Maryland Department of Health

2017 Cancer Data

Cigarette Restitution Fund Program

Cancer Prevention, Education, Screening and Treatment Program

August 2017

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Glossary

- **Age-adjustment:** Age is the most important risk factor for the incidence of most cancers. However, 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 with 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):** A measure of the annual percent increase or decrease in cancer rates over time, 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:

  https://surveillance.cancer.gov/help/joinpoint/setting-parameters/advanced-tab/average-annual-percent-change-aapc

- **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; an evaluation of random samples of records from reporting facilities; and a review of death certificate data to identify cancer cases not previously reported.

- **Cancer:** A disease characterized by the uncontrolled, abnormal growth of cells in different parts of the body that can spread to other parts of the body.

- **Confidence interval (CI):** Describes 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. CIs are useful in defining a range within which the typical rate for a geographic area can be expected to lie. Most CIs are, by convention, calculated at the 95% level, which means that 95% of hypothetically observed CIs generated will contain the true value of interest. The smaller the number of events upon which a rate is based, the wider the confidence interval will be.

- **Incidence:** The number of new cases of a given cancer or other event during a defined time period, usually one year. For the purposes of this report, cancer incidence refers to the number of new cases diagnosed during the individual calendar year 2014. Cancer incidence data are also presented in aggregated form, as the average annual incidence for the 5-year period from 2010 through 2014.

- **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:** Cancer that has spread beyond the layer of cells where it first began and has grown into nearby tissues. It may still be considered local stage if it has not spread to other parts of the body. Stage data presented in this report involve a diagnosis of invasive cancer: local, regional, or distant. A diagnosis of *in situ* is non-invasive and is not included in the staging data, except for *in situ* bladder cancer for all sites cancer data.

- **Mortality:** The number of deaths during a defined time period, usually one year. For the purposes of this report, cancer mortality refers to the number of new cancer deaths during the individual calendar year 2014. Cancer mortality data are also presented in an aggregated form, as the average annual mortality for the 5-year period from 2010 through 2014.

- **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 B).

- **Rate:** 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 the five regional categories in Maryland.

  <u>Baltimore Metropolitan Area</u>
  Anne Arundel, Baltimore City, Baltimore County, Carroll, Harford, and Howard Counties

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

Eastern Shore Region
Caroline, Cecil, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico, and Worcester Counties

National Capital Area
Montgomery and Prince George's Counties

Northwest Region
Allegany, Frederick, Garrett, and Washington Counties

Southern Region
Calvert, Charles, and St. Mary's Counties

- **Screening:** 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 there is 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. **Local:** 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.

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I. Major Findings

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

- In 2014, a total of 29,912 new cases of cancer were diagnosed in Maryland.
- From 2005 to 2014, the annual overall cancer incidence rates declined in Maryland at a pace lower than the decline in the U.S. rates (-0.2% vs. -1.2% per year). In 2014, the Maryland all cancer incidence rate was higher than the U.S. rate (442.0 vs. 428.6 per 100,000 population).
- In 2014, the incidence rate for all cancer sites among blacks in Maryland remained below the incidence rate for whites, continuing the trend seen beginning in 2011; rates increased for whites and decreased for blacks for the period 2010-2014.
- From 2004 to 2013, the annual overall cancer mortality rates decreased slightly more in Maryland than in the U.S (-1.9% vs. -1.4% per year). In 2014, the Maryland (all cancer sites) mortality rate was similar to the U.S. rate (161.8 vs. 161.3 per 100,000 population), and remained above the Healthy People 2020 target of 161.4 per 100,000 population.
- Blacks had higher all cancer sites mortality rates than whites from 2010 to 2014; the annual percent change decreased for both races.

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

- Lung cancer is the leading cause of cancer death in both men and women in Maryland, accounting for 25.6% of all 10,759 cancer deaths in 2014.
- From 2010 to 2014, overall lung cancer incidence and mortality rates decreased in Maryland, and also declined for both whites and blacks, after stratification by race.

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

- Incidence and mortality rates for colorectal cancer declined in Maryland from 2010 to 2014. Over this time period, incidence rates had a greater decrease per year among Maryland whites compared to blacks. From 2010 to 2014, mortality rates decreased for Maryland blacks, but increased for whites.

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 2010 to 2014, with similar annual increases in the incidence rate in black and white females.
- From 2010 to 2014, mortality rates for female breast cancer decreased for both black and white females, with the mortality rate in black females decreasing at a greater rate per year than in white females.

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 2010 to 2014.
- Racial disparities in prostate cancer incidence and mortality were present, with the rates for black males remaining higher than for white males in the years 2010 to 2014.
- From 2010 to 2014, mortality rates had a greater decrease for black men than white men (-5.4% vs. -2.4%), while incidence rates had a greater decrease for white men than black men (-3.8% vs. -1.4%).

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

- From 2010 to 2014, Maryland oral cancer incidence rates increased overall, with a greater rate of increase per year for whites than blacks.
- From 2010 to 2014, oral cancer mortality rates increased overall; however, mortality rates per year decreased for blacks and increased for whites

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

- Melanoma incidence rates in Maryland increased slightly from 2010 to 2014. The annual incidence rate increased among males and decreased among females. In 2014, males had incidence rates of melanoma that were 86.3% higher than females.
- From 2010 to 2014, overall melanoma mortality rates decreased among both males and females.

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

- Cervical cancer incidence and mortality rates among Maryland women decreased from 2010 to 2014.
- Cervical cancer incidence rates decreased in both black and white females. From 2010 to 2014, incidence rates had a greater decrease for black women than white women (-8.1% vs. -1.1%).
- Mortality rates for cervical cancer decreased from 2010 to 2014 and differed by race; mortality rates among black women remained higher than those among white women, however, rates among black women declined per year while rates among white women increased per year (-3.8% vs. 1.1%).

II. All Cancer Sites

Incidence (New Cases)

A total of 29,912 new cases of cancer diagnosed in 2014 in Maryland residents were reported to the Maryland Cancer Registry. The total age-adjusted cancer incidence rate for Maryland was 442.0 per 100,000 population (436.9-447.2, 95% Confidence Interval [C.I.]) in 2014. The 2014 Maryland cancer incidence rate is statistically significantly higher than the 2014 U.S. Surveillance Epidemiology and End Results (SEER) rate of 428.6 per 100,000 population (427.3-429.9, 95% C.I.).

Mortality (Deaths)

Cancer is the second leading cause of death in Maryland, accounting for 23.5% of all deaths in 2014. A total of 10,759 Maryland residents died from cancer in 2014. The Maryland mortality rate for all cancer sites was 161.8 per 100,000 population (158.7-164.9, 95% C.I.) for 2014. This rate is similar to the 2014 U.S. mortality rate for all cancer sites of 161.3 per 100,000 population (160.9-161.7, 95% C.I.). Maryland ranks 31st highest among all states and the District of Columbia in total cancer mortality for the period 2010-2014.

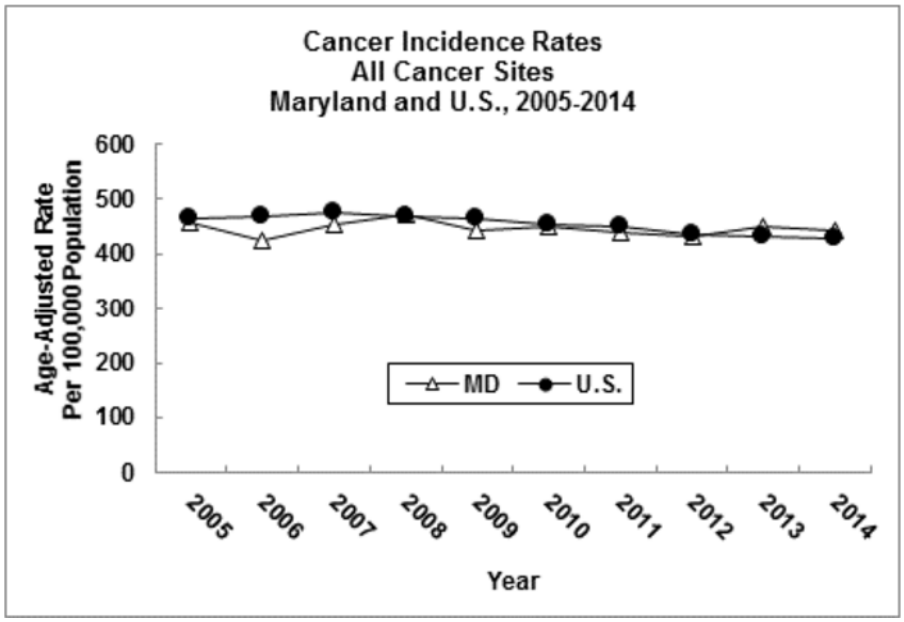
Table 1.
All Cancer Sites Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2014

Incidence 2014	*Total**	*Males*	*Females*	*Whites*	*Blacks*	*Other*
New Cases (count)	29,912	14,673	15,234	20,530	8,043	1,014
MD Incidence Rate	442.0	481.4	416.3	450.6	443.6	247.4
U.S. SEER Rate	428.6	463.5	406.7	437.5	431.8	279.1
Mortality 2014	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
Deaths (count)	10,759	5,445	5,314	7,433	3,008	318
MD Mortality Rate	161.8	191.5	141.7	160.6	181.0	85.7
U.S. Mortality Rate	161.3	193.6	137.9	161.9	186.4	N/A

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

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

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat
NCHS Compressed Mortality File in CDC WONDER, 2014
U.S. SEER, Cancer Statistics Review

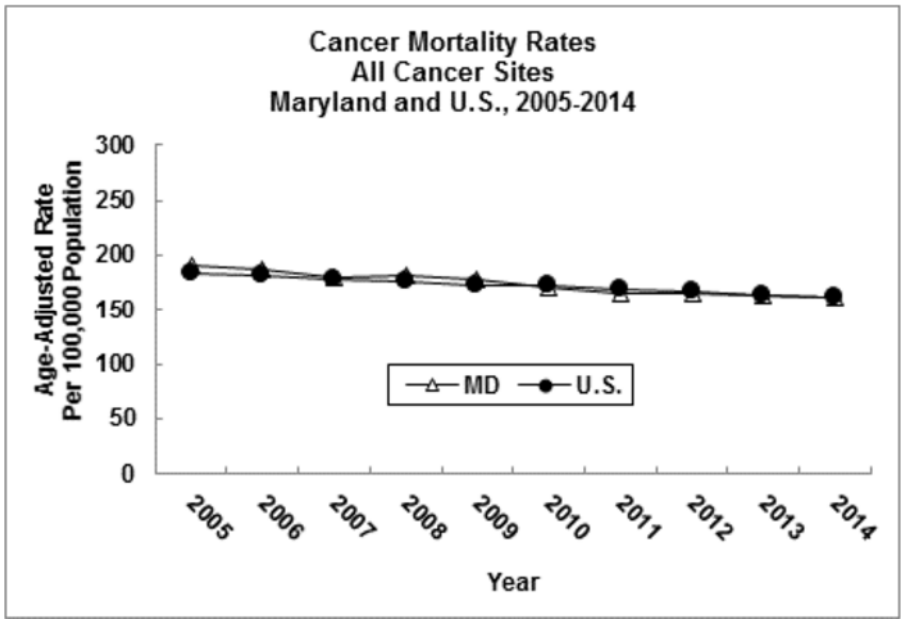


Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat

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

All cancer sites incidence rates in Maryland and in the U.S. declined over the 10-year period from 2005 to 2014. Maryland incidence rates decreased at a rate of 0.2% per year; U.S. incidence rates decreased at a rate of 1.2% per year.

See Appendix H, Table 1.

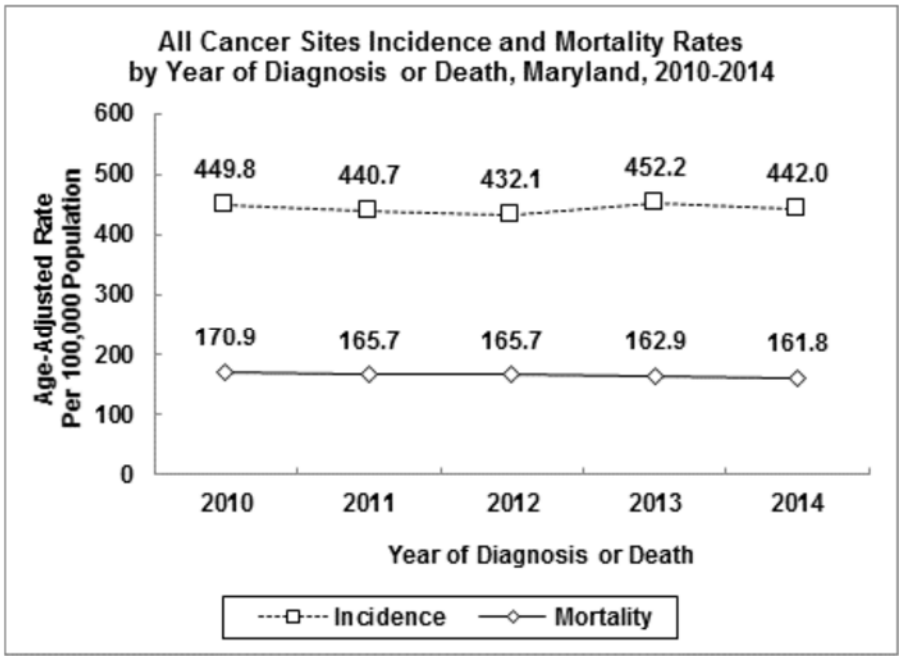


Source: NCHS Compressed Mortality File in CDC WONDER, 2005-2007, 2012-2014 (MD)
Maryland Vital Statistics Administration from MATCH, 2008-2010 (MD)
Maryland Vital Statistics Administration, 2011 (MD)
NCHS Compressed Mortality File in CDC WONDER, 2005-2008 (U.S.)
U.S. SEER, Cancer Statistics Review, 2009-2014 (U.S.)

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

Maryland cancer mortality rates have declined since 2005. From 2005 to 2014, 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 1.4% per year for the same time period.

See Appendix H, Table 2.



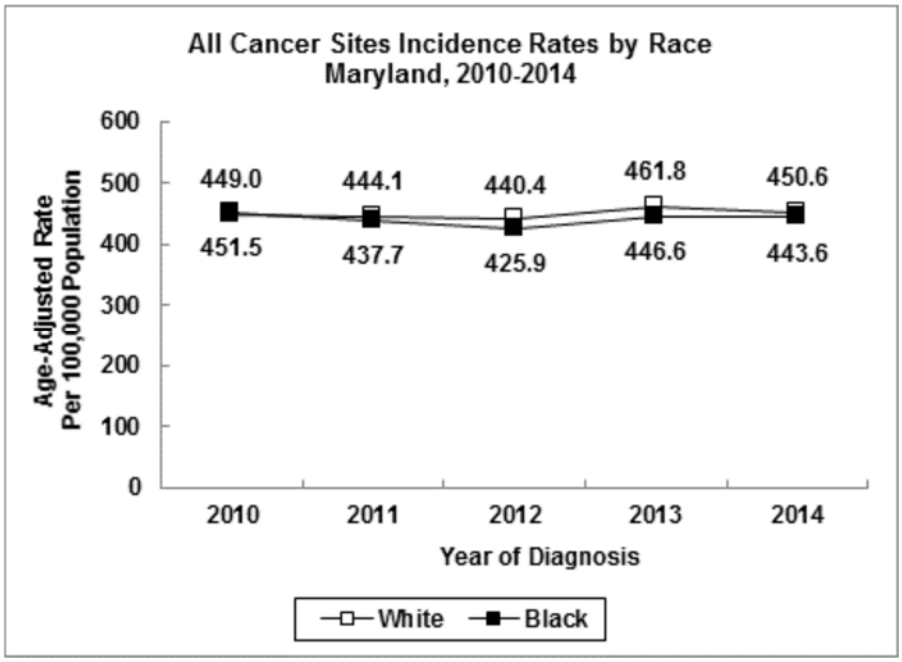
Source: Maryland Cancer Registry
NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2011

Incidence and Mortality Trends

In Maryland, the incidence rate for all cancer sites decreased slightly at a rate of 0.1% per year from 2010 to 2014.

Cancer mortality rates decreased at a rate of 1.3% per year from 2010 to 2014.

See Appendix F, Tables 1 and 2.

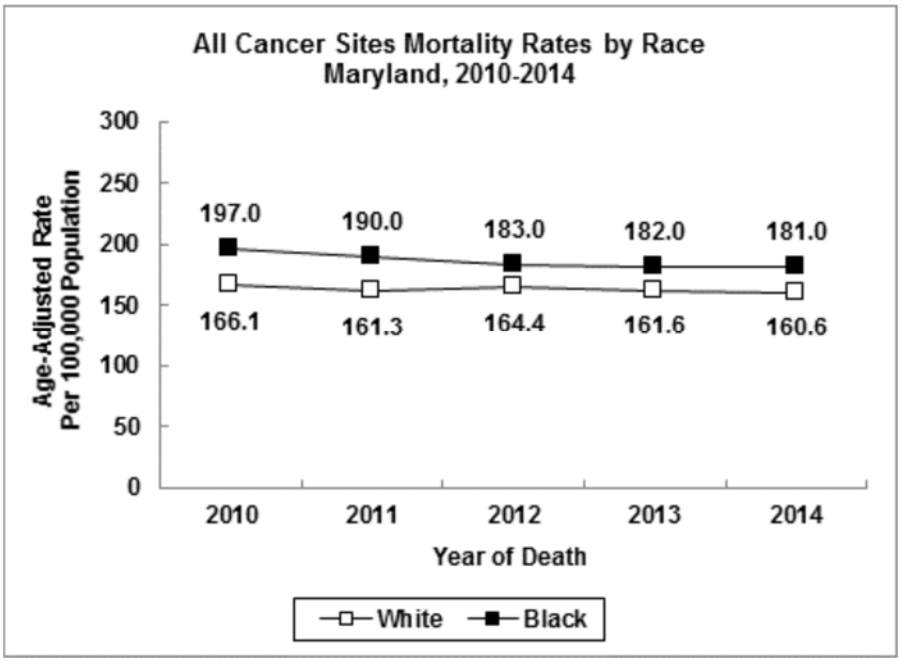


Source: Maryland Cancer Registry

Incidence Trends by Race

In 2011, the incidence rate for all cancer sites among blacks fell below the incidence rate for whites in Maryland. From 2010 to 2014, incidence rates for all cancer sites increased at a rate of 0.5% per year among whites and decreased at a rate of 0.2% per year among blacks.

See Appendix F, Table 3.



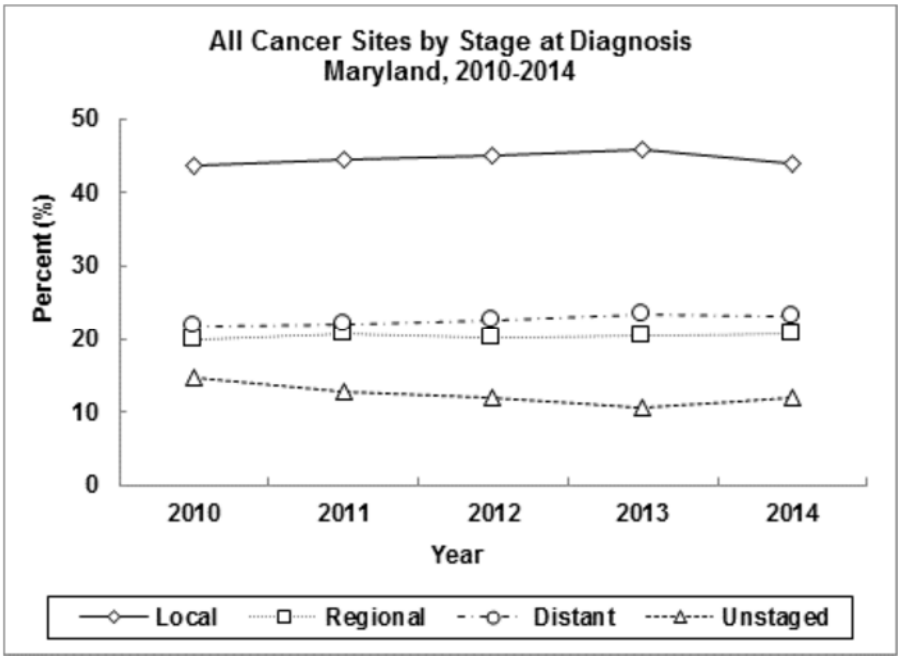
Source: NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2011

Mortality Trends by Race

Both blacks and whites showed declines in cancer mortality from 2010 to 2014, with a decrease of 0.7% per year for whites and 2.1% per year for blacks.

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

See Appendix F, Table 5.

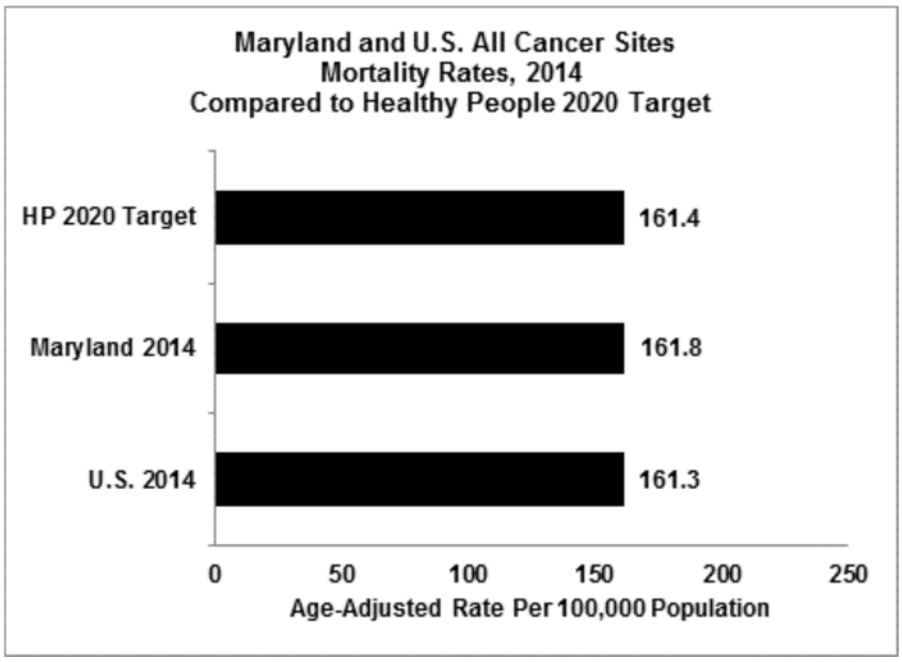


Source: Maryland Cancer Registry
* In the 2015 and 2016 CRF Cancer Reports, the 2011 unstaged value was incorrect due to a data copy error. It has been corrected in this version.

Stage at Diagnosis

Of all cancers diagnosed in Maryland in 2014, 44.0% were found at the local (early) stage, 20.8% at the regional stage, and 23.1% at the distant (late) stage. The proportion of all cancers reported as unstaged slightly increased to 12.0% in 2014.*

See Appendix G, Table 1.



Source: Healthy People 2020, U.S. Department of Health and Human Services
NCHS Compressed Mortality File in CDC WONDER
U.S. SEER, Cancer Statistics Review

Mortality Rates Compared to Healthy People 2020 Target

The mortality rate for all cancer sites in Maryland for 2014 was 161.8 per 100,000 population, which was similar to the U.S. rate of 161.3 per 100,000 population. The Healthy People 2020 target is to reduce cancer mortality to 161.4 per 100,000 population.

Table 2.
Number of Cancer Cases for All Cancer Sites by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total*	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	29,912	14,673	15,234	20,530	8,043	1,014
Allegany	478	235	243	459	14	<6
Anne Arundel	2,935	1,392	1,543	2,521	343	60
Baltimore City	3,215	1,585	1,630	1,048	2,109	42
Baltimore County	4,956	2,445	2,508	3,755	1,062	106
Calvert	500	256	244	412	82	<6
Caroline	185	97	88	152	29	0
Carroll	974	481	493	932	32	6
Cecil	592	319	273	552	36	<6
Charles	669	348	321	444	209	12
Dorchester	208	100	108	155	51	<6
Frederick	1,141	550	591	994	105	34
Garrett	184	90	94	s	0	<6
Harford	1,487	769	717	1,309	155	21
Howard	1,271	591	680	908	237	115
Kent	144	77	67	116	28	0
Montgomery	4,296	2,022	2,274	3,002	705	465
Prince George's	3,602	1,739	1,862	952	2,457	113
Queen Anne's	287	151	136	267	19	0
St. Mary's	474	240	234	394	67	7
Somerset	137	87	50	103	33	0
Talbot	270	138	132	236	30	<6
Washington	840	411	429	781	46	10
Wicomico	619	307	312	471	135	7
Worcester	409	218	191	359	s	<6

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

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

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, 2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	442.0	481.4	416.3	450.6	443.6	247.4
Allegany	477.4	495.5	479.9	476.9	**	**
Anne Arundel	472.5	489.6	467.1	488.6	418.4	248.4
Baltimore City	486.3	561.5	438.9	478.7	492.0	266.4
Baltimore County	490.4	547.0	451.9	502.2	498.0	247.7
Calvert	484.7	526.4	450.3	478.9	563.9	**
Caroline	478.9	534.4	423.9	458.5	557.8	0.0
Carroll	473.2	510.9	443.8	475.7	478.3	**
Cecil	507.4	570.6	457.6	506.1	600.1	**
Charles	433.0	493.5	385.2	496.5	360.4	**
Dorchester	453.8	466.5	455.5	454.5	466.1	**
Frederick	424.7	457.2	408.9	414.3	594.9	327.2
Garrett	424.9	427.1	428.4	426.5	0.0	**
Harford	499.4	562.8	453.3	503.6	557.5	236.0
Howard	383.8	393.4	382.0	392.8	450.8	251.5
Kent	454.2	497.0	435.7	428.7	654.2	0.0
Montgomery	368.8	388.0	358.9	372.2	390.3	258.5
Prince George's	397.0	441.5	369.2	389.3	397.2	219.9
Queen Anne's	442.1	481.2	409.3	447.8	424.4	0.0
St. Mary's	401.6	412.0	395.3	403.8	393.8	**
Somerset	452.3	573.2	339.7	488.0	414.0	0.0
Talbot	418.7	448.0	393.5	411.8	432.9	**
Washington	457.9	476.5	452.2	461.8	414.2	**
Wicomico	549.5	590.7	524.4	548.8	557.9	**
Worcester	474.7	529.6	427.1	477.4	529.1	**

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

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

Source: Maryland Cancer Registry

Table 4.
All Cancer Sites and Age-Adjusted Incidence Rates* Among Hispanics§ by Geographical Area in Maryland, 2014

Jurisdiction	Cases	Rate
Maryland	875	282.0
Allegany	<6	**
Anne Arundel	54	280.7
Baltimore City	43	249.6
Baltimore County	91	422.5
Calvert	<6	**
Caroline	<6	**
Carroll	14	**
Cecil	6	**
Charles	12	**
Dorchester	<6	**
Frederick	33	288.2
Garrett	0	0.0
Harford	17	312.7
Howard	42	422.1
Kent	<6	**
Montgomery	336	266.1
Prince George's	169	221.3
Queen Anne's	<6	**
St. Mary's	10	**
Somerset	<6	**
Talbot	<6	**
Washington	14	**
Wicomico	11	**
Worcester	<6	**
Region	**Cases**	**Rate**
Baltimore Metropolitan Area	261	349.1
Eastern Shore Region	35	354.0
National Capital Area	505	251.3
Northwest Region	49	317.6
Southern Region	23	258.8

* 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 F)

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

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

Source: Maryland Cancer Registry

Table 5.
Number of Deaths for All Cancer Sites by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	10,759	5,445	5,314	7,433	3,008	318
Allegany	178	99	79	174	<10	<10
Anne Arundel	1,039	522	517	869	139	31
Baltimore City	1,519	777	742	560	944	15
Baltimore County	1,655	823	832	1,307	303	45
Calvert	171	85	86	140	s	<10
Caroline	79	44	35	68	s	<10
Carroll	325	163	162	317	<10	<10
Cecil	199	111	88	189	<10	<10
Charles	239	121	118	150	77	12
Dorchester	99	52	47	75	s	<10
Frederick	403	210	193	357	36	10
Garrett	53	28	25	52	<10	<10
Harford	494	277	217	441	s	<10
Howard	336	167	169	244	64	28
Kent	54	29	25	44	s	<10
Montgomery	1,299	624	675	967	213	119
Prince George's	1,417	693	724	446	931	40
Queen Anne's	117	71	46	105	s	<10
St. Mary's	202	106	96	174	s	<10
Somerset	62	36	26	42	s	<10
Talbot	113	63	50	95	s	<10
Washington	321	161	160	310	s	<10
Wicomico	236	112	124	179	s	<10
Worcester	149	71	78	128	s	<10

<10 = Death counts of 0-9 are suppressed per MDH/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: CDC Wonder, 2014

Table 6.
All Cancer Sites Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	161.8	191.5	141.7	160.6	181.0	85.7
Allegany	171.5	214.6	145.9	174.2	**	**
Anne Arundel	172.6	197.6	155.5	171.4	182.4	158.7
Baltimore City	237.8	301.3	198.5	259.3	230.1	**
Baltimore County	156.2	186.3	135.2	158.4	153.3	122.1
Calvert	171.2	183.0	162.2	165.9	221.6	**
Caroline	206.7	268.5	166.2	209.9	**	**
Carroll	159.2	183.7	142.9	162.6	**	**
Cecil	178.1	217.7	147.2	180.0	**	**
Charles	169.3	202.0	146.3	170.0	160.1	**
Dorchester	205.4	254.3	176.0	205.0	224.5	**
Frederick	156.0	186.0	133.2	152.2	238.7	**
Garrett	119.1	142.0	103.3	118.1	**	**
Harford	171.7	225.1	134.6	172.9	196.8	**
Howard	112.2	126.1	102.7	113.2	154.1	62.3
Kent	149.3	194.9	118.0	136.7	**	**
Montgomery	112.2	127.3	102.8	115.7	133.0	71.4
Prince George's	168.6	199.4	149.9	189.1	165.6	89.1
Queen Anne's	172.8	223.2	130.1	170.4	**	**
St. Mary's	185.8	210.2	166.2	190.5	180.3	**
Somerset	201.3	251.1	159.9	181.8	267.8	**
Talbot	164.7	200.5	136.7	154.7	**	**
Washington	173.1	194.8	159.7	179.4	**	**
Wicomico	209.3	233.1	195.3	206.7	243.9	**
Worcester	166.2	174.5	162.0	158.6	238.9	**

* 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 MDH/CCPC Mortality Data Suppression Policy

Source: CDC Wonder, 2014

Table 7.
Number of Cancer Cases for All Cancer Sites by Jurisdiction, Gender, and Race, Maryland, 2010-2014

Jurisdiction	Total*	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	143,484	70,750	72,667	99,375	37,183	4,664
Allegany	2,526	1,281	1,245	2,385	123	11
Anne Arundel	13,718	6,861	6,853	11,697	1,627	262
Baltimore City	15,632	7,592	8,031	5,241	10,098	174
Baltimore County	23,115	11,248	11,855	17,828	4,568	502
Calvert	2,241	1,109	1,127	1,899	304	16
Caroline	899	467	431	755	133	<6
Carroll	4,533	2,263	2,268	4,326	136	31
Cecil	2,796	1,454	1,340	2,620	139	20
Charles	3,172	1,634	1,536	1,997	1,054	66
Dorchester	1,118	602	516	849	260	8
Frederick	5,450	2,662	2,786	4,856	414	112
Garrett	811	395	416	806	0	<6
Harford	6,836	3,492	3,342	6,046	646	83
Howard	6,258	2,988	3,266	4,603	1,035	535
Kent	686	353	333	583	99	0
Montgomery	21,141	9,951	11,186	14,952	3,257	2,125
Prince George's	16,929	8,273	8,641	4,647	11,344	537
Queen Anne's	1,343	711	632	1,239	96	<6
St. Mary's	2,299	1,171	1,127	1,920	311	34
Somerset	744	422	322	546	184	6
Talbot	1,415	752	663	1,257	141	6
Washington	4,138	2,033	2,104	3,858	220	40
Wicomico	2,874	1,483	1,391	2,211	600	41
Worcester	2,030	1,126	904	1,756	232	24

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

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

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

Source: Maryland Cancer Registry

Table 8.
All Cancer Sites Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2010-2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	443.4	488.1	413.2	449.3	441.0	255.9
Allegany	503.4	550.2	481.1	497.5	887.3	**
Anne Arundel	459.2	502.9	429.8	468.3	426.5	241.0
Baltimore City	486.3	552.0	443.7	484.9	487.5	245.9
Baltimore County	472.1	521.2	439.3	479.9	475.0	250.9
Calvert	460.8	494.9	438.1	465.5	445.0	175.2
Caroline	468.9	529.8	423.0	461.6	513.5	**
Carroll	458.4	503.0	427.0	457.7	474.3	221.6
Cecil	498.1	548.8	459.5	498.3	502.0	228.7
Charles	433.7	499.2	383.8	444.9	417.2	222.4
Dorchester	499.5	576.9	439.5	503.3	499.4	**
Frederick	431.8	467.2	409.9	429.8	485.3	250.6
Garrett	394.7	409.6	387.8	394.5	0.0	**
Harford	483.8	542.1	442.0	487.6	488.2	216.7
Howard	407.7	428.4	396.9	422.3	441.5	266.5
Kent	442.4	479.9	420.1	441.1	457.5	0.0
Montgomery	381.1	403.8	368.5	381.2	397.3	263.6
Prince George's	396.5	449.6	361.5	389.2	394.6	235.9
Queen Anne's	432.2	478.7	392.4	436.3	421.1	**
St. Mary's	419.4	440.0	402.2	420.9	411.9	207.1
Somerset	493.1	564.3	440.9	505.5	463.4	**
Talbot	448.1	504.9	403.8	449.9	401.7	**
Washington	467.8	494.6	458.3	468.2	451.3	366.2
Wicomico	520.9	595.4	468.8	522.3	525.0	280.0
Worcester	483.6	550.7	430.3	473.1	521.7	679.9

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

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

Source: Maryland Cancer Registry

Table 9.
Number of Deaths for All Cancer Sites by Jurisdiction, Gender, and Race, Maryland, 2010-2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	52,411	26,616	25,795	36,570	14,437	1,404
Allegany	891	487	404	870	s	<10
Anne Arundel	4,944	2,545	2,399	4,152	650	142
Baltimore City	7,208	3,617	3,591	2,467	4,676	65
Baltimore County	8,368	4,145	4,223	6,684	1,529	155
Calvert	785	412	373	657	s	<10
Caroline	353	179	174	302	s	<10
Carroll	1,639	841	798	1,590	s	<10
Cecil	1,018	565	453	967	s	<10
Charles	1,226	626	600	785	409	32
Dorchester	434	238	196	319	s	<10
Frederick	1,854	971	883	1,692	141	21
Garrett	311	167	144	310	<10	<10
Harford	2,312	1,213	1,099	2,077	214	21
Howard	1,741	857	884	1,315	291	135
Kent	279	147	132	236	s	<10
Montgomery	6,524	3,120	3,404	4,945	976	603
Prince George's	6,655	3,287	3,368	2,115	4,380	160
Queen Anne's	528	305	223	480	s	<10
St. Mary's	924	518	406	788	122	14
Somerset	319	186	133	235	s	<10
Talbot	550	303	247	477	s	<10
Washington	1,628	844	784	1,565	52	11
Wicomico	1,107	584	523	847	248	12
Worcester	813	459	354	695	s	<10

<10 = Death counts of 0-9 are suppressed per MDH/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: CDC Wonder, 2010-2014

Table 10.
All Cancer Sites Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2010-2014

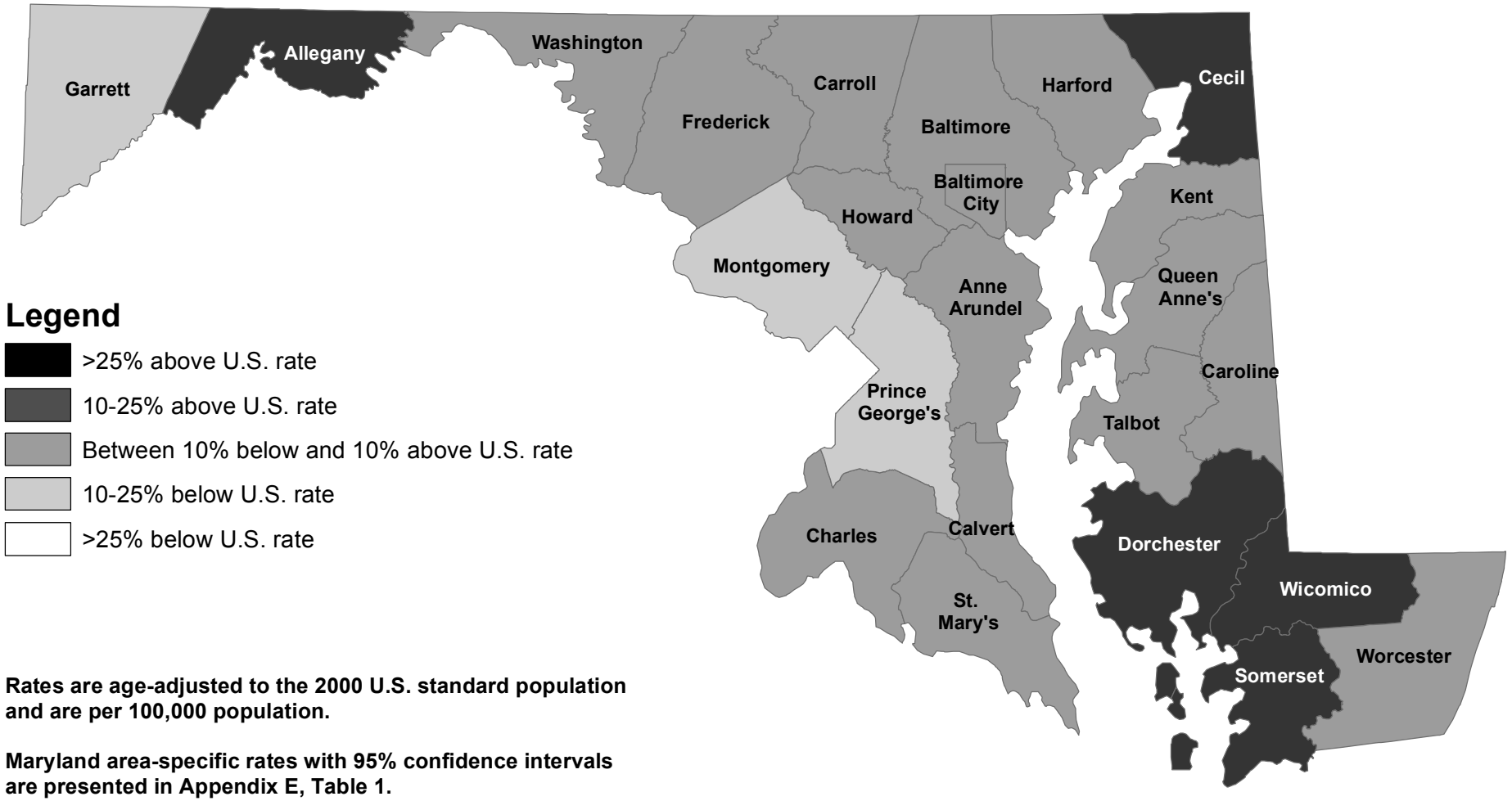
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	165.4	197.8	143.7	163.2	186.2	86.5
Allegany	169.9	213.8	138.2	171.9	**	**
Anne Arundel	173.0	204.9	151.7	171.0	189.5	155.0
Baltimore City	228.3	282.2	195.3	225.1	232.9	98.7
Baltimore County	164.4	196.3	143.2	165.6	174.0	88.5
Calvert	171.5	210.4	146.5	169.9	192.4	**
Caroline	186.0	215.7	163.9	185.6	198.6	**
Carroll	167.6	198.6	146.0	169.3	162.4	**
Cecil	189.0	231.2	156.4	190.7	174.9	**
Charles	184.3	221.0	159.3	182.6	195.4	113.7
Dorchester	189.4	236.7	156.2	179.2	227.3	**
Frederick	153.2	186.3	129.3	153.9	190.2	51.0
Garrett	145.7	173.1	122.7	146.2	**	**
Harford	169.1	206.8	143.5	170.7	187.3	54.6
Howard	126.6	146.0	115.4	130.5	148.4	79.3
Kent	168.8	202.0	144.4	164.9	197.6	**
Montgomery	118.6	135.5	108.1	122.1	132.6	82.5
Prince George's	170.0	205.6	148.3	180.6	169.4	79.2
Queen Anne's	176.4	225.3	137.6	176.3	197.8	**
St. Mary's	180.2	215.2	149.8	183.4	177.1	**
Somerset	211.8	270.5	166.9	210.3	221.9	**
Talbot	159.6	200.9	129.6	153.8	217.3	**
Washington	181.2	214.5	159.1	184.3	126.6	**
Wicomico	199.8	249.1	165.7	196.3	223.4	**
Worcester	183.1	226.7	148.8	176.0	256.0	**

* 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 MDH/CCPC Mortality Data Suppression Policy

Source: CDC Wonder, 2010-2014

Maryland All Cancer Sites Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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

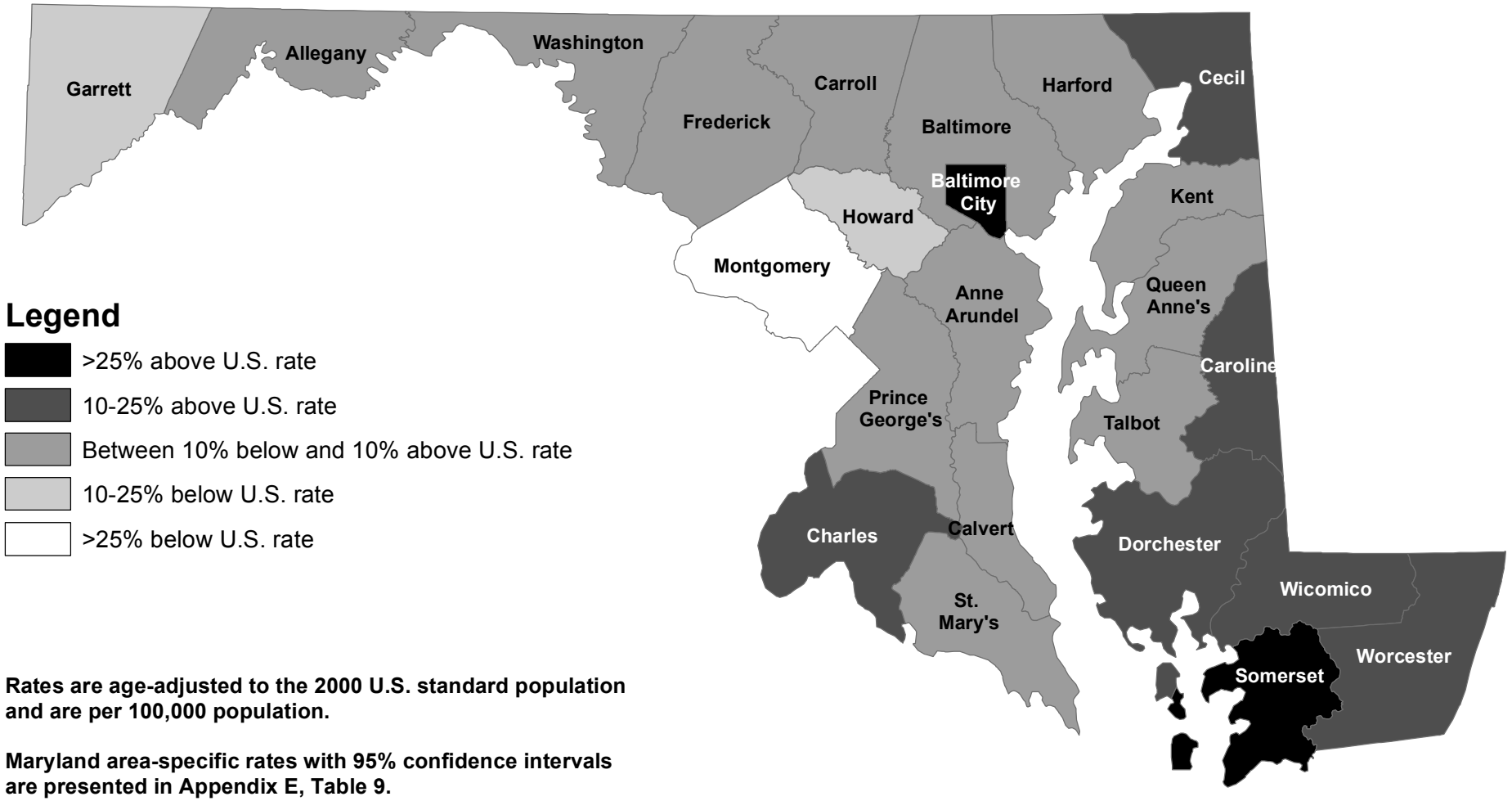
Maryland area-specific rates with 95% confidence intervals are presented in Appendix E, Table 1.

U.S. all cancer sites incidence rate, 2010-2014: 442.7 / 100,000

Maryland all cancer sites incidence rate, 2010-2014: 443.4 / 100,000

Sources: Maryland Cancer Registry
U.S. SEER, SEER*Stat Database

Maryland All Cancer Sites Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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 E, Table 9.

U.S. all cancer sites mortality rate, 2010-2014: 166.1 / 100,000

Maryland all cancer sites mortality rate, 2010-2014: 165.4 / 100,000

Source: NCHS Compressed Mortality File in CDC WONDER
U.S. SEER, Cancer Statistics Review

III. Targeted Cancers

A. Lung and Bronchus Cancer

Incidence (New Cases)

There were 3,748 new cases of lung and bronchus cancer (called lung cancer) reported among Maryland residents in 2014. The 2014 Maryland age-adjusted lung cancer incidence rate was 55.8 per 100,000 population (54.0-57.6, 95% C.I.), which is statistically significantly higher than the 2014 U.S. SEER lung cancer incidence rate of 53.1 per 100,000 population (52.6-53.6, 95% C.I.).

Mortality (Deaths)

There were 2,750 lung cancer deaths among Maryland residents in 2014. In 2014, lung cancer accounted for 25.6% of all cancer deaths in Maryland and was the leading cause of cancer death in both men and women. The 2014 age-adjusted lung cancer mortality rate was 41.3 per 100,000 population (39.7-42.9, 95% C.I.) in Maryland. This rate is similar to the 2014 U.S. mortality rate for lung and bronchus cancer of 42.2 per 100,000 population (42.0-42.4, 95% C.I.). Maryland had the 33rd highest lung cancer mortality rate among the states and the District of Columbia for the period 2010-2014.

Note: In the following graphs, Maryland 2010 lung cancer mortality data include lung, bronchus, and trachea primary sites. Incidence data only includes lung and bronchus primary sites.

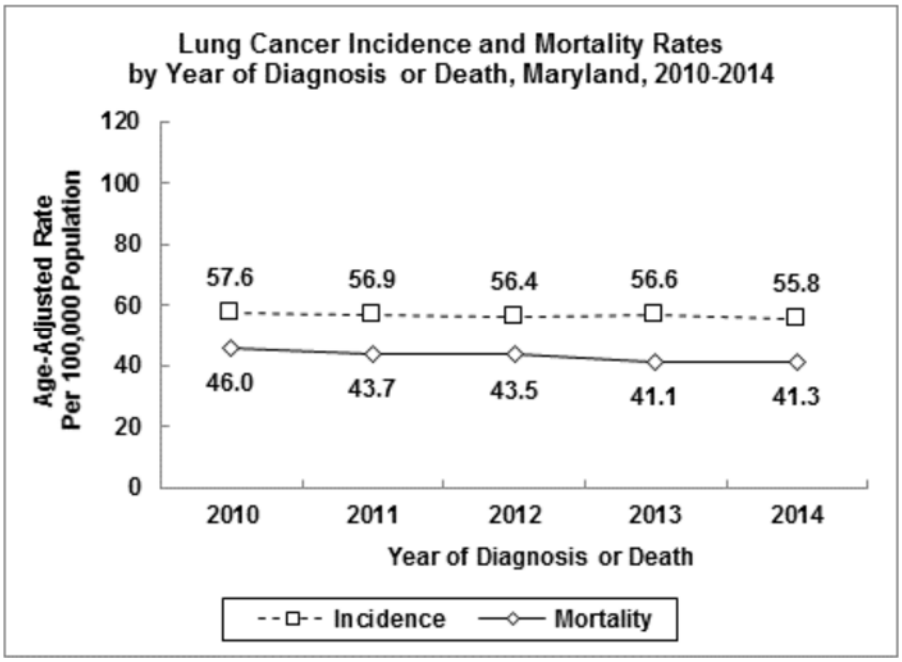
Table 11.
Lung Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2014

Incidence 2014	*Total**	*Males*	*Females*	*Whites*	*Blacks*	*Other*
New Cases (count)	3,748	1,853	1,894	2,672	970	96
MD Incidence Rate	55.8	62.8	50.6	57.6	56.7	26.0
U.S. SEER Rate	53.1	61.5	46.7	54.5	59.8	32.7
Mortality 2014	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
Deaths (count)	2,750	1,399	1,351	2,014	677	59
MD Mortality Rate	41.3	48.4	36.2	43.7	40.2	16.5
U.S. Mortality Rate	42.2	52.0	34.7	43.0	44.7	N/A

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

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

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat
NCHS Compressed Mortality File in CDC WONDER, 2014
U.S. SEER, Cancer Statistics Review



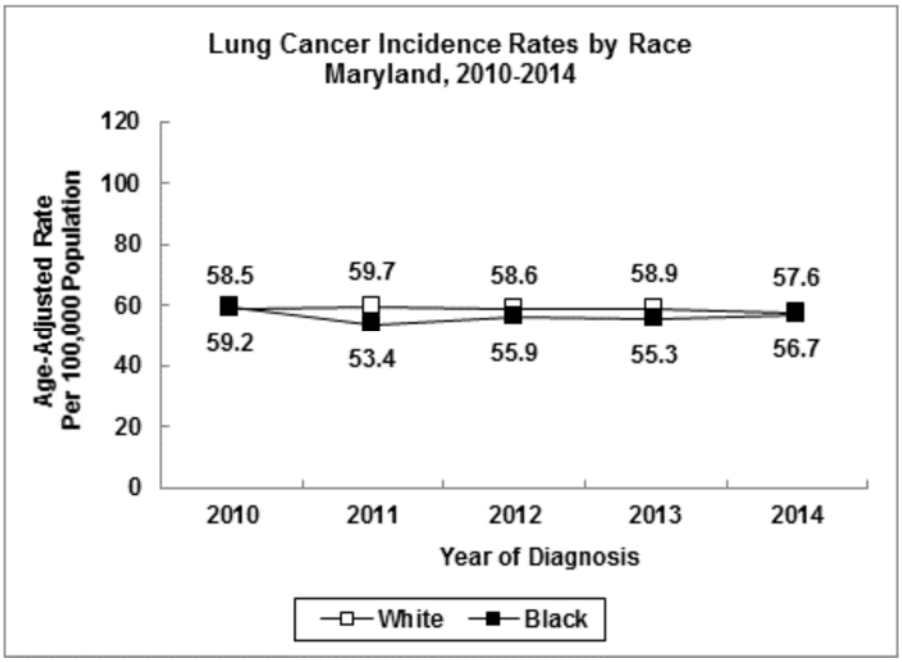
Source: Maryland Cancer Registry
NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2011

Incidence and Mortality Trends

Lung cancer incidence rates in Maryland decreased at a rate of 0.7% per year from 2010 to 2014.

Lung cancer mortality rates decreased at a rate of 2.7% per year from 2010 to 2014.

See Appendix F, Tables 1 and 2.

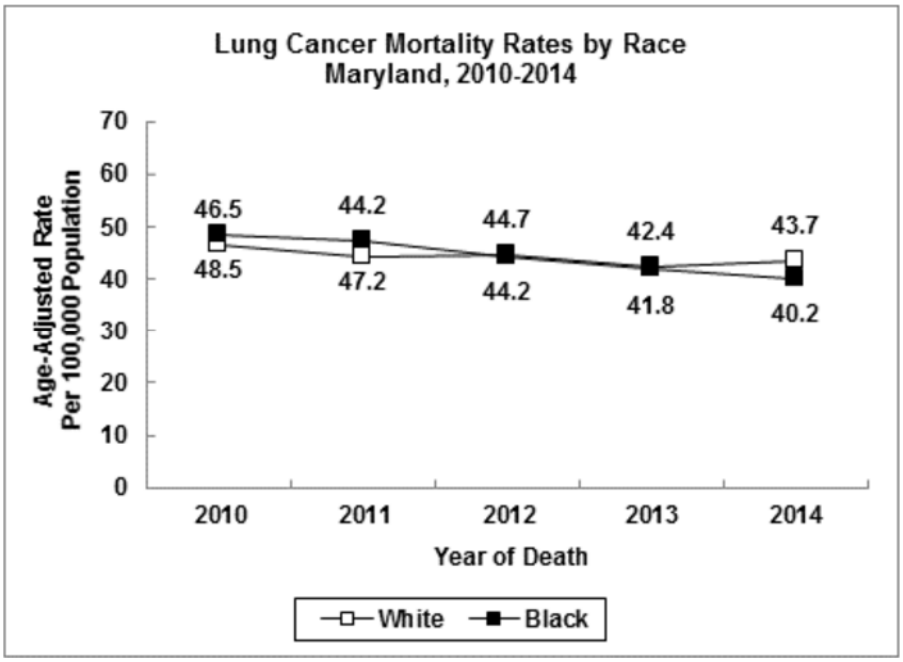


Source: Maryland Cancer Registry

Incidence Trends by Race

From 2010 to 2014, lung cancer incidence rates for blacks decreased at a rate of 0.5% per year, compared to a decline of 0.4% per year among whites.

See Appendix F, Table 3.

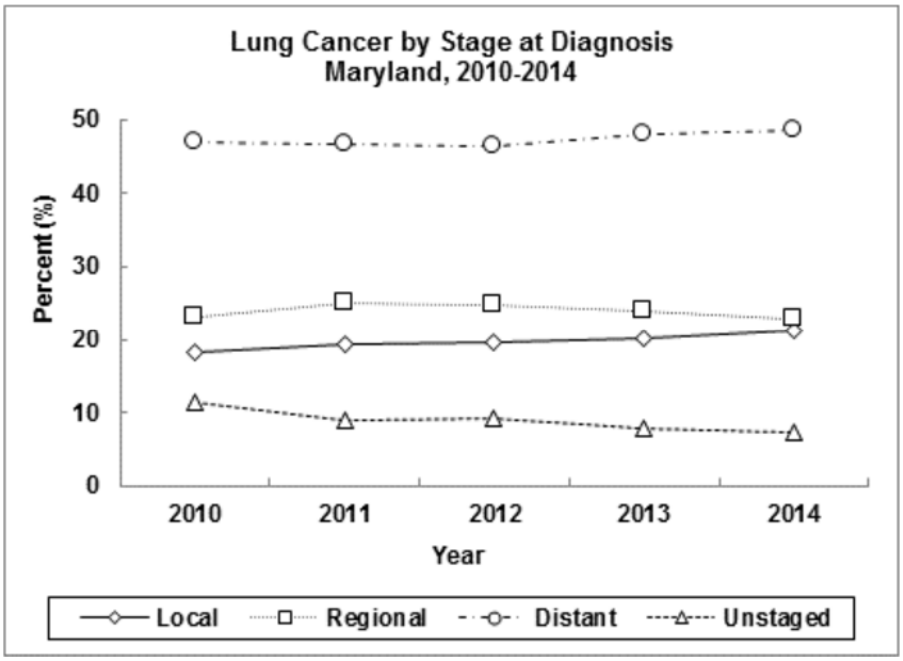


Source: NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2011

Mortality Trends by Race

Lung cancer mortality rates are declining for both blacks and whites. From 2010 to 2014, rates decreased at a rate of 4.8% per year for blacks, and 1.6% per year for whites.

See Appendix F, Table 5.

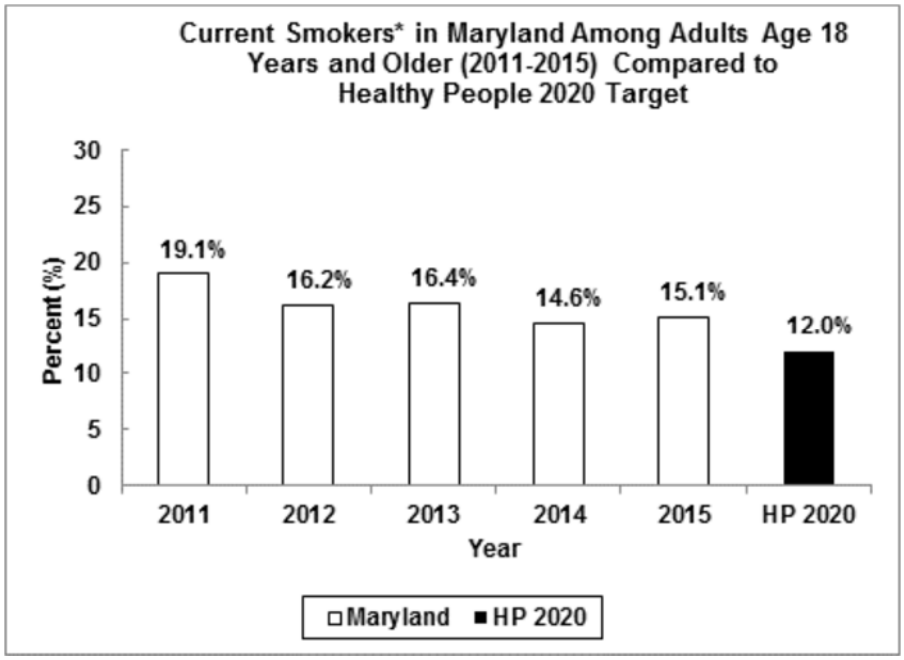


Source: Maryland Cancer Registry

Stage at Diagnosis

A higher proportion of lung cancer cases were diagnosed at the distant stage than at the local or regional stage of cancer. In 2014, 21.2% of lung cancer cases in Maryland were diagnosed at the local stage, 22.9% were detected at the regional stage, and 48.6% were found at the distant stage. The proportion of lung cancers reported as unstaged began declining in 2011.

See Appendix G, Table 2.

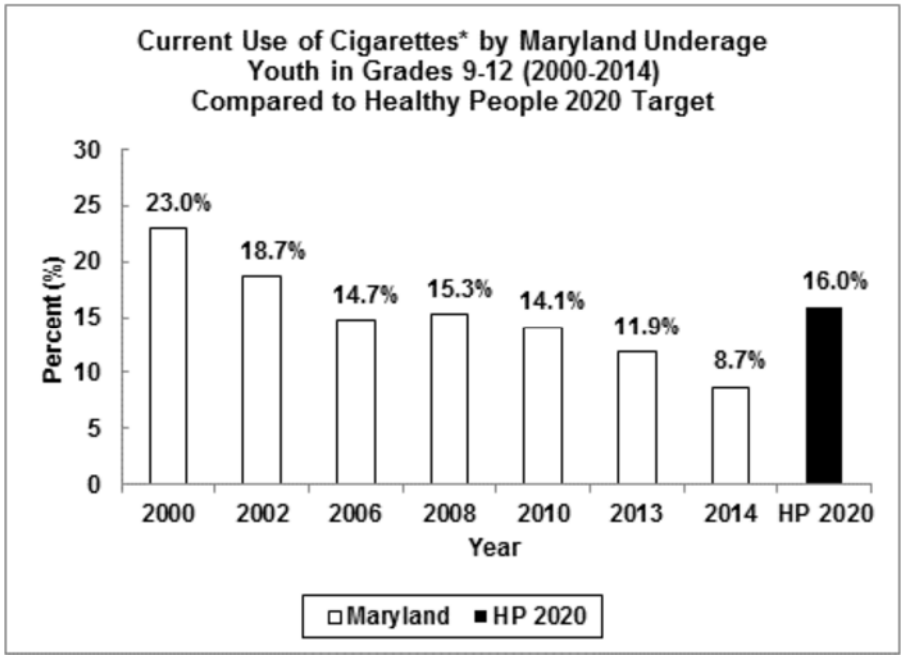


* Current smoker is defined as a person who smokes cigarettes every day or some days.

Source: Maryland BRFSS, 2011-2015
Healthy People 2020, U.S. Department of Health and Human Services

Smoking Prevalence Among Maryland Adults

One Healthy People 2020 target is to reduce the percentage of adults who are current smokers to 12.0%. Although Maryland has not yet attained this goal, the percentage of adult smokers has decreased from 19.1% in 2011 to 15.1% in 2015.



* Current use of cigarettes is defined as smoking cigarettes on 1 or more days in the previous 30 days.

Source: Maryland Youth Tobacco Survey (2000, 2002, 2006, 2008, 2010)
Maryland Youth Tobacco and Risk Behavior Survey (2013, 2014)
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 16.0%.

Based on the 2006, 2008, and 2010 Maryland Youth Tobacco Surveys' and the 2013 and 2014 Maryland Youth Tobacco and Risk Behavior Surveys' results, Maryland has met the Healthy People 2020 target for reducing current cigarette use among high school students.

Table 12.
Number of Lung and Bronchus Cancer Cases by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total*	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	3,748	1,853	1,894	2,672	970	96
Allegany	68	38	30	65	<6	0
Anne Arundel	420	194	226	362	52	6
Baltimore City	540	293	247	174	360	6
Baltimore County	638	306	332	508	117	11
Calvert	64	31	33	55	7	<6
Caroline	35	23	12	33	<6	0
Carroll	124	56	68	118	6	0
Cecil	95	47	48	90	<6	<6
Charles	89	44	45	62	s	<6
Dorchester	35	16	19	30	<6	0
Frederick	115	67	48	103	8	<6
Garrett	24	12	12	24	0	0
Harford	195	105	90	161	30	<6
Howard	122	57	65	96	14	12
Kent	16	8	8	12	<6	0
Montgomery	352	162	190	253	52	45
Prince George's	384	175	208	137	241	<6
Queen Anne's	46	29	17	42	<6	0
St. Mary's	70	37	33	64	6	0
Somerset	27	18	9	21	6	0
Talbot	31	14	17	27	<6	0
Washington	126	60	66	118	6	<6
Wicomico	75	37	38	67	s	<6
Worcester	54	23	31	48	<6	<6

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

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

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, 2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	55.8	62.8	50.6	57.6	56.7	26.0
Allegany	65.2	79.1	51.8	64.4	**	0.0
Anne Arundel	69.0	71.0	68.2	69.4	76.9	**
Baltimore City	83.0	110.0	65.8	82.5	84.7	**
Baltimore County	62.6	69.4	57.9	65.6	59.4	**
Calvert	63.8	68.3	61.1	65.9	**	**
Caroline	83.5	122.5	**	92.5	**	0.0
Carroll	58.9	61.3	57.1	58.7	**	0.0
Cecil	83.5	90.7	79.3	83.8	**	**
Charles	60.8	67.3	56.1	67.7	50.7	**
Dorchester	73.3	72.5	75.4	82.7	**	0.0
Frederick	43.7	57.6	32.5	43.3	**	**
Garrett	53.1	**	**	53.6	0.0	0.0
Harford	64.0	80.0	53.6	59.6	119.3	**
Howard	38.2	38.0	38.5	42.3	**	**
Kent	50.3	**	**	**	**	0.0
Montgomery	30.6	32.7	29.0	30.9	31.5	26.5
Prince George's	44.7	47.2	42.2	57.1	41.6	**
Queen Anne's	74.1	97.5	53.0	73.3	**	0.0
St. Mary's	59.0	62.5	56.0	64.5	**	0.0
Somerset	84.8	116.1	**	90.0	**	0.0
Talbot	42.5	**	42.2	42.0	**	0.0
Washington	66.2	67.9	64.5	66.1	**	**
Wicomico	65.2	73.6	59.7	73.4	**	**
Worcester	56.4	55.1	56.8	56.7	**	**

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

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

Source: Maryland Cancer Registry

Table 14.
Number of Deaths for Lung and Bronchus Cancer by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2,750	1,399	1,351	2,014	677	59
Allegany	43	25	18	42	<10	<10
Anne Arundel	289	139	150	252	s	<10
Baltimore City	428	224	204	s	263	<10
Baltimore County	436	213	223	369	57	10
Calvert	44	23	21	38	<10	<10
Caroline	36	18	18	30	<10	<10
Carroll	80	40	40	78	<10	<10
Cecil	58	35	23	56	<10	<10
Charles	67	39	28	47	s	<10
Dorchester	30	14	16	27	<10	<10
Frederick	89	46	43	79	<10	<10
Garrett	<10	<10	<10	<10	<10	<10
Harford	139	77	62	125	s	<10
Howard	83	42	41	69	<10	<10
Kent	11	<10	<10	<10	<10	<10
Montgomery	264	118	146	207	32	25
Prince George's	298	149	149	s	177	<10
Queen Anne's	37	24	13	33	<10	<10
St. Mary's	55	30	25	46	<10	<10
Somerset	23	s	<10	14	<10	<10
Talbot	28	11	17	25	<10	<10
Washington	97	53	44	94	<10	<10
Wicomico	62	31	31	53	<10	<10
Worcester	44	22	22	38	<10	<10

<10 = Death counts of 0-9 are suppressed per MDH/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: CDC Wonder, 2014

Table 15.
Lung and Bronchus Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	41.3	48.4	36.2	43.7	40.2	16.5
Allegany	41.6	54.1	**	42.0	**	**
Anne Arundel	47.5	51.4	45.2	49.0	48.7	**
Baltimore City	67.0	87.3	54.5	77.3	63.0	**
Baltimore County	41.7	47.7	37.1	46.1	28.3	**
Calvert	44.3	46.9	42.6	46.1	**	**
Caroline	91.7	**	**	90.2	**	**
Carroll	38.4	43.2	35.2	39.2	**	**
Cecil	51.5	70.1	38.3	53.1	**	**
Charles	49.0	67.1	36.2	55.2	**	**
Dorchester	59.8	**	**	68.9	**	**
Frederick	34.1	39.3	29.6	33.2	**	**
Garrett	**	**	**	**	**	**
Harford	47.2	59.7	38.3	47.7	**	**
Howard	28.5	31.9	26.0	33.1	**	**
Kent	**	**	**	**	**	**
Montgomery	23.4	23.9	22.9	25.8	19.4	14.9
Prince George's	35.5	41.7	31.6	48.5	31.0	**
Queen Anne's	54.7	74.0	**	52.9	**	**
St. Mary's	51.0	60.6	43.2	50.8	**	**
Somerset	74.1	**	**	**	**	**
Talbot	44.4	**	**	45.6	**	**
Washington	52.7	63.3	45.6	54.8	**	**
Wicomico	54.9	65.6	47.5	59.8	**	**
Worcester	45.6	48.4	42.9	43.7	**	**

* 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 MDH/CCPC Mortality Data Suppression Policy

Source: CDC Wonder, 2014

Table 16.
Number of Lung and Bronchus Cancer Cases by Jurisdiction, Gender, and Race, Maryland, 2010-2014

Jurisdiction	Total*	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	18,039	9,003	9,020	13,068	4,480	430
Allegany	393	214	179	375	18	0
Anne Arundel	1,828	887	939	1,609	189	28
Baltimore City	2,504	1,275	1,226	830	1,654	19
Baltimore County	3,170	1,521	1,647	2,583	537	48
Calvert	289	143	144	251	33	<6
Caroline	155	89	66	135	20	0
Carroll	580	293	286	553	s	<6
Cecil	430	212	218	405	22	<6
Charles	398	218	179	287	100	6
Dorchester	172	93	79	132	38	<6
Frederick	589	303	286	544	35	7
Garrett	101	53	48	101	0	0
Harford	942	472	470	841	91	10
Howard	602	291	311	467	81	50
Kent	93	45	48	79	14	0
Montgomery	1,765	816	948	1,300	242	202
Prince George's	1,769	896	869	610	1,116	36
Queen Anne's	202	110	92	186	s	<6
St. Mary's	347	197	150	295	49	<6
Somerset	149	83	66	111	35	0
Talbot	170	75	95	153	17	0
Washington	620	316	304	575	36	6
Wicomico	418	205	213	343	72	<6
Worcester	307	172	135	265	34	<6

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

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

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

Source: Maryland Cancer Registry

Table 17.
Lung and Bronchus Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2010-2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	56.6	64.6	50.7	58.6	56.1	27.0
Allegany	74.7	91.3	61.6	73.6	156.7	0.0
Anne Arundel	63.2	69.0	59.0	65.3	56.1	35.9
Baltimore City	78.2	95.6	66.7	77.4	79.8	31.3
Baltimore County	63.9	71.5	58.4	66.7	61.2	29.5
Calvert	63.2	71.5	56.3	65.7	49.5	**
Caroline	79.3	105.7	61.0	80.2	80.2	0.0
Carroll	58.6	66.6	52.5	58.2	94.2	**
Cecil	78.3	84.1	74.1	78.4	80.5	**
Charles	57.1	70.1	46.7	63.5	47.3	**
Dorchester	73.4	85.6	63.2	73.3	76.0	**
Frederick	48.1	55.0	43.2	49.0	46.8	**
Garrett	46.9	55.3	42.0	47.2	0.0	0.0
Harford	67.8	77.9	61.1	68.3	75.2	**
Howard	43.0	46.3	40.9	45.6	39.8	28.6
Kent	57.2	59.4	56.9	55.8	**	0.0
Montgomery	32.7	35.0	31.1	33.2	32.6	27.5
Prince George's	44.2	52.7	38.0	51.9	41.6	18.2
Queen Anne's	65.8	77.0	55.9	65.7	66.9	**
St. Mary's	66.1	79.9	54.4	67.2	68.2	**
Somerset	96.7	110.9	83.5	96.6	90.5	0.0
Talbot	49.3	47.6	51.0	50.1	48.1	0.0
Washington	69.2	77.9	63.5	68.2	83.7	**
Wicomico	74.9	84.2	68.0	78.6	64.0	**
Worcester	67.3	81.9	54.1	65.2	73.8	**

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

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

Source: Maryland Cancer Registry

Table 18.
Number of Deaths for Lung and Bronchus Cancer by Jurisdiction, Gender, and Race, Maryland, 2010-2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	13,602	7,104	6,498	9,885	3,426	291
Allegany	237	139	98	235	<10	<10
Anne Arundel	1,375	690	685	1,207	142	26
Baltimore City	1,948	1,024	924	681	1,249	18
Baltimore County	2,260	1,152	1,108	1,868	365	27
Calvert	219	114	105	189	s	<10
Caroline	124	68	56	107	s	<10
Carroll	432	238	194	415	s	<10
Cecil	322	165	157	309	s	<10
Charles	307	181	126	222	s	<10
Dorchester	140	79	61	105	s	<10
Frederick	459	241	218	420	s	<10
Garrett	82	50	32	s	<10	<10
Harford	680	369	311	616	s	<10
Howard	390	197	193	298	54	38
Kent	83	43	40	69	s	<10
Montgomery	1,338	628	710	1,035	180	123
Prince George's	1,493	796	697	529	930	34
Queen Anne's	148	84	64	135	s	<10
St. Mary's	260	154	106	221	s	<10
Somerset	115	62	53	86	s	<10
Talbot	137	63	74	118	s	<10
Washington	474	246	228	455	s	<10
Wicomico	317	170	147	259	s	<10
Worcester	262	151	111	224	s	<10

<10 = Death counts of 0-9 are suppressed per MDH/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: CDC Wonder, 2010-2014

Table 19.
Lung and Bronchus Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2010-2014

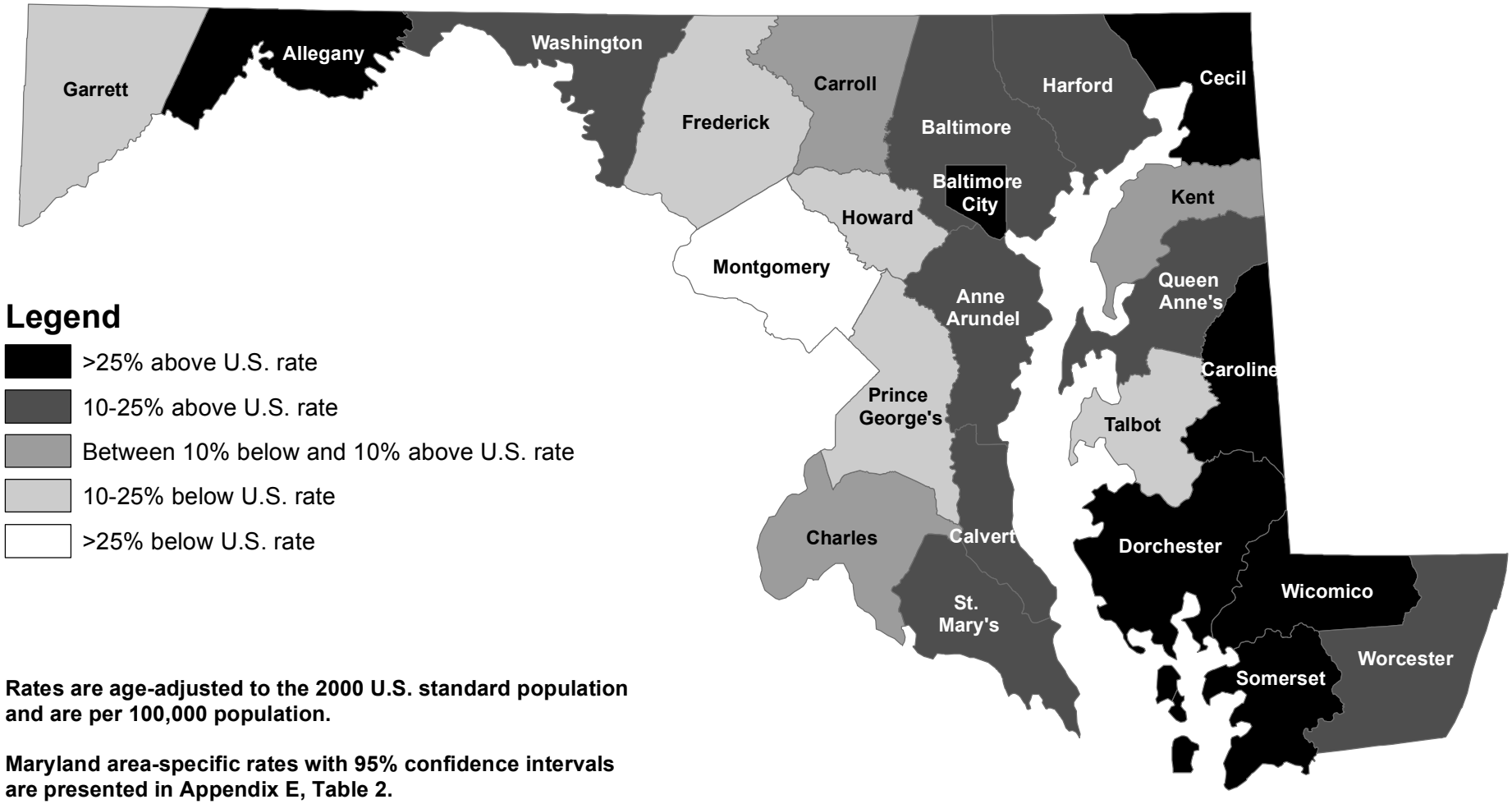
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	43.1	52.0	36.5	44.3	44.2	18.4
Allegany	45.3	60.6	33.6	46.4	**	**
Anne Arundel	48.1	54.5	43.4	49.3	43.2	35.7
Baltimore City	61.6	78.4	50.4	63.7	61.3	**
Baltimore County	45.1	54.5	38.3	47.2	43.1	17.6
Calvert	48.1	55.7	42.0	49.3	43.5	**
Caroline	63.8	79.4	51.5	64.3	**	**
Carroll	44.1	55.3	35.7	44.2	**	**
Cecil	59.2	66.5	53.6	60.6	**	**
Charles	45.9	62.0	33.9	51.3	37.8	**
Dorchester	59.5	74.0	48.6	58.2	70.0	**
Frederick	37.9	45.0	32.6	38.1	49.3	**
Garrett	39.2	53.9	28.4	39.4	**	**
Harford	49.6	61.5	40.8	50.5	50.1	**
Howard	29.1	33.3	26.4	30.7	26.6	21.1
Kent	50.1	57.8	44.2	47.3	**	**
Montgomery	24.7	27.2	22.9	26.0	25.4	16.8
Prince George's	38.3	48.4	31.4	45.0	35.8	17.6
Queen Anne's	49.6	61.6	40.0	49.6	**	**
St. Mary's	51.2	64.0	39.7	51.9	53.9	**
Somerset	76.5	90.2	66.5	77.2	78.7	**
Talbot	40.2	40.7	40.1	38.9	**	**
Washington	53.1	62.3	47.2	53.9	**	**
Wicomico	56.8	70.9	46.2	59.3	48.5	**
Worcester	57.2	72.3	44.6	54.6	78.8	**

* 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 MDH/CCPC Mortality Data Suppression Policy

Source: CDC Wonder, 2010-2014

Maryland Lung Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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

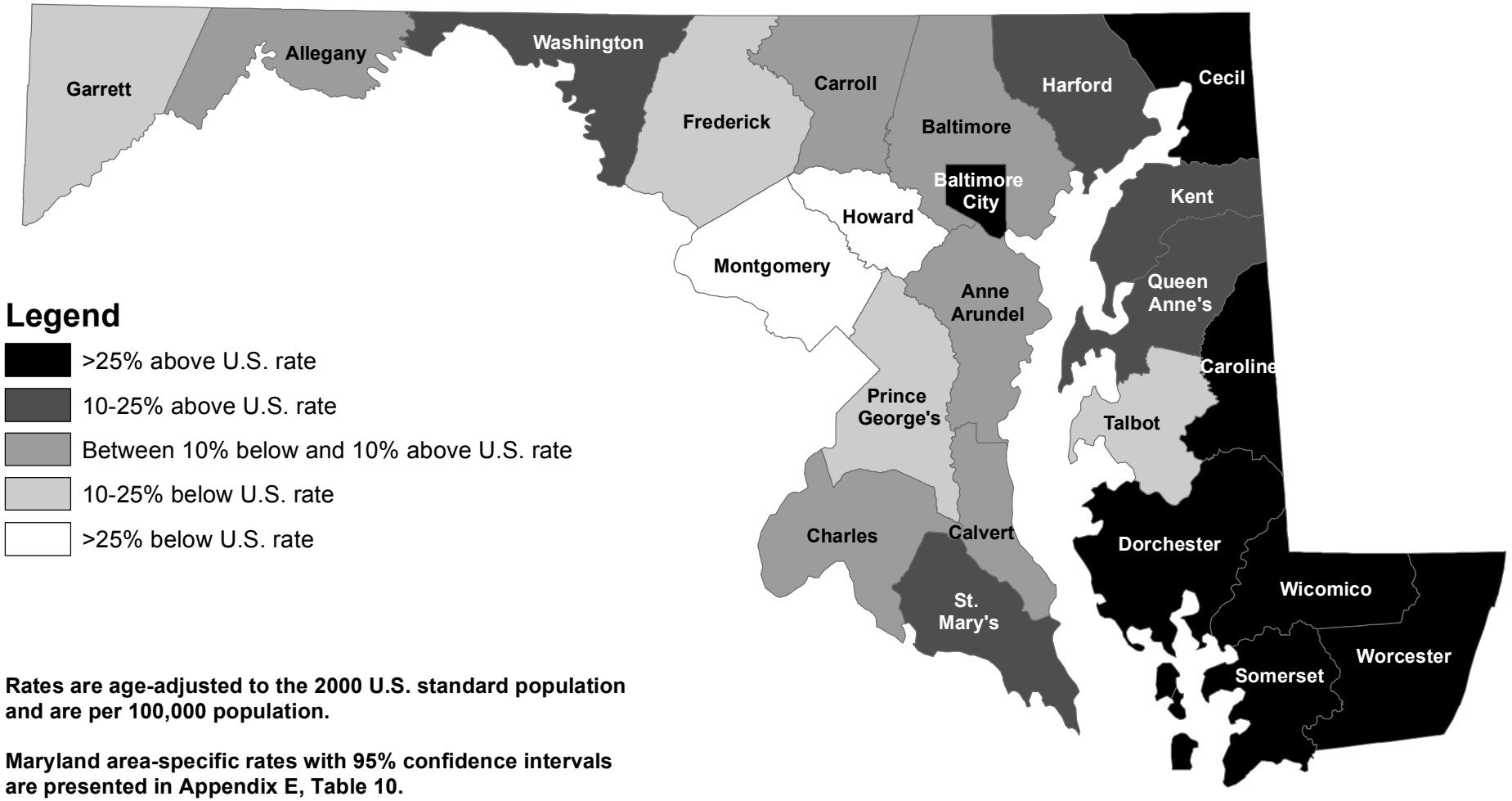
Maryland area-specific rates with 95% confidence intervals are presented in Appendix E, Table 2.

U.S. lung cancer incidence rate, 2010-2014: 55.8 / 100,000

Maryland lung cancer incidence rate, 2010-2014: 56.6 / 100,000

Sources: Maryland Cancer Registry
U.S. SEER, SEER*Stat Database

Maryland Lung Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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 E, Table 10.

U.S. lung cancer mortality rate, 2010-2014: 44.7 / 100,000

Maryland lung cancer mortality rate, 2010-2014: 43.1 / 100,000

Source: NCHS Compressed Mortality File in CDC WONDER
U.S. SEER, Cancer Statistics Review

B. Colon and Rectum Cancer

Incidence (New Cases)

In 2014, there were 2,477 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 2014 was 37.3 per 100,000 population (35.8-38.8, 95% C.I.), which is statistically significantly lower than the 2014 U.S. SEER age-adjusted colorectal cancer incidence rate of 38.9 per 100,000 population (38.5-39.3, 95% C.I.).

Mortality (Deaths)

A total of 955 persons died of colorectal cancer in 2014 in Maryland. In 2014, 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 14.4 per 100,000 population (13.5-15.4, 95% C.I.). This rate is similar to the 2014 U.S. colorectal cancer mortality rate of 14.1 per 100,000 population (14.0-14.2, 95% C.I.). Maryland had the 27th highest colorectal cancer mortality rate among the states and the District of Columbia for the period 2010-2014.

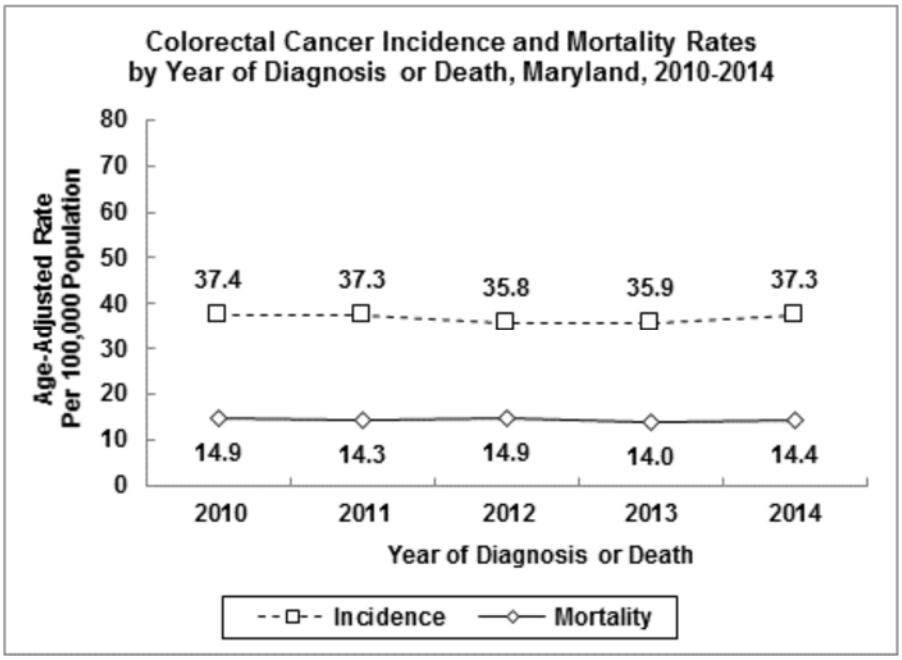
Table 20.
Colorectal Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2014

Incidence 2014	*Total**	*Males*	*Females*	*Whites*	*Blacks*	*Other*
New Cases (count)	2,477	1,255	1,221	1,609	739	107
MD Incidence Rate	37.3	42.3	33.1	35.8	41.8	25.6
U.S. SEER Rate	38.9	44.7	34.0	38.4	44.5	31.7
Mortality 2014	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
Deaths (count)	955	498	457	638	292	25
MD Mortality Rate	14.4	17.6	12.0	13.8	18.0	6.9
U.S. Mortality Rate	14.1	16.9	11.9	13.8	18.5	N/A

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

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

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat
NCHS Compressed Mortality File in CDC WONDER, 2014
U.S. SEER, Cancer Statistics Review



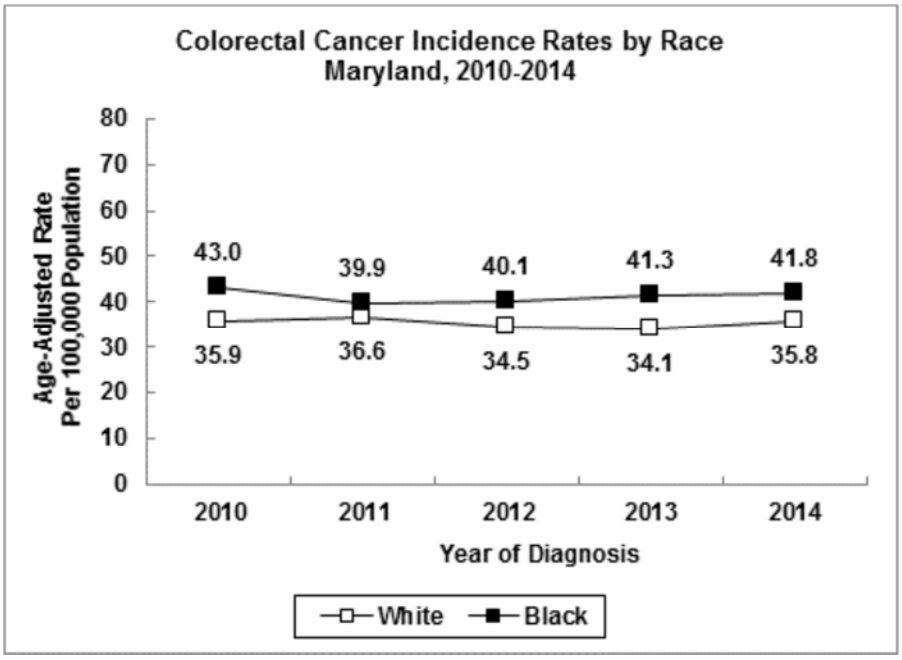
Source: Maryland Cancer Registry
NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration, 2010-2011

Incidence and Mortality Trends

Incidence rates for colorectal cancer have been declining in Maryland. From 2010 to 2014, incidence rates declined at a rate of 0.4% per year.

Colorectal cancer mortality rates declined at a rate of 0.9% per year from 2010 to 2014.

See Appendix F, Tables 1 and 2.

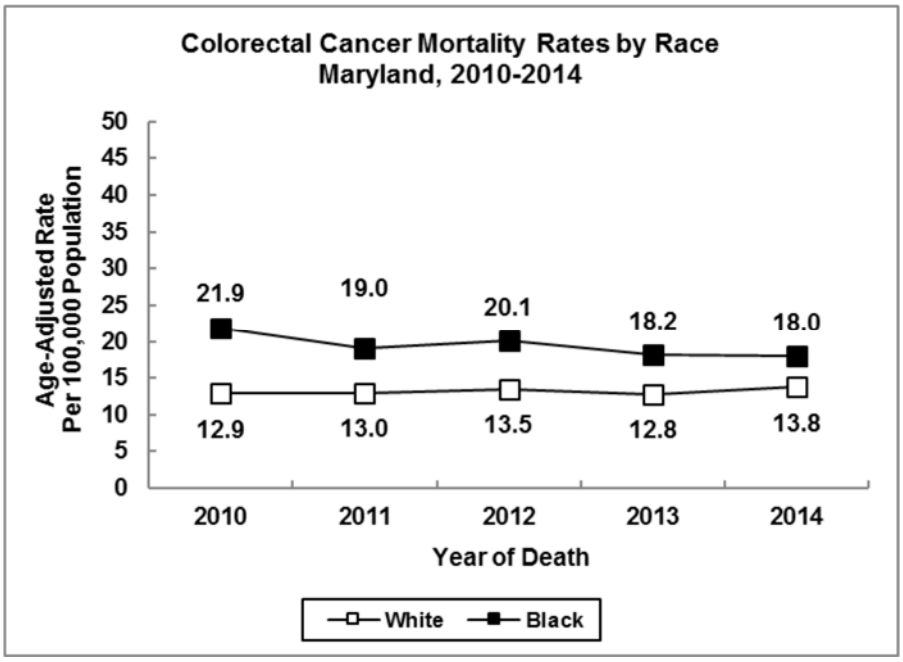


Source: Maryland Cancer Registry

Incidence Trends by Race

From 2010 to 2014, colorectal cancer incidence rates declined at a rate of 0.2% per year for blacks and 0.8% per year for whites. In 2014, the incidence rate for colorectal cancer was 35.8 per 100,000 population for whites and 41.8 per 100,000 population for blacks in Maryland.

See Appendix F, Table 3.

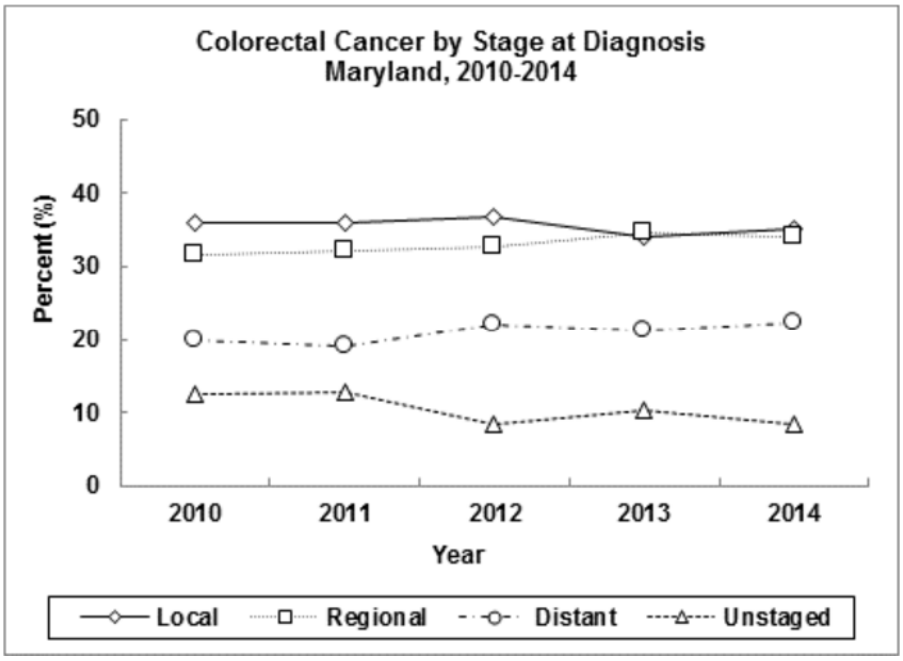


Source: NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration, 2010-2011

Mortality Trends by Race

From 2010 to 2014, colorectal cancer mortality rates declined for blacks, but not for whites. Mortality rates in blacks decreased at a rate of 4.3% per year, whereas among whites, mortality rates increased at a rate of 1.2% per year.

See Appendix F, Table 5.

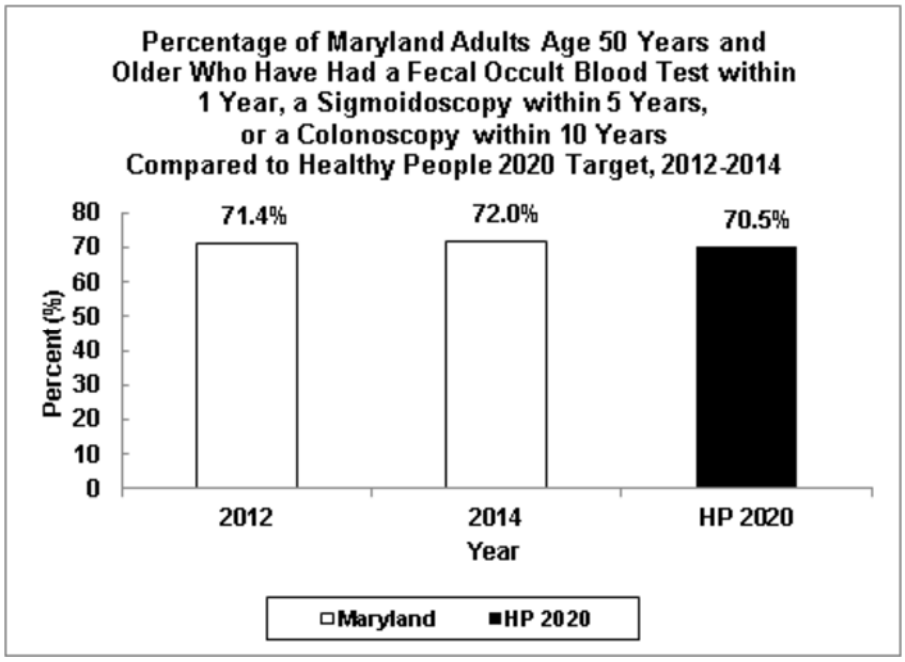


Source: Maryland Cancer Registry

Stage at Diagnosis

In 2014, 35.2% of colorectal cancers diagnosed in Maryland were detected at the local stage, 34.0% were detected at the regional stage, and 22.4% were found at the distant stage. The proportion of colorectal cancers reported as unstaged experienced a decrease in 2012, rose slightly in 2013, then decreased again in 2014.

See Appendix G, Table 3.



Source: Maryland BRFSS 2012, 2014
Healthy People 2020, U.S. Department of Health and Human Services

* The guidelines for up-to-date colorectal cancer screening used for the Healthy People 2020 estimate are: persons aged 50 to 75 years who have had a blood stool test in the past year, sigmoidoscopy in the past 5 years and blood stool test in the past 3 years, or a colonoscopy in the past 10 years.

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, or a colonoscopy within 10 years. The percent of Maryland adults age 50 years and older who were up-to-date for colorectal cancer screening in 2012 (71.4%) and 2014 (72.0%) was above the Healthy People target of 70.5%.

Table 21.
Number of Colon and Rectum Cancer Cases by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total*	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2,477	1,255	1,221	1,609	739	107
Allegany	41	23	18	s	<6	0
Anne Arundel	224	107	117	183	36	<6
Baltimore City	279	133	146	80	190	<6
Baltimore County	377	195	181	280	88	7
Calvert	44	25	19	32	12	0
Caroline	19	12	7	17	<6	0
Carroll	94	50	44	90	<6	<6
Cecil	60	34	26	57	<6	0
Charles	67	30	37	48	16	<6
Dorchester	15	7	8	11	<6	0
Frederick	89	43	46	73	10	6
Garrett	22	11	11	22	0	0
Harford	102	56	46	90	s	<6
Howard	116	60	56	65	31	19
Kent	11	7	<6	9	<6	0
Montgomery	339	174	165	227	58	45
Prince George's	344	166	178	89	240	12
Queen Anne's	15	<6	11	15	0	0
St. Mary's	33	22	11	28	<6	<6
Somerset	13	9	<6	s	<6	0
Talbot	14	8	6	s	<6	0
Washington	68	33	35	61	<6	<6
Wicomico	53	26	27	33	18	<6
Worcester	38	20	18	34	<6	0

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

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

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.
Colon and Rectum Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	37.3	42.3	33.1	35.8	41.8	25.6
Allegany	41.6	51.8	32.0	41.5	**	0.0
Anne Arundel	36.1	37.5	35.1	36.0	40.0	**
Baltimore City	42.3	47.6	39.2	35.9	44.4	**
Baltimore County	37.3	45.6	30.3	36.8	42.3	**
Calvert	43.3	54.4	35.8	37.5	**	0.0
Caroline	53.0	**	**	57.8	**	0.0
Carroll	45.0	54.3	36.7	45.0	**	**
Cecil	51.0	57.4	43.9	51.5	**	0.0
Charles	44.5	42.4	44.9	53.9	30.8	**
Dorchester	**	**	**	**	**	0.0
Frederick	33.2	35.4	31.9	30.8	**	**
Garrett	52.5	**	**	52.9	0.0	0.0
Harford	35.9	42.2	29.6	36.7	**	**
Howard	36.1	39.1	32.5	29.5	59.1	38.3
Kent	**	**	**	**	**	0.0
Montgomery	29.1	33.5	25.4	28.0	33.9	24.4
Prince George's	40.0	44.6	36.6	37.6	41.5	**
Queen Anne's	**	**	**	**	0.0	0.0
St. Mary's	27.0	36.6	**	28.1	**	**
Somerset	**	**	**	**	**	0.0
Talbot	**	**	**	**	**	0.0
Washington	37.7	39.6	36.7	36.9	**	**
Wicomico	47.6	49.4	45.3	39.6	75.0	**
Worcester	45.7	52.2	40.0	46.7	**	0.0

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

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

Source: Maryland Cancer Registry

Table 23.
Number of Deaths for Colon and Rectum Cancer by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	955	498	457	638	292	25
Allegany	15	s	<10	s	<10	<10
Anne Arundel	83	50	33	69	s	<10
Baltimore City	132	69	63	s	94	<10
Baltimore County	155	69	86	123	s	<10
Calvert	12	<10	<10	<10	<10	<10
Caroline	<10	<10	<10	<10	<10	<10
Carroll	33	17	16	s	<10	<10
Cecil	22	12	10	21	<10	<10
Charles	26	12	14	17	<10	<10
Dorchester	<10	<10	<10	<10	<10	<10
Frederick	34	19	15	31	<10	<10
Garrett	<10	<10	<10	<10	<10	<10
Harford	54	30	24	47	<10	<10
Howard	22	<10	s	15	<10	<10
Kent	<10	<10	<10	<10	<10	<10
Montgomery	117	58	59	84	23	10
Prince George's	138	82	56	s	97	<10
Queen Anne's	<10	<10	<10	<10	<10	<10
St. Mary's	12	<10	<10	10	<10	<10
Somerset	<10	<10	<10	<10	<10	<10
Talbot	<10	<10	<10	<10	<10	<10
Washington	36	15	21	35	<10	<10
Wicomico	21	<10	s	14	<10	<10
Worcester	10	<10	<10	s	<10	<10

<10 = Death counts of 0-9 are suppressed per MDH/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: CDC Wonder, 2014

Table 24.
Colon and Rectum Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	14.4	17.6	12.0	13.8	18.0	6.9
Allegany	**	**	**	**	**	**
Anne Arundel	13.8	19.1	9.9	13.8	**	**
Baltimore City	20.7	27.2	16.4	16.2	23.5	**
Baltimore County	14.7	16.5	13.0	14.8	13.7	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	16.9	**	**	17.7	**	**
Cecil	19.3	**	**	19.3	**	**
Charles	17.7	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	13.2	**	**	12.8	**	**
Garrett	**	**	**	**	**	**
Harford	19.6	27.0	14.7	19.2	**	**
Howard	7.4	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	10.0	12.0	8.4	9.5	16.2	**
Prince George's	16.3	22.1	11.5	16.3	17.3	**
Queen Anne's	**	**	**	**	**	**
St. Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	18.8	**	20.6	19.4	**	**
Wicomico	18.6	**	**	**	**	**
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 MDH/CCPC Mortality Data Suppression Policy

Source: CDC Wonder, 2014

Table 25.
Number of Colon and Rectum Cancer Cases by Jurisdiction, Gender, and Race, Maryland, 2010-2014

Jurisdiction	Total*	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	11,755	5,924	5,819	7,829	3,338	439
Allegany	237	118	119	228	9	0
Anne Arundel	976	493	482	818	132	25
Baltimore City	1,441	692	748	448	971	15
Baltimore County	1,885	905	976	1,427	398	42
Calvert	170	99	71	132	36	<6
Caroline	82	45	36	72	s	<6
Carroll	391	190	201	374	14	<6
Cecil	243	136	107	229	11	0
Charles	258	124	134	166	77	7
Dorchester	102	57	45	73	27	<6
Frederick	491	275	215	429	44	13
Garrett	85	40	45	84	0	0
Harford	560	297	263	488	59	6
Howard	475	248	226	316	98	56
Kent	56	30	26	46	10	0
Montgomery	1,606	800	805	1,090	262	202
Prince George's	1,500	758	740	400	1,020	49
Queen Anne's	80	30	50	71	s	<6
St. Mary's	177	106	71	155	19	<6
Somerset	79	47	32	59	s	<6
Talbot	94	49	45	84	10	0
Washington	354	162	192	330	18	6
Wicomico	227	117	110	164	54	7
Worcester	152	87	65	129	20	<6

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

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

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

Source: Maryland Cancer Registry

Table 26.
Colon and Rectum Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2010-2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	36.7	41.8	32.7	35.3	41.1	25.3
Allegany	46.9	52.3	42.1	46.9	**	0.0
Anne Arundel	33.3	37.6	30.1	33.3	35.7	25.0
Baltimore City	45.2	52.1	40.7	41.3	47.5	**
Baltimore County	38.0	42.6	34.3	37.4	42.5	22.6
Calvert	35.7	45.5	28.8	33.1	55.0	**
Caroline	43.8	52.0	34.5	45.9	**	**
Carroll	39.7	43.3	36.9	39.6	**	**
Cecil	43.6	52.6	36.7	43.8	**	0.0
Charles	35.9	38.2	34.0	37.5	30.9	**
Dorchester	47.7	58.7	39.8	45.2	53.1	**
Frederick	39.5	49.0	31.7	38.6	48.3	**
Garrett	41.4	41.8	40.1	41.1	0.0	0.0
Harford	40.6	47.9	34.3	40.1	48.6	**
Howard	32.3	36.6	29.0	29.7	44.4	28.1
Kent	38.1	44.0	34.5	36.4	**	0.0
Montgomery	29.1	32.9	26.0	27.7	33.7	25.7
Prince George's	36.3	42.8	31.6	33.7	37.4	24.0
Queen Anne's	25.5	19.9	30.5	24.5	**	**
St. Mary's	32.3	38.8	25.7	34.1	24.0	**
Somerset	52.5	64.8	42.2	55.2	47.6	**
Talbot	30.3	35.2	26.3	31.2	**	0.0
Washington	39.7	39.5	39.5	39.4	33.6	**
Wicomico	41.3	46.7	37.1	38.7	49.0	**
Worcester	35.7	44.2	28.3	34.1	46.3	**

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

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

Source: Maryland Cancer Registry

Table 27.
Number of Deaths for Colon and Rectum Cancer by Jurisdiction, Gender, and Race, Maryland, 2010-2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	4,606	2,387	2,219	2,998	1,466	142
Allegany	85	55	30	84	<10	<10
Anne Arundel	375	205	170	290	74	11
Baltimore City	679	332	347	s	471	<10
Baltimore County	719	350	369	561	140	18
Calvert	69	35	34	58	s	<10
Caroline	34	17	17	29	<10	<10
Carroll	152	78	74	149	<10	<10
Cecil	83	50	33	78	<10	<10
Charles	117	59	58	62	s	<10
Dorchester	37	22	15	23	s	<10
Frederick	186	106	80	174	s	<10
Garrett	32	20	12	31	<10	<10
Harford	198	94	104	171	s	<10
Howard	135	65	70	92	31	12
Kent	22	s	<10	17	<10	<10
Montgomery	526	261	265	373	90	63
Prince George's	689	367	322	191	482	16
Queen Anne's	29	16	13	26	<10	<10
St. Mary's	70	46	24	59	s	<10
Somerset	25	s	<10	17	<10	<10
Talbot	36	19	17	30	<10	<10
Washington	157	80	77	154	<10	<10
Wicomico	98	53	45	76	s	<10
Worcester	53	26	27	50	<10	<10

<10 = Death counts of 0-9 are suppressed per MDH/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: CDC Wonder, 2010-2014

Table 28.
Colon and Rectum Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2010-2014

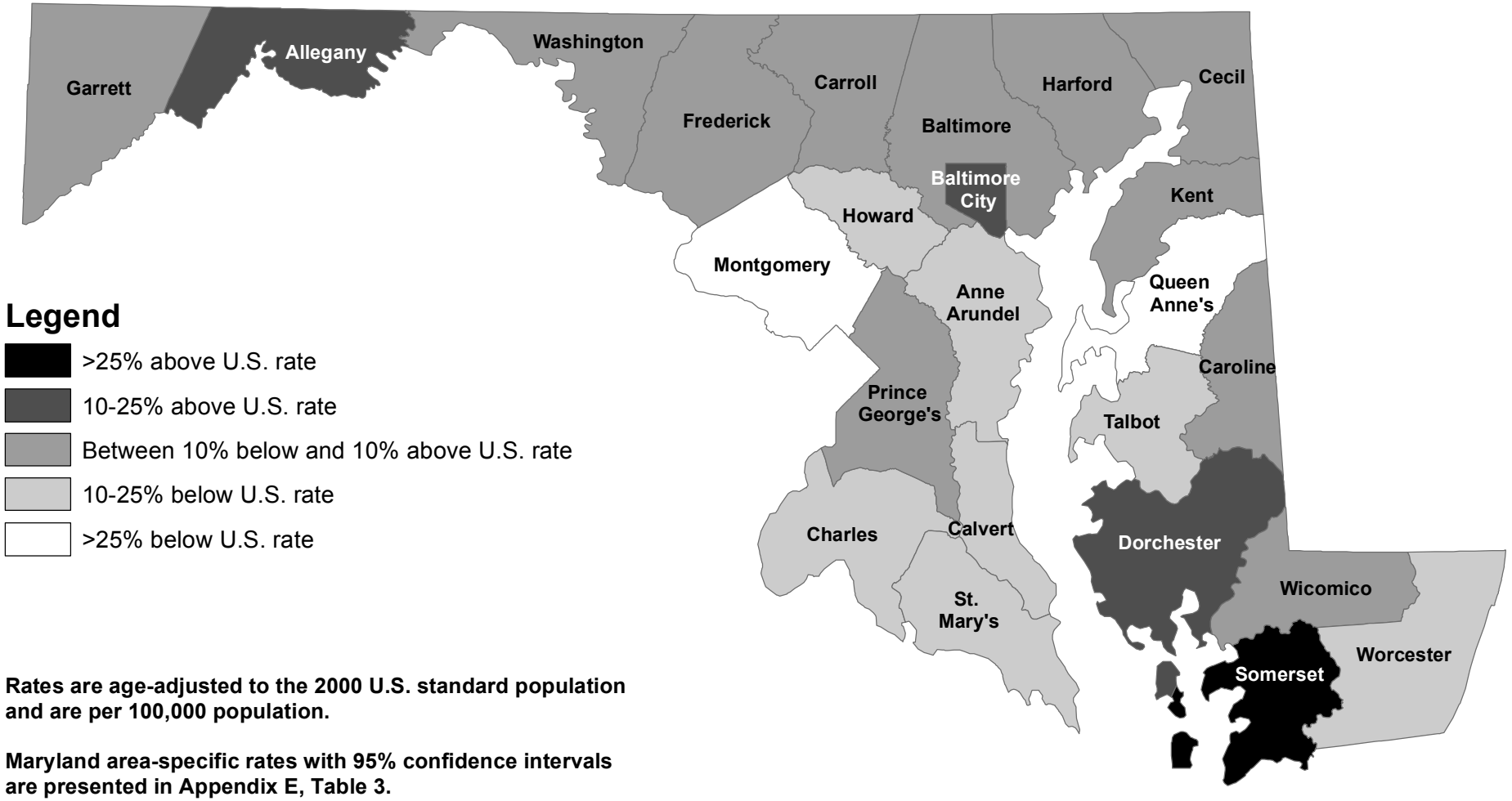
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	14.5	17.6	12.2	13.2	19.4	9.0
Allegany	16.0	24.4	9.8	16.4	**	**
Anne Arundel	13.2	16.3	10.8	12.1	21.8	**
Baltimore City	21.8	26.7	18.8	18.2	24.1	**
Baltimore County	13.8	16.6	11.7	13.5	16.3	**
Calvert	15.6	17.6	14.2	15.8	**	**
Caroline	18.2	**	**	17.9	**	**
Carroll	15.5	18.1	13.6	15.7	**	**
Cecil	15.0	19.2	11.5	14.8	**	**
Charles	17.2	19.7	15.3	14.3	24.2	**
Dorchester	16.9	23.4	**	13.5	**	**
Frederick	15.5	20.7	11.4	15.9	**	**
Garrett	14.6	20.1	**	14.3	**	**
Harford	14.7	16.7	13.2	14.2	22.7	**
Howard	9.6	10.8	9.0	8.6	16.1	**
Kent	14.1	**	**	**	**	**
Montgomery	9.4	11.2	8.1	8.9	12.4	9.1
Prince George's	17.6	21.9	14.4	16.1	19.0	**
Queen Anne's	9.5	**	**	9.3	**	**
St. Mary's	13.0	17.4	8.7	13.0	**	**
Somerset	16.6	**	**	**	**	**
Talbot	10.6	**	**	9.4	**	**
Washington	17.3	20.1	15.0	18.0	**	**
Wicomico	17.9	23.3	14.5	17.6	20.9	**
Worcester	12.3	13.6	10.6	13.0	**	**

* 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 MDH/CCPC Mortality Data Suppression Policy

Source: CDC Wonder, 2010-2014

Maryland Colorectal Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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

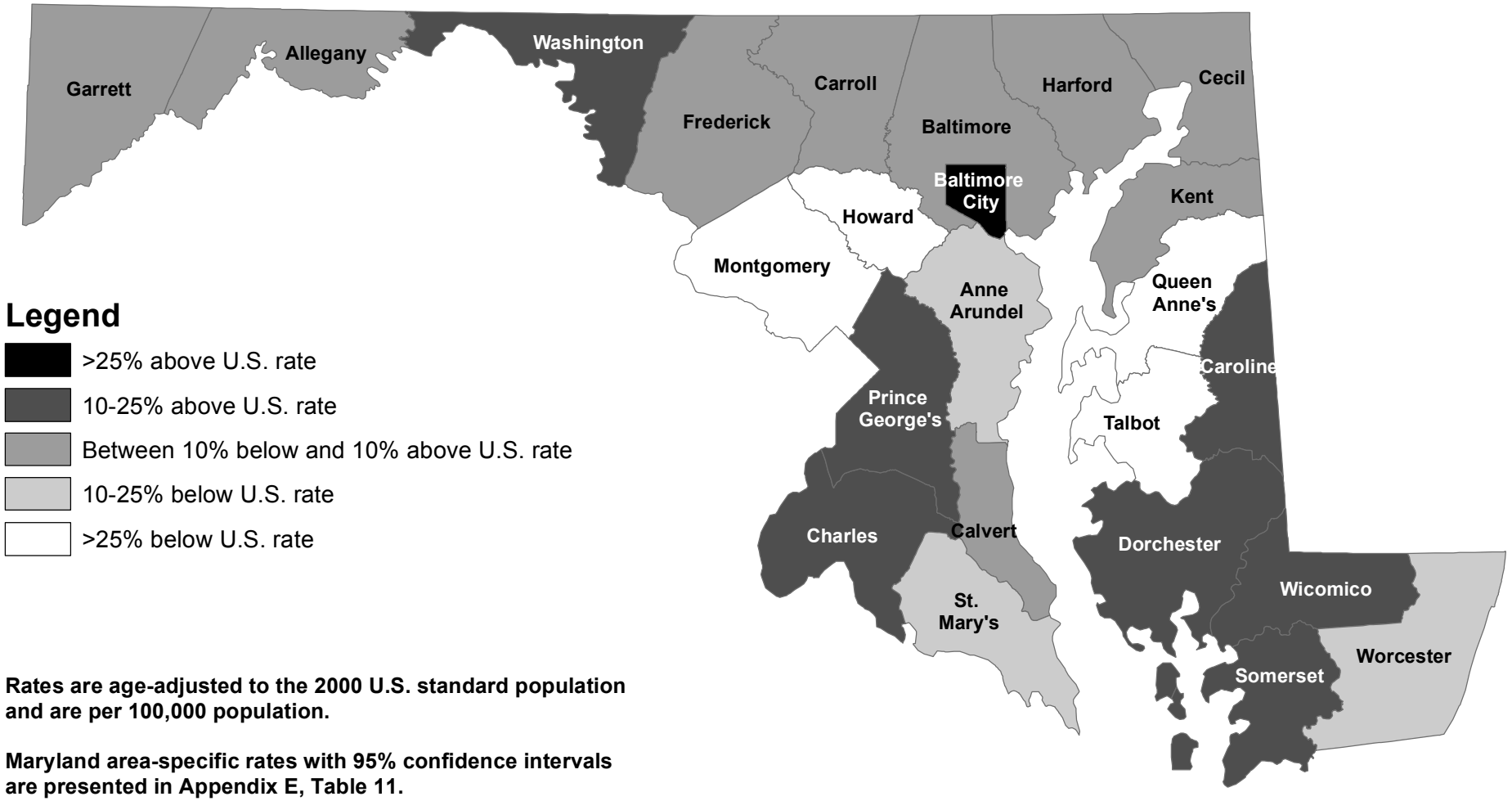
Maryland area-specific rates with 95% confidence intervals are presented in Appendix E, Table 3.

U.S. colorectal cancer incidence rate, 2010-2014: 40.1 / 100,000

Maryland colorectal cancer incidence rate, 2010-2014: 36.7 / 100,000

Sources: Maryland Cancer Registry
U.S. SEER, SEER*Stat Database

Maryland Colorectal Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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 E, Table 11.

U.S. colorectal cancer mortality rate, 2010-2014: 14.8 / 100,000

Maryland colorectal cancer mortality rate, 2010-2014: 14.5 / 100,000

Source: NCHS Compressed Mortality File in CDC WONDER
U.S. SEER, Cancer Statistics Review

C. Female Breast Cancer

Incidence (New Cases)

In 2014, a total of 4,771 cases of breast cancer were reported among Maryland women. The 2014 age-adjusted incidence rate in Maryland was 130.3 per 100,000 women (126.5-134.2, 95% C.I.), which is statistically significantly higher than the 2014 U.S. SEER age-adjusted female breast cancer incidence rate of 124.9 per 100,000 women (123.9-125.9, 95% C.I.).

Mortality (Deaths)

In 2014, a total of 862 women died of breast cancer in Maryland. Female breast cancer accounted for 16.2% of cancer deaths among women and 8.0% of all cancer deaths in Maryland in 2014. Breast cancer is the second leading cause of cancer death among women in Maryland after lung cancer. The 2014 age-adjusted mortality rate for female breast cancer in Maryland was 22.9 per 100,000 women (21.4-24.5, 95% C.I.). This rate is statistically significantly higher than the U.S. female breast cancer mortality rate of 20.5 per 100,000 women (20.3-20.8, 95% C.I.). Maryland had the 7th highest female breast cancer mortality rate among the states and the District of Columbia for the period 2010-2014.

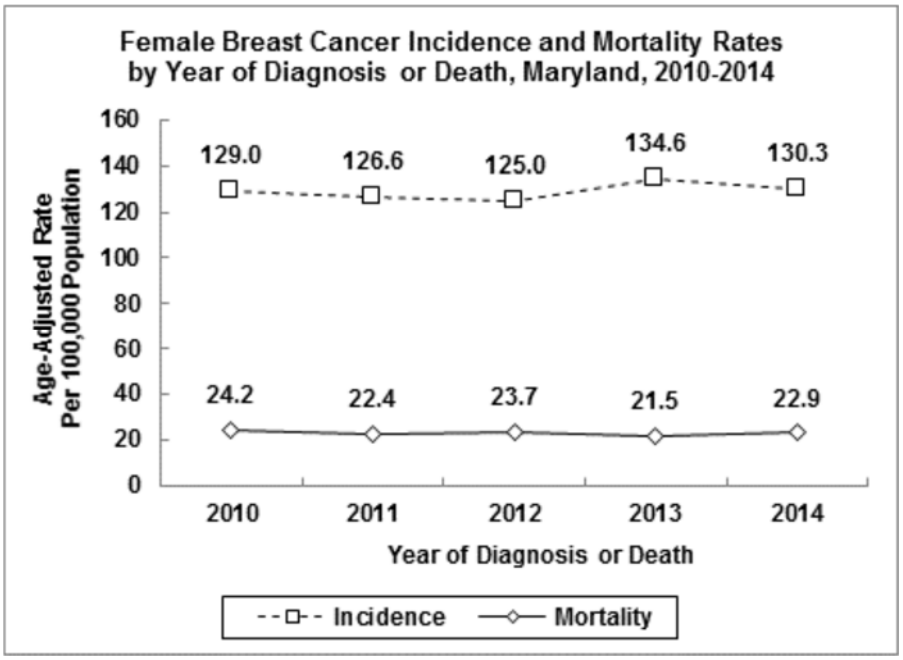
Table 29.
Female Breast Cancer Incidence and Mortality Rates
by Race, Maryland and the United States, 2014

Incidence 2014	*Total**	*Whites*	*Blacks*	*Other*
New Cases (count)	4,771	3,160	1,357	194
MD Incidence Rate	130.3	132.8	129.1	79.7
U.S. SEER Rate	124.9	127.3	125.5	95.0
Mortality 2014	*Total*	*Whites*	*Blacks*	*Other*
Deaths (count)	862	542	297	23
MD Mortality Rate	22.9	21.1	29.0	9.3
U.S. Mortality Rate	20.5	20.0	28.1	N/A

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

* Total includes unknown race and unknown county

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat
NCHS Compressed Mortality File in CDC WONDER, 2014
U.S. SEER, Cancer Statistics Review



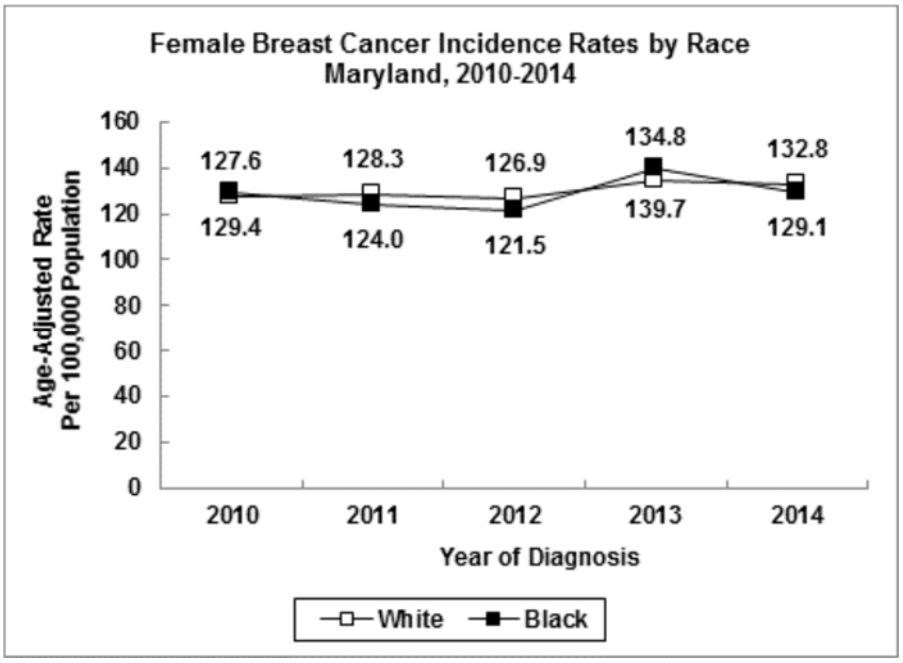
Source: Maryland Cancer Registry
NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2011

Incidence and Mortality Trends

From 2010 to 2014, incidence rates for female breast cancer increased in Maryland at a rate of 0.8% annually.

Breast cancer mortality rates for females decreased at a rate of 1.5% per year.

See Appendix F, Tables 1 and 2.

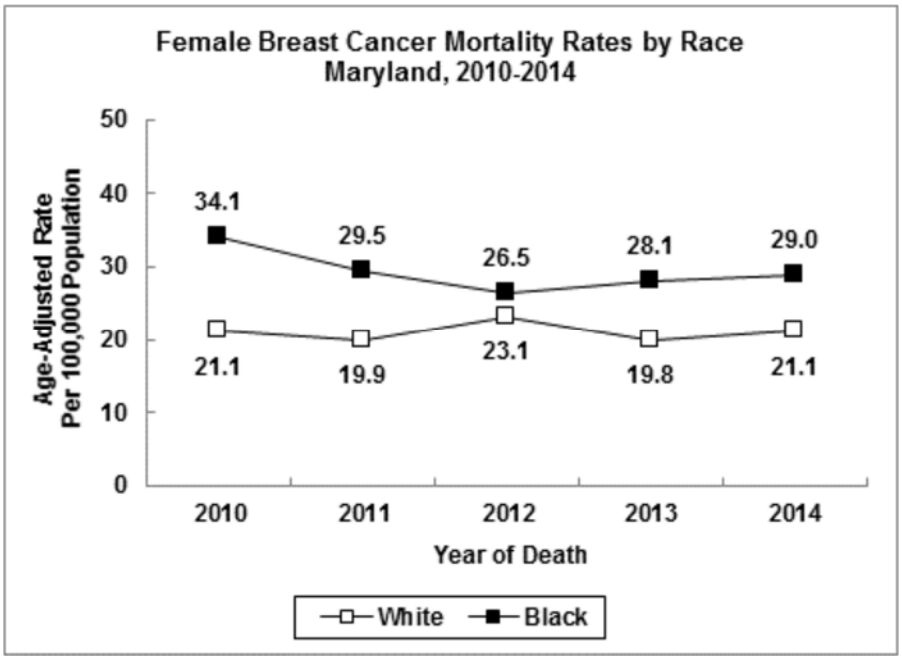


Source: Maryland Cancer Registry

Incidence Trends by Race

Female breast cancer incidence rates increased in both blacks and whites in Maryland from 2010 to 2014. Incidence rates increased at a rate of 1.3% per year among white females and 1.2% per year among black females. In 2014, the breast cancer incidence rate for white females in Maryland was 132.8 per 100,000 women compared to 129.1 per 100,000 women for black females.

See Appendix F, Table 3.

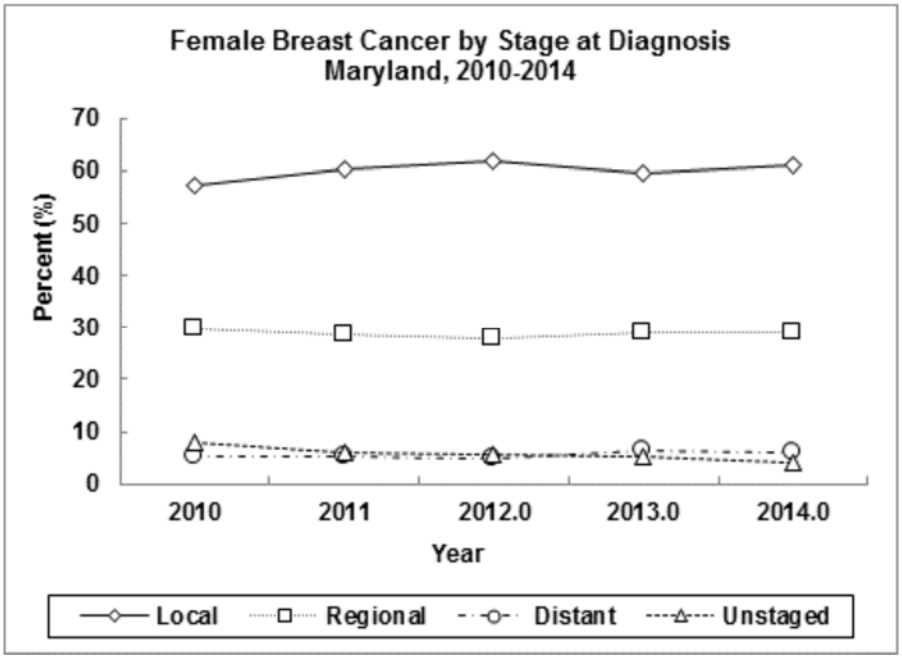


Source: NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2011

Mortality Trends by Race

Female breast cancer mortality rates decreased at different rates in blacks and whites from 2010 to 2014. The mortality rate in blacks increased in 2014, but decreased at a rate of 3.7% per year between 2010-2014. In whites, the mortality rate increased in 2014, but decreased at a rate of 0.1% per year in the same time period.

See Appendix F, Table 5.

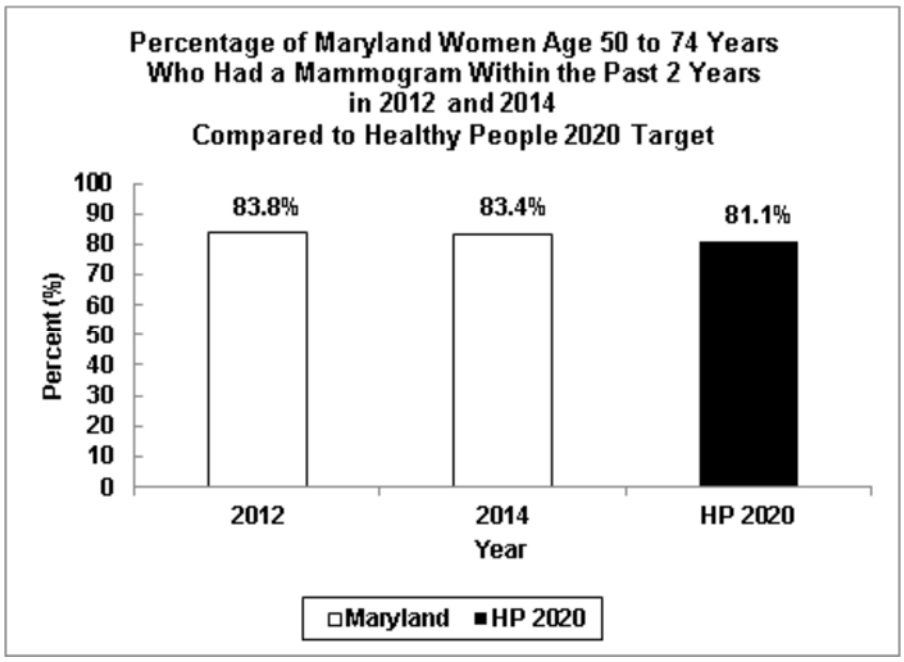


Source: Maryland Cancer Registry

Stage at Diagnosis

In 2014, 61.1% of all female breast cancer cases in Maryland were diagnosed at the local stage, 29.0% were found at the regional stage, and 5.8% were diagnosed at the distant stage. The proportion of female breast cancers reported as unstaged in 2014 was 4.1%.

See Appendix G, Table 4.



Source: Maryland BRFSS 2012, 2014
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 the most recent guidelines. As of January 2016, the USPSTF guideline includes biennial mammography for women age 50 to 74 years. Maryland women have consistently surpassed this target. In 2012 and 2014, 83.8% and 83.4% of Maryland women age 50 to 74 years reported receiving a mammogram within the past 2 years, respectively.

Table 30.
Number of Female Breast Cancer Cases by Jurisdiction and Race, Maryland, 2014

Jurisdiction	Total*	Race		
		Whites	Blacks	Other
Maryland	4,771	3,160	1,357	194
Allegany	57	s	<6	<6
Anne Arundel	456	376	68	12
Baltimore City	440	132	302	<6
Baltimore County	774	557	192	19
Calvert	85	73	s	<6
Caroline	28	22	6	0
Carroll	153	146	<6	0
Cecil	86	76	8	<6
Charles	108	72	33	<6
Dorchester	31	23	8	0
Frederick	187	154	21	9
Garrett	26	26	0	0
Harford	238	211	22	<6
Howard	244	165	55	23
Kent	24	21	<6	0
Montgomery	801	551	136	86
Prince George's	606	121	446	24
Queen Anne's	35	s	<6	0
St. Mary's	72	62	8	<6
Somerset	15	11	<6	0
Talbot	39	36	<6	<6
Washington	122	118	<6	<6
Wicomico	89	71	s	<6
Worcester	52	46	6	0

* Total includes cases reported as unknown race and unknown county

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

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, 2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	130.3	132.8	129.1	79.7
Allegany	120.1	116.5	**	**
Anne Arundel	135.8	138.6	135.3	**
Baltimore City	122.3	119.1	126.6	**
Baltimore County	143.7	143.8	152.8	74.8
Calvert	153.3	161.8	**	**
Caroline	135.3	121.2	**	0.0
Carroll	137.0	137.0	**	0.0
Cecil	143.3	133.1	**	**
Charles	122.3	152.8	91.0	**
Dorchester	139.3	146.8	**	0.0
Frederick	129.5	120.5	188.1	**
Garrett	108.2	109.2	0.0	0.0
Harford	146.4	149.4	126.8	**
Howard	130.3	128.9	168.0	83.5
Kent	170.1	175.3	**	0.0
Montgomery	127.4	130.2	127.3	81.6
Prince George's	116.2	96.6	120.5	79.8
Queen Anne's	105.3	111.9	**	0.0
St. Mary's	116.3	122.9	**	**
Somerset	**	**	**	0.0
Talbot	129.4	141.9	**	**
Washington	125.5	129.4	**	**
Wicomico	151.9	159.6	139.1	**
Worcester	117.3	122.9	**	0.0

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

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

Source: Maryland Cancer Registry

Table 32.
Number of Deaths for Female Breast Cancer by Jurisdiction and Race, Maryland, 2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	862	542	297	23
Allegany	11	s	<10	<10
Anne Arundel	72	60	s	<10
Baltimore City	108	s	77	<10
Baltimore County	128	85	s	<10
Calvert	19	13	<10	<10
Caroline	<10	<10	<10	<10
Carroll	33	32	<10	<10
Cecil	13	s	<10	<10
Charles	28	s	15	<10
Dorchester	<10	<10	<10	<10
Frederick	33	31	<10	<10
Garrett	<10	<10	<10	<10
Harford	49	44	<10	<10
Howard	29	19	<10	<10
Kent	<10	<10	<10	<10
Montgomery	105	77	s	<10
Prince George's	133	s	100	<10
Queen Anne's	<10	<10	<10	<10
St. Mary's	12	10	<10	<10
Somerset	<10	<10	<10	<10
Talbot	<10	<10	<10	<10
Washington	22	s	<10	<10
Wicomico	13	<10	<10	<10
Worcester	16	14	<10	<10

<10 = Death counts of 0-9 are suppressed per MDH/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: CDC Wonder, 2014

Table 33.
Female Breast Cancer Age-Adjusted Mortality Rates* by Jurisdiction and Race, Maryland, 2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	22.9	21.1	29.0	9.3
Allegany	**	**	**	**
Anne Arundel	20.9	21.1	**	**
Baltimore City	29.6	25.4	32.1	**
Baltimore County	22.1	18.8	30.4	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	28.0	28.3	**	**
Cecil	**	**	**	**
Charles	33.0	**	**	**
Dorchester	**	**	**	**
Frederick	23.8	25.4	**	**
Garrett	**	**	**	**
Harford	30.4	30.8	**	**
Howard	16.2	**	**	**
Kent	**	**	**	**
Montgomery	16.0	16.3	**	**
Prince George's	26.8	22.1	28.8	**
Queen Anne's	**	**	**	**
St. Mary's	**	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	20.2	21.4	**	**
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 MDH/CCPC Mortality Data Suppression Policy

Source: CDC Wonder, 2014

Table 34.
Number of Female Breast Cancer Cases by Jurisdiction and Race, Maryland, 2010-2014

Jurisdiction	Total*	Race		
		Whites	Blacks	Other
Maryland	22,763	15,102	6,429	902
Allegany	293	285	s	<6
Anne Arundel	2,108	1,776	277	46
Baltimore City	2,250	718	1,482	25
Baltimore County	3,533	2,565	831	96
Calvert	401	352	47	<6
Caroline	124	100	s	<6
Carroll	699	675	12	7
Cecil	361	332	25	<6
Charles	525	298	207	13
Dorchester	142	109	s	<6
Frederick	861	755	72	30
Garrett	103	s	0	<6
Harford	1,042	903	110	22
Howard	1,125	778	231	107
Kent	98	83	15	0
Montgomery	3,920	2,725	643	410
Prince George's	2,990	648	2,180	102
Queen Anne's	183	172	s	<6
St. Mary's	312	265	38	7
Somerset	75	57	18	0
Talbot	211	188	20	<6
Washington	602	572	21	8
Wicomico	388	306	73	7
Worcester	272	235	30	<6

* Total includes cases reported as unknown race and unknown county

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

s = Case counts are suppressed to prevent disclosure of data in other cell(s)

(See Appendix A for methods)

Source: Maryland Cancer Registry

Table 35.
Female Breast Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2010-2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	129.2	130.1	128.8	82.2
Allegany	116.9	116.8	**	**
Anne Arundel	130.1	134.0	122.0	62.5
Baltimore City	125.9	130.9	123.7	61.6
Baltimore County	134.9	134.3	138.7	81.6
Calvert	150.2	160.2	113.6	**
Caroline	122.3	115.4	166.9	**
Carroll	129.2	130.4	**	**
Cecil	122.1	119.4	171.1	**
Charles	126.3	124.4	130.4	**
Dorchester	122.3	128.3	110.8	**
Frederick	124.2	122.7	136.5	103.3
Garrett	99.5	98.9	0.0	**
Harford	136.0	135.9	138.7	91.9
Howard	129.8	130.5	157.2	92.0
Kent	122.2	122.1	**	0.0
Montgomery	128.8	130.0	128.6	85.2
Prince George's	121.7	105.0	126.4	75.3
Queen Anne's	112.5	116.8	**	**
St. Mary's	108.9	112.9	93.3	**
Somerset	103.8	108.1	99.0	0.0
Talbot	133.3	136.7	100.7	**
Washington	131.6	132.3	89.6	**
Wicomico	132.8	137.2	116.0	**
Worcester	134.7	133.9	128.5	**

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

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

Source: Maryland Cancer Registry

Table 36.
Number of Deaths for Female Breast Cancer by Jurisdiction and Race, Maryland, 2010-2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	4,132	2,605	1,429	98
Allegany	51	50	<10	<10
Anne Arundel	364	295	s	<10
Baltimore City	530	s	373	<10
Baltimore County	643	436	194	13
Calvert	69	56	s	<10
Caroline	19	15	<10	<10
Carroll	138	133	<10	<10
Cecil	64	62	<10	<10
Charles	106	61	s	<10
Dorchester	25	17	<10	<10
Frederick	145	130	s	<10
Garrett	27	s	<10	<10
Harford	185	163	s	<10
Howard	156	118	s	<10
Kent	29	22	<10	<10
Montgomery	551	400	109	42
Prince George's	640	134	492	14
Queen Anne's	35	33	<10	<10
St. Mary's	67	57	s	<10
Somerset	11	<10	<10	<10
Talbot	33	28	<10	<10
Washington	115	112	<10	<10
Wicomico	64	42	s	<10
Worcester	65	55	s	<10

<10 = Death counts of 0-9 are suppressed per MDH/CCPC Mortality Data Suppression Policy

s = Death counts are suppressed to prevent disclosure of data in other cell(s)

(See Appendix A for methods)

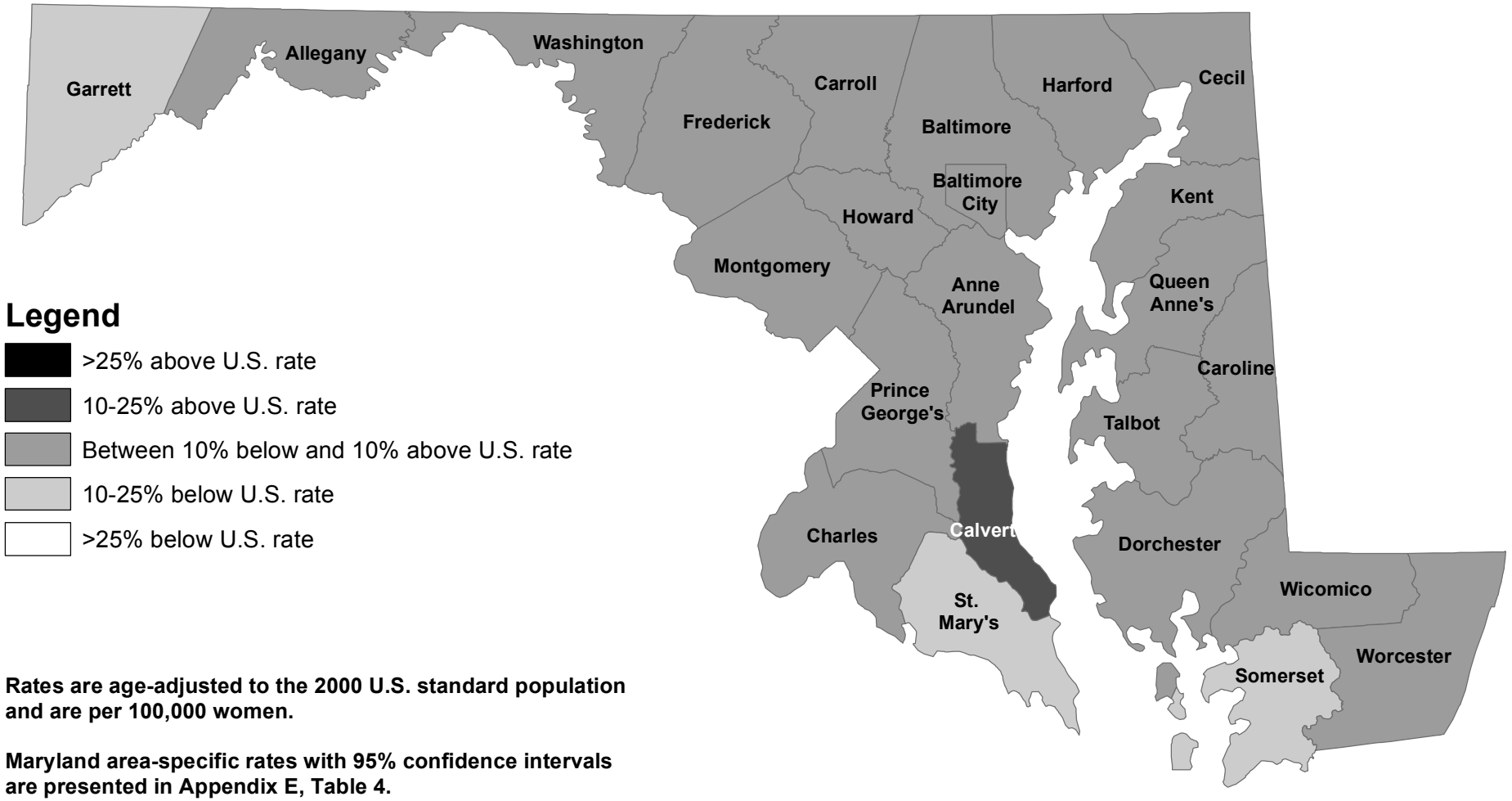
Table 37.
Female Breast Cancer Age-Adjusted Mortality Rates* by Jurisdiction and Race, Maryland, 2010-2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	22.9	21.0	29.4	8.9
Allegany	18.5	18.7	**	**
Anne Arundel	22.9	22.1	28.2	**
Baltimore City	29.2	25.6	31.3	**
Baltimore County	22.6	19.7	32.3	**
Calvert	26.4	25.7	**	**
Caroline	**	**	**	**
Carroll	24.6	24.6	**	**
Cecil	21.2	21.8	**	**
Charles	26.7	24.8	29.4	**
Dorchester	20.6	**	**	**
Frederick	21.3	21.2	**	**
Garrett	23.4	23.6	**	**
Harford	23.9	23.8	28.8	**
Howard	19.2	20.3	24.5	**
Kent	30.1	26.9	**	**
Montgomery	17.4	17.7	22.1	8.6
Prince George's	27.0	20.7	30.1	**
Queen Anne's	21.7	22.7	**	**
St. Mary's	23.5	24.2	**	**
Somerset	**	**	**	**
Talbot	20.0	18.5	**	**
Washington	22.8	23.0	**	**
Wicomico	20.6	17.4	32.5	**
Worcester	29.4	28.8	**	**

* 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 MDH/CCPC Mortality Data Suppression Policy

Maryland Female Breast Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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

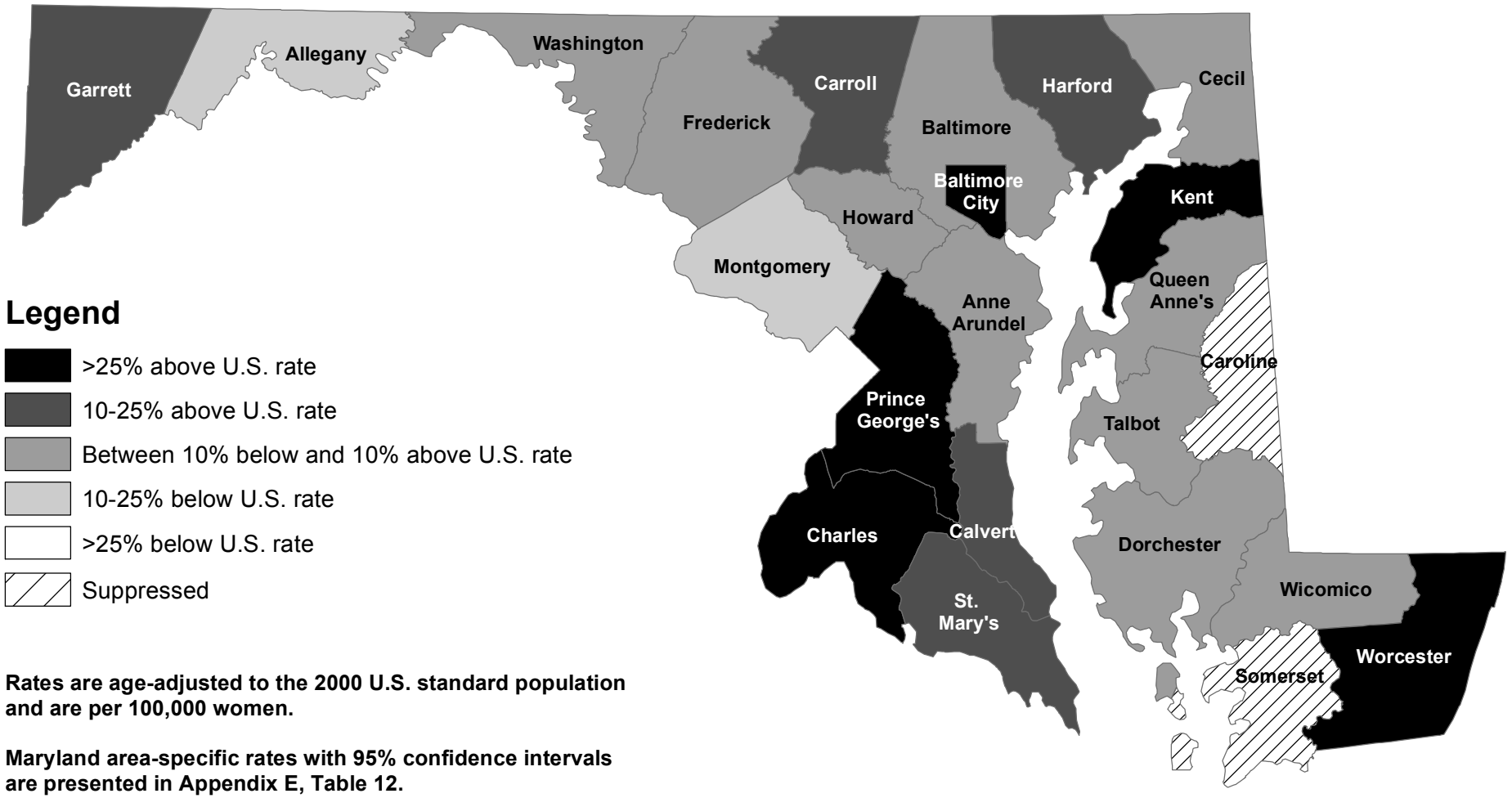
Maryland area-specific rates with 95% confidence intervals are presented in Appendix E, Table 4.

U.S. female breast cancer incidence rate, 2010-2014: 124.9 / 100,000

Maryland female breast cancer incidence rate, 2010-2014: 129.2 / 100,000

Sources: Maryland Cancer Registry
U.S. SEER, SEER*Stat Database

Maryland Female Breast Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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 E, Table 12.

U.S. female breast cancer mortality rate, 2010-2014: 21.2 / 100,000

Maryland female breast cancer mortality rate, 2010-2014: 22.9 / 100,000

Source: NCHS Compressed Mortality File in CDC WONDER
U.S. SEER, Cancer Statistics Review

Note: Rates based on death counts of 0-19 are suppressed per MDH / CCPC Mortality Data Suppression Policy.

D. Prostate Cancer

Incidence (New Cases)

In 2014, a total of 3,946 cases of prostate cancer were reported among men in Maryland. The age-adjusted prostate cancer incidence rate in Maryland for 2014 was 119.4 per 100,000 men (115.6-123.3, 95% C.I.), which is statistically significantly higher than the 2014 U.S. SEER age-adjusted prostate cancer incidence rate of 97.6 per 100,000 men (96.7-98.6, 95% C.I.).

Mortality (Deaths)

Prostate cancer is the second leading cause of cancer death among men in Maryland after lung cancer. In 2014, 504 men died of prostate cancer in Maryland, accounting for 4.7% of all cancer deaths and 9.3% of cancer deaths among men in Maryland. The 2014 age-adjusted mortality rate for prostate cancer in Maryland was 19.3 per 100,000 men (17.6-21.0, 95% C.I.). This rate is similar to the 2014 U.S. prostate cancer mortality rate of 19.1 per 100,000 men (18.9-19.3, 95% C.I.). Maryland had the 27th highest prostate cancer mortality rate among the states and the District of Columbia for the period 2010-2014.

Table 38.
Prostate Cancer Incidence and Mortality Rates
by Race, Maryland and the United States, 2014

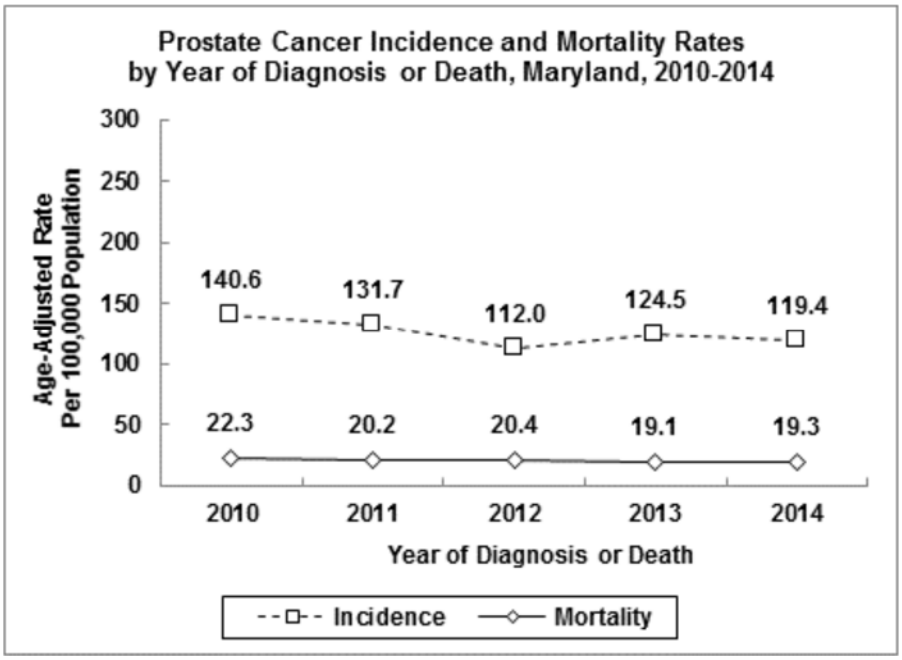
Incidence 2014	*Total**	*Whites*	*Blacks*	*Other*
New Cases (count)	3,946	2,327	1,495	81
MD Incidence Rate	119.4	101.3	184.5	41.0
U.S. SEER Rate	97.6	90.8	150.9	47.8
Mortality 2014	*Total*	*Whites*	*Blacks*	*Other*
Deaths (count)	504	307	187	10
MD Mortality Rate	19.3	15.9	35.6	**
U.S. Mortality Rate	19.1	17.9	38.0	N/A

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

* Total includes unknown race and unknown county

** MD mortality rates based on death counts of 0-19 are suppressed per MDH/CCPC Mortality Data Suppression Policy

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat
NCHS Compressed Mortality File in CDC WONDER, 2014
U.S. SEER, Cancer Statistics Review



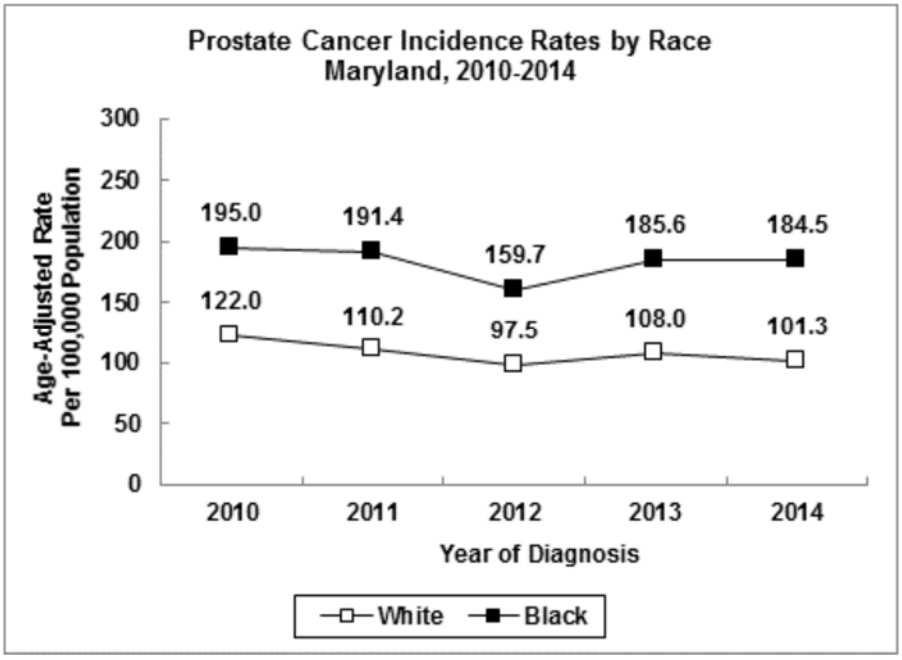
Source: Maryland Cancer Registry
NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2011

Incidence and Mortality Trends

The prostate cancer incidence rate in Maryland decreased at a rate of 3.8% per year from 2010 to 2014.

Prostate cancer mortality rates decreased from 2010 to 2014, with a yearly decline of 3.4%.

See Appendix F, Tables 1 and 2.



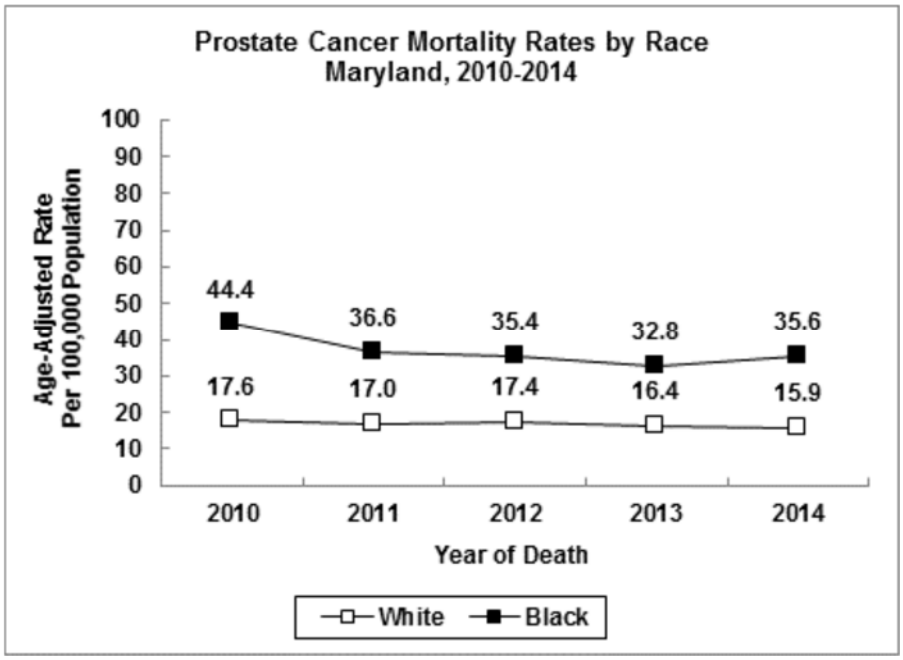
Source: Maryland Cancer Registry

Incidence Trends by Race

From 2010 to 2014, black men had consistently higher prostate cancer incidence rates than white men.

During this 5-year period, incidence rates for black and white men decreased at a rate of 1.4% and 3.8% per year, respectively.

See Appendix F, Table 3.



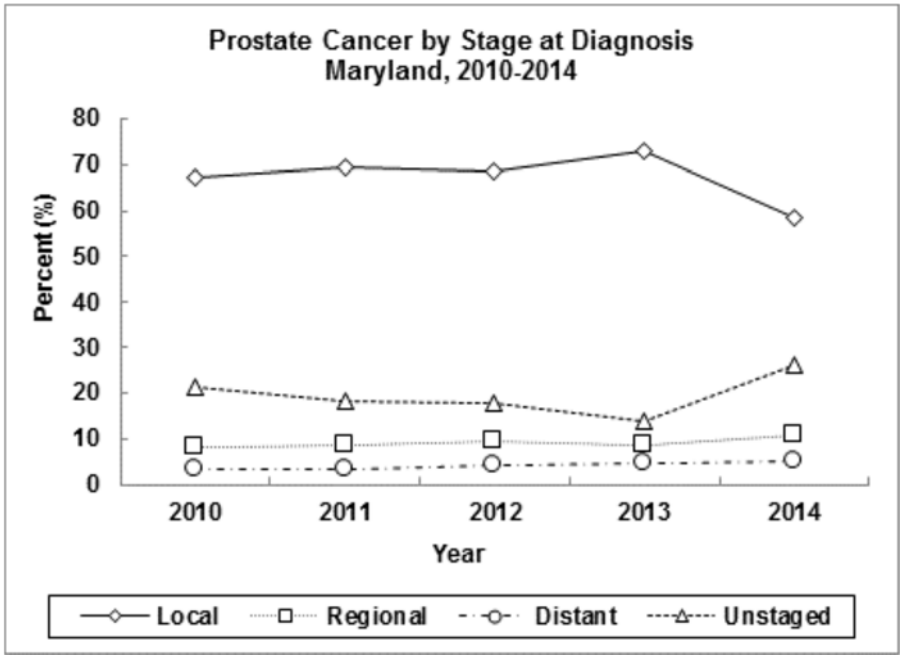
Source: NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2011

Mortality Trends by Race

From 2010 to 2014, 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 5.4% and 2.4% per year, respectively.

See Appendix F, Table 5.

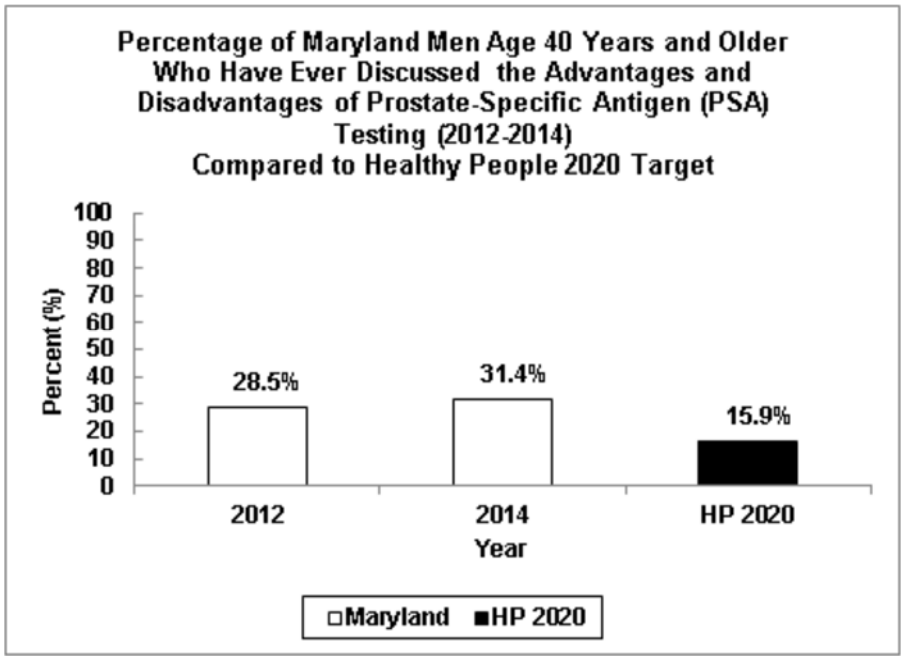


Source: Maryland Cancer Registry

Stage at Diagnosis

Of prostate cancers diagnosed in Maryland in 2014, 58.3% were detected at the local stage, 10.7% were found at the regional stage, and 5.0% were diagnosed at the distant stage. The proportion of prostate cancers reported as unstaged increased in 2014 to 26.0% of cases.

See Appendix G, Table 5.



Source: Maryland BRFSS 2012, 2014
Healthy People 2020, U.S. Department of Health and Human Services

Prostate-Specific Antigen Test

In 2012 and 2014, 28.5% and 31.4% of Maryland men age 40 years and older, respectively, reported that they had discussed both the advantages and the disadvantages of a prostate-specific antigen (PSA) test with a health care provider, which surpasses the Healthy People 2020 target of 15.9%.

Table 39.
Number of Prostate Cancer Cases by Jurisdiction and Race, Maryland, 2014

Jurisdiction	Total*	Race		
		Whites	Blacks	Other
Maryland	3,946	2,327	1,495	81
Allegany	45	42	<6	<6
Anne Arundel	330	268	52	8
Baltimore City	417	102	309	<6
Baltimore County	665	419	230	12
Calvert	59	47	12	0
Caroline	20	14	<6	0
Carroll	139	135	<6	0
Cecil	74	66	s	<6
Charles	91	s	48	<6
Dorchester	31	21	10	0
Frederick	112	95	15	<6
Garrett	19	19	0	0
Harford	195	168	25	<6
Howard	155	114	36	<6
Kent	23	18	<6	0
Montgomery	586	383	153	34
Prince George's	601	86	491	11
Queen Anne's	36	30	6	0
St. Mary's	45	31	14	0
Somerset	19	10	9	0
Talbot	35	28	7	0
Washington	85	74	11	0
Wicomico	89	57	28	<6
Worcester	61	48	13	0

* Total includes cases reported as unknown race and unknown county

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

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, 2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	119.4	101.3	184.5	41.0
Allegany	90.9	89.9	**	**
Anne Arundel	107.6	102.6	144.7	**
Baltimore City	140.4	97.7	167.8	**
Baltimore County	137.1	114.0	246.2	**
Calvert	107.3	99.7	**	0.0
Caroline	98.2	**	**	0.0
Carroll	136.8	139.9	**	0.0
Cecil	129.1	125.5	**	**
Charles	116.1	88.4	166.8	**
Dorchester	135.2	119.2	**	0.0
Frederick	81.9	77.0	**	**
Garrett	87.4	87.9	0.0	0.0
Harford	125.6	123.2	171.4	**
Howard	90.8	90.3	161.9	**
Kent	144.7	132.1	**	0.0
Montgomery	105.1	97.3	194.6	40.2
Prince George's	141.3	74.8	173.7	**
Queen Anne's	102.3	92.5	**	0.0
St. Mary's	72.7	59.6	**	0.0
Somerset	111.5	**	**	0.0
Talbot	106.1	94.9	**	0.0
Washington	91.2	86.0	**	0.0
Wicomico	157.1	128.8	243.2	**
Worcester	133.4	116.9	**	0.0

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

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

Source: Maryland Cancer Registry

Table 41.
Number of Deaths for Prostate Cancer by Jurisdiction and Race, Maryland, 2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	504	307	187	10
Allegany	11	s	<10	<10
Anne Arundel	40	32	<10	<10
Baltimore City	81	s	55	<10
Baltimore County	84	56	s	<10
Calvert	10	<10	<10	<10
Caroline	<10	<10	<10	<10
Carroll	<10	<10	<10	<10
Cecil	<10	<10	<10	<10
Charles	<10	<10	<10	<10
Dorchester	<10	<10	<10	<10
Frederick	18	15	<10	<10
Garrett	<10	<10	<10	<10
Harford	15	12	<10	<10
Howard	18	13	<10	<10
Kent	<10	<10	<10	<10
Montgomery	68	46	s	<10
Prince George's	76	s	56	<10
Queen Anne's	<10	<10	<10	<10
St. Mary's	<10	<10	<10	<10
Somerset	<10	<10	<10	<10
Talbot	<10	<10	<10	<10
Washington	11	10	<10	<10
Wicomico	<10	<10	<10	<10
Worcester	<10	<10	<10	<10

<10 = Death counts of 0-9 are suppressed per MDH/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: CDC Wonder, 2014

Table 42.
Prostate Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	19.3	15.9	35.6	**
Allegany	**	**	**	**
Anne Arundel	16.3	15.1	**	**
Baltimore City	34.7	28.0	41.7	**
Baltimore County	19.5	15.8	46.1	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	**	**	**	**
Cecil	**	**	**	**
Charles	**	**	**	**
Dorchester	**	**	**	**
Frederick	**	**	**	**
Garrett	**	**	**	**
Harford	**	**	**	**
Howard	**	**	**	**
Kent	**	**	**	**
Montgomery	14.7	13.2	**	**
Prince George's	25.3	**	31.3	**
Queen Anne's	**	**	**	**
St. 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 MDH/CCPC Mortality Data Suppression Policy

Source: CDC Wonder, 2014

Table 43.
Number of Prostate Cancer Cases by Jurisdiction and Race, Maryland, 2010-2014

Jurisdiction	Total*	Race		
		Whites	Blacks	Other
Maryland	19,536	11,824	6,814	413
Allegany	270	242	22	<6
Anne Arundel	1,885	1,514	326	21
Baltimore City	1,967	465	1,458	15
Baltimore County	2,862	1,942	819	51
Calvert	273	217	49	<6
Caroline	117	85	29	<6
Carroll	564	521	27	<6
Cecil	345	325	16	<6
Charles	469	242	214	7
Dorchester	178	129	49	0
Frederick	625	526	78	9
Garrett	82	82	0	0
Harford	894	747	131	<6
Howard	844	603	183	32
Kent	108	86	21	0
Montgomery	2,978	1,973	649	188
Prince George's	2,962	511	2,318	63
Queen Anne's	182	163	19	0
St. Mary's	255	188	55	<6
Somerset	88	51	35	<6
Talbot	212	185	26	0
Washington	439	386	44	<6
Wicomico	419	281	126	<6
Worcester	308	248	56	0

* Total includes cases reported as unknown race and unknown county

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

s = Case counts are suppressed to prevent disclosure of data in other cell(s)

(See Appendix A for methods)

Source: Maryland Cancer Registry

Table 44.
Prostate Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2010-2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	125.4	107.6	183.0	50.1
Allegany	110.1	103.7	234.8	**
Anne Arundel	126.9	119.4	187.0	42.2
Baltimore City	137.4	89.3	166.7	**
Baltimore County	124.4	108.7	199.5	57.4
Calvert	109.6	102.0	153.9	**
Caroline	120.3	100.6	238.2	**
Carroll	114.3	110.7	168.6	**
Cecil	120.7	121.5	96.6	**
Charles	131.0	103.4	190.7	**
Dorchester	155.7	145.7	194.8	0.0
Frederick	103.0	95.5	217.4	**
Garrett	76.5	77.0	0.0	0.0
Harford	125.7	119.0	206.6	**
Howard	107.8	103.6	181.2	32.4
Kent	137.0	126.2	206.6	0.0
Montgomery	113.9	104.3	185.4	51.2
Prince George's	149.2	89.2	178.3	62.1
Queen Anne's	111.7	108.9	164.9	0.0
St. Mary's	88.3	76.7	148.6	**
Somerset	111.1	87.8	176.5	**
Talbot	131.1	128.3	161.6	0.0
Washington	100.1	94.5	199.0	**
Wicomico	157.9	136.6	235.7	**
Worcester	135.8	120.8	285.7	0.0

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

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

Source: Maryland Cancer Registry

Table 45.
Number of Deaths for Prostate Cancer by Jurisdiction and Race, Maryland, 2010-2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2,473	1,540	903	30
Allegany	32	31	<10	<10
Anne Arundel	202	163	s	<10
Baltimore City	377	s	286	<10
Baltimore County	371	283	s	<10
Calvert	46	34	s	<10
Caroline	11	<10	<10	<10
Carroll	52	49	<10	<10
Cecil	43	39	<10	<10
Charles	51	s	28	<10
Dorchester	22	12	s	<10
Frederick	99	85	s	<10
Garrett	16	s	<10	<10
Harford	86	72	s	<10
Howard	81	57	s	<10
Kent	14	s	<10	<10
Montgomery	332	258	57	17
Prince George's	368	s	275	<10
Queen Anne's	26	24	<10	<10
St. Mary's	42	33	<10	<10
Somerset	12	<10	<10	<10
Talbot	34	27	<10	<10
Washington	59	56	<10	<10
Wicomico	51	38	s	<10
Worcester	46	29	s	<10

<10 = Death counts of 0-9 are suppressed per MDH/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: CDC Wonder, 2010-2014

Table 46.
Prostate Cancer Age-Adjusted Mortality Rates* by Jurisdiction and Race, Maryland, 2010-2014

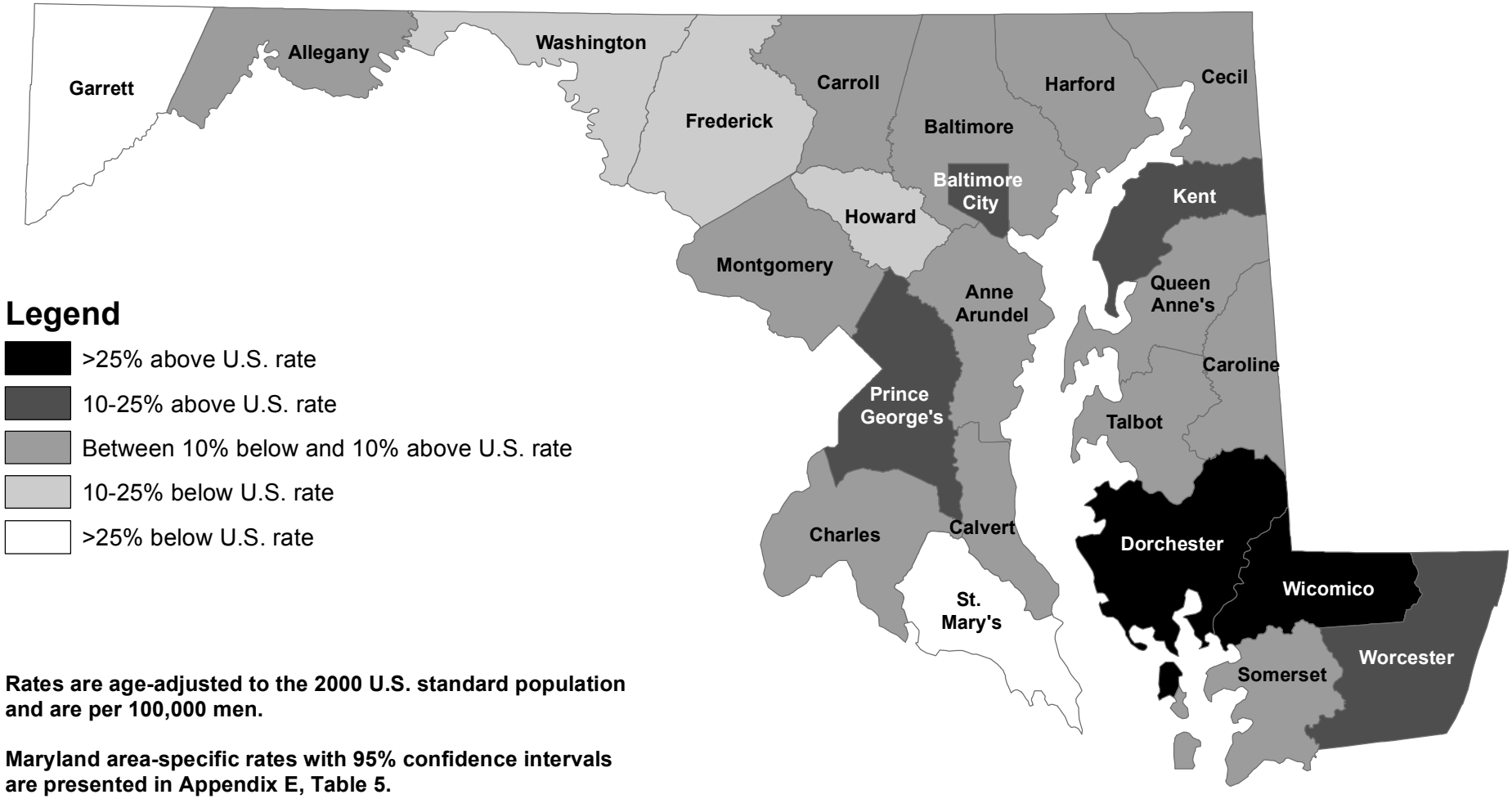
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	20.3	16.9	36.7	5.0
Allegany	14.3	14.2	**	**
Anne Arundel	18.4	17.1	29.9	**
Baltimore City	32.8	19.3	43.1	**
Baltimore County	17.8	16.1	32.6	**
Calvert	28.7	25.2	**	**
Caroline	**	**	**	**
Carroll	13.9	13.6	**	**
Cecil	21.3	20.7	**	**
Charles	21.2	14.3	43.9	**
Dorchester	22.0	**	**	**
Frederick	21.3	20.0	**	**
Garrett	**	**	**	**
Harford	17.0	15.9	**	**
Howard	16.3	15.9	36.0	**
Kent	**	**	**	**
Montgomery	15.2	15.3	26.0	**
Prince George's	28.0	19.6	35.3	**
Queen Anne's	23.1	23.2	**	**
St. Mary's	19.7	18.7	**	**
Somerset	**	**	**	**
Talbot	22.2	19.5	**	**
Washington	16.5	16.2	**	**
Wicomico	24.0	22.5	**	**
Worcester	22.6	15.6	**	**

* 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 MDH/CCPC Mortality Data Suppression Policy

Source: CDC Wonder, 2010-2014

Maryland Prostate Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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

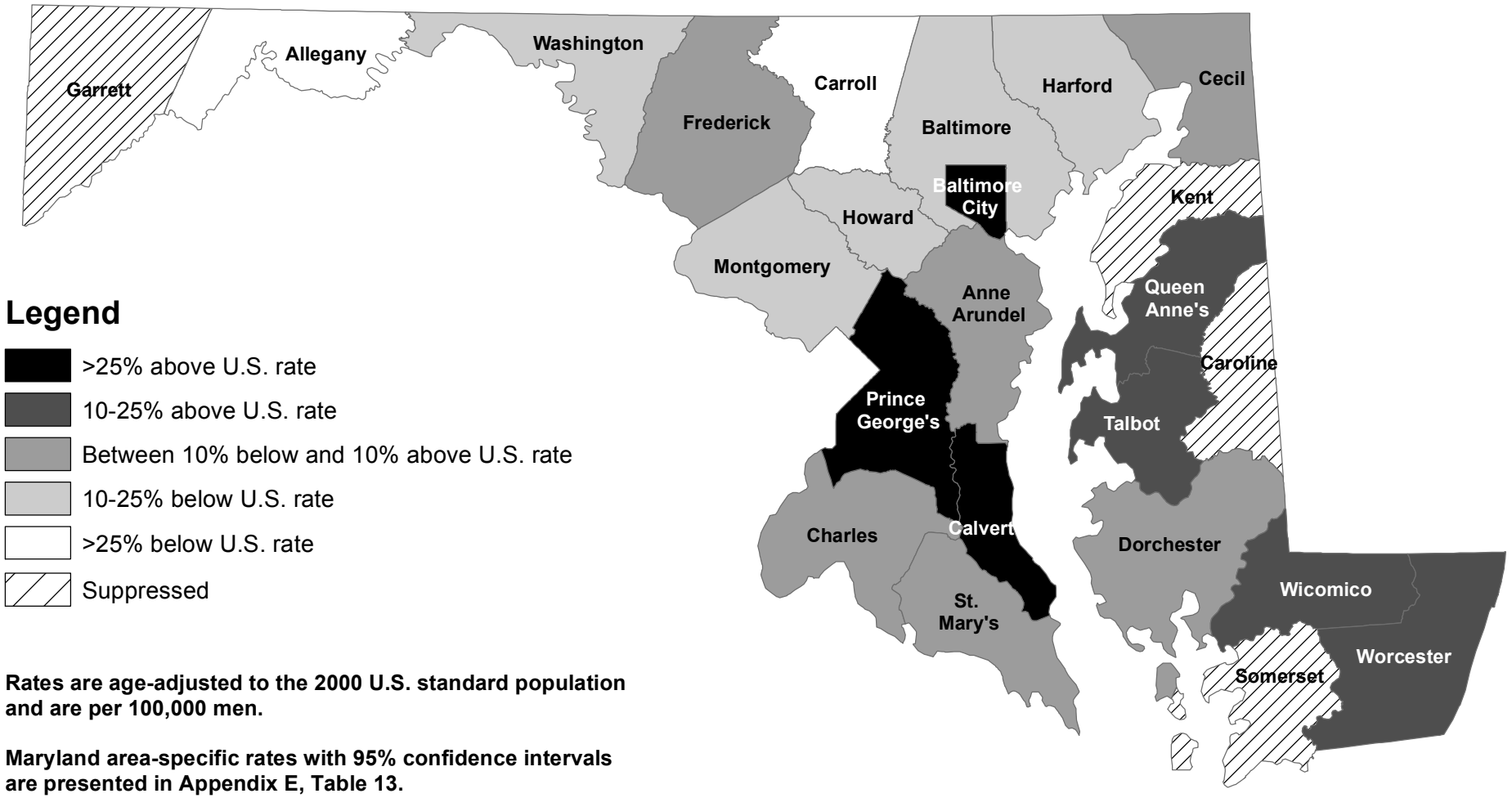
Maryland area-specific rates with 95% confidence intervals are presented in Appendix E, Table 5.

U.S. prostate cancer incidence rate, 2010-2014: 119.8 / 100,000

Maryland prostate cancer incidence rate, 2010-2014: 125.4 / 100,000

Sources: Maryland Cancer Registry
U.S. SEER, SEER*Stat Database

Maryland Prostate Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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 E, Table 13.

U.S. prostate cancer mortality rate, 2010-2014: 20.1 / 100,000

Maryland prostate cancer mortality rate, 2010-2014: 20.3 / 100,000

Source: NCHS Compressed Mortality File in CDC WONDER
U.S. SEER, Cancer Statistics Review

Note: Rates based on death counts of 0-19 are suppressed per MDH / CCPC Mortality Data Suppression Policy.

E. Oral Cancer

Incidence (New Cases)

In 2014, a total of 731 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 2014 was 10.5 per 100,000 population (9.7-11.3, 95% C.I.), which is statistically significantly lower than the 2014 U.S. SEER age-adjusted oral cancer incidence rate of 11.3 per 100,000 population (11.1 -11.5, 95% C.I.).

Mortality (Deaths)

In 2014, 153 persons in Maryland died of oral cancer. The 2014 age-adjusted mortality rate for oral cancer in Maryland was 2.3 per 100,000 population (1.9-2.6, 95% C.I.), accounting for 1.4% of Maryland cancer deaths in 2014. This rate is similar to the 2014 U.S. oral cancer mortality rate of 2.5 per 100,000 population (2.5-2.6, 95% C.I.). Maryland had the 37th highest oral cancer mortality rate among the states and the District of Columbia for the period 2010-2014.

Table 47.
Oral Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2014

Incidence 2014	*Total**	*Males*	*Females*	*Whites*	*Blacks*	*Other*
New Cases (count)	731	500	231	568	138	21
MD Incidence Rate	10.5	15.7	6.2	12.1	7.5	5.4
U.S. SEER Rate	11.3	17.1	6.2	11.8	9.0	7.3
Mortality 2014	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
Deaths (count)	153	106	47	110	s	<10
MD Mortality Rate	2.3	3.6	1.2	2.3	2.3	**
U.S. Mortality Rate	2.5	4.0	1.3	2.5	2.8	N/A

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

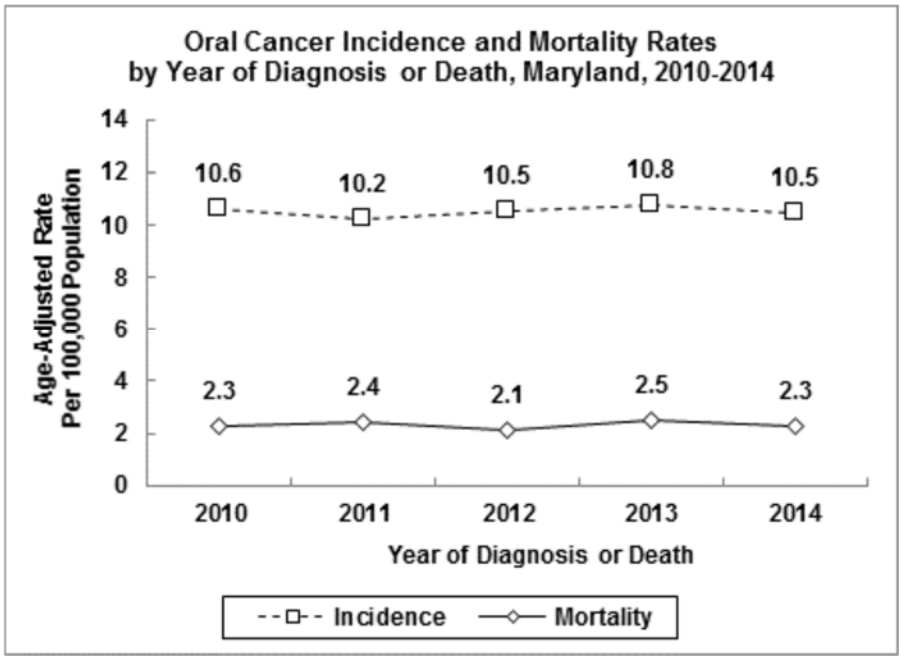
* Total also includes cases reported as transsexual, hermaphrodite, unknown gender, unknown race, and unknown county

<10 = Death counts of 0-9 are suppressed per MDH/CCPC Mortality Data Suppression Policy

s = Counts are suppressed to prevent disclosure of data in other cell(s) based on Table 50

** MD mortality rates based on death counts of 0-19 are suppressed per MDH/CCPC Mortality Data Suppression Policy

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat
NCHS Compressed Mortality File in CDC WONDER, 2014
U.S. SEER, Cancer Statistics Review



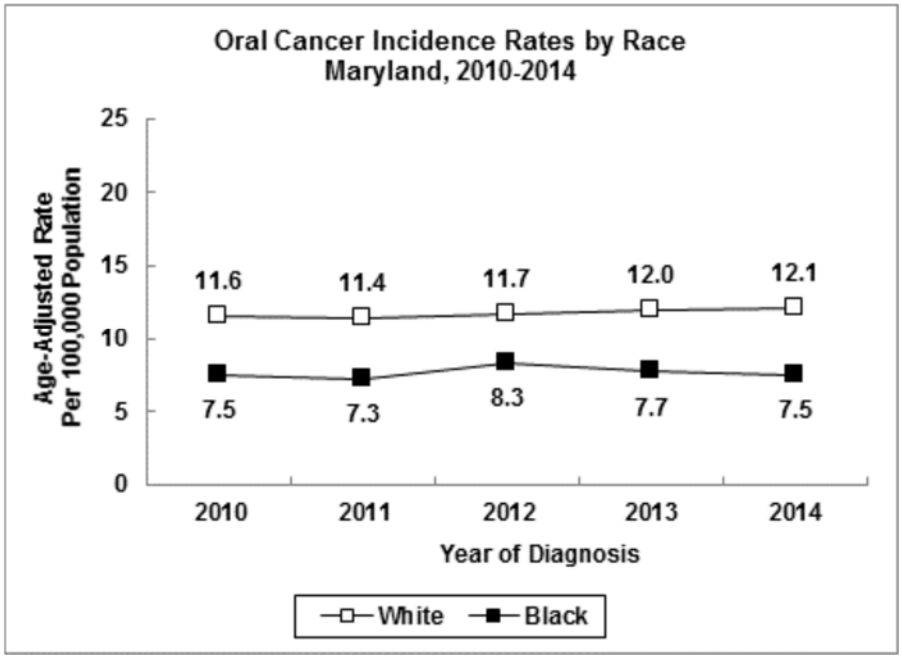
Source: Maryland Cancer Registry
NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2011

Incidence and Mortality Trends

The incidence of oral cancer in Maryland increased at a rate of 0.4% per year from 2010 to 2014.

Oral cancer mortality rates have increased from 2010 to 2014, with a rate increase of 0.4% annually.

See Appendix F, Tables 1 and 2.

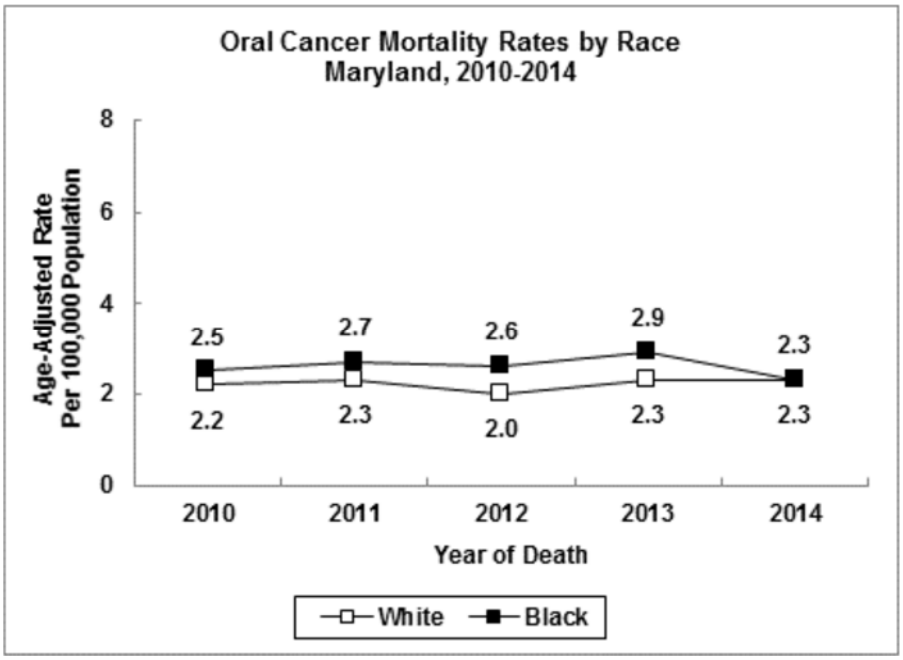


Source: Maryland Cancer Registry

Incidence Trends by Race

Over the 5-year period from 2010 to 2014, oral cancer incidence rates in Maryland increased at a rate of 0.5% per year for blacks and 1.4% per year for whites.

See Appendix F, Table 3.

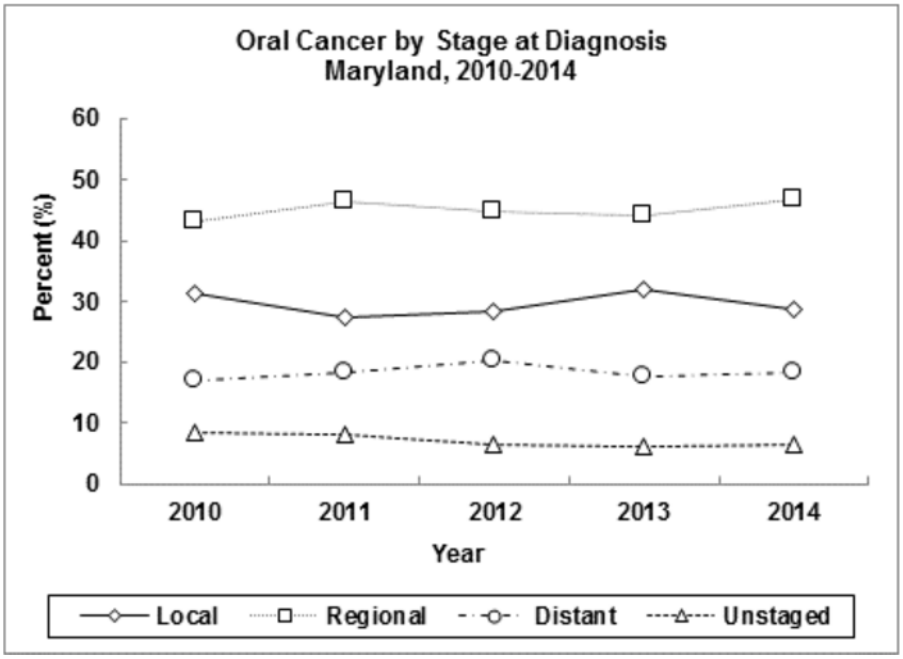


Source: NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2011

Mortality Trends by Race

Over the 5-year period from 2010 to 2014, oral cancer mortality rates decreased at a rate of 0.9% per year for blacks and increased at a rate of 0.9% per year for whites.

See Appendix F, Table 5.

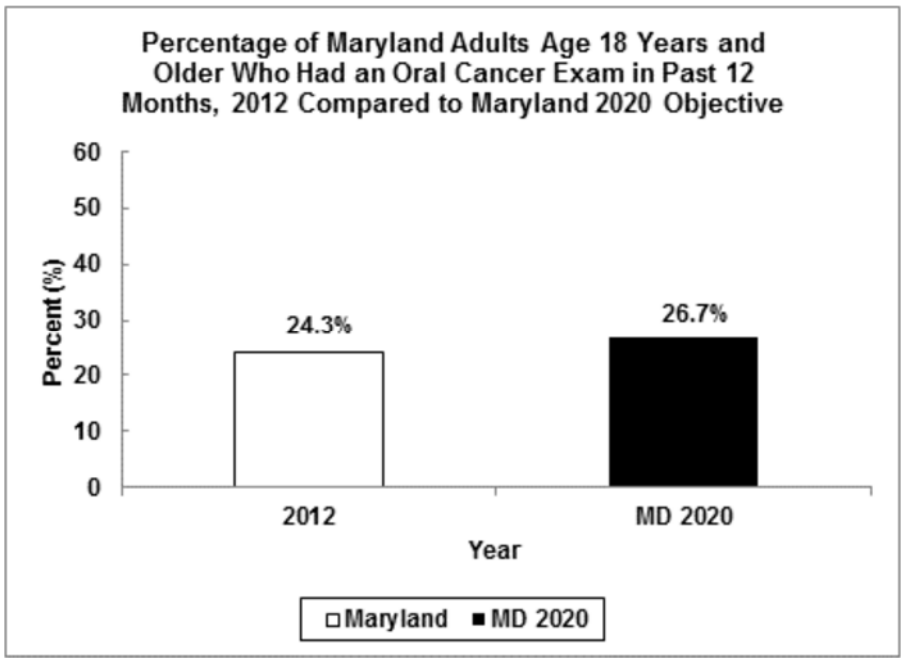


Source: Maryland Cancer Registry

Stage at Diagnosis

In 2014, 28.6% of oral cancers in Maryland were diagnosed at the local stage, 46.8% were diagnosed at the regional stage, and 18.3% were diagnosed at the distant stage. From 2010 to 2014, the proportion of oral cancers reported as unstaged gradually decreased.

See Appendix G, Table 6.



Source: Maryland BRFSS, 2012
Maryland Comprehensive Cancer Control Plan, 2016-2020

Oral Cancer Screening

There is no current Healthy People 2020 target for oral cancer screening. The Maryland 2020 objective from the Comprehensive Cancer Control Plan is to increase to 26.7% the proportion of adults age 18 years and older who report having an oral cancer screening examination in the past 12 months.

In 2012, only 24.3% of persons in Maryland 18 years of age and older reported they had an oral cancer exam in the past year, therefore not yet attaining the Maryland 2020 target of 26.7%.

Table 48.
Number of Oral Cancer Cases by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total*	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	731	500	231	568	138	21
Allegany	10	<6	<6	s	<6	0
Anne Arundel	77	52	25	70	7	0
Baltimore City	82	62	20	s	46	<6
Baltimore County	106	63	43	85	s	<6
Calvert	16	14	<6	12	<6	0
Caroline	<6	<6	0	<6	0	0
Carroll	26	19	7	s	0	<6
Cecil	17	9	8	15	<6	0
Charles	15	12	<6	11	<6	<6
Dorchester	<6	<6	0	<6	<6	0
Frederick	28	18	10	28	0	0
Garrett	7	<6	<6	7	0	0
Harford	32	17	15	29	<6	<6
Howard	29	22	7	21	<6	<6
Kent	<6	<6	0	<6	0	0
Montgomery	109	69	40	87	11	9
Prince George's	66	50	16	36	26	<6
Queen Anne's	12	10	<6	12	0	0
St. Mary's	19	13	6	15	<6	0
Somerset	6	<6	<6	<6	<6	0
Talbot	8	<6	<6	8	0	0
Washington	20	15	<6	20	0	0
Wicomico	18	13	<6	15	<6	0
Worcester	15	10	<6	s	<6	0

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

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

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, 2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	10.5	15.7	6.2	12.1	7.5	5.4
Allegany	**	**	**	**	**	0.0
Anne Arundel	12.0	16.9	7.6	13.2	**	0.0
Baltimore City	12.3	21.6	5.1	16.3	10.4	**
Baltimore County	10.3	13.7	7.7	11.0	9.2	**
Calvert	13.9	**	**	**	**	0.0
Caroline	**	**	0.0	**	0.0	0.0
Carroll	11.5	18.3	**	11.6	0.0	**
Cecil	13.0	**	**	**	**	0.0
Charles	**	**	**	**	**	**
Dorchester	**	**	0.0	**	**	0.0
Frederick	9.3	12.1	**	10.4	0.0	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	10.5	12.5	**	11.0	**	**
Howard	8.5	14.0	**	8.9	**	**
Kent	**	**	0.0	**	0.0	0.0
Montgomery	9.3	13.2	6.2	10.6	**	**
Prince George's	7.6	13.3	3.3	14.5	4.4	**
Queen Anne's	**	**	**	**	0.0	0.0
St. Mary's	16.3	**	**	**	**	0.0
Somerset	**	**	**	**	**	0.0
Talbot	**	**	**	**	0.0	0.0
Washington	10.6	**	**	11.5	0.0	0.0
Wicomico	15.2	**	**	**	**	0.0
Worcester	**	**	**	**	**	0.0

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

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

Source: Maryland Cancer Registry

Table 50.
Number of Deaths for Oral Cancer by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	153	106	47	110	s	<10
Allegany	<10	<10	<10	<10	<10	<10
Anne Arundel	15	s	<10	14	<10	<10
Baltimore City	20	s	<10	<10	15	<10
Baltimore County	28	s	<10	23	<10	<10
Calvert	<10	<10	<10	<10	<10	<10
Caroline	<10	<10	<10	<10	<10	<10
Carroll	<10	<10	<10	<10	<10	<10
Cecil	<10	<10	<10	<10	<10	<10
Charles	<10	<10	<10	<10	<10	<10
Dorchester	<10	<10	<10	<10	<10	<10
Frederick	<10	<10	<10	<10	<10	<10
Garrett	<10	<10	<10	<10	<10	<10
Harford	<10	<10	<10	<10	<10	<10
Howard	<10	<10	<10	<10	<10	<10
Kent	<10	<10	<10	<10	<10	<10
Montgomery	24	12	12	17	<10	<10
Prince George's	17	s	<10	<10	<10	<10
Queen Anne's	<10	<10	<10	<10	<10	<10
St. Mary's	<10	<10	<10	<10	<10	<10
Somerset	<10	<10	<10	<10	<10	<10
Talbot	<10	<10	<10	<10	<10	<10
Washington	<10	<10	<10	<10	<10	<10
Wicomico	<10	<10	<10	<10	<10	<10
Worcester	<10	<10	<10	<10	<10	<10

<10 = Death counts of 0-9 are suppressed per MDH/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: CDC Wonder, 2014

Table 51.
Oral Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.3	3.6	1.2	2.3	2.3	**
Allegany	**	**	**	**	**	**
Anne Arundel	**	**	**	**	**	**
Baltimore City	3.1	**	**	**	**	**
Baltimore County	2.6	4.6	**	2.7	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	**	**	**	**	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	**	**	**	**	**	**
Garrett	**	**	**	**	**	**
Harford	**	**	**	**	**	**
Howard	**	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	2.0	**	**	**	**	**
Prince George's	**	**	**	**	**	**
Queen Anne's	**	**	**	**	**	**
St. 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 MDH/CCPC Mortality Data Suppression Policy

Source: CDC Wonder, 2014

Table 52.
Number of Oral Cancer Cases by Jurisdiction, Gender, and Race, Maryland, 2010-2014

Jurisdiction	Total*	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	3,510	2,453	1,057	2,665	672	140
Allegany	66	41	25	64	<6	0
Anne Arundel	378	263	115	339	27	8
Baltimore City	421	296	125	167	248	<6
Baltimore County	522	360	162	441	70	9
Calvert	76	58	18	65	10	0
Caroline	27	21	6	27	0	0
Carroll	111	83	28	108	<6	<6
Cecil	88	65	23	77	7	<6
Charles	76	54	22	55	19	<6
Dorchester	33	26	7	28	<6	0
Frederick	127	88	39	117	7	<6
Garrett	30	19	11	30	0	0
Harford	148	101	47	139	6	<6
Howard	167	109	58	136	14	15
Kent	18	9	9	s	<6	0
Montgomery	485	318	167	350	54	70
Prince George's	316	233	83	136	158	16
Queen Anne's	39	31	8	s	<6	0
St. Mary's	67	41	26	55	10	0
Somerset	24	19	<6	19	<6	0
Talbot	37	26	11	35	<6	0
Washington	106	81	25	102	<6	0
Wicomico	74	52	22	58	14	<6
Worcester	50	40	10	44	<6	<6

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

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

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

Source: Maryland Cancer Registry

Table 53.
Oral Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2010-2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	10.5	16.0	6.0	11.8	7.6	7.2
Allegany	13.7	17.4	9.7	13.8	**	0.0
Anne Arundel	12.5	18.4	7.4	13.4	6.9	**
Baltimore City	12.9	20.7	7.0	15.7	11.6	**
Baltimore County	10.5	16.2	5.9	11.8	7.1	**
Calvert	14.6	23.0	6.7	14.7	**	0.0
Caroline	14.3	24.7	**	16.8	0.0	0.0
Carroll	10.7	16.9	4.9	11.0	**	**
Cecil	14.4	20.7	8.3	13.6	**	**
Charles	10.0	13.8	6.0	11.5	7.2	**
Dorchester	16.2	29.0	**	18.2	**	0.0
Frederick	9.5	14.0	5.6	9.8	**	**
Garrett	14.7	21.1	**	14.9	0.0	0.0
Harford	9.7	14.2	6.0	10.5	**	**
Howard	10.0	13.6	6.9	11.5	**	**
Kent	10.6	**	**	11.8	**	0.0
Montgomery	8.6	12.3	5.7	8.9	6.4	8.2
Prince George's	7.3	12.2	3.6	11.3	5.5	6.9
Queen Anne's	11.7	19.7	**	12.4	**	0.0
St. Mary's	11.5	14.3	8.7	11.3	**	0.0
Somerset	14.6	22.1	**	15.9	**	0.0
Talbot	12.0	17.7	**	13.2	**	0.0
Washington	11.6	18.6	5.3	11.9	**	0.0
Wicomico	13.3	20.4	7.2	13.9	**	**
Worcester	12.2	21.0	**	11.9	**	**

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

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

Source: Maryland Cancer Registry

Table 54.
Number of Deaths for Oral Cancer by Jurisdiction, Gender, and Race, Maryland, 2010-2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	747	510	237	508	216	23
Allegany	21	s	<10	s	<10	<10
Anne Arundel	80	58	22	65	s	<10
Baltimore City	126	78	48	s	88	<10
Baltimore County	98	63	35	76	s	<10
Calvert	14	s	<10	12	<10	<10
Caroline	<10	<10	<10	<10	<10	<10
Carroll	14	<10	<10	s	<10	<10
Cecil	17	s	<10	14	<10	<10
Charles	22	s	<10	17	<10	<10
Dorchester	<10	<10	<10	<10	<10	<10
Frederick	17	s	<10	13	<10	<10
Garrett	<10	<10	<10	<10	<10	<10
Harford	24	s	<10	22	<10	<10
Howard	20	s	<10	19	<10	<10
Kent	<10	<10	<10	<10	<10	<10
Montgomery	84	51	33	63	10	11
Prince George's	100	73	27	s	60	<10
Queen Anne's	<10	<10	<10	<10	<10	<10
St. Mary's	13	s	<10	12	<10	<10
Somerset	<10	<10	<10	<10	<10	<10
Talbot	11	<10	<10	<10	<10	<10
Washington	20	s	<10	s	<10	<10
Wicomico	26	s	<10	19	<10	<10
Worcester	11	<10	<10	10	<10	<10

<10 = Death counts of 0-9 are suppressed per MDH/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: CDC Wonder, 2010-2014

Table 55.
Oral Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2010-2014

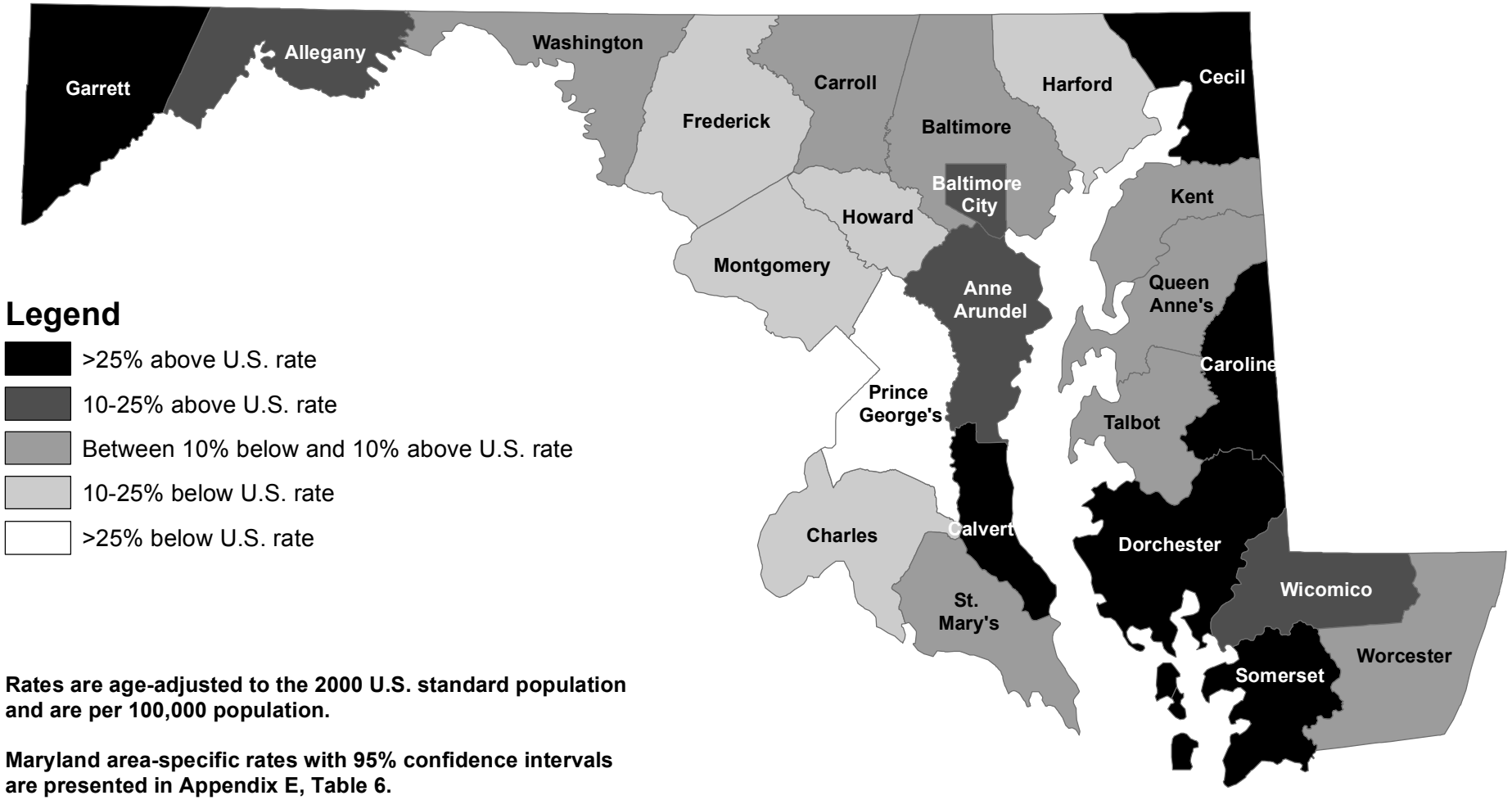
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.3	3.5	1.3	2.3	2.6	1.1
Allegany	4.1	**	**	4.3	**	**
Anne Arundel	2.6	4.2	1.4	2.5	**	**
Baltimore City	4.0	5.9	2.6	3.6	4.2	**
Baltimore County	1.9	3.0	1.2	1.9	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	**	**	**	**	**	**
Cecil	**	**	**	**	**	**
Charles	3.3	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	**	**	**	**	**	**
Garrett	**	**	**	**	**	**
Harford	1.6	**	**	1.7	**	**
Howard	1.3	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	1.5	2.1	1.1	1.6	**	**
Prince George's	2.5	4.2	1.3	3.2	2.4	**
Queen Anne's	**	**	**	**	**	**
St. Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	2.2	**	**	2.3	**	**
Wicomico	4.6	8.1	**	**	**	**
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 MDH/CCPC Mortality Data Suppression Policy

Source: CDC Wonder, 2010-2014

Maryland Oral Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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

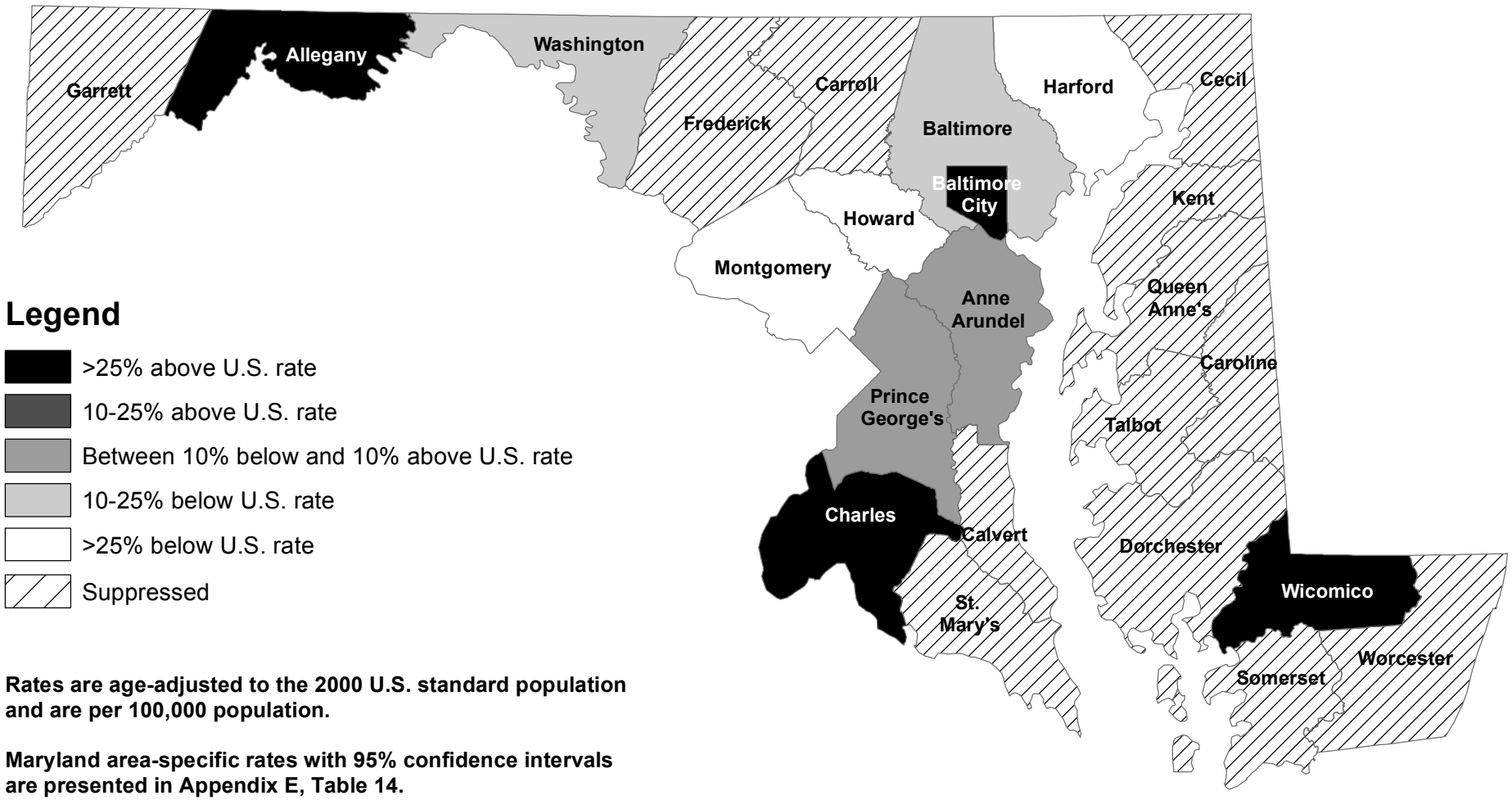
Maryland area-specific rates with 95% confidence intervals are presented in Appendix E, Table 6.

U.S. oral cancer incidence rate, 2010-2014: 11.2 / 100,000

Maryland oral cancer incidence rate, 2010-2014: 10.5 / 100,000

Sources: Maryland Cancer Registry
U.S. SEER, SEER*Stat Database

Maryland Oral Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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 E, Table 14.

U.S. oral cancer mortality rate, 2010-2014: 2.5 / 100,000

Maryland oral cancer mortality rate, 2010-2014: 2.3 / 100,000

Source: NCHS Compressed Mortality File in CDC WONDER
U.S. SEER, Cancer Statistics Review

Note: Rates based on death counts of 0-19 are suppressed per MDH / CCPC Mortality Data Suppression Policy.

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 less frequent but is the most serious type of skin cancer and is reportable to the MCR.

Incidence (New Cases)

In 2014, a total of 1,452 cases of melanoma of the skin were reported in Maryland. The age-adjusted incidence rate for melanoma for 2014 was 21.9 per 100,000 population (20.8-23.1, 95% C.I.), which is statistically significantly lower than the 2014 U.S. SEER age-adjusted melanoma incidence rate of 23.6 per 100,000 population (23.3-23.9, 95% C.I.).

Mortality (Deaths)

In 2014, a total of 140 persons died of melanoma in Maryland. The 2014 age-adjusted mortality rate for melanoma in Maryland was 2.1 per 100,000 population (1.8-2.5, 95% C.I.). This rate is statistically significantly lower than the 2014 U.S. melanoma of the skin mortality rate of 2.6 per 100,000 population (2.5-2.6, 95% C.I.). Maryland had the 38th highest melanoma cancer mortality rate among the states and the District of Columbia for the period 2010-2014.

Table 56.
Melanoma Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2014

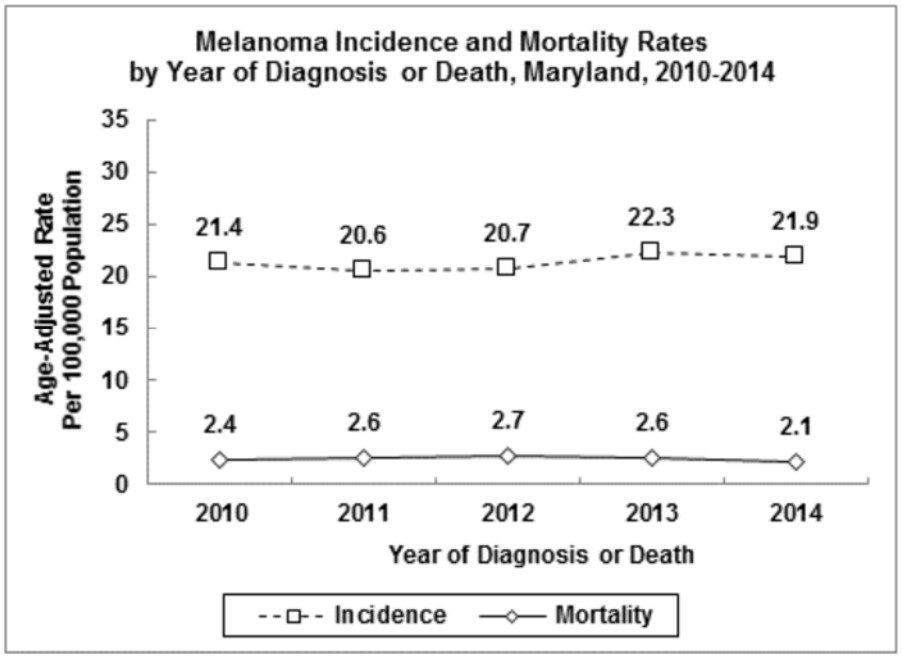
Incidence 2014	*Total**	*Males*	*Females*	*Whites*	*Blacks*	*Other*
New Cases (count)	1,452	875	577	1,415	21	8
MD Incidence Rate	21.9	30.0	16.1	32.0	1.2	**
U.S. SEER Rate	23.6	30.7	18.4	28.2	1.1	1.8
Mortality 2014	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
Deaths (count)	140	91	49	134	<10	<10
MD Mortality Rate	2.1	3.2	1.3	2.9	**	**
U.S. Mortality Rate	2.6	3.9	1.6	3.0	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 transsexual, hermaphrodite, unknown gender, unknown race, and unknown county

** MD incidence rates based on case counts of 1-15 are suppressed per MDH/MCR Data Use Policy and Procedures; MD mortality rates based on death counts of 0-19 are suppressed per MDH/CCPC Mortality Data Suppression Policy

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat
NCHS Compressed Mortality File in CDC WONDER, 2014
U.S. SEER, Cancer Statistics Review



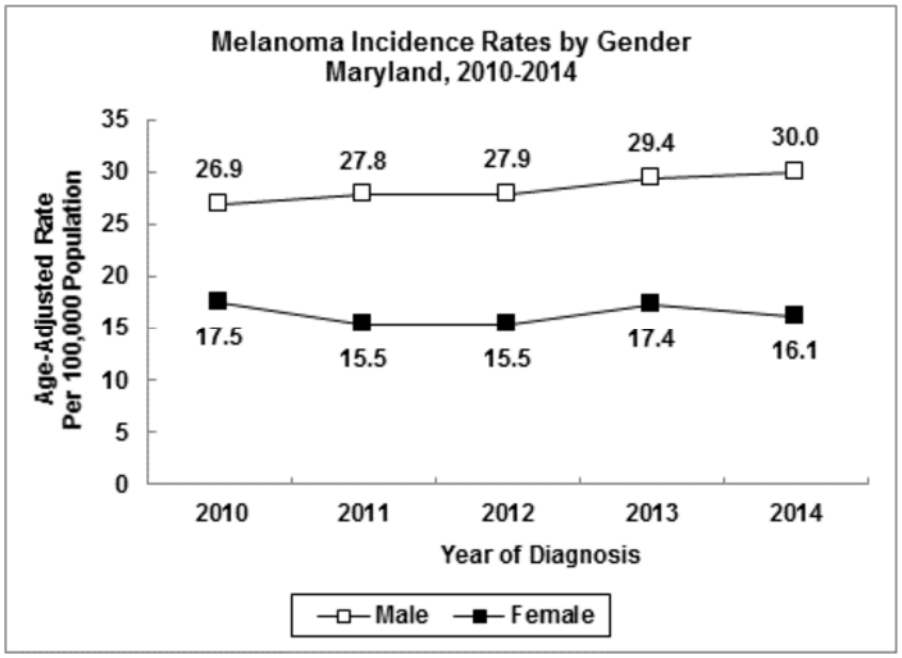
Source: Maryland Cancer Registry
NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2011

Incidence and Mortality Trends

Melanoma incidence rates in Maryland increased at a rate of 1.3% per year from 2010 to 2014.

Melanoma mortality rates decreased at a rate of 2.6% per year from 2010 to 2014.

See Appendix F, Tables 1 and 2.

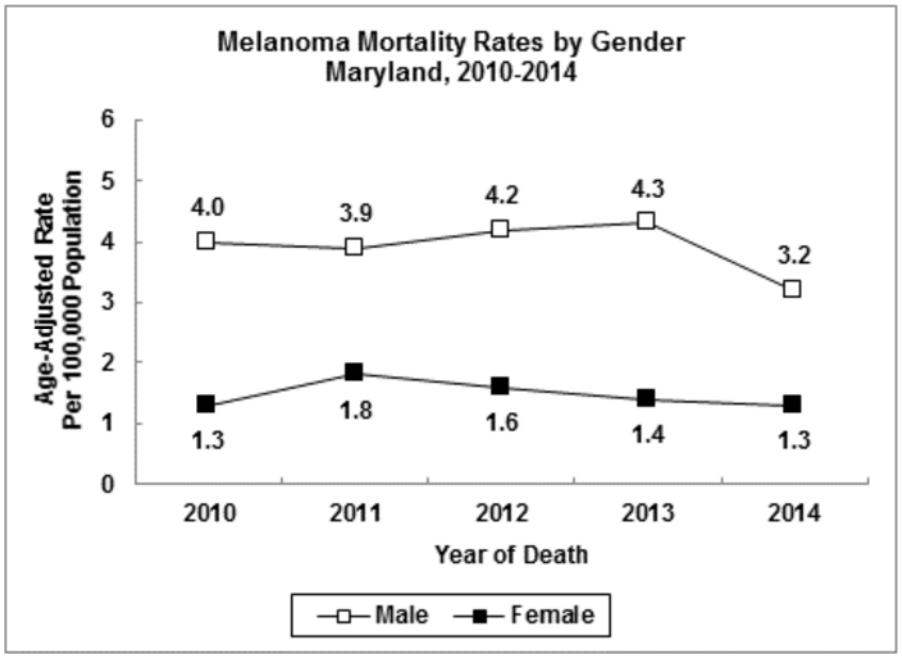


Source: Maryland Cancer Registry

Incidence Trends by Gender

Over the period 2010 to 2014, incidence rates for males increased at a rate of 2.8% per year, and rates among females decreased at a rate of 0.5% per year. In 2014, melanoma incidence rates were 86% higher among males than females in Maryland.

See Appendix F, Table 4.

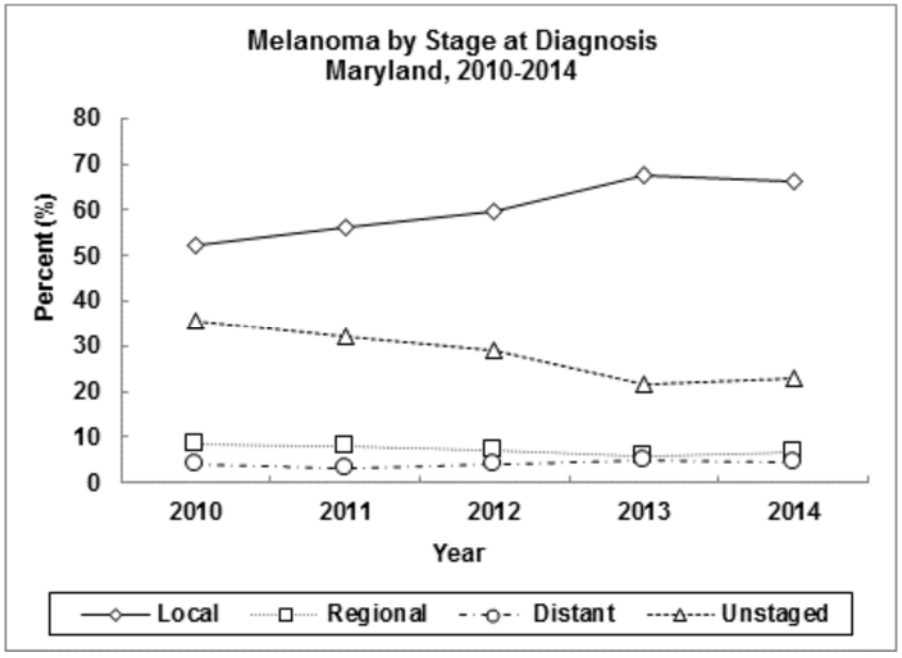


Source: NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2011

Mortality Trends by Gender

Melanoma mortality rates in males decreased at a rate of 3.4% per year from 2010 to 2014. Female melanoma mortality rates also decreased at a rate of 2.5% per year in the same time period.

See Appendix F, Table 6.

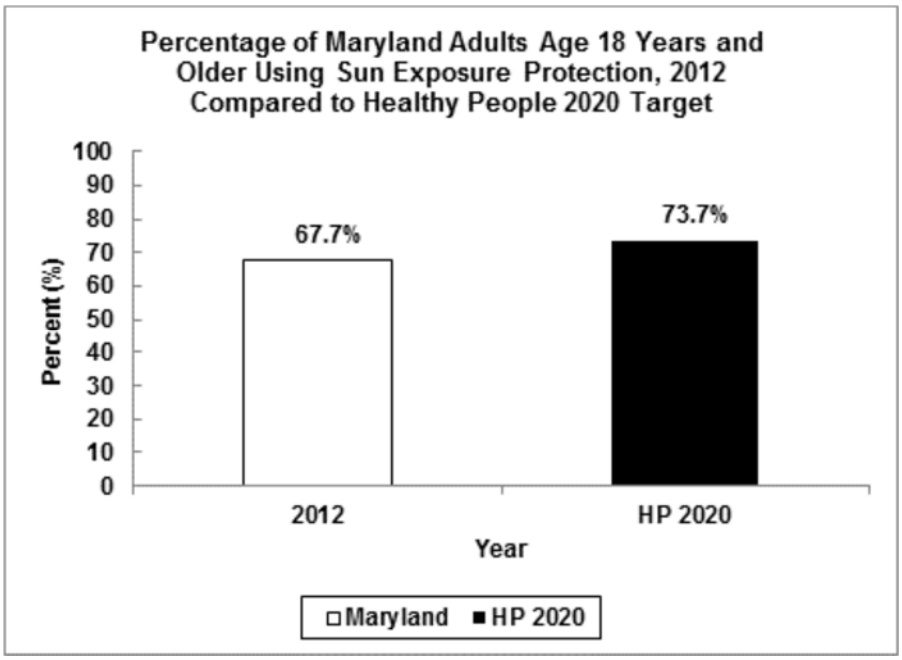


Source: Maryland Cancer Registry

Stage at Diagnosis

In 2014, 66.3% of all melanoma was diagnosed at the local stage, 6.5% was found at the regional stage, and 4.3% was found at the distant stage. The proportion of melanoma reported as unstaged slightly increased to 22.9% in 2014.

See Appendix G, Table 7.



Source: Maryland BRFSS 2012
Healthy People 2020, U.S. Department of Health and Human Services

* The Healthy People 2020 estimate is based on adults who reported being very likely to perform the following protective measures: limit sun exposure, use sunscreen, or wear protective clothing.

** The Maryland BRFSS 2012 estimate is based on adults who reported "always" or "almost always" using one or more of the following measures: limiting exposure to the sun between 10 am and 4 pm, using sunscreen lotion with a sun protection factor (SPF) of 15 or higher when outdoors, wearing a hat when outdoors on a sunny day, and/or wearing protective clothing when outdoors on a sunny day.

Sun Exposure Protection

The Healthy People 2020 target is to increase to 73.7% the percentage of persons age 18 years and older who follow sun exposure protective measures that may reduce the risk of skin cancer.*

In 2012, 67.7% of adults age 18 years and older used at least one method of protection against sun exposure.**

Table 57.
Number of Melanoma Cases by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total*	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	1,452	875	577	1,415	21	8
Allegany	14	<6	9	14	0	0
Anne Arundel	202	116	86	199	<6	0
Baltimore City	66	37	29	62	<6	0
Baltimore County	308	194	114	301	<6	0
Calvert	21	12	9	21	0	0
Caroline	<6	<6	<6	<6	0	0
Carroll	46	28	18	46	0	0
Cecil	36	23	13	s	<6	0
Charles	27	23	<6	s	<6	0
Dorchester	6	<6	<6	6	0	0
Frederick	73	43	30	73	0	0
Garrett	7	<6	<6	s	0	<6
Harford	94	56	38	94	0	0
Howard	67	27	40	63	<6	<6
Kent	8	<6	<6	8	0	0
Montgomery	222	143	79	214	<6	<6
Prince George's	56	39	17	51	<6	0
Queen Anne's	26	17	9	26	0	0
St. Mary's	28	14	14	28	0	0
Somerset	9	<6	<6	9	0	0
Talbot	19	9	10	18	0	0
Washington	41	27	14	41	0	0
Wicomico	34	18	16	s	<6	0
Worcester	33	23	10	33	0	0

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

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

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, 2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	21.9	30.0	16.1	32.0	1.2	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	33.0	42.3	26.3	39.5	**	0.0
Baltimore City	10.1	13.0	8.0	28.4	**	0.0
Baltimore County	31.2	45.7	21.0	41.7	**	0.0
Calvert	22.6	**	**	26.9	0.0	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	24.9	33.5	17.9	26.3	0.0	0.0
Cecil	32.7	42.9	**	34.1	**	0.0
Charles	17.4	33.6	**	29.3	**	0.0
Dorchester	**	**	**	**	0.0	0.0
Frederick	27.7	36.7	21.2	31.2	0.0	0.0
Garrett	**	**	**	**	0.0	**
Harford	34.4	44.1	26.4	40.0	0.0	0.0
Howard	19.6	17.6	22.2	26.0	**	**
Kent	**	**	**	**	0.0	0.0
Montgomery	18.9	27.9	12.4	26.5	**	**
Prince George's	6.1	10.5	3.2	20.3	**	0.0
Queen Anne's	38.9	55.2	**	42.3	0.0	0.0
St. Mary's	24.7	**	**	30.0	0.0	0.0
Somerset	**	**	**	**	0.0	0.0
Talbot	27.7	**	**	30.0	0.0	0.0
Washington	23.6	33.4	**	25.6	0.0	0.0
Wicomico	32.3	37.4	30.0	42.2	**	0.0
Worcester	42.1	57.5	**	48.4	0.0	0.0

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

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

Source: Maryland Cancer Registry

Table 59.
Number of Deaths for Melanoma by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	140	91	49	134	<10	<10
Allegany	<10	<10	<10	<10	<10	<10
Anne Arundel	18	s	<10	17	<10	<10
Baltimore City	13	<10	<10	11	<10	<10
Baltimore County	27	16	11	26	<10	<10
Calvert	<10	<10	<10	<10	<10	<10
Caroline	<10	<10	<10	<10	<10	<10
Carroll	<10	<10	<10	<10	<10	<10
Cecil	<10	<10	<10	<10	<10	<10
Charles	<10	<10	<10	<10	<10	<10
Dorchester	<10	<10	<10	<10	<10	<10
Frederick	<10	<10	<10	<10	<10	<10
Garrett	<10	<10	<10	<10	<10	<10
Harford	13	s	<10	s	<10	<10
Howard	<10	<10	<10	<10	<10	<10
Kent	<10	<10	<10	<10	<10	<10
Montgomery	17	s	<10	s	<10	<10
Prince George's	<10	<10	<10	<10	<10	<10
Queen Anne's	<10	<10	<10	<10	<10	<10
St. Mary's	<10	<10	<10	<10	<10	<10
Somerset	<10	<10	<10	<10	<10	<10
Talbot	<10	<10	<10	<10	<10	<10
Washington	<10	<10	<10	<10	<10	<10
Wicomico	<10	<10	<10	<10	<10	<10
Worcester	<10	<10	<10	<10	<10	<10

<10 = Death counts of 0-9 are suppressed per MDH/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: CDC Wonder, 2014

Table 60.
Melanoma Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.1	3.2	1.3	2.9	**	**
Allegany	**	**	**	**	**	**
Anne Arundel	**	**	**	**	**	**
Baltimore City	**	**	**	**	**	**
Baltimore County	2.6	**	**	3.2	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	**	**	**	**	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	**	**	**	**	**	**
Garrett	**	**	**	**	**	**
Harford	**	**	**	**	**	**
Howard	**	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	**	**	**	**	**	**
Prince George's	**	**	**	**	**	**
Queen Anne's	**	**	**	**	**	**
St. 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 MDH/CCPC Mortality Data Suppression Policy

Source: CDC Wonder, 2014

Table 61.
Number of Melanoma Cases by Jurisdiction, Gender, and Race, Maryland, 2010-2014

Jurisdiction	Total*	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	6,834	4,023	2,809	6,581	80	27
Allegany	88	54	34	88	0	0
Anne Arundel	939	548	391	915	<6	<6
Baltimore City	317	174	143	297	13	0
Baltimore County	1,302	773	529	1,264	14	0
Calvert	142	72	70	139	<6	0
Caroline	40	23	17	40	0	0
Carroll	294	173	121	285	<6	0
Cecil	158	87	71	154	<6	0
Charles	141	102	39	132	<6	0
Dorchester	41	25	16	s	0	<6
Frederick	292	173	119	289	0	0
Garrett	34	19	15	s	0	<6
Harford	439	269	169	430	0	0
Howard	390	208	181	375	7	<6
Kent	26	13	13	26	0	0
Montgomery	1,047	636	411	985	9	10
Prince George's	267	166	101	237	20	<6
Queen Anne's	104	61	43	103	0	0
St. Mary's	147	77	70	143	<6	0
Somerset	33	19	14	33	0	0
Talbot	74	41	33	72	0	0
Washington	179	110	69	177	<6	0
Wicomico	156	80	76	s	<6	<6
Worcester	147	97	50	142	0	<6

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

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

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

Source: Maryland Cancer Registry

Table 62.
Melanoma Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2010-2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	21.4	28.5	16.4	30.5	1.0	1.4
Allegany	18.4	24.1	14.9	19.6	0.0	0.0
Anne Arundel	31.5	40.8	24.8	37.0	**	**
Baltimore City	9.7	12.8	7.7	26.6	**	0.0
Baltimore County	27.2	36.6	20.6	35.8	**	0.0
Calvert	30.6	34.3	29.0	35.5	**	0.0
Caroline	20.9	26.7	16.8	24.6	0.0	0.0
Carroll	31.9	40.9	25.0	32.5	**	0.0
Cecil	28.5	33.0	25.3	29.9	**	0.0
Charles	19.7	32.7	10.0	30.7	**	0.0
Dorchester	18.8	22.5	15.9	23.5	0.0	**
Frederick	23.1	29.6	18.1	25.7	0.0	0.0
Garrett	16.9	20.1	**	16.7	0.0	**
Harford	31.8	42.6	23.4	35.9	0.0	0.0
Howard	24.7	29.4	21.3	33.9	**	**
Kent	16.1	**	**	18.9	0.0	0.0
Montgomery	18.8	26.0	13.6	25.3	**	**
Prince George's	6.8	10.4	4.4	20.0	0.8	**
Queen Anne's	33.5	41.7	26.8	36.4	0.0	0.0
St. Mary's	26.8	28.4	25.7	31.4	**	0.0
Somerset	22.6	26.8	**	31.9	0.0	0.0
Talbot	25.8	31.3	21.1	28.6	0.0	0.0
Washington	21.2	28.0	16.1	22.7	**	0.0
Wicomico	29.0	34.0	26.7	37.9	**	**
Worcester	39.5	52.7	28.5	43.8	0.0	**

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

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

Source: Maryland Cancer Registry

Table 63.
Number of Deaths for Melanoma by Jurisdiction, Gender, and Race, Maryland, 2010-2014

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	774	511	263	736	s	<10
Allegany	14	s	<10	s	<10	<10
Anne Arundel	88	64	24	83	<10	<10
Baltimore City	59	33	26	51	<10	<10
Baltimore County	149	100	49	145	<10	<10
Calvert	<10	<10	<10	<10	<10	<10
Caroline	<10	<10	<10	<10	<10	<10
Carroll	35	21	14	34	<10	<10
Cecil	24	s	<10	s	<10	<10
Charles	15	s	<10	s	<10	<10
Dorchester	<10	<10	<10	<10	<10	<10
Frederick	29	15	14	s	<10	<10
Garrett	<10	<10	<10	<10	<10	<10
Harford	35	s	<10	s	<10	<10
Howard	28	18	10	25	<10	<10
Kent	<10	<10	<10	<10	<10	<10
Montgomery	119	74	45	114	<10	<10
Prince George's	65	41	24	54	s	<10
Queen Anne's	13	<10	<10	s	<10	<10
St. Mary's	12	<10	<10	s	<10	<10
Somerset	<10	<10	<10	<10	<10	<10
Talbot	11	<10	<10	s	<10	<10
Washington	21	11	10	s	<10	<10
Wicomico	17	s	<10	16	<10	<10
Worcester	16	s	<10	s	<10	<10

<10 = Death counts of 0-9 are suppressed per MDH/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: CDC Wonder, 2010-2014

Table 64.
Melanoma Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2010-2014

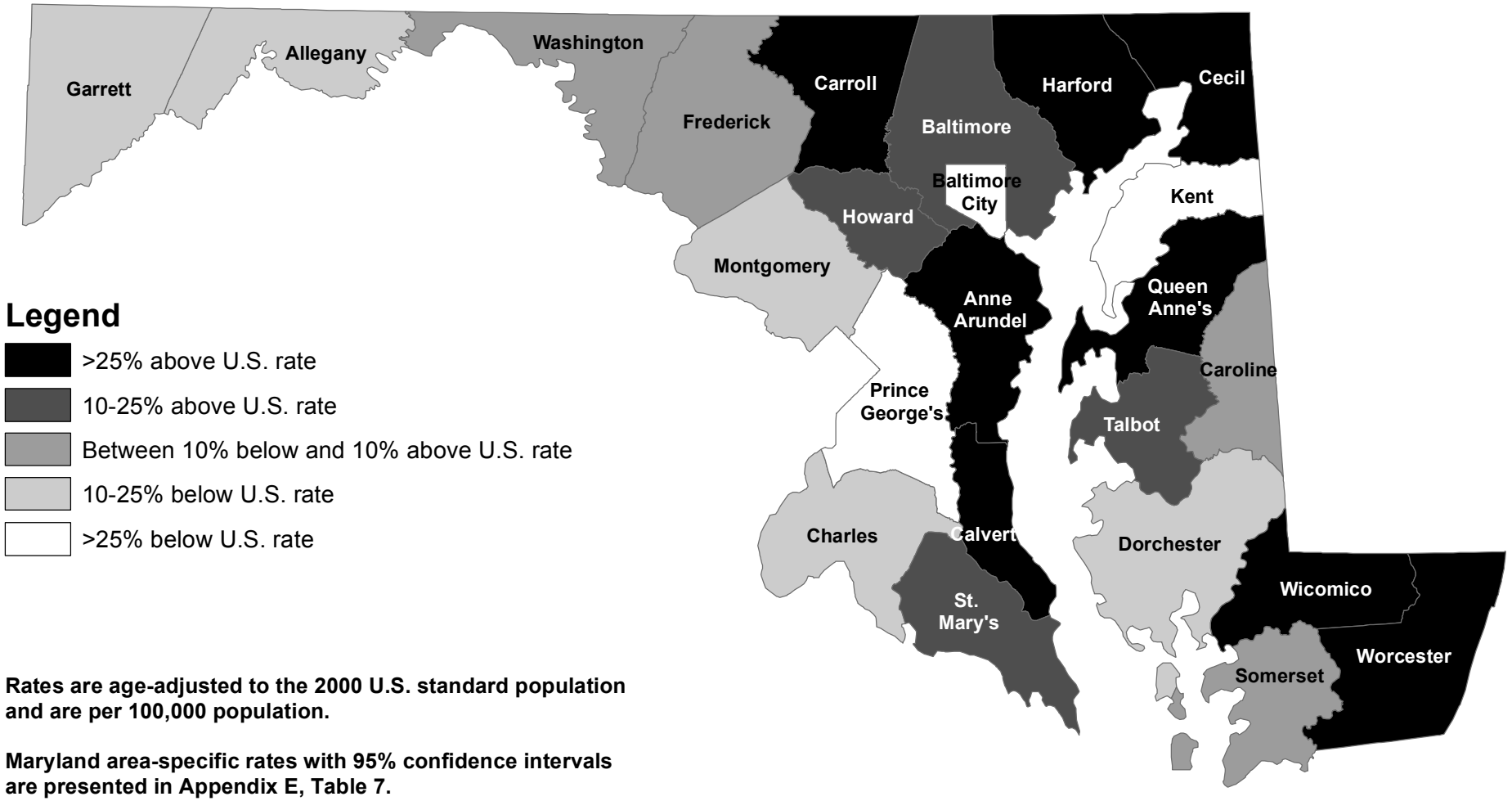
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.5	3.9	1.5	3.3	0.4	**
Allegany	**	**	**	**	**	**
Anne Arundel	3.1	5.3	1.5	3.4	**	**
Baltimore City	1.9	2.6	1.4	4.6	**	**
Baltimore County	3.1	4.8	1.8	3.9	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	3.8	5.0	**	3.9	**	**
Cecil	4.8	**	**	5.1	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	2.4	**	**	2.6	**	**
Garrett	**	**	**	**	**	**
Harford	2.5	4.3	**	2.8	**	**
Howard	2.0	**	**	2.5	**	**
Kent	**	**	**	**	**	**
Montgomery	2.2	3.3	1.4	2.8	**	**
Prince George's	1.7	2.7	1.0	4.7	**	**
Queen Anne's	**	**	**	**	**	**
St. Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	2.4	**	**	2.6	**	**
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 MDH/CCPC Mortality Data Suppression Policy

Source: CDC Wonder, 2010-2014

Maryland Melanoma Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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

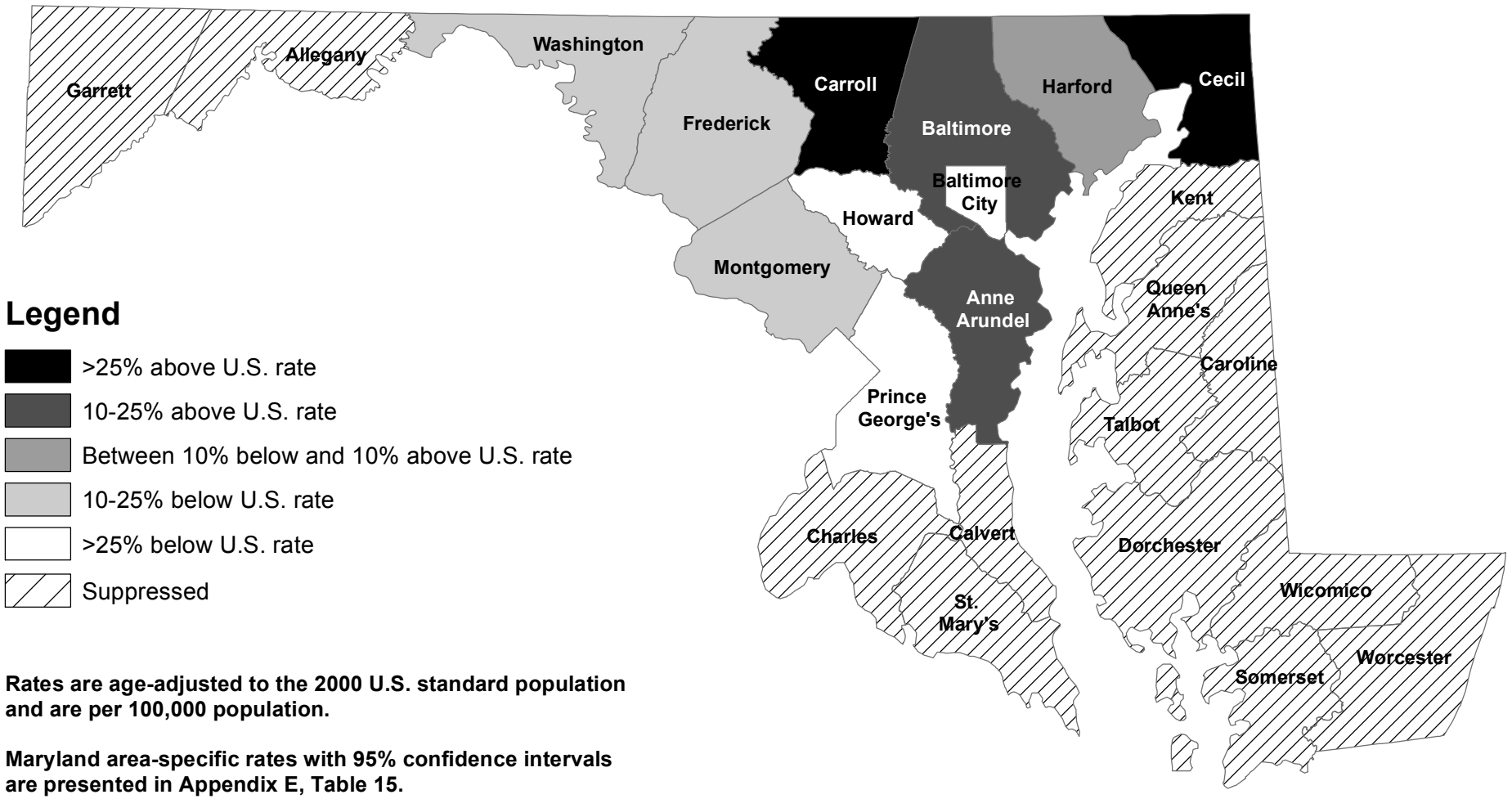
Maryland area-specific rates with 95% confidence intervals are presented in Appendix E, Table 7.

U.S. melanoma incidence rate, 2010-2014: 22.3 / 100,000

Maryland melanoma incidence rate, 2010-2014: 21.4 / 100,000

Sources: Maryland Cancer Registry
U.S. SEER, SEER*Stat Database

Maryland Melanoma Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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 E, Table 15.

U.S. melanoma mortality rate, 2010-2014: 2.7 / 100,000

Maryland melanoma mortality rate, 2010-2014: 2.5 / 100,000

Source: NCHS Compressed Mortality File in CDC WONDER
U.S. SEER, Cancer Statistics Review

Note: Rates based on death counts of 0-19 are suppressed per MDH / CCPC Mortality Data Suppression Policy.

G. Cervical Cancer

Incidence (New Cases)

A total of 215 cases of cervical cancer among women in Maryland were reported in 2014. The age-adjusted incidence rate for cervical cancer in Maryland in 2014 was 6.3 per 100,000 women (5.4-7.2, 95% C.I.), which is statistically significantly lower than the 2014 U.S. SEER age-adjusted cervical cancer incidence rate of 7.4 per 100,000 women (7.2-7.7, 95% C.I.).

Mortality (Deaths)

In 2014, a total of 63 women died of cervical cancer in Maryland. The age-adjusted cervical cancer mortality rate in Maryland in 2014 was 1.8 per 100,000 women (1.4-2.3, 95% C.I.). This rate is statistically significantly lower than the 2014 U.S. cervical cancer mortality rate of 2.3 per 100,000 women (2.2-2.3, 95% C.I.). Maryland had the 31st highest cervical cancer mortality rate among the states and the District of Columbia for the period 2010-2014.

Table 65.
Cervical Cancer Incidence and Mortality Rates
by Race, Maryland and the United States, 2014

Incidence 2014	*Total**	*Whites*	*Blacks*	*Other*
New Cases (count)	215	131	64	11
MD Incidence Rate	6.3	6.3	6.1	**
U.S. SEER Rate	7.4	7.4	8.2	5.9
Mortality 2014	*Total*	*Whites*	*Blacks*	*Other*
Deaths (count)	63	36	s	<10
MD Mortality Rate	1.8	1.5	2.6	**
U.S. Mortality Rate	2.3	2.1	3.6	N/A

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

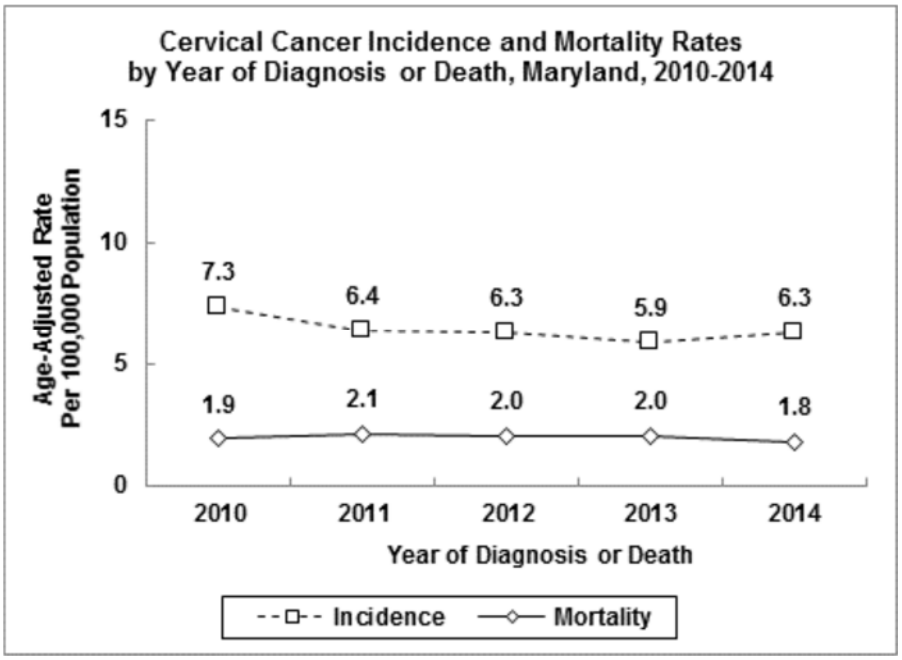
* Total includes unknown race and unknown county

<10 = Death counts of 0-9 are suppressed per MDH/CCPC Mortality Data Suppression Policy

s = Counts are suppressed to prevent disclosure of data in other cell(s) based on Table 68

** MD incidence rates based on case counts of 1-15 are suppressed per MDH/MCR Data Use Policy and Procedures; MD mortality rates based on death counts of 0-19 are suppressed per MDH/CCPC Mortality Data Suppression Policy

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat
NCHS Compressed Mortality File in CDC WONDER, 2014
U.S. SEER, Cancer Statistics Review



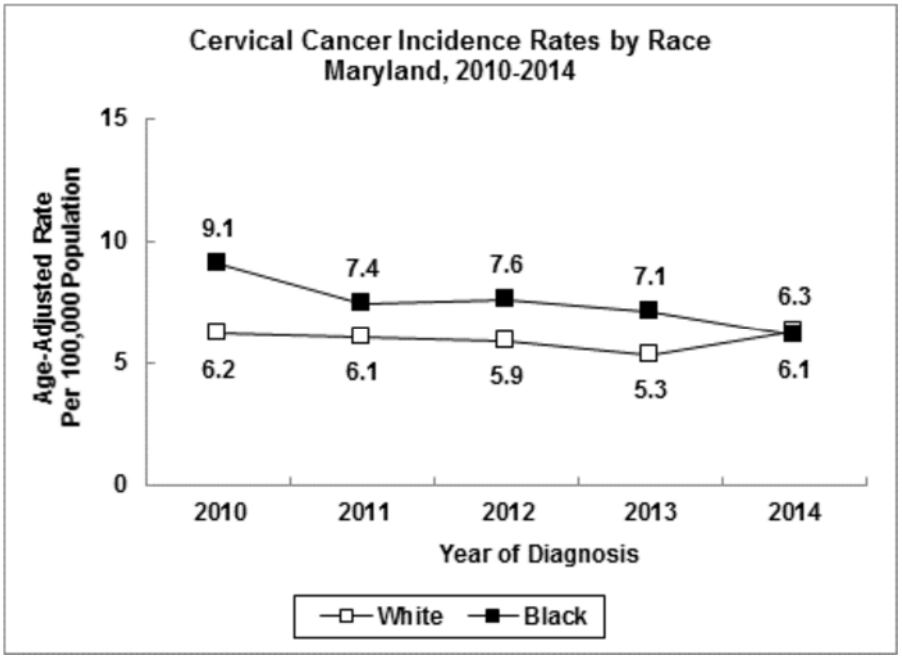
Source: Maryland Cancer Registry
NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2011

Incidence and Mortality Trends

Cervical cancer incidence rates among Maryland women decreased at a rate of 3.7% per year from 2010 to 2014.

Cervical cancer mortality rates decreased at a rate of 1.6% per year from 2010 to 2014.

See Appendix F, Tables 1 and 2.

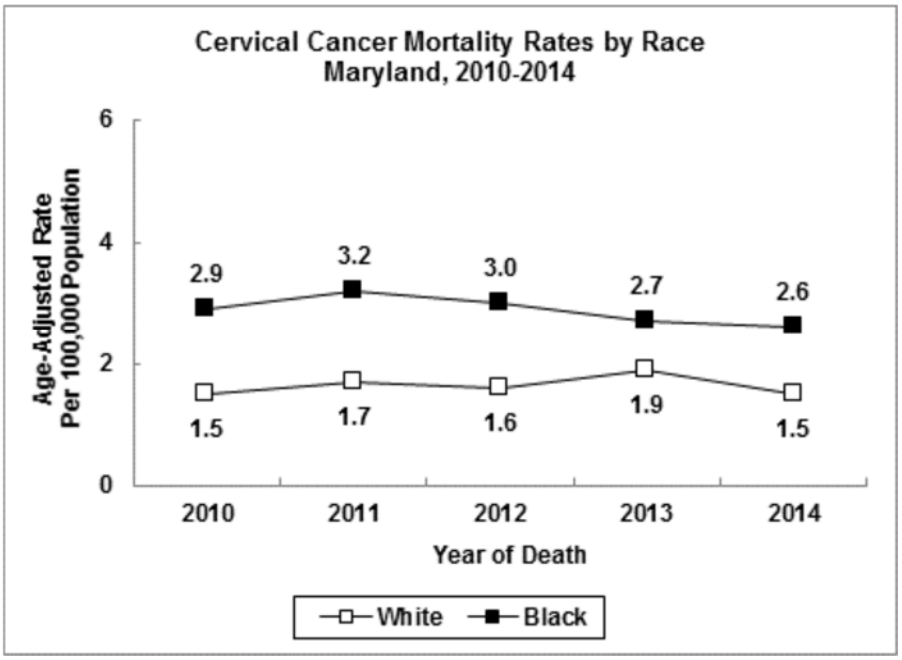


Source: Maryland Cancer Registry

Incidence Trends by Race

From 2010 to 2014, cervical cancer incidence rates among black females decreased at a rate of 8.1% per year, and decreased at a rate of 1.1% per year among white females.

See Appendix F, Table 3.

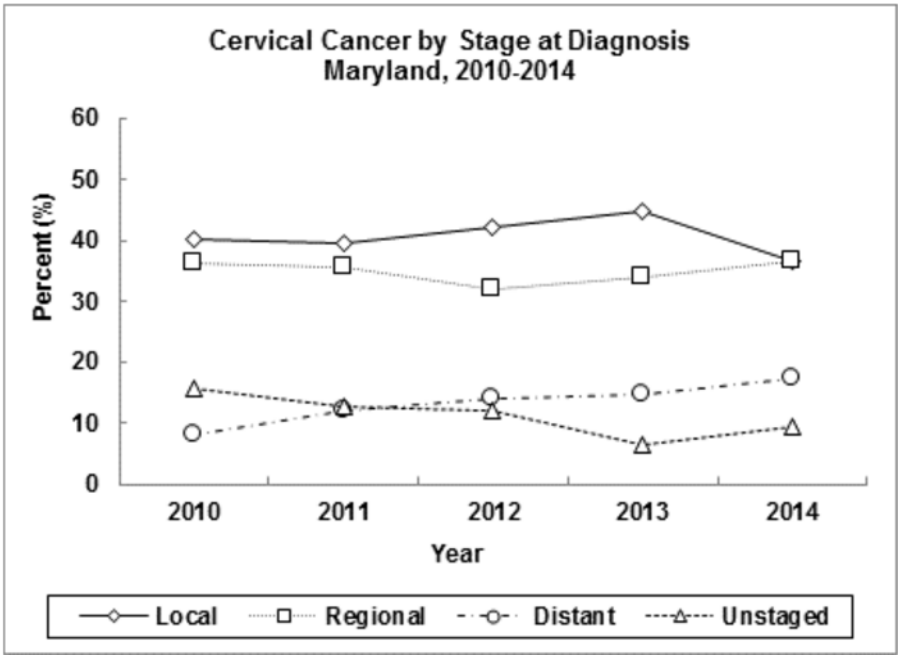


Source: NCHS Compressed Mortality File in CDC WONDER, 2012-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2011

Mortality Trends by Race

From 2010 to 2014, mortality rates for black females decreased at a rate of 3.8% per year, while mortality rates for white females increased at a rate of 1.1% per year.

See Appendix F, Table 5.

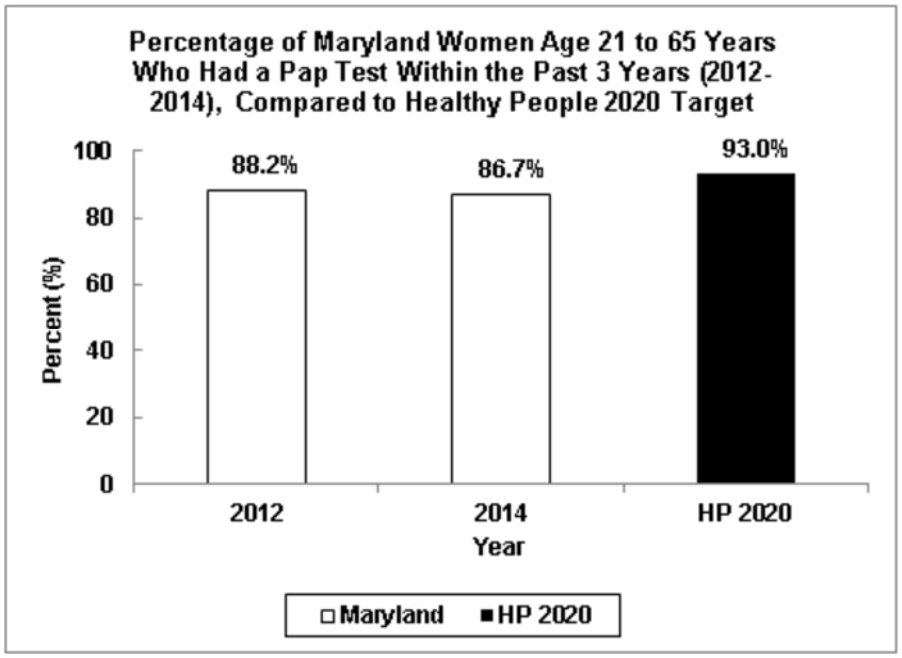


Source: Maryland Cancer Registry

Stage at Diagnosis

In 2014, 36.7% of all cervical cancer cases in Maryland were diagnosed at the local stage, 36.7% were diagnosed at the regional stage, and 17.2% were found at the distant stage. The proportion of cervical cancer cases reported as unstaged increased in 2014 to 9.3%.

See Appendix G, Table 8.



Source: Maryland BRFSS 2012, 2014
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 USPSTF 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 papilloma-virus (HPV) testing every 5 years.

In 2012 and 2014, 88.2% and 86.7% of Maryland women age 21 to 65 years, respectively, reported they had a Pap test within the past 3 years.

Table 66.
Number of Cervical Cancer Cases by Jurisdiction and Race, Maryland, 2014

Jurisdiction	Total*	Race		
		Whites	Blacks	Other
Maryland	215	131	64	11
Allegany	9	8	0	0
Anne Arundel	20	17	<6	0
Baltimore City	34	12	20	<6
Baltimore County	30	20	s	<6
Calvert	<6	<6	0	0
Caroline	<6	<6	0	0
Carroll	<6	<6	0	0
Cecil	<6	<6	0	0
Charles	<6	<6	0	0
Dorchester	<6	<6	<6	0
Frederick	7	<6	<6	<6
Garrett	0	0	0	0
Harford	<6	<6	0	0
Howard	8	<6	<6	<6
Kent	0	0	0	0
Montgomery	37	19	8	<6
Prince George's	27	7	17	<6
Queen Anne's	<6	<6	0	0
St. Mary's	<6	<6	<6	0
Somerset	0	0	0	0
Talbot	0	0	0	0
Washington	10	10	0	0
Wicomico	<6	<6	0	0
Worcester	<6	<6	0	0

* Total includes cases reported as unknown race and unknown county

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

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, 2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	6.3	6.3	6.1	**
Allegany	**	**	0.0	0.0
Anne Arundel	6.8	7.5	**	0.0
Baltimore City	8.9	**	7.5	**
Baltimore County	5.6	5.9	**	**
Calvert	**	**	0.0	0.0
Caroline	**	**	0.0	0.0
Carroll	**	**	0.0	0.0
Cecil	**	**	0.0	0.0
Charles	**	**	0.0	0.0
Dorchester	**	**	**	0.0
Frederick	**	**	**	**
Garrett	0.0	0.0	0.0	0.0
Harford	**	**	0.0	0.0
Howard	**	**	**	**
Kent	0.0	0.0	0.0	0.0
Montgomery	6.2	4.9	**	**
Prince George's	5.7	**	5.1	**
Queen Anne's	**	**	0.0	0.0
St. Mary's	**	**	**	0.0
Somerset	0.0	0.0	0.0	0.0
Talbot	0.0	0.0	0.0	0.0
Washington	**	**	0.0	0.0
Wicomico	**	**	0.0	0.0
Worcester	**	**	0.0	0.0

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

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

Source: Maryland Cancer Registry

Table 68.
Number of Deaths for Cervical Cancer by Jurisdiction and Race, Maryland, 2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	63	36	s	<10
Allegany	<10	<10	<10	<10
Anne Arundel	<10	<10	<10	<10
Baltimore City	12	<10	<10	<10
Baltimore County	10	<10	<10	<10
Calvert	<10	<10	<10	<10
Caroline	<10	<10	<10	<10
Carroll	<10	<10	<10	<10
Cecil	<10	<10	<10	<10
Charles	<10	<10	<10	<10
Dorchester	<10	<10	<10	<10
Frederick	<10	<10	<10	<10
Garrett	<10	<10	<10	<10
Harford	<10	<10	<10	<10
Howard	<10	<10	<10	<10
Kent	<10	<10	<10	<10
Montgomery	<10	<10	<10	<10
Prince George's	17	<10	12	<10
Queen Anne's	<10	<10	<10	<10
St. Mary's	<10	<10	<10	<10
Somerset	<10	<10	<10	<10
Talbot	<10	<10	<10	<10
Washington	<10	<10	<10	<10
Wicomico	<10	<10	<10	<10
Worcester	<10	<10	<10	<10

<10 = Death counts of 0-9 are suppressed per MDH/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: CDC Wonder, 2014

Table 69.
Cervical Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	1.8	1.5	2.6	**
Allegany	**	**	**	**
Anne Arundel	**	**	**	**
Baltimore City	**	**	**	**
Baltimore County	**	**	**	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	**	**	**	**
Cecil	**	**	**	**
Charles	**	**	**	**
Dorchester	**	**	**	**
Frederick	**	**	**	**
Garrett	**	**	**	**
Harford	**	**	**	**
Howard	**	**	**	**
Kent	**	**	**	**
Montgomery	**	**	**	**
Prince George's	**	**	**	**
Queen Anne's	**	**	**	**
St. 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 MDH/CCPC Mortality Data Suppression Policy

Source: CDC Wonder, 2014

Table 70.
Number of Cervical Cancer Cases by Jurisdiction and Race, Maryland, 2010-2014

Jurisdiction	Total*	Race		
		Whites	Blacks	Other
Maryland	1,044	588	364	55
Allegany	17	15	<6	0
Anne Arundel	89	75	13	0
Baltimore City	172	49	113	6
Baltimore County	157	91	52	11
Calvert	13	s	<6	0
Caroline	<6	<6	0	0
Carroll	17	17	0	0
Cecil	17	s	<6	<6
Charles	21	11	<6	<6
Dorchester	8	<6	<6	0
Frederick	32	27	<6	<6
Garrett	<6	<6	0	0
Harford	33	28	<6	0
Howard	45	30	10	<6
Kent	<6	<6	<6	0
Montgomery	148	82	37	18
Prince George's	156	39	100	7
Queen Anne's	7	7	0	0
St. Mary's	20	12	6	<6
Somerset	<6	<6	<6	0
Talbot	<6	<6	0	0
Washington	38	36	<6	0
Wicomico	16	12	<6	0
Worcester	13	10	<6	<6

* Total includes cases reported as unknown race and unknown county

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

s = Case counts are suppressed to prevent disclosure of data in other cell(s)

(See Appendix A for methods)

Source: Maryland Cancer Registry

Table 71.
Cervical Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2010-2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	6.4	6.0	7.5	5.2
Allegany	8.3	**	**	0.0
Anne Arundel	6.2	6.7	**	0.0
Baltimore City	10.1	9.7	9.9	**
Baltimore County	6.8	5.9	9.0	**
Calvert	**	**	**	0.0
Caroline	**	**	0.0	0.0
Carroll	3.4	3.6	0.0	0.0
Cecil	6.5	**	**	**
Charles	4.8	**	**	**
Dorchester	**	**	**	0.0
Frederick	5.0	4.9	**	**
Garrett	**	**	0.0	0.0
Harford	5.0	5.1	**	0.0
Howard	5.4	5.8	**	**
Kent	**	**	**	0.0
Montgomery	5.2	4.5	7.0	4.0
Prince George's	6.6	7.4	6.2	**
Queen Anne's	**	**	0.0	0.0
St. Mary's	7.5	**	**	**
Somerset	**	**	**	0.0
Talbot	**	**	0.0	0.0
Washington	10.4	10.8	**	0.0
Wicomico	6.3	**	**	0.0
Worcester	**	**	**	**

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

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

Source: Maryland Cancer Registry

Table 72.
Number of Deaths for Cervical Cancer by Jurisdiction and Race, Maryland, 2010-2014

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	339	183	140	16
Allegany	<10	<10	<10	<10
Anne Arundel	38	31	<10	<10
Baltimore City	75	s	54	<10
Baltimore County	47	28	s	<10
Calvert	<10	<10	<10	<10
Caroline	<10	<10	<10	<10
Carroll	<10	<10	<10	<10
Cecil	<10	<10	<10	<10
Charles	<10	<10	<10	<10
Dorchester	<10	<10	<10	<10
Frederick	10	s	<10	<10
Garrett	<10	<10	<10	<10
Harford	16	11	<10	<10
Howard	<10	<10	<10	<10
Kent	<10	<10	<10	<10
Montgomery	33	19	s	<10
Prince George's	57	s	40	<10
Queen Anne's	<10	<10	<10	<10
St. Mary's	<10	<10	<10	<10
Somerset	<10	<10	<10	<10
Talbot	<10	<10	<10	<10
Washington	13	s	<10	<10
Wicomico	<10	<10	<10	<10
Worcester	<10	<10	<10	<10

<10 = Death counts of 0-9 are suppressed per MDH/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: CDC Wonder, 2010-2014

Table 73.
Cervical Cancer Age-Adjusted Mortality Rates* by Jurisdiction and Race, Maryland, 2010-2014

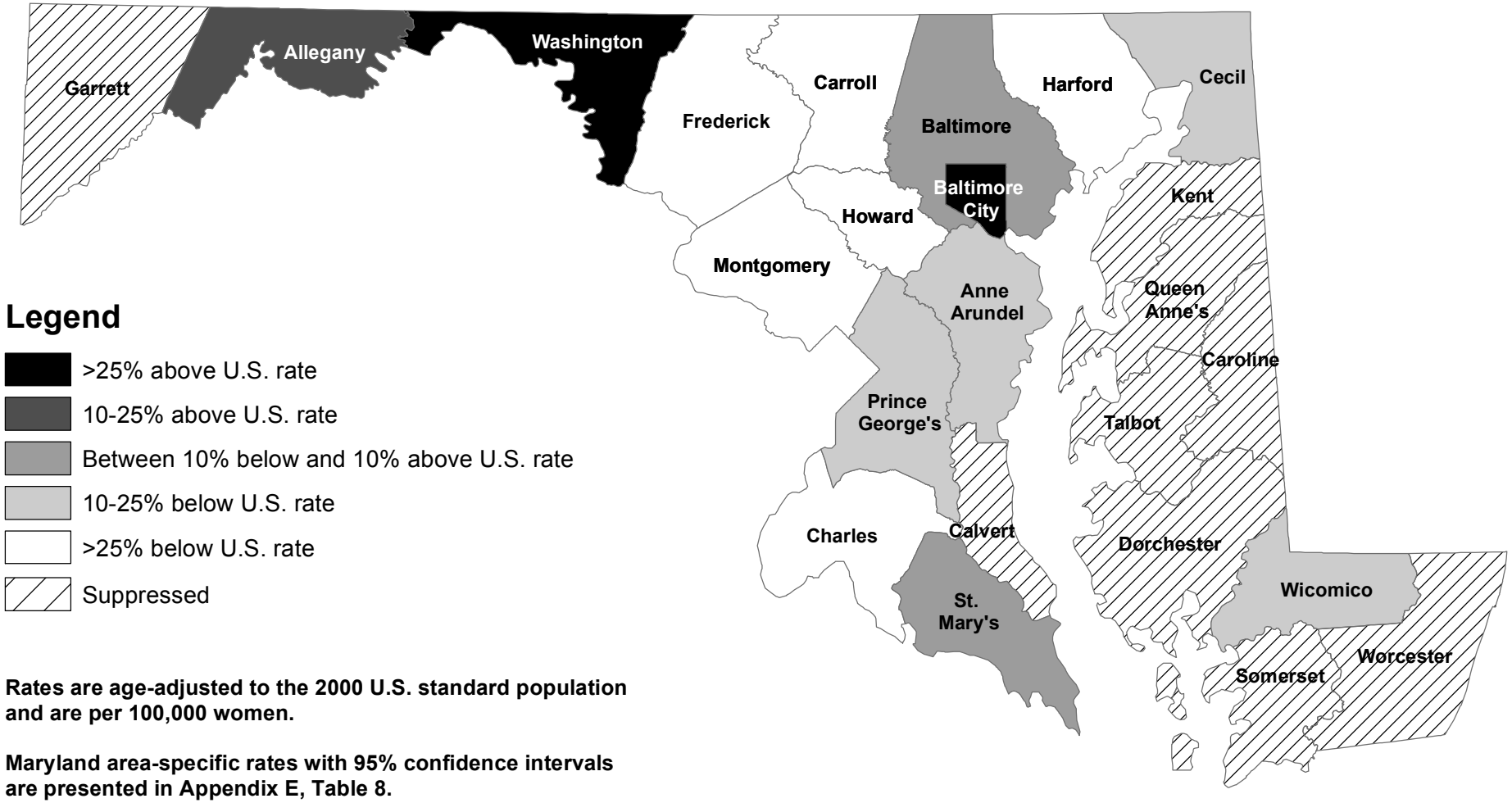
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2.0	1.7	2.9	**
Allegany	**	**	**	**
Anne Arundel	2.5	2.6	**	**
Baltimore City	4.4	**	4.8	**
Baltimore County	1.8	1.6	**	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	**	**	**	**
Cecil	**	**	**	**
Charles	**	**	**	**
Dorchester	**	**	**	**
Frederick	**	**	**	**
Garrett	**	**	**	**
Harford	**	**	**	**
Howard	**	**	**	**
Kent	**	**	**	**
Montgomery	1.1	**	**	**
Prince George's	2.5	**	2.6	**
Queen Anne's	**	**	**	**
St. 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 MDH/CCPC Mortality Data Suppression Policy

Source: CDC Wonder, 2010-2014

Maryland Cervical Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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 E, Table 8.

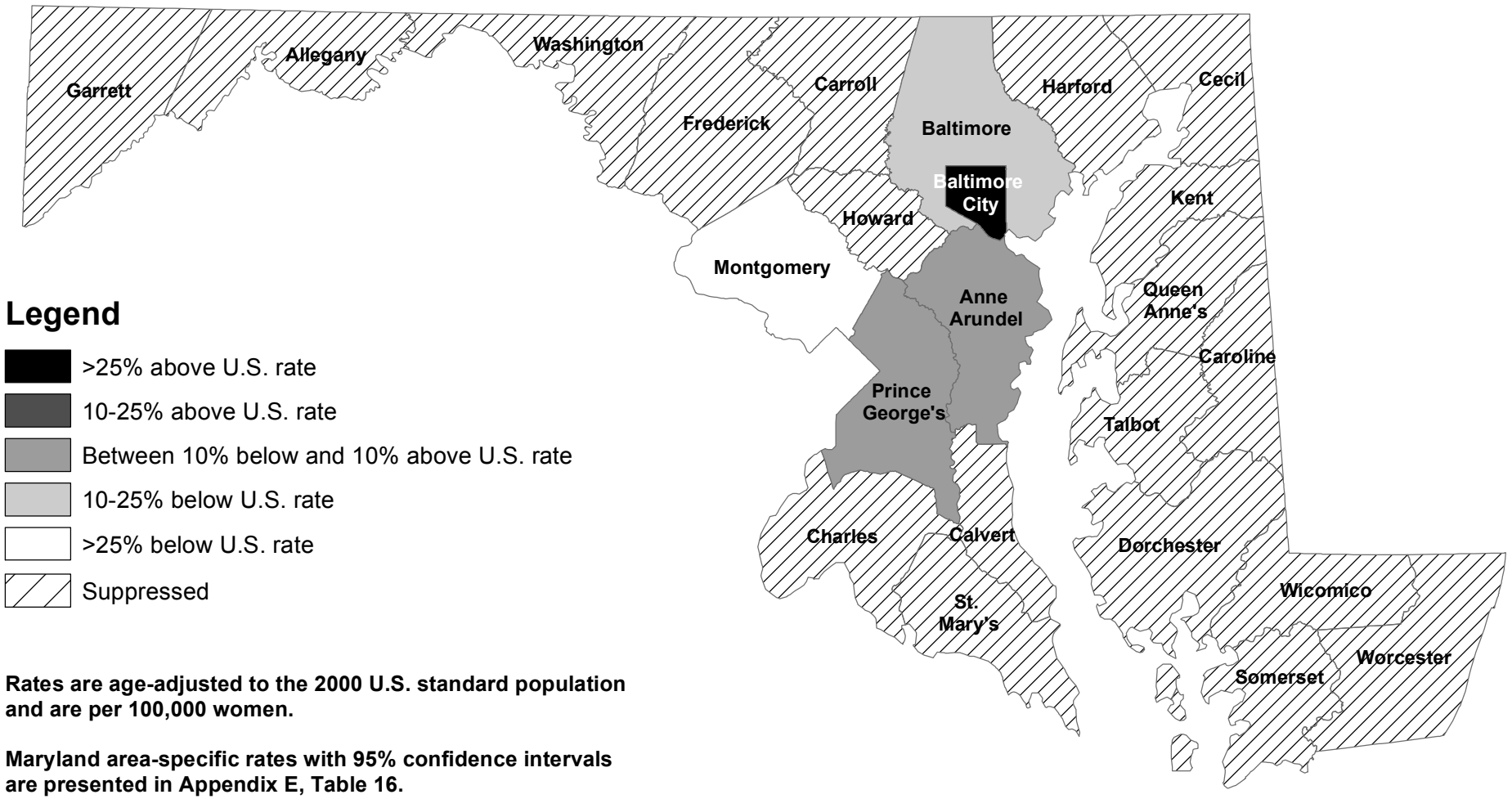
U.S. cervical cancer incidence rate, 2010-2014: 7.4 / 100,000

Maryland cervical cancer incidence rate, 2010-2014: 6.4 / 100,000

Sources: Maryland Cancer Registry
U.S. SEER, SEER*Stat Database

Note: Rates based on case counts of 1-15 are suppressed per MDH/MCR Data Use Policy and Procedures.

Maryland Cervical Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2010-2014



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 E, Table 16.

U.S. cervical cancer mortality rate, 2010-2014: 2.3 / 100,000

Maryland cervical cancer mortality rate, 2010-2014: 2.0 / 100,000

Source: NCHS Compressed Mortality File in CDC WONDER
U.S. SEER, Cancer Statistics Review

Note: Rates based on death counts of 0-19 are suppressed per MDH / CCPC Mortality Data Suppression Policy.

Appendix A

Cancer Data Sources, References, and Data Considerations

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2017 Cigarette Restitution Fund (CRF) Cancer Report
Sources, References, and Data Considerations

I. DATA SOURCES

Data and information presented in the 2017 Cigarette Restitution Fund (CRF) Cancer Report were obtained from a variety of sources, including:

- Maryland Department of Health (MDH)
  - Center for Cancer Prevention and Control (CCPC)
  - Center for Chronic Disease Prevention and Control
  - Center for 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)

These sources and the types of information provided for the 2017 CRF Cancer Report are described in the following sections.

A. Cancer Incidence and Stage Data

1. Maryland Cancer Registry

The Maryland Cancer Registry (MCR), CCPC, MDH, is the source for all Maryland-specific cancer incidence and cancer stage data used in this report. The MCR is a computerized data system that collects and consolidates reports of all new cases of reportable cancers (excluding non-genital squamous cell or basal cell skin cancer) that are diagnosed and/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 December 16, 2016, for the diagnosis year 2014.

The Maryland cancer reporting law and regulations mandate the collection of cancer information from Maryland-licensed hospitals, radiation therapy centers, diagnostic pathology laboratories, freestanding ambulatory care facilities, surgical centers, and physicians whose non-hospitalized cancer patients are not otherwise reported. MCR has also signed the North American Association of Central Cancer Registries' (NAACCR) National Interstate Data Exchange Agreement and receives abstracts from 21 other states / jurisdictions, including Alabama, Arkansas, Delaware, Florida, Georgia, Louisiana, Massachusetts, Nebraska, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Texas, Virginia, West Virginia, Wisconsin, and the District of Columbia. Information on Maryland residents diagnosed and/or treated for cancer in these jurisdictions is included in this report.

Note: The 2006 case counts for Montgomery and Prince George's counties are underreported by approximately 8% and 6%, respectively, for all cancer sites combined due to a delay in case reporting. Cancers reported to the MCR after the annual cutoff

date are not included in the MCR's 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.

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.

The SEER Program, which began in 1973 and provides incidence rates representative of the U.S., collects, analyzes, and publishes cancer incidence and survival data from population-based cancer registries participating in the program. Since 2000, SEER incidence data has 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 regards to measures of poverty and education; however, it is also selectively 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 to compare national data with the most recent Maryland incidence data (2010-2014), as they provide the broadest population coverage currently available. All SEER incidence rates were obtained by the MCR from SEER*Stat (version 8.3.4), a statistical software tool for the analysis of SEER and other cancer-related databases. Additional information about SEER can be found at http://www.seer.cancer.gov.

The Maryland population estimates for 2014 presented in Appendix B were also obtained from SEER*Stat.

B. Cancer Mortality Data

Maryland mortality data for 2014 and the 5-year aggregate data (2010-2014) were acquired from CDC Wide-ranging Online Data for Epidemiologic Research (CDC WONDER), an interactive online public health database developed by the CDC, which features statistics for U.S. and Maryland resident health events. 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. Public-use data sets about mortality (deaths), cancer incidence, HIV and AIDS, tuberculosis, natality (births), census data, and many other topics are available for query, and the requested data are readily summarized and analyzed. CDC WONDER can be accessed at http://wonder.cdc.gov/.

Maryland mortality single year data for 2005 to 2007 and 2012 to 2014, and the 5-year aggregate data (2010-2014), presented in this report were obtained from the National

Center for Health Statistics (NCHS) Compressed Mortality Files (CMF) accessed using CDC WONDER. The NCHS CMF is a county-level national mortality and population database spanning the years 1979-2014. 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 2005 to 2007 and 2012 to 2014 for Maryland and 2005 to 2008 for the U.S. were obtained from the 1999-2014 CMF using ICD Tenth Revision (ICD-10) codes. The U.S. mortality rates for single year 2014 and 5-year aggregate data (2010-2014) were obtained from SEER, Cancer Statistics Review (CSR), which are provided by NCHS.

Maryland mortality data for 2011 were obtained from the Maryland Vital Statistics Administration. Maryland mortality single year data for 2008 through 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. No longer accessible or in use, MATCH was an interactive online database sponsored by the MDH Cancer and Chronic Disease Bureau, Center for Chronic Disease Prevention and Control, which featured statistics for Maryland resident health events. County level births, deaths, population estimates, and hospitalizations could be obtained through a query of the MATCH online database. The official annual reports from the Maryland Vital Statistics Administration can be obtained online at https://health.maryland.gov/vsa/Pages/reports.aspx. Note: The definition of lung and bronchus cancer in MATCH included the 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.

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 and is managed by the Center for Chronic Disease Prevention and Control, Cancer and Chronic Disease Bureau at MDH. This survey provided risk behavior and cancer screening information for this report. Maryland data results can be accessed at http://www.marylandbrfss.org, and Maryland and state-aggregated national data on health risk behavior can also be obtained from the CDC BRFSS website at http://www.cdc.gov/brfss.

2. Maryland Youth Tobacco Survey (MYTS)

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 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.

3. Maryland Youth Risk Behavior Survey (YRBS)

The Maryland YRBS is part of the CDC's Youth Risk Behavior Surveillance System (YRBSS) developed in 1990 to monitor behaviors affecting morbidity (disease) and mortality (death) among high school youth. The YRBSS tracks several priority health risk behaviors among youth, as well as behaviors that support health. The 2013 and 2014 Maryland YRBS were administered in the spring of 2013 and the fall of 2014, respectively, to students in a representative sample of Maryland public high school classrooms. In 2013, a total of 53,785 students in 184 public high schools in Maryland completed the survey. In 2014, a total of 56,717 students in 183 public high schools in Maryland completed the survey. The results are representative of all students in grades 9-12. To date, the Maryland YRBS has been conducted in 2007, 2009, 2011, 2013, and 2014. Maryland data results for 2013 can be accessed at https://phpa.health.maryland.gov/ccdpc/Reports/Pages/yrbs2013.aspx. Maryland data results for 2014 can be accessed at https://phpa.health.maryland.gov/ccdpc/Reports/Pages/yrbs.aspx.

4. Healthy People (HP) 2020

Healthy People (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, and several of these targets are used as benchmarks by which Maryland's progress can be measured. The HP 2020 objectives were released in late 2010 and additional information can be found at http://www.healthypeople.gov.

5. Maryland Comprehensive Cancer Control Plan (MCCCP), 2016-2020

The MCCCP contains goals and set targets to be met by the State by the end of a five-year period (2016-2020), 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, 2016-2020 was the coordinated effort of 83 state stakeholders and several MDH offices and centers, with the aim to develop a cancer resource for individuals, health care providers, and organizations.

The MCCCP is directed by CCPC, MDH, with broad input from a partnership of public and private stakeholders. Additional information can be found at https://phpa.health.maryland.gov/cancer/cancerplan/Pages/publications.aspx.

II. DATA CONSIDERATIONS

A. Data Confidentiality

MDH 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 Manual and Procedures* (July 2016; https://phpa.health.maryland.gov/cancer/Pages/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. Age-adjusted incidence rates based on counts of 15 or fewer (non-zero) are presented with asterisks (**) because the rates are unstable and do not provide reliable information.

Mortality data for this report were from CDC WONDER. ICD-10 codes listed in Appendix D of this report were used for identifying type of cancer for extraction. Data obtained from CDC WONDER are subject to CDC data use restrictions, which differ slightly from those of the *MDH/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 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 0-9 are suppressed, and denoted by "<10." 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 presented with asterisks (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 *MDH/MCR Data Use Policy* for incidence rate suppression.

B. Gender

Gender is reported to the MCR as: a) male; b) female; c) hermaphrodite; d) transsexual; and e) unknown (not stated), but numbers and rates for only males and females are provided in this report. As a result, the totals shown in the count for number of cancer cases may not equal the sum of males and females because of cases in the other gender categories.

C. County

County is reported to the MCR as the jurisdiction of residence for each cancer case (i.e., one of the 24 jurisdictions in Maryland) or is categorized as unknown. As a result, the totals shown in the count for number of cancer cases may not equal the sum of the cancer cases across all 24 jurisdictions because of cases with unknown county.

D. Rate Analysis

Individual year incidence rates for 2014 were calculated using Maryland resident cancer cases diagnosed from January 1 through December 31 of that year, and reported to the MCR as of December 16, 2016. The individual year mortality data (2014) consist of deaths that occurred between January 1 and December 31 of that year. Multiple year incidence rates presented were calculated for 5-year rates using MCR 2010-2014 data. Corresponding mortality rates were extracted from CDC WONDER, as 5-year combined data from 2010-2014.

Age-adjustment, also called age-standardization, is a tool used to control for different and changing age distributions of populations in the U.S., states, regions, and counties, and to enable meaningful comparisons of rates over time and across these populations. Age-adjusted rates do not include cancer cases for which age has not been reported. 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 the Glossary for the definition of APC.

E. 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 these areas. It is important to note however, that 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. In these instances, two unadjusted rates cannot be compared side-by-side to determine whether they are statistically significantly different.

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. Confidence intervals are useful in defining a range within which the typical rate for a geographic area can be expected to lie. Most confidence intervals are, by convention, calculated at the 95% level, which means that 95% of hypothetically observed confidence intervals generated will contain the true value of interest. 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 calculated from the SEER*Stat software. Confidence intervals for Maryland mortality rates were generated using CDC WONDER, and confidence intervals for U.S. mortality rates were queried using SEER's Cancer Query System. The following formula can be used to approximate the 95% confidence interval for age-adjusted rates:

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

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

where R = age-adjusted cancer incidence or mortality rate and 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 that there is a statistically significant difference between the rates. For example, Maryland's 2014 lung cancer incidence rate was 55.8 per 100,000, with a 95% confidence interval of 54.0-57.6. The 2014 U.S. SEER age-adjusted lung cancer incidence rate was 53.1 per 100,000 population, with a 95% confidence interval of 52.6-53.6. 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 there is not a statistically significant difference between the rates. 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 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 R_1 and R_2 are the age-adjusted rates being compared;
SE_1 and SE_2 are the standard errors for the respective rates;
$z = 1.96$ for 95% confidence intervals; and
$x = (R_1 - R_2) / \sqrt{(SE_1^2 + SE_2^2)}$

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

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

F. 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 Cancer Statistics Review (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 (20010-2014) 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 (2010-2014) 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 10% and 25%, but less than 10% and more than 25% do not include the endpoints of the range.

G. 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 Alaskan Native, Asian or Pacific Islander, and any other race category, except those cases with unknown or missing race. However, only white, black, and other races are included in the Cancer Report, with the "Other" race category only including American Indian or Alaska Native and Asian or Pacific Islander cases. This change is to match with how CDC WONDER reports race for mortality data (see below). The MCR uses the NCI's 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 category of "Other" races in this report includes the American Indian or Alaska Native race category and the Asian or Pacific Islander race category. The Maryland Vital Statistics Administration reports race in the same four categories as CDC WONDER, along with an additional category "All Other Races." To keep rates comparable between incidence and mortality, death counts and mortality rates are only shown for white, black, and "Other" (i.e., Asian or Pacific Islander and Native American or Alaskan Native). "All Other Races" are not shown due to the small number of deaths in these categories, but they are included in the total death counts and mortality rates. U.S. mortality data from SEER CSR are reported with only two race categories (white and black). As a result, single year 2014 and 5-year aggregate data (2010-2014) obtained from SEER CSR only report U.S. mortality for whites and blacks.

H. Healthy People 2020 Targets

In the CRF Cancer Report, 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. The data from these Maryland surveys are weighted to the age, race, and gender of the Maryland population and, unlike the national data that serve as the basis for HP 2020 targets, Maryland BRFSS 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, interpretations should remain cautious due to the different measures used for data gathering.

I. Appendices

Please refer to additional appendices for:

- Maryland Population Estimates, 2014 (Appendix B)
- U.S. Standard Population, 2000 (Appendix C)
- Definitions of International Classification of Diseases (ICD) Codes Used for Cancer Incidence and Mortality (Appendix D)
- Maryland Cancer Incidence and Mortality Rates by Geographical Area, 2010-2014 (Appendix E)

- Trends in Cancer Incidence and Mortality Rates in Maryland by Cancer Site, Race or Gender, and Year, 2010-2014 (Appendix F)
- Trends in Cancer Stage of Disease at Diagnosis in Maryland by Cancer Site and Year, 2010-2014 (Appendix G)
- Trends in All Cancer Sites Incidence and Mortality Rates in Maryland and U.S. by Year, 2005-2014 (Appendix H)

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Appendix B

Maryland Population Estimates, 2014

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Maryland Population Estimates by Jurisdiction, 2014

Jurisdiction	Total All Genders	Total Males	Total Females	Total Whites	White Males	White Females	Total Blacks	Black Males	Black Females
Maryland	**5,976,407**	**2,896,418**	**3,079,989**	**3,658,054**	**1,807,985**	**1,850,069**	**1,868,002**	**872,489**	**995,513**
Baltimore Metropolitan Area	**2,737,070**	**1,319,189**	**1,417,881**	**1,723,948**	**847,696**	**876,252**	**836,927**	**386,255**	**450,672**
Anne Arundel County	560,133	277,317	282,816	434,819	216,765	218,054	97,399	47,433	49,966
Baltimore City	622,793	293,460	329,333	200,315	99,821	100,494	400,364	182,866	217,498
Baltimore County	826,925	391,363	435,562	534,096	256,906	277,190	236,731	106,914	129,817
Carroll County	167,830	82,964	84,866	157,501	77,656	79,845	6,532	3,580	2,952
Harford County	250,105	122,473	127,632	205,212	101,072	104,140	35,176	16,916	18,260
Howard County	309,284	151,612	157,672	192,005	95,476	96,529	60,725	28,546	32,179
Eastern Shore Region	**452,839**	**221,521**	**231,318**	**362,684**	**177,404**	**185,280**	**79,516**	**38,931**	**40,585**
Caroline County	32,538	15,892	16,646	26,860	13,202	13,658	4,923	2,291	2,632
Cecil County	102,383	50,905	51,478	92,752	46,087	46,665	7,648	3,904	3,744
Dorchester County	32,578	15,483	17,095	22,480	10,858	11,622	9,523	4,374	5,149
Kent County	19,820	9,485	10,335	16,394	7,885	8,509	3,144	1,464	1,680
Queen Anne's County	48,804	24,250	24,554	44,328	21,986	22,342	3,570	1,843	1,727
Somerset County	25,859	14,018	11,841	14,060	7,249	6,811	11,366	6,512	4,854
Talbot County	37,643	17,834	19,809	31,653	15,056	16,597	5,187	2,423	2,764
Wicomico County	101,539	48,534	53,005	70,935	33,958	36,977	26,716	12,608	14,108
Worcester County	51,675	25,120	26,555	43,222	21,123	22,099	7,439	3,512	3,927
National Capital Area	**1,934,877**	**932,065**	**1,002,812**	**901,454**	**450,418**	**451,036**	**802,136**	**371,162**	**430,974**
Montgomery County	1,030,447	496,461	533,986	653,871	319,909	333,962	202,239	94,087	108,152
Prince George's County	904,430	435,604	468,826	247,583	130,509	117,074	599,897	277,075	322,822
Northwest Region	**495,879**	**249,265**	**246,614**	**428,673**	**211,975**	**216,698**	**49,096**	**28,560**	**20,536**
Allegany County	72,952	38,093	34,859	65,543	32,686	32,857	6,453	4,936	1,517
Frederick County	243,675	120,185	123,490	205,491	101,339	104,152	24,660	12,314	12,346
Garrett County	29,679	14,757	14,922	29,082	14,447	14,635	393	248	145
Washington County	149,573	76,230	73,343	128,557	63,503	65,054	17,590	11,062	6,528
Southern Region	**355,742**	**174,378**	**181,364**	**241,295**	**120,492**	**120,803**	**100,327**	**47,581**	**52,746**
Calvert County	90,613	44,750	45,863	75,539	37,585	37,954	12,664	6,105	6,559
Charles County	154,747	74,634	80,113	76,675	38,128	38,547	70,519	33,094	37,425
St. Mary's County	110,382	54,994	55,388	89,081	44,779	44,302	17,144	8,382	8,762

Source: SEER*Stat static data as of October 7, 2016.

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Appendix C

U.S. Standard Population, 2000

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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

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Appendix D

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

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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, D09.0
Lung and Bronchus	C34.0 – C34.9	Excludes codes 9050-9055, 9140, and 9590-9989	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.

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Appendix E

Maryland Cancer Incidence and Mortality Rates by Geographical Area, 2010-2014

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Appendix E

Table 1: All Cancer Sites Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2010-2014

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	443.4	441.0	445.7
Northwest Region	453.1	445.2	461.1
Allegany	503.4	483.5	524.0
Frederick	431.8	420.1	443.7
Garrett	394.7	367.1	424.0
Washington	467.8	453.5	482.5
Baltimore Metropolitan Area ^	460.5	456.5	464.4
Anne Arundel	459.2	451.4	467.2
Baltimore City	486.3	478.5	494.1
Baltimore County	472.1	465.8	478.3
Carroll	458.4	444.8	472.4
Harford	483.8	472.1	495.7
Howard	407.7	397.3	418.3
National Capital Area	387.6	383.6	391.6
Montgomery	381.1	375.9	386.4
Prince George's	396.5	390.3	402.7
Southern Region	435.9	425.9	446.1
Calvert	460.8	441.2	481.1
Charles	433.7	418.1	449.7
St. Mary's	419.4	402.0	437.4
Eastern Shore Region	481.5	473.3	489.8
Caroline	468.9	438.1	501.3
Cecil	498.1	479.3	517.5
Dorchester	499.5	469.6	531.0
Kent	442.4	407.3	480.0
Queen Anne's	432.2	408.8	456.7
Somerset	493.1	457.6	530.6
Talbot	448.1	423.3	474.1
Wicomico	520.9	501.6	540.8
Worcester	483.6	461.3	506.9

* 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 MDH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix E

Table 2: Lung and Bronchus Cancer Incidence Age-Adjusted Incidence Rates by Geographical Area, Maryland, 2010-2014

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	56.6	55.8	57.5
Northwest Region	59.4	56.5	62.3
Allegany	74.7	67.4	82.6
Frederick	48.1	44.2	52.3
Garrett	46.9	38.1	57.5
Washington	69.2	63.8	74.9
Baltimore Metropolitan Area ^	60.9	59.5	62.4
Anne Arundel	63.2	60.3	66.3
Baltimore City	78.2	75.1	81.3
Baltimore County	63.9	61.7	66.2
Carroll	58.6	53.9	63.7
Harford	67.8	63.5	72.4
Howard	43.0	39.5	46.7
National Capital Area	37.6	36.4	38.9
Montgomery	32.7	31.2	34.3
Prince George's	44.2	42.1	46.4
Southern Region	61.5	57.7	65.6
Calvert	63.2	55.9	71.3
Charles	57.1	51.4	63.3
St. Mary's	66.1	59.1	73.6
Eastern Shore Region	70.7	67.6	73.8
Caroline	79.3	67.2	93.2
Cecil	78.3	70.8	86.3
Dorchester	73.4	62.7	85.6
Kent	57.2	45.6	71.3
Queen Anne's	65.8	56.8	75.8
Somerset	96.7	81.6	113.9
Talbot	49.3	42.0	57.7
Wicomico	74.9	67.8	82.6
Worcester	67.3	59.8	75.7

* 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 MDH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix E

Table 3: Colorectal Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2010-2014

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	36.7	36.0	37.4
Northwest Region	40.9	38.6	43.4
Allegany	46.9	41.0	53.5
Frederick	39.5	36.0	43.3
Garrett	41.4	32.8	51.7
Washington	39.7	35.6	44.2
Baltimore Metropolitan Area ^	36.5	35.4	37.6
Anne Arundel	33.3	31.2	35.5
Baltimore City	45.2	42.9	47.6
Baltimore County	38.0	36.2	39.8
Carroll	39.7	35.8	44.0
Harford	40.6	37.3	44.2
Howard	32.3	29.4	35.5
National Capital Area	32.3	31.1	33.4
Montgomery	29.1	27.7	30.6
Prince George's	36.3	34.5	38.3
Southern Region	34.6	31.8	37.6
Calvert	35.7	30.3	41.8
Charles	35.9	31.5	40.8
St. Mary's	32.3	27.6	37.5
Eastern Shore Region	38.9	36.6	41.3
Caroline	43.8	34.7	54.7
Cecil	43.6	38.1	49.6
Dorchester	47.7	38.6	58.4
Kent	38.1	27.9	51.2
Queen Anne's	25.5	20.1	32.0
Somerset	52.5	41.4	65.8
Talbot	30.3	24.0	37.9
Wicomico	41.3	36.0	47.2
Worcester	35.7	29.9	42.4

* 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 MDH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix E

Table 4: Female Breast Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2010-2014

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	129.2	127.5	130.9
Northwest Region	124.5	118.8	130.4
Allegany	116.9	103.1	132.2
Frederick	124.2	115.8	132.9
Garrett	99.5	80.5	122.1
Washington	131.6	121.1	142.9
Baltimore Metropolitan Area ^	132.9	130.0	135.8
Anne Arundel	130.1	124.5	135.9
Baltimore City	125.9	120.6	131.3
Baltimore County	134.9	130.3	139.6
Carroll	129.2	119.6	139.5
Harford	136.0	127.7	144.7
Howard	129.8	122.1	137.8
National Capital Area	125.6	122.6	128.7
Montgomery	128.8	124.7	133.0
Prince George's	121.7	117.3	126.3
Southern Region	127.6	120.4	135.1
Calvert	150.2	135.4	166.2
Charles	126.3	115.4	137.9
St. Mary's	108.9	97.0	121.9
Eastern Shore Region	125.3	119.5	131.4
Caroline	122.3	101.3	146.6
Cecil	122.1	109.5	135.7
Dorchester	122.3	102.0	145.7
Kent	122.2	97.0	152.6
Queen Anne's	112.5	96.5	130.7
Somerset	103.8	80.4	132.2
Talbot	133.3	114.3	154.9
Wicomico	132.8	119.5	147.3
Worcester	134.7	117.6	153.7

* 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 MDH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix E

Table 5: Prostate Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2010-2014

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	125.4	123.6	127.2
Northwest Region	101.0	95.7	106.5
Allegany	110.1	97.3	124.3
Frederick	103.0	94.8	111.8
Garrett	76.5	60.5	96.1
Washington	100.1	90.8	110.1
Baltimore Metropolitan Area ^	121.9	119.0	124.9
Anne Arundel	126.9	121.0	133.0
Baltimore City	137.4	131.2	143.8
Baltimore County	124.4	119.8	129.2
Carroll	114.3	104.7	124.6
Harford	125.7	117.3	134.6
Howard	107.8	100.2	115.8
National Capital Area	128.7	125.3	132.1
Montgomery	113.9	109.7	118.2
Prince George's	149.2	143.6	155.1
Southern Region	111.3	104.1	118.8
Calvert	109.6	96.3	124.4
Charles	131.0	118.7	144.2
St. Mary's	88.3	77.5	100.2
Eastern Shore Region	133.4	127.4	139.5
Caroline	120.3	99.0	145.2
Cecil	120.7	107.7	134.8
Dorchester	155.7	133.4	181.2
Kent	137.0	112.0	167.1
Queen Anne's	111.7	95.7	130.0
Somerset	111.1	88.6	137.9
Talbot	131.1	113.6	151.2
Wicomico	157.9	142.8	174.2
Worcester	135.8	120.9	152.5

* 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 MDH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix E

Table 6: Oral Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2010-2014

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	10.5	10.2	10.9
Northwest Region	11.1	9.9	12.4
Allegany	13.7	10.5	17.6
Frederick	9.5	7.9	11.4
Garrett	14.7	9.8	21.5
Washington	11.6	9.4	14.0
Baltimore Metropolitan Area ^	10.9	10.3	11.5
Anne Arundel	12.5	11.2	13.8
Baltimore City	12.9	11.7	14.3
Baltimore County	10.5	9.6	11.5
Carroll	10.7	8.8	13.0
Harford	9.7	8.2	11.5
Howard	10.0	8.5	11.7
National Capital Area	8.0	7.5	8.6
Montgomery	8.6	7.9	9.5
Prince George's	7.3	6.5	8.2
Southern Region	11.7	10.2	13.4
Calvert	14.6	11.4	18.4
Charles	10.0	7.8	12.6
St. Mary's	11.5	8.8	14.7
Eastern Shore Region	13.3	12.0	14.7
Caroline	14.3	9.3	21.1
Cecil	14.4	11.5	17.9
Dorchester	16.2	10.9	23.3
Kent	10.6	6.2	17.7
Queen Anne's	11.7	8.2	16.2
Somerset	14.6	9.3	22.3
Talbot	12.0	8.2	17.3
Wicomico	13.3	10.3	16.8
Worcester	12.2	8.9	16.5

* 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 MDH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix E

Table 7: Melanoma Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2010-2014

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	21.4	20.9	21.9
Northwest Region	21.3	19.6	23.1
Allegany	18.4	14.6	22.9
Frederick	23.1	20.5	26.0
Garrett	16.9	11.5	24.2
Washington	21.2	18.2	24.6
Baltimore Metropolitan Area ^	29.0	28.0	30.0
Anne Arundel	31.5	29.5	33.6
Baltimore City	9.7	8.6	10.8
Baltimore County	27.2	25.7	28.7
Carroll	31.9	28.2	35.9
Harford	31.8	28.8	35.0
Howard	24.7	22.2	27.4
National Capital Area	13.5	12.8	14.3
Montgomery	18.8	17.7	20.0
Prince George's	6.8	6.0	7.7
Southern Region	24.7	22.4	27.2
Calvert	30.6	25.5	36.3
Charles	19.7	16.5	23.4
St. Mary's	26.8	22.6	31.6
Eastern Shore Region	28.1	26.1	30.2
Caroline	20.9	14.8	28.7
Cecil	28.5	24.1	33.4
Dorchester	18.8	13.2	26.1
Kent	16.1	10.1	24.9
Queen Anne's	33.5	27.2	40.9
Somerset	22.6	15.5	32.1
Talbot	25.8	19.7	33.4
Wicomico	29.0	24.5	34.1
Worcester	39.5	32.7	47.3

* 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 MDH/MCR Data Use Policy

Source: Maryland Cancer Registry

Appendix E

Table 8: Cervical Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2010-2014

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	6.4	6.1	6.9
Northwest Region	6.9	5.6	8.6
Allegany	8.3	4.6	13.7
Frederick	5.0	3.4	7.1
Garrett	**	**	**
Washington	10.4	7.3	14.3
Baltimore Metropolitan Area ^	5.9	5.3	6.6
Anne Arundel	6.2	5.0	7.7
Baltimore City	10.1	8.6	11.8
Baltimore County	6.8	5.7	8.0
Carroll	3.4	1.9	5.6
Harford	5.0	3.4	7.1
Howard	5.4	3.9	7.2
National Capital Area	5.8	5.2	6.5
Montgomery	5.2	4.4	6.1
Prince George's	6.6	5.6	7.7
Southern Region	5.7	4.2	7.4
Calvert	**	**	**
Charles	4.8	3.0	7.5
St. Mary's	7.5	4.5	11.6
Eastern Shore Region	6.6	5.1	8.3
Caroline	**	**	**
Cecil	6.5	3.7	10.5
Dorchester	**	**	**
Kent	**	**	**
Queen Anne's	**	**	**
Somerset	**	**	**
Talbot	**	**	**
Wicomico	6.3	3.5	10.4
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 MDH/MCR Data Use Policy

^ Area rate does not include Baltimore City

Source: Maryland Cancer Registry

Appendix E

Table 9: All Cancer Sites Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2010-2014

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	165.4	164.0	166.8
Northwest Region	164.2	159.5	169.0
Allegany	169.9	158.6	181.2
Frederick	153.2	146.0	160.3
Garrett	145.7	129.2	162.1
Washington	181.2	172.4	190.1
Baltimore Metropolitan Area ^	162.3	159.9	164.6
Anne Arundel	173.0	168.1	178.0
Baltimore City	228.3	223.0	233.7
Baltimore County	164.4	160.8	168.0
Carroll	167.6	159.3	175.8
Harford	169.1	162.1	176.2
Howard	126.6	120.5	132.8
National Capital Area	140.4	138.0	142.9
Montgomery	118.6	115.6	121.5
Prince George's	170.0	165.8	174.3
Southern Region	179.5	172.8	186.2
Calvert	171.5	159.1	183.9
Charles	184.3	173.6	195.0
St. Mary's	180.2	168.3	192.1
Eastern Shore Region	185.0	180.0	190.0
Caroline	186.0	166.3	205.7
Cecil	189.0	177.1	200.9
Dorchester	189.4	171.1	207.6
Kent	168.8	147.9	189.8
Queen Anne's	176.4	161.0	191.7
Somerset	211.8	188.4	235.3
Talbot	159.6	145.7	173.4
Wicomico	199.8	187.9	211.8
Worcester	183.1	170.1	196.2

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

^ Area rate does not include Baltimore City

Source: CDC Wonder, 2010-2014

Appendix E

Table 10: Lung and Bronchus Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2010-2014

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	43.1	42.3	43.8
Northwest Region	44.0	41.6	46.5
Allegany	45.3	39.5	51.1
Frederick	37.9	34.4	41.5
Garrett	39.2	31.0	48.7
Washington	53.1	48.3	57.9
Baltimore Metropolitan Area ^	44.1	42.9	45.3
Anne Arundel	48.1	45.5	50.6
Baltimore City	61.6	58.8	64.3
Baltimore County	45.1	43.2	47.0
Carroll	44.1	39.8	48.3
Harford	49.6	45.8	53.4
Howard	29.1	26.1	32.1
National Capital Area	30.4	29.3	31.5
Montgomery	24.7	23.4	26.1
Prince George's	38.3	36.2	40.3
Southern Region	48.2	44.8	51.7
Calvert	48.1	41.5	54.7
Charles	45.9	40.6	51.2
St. Mary's	51.2	44.9	57.6
Eastern Shore Region	55.9	53.1	58.6
Caroline	63.8	52.4	75.2
Cecil	59.2	52.6	65.9
Dorchester	59.5	49.5	69.5
Kent	50.1	39.5	62.6
Queen Anne's	49.6	41.4	57.7
Somerset	76.5	62.4	90.6
Talbot	40.2	33.3	47.0
Wicomico	56.8	50.5	63.2
Worcester	57.2	50.1	64.3

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

^ Area rate does not include Baltimore City

Source: CDC Wonder, 2010-2014

Appendix E

Table 11: Colorectal Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2010-2014

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	14.5	14.1	14.9
Northwest Region	16.1	14.6	17.5
Allegany	16.0	12.8	19.9
Frederick	15.5	13.2	17.8
Garrett	14.6	9.9	20.7
Washington	17.3	14.6	20.1
Baltimore Metropolitan Area ^	13.4	12.7	14.1
Anne Arundel	13.2	11.8	14.5
Baltimore City	21.8	20.1	23.5
Baltimore County	13.8	12.8	14.9
Carroll	15.5	13.0	18.0
Harford	14.7	12.7	16.8
Howard	9.6	7.9	11.3
National Capital Area	12.9	12.1	13.6
Montgomery	9.4	8.6	10.2
Prince George's	17.6	16.2	19.0
Southern Region	15.3	13.4	17.3
Calvert	15.6	12.0	19.8
Charles	17.2	14.0	20.5
St. Mary's	13.0	10.0	16.5
Eastern Shore Region	14.4	13.0	15.8
Caroline	18.2	12.6	25.6
Cecil	15.0	11.9	18.7
Dorchester	16.9	11.8	23.5
Kent	14.1	8.4	22.3
Queen Anne's	9.5	6.3	13.7
Somerset	16.6	10.8	24.5
Talbot	10.6	7.4	14.8
Wicomico	17.9	14.5	21.8
Worcester	12.3	9.1	16.2

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

^ Area rate does not include Baltimore City

Source: CDC Wonder, 2010-2014

Appendix E

Table 12: Female Breast Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2010-2014

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	22.9	22.2	23.7
Northwest Region	21.5	19.1	23.8
Allegany	18.5	13.5	24.7
Frederick	21.3	17.7	24.8
Garrett	23.4	15.3	34.3
Washington	22.8	18.5	27.0
Baltimore Metropolitan Area ^	22.5	21.3	23.6
Anne Arundel	22.9	20.5	25.3
Baltimore City	29.2	26.7	31.7
Baltimore County	22.6	20.8	24.0
Carroll	24.6	20.4	28.8
Harford	23.9	20.4	27.3
Howard	19.2	16.1	22.2
National Capital Area	21.6	20.4	22.9
Montgomery	17.4	15.9	18.9
Prince George's	27.0	24.9	29.2
Southern Region	25.7	22.4	29.0
Calvert	26.4	20.4	33.6
Charles	26.7	21.5	31.9
St. Mary's	23.5	18.2	30.0
Eastern Shore Region	22.1	19.7	24.5
Caroline	**	**	**
Cecil	21.2	16.2	27.1
Dorchester	20.6	13.0	30.9
Kent	30.1	19.8	43.8
Queen Anne's	21.7	15.0	30.3
Somerset	**	**	**
Talbot	20.0	13.3	28.8
Wicomico	20.6	15.8	26.5
Worcester	29.4	22.1	38.2

* 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 MDH/CCPC Mortality Data Suppression Policy

^ Area rate does not include Baltimore City

Source: CDC Wonder, 2010-2014

Appendix E

Table 13: Prostate Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2010-2014

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	20.3	19.5	21.1
Northwest Region	18.2	15.7	20.8
Allegany	14.3	9.8	20.3
Frederick	21.3	17.2	26.1
Garrett	**	**	**
Washington	16.5	12.5	21.3
Baltimore Metropolitan Area ^	17.3	16.0	18.5
Anne Arundel	18.4	15.7	21.0
Baltimore City	32.8	29.4	36.2
Baltimore County	17.8	16.0	19.7
Carroll	13.9	10.3	18.4
Harford	17.0	13.5	21.1
Howard	16.3	12.8	20.4
National Capital Area	20.0	18.5	21.5
Montgomery	15.2	13.6	16.9
Prince George's	28.0	24.9	31.0
Southern Region	22.9	18.9	26.9
Calvert	28.7	20.7	38.6
Charles	21.2	15.4	28.4
St. Mary's	19.7	14.1	26.8
Eastern Shore Region	21.8	19.1	24.5
Caroline	**	**	**
Cecil	21.3	15.2	29.0
Dorchester	22.0	13.6	33.6
Kent	**	**	**
Queen Anne's	23.1	14.9	34.1
Somerset	**	**	**
Talbot	22.2	15.3	31.0
Wicomico	24.0	17.8	31.7
Worcester	22.6	16.5	30.3

* 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 MDH/CCPC Mortality Data Suppression Policy

^ Area rate does not include Baltimore City

Source: CDC Wonder, 2010-2014

Appendix E

Table 14: Oral Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2010-2014

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	2.3	2.1	2.5
Northwest Region	2.1	1.6	2.7
Allegany	4.1	2.5	6.4
Frederick	**	**	**
Garrett	**	**	**
Washington	2.2	1.3	3.4
Baltimore Metropolitan Area ^	2.0	1.7	2.2
Anne Arundel	2.6	2.1	3.3
Baltimore City	4.0	3.3	4.7
Baltimore County	1.9	1.6	2.4
Carroll	**	**	**
Harford	1.6	1.0	2.4
Howard	1.3	0.8	2.1
National Capital Area	2.0	1.7	2.2
Montgomery	1.5	1.2	1.9
Prince George's	2.5	2.0	3.0
Southern Region	2.8	2.1	3.8
Calvert	**	**	**
Charles	3.3	2.0	5.1
St. Mary's	**	**	**
Eastern Shore Region	3.0	2.4	3.7
Caroline	**	**	**
Cecil	**	**	**
Dorchester	**	**	**
Kent	**	**	**
Queen Anne's	**	**	**
Somerset	**	**	**
Talbot	**	**	**
Wicomico	4.6	3.0	6.8
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 MDH/CCPC Mortality Data Suppression Policy

^ Area rate does not include Baltimore City

Source: CDC Wonder, 2010-2014

Appendix E

Table 15: Melanoma Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2010-2014

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	2.5	2.3	2.7
Northwest Region	2.4	1.8	3.0
Allegany	**	**	**
Frederick	2.4	1.6	3.4
Garrett	**	**	**
Washington	2.4	1.5	3.7
Baltimore Metropolitan Area ^	2.9	2.6	3.2
Anne Arundel	3.1	2.5	3.8
Baltimore City	1.9	1.4	2.4
Baltimore County	3.1	2.6	3.6
Carroll	3.8	2.6	5.4
Harford	2.5	1.7	3.5
Howard	2.0	1.3	2.9
National Capital Area	2.0	1.7	2.3
Montgomery	2.2	1.8	2.6
Prince George's	1.7	1.3	2.2
Southern Region	2.1	1.4	3.0
Calvert	**	**	**
Charles	**	**	**
St. Mary's	**	**	**
Eastern Shore Region	3.5	2.8	4.3
Caroline	**	**	**
Cecil	4.8	3.0	7.2
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 MDH/CCPC Mortality Data Suppression Policy

^ Area rate does not include Baltimore City

Source: CDC Wonder, 2010-2014

Appendix E

Table 16: Cervical Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2010-2014

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	2.0	1.8	2.2
Northwest Region	1.9	1.3	2.8
Allegany	**	**	**
Frederick	**	**	**
Garrett	**	**	**
Washington	**	**	**
Baltimore Metropolitan Area ^	1.9	1.5	2.2
Anne Arundel	2.5	1.8	3.5
Baltimore City	4.4	3.4	5.6
Baltimore County	1.8	1.3	2.4
Carroll	**	**	**
Harford	**	**	**
Howard	**	**	**
National Capital Area	1.6	1.3	2.0
Montgomery	1.1	0.7	1.5
Prince George's	2.5	1.9	3.2
Southern Region	**	**	**
Calvert	**	**	**
Charles	**	**	**
St. Mary's	**	**	**
Eastern Shore Region	1.5	0.9	2.4
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 MDH/CCPC Mortality Data Suppression Policy

^ Area rate does not include Baltimore City

Source: CDC Wonder, 2010-2014

Appendix F

Trends in Cancer Incidence and Mortality Rates in Maryland by Cancer Site, Race or Gender, and Year, 2010-2014

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Appendix F. Trends in Cancer Incidence and Mortality Rates in Maryland by Cancer Site, Race or Gender, and Year, 2010-2014

Table 1: Cancer Incidence Rates by Cancer Site and Year Maryland, 2010-2014

Cancer Site	2010	2011	2012	2013	2014	APC 2010-2014	MD Trend
All Cancer Sites	449.8	440.7	432.1	452.2	442.0	-0.1%	↓
Lung	57.6	56.8	56.4	56.6	55.8	-0.7%	↓
Colorectal	37.4	37.3	35.8	35.9	37.3	-0.4%	↓
Female Breast	129.0	126.6	125.0	134.6	130.3	0.8%	↑
Prostate	140.6	131.7	112.0	124.5	119.4	-3.8%	↓
Oral	10.6	10.2	10.5	10.8	10.5	0.4%	↑
Melanoma	21.4	20.6	20.7	22.3	21.9	1.3%	↑
Cervical	7.3	6.4	6.3	5.9	6.3	-3.7%	↓

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, 2010-2014

Cancer Site	2010	2011	2012	2013	2014	APC 2010-2014	MD Trend
All Cancer Sites	170.9	165.7	165.7	162.9	161.8	-1.3%	↓
Lung	46.0	43.7	43.5	41.1	41.3	-2.7%	↓
Colorectal	14.9	14.3	14.9	14.0	14.4	-0.9%	↓
Female Breast	24.2	22.4	23.7	21.5	22.9	-1.5%	↓
Prostate	22.3	20.2	20.4	19.1	19.3	-3.4%	↓
Oral	2.3	2.4	2.1	2.5	2.3	0.4%	↑
Melanoma	2.4	2.6	2.7	2.6	2.1	-2.6%	↓
Cervical	1.9	2.1	2.0	2.0	1.8	-1.6%	↓

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

APC = Annual Percent Change (%)

Source: NCHS Compressed Mortality File in CDC WONDER, 2010-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2010 (Colorectal); 2011

Appendix F. Trends in Cancer Incidence and Mortality Rates in Maryland by Cancer Site, Race or Gender, and Year, 2010-2014

Table 3: Cancer Incidence Rates by Race and Year Maryland, 2010-2014

Cancer Site	Race	2010	2011	2012	2013	2014	APC 2010-2014
All Cancer Sites	White	449.0	444.1	440.4	461.8	450.6	0.5%
	Black	451.5	437.7	425.9	446.6	443.6	-0.2%
Lung	White	58.5	59.7	58.6	58.9	57.6	-0.4%
	Black	59.2	53.4	55.9	55.3	56.7	-0.5%
Colorectal	White	35.9	36.6	34.5	34.1	35.8	-0.8%
	Black	43.0	39.9	40.1	41.3	41.8	-0.2%
Female Breast	White	127.6	128.3	126.9	134.8	132.8	1.3%
	Black	129.4	124.0	121.5	139.7	129.1	1.2%
Prostate	White	122.0	110.2	97.5	108.0	101.3	-3.8%
	Black	195.0	191.4	159.7	185.6	184.5	-1.4%
Oral	White	11.6	11.4	11.7	12.0	12.1	1.4%
	Black	7.5	7.3	8.3	7.7	7.5	0.5%
Cervix	White	6.2	6.1	5.9	5.3	6.3	-1.1%
	Black	9.1	7.4	7.6	7.1	6.1	-8.1%

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, 2010-2014

Cancer Site	Gender	2010	2011	2012	2013	2014	APC 2010-2014
Melanoma	Male	26.9	27.8	27.9	29.4	30.0	2.8%
	Female	17.5	15.5	15.5	17.4	16.1	-0.5%

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

APC = Annual Percent Change (%)

Source: Maryland Cancer Registry

Appendix F. Trends in Cancer Incidence and Mortality Rates in Maryland by Cancer Site, Race or Gender, and Year, 2010-2014

Table 5: Mortality Rates by Race and Year Maryland, 2010-2014

Cancer Site	Race	2010	2011	2012	2013	2014	APC 2010-2014
All Cancer Sites	White	166.1	161.3	164.4	161.6	160.6	-0.7%
	Black	197.0	190.0	183.0	182.0	181.0	-2.1%
Lung	White	46.5	44.2	44.7	42.4	43.7	-1.6%
	Black	48.5	47.2	44.2	41.8	40.2	-4.8%
Colorectal	White	12.9	13.0	13.5	12.8	13.8	1.2%
	Black	21.9	19.0	20.1	18.2	18.0	-4.3%
Female Breast	White	21.1	19.9	23.1	19.8	21.1	-0.1%
	Black	34.1	29.5	26.5	28.1	29.0	-3.7%
Prostate	White	17.6	17.0	17.4	16.4	15.9	-2.4%
	Black	44.4	36.6	35.4	32.8	35.6	-5.4%
Oral	White	2.2	2.3	2.0	2.3	2.3	0.9%
	Black	2.5	2.7	2.6	2.9	2.3	-0.9%
Cervix	White	1.5	1.7	1.6	1.9	1.5	1.1%
	Black	2.9	3.2	3.0	2.7	2.6	-3.8%

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

APC = Annual Percent Change (%)

Source: NCHS Compressed Mortality File in CDC WONDER, 2010-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2010 (Colorectal); 2011

Table 6: Melanoma Mortality Rates by Gender and Year Maryland, 2010-2014

Cancer Site	Gender	2010	2011	2012	2013	2014	APC 2010-2014
Melanoma	Male	4.0	3.9	4.2	4.3	3.2	-3.4%
	Female	1.3	1.8	1.6	1.4	1.3	-2.5%

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

APC = Annual Percent Change (%)

Source: NCHS Compressed Mortality File in CDC WONDER, 2010-2014
Maryland Vital Statistics Administration from MATCH, 2010
Maryland Vital Statistics Administration, 2010 (Colorectal); 2011

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Appendix G

Trends in Cancer Stage of Disease at Diagnosis in Maryland by Cancer Site and Year, 2010-2014

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Appendix G

Table 1: All Cancer Sites
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2010-2014

Stage	2010	2011	2012	2013	2014
	%	%	%	%	%
Local	43.6	44.6	45.1	45.9	44.0
Regional	19.8	20.6	20.3	20.3	20.8
Distant	21.9	22.0	22.6	23.3	23.1
Unstaged	14.8	12.8	12.0	10.6	12.0

Source: Maryland Cancer Registry

Table 2: Lung Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2010-2014

Stage	2010	2011	2012	2013	2014
	%	%	%	%	%
Local	18.3	19.3	19.5	20.1	21.2
Regional	23.1	25.2	24.8	24.0	22.9
Distant	47.0	46.7	46.5	48.1	48.6
Unstaged	11.5	8.8	9.3	7.8	7.3

Source: Maryland Cancer Registry

Table 3: Colorectal Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2010-2014

Stage	2010	2011	2012	2013	2014
	%	%	%	%	%
Local	36.0	36.0	36.9	34.1	35.2
Regional	31.7	32.1	32.7	34.5	34.0
Distant	19.8	19.1	22.1	21.1	22.4
Unstaged	12.5	12.8	8.3	10.3	8.4

Source: Maryland Cancer Registry

Table 4: Female Breast Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2010-2014

Stage	2010	2011	2012	2013	2014
	%	%	%	%	%
Local	57.4	60.4	61.8	59.6	61.1
Regional	29.7	28.7	27.8	29.0	29.0
Distant	5.1	5.1	4.9	6.3	5.8
Unstaged	7.8	5.8	5.6	5.2	4.1

Source: Maryland Cancer Registry

Appendix G

Table 5: Prostate Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2010-2014

Stage					
	2010	2011	2012	2013	2014
	%	%	%	%	%
Local	67.3	69.5	68.5	72.8	58.3
Regional	8.3	8.8	9.5	8.6	10.7
Distant	3.2	3.5	4.3	4.7	5.0
Unstaged	21.2	18.3	17.7	14.0	26.0

Source: Maryland Cancer Registry

Table 6: Oral Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2010-2014

Stage					
	2010	2011	2012	2013	2014
	%	%	%	%	%
Local	31.2	27.3	28.6	32.1	28.6
Regional	43.3	46.4	44.8	44.2	46.8
Distant	17.0	18.2	20.3	17.5	18.3
Unstaged	8.4	8.1	6.3	6.2	6.3

Source: Maryland Cancer Registry

Table 7: Melanoma
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2010-2014

Stage					
	2010	2011	2012	2013	2014
	%	%	%	%	%
Local	52.1	56.4	59.8	67.7	66.3
Regional	8.4	8.1	6.9	5.8	6.5
Distant	3.8	3.3	4.1	5.1	4.3
Unstaged	35.7	32.2	29.2	21.5	22.9

Source: Maryland Cancer Registry

Table 8: Cervical Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2010-2014

Stage					
	2010	2011	2012	2013	2014
	%	%	%	%	%
Local	40.1	39.7	42.1	45.0	36.7
Regional	36.2	35.7	32.1	33.9	36.7
Distant	8.2	12.1	13.9	14.8	17.2
Unstaged	15.5	12.6	12.0	6.3	9.3

Source: Maryland Cancer Registry

Appendix H

Trends in All Cancer Sites Incidence and Mortality Rates in Maryland and U.S. by Year, 2005-2014

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Appendix H. Trends in All Cancer Sites Incidence and Mortality Rates in Maryland and U.S. by Year, 2005-2014

Table 1: All Cancer Sites Incidence Rates by Year
Maryland and U.S., 2005-2014

	2005	2006†	2007	2008	2009	2010	2011	2012	2013	2014	APC 2005-2014	Trend
Maryland	457.4	426.3	455.3	470.8	443.7	449.8	440.7	432.1	452.2	442.0	-0.2%	↓
U.S.	465.9	468.2	474.6	468.5	464.8	451.9	443.7	436.7	431.0	428.6	-1.2%	↓

† 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 (%)

Sources: Maryland Cancer Registry

U.S. SEER, SEER*Stat Database

Table 2: All Cancer Sites Mortality Rates by Year
Maryland and U.S., 2005-2014

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	APC 2005-2014	Trend
Maryland	190.2	186.7	180.4	180.6	177.7	170.9	165.7	165.7	162.9	161.8	-1.9%	↓
U.S.	183.8	180.7	178.4	175.3	173.1	171.8	168.7	166.4	163.0	161.3	-1.4%	↓

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

APC = Annual Percent Change (%)

Sources: NCHS Compressed Mortality File in CDC WONDER, 2005-2007, 2012-2014 (MD)

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

Maryland Vital Statistics Administration, 2011 (MD)

NCHS Compressed Mortality File in CDC WONDER, 2005-2008 (U.S.)

U.S. SEER, Cancer Statistics Review, 2009-2014 (U.S.)

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https://phpa.health.maryland.gov/cancer/Pages/mcr_home.aspx, 410-767-4055.

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