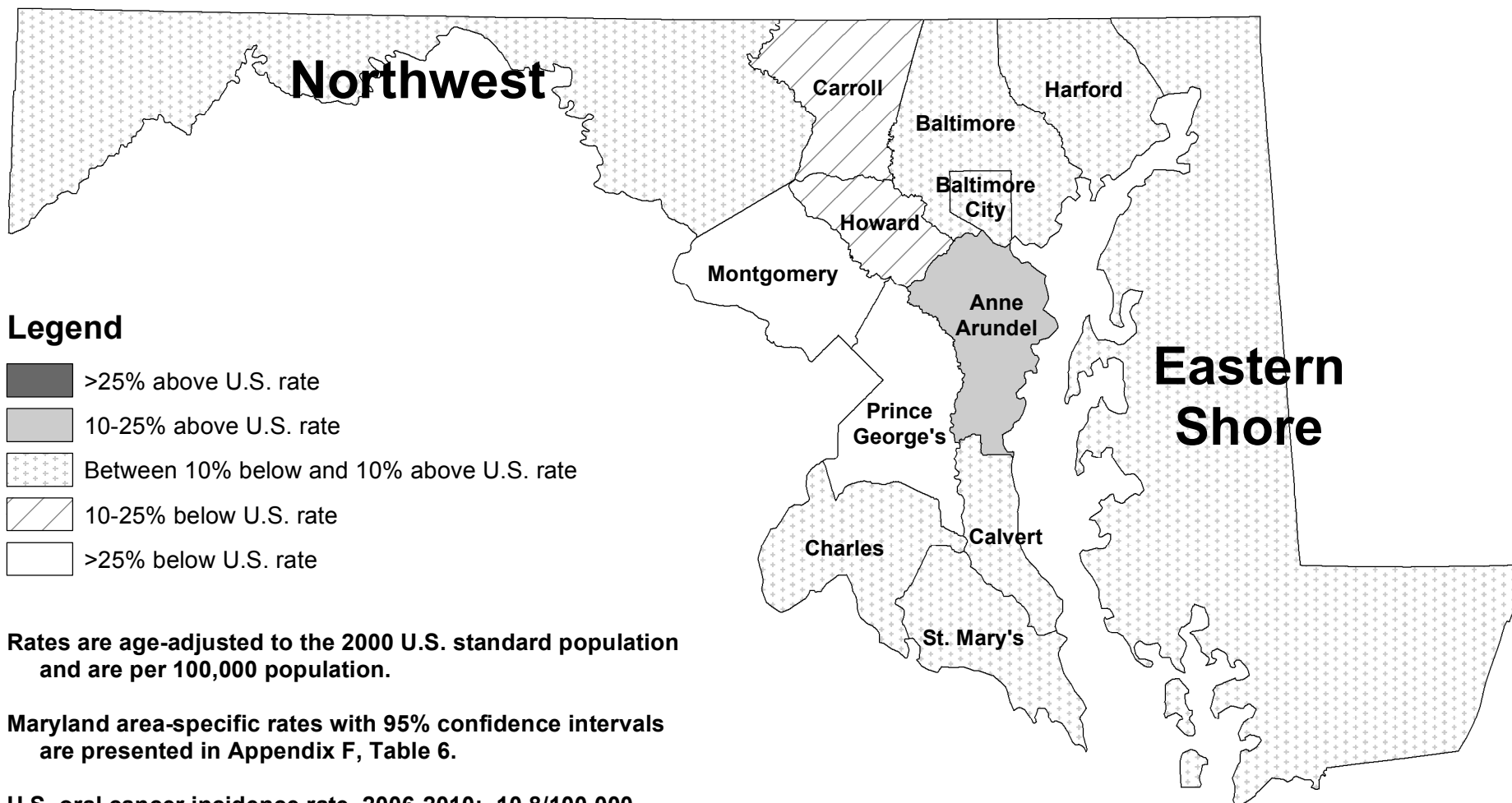
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.5	3.8	1.5	2.4	3.1	**
Allegany	**	**	**	**	**	**
Anne Arundel	3.3	5.0	1.9	3.4	**	**
Baltimore City	3.7	6.2	1.8	3.1	4.0	**
Baltimore County	2.4	3.0	2.0	2.5	2.6	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	**	**	**	**	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	**	**	**	**	**	**
Garrett	**	**	**	**	**	**
Harford	3.0	4.9	**	3.2	**	**
Howard	1.5	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	1.7	2.5	1.2	1.6	**	**
Prince George's	2.7	4.3	1.6	2.2	3.2	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	2.9	**	**	2.7	**	**
Wicomico	**	**	**	**	**	**
Worcester	**	**	**	**	**	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Maryland Oral Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010



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

Maryland area-specific rates with 95% confidence intervals are presented in Appendix F, Table 6.

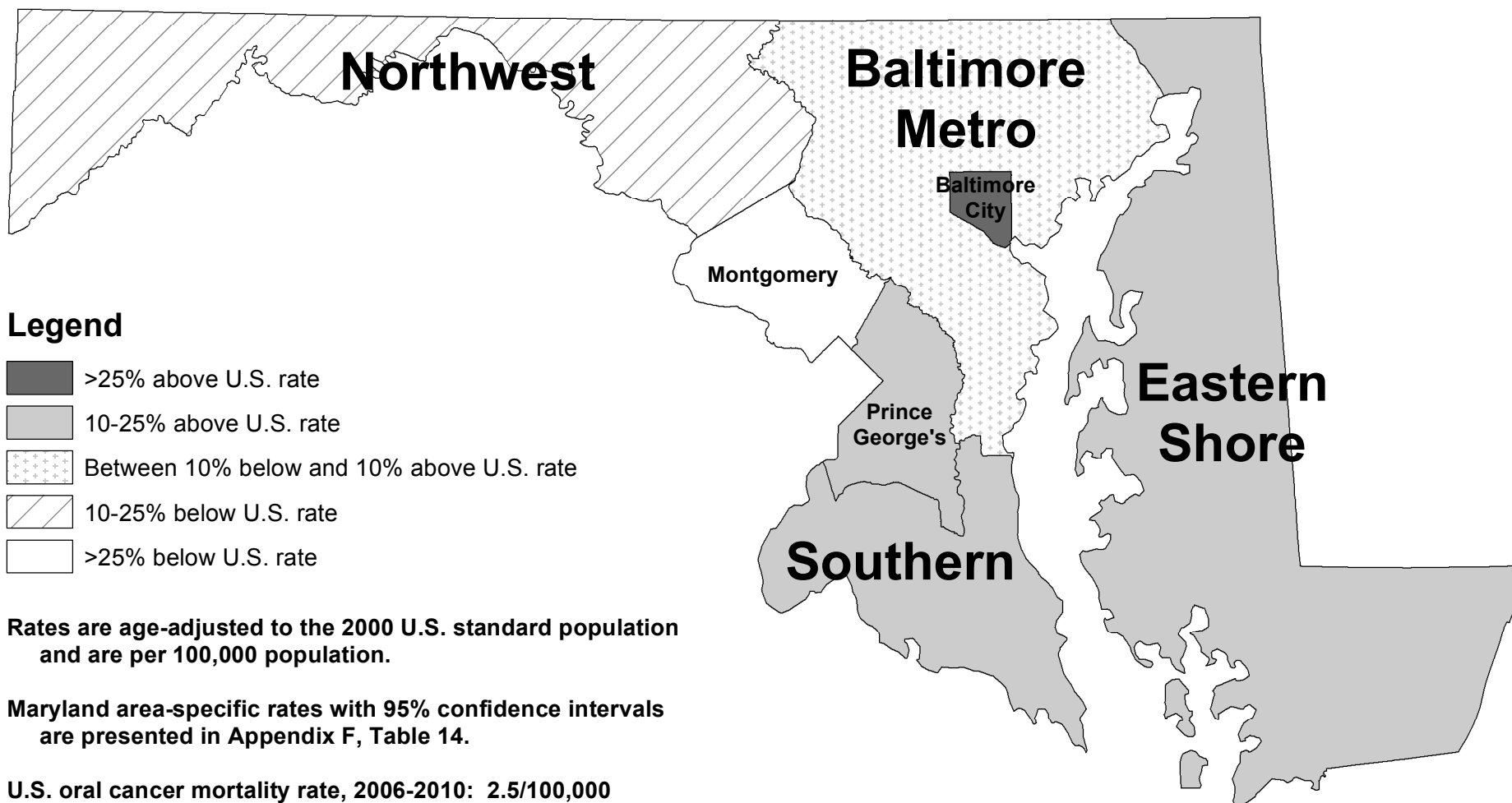
U.S. oral cancer incidence rate, 2006-2010: 10.8/100,000

Maryland oral cancer incidence rate, 2006-2010: 9.8/100,000

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat

Note: Regional rates are presented when one or more counties within the region have a suppressed rate.

Maryland Oral Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010



Source: MD mortality rates from Maryland Vital Statistics Administration from MATCH, 2006-2010
U.S. rate from SEER, Cancer Statistics Review, 2006-2010

Note: Regional rates are presented when one or more counties within the region have a suppressed rate.

F. Melanoma of the Skin

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

Incidence (New Cases)

In 2010, a total of 1,316 cases of melanoma of the skin were reported in Maryland. The age-adjusted incidence rate for melanoma for 2010 was 21.4 per 100,000 population (20.2-22.6, 95% C.I.), which is similar to the 2010 U.S. SEER age-adjusted melanoma incidence rate of 21.3 per 100,000 population (21.0-21.6, 95% C.I.).

Mortality (Deaths)

In 2010, a total of 143 persons died of melanoma in Maryland. The 2010 age-adjusted mortality rate for melanoma in Maryland was 2.4 per 100,000 population (2.0-2.8, 95% C.I.). This rate is similar to the 2010 U.S. melanoma of the skin mortality rate of 2.7 per 100,000 population (2.7-2.8, 95% C.I.). Maryland had the 31th highest melanoma cancer mortality rate among the states and the District of Columbia for the period 2006-2010.

Table 56.
Melanoma Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2010

<i>Incidence 2010</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
New Cases (count)	1,316	730	586	1,241	15	14
MD Incidence Rate	21.4	26.9	17.5	29.7	**	**
U.S. SEER Rate	21.3	27.4	16.8	24.9	1.0	N/A
<i>Mortality 2010</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
Deaths (count)	143	100	43	137	s	<5
MD Mortality Rate	2.4	4.0	1.3	3.2	**	**
U.S. Mortality Rate	2.7	4.1	1.7	3.2	0.4	N/A

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

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

s = Counts are suppressed to prevent disclosure of data in other cell(s) based on Table 59

<5 = MD death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

and Procedures; MD mortality rates based on death counts of 0-19 are suppressed per DHMH/CCPC

Mortality Data Suppression Policy

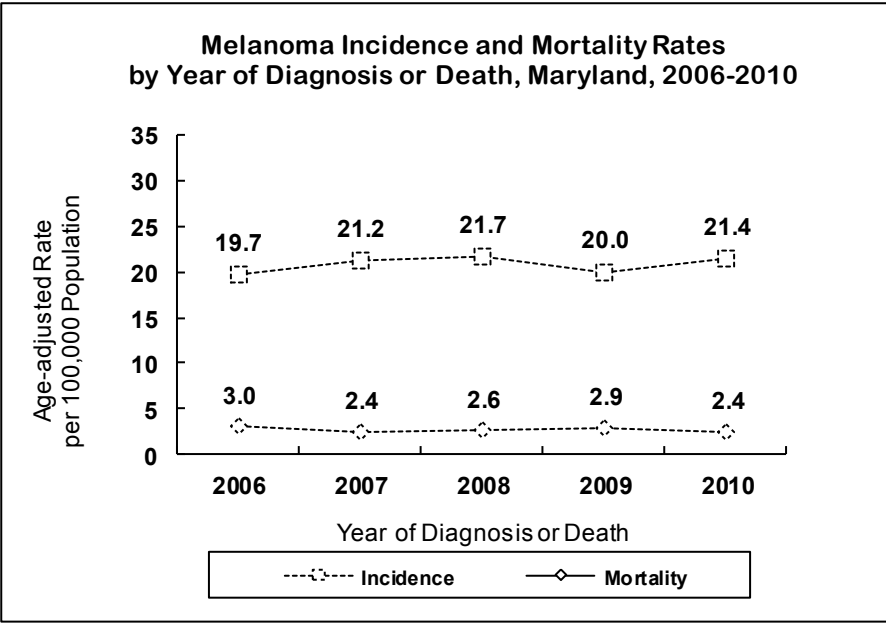
N/A = Data were not available

Source: Maryland Cancer Registry

U.S. SEER, SEER*Stat

Maryland Vital Statistics Administration from MATCH

U.S. SEER, Cancer Statistics Review



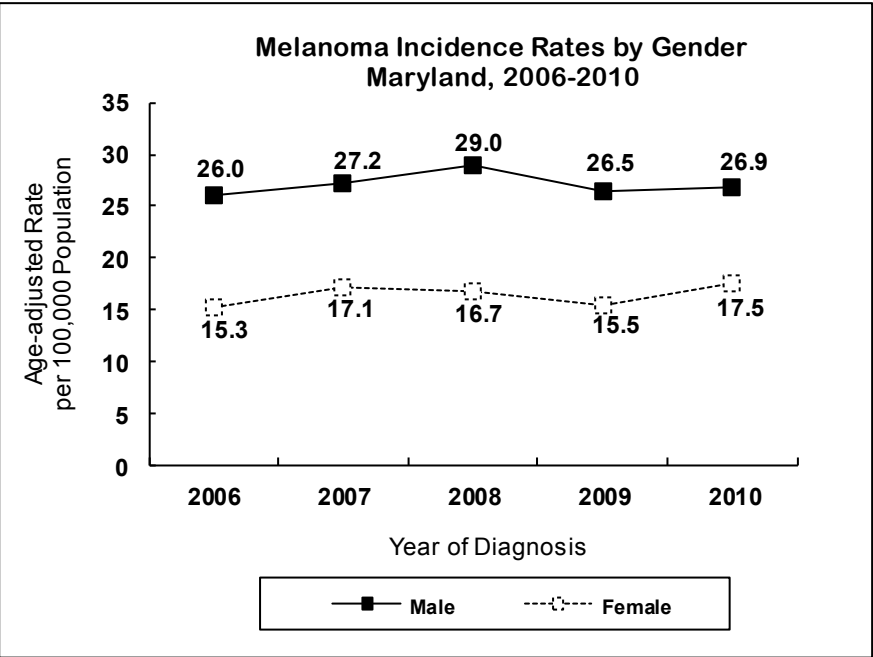
Source: Maryland Cancer Registry
 NCHS Compressed Mortality File in CDC WONDER, 2006-2007
 Maryland Vital Statistics Administration from MATCH, 2008-2010

Incidence and Mortality Trends

Melanoma incidence rates in Maryland increased at a rate of 1.1% per year from 2006 to 2010.

Melanoma mortality rates decreased at a rate of 2.5% per year from 2006 to 2010.

See Appendix G, Tables 1 and 2.

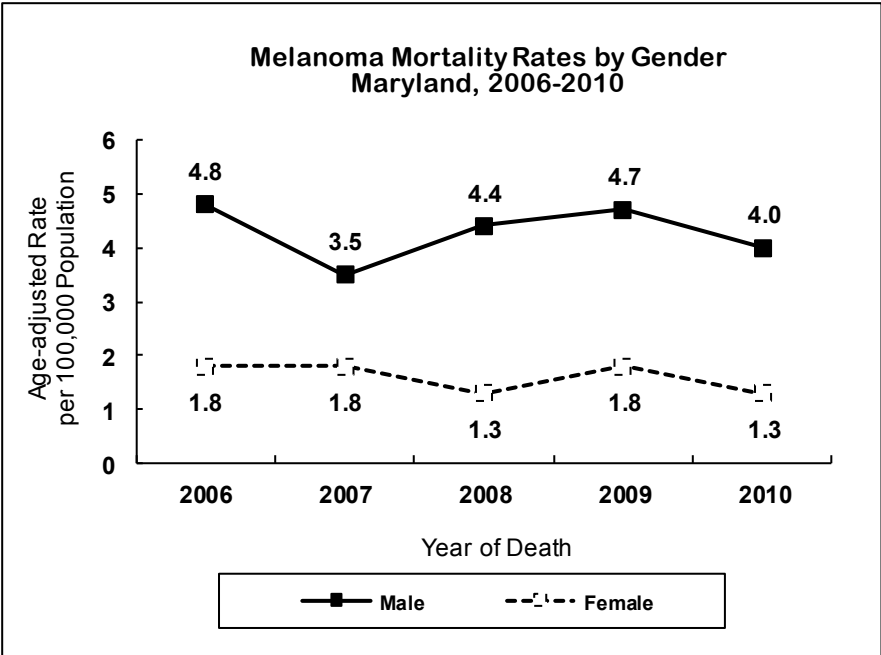


Source: Maryland Cancer Registry

Incidence Trends by Gender

Over the period 2006 to 2010, incidence rates for males increased at a rate of 0.4% per year, and rates among females increased at a rate of 1.7% per year. In 2010, melanoma incidence rates were almost 54% higher among males than females in Maryland.

See Appendix G, Table 4.

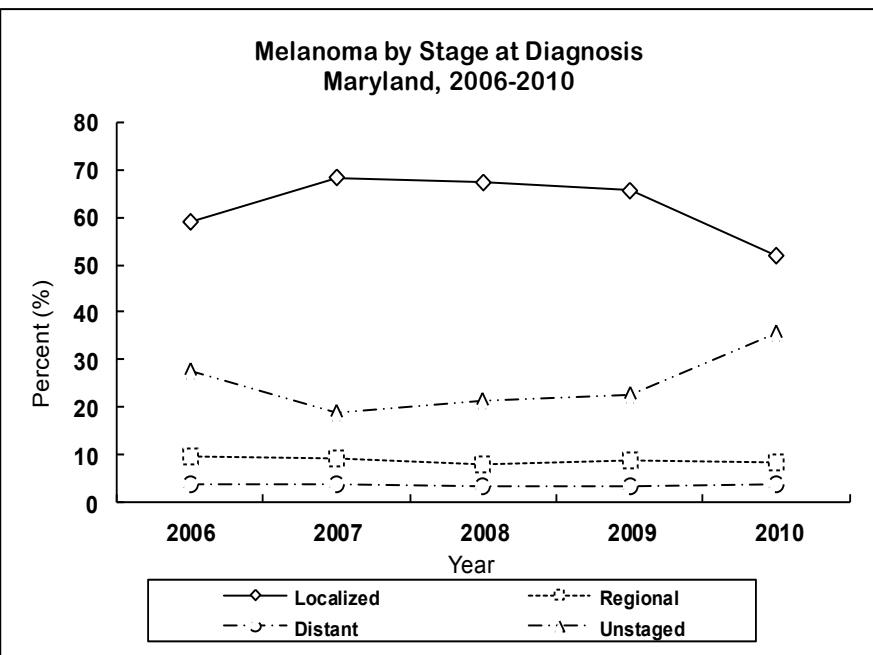


Source: NCHS Compressed Mortality File in CDC WONDER, 2006-2007
 Maryland Vital Statistics Administration from MATCH, 2008-2010

Mortality Trends by Gender

Melanoma mortality rates in males decreased at a rate of 0.7% per year from 2006 to 2010. Female melanoma mortality rates decreased at a rate of 6.3% per year.

See Appendix G, Table 6.

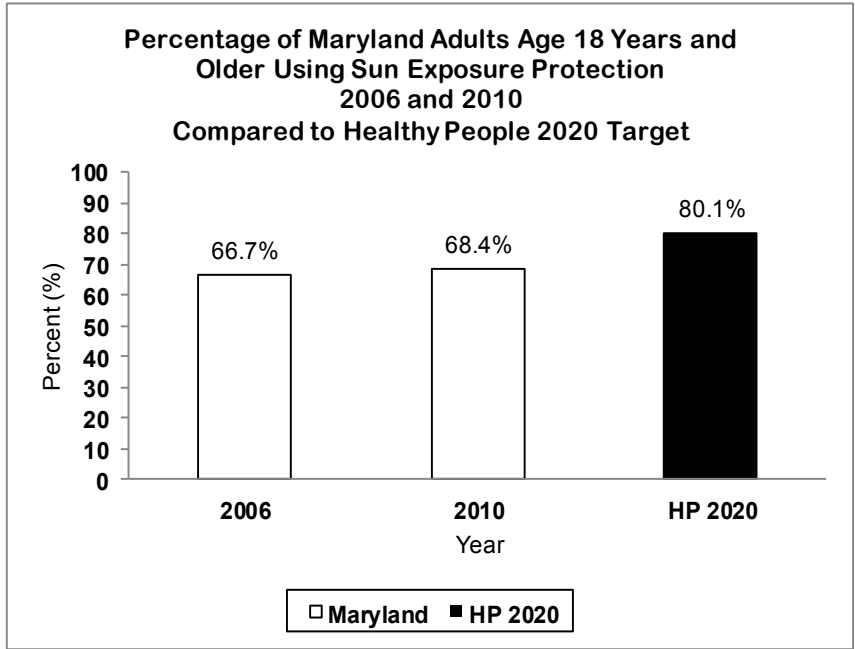


Source: Maryland Cancer Registry

Stage at Diagnosis

In 2010, 52.1% of all melanoma was diagnosed at the localized stage, 8.4% was found at the regional stage, and 3.8% was found at the distant stage. The proportion of melanoma reported as unstaged increased sharply in 2010.

See Appendix H, Table 7.



Sun Exposure Protection

The Healthy People (HP) 2020 target is to increase to 80.1% the percentage of persons age 18 years and older who follow sun exposure protective measures that may reduce the risk of skin cancer.

In 2006, 66.7% of adults age 18 years and older used at least one method of protection against sun exposure. In 2010, the percentage slightly increased to 68.4%.

Note: See Appendix A, Section G for a cautionary note on comparing these data to Healthy People 2020.

Source: Maryland BRFSS
 Healthy People 2020, U.S. Department of Health and Human Services

Table 57.
Number of Melanoma Cases
by Jurisdiction, Gender and Race, Maryland, 2010

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	1,316	730	586	1,241	15	14	46
Allegany	11	s	<6	11	0	0	0
Anne Arundel	202	116	86	196	0	<6	<6
Baltimore City	65	34	31	60	<6	<6	<6
Baltimore County	231	113	118	216	<6	0	s
Calvert	31	16	15	s	0	<6	0
Caroline	7	<6	<6	7	0	0	0
Carroll	57	34	23	s	0	0	<6
Cecil	26	15	11	s	0	0	<6
Charles	19	s	<6	16	<6	<6	0
Dorchester	16	s	<6	s	0	<6	0
Frederick	53	31	22	s	0	0	<6
Garrett	8	s	<6	8	0	0	0
Harford	80	45	35	s	0	0	<6
Howard	80	42	38	75	<6	0	<6
Kent	<6	<6	<6	<6	0	0	0
Montgomery	200	113	87	184	<6	<6	11
Prince George's	55	35	20	49	<6	<6	<6
Queen Anne's	12	<6	s	s	0	0	<6
Saint Mary's	22	6	16	s	0	0	<6
Somerset	6	<6	<6	6	0	0	0
Talbot	18	9	9	18	0	0	0
Washington	39	25	14	39	0	0	0
Wicomico	39	21	18	s	0	<6	0
Worcester	22	12	10	s	0	<6	0
Unknown	s	s	<6	s	0	0	<6

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

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

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

Source: Maryland Cancer Registry

Table 58.
Melanoma Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	21.4	26.9	17.5	29.7	**	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	34.5	42.9	27.5	40.1	0.0	**
Baltimore City	9.8	11.9	8.4	26.3	**	**
Baltimore County	25.7	28.2	24.3	33.2	**	0.0
Calvert	36.0	42.1	**	41.4	0.0	**
Caroline	**	**	**	**	0.0	0.0
Carroll	31.2	38.9	24.5	31.7	0.0	0.0
Cecil	24.2	**	**	24.3	0.0	0.0
Charles	13.7	**	**	17.9	**	**
Dorchester	39.3	**	**	**	0.0	**
Frederick	22.0	29.3	16.8	24.0	0.0	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	29.8	37.0	25.0	33.7	0.0	0.0
Howard	25.6	30.3	21.9	34.0	**	0.0
Kent	**	**	**	**	0.0	0.0
Montgomery	19.0	24.9	14.7	24.7	**	**
Prince George's	7.7	11.8	4.7	21.6	**	**
Queen Anne's	**	**	**	**	0.0	0.0
Saint Mary's	20.1	**	28.0	22.4	0.0	0.0
Somerset	**	**	**	**	0.0	0.0
Talbot	27.9	**	**	31.7	0.0	0.0
Washington	23.5	33.6	**	24.9	0.0	0.0
Wicomico	38.3	48.6	33.7	49.3	0.0	**
Worcester	34.4	**	**	34.5	0.0	**

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

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

Source: Maryland Cancer Registry

Table 59.
Number of Melanoma Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	143	100	43	137	s	<5
Allegany	<5	<5	0	<5	0	0
Anne Arundel	16	s	<5	16	0	0
Baltimore City	11	<5	s	s	<5	0
Baltimore County	29	23	6	29	0	0
Calvert	0	0	0	0	0	0
Caroline	<5	<5	0	<5	0	0
Carroll	6	<5	<5	6	0	0
Cecil	5	5	0	5	0	0
Charles	5	5	0	5	0	0
Dorchester	0	0	0	0	0	0
Frederick	8	<5	<5	8	0	0
Garrett	0	0	0	0	0	0
Harford	<5	<5	<5	<5	0	0
Howard	9	s	<5	s	<5	0
Kent	<5	<5	0	<5	0	0
Montgomery	26	20	6	24	<5	<5
Prince George's	9	s	<5	9	0	0
Queen Anne's	<5	0	<5	<5	0	0
Saint Mary's	<5	<5	0	<5	0	0
Somerset	<5	<5	0	<5	0	0
Talbot	0	0	0	0	0	0
Washington	<5	<5	<5	<5	0	0
Wicomico	0	0	0	0	0	0
Worcester	<5	<5	0	<5	0	0

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

Source: Maryland Vital Statistics Administration from MATCH

Table 60.
Melanoma Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.4	4.0	1.3	3.2	**	**
Allegany	**	**	**	**	**	**
Anne Arundel	**	**	**	**	**	**
Baltimore City	**	**	**	**	**	**
Baltimore County	3.0	5.7	**	3.9	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	**	**	**	**	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	**	**	**	**	**	**
Garrett	**	**	**	**	**	**
Harford	**	**	**	**	**	**
Howard	**	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	2.6	5.1	**	3.1	**	**
Prince George's	**	**	**	**	**	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	**	**	**	**	**	**
Wicomico	**	**	**	**	**	**
Worcester	**	**	**	**	**	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Table 61.
Number of Melanoma Cases
by Jurisdiction, Gender and Race, Maryland, 2006-2010

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	6,147	3,520	2,619	5,856	72	54	165
Allegany	78	45	33	s	0	0	<6
Anne Arundel	863	526	335	827	s	<6	26
Baltimore City	321	173	148	298	13	<6	s
Baltimore County	1,078	599	479	1,027	12	6	33
Calvert	162	106	55	s	<6	<6	<6
Caroline	48	28	20	s	<6	0	<6
Carroll	277	149	128	268	0	0	9
Cecil	113	62	51	s	0	0	<6
Charles	79	51	28	72	<6	<6	<6
Dorchester	51	34	17	s	0	<6	0
Frederick	252	141	111	241	<6	0	s
Garrett	27	18	9	27	0	0	0
Harford	366	203	163	357	0	0	9
Howard	376	216	157	362	<6	<6	7
Kent	27	20	7	s	<6	0	<6
Montgomery †	880	500	380	833	11	8	28
Prince George's †	280	160	120	250	15	9	6
Queen Anne's	82	52	30	s	0	0	<6
Saint Mary's	134	57	77	s	0	0	<6
Somerset	38	20	18	s	0	<6	<6
Talbot	83	48	35	s	<6	<6	<6
Washington	176	101	75	173	0	<6	<6
Wicomico	176	103	72	169	<6	s	0
Worcester	131	82	49	121	0	s	<6
Unknown	49	26	22	39	0	<6	s

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

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

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

† 2006 case counts for Montgomery and Prince George's counties are underreported. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 62.
Melanoma Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2006-2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	20.8	27.1	16.5	28.8	1.0	3.4
Allegany	17.5	22.1	14.7	18.4	0.0	0.0
Anne Arundel	31.9	42.3	23.8	36.6	**	**
Baltimore City	9.9	12.8	8.1	25.7	**	**
Baltimore County	24.4	30.5	20.3	30.6	**	**
Calvert	37.4	54.1	24.4	43.6	**	**
Caroline	27.4	33.4	21.7	31.1	**	0.0
Carroll	30.7	36.0	27.5	31.3	0.0	0.0
Cecil	22.0	27.6	18.9	22.7	0.0	0.0
Charles	11.8	17.4	7.8	16.6	**	**
Dorchester	24.4	36.9	15.2	31.4	0.0	**
Frederick	22.5	28.6	18.3	24.1	**	0.0
Garrett	15.6	21.5	**	15.7	0.0	0.0
Harford	29.3	36.0	24.8	32.5	0.0	0.0
Howard	26.4	34.0	19.9	34.7	**	**
Kent	21.6	34.9	**	23.2	**	0.0
Montgomery †	17.2	22.3	13.6	22.5	**	**
Prince George's †	7.9	12.0	5.5	20.3	**	**
Queen Anne's	30.4	41.4	21.4	32.4	0.0	0.0
Saint Mary's	27.3	25.8	30.0	32.4	0.0	0.0
Somerset	27.6	27.8	30.6	40.0	0.0	**
Talbot	31.5	40.6	23.5	34.9	**	**
Washington	22.2	27.8	18.0	23.6	0.0	**
Wicomico	35.6	48.0	28.1	44.6	**	**
Worcester	37.0	46.5	29.9	38.5	0.0	**

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

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

† 2006-2010 incidence rates for Montgomery County and Prince George's County are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 63.
Number of Melanoma Deaths
by Jurisdiction, Gender and Race, Maryland, 2006-2010

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	776	509	267	741	s	<5
Allegany	17	10	7	17	0	0
Anne Arundel	99	70	29	s	<5	0
Baltimore City	49	25	24	41	8	0
Baltimore County	146	97	49	s	<5	0
Calvert	12	7	5	s	<5	0
Caroline	8	s	<5	8	0	0
Carroll	28	17	11	28	0	0
Cecil	17	s	<5	17	0	0
Charles	13	s	<5	s	<5	0
Dorchester	5	<5	<5	5	0	0
Frederick	41	23	18	41	0	0
Garrett	5	5	0	5	0	0
Harford	49	33	16	s	<5	0
Howard	38	26	12	s	<5	0
Kent	10	5	5	10	0	0
Montgomery	106	71	35	99	<5	<5
Prince George's	42	26	16	34	8	0
Queen Anne's	14	9	5	14	0	0
Saint Mary's	11	s	<5	11	0	0
Somerset	<5	<5	<5	<5	0	0
Talbot	s	6	<5	7	<5	0
Washington	26	16	10	26	0	0
Wicomico	14	8	6	s	<5	0
Worcester	15	s	<5	15	0	0

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

Source: Maryland Vital Statistics Administration from MATCH

Table 64.
Melanoma Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2006-2010

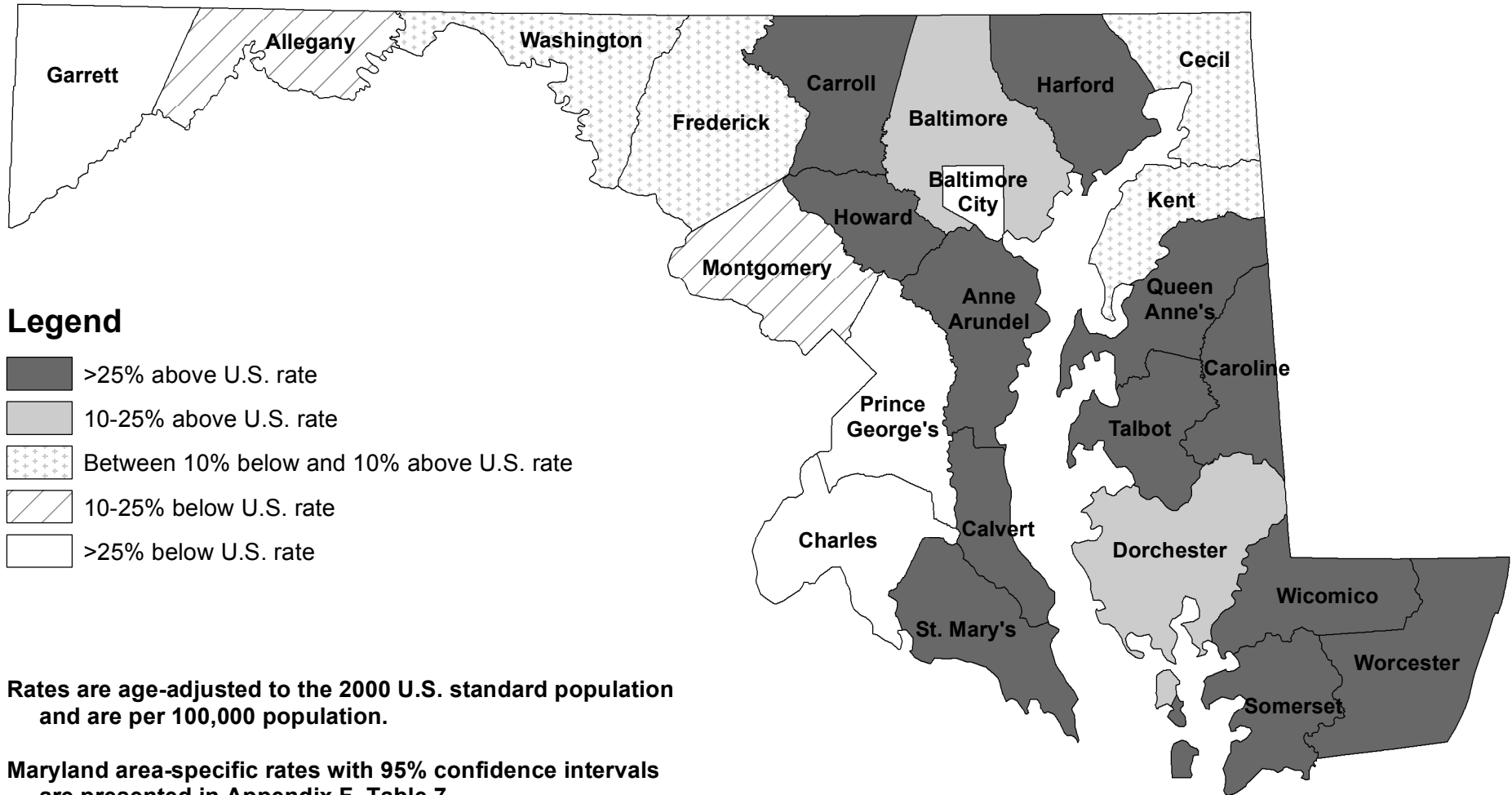
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.7	4.2	1.6	3.5	0.5	**
Allegany	**	**	**	**	**	**
Anne Arundel	4.0	6.8	2.0	4.5	**	**
Baltimore City	1.6	2.1	1.3	3.5	**	**
Baltimore County	3.1	4.9	1.8	3.8	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	3.0	**	**	3.2	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	3.8	5.1	**	4.2	**	**
Garrett	**	**	**	**	**	**
Harford	3.9	6.1	**	4.3	**	**
Howard	3.0	5.2	**	3.8	**	**
Kent	**	**	**	**	**	**
Montgomery	2.1	3.5	1.2	2.6	**	**
Prince George's	1.2	1.9	**	2.8	**	**
Queen Anne's	**	**	**	**	**	**
Saint Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	3.2	**	**	3.4	**	**
Wicomico	**	**	**	**	**	**
Worcester	**	**	**	**	**	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Maryland Melanoma Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010

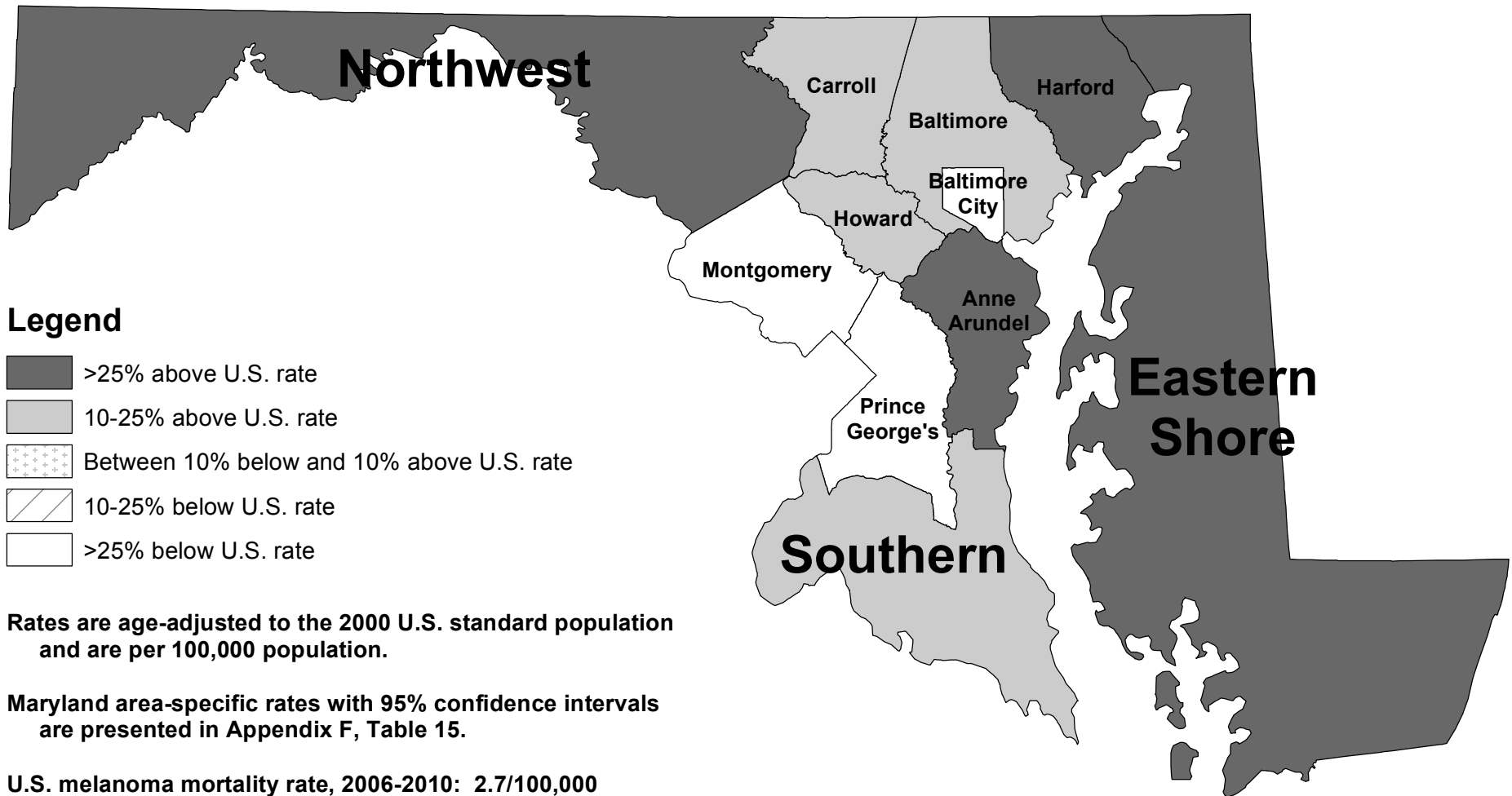


U.S. melanoma incidence rate, 2006-2010: 21.1/100,000






Maryland melanoma incidence rate, 2006-2010: 20.8/100,000

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat

Maryland Melanoma Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010



Legend

-  >25% above U.S. rate
-  10-25% above U.S. rate
-  Between 10% below and 10% above U.S. rate
-  10-25% below U.S. rate
-  >25% below U.S. rate

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

Maryland area-specific rates with 95% confidence intervals are presented in Appendix F, Table 15.

U.S. melanoma mortality rate, 2006-2010: 2.7/100,000

Maryland melanoma mortality rate, 2006-2010: 2.7/100,000

Source: MD mortality rates from Maryland Vital Statistics Administration from MATCH, 2006-2010
U.S. rate from SEER, Cancer Statistics Review, 2006-2010

Note: Regional rates are presented when one or more counties within the region have a suppressed rate.

G. Cervical Cancer

Incidence (New Cases)

A total of 232 cases of cervical cancer among women in Maryland were reported in 2010. The age-adjusted incidence rate for cervical cancer in Maryland in 2010 was 7.3 per 100,000 population of women (6.4-8.4, 95% C.I.), which is similar to the 2010 U.S. SEER age-adjusted cervical cancer incidence rate of 7.5 per 100,000 population (7.2-7.8, 95% C.I.).

Mortality (Deaths)

In 2010, a total of 64 women died of cervical cancer in Maryland. The age-adjusted cervical cancer mortality rate in Maryland in 2010 was 1.9 per 100,000 women (1.5-2.5, 95% C.I.). This rate is similar to the 2010 U.S. cervical cancer mortality rate of 2.3 per 100,000 women (2.2-2.3, 95% C.I.). Maryland had the 25th highest cervical cancer mortality rate among the states and the District of Columbia for the period 2006-2010.

Table 65.
Cervical Cancer Incidence and Mortality Rates
by Race, Maryland and the United States, 2010

<i>Incidence 2010</i>	<i>Total</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
New Cases (count)	232	120	87	13
MD Incidence Rate	7.3	6.2	9.1	**
U.S. SEER Rate	7.5	7.4	9.0	N/A
<i>Mortality 2010</i>	<i>Total</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
Deaths (count)	64	31	27	6
MD Mortality Rate	1.9	1.5	2.9	**
U.S. Mortality Rate	2.3	2.1	3.9	N/A

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

Total includes unknown race

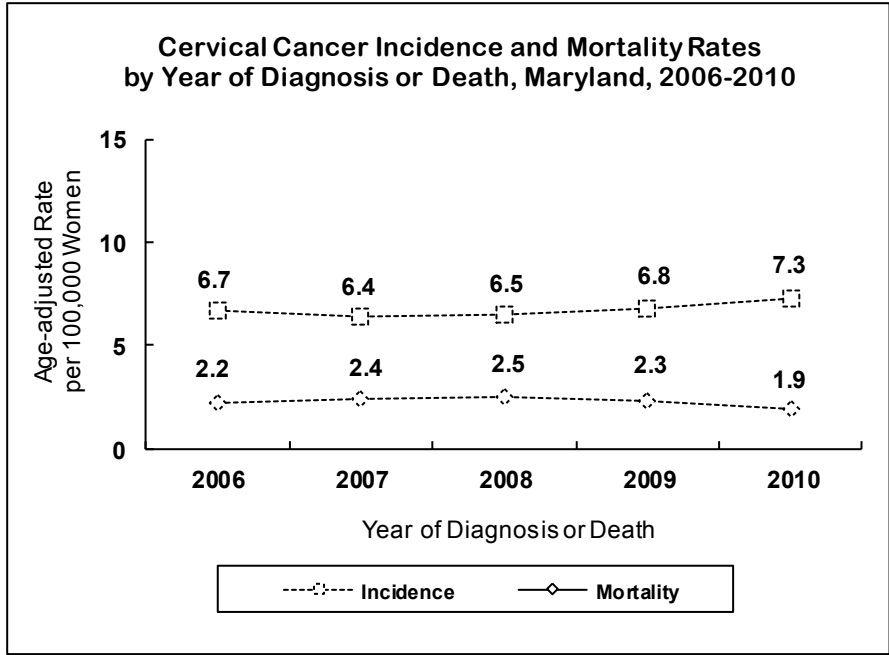
** MD incidence rates based on case counts of 1-5 are suppressed per DHMH/MCR Data Use Policy and Procedures; MD mortality rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Cancer Registry

U.S. SEER, SEER*Stat

Maryland Vital Statistics Administration from MATCH

U.S. SEER, Cancer Statistics Review



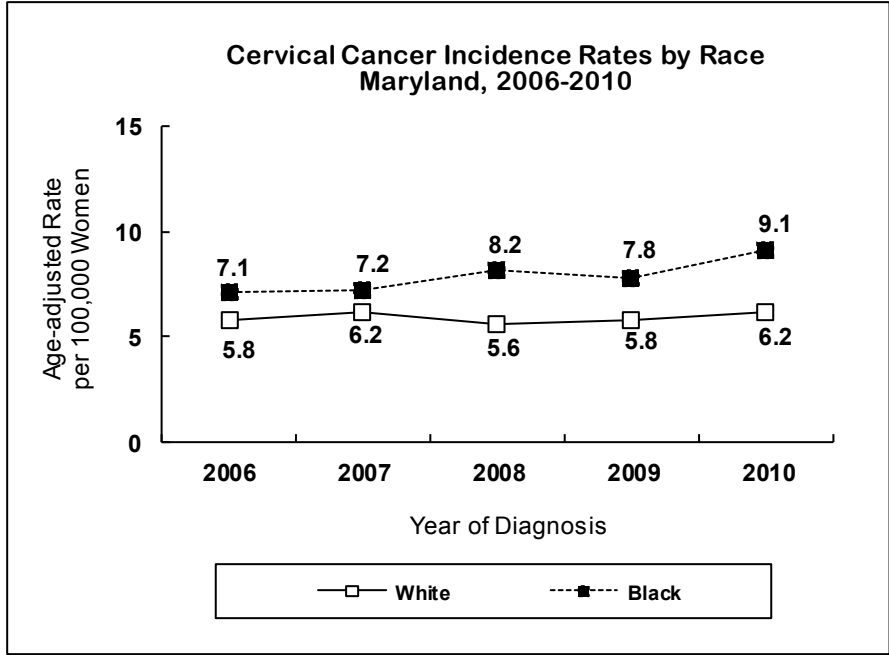
Incidence and Mortality Trends

Cervical cancer incidence rates among Maryland women increased at a rate of 2.3% per year from 2006 to 2010.

Cervical cancer mortality rates decreased at a rate of 3.3% per year from 2006 to 2010.

See Appendix G, Tables 1 and 2.

Source: Maryland Cancer Registry
NCHS Compressed Mortality File in CDC WONDER, 2006-2007
Maryland Vital Statistics Administration from MATCH, 2008-2010

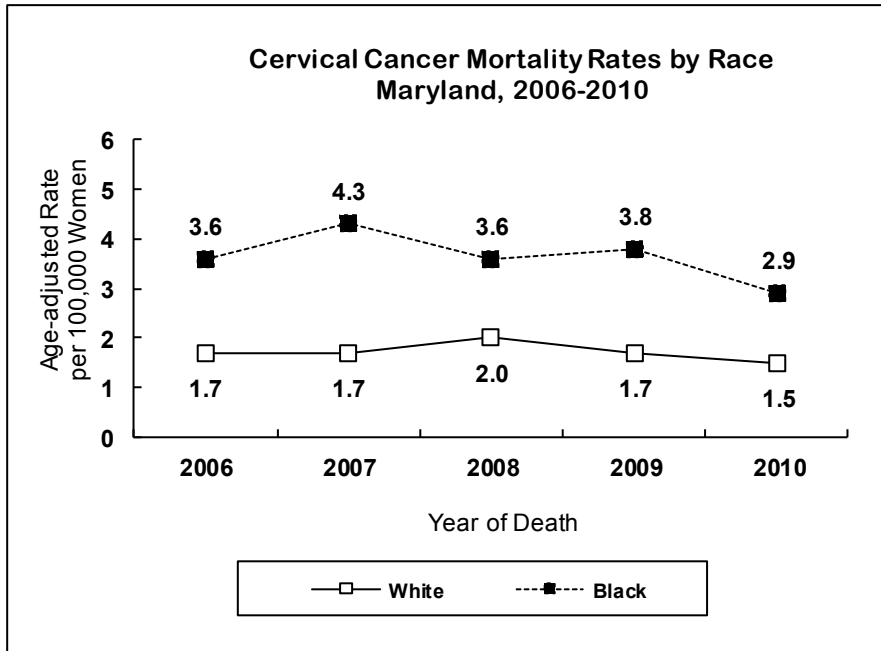


Incidence Trends by Race

From 2006 to 2010, cervical cancer incidence rates among black females increased at a rate of 5.9% per year, compared to an increase of 0.7% per year among white females.

See Appendix G, Table 3.

Source: Maryland Cancer Registry

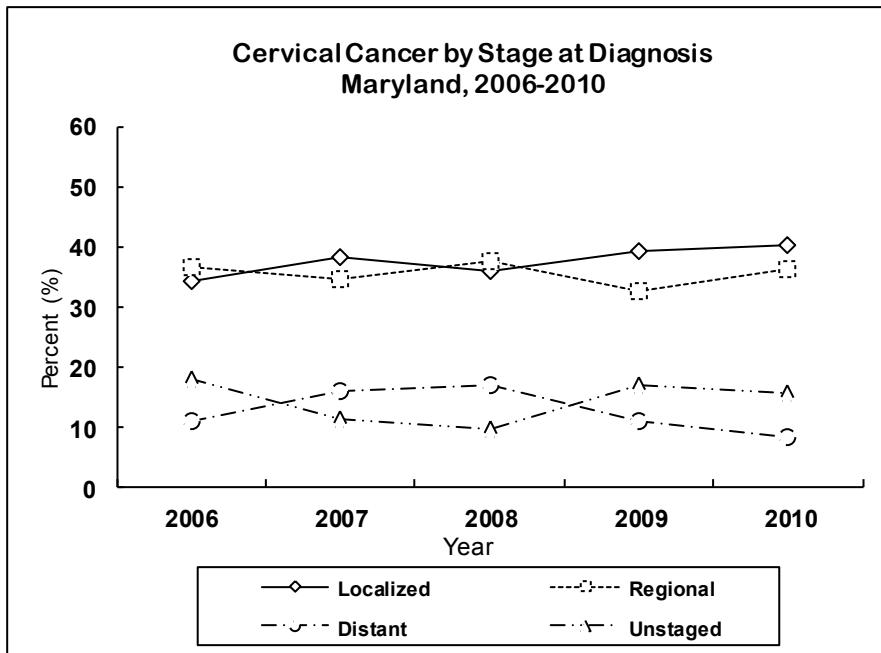


Source: NCHS Compressed Mortality File in CDC WONDER, 2006-2007
Maryland Vital Statistics Administration from MATCH, 2008-2010

Mortality Trends by Race

From 2006 to 2010, mortality rates for black females decreased at a rate of 5.4% per year, while mortality rates for white females decreased at a rate of 2.5% per year.

See Appendix G, Table 5.

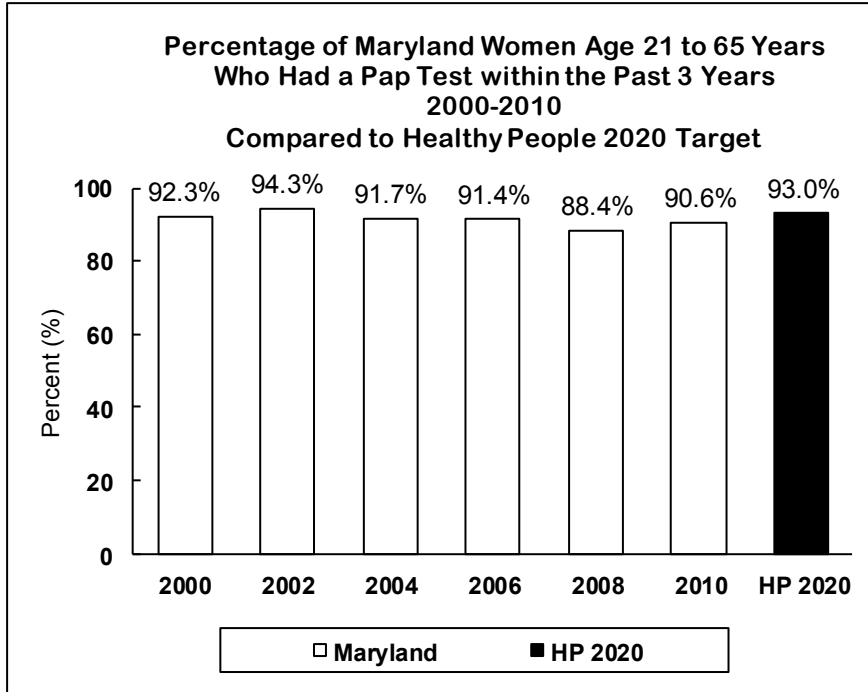


Source: Maryland Cancer Registry

Stage at Diagnosis

In 2010, 40.1% of all cervical cancer cases in Maryland were diagnosed at the localized stage, 36.2% were diagnosed at the regional stage, and 8.2% were found at the distant stage. The proportion of cervical cancer cases reported as unstaged decreased from 2006 to 2008, and increased in 2009.

See Appendix H, Table 8.



Source: Maryland BRFSS
Healthy People 2020, U.S. Department of Health and Human Services

Cervical Cancer Screening

One Healthy People 2020 target for cervical cancer is to increase to 93.0% the percentage of women who have had a cervical cancer screening test based on the most recent guidelines. The U.S. Preventive Task Force guidelines recommend screening for cervical cancer in women ages 21 to 65 years with a Pap test every 3 years or, for women ages 30 to 65 years who want to lengthen the screening interval, screening with a combination of cytology and human papillomavirus (HPV) testing every 5 years.

In 2010, 90.6% of Maryland women age 21 to 65 years reported they had a Pap test within the past 3 years.

Table 66.
Number of Cervical Cancer Cases
by Jurisdiction and Race, Maryland, 2010

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	232	120	87	13	12
Allegany	0	0	0	0	0
Anne Arundel	12	s	<6	0	0
Baltimore City	39	s	22	0	<6
Baltimore County	39	21	12	<6	<6
Calvert	<6	<6	0	0	0
Caroline	0	0	0	0	0
Carroll	<6	<6	0	0	0
Cecil	6	6	0	0	0
Charles	7	<6	<6	<6	<6
Dorchester	<6	<6	0	0	0
Frederick	<6	<6	0	<6	0
Garrett	<6	<6	0	0	0
Harford	9	s	0	0	<6
Howard	11	s	<6	0	0
Kent	<6	<6	0	0	0
Montgomery	33	21	8	<6	<6
Prince George's	39	8	27	<6	<6
Queen Anne's	<6	<6	0	0	0
Saint Mary's	<6	<6	<6	0	<6
Somerset	<6	0	<6	0	0
Talbot	0	0	0	0	0
Washington	9	s	<6	0	0
Wicomico	<6	<6	<6	0	0
Worcester	<6	0	<6	<6	0
Unknown	6	<6	<6	<6	<6

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

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

Source: Maryland Cancer Registry

**Table 67.
Cervical Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 2010**

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	7.3	6.2	9.1	**
Allegany	0.0	0.0	0.0	0.0
Anne Arundel	**	**	**	0.0
Baltimore City	11.8	**	10.0	0.0
Baltimore County	8.9	7.1	**	**
Calvert	**	**	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	**
Garrett	**	**	0.0	0.0
Harford	**	**	0.0	0.0
Howard	**	**	**	0.0
Kent	**	**	0.0	0.0
Montgomery	6.2	6.2	**	**
Prince George's	8.2	**	8.3	**
Queen Anne's	**	**	0.0	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	0.0	**	0.0
Talbot	0.0	0.0	0.0	0.0
Washington	**	**	**	0.0
Wicomico	**	**	**	0.0
Worcester	**	0.0	**	**

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

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

Source: Maryland Cancer Registry

**Table 68.
Number of Cervical Cancer Deaths
by Jurisdiction and Race, Maryland, 2010**

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	64	31	27	6
Allegany	<5	<5	0	0
Anne Arundel	9	s	<5	0
Baltimore City	16	<5	12	<5
Baltimore County	6	<5	<5	<5
Calvert	0	0	0	0
Caroline	0	0	0	0
Carroll	<5	<5	0	0
Cecil	<5	<5	0	0
Charles	<5	0	<5	0
Dorchester	0	0	0	0
Frederick	<5	<5	0	0
Garrett	<5	<5	0	0
Harford	5	<5	<5	0
Howard	0	0	0	0
Kent	0	0	0	0
Montgomery	8	<5	<5	<5
Prince George's	10	<5	5	<5
Queen Anne's	0	0	0	0
Saint Mary's	<5	<5	0	0
Somerset	0	0	0	0
Talbot	0	0	0	0
Washington	<5	<5	0	0
Wicomico	<5	0	<5	0
Worcester	0	0	0	0

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

Source: Maryland Vital Statistics Administration from MATCH

Table 69.
Cervical Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2010

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	1.9	1.5	2.9	**
Allegany	**	**	**	**
Anne Arundel	**	**	**	**
Baltimore City	**	**	**	**
Baltimore County	**	**	**	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	**	**	**	**
Cecil	**	**	**	**
Charles	**	**	**	**
Dorchester	**	**	**	**
Frederick	**	**	**	**
Garrett	**	**	**	**
Harford	**	**	**	**
Howard	**	**	**	**
Kent	**	**	**	**
Montgomery	**	**	**	**
Prince George's	**	**	**	**
Queen Anne's	**	**	**	**
Saint Mary's	**	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	**	**	**	**
Wicomico	**	**	**	**
Worcester	**	**	**	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Table 70.
Number of Cervical Cancer Cases
by Jurisdiction and Race, Maryland, 2006-2010

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	1,033	574	350	75	34
Allegany	16	s	<6	0	0
Anne Arundel	82	64	14	<6	<6
Baltimore City	165	52	104	<6	<6
Baltimore County	142	86	40	s	<6
Calvert	9	s	<6	0	0
Caroline	<6	<6	0	0	0
Carroll	24	s	<6	<6	<6
Cecil	26	s	<6	0	0
Charles	23	7	10	<6	<6
Dorchester	<6	<6	0	0	0
Frederick	39	33	<6	<6	<6
Garrett	<6	<6	0	0	0
Harford	47	39	s	0	<6
Howard	40	26	s	7	<6
Kent	<6	<6	0	0	0
Montgomery †	147	81	30	28	8
Prince George's †	161	41	106	s	<6
Queen Anne's	7	7	0	0	0
Saint Mary's	15	10	<6	0	<6
Somerset	<6	<6	<6	0	0
Talbot	<6	<6	0	0	0
Washington	30	26	<6	<6	0
Wicomico	16	8	s	<6	0
Worcester	9	<6	<6	<6	0
Unknown	10	<6	<6	<6	<6

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

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

† 2006 case counts for Montgomery and Prince George's counties are underreported. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 71.
Cervical Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 2006-2010

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	6.7	5.9	7.9	8.2
Allegany	8.7	**	**	0.0
Anne Arundel	6.0	5.9	**	**
Baltimore City	9.6	9.9	9.3	**
Baltimore County	6.5	5.8	7.8	**
Calvert	**	**	**	0.0
Caroline	**	**	0.0	0.0
Carroll	5.0	4.5	**	**
Cecil	9.8	9.0	**	0.0
Charles	5.8	**	**	**
Dorchester	**	**	0.0	0.0
Frederick	6.6	6.4	**	**
Garrett	**	**	0.0	0.0
Harford	7.2	7.0	**	0.0
Howard	5.4	5.1	**	**
Kent	**	**	0.0	0.0
Montgomery †	5.5	4.7	6.5	6.4
Prince George's †	7.4	7.3	7.4	**
Queen Anne's	**	**	0.0	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	**	**	0.0
Talbot	**	**	0.0	0.0
Washington	8.4	7.8	**	**
Wicomico	6.9	**	**	**
Worcester	**	**	**	**

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

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

† 2006-2010 incidence rates for Montgomery County and Prince George's County are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Table 72.
Number of Cervical Cancer Deaths
by Jurisdiction and Race, Maryland, 2006-2010

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	364	189	156	19
Allegany	9	s	<5	0
Anne Arundel	33	23	s	<5
Baltimore City	77	s	56	<5
Baltimore County	44	24	s	<5
Calvert	<5	<5	<5	0
Caroline	0	0	0	0
Carroll	6	6	0	0
Cecil	6	6	0	0
Charles	9	<5	s	0
Dorchester	<5	<5	0	0
Frederick	11	s	<5	0
Garrett	<5	<5	0	0
Harford	17	s	<5	0
Howard	8	<5	<5	<5
Kent	<5	<5	0	0
Montgomery	42	22	12	8
Prince George's	64	s	40	<5
Queen Anne's	<5	<5	0	0
Saint Mary's	6	<5	<5	0
Somerset	<5	<5	0	0
Talbot	0	0	0	0
Washington	8	8	0	0
Wicomico	12	6	s	<5
Worcester	<5	<5	0	0

<5 = Death counts of 1-4 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

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

Source: Maryland Vital Statistics Administration from MATCH

**Table 73.
Cervical Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2006-2010**

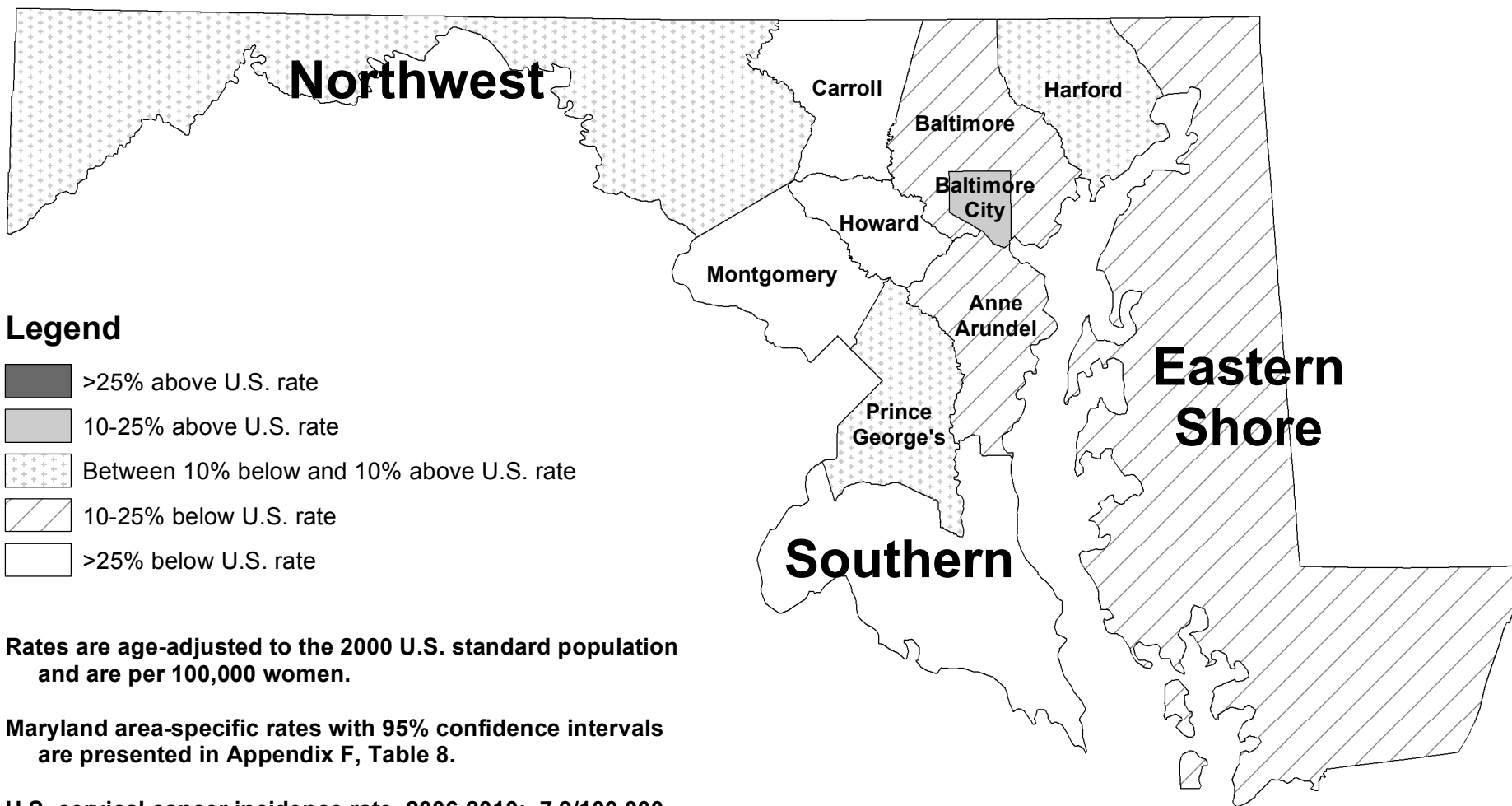
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2.3	1.7	3.6	**
Allegany	**	**	**	**
Anne Arundel	2.4	1.9	**	**
Baltimore City	4.3	3.3	4.9	**
Baltimore County	1.8	1.4	**	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	**	**	**	**
Cecil	**	**	**	**
Charles	**	**	**	**
Dorchester	**	**	**	**
Frederick	**	**	**	**
Garrett	**	**	**	**
Harford	**	**	**	**
Howard	**	**	**	**
Kent	**	**	**	**
Montgomery	1.5	1.1	**	**
Prince George's	3.0	3.5	3.0	**
Queen Anne's	**	**	**	**
Saint Mary's	**	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	**	**	**	**
Wicomico	**	**	**	**
Worcester	**	**	**	**

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

** Rates based on death counts of 0-19 are suppressed per DHMH/CCPC Mortality Data Suppression Policy

Source: Maryland Vital Statistics Administration from MATCH

Maryland Cervical Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010



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

Maryland area-specific rates with 95% confidence intervals are presented in Appendix F, Table 8.

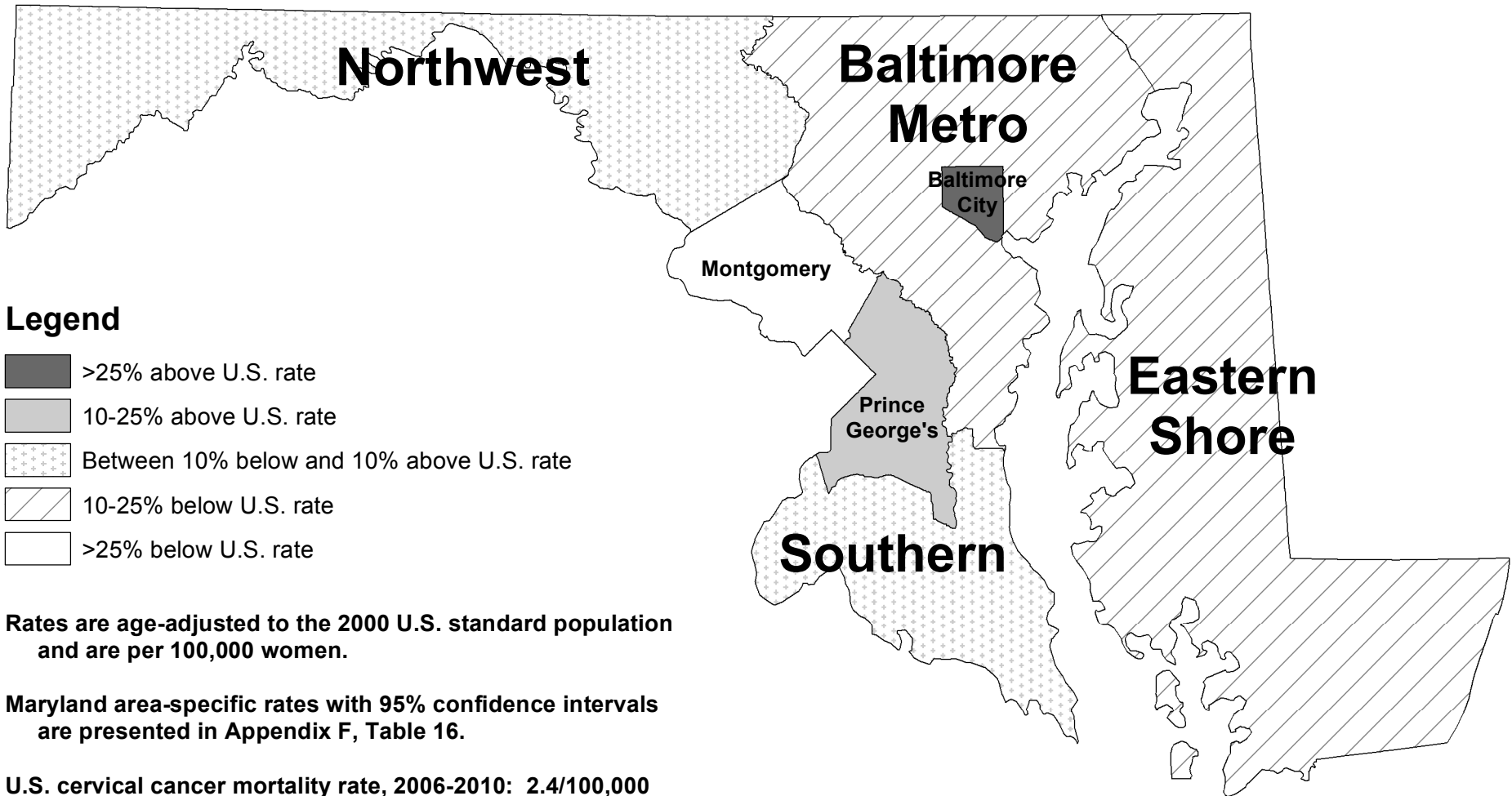
U.S. cervical cancer incidence rate, 2006-2010: 7.9/100,000

Maryland cervical cancer incidence rate, 2006-2010: 6.7/100,000

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat

Note: Regional rates are presented when one or more counties within the region have a suppressed rate.

Maryland Cervical Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2006-2010



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

Maryland area-specific rates with 95% confidence intervals are presented in Appendix F, Table 16.

U.S. cervical cancer mortality rate, 2006-2010: 2.4/100,000

Maryland cervical cancer mortality rate, 2006-2010: 2.3/100,000

Source: MD mortality rates from Maryland Vital Statistics Administration from MATCH, 2006-2010
U.S. rate from SEER, Cancer Statistics Review, 2006-2010

Note: Regional rates are presented when one or more counties within the region have a suppressed rate.

Appendix A

Cancer Data Sources, References, and Data Considerations

Cancer Data Sources, References, and Data Considerations

I. DATA SOURCES

Data and information presented were obtained from a variety of sources, including:

- Maryland Department of Health and Mental Hygiene (DHMH)
 - Center for Cancer Prevention and Control (CCPC)
 - Center for Chronic Disease Prevention and Control
 - Center of Tobacco Prevention and Control
 - Vital Statistics Administration
 - Maryland Assessment Tool for Community Health (MATCH)
- National Cancer Institute (NCI, part of the National Institutes of Health)
- Centers for Disease Control and Prevention (CDC)
- Office of Disease Prevention and Health Promotion at the U.S. Department of Health and Human Services

These sources and the types of information provided are described in the following sections.

A. Cancer Incidence and Stage Data

1. *Maryland Cancer Registry*

The Maryland Cancer Registry (MCR), Center for Cancer Prevention and Control, DHMH, is the source for all Maryland-specific cancer incidence and cancer stage data used. The MCR is a computerized data system that registers (i.e., collects and consolidates reports) all new cases of reportable cancers (excluding non-genital squamous cell or basal cell skin cancer) that are diagnosed or treated in Maryland and reported to the MCR. Incidence rates used in this report were calculated using cases reported to the MCR as of January 25, 2013, for the diagnosis year 2010.

The Maryland cancer reporting law and regulations mandate the collection of cancer information from hospitals, radiation therapy centers, diagnostic pathology laboratories licensed in Maryland, freestanding ambulatory care facilities, surgical centers, and physicians whose non-hospitalized cancer patients are not otherwise reported. MCR also participates in data exchange agreements with 13 other states/jurisdictions, including Delaware, Pennsylvania, Virginia, West Virginia, and the District of Columbia. Information on Maryland residents diagnosed or treated for cancer in these jurisdictions is included in this report. Note: The 2006 case counts included in 2006-2010 data for Montgomery and Prince George's counties are underreported by approximately 8% and 6% respectively for all cancer sites combined due to delay in case reporting. Cancers reported to the MCR after the annual cutoff date are not included in the MCR official Maryland case counts and rates. The case undercounts resulted in slightly lower than actual age-adjusted incidence rates for Montgomery and Prince George's counties, for the National Capital geographic region, and to a lesser degree, for Maryland, for the 5-year period 2006-2010.

2. *Surveillance, Epidemiology, and End Results Program (SEER)*

The Surveillance, Epidemiology, and End Results (SEER) Program, managed by the NCI, is an authoritative source of information on cancer incidence, stage, and survival in the U.S. SEER incidence rates representative of the U.S. are used for comparisons with Maryland incidence rates.

The SEER Program, which began in 1973, collects, analyzes, and publishes cancer incidence and survival data from population-based cancer registries participating in the program. In 1992, the SEER Program was expanded to increase representation of minority and rural low-income populations including Hispanics, American Indian populations, and rural African Americans (creating the SEER 13 registry database). The SEER Program further expanded coverage in 2001 and 2010. Since 2000, SEER incidence data have been collected from 18 SEER registries throughout the U.S. (SEER 18 registry database) and covers approximately 28% of the U.S. population. The SEER Program includes select geographic areas based on their ability to operate and maintain a high quality population-based cancer reporting system and for their epidemiologically significant population subgroups. The population covered by SEER is comparable to the general U.S. population with regard to measures of poverty and education. The SEER population tends to be somewhat more urban and has a higher proportion of foreign-born persons than the general U.S. population.

SEER 18 incidence data are used in this report for comparisons of national data with the most recent Maryland data (2006-2010) because they provide the broadest population coverage that is currently available. All SEER incidence rates were obtained by the MCR from SEER*Stat (version 8.0.2), a statistical software tool for the analysis of SEER and other cancer-related databases. Additional information about SEER can also be found at www.seer.cancer.gov.

The Maryland population estimates for 2010 presented in Appendix C were obtained from SEER*Stat.

B. Cancer Mortality Data

The Maryland mortality data for 2010 and the 5-year aggregate data (2006-2010), with the exception of colorectal cancer (CRC), are from MATCH; whereas, CRC mortality data were obtained directly from the Maryland Vital Statistics Administration due to the different definition of CRC in MATCH, which includes anal cancer. MATCH is an interactive online database sponsored by the DHMH Cancer and Chronic Disease Bureau, Center for Chronic Disease Prevention and Control, which features statistics for Maryland resident health events. County level births, deaths, population estimates and hospitalizations can be obtained through a query of the MATCH online database. MATCH was developed in partnership with the Maryland Vital Statistics Administration and the Maryland Health Care Commission. It can be accessed at <http://www.matchstats.org>. The official annual reports from the Maryland Vital Statistics Administration can be obtained online at

<http://dhmh.maryland.gov/vsa/SitePages/reports.aspx>. Note: The definition of lung and bronchus cancer in MATCH includes trachea. Comparisons can still be made between the different data sources for lung and bronchus cancer mortality due to the small number of deaths due to cancer of the trachea over the period 2006-2010 (<5 deaths in 2010 and 5 deaths for 2006-2010).

The Maryland mortality single year data through 2007 and the single year U.S. mortality data through 2008 were obtained from the National Center for Health Statistics (NCHS) Compressed Mortality Files (CMF). The NCHS CMF is a county-level national mortality and population database spanning the years 1979-2010. The number of deaths, crude death rates, and age-adjusted death rates can be obtained by place of residence (total U.S., state, and county), age group, race, gender, year of death, and underlying cause of death (based on International Classification of Diseases [ICD] code or group of codes). Mortality data for the individual years 2001 to 2007 for Maryland and 2001 to 2008 for the U.S. were obtained from the 1999-2010 CMF using ICD Tenth Revision (ICD-10) codes. The NCHS CMF was accessed using the Centers for Disease Control and Prevention (CDC) Wide-ranging Online Data for Epidemiologic Research (WONDER) system. CDC WONDER is an easy-to-use web-based system that makes information from CDC available to public health professionals and the public at large. The U.S. mortality rates for single year 2010 and 5-year aggregate data (2006-2010) were obtained from SEER, Cancer Statistics Review (CSR), which are provided by NCHS.

C. Behavioral and Risk Factor Data

The data on the prevalence of cancer screening and prevalence of various risk factors for cancer (e.g., smoking) in Maryland are obtained from several different sources, as described below.

1. Maryland Behavioral Risk Factor Surveillance System (BRFSS)

The Maryland Behavioral Risk Factor Surveillance System (BRFSS) is used as a source of data on the prevalence of cancer screening (e.g., mammograms) and cancer risk behaviors (e.g., tobacco use) in Maryland. The BRFSS is an annual telephone survey conducted on a random sample of Maryland adult residents. This survey, managed by the Maryland DHMH, Prevention and Health Promotion Administration, Center for Chronic Disease Prevention and Control, provided risk behavior and cancer screening information for this report. Maryland data can be accessed online at <http://www.marylandbrfss.org>. In addition, both Maryland and state-aggregated national data on health risk behavior can be obtained from the CDC BRFSS website at <http://www.cdc.gov/brfss>.

2. Maryland Youth Tobacco Survey

Data from the Maryland Youth Tobacco Survey (MYTS) are used to monitor trends in tobacco use (as a risk factor for lung cancer) by Maryland youth. The MYTS, managed by the DHMH, Cancer and Chronic Disease Bureau, Center for Health Promotion, Education, and Tobacco Use Prevention and Control (CHP), is administered to gather

information regarding attitudes, usage, and exposure to tobacco products among public middle and high school students Statewide and within each of Maryland's 23 counties and Baltimore City. Survey results are also used in apportioning Local Tobacco Use Prevention and Cessation grants among Maryland's 24 major political subdivisions. To date, the MYTS has been conducted in 2000, 2002, 2006, 2008, and 2010. Additional information can be obtained from the CHP at 410-767-1362.

3. Maryland Cancer Survey

The Maryland Cancer Survey (MCS) was a biennial survey managed by the DHMH, Center for Cancer Prevention and Control, Surveillance and Evaluation Unit. The purpose of the MCS is to determine cancer screening rates and to measure cancer risk behaviors among persons age 40 years and older living in Maryland, for selected cancers targeted by DHMH. Completed surveys are available for 2002, 2004, 2006, and 2008. MCS data are used to supplement BRFSS data on prevalence of cancer screening and cancer risk behaviors among adults age 40 years and older in Maryland.

Some charts include both MCS and Maryland BRFSS data as a basis for comparison with HP 2020 targets. Caution should be used when comparing results from the MCS and BRFSS. Although they are similar, these surveys have certain design and methodological differences, including targeted age groups, scope and timing of the surveys, and weighting. The MCS reports, including detailed information on the survey methods, are available at http://phpa.dhmh.maryland.gov/cancer/SitePages/surv_data-reports.aspx.

4. Healthy People (HP) 2020

HP 2020 is a collaboration of local and national governmental agencies and private organizations that have developed prevention-oriented national objectives to improve the health of Americans. The HP initiative is under the Office of Disease Prevention and Health Promotion at the U.S. Department of Health and Human Services (DHHS). The overarching HP 2020 goal for cancer prevention is to "reduce the number of new cases as well as the illness, disability, and death caused by cancer." To achieve this goal, measurable objectives related to cancer screening and cancer risk behaviors were established, each with a specific quantitative target. Several of these targets are used as benchmarks by which Maryland progress can be measured. The HP 2020 objectives were released in late 2010. Additional information can be found at <http://www.healthypeople.gov>.

5. Maryland Comprehensive Cancer Control Plan (MCCCP)

The MCCCP is the coordinated effort of 14 committees consisting of nearly 250 individuals with the aim to develop a resource for individuals, health care providers, and organizations. The MCCCP contains goals and set targets to be met by the year 2015, which serve as a guide for health professionals who are involved in planning, directing, implementing, evaluating, or performing research on cancer control in Maryland. The MCCCP was directed by the DHMH with broad input from a partnership of public and

private stakeholders. Several of the targets were used as benchmarks by which Maryland progress can be measured when HP 2020 objectives were not available or behavior data that applied to HP 2020 were not available. Additional information can be found at <http://phpa.dhmf.maryland.gov/cancer/cancerplan>.

II. DATA CONSIDERATIONS

A. Data Confidentiality

DHMH regards all individual data reported to, and received and processed by, the MCR as confidential. Data are secured from unauthorized access and disclosure. The MCR manages and releases cancer information in accordance with the laws and regulations established by the State of Maryland, as set forth in the Annotated Code of Maryland, Health-General Article, §§18-203 – 204 and §4-101 et seq., and Code of Maryland Regulations, COMAR 10.14.01 (Cancer Registry).

Because incidence data and mortality data come from different sources, separate suppression procedures were employed for release of non-confidential data. For the number of cancer cases collected by MCR and for incidence rates calculated using case and population data, the following protocols apply: To ensure patient confidentiality and to comply with the *MCR Data Use Policy and Procedures* (July 2008; http://phpa.dhmf.maryland.gov/cancer/SitePages/mcr_data.aspx), cells with counts of 1-5 cases are suppressed and presented as “<6.” Complementary suppression of case counts in additional cell(s) is used, denoted by “s,” to prevent back-calculation of numbers in those cells with primary suppression. Incidence rates based on 15 or fewer (non-zero) cases are presented with asterisks (**) because the rates are unstable and do not provide reliable information.

Mortality data for this report were from the Maryland Vital Statistics Administration, either directly from the Maryland Vital Statistics Administration or from the web-based interactive data query database MATCH (see Section I.B above). ICD-10 codes listed in Appendix E of this report were used for identifying type of cancer for extraction. Data obtained from MATCH are subject to Maryland Vital Statistics Administration data use restrictions, which differ slightly from those of the *DHMH/MCR Data Use Policy* used for incidence data. To ensure that individual identity is protected in the use and re-release of mortality data from the Maryland Vital Statistics Administration, including MATCH, and WONDER, and that reliable mortality rates are presented in this and other CCPC publications, the CCPC developed the *Mortality Data Suppression Policy* (October 2012). In accordance with this policy, the following protocols are applied to mortality data in this report: Death counts of 1-4 are suppressed, and denoted by “<5.” Complementary suppression of death counts in additional cell(s) is used, as denoted by the letter “s,” to prevent back-calculation of numbers in cells with primary suppression. Age-adjusted mortality rates based on counts less than 20 (i.e., 0-19 deaths) are suppressed (denoted by ** symbol) because the rates are unstable and do not provide reliable information. This threshold is more stringent than the criteria used in the *DHMH/MCR Data Use Policy* for incidence rate suppression.

B. Gender

Gender is reported to the MCR as: a) male; b) female; c) hermaphrodite; d) transexual; and e) unknown (not stated). The totals shown in the count for number of cancer cases may not equal the sum of males and females because of cases in these other gender categories.

C. Rate Analysis

Individual year incidence rates for 2010 were calculated using Maryland resident cancer cases diagnosed from January 1 through December 31 of that year and reported to the MCR as of January 25, 2013. The individual year mortality data (2010) consist of deaths that occurred between January 1 and December 31 of that year. Multiple year incidence rates presented were calculated for 5-year collapsed rates using MCR 2006-2010 data. Corresponding mortality rates were extracted from MATCH; CRC rates were obtained directly from the Maryland Vital Statistics Administration as 5-year combined data from 2006-2010.

Age-adjustment, also called age-standardization, is one of the tools used to control for the different and changing age distributions of the population in states, counties, etc., and to enable meaningful comparisons of vital rates over time. Age-adjusted rates do not include cancer cases on which age has not been reported. Federal agencies have adopted the year 2000 U.S. standard population as the standard for age-adjusting incidence and mortality rates. For consistency and ease of comparison, incidence and mortality rates in this report were calculated and age-adjusted using the 2000 U.S. standard population. Additional information on age-adjustment can be found at <http://www.cdc.gov/nchs/data/statnt/statnt20.pdf>.

The Annual Percent Change (APC) is calculated for incidence and mortality trends and for tracking incidence and mortality rates by race and gender over time. See Appendix B, Glossary, for the definition of APC.

D. Confidence Intervals and Statistical Significance

Age-adjusted rates for specific geographic areas (e.g., U.S., states, regions, counties) can be compared to determine whether differences in incidence or mortality exist between those areas. However, incidence and mortality rates, particularly those based on small numbers of events (cases or deaths) or small population sizes, can be highly variable from year to year. The rate from one year may not be typical of the usual rate for a geographic area when compared to other years. For this reason, two rates cannot simply be compared side-by-side to determine whether they are statistically significantly different. Confidence intervals are useful in defining a range within which the typical rate for a geographic area can be expected to lie.

A confidence interval is used to describe the range of uncertainty around a point estimate (e.g., an incidence or mortality rate) and serves as an indicator of the precision or stability

of a rate. Most confidence intervals are, by convention, calculated at the 95% level; at this level, there is a 95% probability that the interval covers the true value. The smaller the number of events upon which a rate is based, the wider the confidence interval will be.

Confidence intervals for incidence and mortality rates are included in this report to facilitate comparisons between rates, such as the comparison of Maryland rates to U.S. rates. Confidence intervals for Maryland and SEER 18 incidence rates, provided by the MCR, are developed from the SEER*Stat software. Confidence intervals for Maryland mortality rates were generated as part of the query of MATCH and confidence intervals for U.S. mortality rates were queried using SEER's Cancer Query System. The following formula can also be used to approximate the 95% confidence interval for age-adjusted rates:

$$\text{Lower limit} = R - [1.96 (R/\sqrt{n})]$$

$$\text{Upper limit} = R + [1.96 (R/\sqrt{n})]$$

R = age-adjusted cancer incidence or mortality rate
n = number of events (cancer cases or deaths)

When the confidence intervals around two rates (e.g., state and U.S. rates) do not overlap, it can be stated with 95% confidence that the two rates are statistically significantly different. For example, Maryland's 2010 lung cancer incidence rate was 49.4 per 100,000, with a confidence interval of 48.6-50.2. The 2010 U.S. SEER-reported lung cancer incidence rate was 57.2 per 100,000 population, with a 95% confidence interval of 56.7 -57.8. Since these confidence intervals do not overlap, the two rates are considered to be statistically significantly different (i.e., the difference between these rates is more than that expected by chance).

If the two confidence intervals overlap and if the rate for one area is included in the confidence interval of the other rate, then the rates are not statistically significantly different. However, when there is overlap in the confidence intervals for two rates, and the rate for the comparison area is not included in the interval for the rate of interest, the two rates may or may not be statistically significantly different. In this situation, statistical testing methods described by the North American Association of Central Cancer Registries (NAACCR), *Cancer in North America* (May 2010) are used in this report to determine whether the differences between the two rates are statistically significant. An approximate confidence interval for the rate ratio of two age-adjusted rates can be calculated using the following formula:

$$(R_1/R_2)^{1 \pm z/x}$$

where,

R₁ and R₂ are the age-adjusted rates being compared;
SE₁ and SE₂ are the standard errors for the respective rates;
z = 1.96 for 95% limits; and

$$x = (R1-R2)/\sqrt{(SE_1^2 + SE_2^2)}$$

If the confidence interval for the rate ratio includes the value of one, then the two rates are not statistically significantly different (p-value greater than 0.05).

In this report, when two rates are not statistically significantly different, they are described as being “similar.”

E. National Comparison Data

Maryland (statewide) and county incidence and mortality rates are compared to U.S. SEER 18 incidence rates and U.S. mortality rates from NCHS (see Sections I.A and I.B).

Data used for Maryland cancer mortality ranking by site are from SEER, CSR, which are based on NCHS mortality data. Maryland’s mortality ranking among the 50 states and the District of Columbia for all cancer sites combined and for specific targeted cancers is based on a 5-year average (2006-2010) of age-adjusted rates. Because mortality rates describe the cancer burden better than incidence rates, only Maryland rankings for mortality are presented for each targeted cancer.

Maps included with this data display comparisons of Maryland incidence and mortality rates, by geographical area, to U.S. rates. For both incidence and mortality rate maps, the 5-year (2006-2010) U.S. rate was used as a basis for comparison with rates for Maryland jurisdictions (counties and regions). A ramp is used for grouping Maryland data into categories in reference to U.S. rates. The ramp groups data into five divisions: >25% above U.S. rate; 10-25% above U.S. rate; between 10% below and 10% above U.S. rate; 10-25% below U.S. rate; and >25% below U.S. rate. Note that 10-25% includes the 10% and 25%, but less than 10% and more than 25% do not include the endpoints of the range. Where 5-year incidence or mortality rates for any given jurisdiction are suppressed due to a small number of cases or deaths, aggregated regional rates for the affected area are used in lieu of county rates as a basis for comparison in maps.

F. Race and Hispanic Ethnicity

The MCR began requiring submission of more detailed data on race and ethnicity in August 1998. Incidence data provided by the MCR include the following race categories: White, Black, Other and Unknown (not stated), regardless of Hispanic ethnicity. The “Other” race category includes cases reported as American Indian or Alaska Native, Asian or Pacific Islander, and any other race category except those cases with unknown or missing race. The MCR uses the National Cancer Institute SEER*Stat software to compile incidence data.

Hispanic ethnicity is captured in a separate data field. Data presented in Table 4 are derived using the NAACCR Hispanic Identification Algorithm. This algorithm uses a combination of NAACCR variables to classify cases as Hispanic. In Table 4, “Hispanic” includes people reported to the MCR as Spanish/Hispanic origin plus those with

“derived” Hispanic origin. The derivation is an algorithm based on the person having a Hispanic surname (last or maiden name) and their country of birth, race, and sex.

Mortality data (death counts and rates) in this report were obtained from the NCHS CMF in CDC WONDER, SEER CSR, and the Maryland Vital Statistics Administration. Race data in the CMF are based on information collected on death certificates. CDC WONDER reports race in four categories (White, Black, Asian or Pacific Islander, and Native American or Alaska Native). NCHS, in collaboration with the Census Bureau, developed a race-bridging methodology for assigning multiple-race groups to single-race categories. The Maryland Vital Statistics Administration reports race in the same four categories as CDC WONDER, along with an additional category “All Other Races.” The category of “Other” races in this report includes the American Indian or Alaska Native race category, the Asian or Pacific Islander race category, and the All Other Races category.

U.S. mortality data from SEER CSR are reported with only two race categories (White and Black). As a result, single year 2010 and 5-year aggregate data (2006-2010) obtained from SEER CSR only report U.S. mortality for Whites and Blacks.

G. Healthy People 2020 Targets

In this data, quantitative HP 2020 targets are compared to Maryland data related to cancer risk behaviors and adherence to cancer screening recommendations (see Section I.C.4). Specifically, HP 2020 targets are compared to data from the Maryland BRFSS and the MCS. The data from these Maryland surveys are weighted to the age, race, and gender of the Maryland population. Unlike the national data that serve as the basis for HP 2020 targets, Maryland BRFSS and MCS data are not age-adjusted to the 2000 U.S. standard population.

The target-setting method used for the HP 2020 objective for sun exposure protection was a 10% improvement from the national baseline in 2008 using data from the National Health Interview Survey (NHIS). The questions used to define sun exposure protective measures used by NHIS slightly differed from the questions used by the Maryland BRFSS, although the information gathered by both surveys are similar. Therefore, one could use the sun exposure protection data from the Maryland BRFSS as a form of comparison to the HP 2020, however, should remain cautious due to the different measures used for data gathering.

H. Appendices

Please refer to additional appendices for:

- Glossary (technical terms and definitions; Appendix B)
- Maryland Population Estimates, 2010 (Appendix C)
- U.S. Standard Population, 2000 (Appendix D)
- Definitions of International Classification of Diseases (ICD) Codes Used for Cancer Incidence and Mortality (Appendix E)
- Maryland Cancer Incidence and Mortality Rates by Geographical Area, 2006-2010 (Appendix F)
- Trends in Cancer Incidence and Mortality Rates in Maryland by Cancer Site, Race or Gender, and Year, 2006-2010 (Appendix G)
- Trends in Cancer Stage of Disease at Diagnosis in Maryland by Cancer Site and Year, 2006-2010 (Appendix H)
- Trends in All Cancer Sites Incidence and Mortality Rates in Maryland and U.S. by Year, 2001-2010 (Appendix I)

Appendix B

Glossary

Glossary

- **Age-adjustment:** Age is the most important risk factor for the incidence of most cancers. Cancer rates derived from populations that differ in underlying age structure are not comparable. Age-adjustment is a statistical technique that allows for the comparison of rates among populations having different age distributions, by weighting the age-specific rates in each population to one standard population. Additional information on age-adjustment can be found on the following Web sites:
<http://seer.cancer.gov/seerstat/tutorials/aarates/definition.html>
<http://www.cdc.gov/nchs/data/statnt/statnt20.pdf>
- **Annual Percent Change (APC):** APC is a measure of the annual percent increase or decrease in cancer rates over time and is used for analyzing trends. This measure assumes that cancer rates change at a constant percentage of the rate of the previous year. Rates that change at a constant percentage every year change linearly on a log scale. A more detailed description of the method can be found at <http://surveillance.cancer.gov/joinpoint/aapc.html>.
- **Ascertainment:** Ascertainment refers to the quality assurance procedures that Maryland Cancer Registry staff use to ensure completeness of cancer cases in the registry database. These activities include: a review of disease indices from all reporting hospitals to identify possible missed cases; a random sample of records from reporting facilities; and review of death certificate data to identify cancer cases not previously reported.
- **Cancer:** Cancer is a disease characterized by the uncontrolled, abnormal growth of cells in different parts of the body that can spread to other parts of the body.
- **Chemoprevention:** Chemoprevention is the use of drugs, vitamins, or other agents to try to reduce the risk of cancer or to delay the development or recurrence of cancer.
- **Confidence Interval (CI):** A confidence interval is the range of values for a calculated estimate that will include the true value a given percentage of the time. A 95% CI for a rate includes the true rate 95% of the time.
- **Incidence:** Incidence is the number of new cases of a given cancer or other event during a defined period, usually one year. For the purpose of this report, cancer incidence refers to the number of new cases diagnosed during individual calendar year 2010. Cancer incidence data are also presented in aggregated form as the average annual incidence for the 5-year period from 2006 through 2010.
- **International Classification of Diseases (ICD):** The ICD is the international standard diagnostic classification for all general epidemiological, health management and clinical use. It is used to classify diseases and other health problems recorded on many types of health and vital records including death certificates and health records.

- **International Classification of Diseases for Oncology (ICD-O):** The ICD-O is the classification system used by tumor or cancer registries to code the site and the histology of the cancer, usually from a pathology report.
- **Invasive cancer:** Invasive cancer is cancer that has spread beyond the layer of cells where it first began and has grown into nearby tissues. It may still be considered localized if it has not spread to other parts of the body. Stage data presented in this report involve a diagnosis of invasive cancer: localized, regional, or distant. A diagnosis “in situ” is noninvasive and is not included in the staging data.
- **Mortality:** Mortality refers to the number of deaths during a defined time, usually one year. For the purposes of this report, cancer mortality data are presented for individual calendar year 2010. Data for cancer mortality are also presented in an aggregated form, as the average annual mortality for the 5-year period from 2006 through 2010.
- **Primary prevention:** Primary prevention is preventing cancer before it has developed, such as through avoiding carcinogens (e.g., avoiding tobacco), promoting a healthy lifestyle through exercise and diet, preventing the harmful effects of carcinogens (e.g., using sunscreen), and detecting and removing precancerous lesions (e.g., removing polyps in the colon).
- **Race bridging:** Race bridging refers to the process of making data collected using one set of race categories consistent with data collected using a different set of race categories. This consistency allows estimation and comparison of race-specific statistics at a given point in time or over a period of time. More specifically, race bridging is a method used to make systems sufficiently comparable to permit estimation and analysis of race-specific statistics. Race-bridging algorithms are generally applied to population data, which are used in this report for calculating rates and for describing race categories of Maryland population estimates (see Appendix A).
- **Rate:** A rate is an estimate of the burden of a given disease on a defined population at risk over a specified period of time. A crude rate is calculated by dividing the number of cases or deaths (events) by the population at risk during a given time period. Cancer incidence and mortality rates are usually presented per 100,000 population during a given time period. An incidence rate is the number of new cases during a specific period (usually one year) divided by the population at risk per 100,000 population. A mortality rate is the number of deaths for a given period divided by the population at risk per 100,000 population. All rates presented in this report are age-adjusted to the 2000 U.S. standard population.
- **Region:** The following are regional categories in Maryland.

Baltimore Metropolitan Area

Anne Arundel, Baltimore City, Baltimore County, Carroll, Harford, Howard

Note: The Baltimore Metropolitan Area does not include Baltimore City when used in Appendix H and for the incidence and mortality maps.

Eastern Shore Region

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

National Capital Area

Montgomery, Prince George's

Northwest Region

Allegany, Frederick, Garrett, Washington

Southern Region

Calvert, Charles, Saint Mary's

- **Screening:** Screening is checking for disease when there are no symptoms, resulting in detection of pre-cancer, cancer in situ, or cancer at an early stage.
- **Stage at Diagnosis:** Cancer stage is the extent to which the cancer has spread from the organ of origin at the time of diagnosis. The stage information used in this report is based on the SEER Summary Stage Guidelines:
 1. **In situ:** the cancerous cells have not invaded the tissue basement membrane and no stromal invasion. In situ cancers are not considered malignant (with the exception of bladder cancers) and are not included in incidence rate calculations.
 2. **Localized:** the tumor is confined to the organ of origin.
 3. **Regional:** the tumor has spread to adjacent organs or tissue. Regional lymph nodes may also be involved.
 4. **Distant:** the tumor has spread beyond the adjacent organs or tissues. Distant lymph nodes, organs and/or tissues may also be involved.
 5. **Unstaged:** the stage of disease at diagnosis was unable to be classified (often due to insufficient information) or was not reported to the cancer registry.

Appendix C

Maryland Population Estimates, 2010

Maryland Population Estimates by Jurisdiction, 2010

	Total All Genders	Total Males	Total Females	Total Whites	White Males	White Females	Total Blacks	Black Males	Black Females
Maryland	5,785,681	2,798,200	2,987,481	3,606,186	1,776,945	1,829,241	1,787,685	833,249	954,436
Baltimore Metropolitan Area	2,666,674	1,283,444	1,383,230	1,710,751	838,886	871,865	806,924	372,454	434,470
Anne Arundel County	539,241	266,584	272,657	425,575	211,679	213,896	89,331	43,454	45,877
Baltimore City	620,560	292,151	328,409	195,330	96,954	98,376	405,261	185,491	219,770
Baltimore County	805,964	380,966	424,998	539,333	258,747	280,586	218,705	98,709	119,996
Carroll County	167,247	82,574	84,673	158,040	77,826	80,214	5,899	3,228	2,671
Harford County	245,190	119,890	125,300	204,108	100,246	103,862	33,182	15,953	17,229
Howard County	288,472	141,279	147,193	188,365	93,434	94,931	54,546	25,619	28,927
Eastern Shore Region	449,677	219,923	229,754	363,554	178,194	185,360	77,215	37,439	39,776
Caroline County	33,072	16,127	16,945	27,595	13,544	14,051	4,875	2,246	2,629
Cecil County	101,209	50,368	50,841	92,518	45,959	46,559	6,907	3,559	3,348
Dorchester County	32,652	15,590	17,062	22,747	11,039	11,708	9,431	4,343	5,088
Kent County	20,204	9,644	10,560	16,709	8,042	8,667	3,242	1,496	1,746
Queen Anne's County	47,872	23,782	24,090	43,541	21,676	21,865	3,500	1,719	1,781
Somerset County	26,495	14,149	12,346	14,632	7,562	7,070	11,535	6,416	5,119
Talbot County	37,879	18,067	19,812	32,060	15,364	16,696	5,166	2,405	2,761
Wicomico County	98,830	47,143	51,687	70,511	33,806	36,705	25,152	11,802	13,350
Worcester County	51,464	25,053	26,411	43,241	21,202	22,039	7,407	3,453	3,954
National Capital Area	1,840,658	883,363	957,295	867,277	430,918	436,359	767,206	353,644	413,562
Montgomery County	975,439	468,225	507,214	637,412	310,732	326,680	183,166	84,129	99,037
Prince George's County	865,219	415,138	450,081	229,865	120,186	109,679	584,040	269,515	314,525
Northwest Region	486,908	243,950	242,958	427,017	210,470	216,547	44,572	26,119	18,453
Allegany County	75,059	38,828	36,231	67,757	33,485	34,272	6,464	4,934	1,530
Frederick County	234,188	115,217	118,971	200,528	98,755	101,773	22,190	10,954	11,236
Garrett County	30,075	14,940	15,135	29,573	14,653	14,920	372	237	135
Washington County	147,586	74,965	72,621	129,159	63,577	65,582	15,546	9,994	5,552
Southern Region	341,764	167,520	174,244	237,587	118,477	119,110	91,768	43,593	48,175
Calvert County	88,912	43,806	45,106	74,159	36,830	37,329	12,663	6,103	6,560
Charles County	147,103	71,084	76,019	77,612	38,550	39,062	62,843	29,573	33,270
St Mary's County	105,749	52,630	53,119	85,816	43,097	42,719	16,262	7,917	8,345

Source: SEER*Stat static data as of January 25, 2013.

Appendix D

U.S. Standard Population, 2000

2000 U.S. Standard Population

Age Group	2000 Population
Less than 01 years	3,794,901
01-04 years	15,191,619
05-09 years	19,919,840
10-14 years	20,056,779
15-19 years	19,819,518
20-24 years	18,257,225
25-29 years	17,722,067
30-34 years	19,511,370
35-39 years	22,179,956
40-44 years	22,479,229
45-49 years	19,805,793
50-54 years	17,224,359
55-59 years	13,307,234
60-64 years	10,654,272
65-69 years	9,409,940
70-74 years	8,725,574
75-79 years	7,414,559
80-84 years	4,900,234
85+ years	4,259,173
Total	274,633,642

Source: National Cancer Institute, SEER, 2000

Appendix E

Definitions of International Classification of Diseases (ICD) Codes Used for Cancer Incidence and Mortality

**International Classification of Diseases for Oncology, 3rd Edition (ICD-O-3) Codes
Used for Cancer Incidence and
International Classification of Diseases, 10th Revision (ICD-10) Codes
Used for Cancer Mortality**

Cancer Site	Incidence (ICD-O-3)		Mortality (ICD-10)
	Topography (Site)	Histology	
All Cancer Sites	C00.0 – C80.9	Includes all invasive cancers of all sites except basal and squamous cell skin cancers, and includes in situ cancer of the urinary bladder	C00 – C97
Lung and Bronchus	C34.0 - C34.9	Excludes codes 9050-9055, 9140, and 9590-9989	C33-C34 (MATCH)* C34 (WONDER)
Colon and Rectum	C18.0 – C20.9, C26.0	Excludes codes 9050-9055, 9140, and 9590-9989	C18 – C20, C26.0
Female Breast	C50.0 - C50.9 (female only)	Excludes codes 9050-9055, 9140, and 9590-9989	C50 (female only)
Prostate	C61.9	Excludes codes 9050-9055, 9140, and 9590-9990	C61
Oral Cavity and Pharynx	C00.0 - C14.8	Excludes codes 9050-9055, 9140, and 9590-9989	C00 – C14
Melanoma of the Skin	C44.0 - C44.9	Includes only codes 8720-8790	C43
Cervix	C53.0 - C53.9	Excludes codes 9050-9055, 9140, and 9590-9989	C53

Note: Most cancer mortality (ICD-10) codes are similar to cancer incidence (ICD-O-3) topography (site) codes.

* Mortality data from MATCH include C33, which are deaths from cancer of the trachea.

Appendix F

Maryland Cancer Incidence and Mortality Rates by Geographical Area, 2006-2010

Appendix F

**Table 1: All Cancer Sites Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	449.2	446.7	451.6
Northwest Region	462.9	454.6	471.3
Allegany	517.9	497.3	539.2
Frederick	446.8	434.0	459.8
Garrett	407.7	379.0	438.0
Washington	468.1	453.3	483.4
Baltimore Metropolitan Area ^	463.9	459.8	468.0
Anne Arundel	477.9	469.5	486.5
Baltimore City	470.6	463.0	478.2
Baltimore County	464.9	458.6	471.3
Carroll	454.9	440.9	469.3
Harford	489.8	477.4	502.4
Howard	417.3	405.9	428.9
National Capital Area †	399.1	394.8	403.3
Montgomery †	393.8	388.2	399.3
Prince George's †	405.6	398.9	412.3
Southern Region	438.8	428.0	449.8
Calvert	453.6	433.0	475.0
Charles	414.6	398.1	431.7
Saint Mary's	458.2	438.7	478.5
Eastern Shore Region	488.3	479.8	496.9
Caroline	463.3	432.0	496.3
Cecil	489.2	469.9	509.1
Dorchester	452.0	423.3	482.2
Kent	482.8	446.0	522.2
Queen Anne's	467.8	442.1	494.7
Somerset	499.8	463.5	538.3
Talbot	481.3	454.9	509.0
Wicomico	507.3	487.7	527.5
Worcester	515.7	492.4	539.9

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

^ Area rate does not include Baltimore City

† 2006-2010 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Appendix F

**Table 2: Lung and Bronchus Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	61.2	60.3	62.2
Northwest Region	67.0	63.9	70.3
Allegany	83.7	75.8	92.3
Frederick	61.6	56.8	66.7
Garrett	49.8	40.4	61.1
Washington	69.2	63.6	75.2
Baltimore Metropolitan Area ^	65.4	63.9	67.0
Anne Arundel	70.5	67.2	73.9
Baltimore City	78.5	75.4	81.6
Baltimore County	68.3	65.9	70.7
Carroll	64.1	58.9	69.7
Harford	68.1	63.4	72.9
Howard	45.4	41.5	49.6
National Capital Area †	42.7	41.3	44.2
Montgomery †	37.7	36.0	39.5
Prince George's †	49.5	47.1	52.0
Southern Region	61.0	56.9	65.4
Calvert	62.3	54.6	70.8
Charles	53.4	47.4	60.0
Saint Mary's	69.3	61.6	77.7
Eastern Shore Region	76.2	72.9	79.6
Caroline	72.1	60.1	85.8
Cecil	87.7	79.5	96.4
Dorchester	69.8	59.2	81.9
Kent	74.8	61.2	90.9
Queen Anne's	73.5	63.5	84.7
Somerset	89.2	74.3	106.2
Talbot	55.9	47.9	65.2
Wicomico	83.5	75.7	91.9
Worcester	70.7	62.7	79.7

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

^ Area rate does not include Baltimore City

† 2006-2010 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Appendix F

**Table 3: Colorectal Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	40.1	39.4	40.9
Northwest Region	46.2	43.6	48.9
Allegany	52.5	46.2	59.5
Frederick	47.9	43.7	52.4
Garrett	41.3	32.7	51.8
Washington	41.5	37.2	46.2
Baltimore Metropolitan Area ^	39.9	38.7	41.1
Anne Arundel	37.6	35.2	40.1
Baltimore City	44.8	42.5	47.2
Baltimore County	41.3	39.4	43.2
Carroll	39.5	35.4	43.9
Harford	46.8	42.9	50.9
Howard	35.4	32.1	39.1
National Capital Area †	34.3	33.0	35.6
Montgomery †	31.5	30.0	33.1
Prince George's †	37.8	35.7	40.0
Southern Region	41.9	38.5	45.4
Calvert	40.2	34.1	47.0
Charles	43.3	37.8	49.2
Saint Mary's	42.1	36.3	48.6
Eastern Shore Region	45.0	42.4	47.6
Caroline	43.6	34.3	54.7
Cecil	45.1	39.4	51.5
Dorchester	46.7	38.0	57.1
Kent	42.5	32.4	55.2
Queen Anne's	42.8	35.2	51.6
Somerset	47.8	37.1	60.8
Talbot	41.5	34.1	50.2
Wicomico	47.7	41.8	54.1
Worcester	44.4	37.9	51.8

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

^ Area rate does not include Baltimore City

† 2006-2010 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Appendix F

**Table 4: Female Breast Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	125.1	123.4	126.9
Northwest Region	118.6	112.8	124.6
Allegany	117.4	103.7	132.5
Frederick	119.3	110.7	128.4
Garrett	115.9	95.2	140.2
Washington	117.7	107.4	128.7
Baltimore Metropolitan Area ^	131.5	128.6	134.5
Anne Arundel	127.6	121.8	133.6
Baltimore City	115.6	110.7	120.7
Baltimore County	131.6	127.1	136.3
Carroll	134.1	123.9	144.9
Harford	136.1	127.4	145.2
Howard	130.8	122.5	139.4
National Capital Area †	119.5	116.4	122.6
Montgomery †	122.9	118.8	127.1
Prince George's †	114.7	110.1	119.3
Southern Region	119.3	112.0	127.0
Calvert	136.1	121.3	152.2
Charles	107.0	96.4	118.5
Saint Mary's	121.6	108.2	136.3
Eastern Shore Region	125.8	119.8	132.0
Caroline	136.0	113.5	161.9
Cecil	119.2	106.5	133.1
Dorchester	128.2	107.5	152.1
Kent	127.7	100.5	160.4
Queen Anne's	119.0	101.6	138.8
Somerset	118.7	94.5	147.5
Talbot	137.2	117.3	159.9
Wicomico	117.9	105.2	131.6
Worcester	142.2	124.8	161.6

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

^ Area rate does not include Baltimore City

† 2006-2010 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Appendix F

**Table 5: Prostate Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	153.4	151.3	155.5
Northwest Region	137.0	130.3	144.0
Allegany	152.7	136.7	170.1
Frederick	128.6	118.4	139.4
Garrett	110.3	90.1	134.1
Washington	144.8	132.6	157.7
Baltimore Metropolitan Area ^	140.8	137.5	144.2
Anne Arundel	151.3	144.4	158.4
Baltimore City	155.2	148.5	162.1
Baltimore County	137.6	132.6	142.8
Carroll	123.5	112.9	134.8
Harford	158.5	148.2	169.4
Howard	126.4	117.3	135.9
National Capital Area †	165.7	161.6	169.9
Montgomery †	155.1	150.0	160.5
Prince George's †	181.5	174.7	188.5
Southern Region	146.7	137.5	156.3
Calvert	132.5	116.0	150.7
Charles	164.2	148.7	180.8
Saint Mary's	138.9	123.6	155.6
Eastern Shore Region	160.2	153.3	167.5
Caroline	134.8	110.9	162.4
Cecil	126.8	112.7	142.1
Dorchester	130.4	108.7	155.6
Kent	178.9	148.4	214.6
Queen Anne's	159.2	138.4	182.4
Somerset	143.4	115.9	175.5
Talbot	190.1	167.7	215.1
Wicomico	170.8	154.0	188.9
Worcester	190.8	171.6	212.0

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

^ Area rate does not include Baltimore City

† 2006-2010 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Appendix F

**Table 6: Oral Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	9.8	9.5	10.2
Northwest Region	9.8	8.6	11.1
Allegany	12.4	9.3	16.2
Frederick	9.9	8.1	11.9
Garrett	**	**	**
Washington	9.5	7.5	11.9
Baltimore Metropolitan Area ^	10.6	10.0	11.2
Anne Arundel	12.5	11.2	14.0
Baltimore City	11.7	10.6	13.0
Baltimore County	9.9	9.0	10.9
Carroll	9.7	7.8	11.9
Harford	10.2	8.6	12.2
Howard	9.7	8.1	11.5
National Capital Area †	7.7	7.2	8.3
Montgomery †	7.5	6.7	8.3
Prince George's †	7.9	7.0	8.9
Southern Region	10.9	9.3	12.7
Calvert	11.6	8.7	15.3
Charles	10.4	8.0	13.4
Saint Mary's	10.9	8.2	14.2
Eastern Shore Region	10.4	9.1	11.7
Caroline	11.3	6.9	17.6
Cecil	11.8	9.0	15.1
Dorchester	9.9	6.2	15.2
Kent	**	**	**
Queen Anne's	10.4	7.0	15.0
Somerset	10.7	6.1	17.7
Talbot	10.0	6.5	15.1
Wicomico	8.3	6.0	11.3
Worcester	12.6	9.0	17.3

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

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

^ Area rate does not include Baltimore City

† 2006-2010 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Appendix F

**Table 7: Melanoma Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	20.8	20.3	21.4
Northwest Region	21.1	19.3	23.0
Allegany	17.5	13.7	22.1
Frederick	22.5	19.7	25.5
Garrett	15.6	10.1	23.0
Washington	22.2	19.0	25.7
Baltimore Metropolitan Area ^	27.7	26.7	28.8
Anne Arundel	31.9	29.8	34.2
Baltimore City	9.9	8.8	11.0
Baltimore County	24.4	22.9	25.9
Carroll	30.7	27.1	34.6
Harford	29.3	26.3	32.5
Howard	26.4	23.7	29.3
National Capital Area †	13.1	12.4	13.9
Montgomery †	17.2	16.1	18.4
Prince George's †	7.9	7.0	9.0
Southern Region	23.7	21.3	26.3
Calvert	37.4	31.7	43.9
Charles	11.8	9.2	14.8
Saint Mary's	27.3	22.8	32.5
Eastern Shore Region	29.3	27.2	31.6
Caroline	27.4	20.1	36.5
Cecil	22.0	18.1	26.6
Dorchester	24.4	18.0	32.6
Kent	21.6	13.7	32.4
Queen Anne's	30.4	24.1	38.0
Somerset	27.6	19.4	38.1
Talbot	31.5	24.7	39.6
Wicomico	35.6	30.5	41.3
Worcester	37.0	30.6	44.5

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

^ Area rate does not include Baltimore City

† 2006-2010 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Appendix F

**Table 8: Cervical Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	6.7	6.3	7.2
Northwest Region	7.2	5.8	8.9
Allegany	8.7	4.8	14.5
Frederick	6.6	4.7	9.0
Garrett	**	**	**
Washington	8.4	5.6	12.1
Baltimore Metropolitan Area ^	6.2	5.5	6.9
Anne Arundel	6.0	4.8	7.5
Baltimore City	9.6	8.1	11.2
Baltimore County	6.5	5.5	7.7
Carroll	5.0	3.2	7.5
Harford	7.2	5.3	9.7
Howard	5.4	3.8	7.4
National Capital Area †	6.3	5.6	7.1
Montgomery †	5.5	4.7	6.5
Prince George's †	7.4	6.3	8.7
Southern Region	5.4	4.0	7.3
Calvert	**	**	**
Charles	5.8	3.6	8.8
Saint Mary's	**	**	**
Eastern Shore Region	7.0	5.5	8.7
Caroline	**	**	**
Cecil	9.8	6.4	14.5
Dorchester	**	**	**
Kent	**	**	**
Queen Anne's	**	**	**
Somerset	**	**	**
Talbot	**	**	**
Wicomico	6.9	3.9	11.3
Worcester	**	**	**

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

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

^ Area rate does not include Baltimore City

† 2006-2010 incidence rates for Montgomery County, Prince George's County, and the National Capital Area are lower than actual due to case underreporting in 2006. (See Appendix A, Section I.A.1.)

Source: Maryland Cancer Registry

Appendix F

**Table 9: All Cancer Sites Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	179.0	177.4	180.6
Northwest Region	177.6	172.5	182.9
Allegany	185.8	173.9	198.3
Frederick	172.8	164.7	181.2
Garrett	170.3	152.3	189.8
Washington	184.1	174.9	193.7
Baltimore Metropolitan Area ^	182.1	179.5	184.7
Anne Arundel	189.2	183.7	194.8
Baltimore City	220.3	215.1	225.6
Baltimore County	187.7	183.8	191.7
Carroll	179.2	170.4	188.4
Harford	182.8	175.1	190.8
Howard	152.8	145.5	160.4
National Capital Area	151.6	148.9	154.3
Montgomery	132.6	129.4	135.9
Prince George's	177.5	172.9	182.2
Southern Region	189.7	182.3	197.3
Calvert	188.3	174.7	202.7
Charles	195.5	183.5	208.0
Saint Mary's	185.0	172.3	198.4
Eastern Shore Region	202.4	197.0	207.9
Caroline	206.8	186.0	229.3
Cecil	212.5	199.6	226.0
Dorchester	192.4	174.3	211.9
Kent	206.3	183.6	231.0
Queen Anne's	199.3	182.3	217.4
Somerset	216.6	192.9	242.4
Talbot	167.7	153.3	183.1
Wicomico	220.4	207.7	233.7
Worcester	193.2	179.6	207.6

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

^ Area rate does not include Baltimore City

Source: Maryland Vital Statistics Administration from MATCH

Appendix F

**Table 10: Lung and Bronchus Cancer Mortality‡
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	49.4	48.6	50.2
Northwest Region	51.3	48.6	54.2
Allegany	55.2	48.8	62.2
Frederick	49.2	45.0	53.8
Garrett	46.2	37.1	56.9
Washington	54.2	49.2	59.5
Baltimore Metropolitan Area ^	52.4	51.0	53.8
Anne Arundel	58.7	55.7	61.8
Baltimore City	64.1	61.3	67.0
Baltimore County	53.4	51.3	55.6
Carroll	51.7	47.0	56.7
Harford	54.0	49.9	58.4
Howard	35.9	32.4	39.7
National Capital Area	35.0	33.7	36.3
Montgomery	29.2	27.7	30.8
Prince George's	43.1	40.8	45.5
Southern Region	55.1	51.2	59.3
Calvert	53.9	46.8	61.8
Charles	56.2	49.8	63.2
Saint Mary's	55.2	48.3	62.8
Eastern Shore Region	61.6	58.7	64.7
Caroline	65.3	53.9	78.5
Cecil	66.3	59.2	74.0
Dorchester	60.6	50.7	71.9
Kent	59.6	47.7	73.6
Queen Anne's	58.4	49.4	68.6
Somerset	65.8	53.1	80.7
Talbot	46.4	39.2	54.6
Wicomico	67.8	60.8	75.3
Worcester	59.4	52.2	67.4

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

^ Area rate does not include Baltimore City

‡ Includes cancer of the trachea (See Appendix A, Section I.B.)

Source: Maryland Vital Statistics Administration from MATCH

Appendix F

**Table 11: Colorectal Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	16.8	15.7	17.8
Northwest Region	17.6	14.0	21.3
Allegany	18.2	9.8	26.5
Frederick	17.1	11.3	23.0
Garrett	20.7	6.5	35.0
Washington	17.6	11.1	24.0
Baltimore Metropolitan Area ^	16.5	14.8	18.3
Anne Arundel	16.1	12.4	19.7
Baltimore City	21.6	18.0	25.2
Baltimore County	17.3	14.6	19.9
Carroll	17.3	11.0	23.6
Harford	16.2	10.9	21.6
Howard	15.3	10.0	20.7
National Capital Area	14.1	12.3	15.9
Montgomery	11.1	9.0	13.2
Prince George's	18.5	15.1	21.9
Southern Region	17.7	12.6	22.8
Calvert	18.3	8.5	28.2
Charles	20.4	11.4	29.3
Saint Mary's	14.1	6.2	22.0
Eastern Shore Region	19.1	15.4	22.8
Caroline	20.5	5.4	35.5
Cecil	17.7	9.2	26.2
Dorchester	18.9	5.7	32.1
Kent	18.9	2.6	35.2
Queen Anne's	19.0	7.0	31.1
Somerset	24.6	6.1	43.1
Talbot	15.8	5.5	26.1
Wicomico	23.9	14.5	33.3
Worcester	15.6	6.9	24.4

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

^ Area rate does not include Baltimore City

Source: Maryland Vital Statistics Administration

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**Table 12: Female Breast Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	24.5	23.8	25.3
Northwest Region	22.1	19.7	24.7
Allegany	18.7	13.8	24.8
Frederick	23.4	19.7	27.7
Garrett	32.9	22.4	46.6
Washington	20.5	16.5	25.1
Baltimore Metropolitan Area ^	24.4	23.2	25.7
Anne Arundel	23.5	21.0	26.2
Baltimore City	29.3	26.9	31.9
Baltimore County	25.7	23.8	27.8
Carroll	23.0	19.0	27.7
Harford	24.9	21.3	29.0
Howard	22.5	19.1	26.4
National Capital Area	23.6	22.3	25.0
Montgomery	20.3	18.7	22.0
Prince George's	27.5	25.3	29.9
Southern Region	24.8	21.4	28.5
Calvert	28.3	21.7	36.3
Charles	24.5	19.4	30.5
Saint Mary's	22.0	16.5	28.7
Eastern Shore Region	23.6	21.1	26.3
Caroline	24.1	15.4	36.0
Cecil	23.1	17.7	29.6
Dorchester	17.7	10.8	27.4
Kent	**	**	**
Queen Anne's	28.3	20.1	38.7
Somerset	**	**	**
Talbot	20.6	13.5	30.2
Wicomico	24.3	18.9	30.8
Worcester	27.4	20.6	35.7

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

** Rates based on death counts of 0-19 deaths are suppressed per DHMH/CCPC Mortality Data Suppression Policy

^ Area rate does not include Baltimore City

Source: Maryland Vital Statistics Administration from MATCH

Appendix F

**Table 13: Prostate Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	25.0	24.0	26.0
Northwest Region	20.5	17.7	23.6
Allegany	15.2	10.3	21.6
Frederick	21.4	16.8	26.8
Garrett	**	**	**
Washington	22.5	17.6	28.4
Baltimore Metropolitan Area ^	22.4	20.9	24.0
Anne Arundel	22.5	19.4	25.9
Baltimore City	37.8	34.3	41.6
Baltimore County	22.8	20.7	25.1
Carroll	22.9	17.8	29.0
Harford	22.1	17.7	27.3
Howard	21.6	16.9	27.2
National Capital Area	24.1	22.3	26.0
Montgomery	18.1	16.2	20.1
Prince George's	34.9	31.2	38.9
Southern Region	29.5	24.7	35.0
Calvert	25.4	17.5	35.6
Charles	26.7	19.5	35.7
Saint Mary's	35.0	26.2	45.8
Eastern Shore Region	26.4	23.4	29.7
Caroline	28.0	17.0	43.4
Cecil	28.8	21.1	38.4
Dorchester	**	**	**
Kent	38.8	25.3	56.9
Queen Anne's	24.6	15.8	36.5
Somerset	**	**	**
Talbot	26.3	18.5	36.3
Wicomico	29.4	22.2	38.2
Worcester	21.1	15.0	28.9

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

** Rates based on death counts of 0-19 deaths are suppressed per DHMH/CCPC Mortality Data Suppression Policy

^ Area rate does not include Baltimore City

Source: Maryland Vital Statistics Administration from MATCH

Appendix F

**Table 14: Oral Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	2.5	2.3	2.7
Northwest Region	2.1	1.6	2.7
Allegany	**	**	**
Frederick	**	**	**
Garrett	**	**	**
Washington	2.9	1.9	4.3
Baltimore Metropolitan Area ^	2.5	2.2	2.8
Anne Arundel	3.3	2.6	4.1
Baltimore City	3.7	3.1	4.4
Baltimore County	2.4	2.0	2.9
Carroll	**	**	**
Harford	3.0	2.1	4.2
Howard	1.5	0.9	2.4
National Capital Area	2.2	1.9	2.5
Montgomery	1.7	1.4	2.1
Prince George's	2.7	2.2	3.3
Southern Region	2.4	1.7	3.3
Calvert	**	**	**
Charles	**	**	**
Saint Mary's	**	**	**
Eastern Shore Region	2.9	2.3	3.6
Caroline	**	**	**
Cecil	**	**	**
Dorchester	**	**	**
Kent	**	**	**
Queen Anne's	**	**	**
Somerset	**	**	**
Talbot	**	**	**
Wicomico	**	**	**
Worcester	**	**	**

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

** Rates based on death counts of 0-19 deaths are suppressed per DHMH/CCPC Mortality Data Suppression Policy

^ Area rate does not include Baltimore City

Source: Maryland Vital Statistics Administration from MATCH

Appendix F

**Table 15: Melanoma Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	2.7	2.5	2.9
Northwest Region	3.4	2.7	4.2
Allegany	**	**	**
Frederick	3.8	2.7	5.2
Garrett	**	**	**
Washington	3.2	2.1	4.7
Baltimore Metropolitan Area ^	3.4	3.1	3.8
Anne Arundel	4.0	3.2	4.9
Baltimore City	1.6	1.2	2.1
Baltimore County	3.1	2.6	3.7
Carroll	3.0	2.0	4.4
Harford	3.9	2.9	5.2
Howard	3.0	2.1	4.2
National Capital Area	1.7	1.4	2.0
Montgomery	2.1	1.7	2.5
Prince George's	1.2	0.8	1.7
Southern Region	2.4	1.7	3.4
Calvert	**	**	**
Charles	**	**	**
Saint Mary's	**	**	**
Eastern Shore Region	3.6	2.9	4.4
Caroline	**	**	**
Cecil	**	**	**
Dorchester	**	**	**
Kent	**	**	**
Queen Anne's	**	**	**
Somerset	**	**	**
Talbot	**	**	**
Wicomico	**	**	**
Worcester	**	**	**

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

** Rates based on death counts of 0-19 deaths are suppressed per DHMH/CCPC Mortality Data Suppression Policy

^ Area rate does not include Baltimore City

Source: Maryland Vital Statistics Administration from MATCH

Appendix F

**Table 16: Cervical Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2006-2010**

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	2.3	2.1	2.6
Northwest Region	2.2	1.5	3.2
Allegany	**	**	**
Frederick	**	**	**
Garrett	**	**	**
Washington	**	**	**
Baltimore Metropolitan Area ^	1.9	1.6	2.3
Anne Arundel	2.4	1.7	3.4
Baltimore City	4.3	3.4	5.4
Baltimore County	1.8	1.3	2.4
Carroll	**	**	**
Harford	**	**	**
Howard	**	**	**
National Capital Area	2.1	1.7	2.6
Montgomery	1.5	1.1	2.0
Prince George's	3.0	2.3	3.8
Southern Region	**	**	**
Calvert	**	**	**
Charles	**	**	**
Saint Mary's	**	**	**
Eastern Shore Region	1.8	1.1	2.7
Caroline	**	**	**
Cecil	**	**	**
Dorchester	**	**	**
Kent	**	**	**
Queen Anne's	**	**	**
Somerset	**	**	**
Talbot	**	**	**
Wicomico	**	**	**
Worcester	**	**	**

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

** Rates based on death counts of 0-19 deaths are suppressed per DHMH/CCPC Mortality Data Suppression Policy

^ Area rate does not include Baltimore City

Source: Maryland Vital Statistics Administration from MATCH

Appendix G

Trends in Cancer Incidence and Mortality Rates in Maryland by Cancer Site, Race or Gender, and Year, 2006-2010

Appendix G

**Table 1: Cancer Incidence Rates by Cancer Site and Year
Maryland, 2006-2010**

Cancer Site	2006 †	2007	2008	2009	2010	APC 2006-2010	MD Trend
All Cancer Sites	426.3	455.3	470.8	443.7	449.8	0.8%	↑
Lung	63.4	62.5	64.6	58.6	57.6	-2.5%	↓
Colorectal	41.3	41.6	42.5	38.0	37.4	-2.8%	↓
Female Breast	112.8	123.2	132.7	127.4	129.0	3.1%	↑
Prostate	153.9	162.5	163.0	148.4	140.6	-2.7%	↓
Oral	8.9	9.6	10.1	10.0	10.6	4.0%	↑
Melanoma	19.7	21.2	21.7	20.0	21.4	1.1%	↑
Cervical	6.7	6.4	6.5	6.8	7.3	2.3%	↑

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

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: Maryland Cancer Registry

**Table 2: Cancer Mortality Rates by Cancer Site and Year
Maryland, 2006-2010**

Cancer Site	2006	2007	2008	2009	2010	APC 2006-2010	MD Trend
All Cancer Sites	186.7	180.4	180.6	177.7	170.9	-1.9%	↓
Lung	52.6	50.1	50.0	48.7	46.0	-2.9%	↓
Colorectal	18.4	17.5	16.6	16.6	14.9	-4.6%	↓
Female Breast	25.0	24.8	25.1	23.5	24.2	-1.2%	↓
Prostate	26.3	26.6	25.1	25.5	22.3	-3.7%	↓
Oral	2.8	2.5	2.4	2.5	2.3	-3.9%	↓
Melanoma	3.0	2.4	2.6	2.9	2.4	-2.5%	↓
Cervical	2.2	2.4	2.5	2.3	1.9	-3.3%	↓

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: NCHS Compressed Mortality File in CDC WONDER, 2006-2007

Maryland Vital Statistics Administration from MATCH, 2008-2010

Maryland Vital Statistics Administration, 2008-2010 (Colorectal)

Appendix G

**Table 3: Cancer Incidence Rates by Race and Year
Maryland, 2006-2010**

Cancer Site	Race	2006 †	2007	2008	2009	2010	APC 2006-2010
All Cancer Sites	White	434.3	460.5	472.2	446.5	449.0	0.4%
	Black	395.7	444.0	467.9	431.8	451.5	2.4%
Lung	White	67.1	64.3	66.1	60.7	58.5	-3.3%
	Black	55.3	60.3	63.0	55.6	59.2	0.6%
Colorectal	White	40.2	40.6	41.0	36.0	35.9	-3.4%
	Black	42.7	44.8	47.5	42.4	43.0	-0.4%
Female Breast	White	115.0	125.4	130.7	127.8	127.6	2.3%
	Black	109.7	117.2	132.4	121.7	129.4	3.7%
Prostate	White	137.3	146.5	142.9	127.2	122.0	-3.7%
	Black	186.3	209.0	225.5	217.9	195.0	1.3%
Oral	White	9.4	10.0	10.7	11.2	11.6	5.5%
	Black	7.6	8.1	8.6	7.5	7.5	-1.0%
Cervix	White	5.8	6.2	5.6	5.8	6.2	0.7%
	Black	7.1	7.2	8.2	7.8	9.1	5.9%

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

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: Maryland Cancer Registry

**Table 4: Melanoma Incidence Rates by Gender and Year
Maryland, 2006-2010**

Cancer Site	Gender	2006 †	2007	2008	2009	2010	APC 2006-2010
Melanoma	Male	26.0	27.2	29.0	26.5	26.9	0.4%
	Female	15.3	17.1	16.7	15.5	17.5	1.7%

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

Rates are age-adjusted to 2000 U.S. standard popula

APC = Annual Percent Change (%)

Source: Maryland Cancer Registry

Appendix G

**Table 5: Mortality Rates by Race and Year
Maryland, 2006-2010**

Cancer Site	Race	2006	2007	2008	2009	2010	APC 2006-2010
All Cancer Sites	White	183.6	176.6	175.0	176.6	166.1	-2.0%
	Black	211.1	207.7	212.8	193.0	197.0	-2.1%
Lung	White	53.7	51.4	51.1	50.6	46.5	-3.0%
	Black	53.2	51.2	51.8	46.2	48.5	-2.8%
Colorectal	White	17.6	15.7	15.4	15.2	12.9	-6.3%
	Black	22.7	24.1	21.8	21.8	21.9	-1.7%
Female Breast	White	23.7	22.8	22.0	22.6	21.1	-2.4%
	Black	30.2	32.4	35.3	27.1	34.1	0.6%
Prostate	White	21.7	23.0	20.6	20.7	17.6	-5.1%
	Black	51.1	45.3	48.1	49.6	44.4	-1.9%
Oral	White	2.6	2.5	2.2	2.3	2.2	-4.1%
	Black	3.7	2.8	3.0	3.3	2.5	-6.0%
Cervix	White	1.7	1.7	2.0	1.7	1.5	-2.5%
	Black	3.6	4.3	3.6	3.8	2.9	-5.4%

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: NCHS Compressed Mortality File in CDC WONDER, 2006-2007

Maryland Vital Statistics Administration from MATCH, 2008-2010

Maryland Vital Statistics Administration, 2008-2010 (Colorectal)

**Table 6: Melanoma Mortality Rates by Gender and Year
Maryland, 2006-2010**

Cancer Site	Gender	2006	2007	2008	2009	2010	APC 2006-2010
Melanoma	Male	4.8	3.5	4.4	4.7	4.0	-0.7%
	Female	1.8	1.8	1.3	1.8	1.3	-6.3%

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: NCHS Compressed Mortality File in CDC WONDER, 2006-2007

Maryland Vital Statistics Administration from MATCH, 2008-2010

Appendix H

Trends in Cancer Stage of Disease at Diagnosis in Maryland by Cancer Site and Year, 2006-2010

Appendix H

**Table 1: All Cancer Sites
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2006-2010**

Stage	2006	2007	2008	2009	2010
	%	%	%	%	%
Local	42.9	45.9	45.8	43.8	43.6
Regional	20.8	21.1	21.0	20.2	19.8
Distant	20.5	20.9	21.1	20.7	21.8
Unstaged	15.8	12.1	12.1	15.2	14.8

Source: Maryland Cancer Registry

**Table 2: Lung Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2006-2010**

Stage	2006	2007	2008	2009	2010
	%	%	%	%	%
Local	17.1	18.7	20.2	20.5	18.3
Regional	23.8	23.7	24.8	23.8	23.1
Distant	45.6	47.8	45.6	46.9	47.0
Unstaged	13.5	9.8	9.4	8.8	11.5

Source: Maryland Cancer Registry

**Table 3: Colorectal Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2006-2010**

Stage	2006	2007	2008	2009	2010
	%	%	%	%	%
Local	35.7	39.3	38.3	35.8	36.0
Regional	33.1	32.8	33.7	33.5	31.7
Distant	17.7	18.1	19.5	19.4	19.8
Unstaged	13.5	9.8	8.5	11.3	12.5

Source: Maryland Cancer Registry

**Table 4: Female Breast Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2006-2010**

Stage	2006	2007	2008	2009	2010
	%	%	%	%	%
Local	57.1	58.4	58.0	59.4	57.4
Regional	31.9	31.6	30.8	29.3	29.7
Distant	5.0	5.8	5.8	4.8	5.1
Unstaged	6.0	4.2	5.4	6.6	7.8

Source: Maryland Cancer Registry

Appendix H
Table 5: Prostate Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2006-2010

Stage	2006	2007	2008	2009	2010
	%	%	%	%	%
Local	64.7	69.1	68.6	57.7	67.3
Regional	8.3	10.0	9.8	8.0	8.3
Distant	2.9	2.7	2.4	3.1	3.2
Unstaged	24.1	18.1	19.1	31.2	21.2

Source: Maryland Cancer Registry

Table 6: Oral Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2006-2010

Stage	2006	2007	2008	2009	2010
	%	%	%	%	%
Local	28.1	27.3	31.6	30.8	31.2
Regional	44.4	47.4	42.5	47.4	43.4
Distant	17.9	17.0	17.2	12.7	17.0
Unstaged	9.6	8.4	8.7	9.1	8.4

Source: Maryland Cancer Registry

Table 7: Melanoma
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2006-2010

Stage	2006	2007	2008	2009	2010
	%	%	%	%	%
Local	59.1	68.4	67.3	65.6	52.1
Regional	9.7	9.2	7.8	8.6	8.4
Distant	3.7	3.6	3.4	3.4	3.8
Unstaged	27.5	18.8	21.5	22.4	35.7

Source: Maryland Cancer Registry

Table 8: Cervical Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2006-2010

Stage	2006	2007	2008	2009	2010
	%	%	%	%	%
Local	34.2	38.1	36.0	39.4	40.1
Regional	36.7	34.5	37.5	32.7	36.2
Distant	11.1	16.0	17.0	11.1	8.2
Unstaged	18.1	11.3	9.5	16.8	15.5

Source: Maryland Cancer Registry

Appendix I

Trends in All Cancer Sites Incidence and Mortality Rates in Maryland and U.S. by Year, 2001-2010

Appendix I

**Table 1: All Cancer Sites Incidence Rates by Year
Maryland and U.S., 2001-2010**

	2001	2002	2003	2004	2005	2006 †	2007	2008	2009	2010	APC 2001-2010	Trend
Maryland	444.4	495.8	494.5	462.6	457.4	426.3	455.3	470.8	443.7	449.8	-0.6%	↓
U.S.	486.4	482.3	468.1	469.7	465.4	467.6	473.7	467.3	462.6	445.0	-0.6%	↓

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

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: Maryland Cancer Registry

U.S. SEER, SEER*Stat

**Table 2: All Cancer Sites Mortality Rates by Year
Maryland and U.S., 2001-2010**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	APC 2001-2010	Trend
Maryland	205.1	201.7	195.7	189.9	190.2	186.7	180.4	180.6	177.7	170.9	-1.9%	↓
U.S.	196.0	193.5	190.1	185.8	183.8	180.7	178.4	175.3	173.1	171.8	-1.5%	↓

Rates are age-adjusted to 2000 U.S. standard population

APC = Annual Percent Change (%)

Source: NCHS Compressed Mortality File in CDC WONDER, 2001-2007 (MD)

Maryland Vital Statistics Administration from MATCH, 2008-2010 (MD)

NCHS Compressed Mortality File in CDC WONDER, 2001-2008 (U.S.)

U.S. SEER, Cancer Statistics Review, 2009-2010 (U.S.)

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