Maryland Department of Health

2021 Cancer Data

Cigarette Restitution Fund Program

Cancer Prevention, Education, Screening and Treatment Program

September 2021

Table of Contents

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 distributions 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 websites:

  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, which is used for analyzing trends. This measure assumes that cancer rates change at a constant percentage of the rate of the previous year. Rates that change at a constant percentage every year change linearly on a log scale. A more detailed description of this method can be found at:

  https://surveillance.cancer.gov/help/joinpoint/setting-parameters/method-and-parameters-tab/apc-aapc-tau-confidence-intervals/average-annual-percent-change-aapc

- **Ascertainment:** Refers to the quality assurance procedures that Maryland Cancer Registry (MCR) staff use to ensure completeness of cancer cases in the MCR 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 2018. Cancer incidence data are also presented in aggregated form, as the average annual incidence for the 5-year period from 2014 through 2018.

- **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 2018. Cancer mortality data are also presented in an aggregated form, as the average annual mortality for the 5-year period from 2014 through 2018.

- **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.

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.

(This page intentionally left blank)

B. Major Findings

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

- In 2018, a total of 32,569 new cases of cancer were diagnosed in Maryland.
- From 2009 to 2018, the annual overall cancer incidence rates remained steady in Maryland, increasing by only 0.1% per year, while the United States (U.S.) rates declined 0.8% per year. In 2018, the Maryland all sites cancer incidence rate was higher than the U.S. rate (445.9 vs. 431.4 per 100,000 population).
- In 2018, the incidence rate for all cancer sites among blacks in Maryland remained below the incidence rate for whites. Rates decreased for blacks while rates increased for whites for the period from 2014 to 2018.
- In 2018, a total of 10,927 Maryland residents died from cancer.
- From 2009 to 2018, the annual overall cancer mortality rates decreased slightly more in Maryland than in the U.S. (-1.7% vs. -1.6% per year). In 2018, the Maryland (all cancer sites) mortality rate was higher than the U.S. rate (149.9 vs. 149.0 per 100,000 population), but better than the Healthy People 2020 target of 161.4 per 100,000 population.
- Blacks had higher all cancer sites mortality rates than whites from 2014 to 2018; the annual percent change decreased for both races.

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

- Lung cancer is the leading cause of cancer death in both men and women in Maryland, accounting for 22.6% of all 10,927 cancer deaths in 2018.
- From 2014 to 2018, overall lung cancer incidence and mortality rates decreased Statewide and declined for both whites and blacks after stratifying by race.
- Tobacco use is the primary cause of lung cancer, with smoking causing an estimated 81% of lung cancer deaths in the U.S.[1]
- Smoking rates among Maryland adults continue to decline. In 2019, 12.7% of adults ages 18 years and older were current smokers. However, Maryland has not yet attained the Healthy People 2020 goal of reducing the percentage of adult smokers to 12.0%.
- Smoking rates among Maryland youth have also declined. In 2018, only 5.0% of Maryland youth in grades 9 through 12 reported smoking cigarettes in the previous 30 days, down from 15.3% in 2008 and meeting the Healthy People 2020 target of 16.0%.

3. Major findings for **colon and rectum** (colorectal) cancer:

- Incidence and mortality rates for colorectal cancer declined in Maryland from 2014 to 2018 among both blacks and whites.
- In 2018, 72.5% of Maryland adults ages 50 and older reported being up-to-date with colorectal cancer screenings, surpassing the Healthy People 2020 target for up-to-date colorectal cancer screening (70.5%).

4. 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 in white females, but decreased for black females from 2014 to 2018.
- From 2014 to 2018, mortality rates for female breast cancer decreased for both black and white females; mortality rates for female breast cancer decreased at a greater rate per year among white females compared to black females (-2.6% vs. -0.3%, respectively).
- Maryland continues to meet the Healthy People 2020 target for mammography screening (81.1%); in 2018, 81.2% of Maryland women ages 50 years and older reported having had a mammogram within the past two years.

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

- Prostate cancer is the second leading cause of cancer death among men in Maryland after lung cancer.
- Overall, incidence rates for prostate cancer increased, while mortality rates for prostate cancer decreased from 2014 to 2018.
- 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 2014 to 2018.
- From 2014 to 2018, prostate cancer incidence rates increased at a greater rate per year among white men compared to black men (4.3% vs. 0.7%, respectively). During this 5-year period, mortality rates for prostate cancer decreased for black men, but increased for white men.
- Although a decreasing percentage of Maryland men discussed the advantages and disadvantages of prostate-specific antigen (PSA) testing with their healthcare provider from 2014 (31.4%) to 2018 (20.1%), the 2018 percentage was still greater than the Healthy People 2020 target of 15.9%.

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

- From 2014 to 2018, oral cancer incidence rates in Maryland increased overall. Oral cancer incidence rates increased for whites while they decreased for blacks.
- From 2014 to 2018, oral cancer mortality rates decreased among blacks at a rate of 4.6% per year and increased among whites at a rate of 4.5% per year.
- Marylanders were below the MCCCP 2020 target of 26.7% for oral cancer screening; in 2018, 24.1% of Maryland adults reported having an oral cancer exam in the past year.

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

- Melanoma incidence rates in Maryland increased at a rate of 1.4% per year from 2014 to 2018. The annual incidence rate increased among females, while remained steady for males. In 2018, males had incidence rates of melanoma that were 65.2% higher

than females.

- From 2014 to 2018, overall melanoma mortality rates decreased at a rate of 7.5% per year for males, but increased at a rate of 1.7% per year for females, narrowing the disparity between genders.
- In 2018, 50.8% of Maryland adults used at least one sun protective measure "always" or "nearly always," which is below the Healthy People 2020 target of 73.7%; however, this percentage excludes Maryland adults who reported that they do not go out in the sun.

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

- From 2014 to 2018, cervical cancer incidence rates among Maryland women increased at a rate of 0.6% per year and mortality rates increased at a rate of 3.5% per year.
- Cervical cancer incidence rates increased among both black and white females (1.6% vs. 0.5%, respectively).
- Mortality rates for cervical cancer increased for white females at a rate of 4.1% per year, while rates for black females increased at a rate of 1.4% per year from 2014 to 2018.
- In 2018, 81.3% of Maryland women ages 21 to 65 years old had a Pap test within the past three years, below the Healthy People 2020 target of 93.0%.

(This page intentionally left blank)

II. All Cancer Sites

Incidence (New Cases)

A total of 32,569 new cases of cancer diagnosed in 2018 in Maryland residents were reported to the MCR. The total age-adjusted cancer incidence rate for Maryland was 445.9 per 100,000 population (441.0-450.9, 95% CI) in 2018. The 2018 Maryland cancer incidence rate is statistically significantly higher than the 2018 U.S. SEER rate of 431.4 per 100,000 population (430.1-432.6, 95% CI).

Mortality (Deaths)

Cancer is the second leading cause of death in Maryland, accounting for 21.6% of all deaths in 2018. A total of 10,927 Maryland residents died from cancer in 2018. The Maryland mortality rate for all cancer sites was 149.9 per 100,000 population (147.0-152.7, 95% CI) for 2018. This rate is not statistically significantly different than the 2018 U.S. mortality rate for all cancer sites of 149.0 per 100,000 population (148.7-149.4, 95% CI). Maryland ranks 31st highest among all states and the District of Columbia in total cancer mortality for the period from 2014 to 2018.

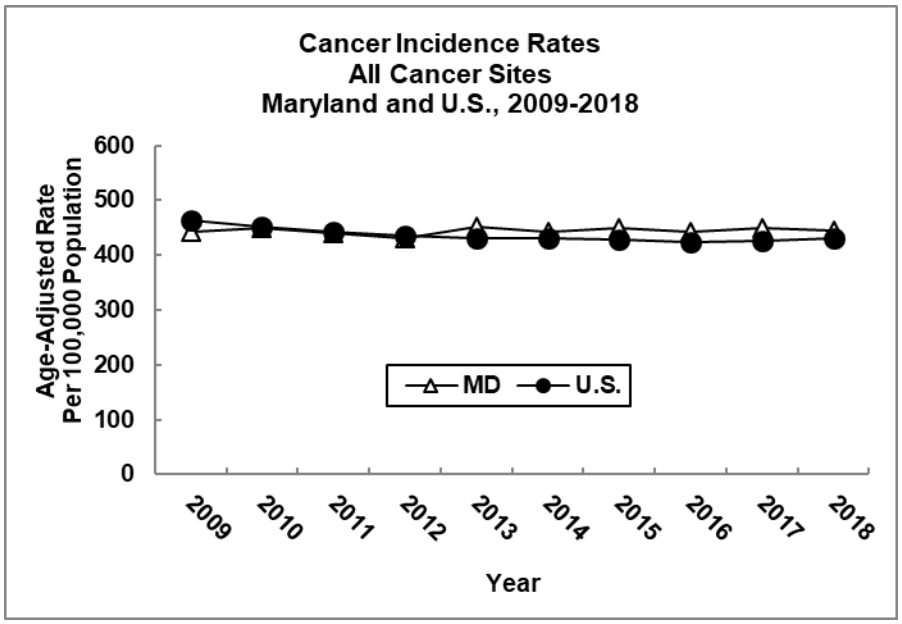
Table 1.
All Cancer Sites Incidence and Mortality Rates
by Gender and Race, Maryland (MD) and the United States, 2018

Incidence 2018	*Total**	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD New Cases (count)	32,569	16,325	16,241	21,806	9,029	1,314
MD Incidence Rate	445.9	488.1	417.6	454.6	441.9	267.4
U.S. SEER Rate	431.4	465.6	409.2	439.7	430.1	288.1
Mortality 2018	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (count)	10,927	5,591	5,336	7,263	3,282	382
MD Mortality Rate	149.9	177.5	130.6	147.3	170.4	82.9
U.S. Mortality Rate	149.0	177.1	128.4	150.2	169.1	93.7

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 jurisdiction

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat
NCHS Underlying Cause of Death in CDC WONDER, 2018
U.S. SEER, Cancer Statistics Review

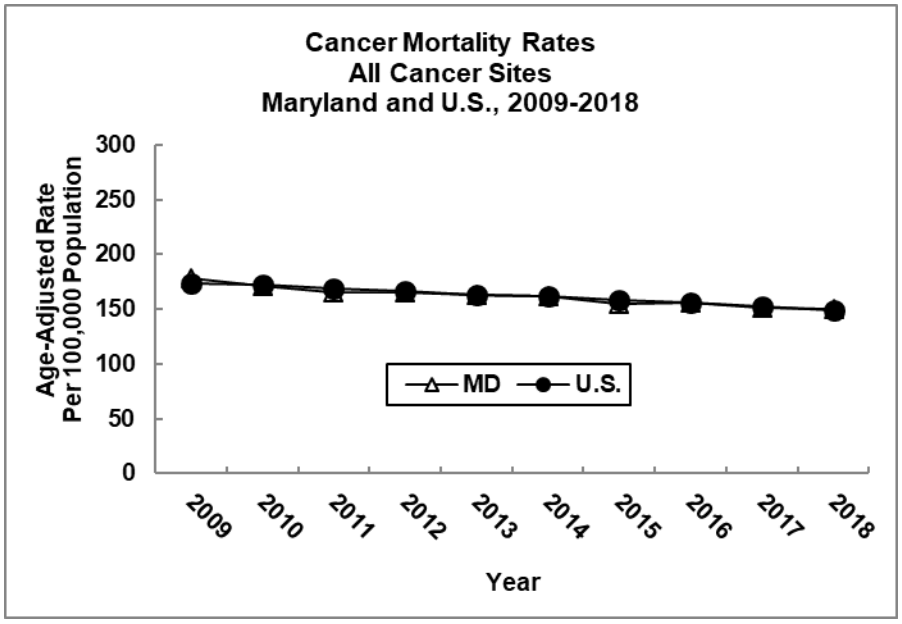


Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat

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

All cancer sites incidence rates increased in Maryland and declined in the U.S. over the 10-year period from 2009 to 2018. Incidence rates for all cancer sites increased at a rate of 0.1% per year in Maryland and decreased at a rate of 0.8% in the U.S..

See Appendix H, Table 1.

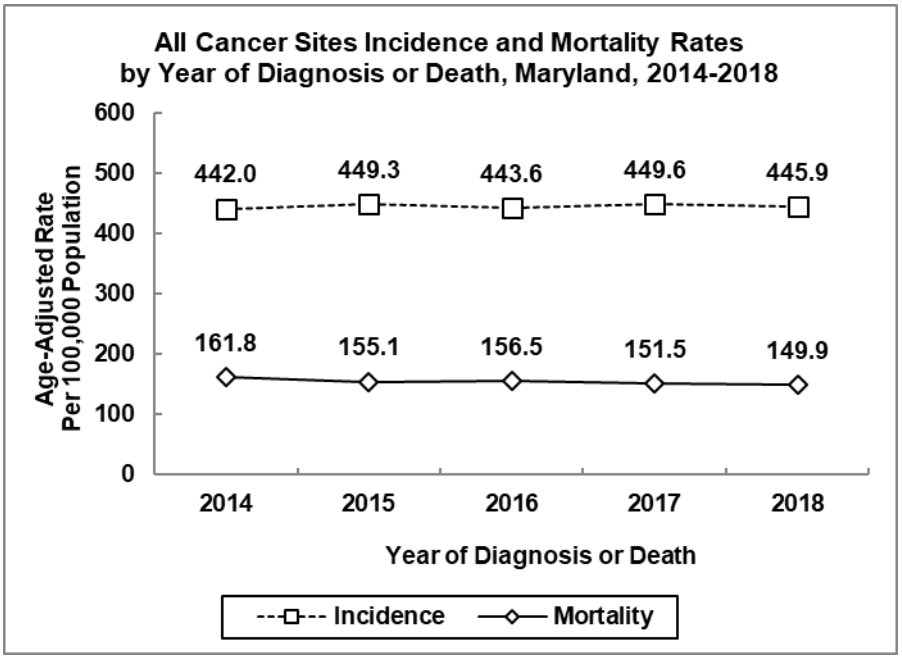


Source: NCHS Underlying Cause of Death in CDC WONDER, 2017-2018 (MD)
NCHS Compressed Mortality File in CDC WONDER, 2012-2016 (MD)
Maryland Vital Statistics Administration, 2011 (MD)
Maryland Vital Statistics Administration from MATCH, 2009-2010 (MD)
U.S. SEER, Cancer Statistics Review, 2009-2018 (U.S.)

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

Maryland cancer mortality rates have declined since 2009. From 2009 to 2018, all cancer sites mortality rates in Maryland decreased at a rate of 1.7% per year, a greater decrease than the U.S. mortality rates, which decreased at a rate of 1.6% per year during the same time period.

See Appendix H, Table 2.



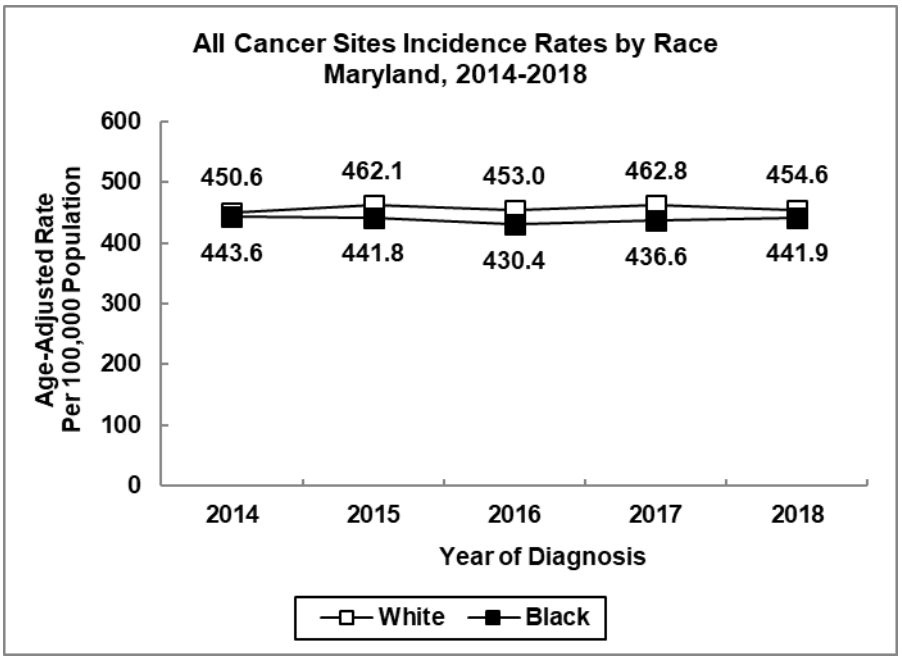
Source: Maryland Cancer Registry
NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Incidence and Mortality Trends

In Maryland, the incidence rate for all cancer sites increased slightly at a rate of 0.2% per year from 2014 to 2018.

During this same timeframe, cancer mortality rates decreased at a rate of 1.7% per year.

See Appendix F, Tables 1 and 2.

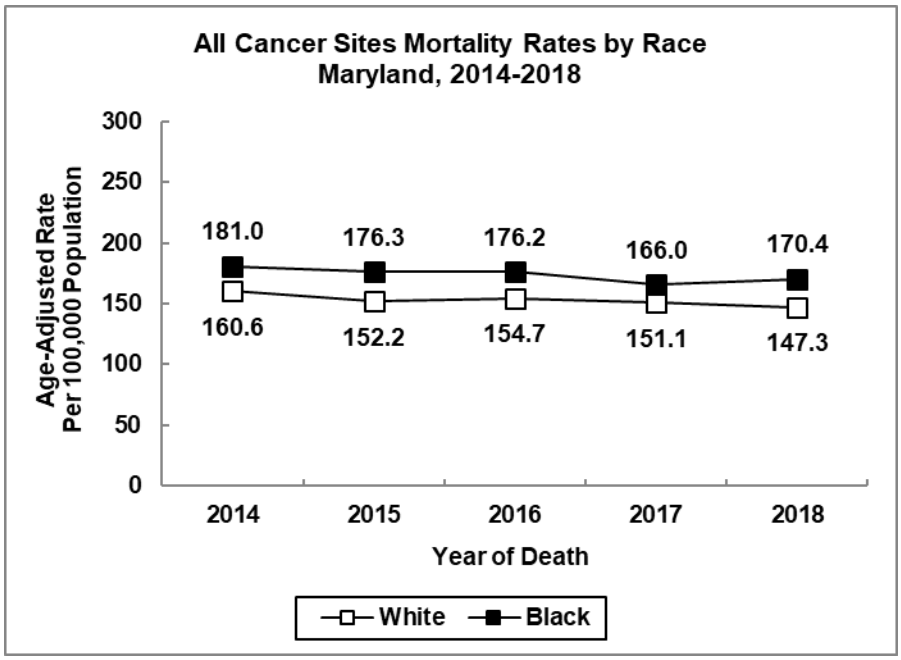


Source: Maryland Cancer Registry

Incidence Trends by Race

From 2014 to 2018, the incidence rate for all cancer sites was lower among blacks compared to whites in Maryland. From 2014 to 2018, incidence rates for all cancer sites increased at a rate of 0.2% per year among whites and decreased at a rate of 0.2% per year among blacks.

See Appendix F, Table 3.



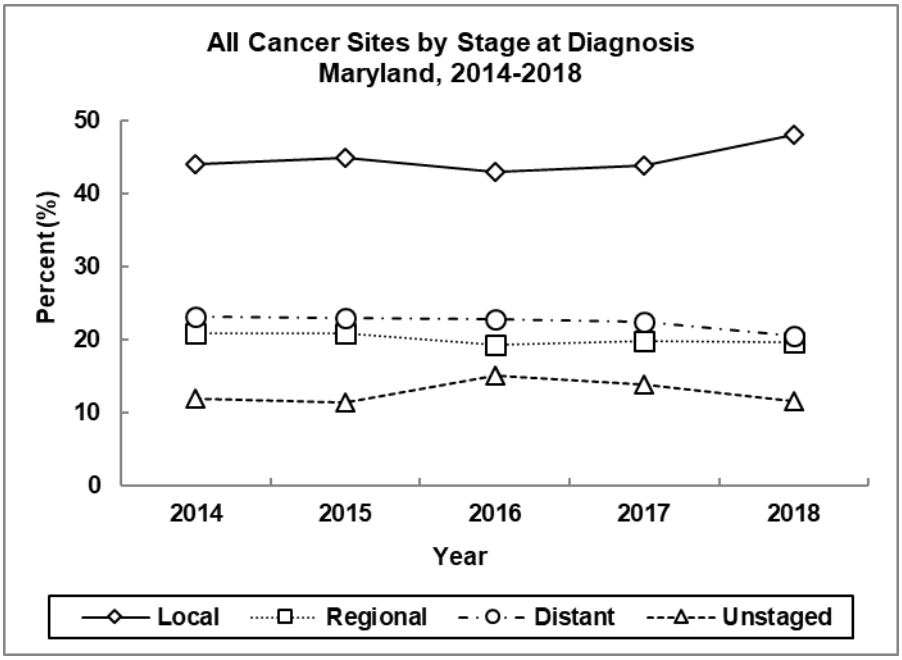
Source: NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Mortality Trends by Race

Both black and white Marylanders showed a decrease of 1.8% per year in cancer mortality from 2014 to 2018.

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

See Appendix F, Table 5.

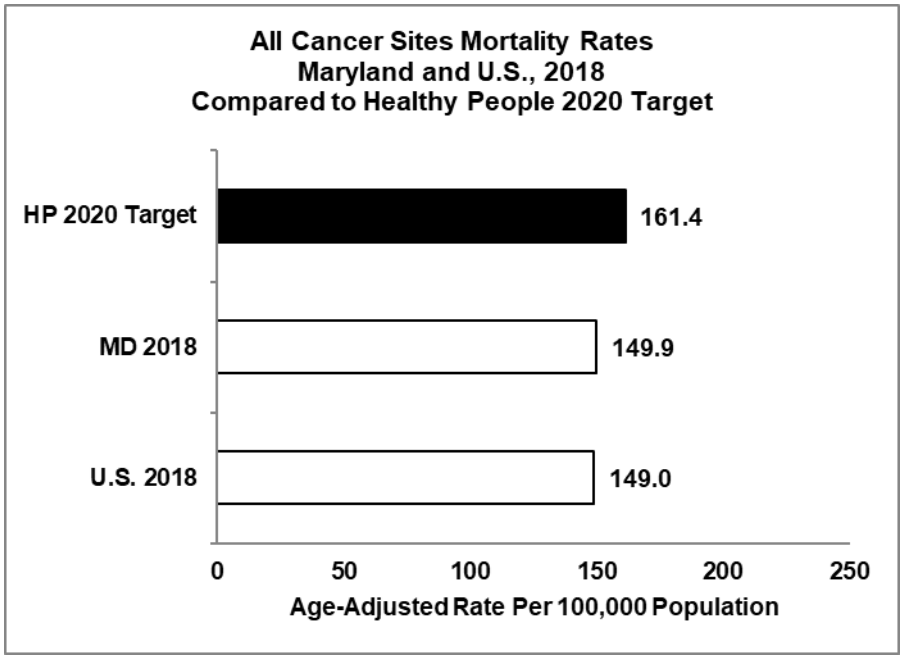


Source: Maryland Cancer Registry
Note: Due to a methodology change, SEER summary stage 2000 was used in 2016-2018, while the derived SEER summary stage 2000 was used from 2014-2015

Stage at Diagnosis

Of all cancers diagnosed in Maryland in 2018, 48.1% were found at the local (early) stage, 19.7% at the regional stage, and 20.6% at the distant (late) stage. In 2018, 11.6% of all cancers were reported as unstaged in Maryland. Since 2014, the proportion of all cancers reported at the local stage increased by 1.6% per year.

See Appendix G, Table 1.



Source: Healthy People 2020, U.S. Department of Health and Human Services
NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
U.S. SEER, Cancer Statistics Review

Mortality Rates Compared to Healthy People (HP) 2020 Target

In 2018, the mortality rate for all cancer sites in Maryland was 149.9 per 100,000 population, which was higher than the U.S. rate of 149.0 per 100,000 population but lower than the Healthy People 2020 target of 161.4 per 100,000 population.

Table 2.
Number of Cancer Cases for All Cancer Sites by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	32,569	16,325	16,241	21,806	9,029	1,314
Allegany	490	254	236	472	16	<6
Anne Arundel	3,097	1,538	1,559	2,537	451	84
Baltimore City	3,231	1,601	1,630	1,028	2,141	36
Baltimore	5,084	2,425	2,659	3,776	1,127	146
Calvert	479	263	216	406	60	10
Caroline	204	106	98	175	26	<6
Carroll	1,021	542	479	977	27	13
Cecil	618	327	291	576	31	7
Charles	752	377	373	416	313	15
Dorchester	275	154	121	199	74	<6
Frederick	1,299	665	634	1,150	105	29
Garrett	188	96	92	185	0	<6
Harford	1,616	796	820	1,407	174	31
Howard	1,509	780	728	1,051	272	167
Kent	155	86	69	129	26	0
Montgomery	4,706	2,254	2,452	3,222	744	587
Prince George's	4,025	1,895	2,130	971	2,813	148
Queen Anne's	317	162	155	290	24	<6
St Mary's	570	292	278	470	93	6
Somerset	161	84	77	113	48	0
Talbot	308	178	130	269	34	<6
Washington	925	461	464	839	74	6
Wicomico	596	321	275	443	141	10
Worcester	464	247	217	414	50	0

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

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 3.
All Cancer Sites Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	445.9	488.1	417.6	454.6	441.9	267.4
Allegany	487.6	523.2	468.8	493.9	464.5	**
Anne Arundel	455.7	489.2	433.2	458.6	459.3	295.0
Baltimore City	474.8	546.7	429.5	470.9	479.1	213.1
Baltimore	479.5	509.6	461.7	498.1	461.4	259.7
Calvert	427.9	482.2	389.3	434.9	364.7	**
Caroline	467.5	504.0	437.3	471.8	425.8	**
Carroll	470.0	518.7	435.5	473.6	369.8	**
Cecil	487.8	539.0	444.4	486.5	441.3	**
Charles	420.9	460.4	390.4	426.2	418.5	**
Dorchester	572.9	676.3	486.0	552.0	665.7	**
Frederick	430.9	470.1	406.0	433.7	431.8	220.2
Garrett	417.7	429.4	404.3	412.4	0.0	**
Harford	501.6	534.6	481.7	507.8	481.7	300.8
Howard	414.0	452.3	383.5	433.1	441.5	272.5
Kent	482.8	565.5	422.9	464.0	619.7	0.0
Montgomery	372.1	390.6	363.1	377.0	359.9	278.7
Prince George's	399.1	424.1	386.7	384.7	401.3	252.1
Queen Anne's	462.5	478.8	448.1	458.4	557.1	**
St Mary's	460.7	491.4	437.1	461.6	536.4	**
Somerset	495.0	528.5	474.2	517.3	533.9	0.0
Talbot	448.1	562.1	353.2	445.8	463.2	**
Washington	476.3	491.1	469.4	473.0	538.6	**
Wicomico	484.0	578.9	414.4	484.9	508.7	**
Worcester	502.8	552.0	464.0	511.2	524.9	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, SEER*Stat Static data as of March 03, 2021

Table 4.
All Cancer Sites and Age-Adjusted Incidence Rates*
Among Hispanics§ by Geographical Area in Maryland, 2018

Jurisdiction	Cases	Rate
Maryland	986	252.6
Allegany	<6	**
Anne Arundel	72	316.1
Baltimore City	50	275.6
Baltimore	79	290.6
Calvert	6	**
Caroline	<6	**
Carroll	8	**
Cecil	<6	**
Charles	14	**
Dorchester	<6	**
Frederick	37	226.2
Garrett	<6	**
Harford	15	**
Howard	31	215.4
Kent	<6	**
Montgomery	389	249.7
Prince George's	230	222.2
Queen Anne's	<6	**
St. Mary's	<6	**
Somerset	<6	**
Talbot	<6	**
Washington	9	**
Wicomico	8	**
Worcester	<6	**
Region	**Cases**	**Rate**
Baltimore Metropolitan Area^	255	278.4
Eastern Shore Region	29	236.9
National Capital Area	619	241.7
Northwest Region	51	237.4
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 G)

<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

^ Area rate includes Baltimore City

Source: Maryland Cancer Registry

Table 5.
Number of Deaths for All Cancer Sites by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	10,927	5,591	5,336	7,263	3,282	382
Allegany	174	98	76	171	<10	<10
Anne Arundel	994	524	470	824	145	25
Baltimore City	1,335	659	676	s	973	<10
Baltimore	1,766	881	885	1,324	402	40
Calvert	155	86	69	123	s	<10
Caroline	75	43	32	63	s	<10
Carroll	342	176	166	334	<10	<10
Cecil	222	130	92	211	<10	<10
Charles	285	145	140	157	s	<10
Dorchester	96	53	43	65	s	<10
Frederick	412	225	187	373	27	12
Garrett	67	32	35	67	<10	<10
Harford	488	262	226	427	51	10
Howard	405	217	188	291	75	39
Kent	49	29	20	s	<10	<10
Montgomery	1,475	674	801	1,041	261	173
Prince George's	1,379	710	669	371	963	45
Queen Anne's	102	62	40	95	<10	<10
St. Mary's	203	95	108	167	s	<10
Somerset	71	42	29	45	s	<10
Talbot	101	47	54	85	s	<10
Washington	339	188	151	317	s	<10
Wicomico	239	127	112	184	s	<10
Worcester	153	86	67	135	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 C for methods)

Source: CDC WONDER, 2018, as of May 5, 2021

Table 6.
All Cancer Sites Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	149.9	177.5	130.6	147.3	170.4	82.9
Allegany	164.8	207.7	131.6	168.4	**	**
Anne Arundel	151.2	182.4	129.1	150.6	166.9	97.5
Baltimore City	198.4	237.9	172.4	163.1	220.4	**
Baltimore	160.8	189.7	143.1	161.3	174.2	76.6
Calvert	136.6	162.9	115.7	128.5	183.9	**
Caroline	177.3	227.5	136.2	173.4	**	**
Carroll	155.4	182.8	136.2	159.4	**	**
Cecil	176.6	220.3	134.6	177.9	**	**
Charles	171.3	196.7	150.9	159.6	197.7	**
Dorchester	188.6	232.3	155.9	172.8	245.5	**
Frederick	140.3	176.0	114.3	142.6	137.4	**
Garrett	139.7	149.9	127.6	141.4	**	**
Harford	152.1	184.2	128.7	152.8	149.0	**
Howard	117.9	140.6	100.0	123.4	137.8	70.1
Kent	136.7	192.5	89.0	132.2	**	**
Montgomery	114.1	121.3	109.3	116.4	136.6	84.6
Prince George's	143.9	178.9	121.3	148.9	146.2	80.8
Queen Anne's	141.5	187.6	103.1	144.9	**	**
St. Mary's	169.5	168.6	172.5	167.7	199.2	**
Somerset	215.5	272.9	166.4	192.1	308.0	**
Talbot	129.7	127.7	134.5	123.1	**	**
Washington	168.7	203.5	140.3	167.9	184.5	**
Wicomico	191.2	230.0	163.6	191.6	207.2	**
Worcester	154.6	191.5	126.0	156.6	**	**

* 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, 2018, as of May 5, 2021

Table 7.
Number of Cancer Cases for All Cancer Sites by Jurisdiction, Gender, and Race, Maryland, 2014-2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	156,819	77,476	79,326	106,468	42,415	6,010
Allegany	2,506	1,291	1,214	2,399	91	12
Anne Arundel	14,843	7,331	7,512	12,413	1,942	389
Baltimore City	16,151	7,886	8,265	5,326	10,517	200
Baltimore	25,062	12,104	12,954	18,832	5,349	722
Calvert	2,373	1,235	1,138	2,009	331	26
Caroline	956	487	469	810	133	<6
Carroll	5,087	2,606	2,481	4,852	159	58
Cecil	3,174	1,657	1,517	2,958	182	25
Charles	3,629	1,871	1,756	2,192	1,315	92
Dorchester	1,137	602	535	822	303	8
Frederick	6,301	3,142	3,159	5,561	520	161
Garrett	941	468	473	931	<6	<6
Harford	7,862	3,973	3,888	6,846	842	146
Howard	6,875	3,331	3,542	4,889	1,198	712
Kent	765	397	368	629	132	<6
Montgomery	22,705	10,820	11,883	15,714	3,623	2,612
Prince George's	19,359	9,234	10,122	4,830	13,423	678
Queen Anne's	1,565	824	741	1,426	127	6
St Mary's	2,587	1,333	1,253	2,139	387	47
Somerset	773	411	362	583	186	<6
Talbot	1,493	794	699	1,314	164	7
Washington	4,458	2,207	2,251	4,108	287	33
Wicomico	3,083	1,555	1,528	2,348	669	44
Worcester	2,187	1,160	1,027	1,928	246	10

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

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 8.
All Cancer Sites Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2014-2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	446.1	485.7	420.4	456.7	438.7	265.5
Allegany	502.2	543.1	483.3	504.8	543.9	**
Anne Arundel	457.4	489.9	437.3	465.8	432.4	303.6
Baltimore City	483.9	547.6	443.4	494.6	480.6	244.3
Baltimore	483.4	524.2	457.7	498.7	465.3	281.5
Calvert	442.2	486.6	410.5	447.4	435.6	205.4
Caroline	470.0	506.2	440.8	468.9	469.2	**
Carroll	478.8	521.9	448.1	480.6	456.9	293.7
Cecil	523.9	572.0	488.4	523.6	560.6	312.3
Charles	436.1	499.2	389.8	468.6	400.4	237.1
Dorchester	487.8	541.4	448.0	462.9	559.1	**
Frederick	444.1	480.5	421.7	443.2	502.9	273.1
Garrett	428.7	437.4	424.5	426.7	**	**
Harford	509.1	562.6	472.5	512.4	525.0	293.4
Howard	394.3	413.6	381.9	413.0	418.9	260.0
Kent	467.9	511.8	441.3	446.4	602.5	**
Montgomery	374.3	394.8	363.7	380.1	376.6	267.0
Prince George's	401.6	437.3	381.0	388.8	402.1	250.4
Queen Anne's	480.3	514.5	455.0	478.6	546.1	**
St Mary's	427.6	452.9	407.2	427.1	458.3	223.9
Somerset	494.7	533.1	479.5	537.8	437.9	**
Talbot	453.3	515.0	403.8	450.3	465.3	**
Washington	472.0	490.3	465.8	472.5	457.9	199.1
Wicomico	523.9	578.8	486.6	533.6	508.8	239.6
Worcester	498.3	543.0	465.9	498.7	543.3	**

* 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, SEER*Stat Static data as of March 03, 2021

Table 9.
Number of Deaths for All Cancer Sites by Jurisdiction, Gender, and Race, Maryland, 2014-2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	53,961	27,375	26,586	36,592	15,645	1,724
Allegany	870	463	407	849	s	<10
Anne Arundel	4,956	2,596	2,360	4,138	695	123
Baltimore City	6,777	3,452	3,325	2,080	4,642	55
Baltimore	8,848	4,348	4,500	6,857	1,791	200
Calvert	827	442	385	694	s	<10
Caroline	365	193	172	309	s	<10
Carroll	1,621	836	785	1,566	40	15
Cecil	1,097	619	478	1,033	s	<10
Charles	1,255	635	620	766	455	34
Dorchester	470	253	217	343	s	<10
Frederick	2,032	1,080	952	1,836	152	44
Garrett	322	178	144	319	<10	<10
Harford	2,475	1,318	1,157	2,181	261	33
Howard	1,900	951	949	1,368	356	176
Kent	262	135	127	219	s	<10
Montgomery	7,092	3,331	3,761	5,125	1,212	755
Prince George's	6,987	3,428	3,559	1,924	4,845	218
Queen Anne's	504	281	223	454	s	<10
St. Mary's	979	536	443	824	140	15
Somerset	295	168	127	218	s	<10
Talbot	480	257	223	411	s	<10
Washington	1,586	833	753	1,505	69	12
Wicomico	1,177	618	559	886	280	11
Worcester	784	424	360	687	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 C for methods)

Source: CDC WONDER, 2014-2018, as of May 5, 2021

Table 10.
All Cancer Sites Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2014-2018

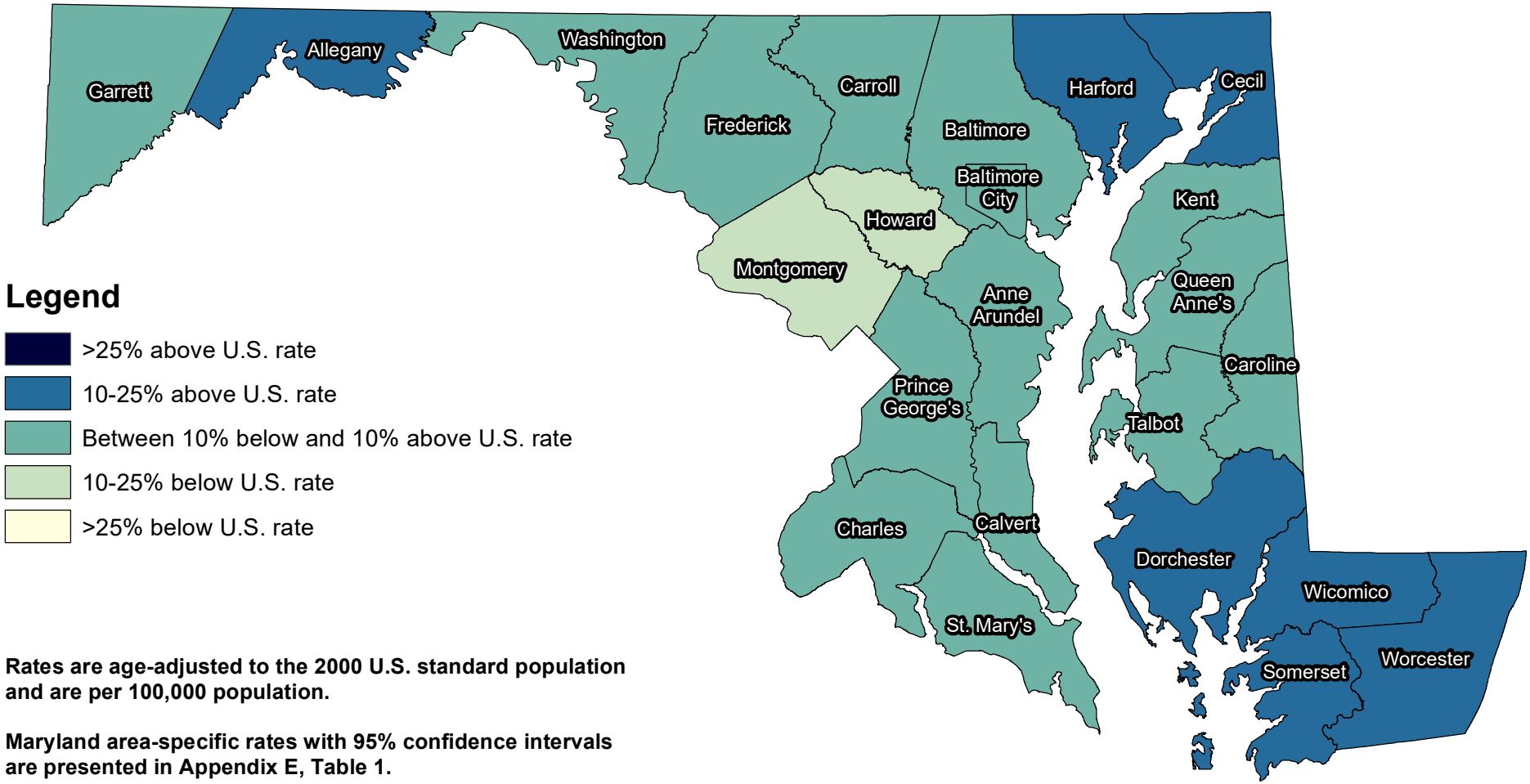
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	154.8	182.7	135.5	153.0	174.0	83.1
Allegany	165.4	198.0	142.5	167.9	**	**
Anne Arundel	156.7	187.4	134.5	156.2	172.0	107.5
Baltimore City	206.9	256.2	174.3	192.7	218.2	75.9
Baltimore	164.0	192.1	145.7	166.7	167.3	90.8
Calvert	158.2	187.6	137.0	157.4	179.0	**
Caroline	179.1	214.6	153.3	176.7	203.9	**
Carroll	152.1	178.8	132.6	154.1	128.7	**
Cecil	185.5	229.1	150.0	185.7	219.3	**
Charles	161.4	189.6	141.8	164.4	161.5	93.6
Dorchester	191.4	230.4	162.9	185.5	218.4	**
Frederick	147.4	179.4	125.2	148.2	169.3	82.4
Garrett	139.9	174.1	113.6	139.8	**	**
Harford	163.4	202.4	136.7	163.4	185.9	74.4
Howard	117.2	133.6	105.1	121.1	139.7	71.1
Kent	144.0	171.1	124.2	138.1	178.2	**
Montgomery	115.6	127.6	108.1	118.2	136.4	81.2
Prince George's	154.7	182.9	136.7	156.9	158.8	88.1
Queen Anne's	148.8	178.1	125.0	147.1	191.5	**
St. Mary's	169.9	197.0	147.1	171.9	174.9	**
Somerset	187.2	224.0	157.7	190.0	195.2	**
Talbot	130.0	155.1	111.1	122.0	189.2	**
Washington	163.7	191.6	142.7	166.1	140.6	**
Wicomico	197.9	238.5	169.6	193.6	227.2	**
Worcester	167.1	199.5	141.9	163.5	209.0	**

* 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, 2014-2018, as of May 5, 2021

Maryland All Sites Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2014-2018



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

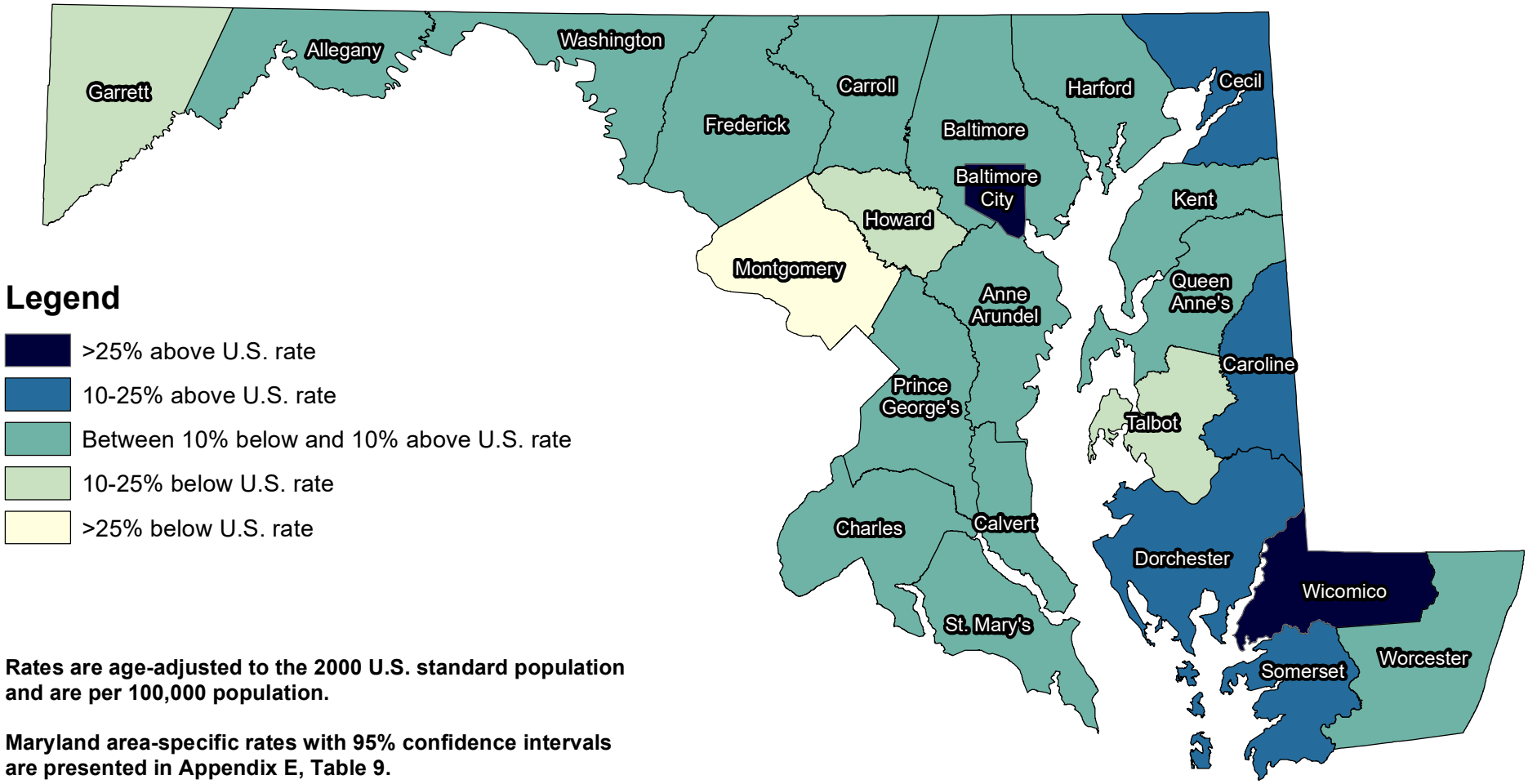
Maryland area-specific rates with 95% confidence intervals are presented in Appendix E, Table 1.

U.S. all sites cancer incidence rate, 2014-2018: 442.4 / 100,000

Maryland all sites cancer incidence rate, 2014-2018: 446.1 / 100,000

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

Maryland All Sites Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2014-2018



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 sites cancer mortality rate, 2014-2018: 155.5 / 100,000

Maryland all sites cancer mortality rate, 2014-2018: 154.8 / 100,000

Sources: CDC WONDER
U.S. SEER, Cancer Statistics Review

III. Targeted Cancers

A. Lung and Bronchus Cancer

Incidence (New Cases)

There were 3,807 new cases of lung and bronchus cancer (collectively called lung cancer) reported among Maryland residents in 2018. The 2018 Maryland age-adjusted lung cancer incidence rate was 50.6 per 100,000 population (49.0-52.3, 95% CI), which is statistically significantly higher than the 2018 U.S. SEER lung cancer incidence rate of 47.7 per 100,000 population (47.3-48.1, 95% CI).

Mortality (Deaths)

There were 2,468 lung cancer deaths among Maryland residents in 2018. In 2018, lung cancer accounted for 22.6% of all cancer deaths in Maryland and was the leading cause of cancer death in both men and women. The 2018 age-adjusted lung cancer mortality rate was 33.4 per 100,000 population (32.0-34.7, 95% CI) in Maryland. This rate is not statistically significantly lower than the 2018 U.S. mortality rate for lung and bronchus cancer of 34.8 per 100,000 population (34.6-34.9, 95% CI). Maryland had the 31st highest lung cancer mortality rate among the states and the District of Columbia for the period from 2014 to 2018.

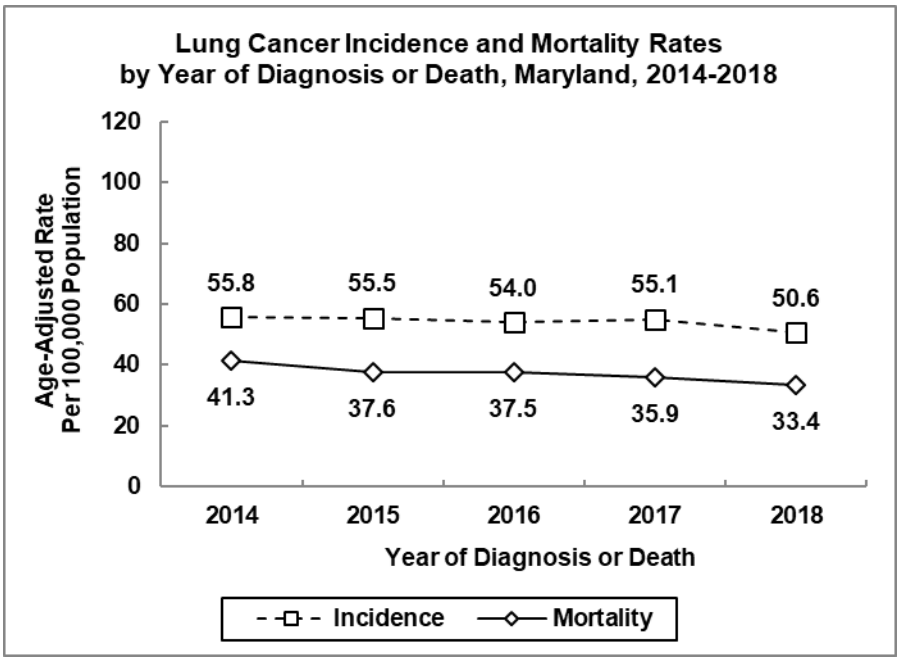
Table 11.
Lung Cancer Incidence and Mortality Rates
by Gender and Race, Maryland (MD) and the United States, 2018

Incidence 2018	*Total**	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD New Cases (count)	3,807	1,839	1,967	2,691	984	127
MD Incidence Rate	50.6	55.6	47.0	53.1	49.6	27.0
U.S. SEER Rate	47.7	53.4	43.4	48.9	53.0	32.2
Mortality 2018	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (count)	2,468	1,267	1,201	1,705	686	77
MD Mortality Rate	33.4	39.2	28.8	34.1	35.4	17.4
U.S. Mortality Rate	34.8	41.8	29.3	35.6	35.9	19.6

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 jurisdiction

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat
NCHS Underlying Cause of Death in CDC WONDER, 2018
U.S. SEER, Cancer Statistics Review



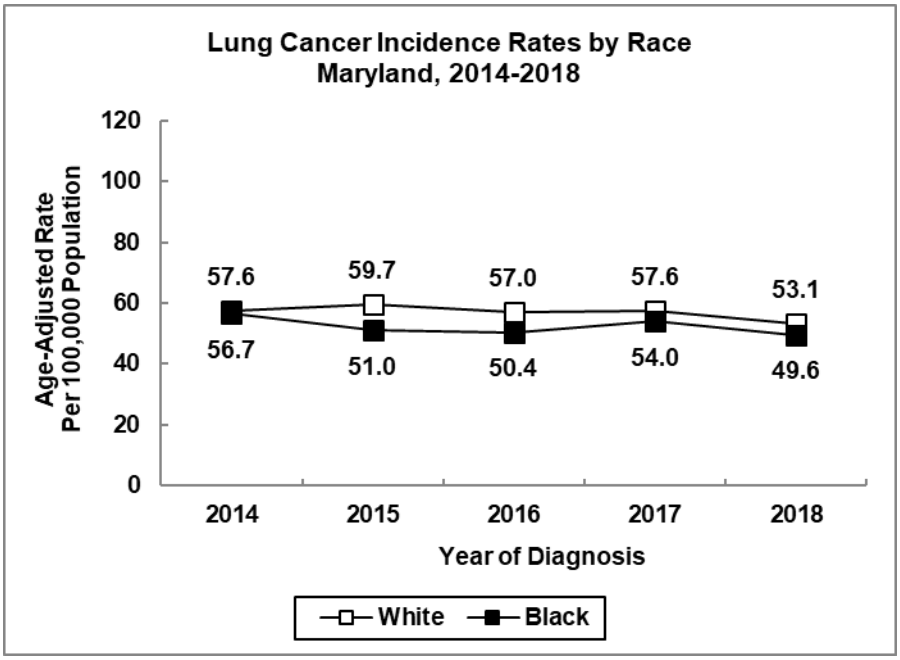
Source: Maryland Cancer Registry
NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Incidence and Mortality Trends

Lung cancer incidence rates in Maryland decreased at a rate of 2.0% per year from 2014 to 2018.

Lung cancer mortality rates decreased at a rate of 4.6% per year from 2014 to 2018.

See Appendix F, Tables 1 and 2.

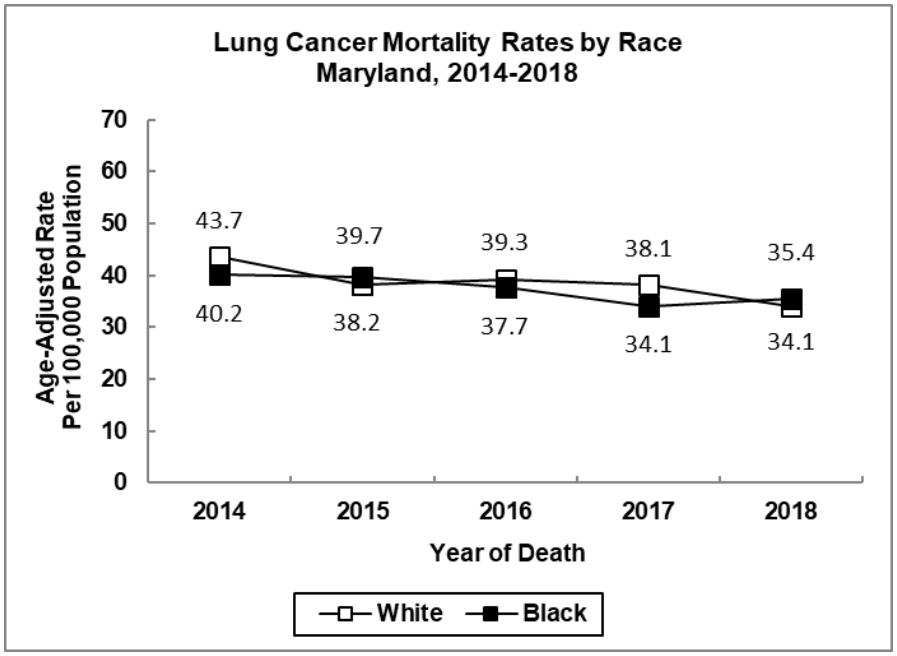


Source: Maryland Cancer Registry

Incidence Trends by Race

From 2014 to 2018, lung cancer incidence rates for blacks decreased at a rate of 2.1% per year, compared to a decline of 2.0% per year among whites.

See Appendix F, Table 3.

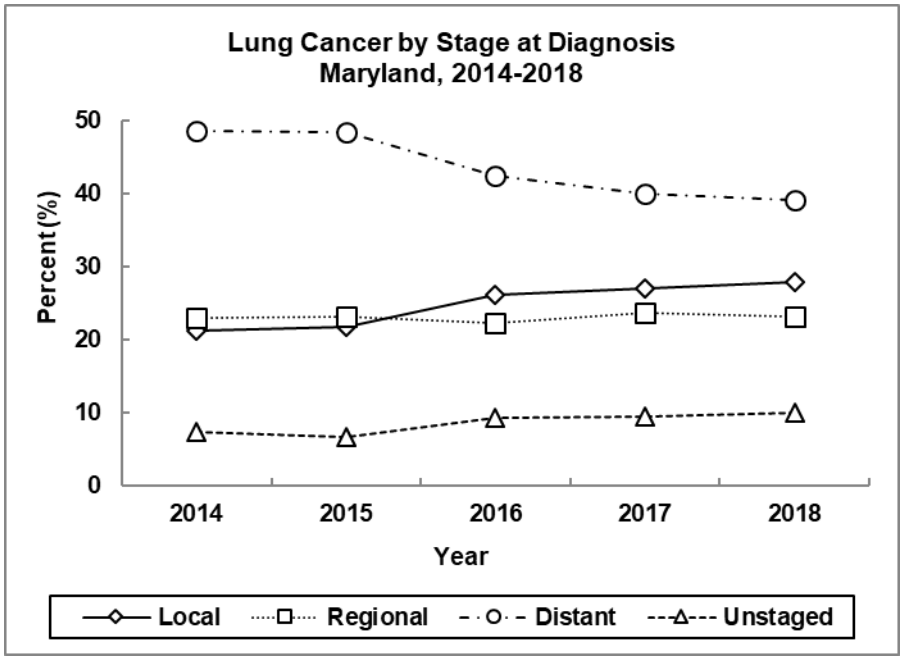


Source: NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Mortality Trends by Race

Lung cancer mortality rates are declining for both blacks and whites. From 2014 to 2018, rates decreased at a rate of 4.9% per year for whites and 4.0% per year for blacks.

See Appendix F, Table 5.

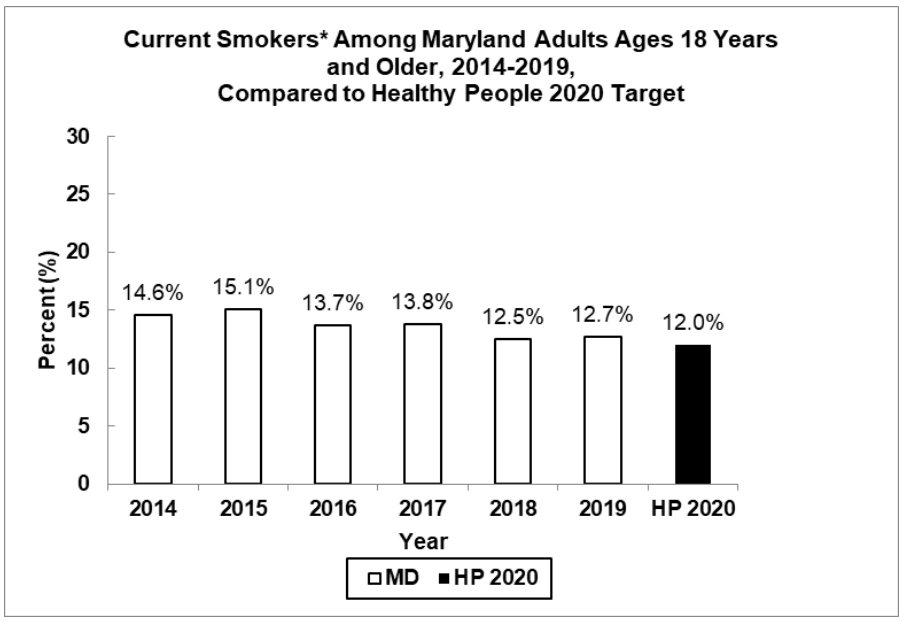


Source: Maryland Cancer Registry
Note: Due to a methodology change, SEER summary stage 2000 was used in 2016-2018, while the derived SEER summary stage 2000 was used from 2014-2015

Stage at Diagnosis

A higher proportion of lung cancer cases were diagnosed at the distant stage than at the local or regional stage. In 2018, 27.8% of lung cancer cases in Maryland were diagnosed at the local stage, 23.1% at the regional stage, and 39.2% at the distant stage. The proportion of lung cancers reported as unstaged increased 9.9% per year from 2014 to 2018.

See Appendix G, Table 2.

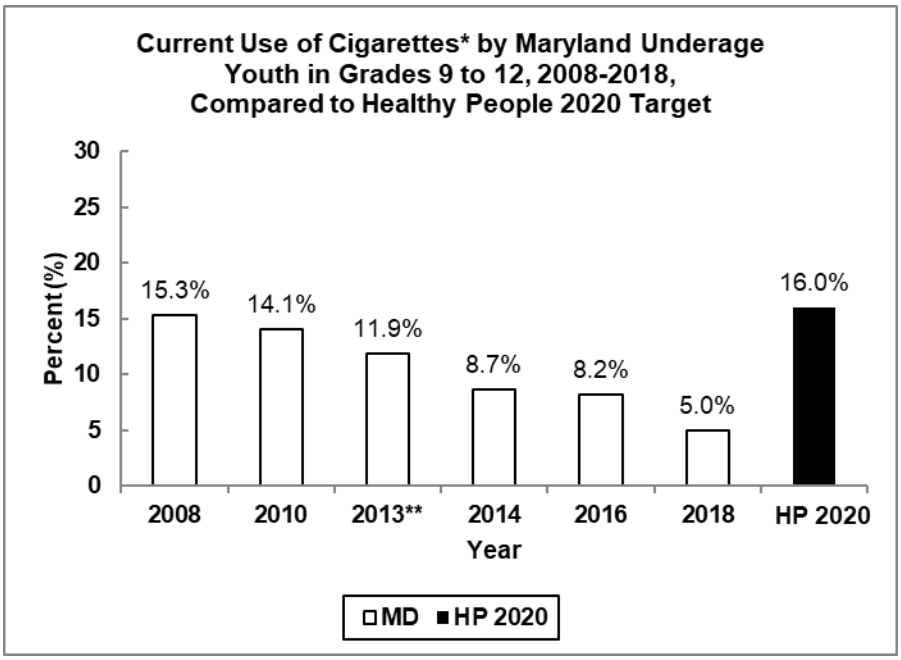


Source: Maryland BRFSS, 2014-2019
Healthy People 2020, U.S. Department of Health and Human Services

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

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 14.6% in 2014 to 12.7% in 2019.



Source: Maryland Youth Tobacco Survey, 2008, 2010
Maryland Youth Tobacco and Risk Behavior Survey, 2013, 2014, 2016, 2018
Healthy People 2020, U.S. Department of Health and Human Services

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

**During the 2012-2013 school year, the Youth Tobacco Survey (YTS) merged with the Youth Risk Behavior Survey (YRBS) and data were collected in the fall of 2013

Cigarette Use by Maryland Youth

Another Healthy People 2020 target is to reduce the percentage of youth in grades 9 to 12 who have smoked cigarettes in the previous 30 days to 16.0%.

Since 2006, Maryland has met the Healthy People 2020 target for current cigarette use among high school students. In 2018, only 5.0% of Maryland youth in grades 9 to 12 reported smoking cigarettes in the previous 30 days.

Table 12.
Number of Lung and Bronchus Cancer Cases by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	3,807	1,839	1,967	2,691	984	127
Allegany	74	48	26	s	<6	0
Anne Arundel	367	179	188	316	43	8
Baltimore City	534	268	266	160	370	<6
Baltimore	735	339	396	581	136	18
Calvert	54	31	23	51	<6	0
Caroline	28	18	10	22	6	0
Carroll	122	70	52	122	0	0
Cecil	95	54	41	90	<6	<6
Charles	92	43	48	61	28	<6
Dorchester	41	25	16	31	s	<6
Frederick	139	63	76	132	<6	<6
Garrett	17	10	7	17	0	0
Harford	212	102	110	190	17	<6
Howard	118	58	60	84	19	15
Kent	17	8	9	14	<6	0
Montgomery	375	163	212	267	48	57
Prince George's	352	146	206	102	237	11
Queen Anne's	33	16	17	30	<6	0
St Mary's	76	40	36	70	<6	<6
Somerset	28	14	14	18	10	0
Talbot	32	18	14	27	<6	0
Washington	128	56	72	120	8	0
Wicomico	80	37	43	64	16	0
Worcester	54	31	23	46	8	0

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

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 13.
Lung and Bronchus Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	50.6	55.6	47.0	53.1	49.6	27.0
Allegany	67.1	95.1	44.9	68.4	**	0.0
Anne Arundel	52.6	57.4	49.0	54.2	48.8	**
Baltimore City	76.4	94.0	64.8	70.5	80.5	**
Baltimore	66.3	71.3	63.1	70.8	58.6	34.7
Calvert	47.0	61.5	36.6	53.2	**	0.0
Caroline	63.2	89.6	**	58.3	**	0.0
Carroll	53.1	66.7	41.1	55.8	0.0	0.0
Cecil	72.7	90.0	56.8	73.3	**	**
Charles	53.0	58.0	49.1	59.1	42.6	**
Dorchester	82.5	107.5	62.0	84.3	**	**
Frederick	43.5	42.4	44.0	45.9	**	**
Garrett	33.4	**	**	33.7	0.0	0.0
Harford	63.7	67.9	60.1	65.8	48.5	**
Howard	33.1	34.8	31.5	33.4	34.1	**
Kent	47.3	**	**	**	**	0.0
Montgomery	28.7	28.1	29.0	29.7	25.4	26.5
Prince George's	35.7	35.5	36.2	40.1	35.2	**
Queen Anne's	42.9	44.1	42.2	42.9	**	0.0
St Mary's	63.5	69.4	58.9	70.4	**	**
Somerset	79.0	**	**	67.7	**	0.0
Talbot	46.3	54.9	**	44.4	**	0.0
Washington	62.7	59.5	64.9	63.3	**	0.0
Wicomico	61.7	64.3	60.0	65.0	62.3	0.0
Worcester	49.0	62.8	39.3	47.1	**	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, SEER*Stat Static data as of March 03, 2021

Table 14.
Number of Deaths for Lung and Bronchus Cancer by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2,468	1,267	1,201	1,705	686	77
Allegany	47	30	17	s	<10	<10
Anne Arundel	227	113	114	198	s	<10
Baltimore City	361	186	175	s	253	<10
Baltimore	431	206	225	341	s	<10
Calvert	33	19	14	27	<10	<10
Caroline	19	<10	s	15	<10	<10
Carroll	83	50	33	82	<10	<10
Cecil	68	40	28	65	<10	<10
Charles	50	25	25	26	s	<10
Dorchester	27	s	<10	20	<10	<10
Frederick	89	46	43	82	<10	<10
Garrett	12	<10	<10	s	<10	<10
Harford	107	66	41	94	s	<10
Howard	68	35	33	53	<10	<10
Kent	15	<10	<10	11	<10	<10
Montgomery	246	109	137	183	28	35
Prince George's	277	145	132	81	185	11
Queen Anne's	28	s	<10	26	<10	<10
St. Mary's	56	29	27	50	<10	<10
Somerset	28	12	16	18	s	<10
Talbot	15	<10	<10	13	<10	<10
Washington	85	44	41	78	<10	<10
Wicomico	56	23	33	42	s	<10
Worcester	40	24	16	36	<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 C for methods)

Source: CDC WONDER, 2018, as of May 5, 2021

Table 15.
Lung and Bronchus Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	33.4	39.2	28.8	34.1	35.4	17.4
Allegany	44.3	61.7	**	46.1	**	
Anne Arundel	34.7	38.3	32.0	36.3	27.2	**
Baltimore City	52.5	65.9	43.3	47.9	55.9	**
Baltimore	38.9	44.2	35.4	41.7	36.5	**
Calvert	27.7	**	**	26.3	**	**
Caroline	**	**	**	**	**	**
Carroll	37.3	51.7	25.8	38.7	**	**
Cecil	53.9	64.9	41.7	54.8	**	**
Charles	28.6	31.1	26.7	24.9	37.3	**
Dorchester	55.9	**	**	58.2	**	**
Frederick	29.9	33.8	26.0	30.6	**	**
Garrett	**	**	**	**	**	**
Harford	33.5	47.1	22.4	33.7	**	**
Howard	20.0	22.9	17.8	22.3	**	**
Kent	**	**	**	**	**	**
Montgomery	18.5	19.6	17.6	19.6	15.4	17.4
Prince George's	28.6	35.5	23.8	31.8	27.5	**
Queen Anne's	37.9	**	**	38.5	**	**
St. Mary's	45.2	46.8	44.3	48.8	**	**
Somerset	83.6	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	40.8	45.2	36.3	39.8	**	**
Wicomico	43.1	38.9	45.7	41.5	**	**
Worcester	38.5	51.9	**	39.4	**	**

* 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, 2018, as of May 5, 2021

Table 16.
Number of Lung and Bronchus Cancer Cases by Jurisdiction, Gender, and Race, Maryland, 2014-2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	19,154	9,312	9,840	13,712	4,826	560
Allegany	402	220	182	389	13	0
Anne Arundel	1,951	937	1,014	1,694	215	41
Baltimore City	2,672	1,322	1,350	905	1,741	24
Baltimore	3,432	1,572	1,860	2,750	609	68
Calvert	278	131	147	250	25	<6
Caroline	139	77	62	123	16	0
Carroll	596	312	284	577	18	0
Cecil	536	289	247	515	18	<6
Charles	414	213	200	293	113	8
Dorchester	158	86	72	117	s	<6
Frederick	677	352	325	620	43	12
Garrett	103	61	42	s	<6	0
Harford	1,048	521	527	917	112	19
Howard	587	278	309	453	71	60
Kent	94	41	53	73	21	0
Montgomery	1,824	843	981	1,308	241	253
Prince George's	1,919	898	1,020	587	1,262	55
Queen Anne's	215	115	100	193	22	0
St Mary's	390	203	187	343	43	<6
Somerset	133	78	55	102	31	0
Talbot	158	71	87	139	19	0
Washington	652	305	347	610	37	<6
Wicomico	467	227	240	382	78	<6
Worcester	288	151	137	257	29	<6

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

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 17.
Lung and Bronchus Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2014-2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	54.1	59.9	49.9	56.9	52.3	26.6
Allegany	75.3	90.5	62.5	75.5	**	0.0
Anne Arundel	60.2	64.8	57.2	62.2	53.1	37.2
Baltimore City	80.0	95.1	70.1	83.8	79.4	32.9
Baltimore	64.7	68.8	62.0	69.1	56.7	29.3
Calvert	52.7	56.7	51.1	56.5	33.1	**
Caroline	65.1	79.3	54.6	67.7	56.5	0.0
Carroll	54.5	63.0	47.4	55.4	53.7	0.0
Cecil	86.9	101.3	75.2	88.7	67.2	**
Charles	51.5	60.6	44.9	60.1	40.4	**
Dorchester	63.7	75.8	54.9	62.7	72.0	**
Frederick	47.2	55.1	41.1	47.9	51.2	**
Garrett	43.1	52.1	34.3	43.1	**	0.0
Harford	67.3	77.2	60.5	67.1	76.1	42.8
Howard	35.2	36.6	34.2	38.7	27.8	24.6
Kent	55.6	52.8	57.0	49.8	88.7	0.0
Montgomery	29.8	31.6	28.6	30.4	27.9	26.4
Prince George's	41.6	45.4	38.7	48.0	39.9	22.9
Queen Anne's	63.5	71.9	56.3	62.0	95.4	0.0
St Mary's	66.1	69.9	62.6	69.8	52.3	**
Somerset	80.7	96.6	67.4	84.7	76.7	0.0
Talbot	44.2	41.0	46.9	43.4	52.6	0.0
Washington	66.9	68.5	65.3	67.0	67.5	**
Wicomico	76.8	83.7	71.9	81.5	62.3	**
Worcester	58.9	68.3	51.6	58.6	64.9	**

* 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, SEER*Stat Static data as of March 03, 2021

Table 18.
Number of Deaths for Lung and Bronchus Cancer by Jurisdiction, Gender, and Race, Maryland, 2014-2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	13,011	6,678	6,333	9,289	3,371	351
Allegany	250	137	113	249	<10	<10
Anne Arundel	1,281	648	633	1,131	130	20
Baltimore City	1,850	962	888	600	1,232	18
Baltimore	2,248	1,089	1,159	1,830	374	44
Calvert	190	94	96	165	s	<10
Caroline	111	59	52	96	s	<10
Carroll	412	231	181	405	<10	<10
Cecil	354	199	155	337	s	<10
Charles	279	149	130	189	s	<10
Dorchester	124	72	52	101	s	<10
Frederick	449	250	199	418	s	<10
Garrett	68	42	26	67	<10	<10
Harford	639	349	290	561	67	11
Howard	370	178	192	299	39	32
Kent	63	32	31	49	s	<10
Montgomery	1,283	600	683	970	165	148
Prince George's	1,447	733	714	446	950	51
Queen Anne's	154	87	67	136	s	<10
St. Mary's	285	159	126	239	s	<10
Somerset	109	58	51	81	s	<10
Talbot	99	48	51	85	s	<10
Washington	421	214	207	399	s	<10
Wicomico	317	170	147	251	s	<10
Worcester	208	118	90	185	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 C for methods)

Source: CDC WONDER, 2014-2018, as of May 5, 2021

Table 19.
Lung and Bronchus Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2014-2018

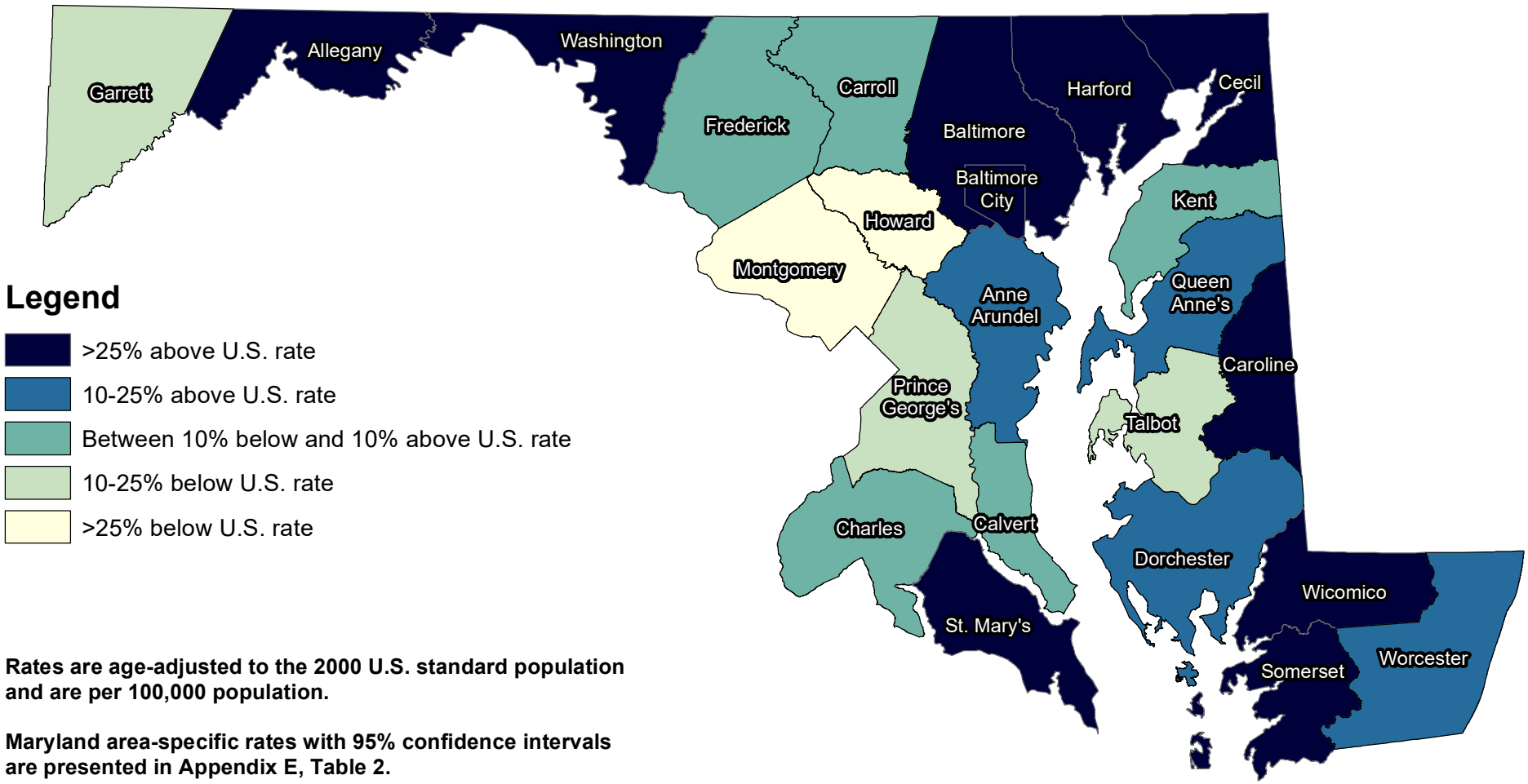
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	37.1	43.9	32.0	38.6	37.3	17.4
Allegany	47.0	57.5	38.2	48.5	**	**
Anne Arundel	40.3	45.8	36.1	42.3	32.2	19.8
Baltimore City	56.0	70.6	46.2	55.7	57.2	**
Baltimore	41.8	47.9	37.5	45.1	34.4	19.7
Calvert	36.5	39.1	34.6	37.7	30.5	**
Caroline	53.9	66.0	44.7	54.6	**	**
Carroll	37.9	48.0	30.1	38.9	**	**
Cecil	59.3	73.6	48.2	60.0	**	**
Charles	35.7	43.5	30.1	39.8	31.4	**
Dorchester	48.7	64.5	36.9	51.9	40.4	**
Frederick	32.4	40.5	26.1	33.4	33.1	**
Garrett	28.3	37.0	20.2	28.2	**	**
Harford	42.0	54.3	33.6	41.8	47.9	**
Howard	23.1	24.8	21.8	26.5	16.1	13.5
Kent	36.2	40.3	32.3	32.5	**	**
Montgomery	20.9	22.9	19.4	22.4	19.2	16.0
Prince George's	31.8	38.1	27.3	36.2	30.7	21.5
Queen Anne's	44.2	52.8	36.8	42.5	**	**
St. Mary's	49.0	57.5	41.5	49.4	52.3	**
Somerset	68.0	75.9	60.8	68.1	73.2	**
Talbot	28.1	28.3	28.0	26.8	**	**
Washington	43.1	48.3	39.2	43.8	**	**
Wicomico	52.8	64.6	43.7	54.1	53.0	**
Worcester	42.5	53.2	34.0	42.2	48.3	**

* 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, 2014-2018, as of May 5, 2021

Maryland Lung Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2014-2018



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

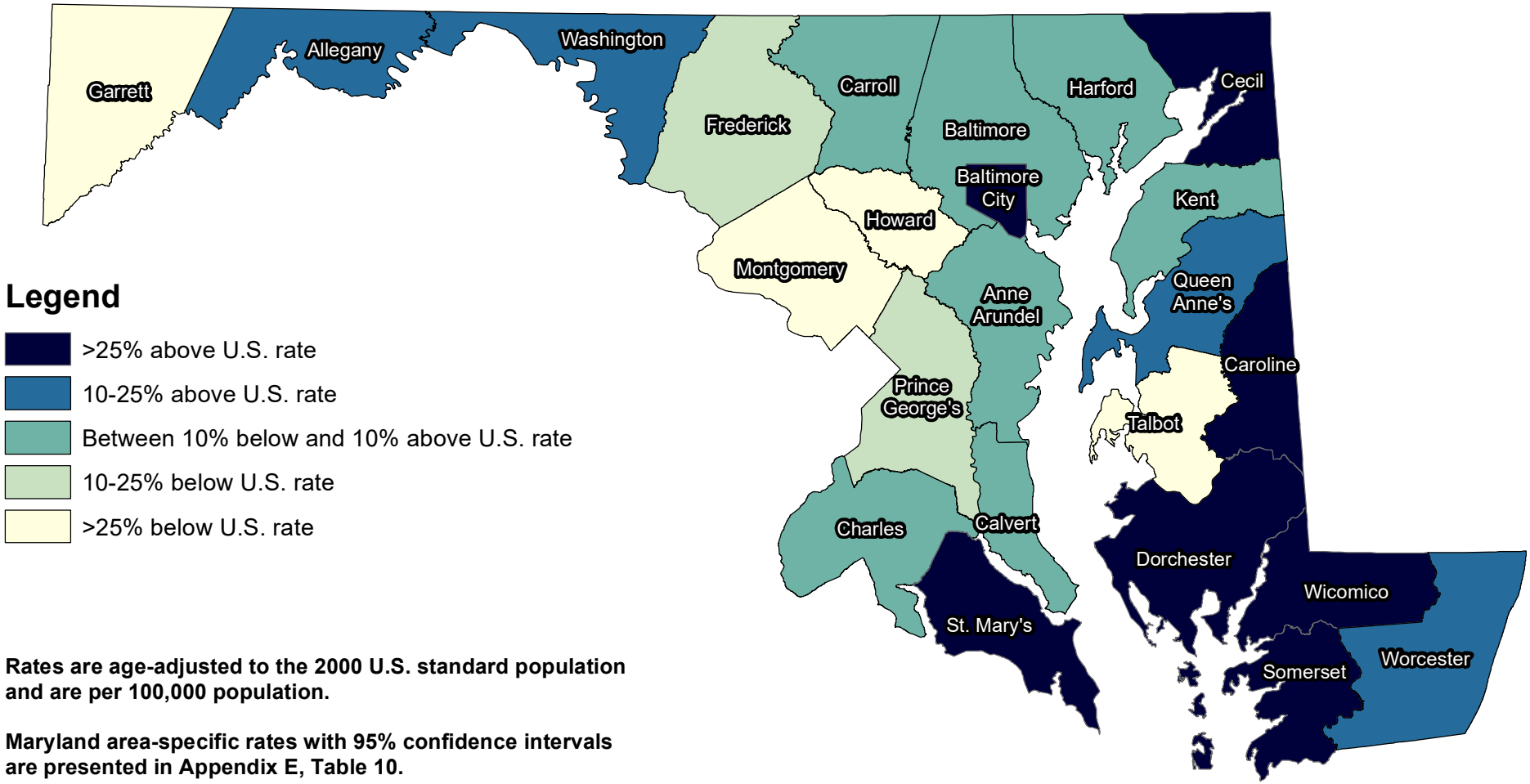
Maryland area-specific rates with 95% confidence intervals are presented in Appendix E, Table 2.

U.S. lung cancer incidence rate, 2014-2018: 51.4 / 100,000

Maryland lung cancer incidence rate, 2014-2018: 54.1 / 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, 2014-2018



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, 2014-2018: 38.5 / 100,000

Maryland lung cancer mortality rate, 2014-2018: 37.1 / 100,000

Sources: CDC WONDER
U.S. SEER, Cancer Statistics Review

B. Colorectal Cancer

Incidence (New Cases)

In 2018, there were 2,597 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 2018 was 36.4 per 100,000 population (35.0-37.9, 95% CI), which is not statistically significantly different than the 2018 U.S. SEER age-adjusted colorectal cancer incidence rate of 36.4 per 100,000 population (36.1-36.8, 95% CI).

Mortality (Deaths)

A total of 982 persons died of colorectal cancer in 2018 in Maryland. In 2018, colorectal cancer accounted for 9.0% 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 13.6 per 100,000 population (12.7-14.5, 95% CI). This rate is similar to the 2018 U.S. colorectal cancer mortality rate of 13.1 per 100,000 population (13.0-13.2, 95% CI). Maryland had the 26th highest colorectal cancer mortality rate among the states and the District of Columbia for the period from 2014 to 2018.

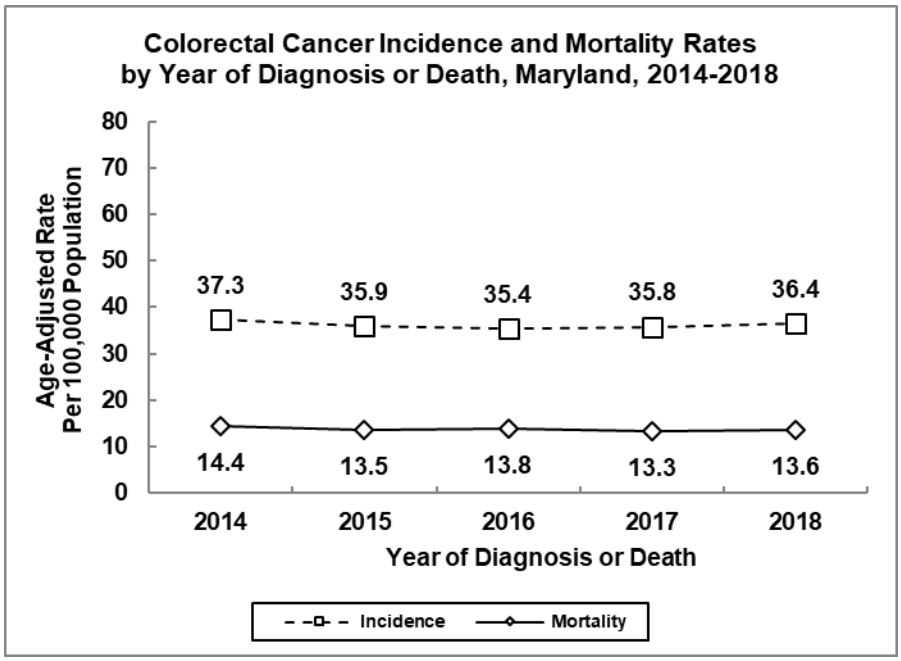
Table 20.
Colorectal Cancer Incidence and Mortality Rates
by Gender and Race, Maryland (MD) and the United States, 2018

Incidence 2018	*Total**	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD New Cases (count)	2,597	1,327	1,270	1,635	801	129
MD Incidence Rate	36.4	41.1	32.8	35.0	40.8	26.7
U.S. SEER Rate	36.4	41.5	32.1	36.1	41.4	28.3
Mortality 2018	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (count)	982	528	454	617	327	38
MD Mortality Rate	13.6	16.5	11.3	12.7	17.3	8.0
U.S. Mortality Rate	13.1	15.8	10.9	12.9	16.8	9.0

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 jurisdiction

Source: Maryland Cancer Registry
U.S. SEER, SEER*Stat
NCHS Underlying Cause of Death in CDC WONDER, 2018
U.S. SEER, Cancer Statistics Review



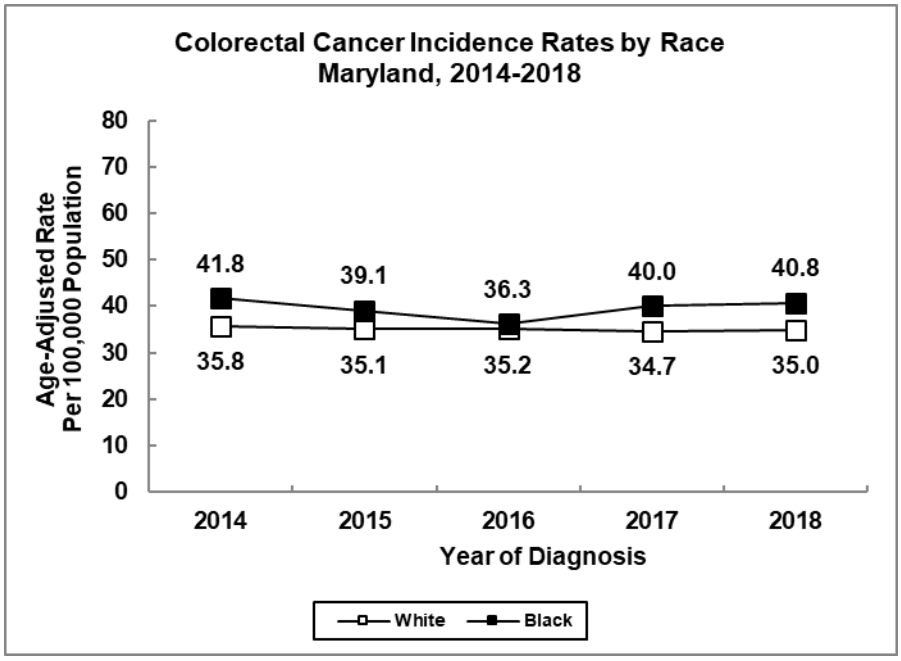
Source: Maryland Cancer Registry
NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Incidence and Mortality Trends

Incidence rates for colorectal cancer overall have been declining in Maryland. From 2014 to 2018, incidence rates declined at a rate of 0.5% per year.

Colorectal cancer mortality rates declined at a rate of 1.3% per year from 2014 to 2018.

See Appendix F, Tables 1 and 2.

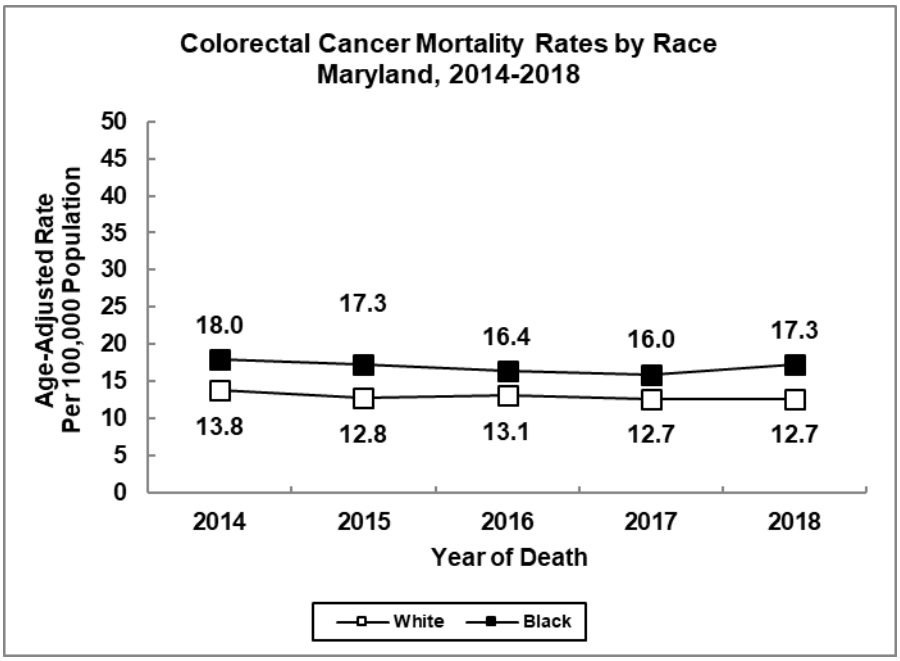


Source: Maryland Cancer Registry

Incidence Trends by Race

From 2014 to 2018 colorectal cancer incidence rates declined for blacks at a rate of 0.3% per year, and 0.6% per year for whites. In 2018, the incidence rate for colorectal cancer was 40.8 per 100,000 population for blacks and 35.0 per 100,000 population for whites in Maryland.

See Appendix F, Table 3.

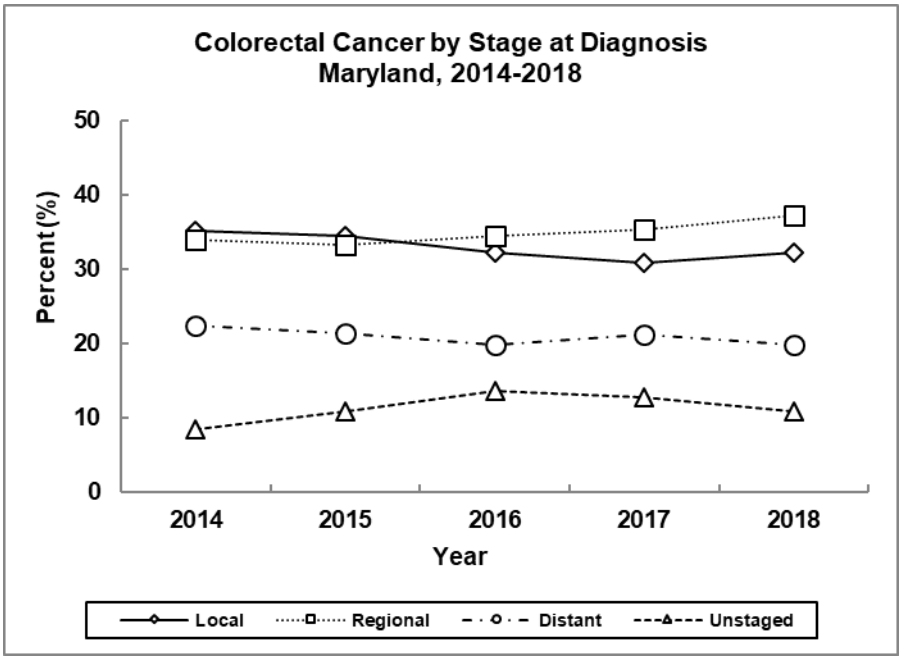


Source: NCHS Underlying Cause of Death in CDC WONDER, 2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Mortality Trends by Race

From 2014 to 2018, colorectal cancer mortality rates declined at a rate of 1.7% per year for whites and a rate of 1.6% per year for blacks. In 2018, the age-adjusted colorectal cancer mortality rate was 17.3 per 100,000 for blacks and 12.7 per 100,000 for whites.

See Appendix F, Table 5.

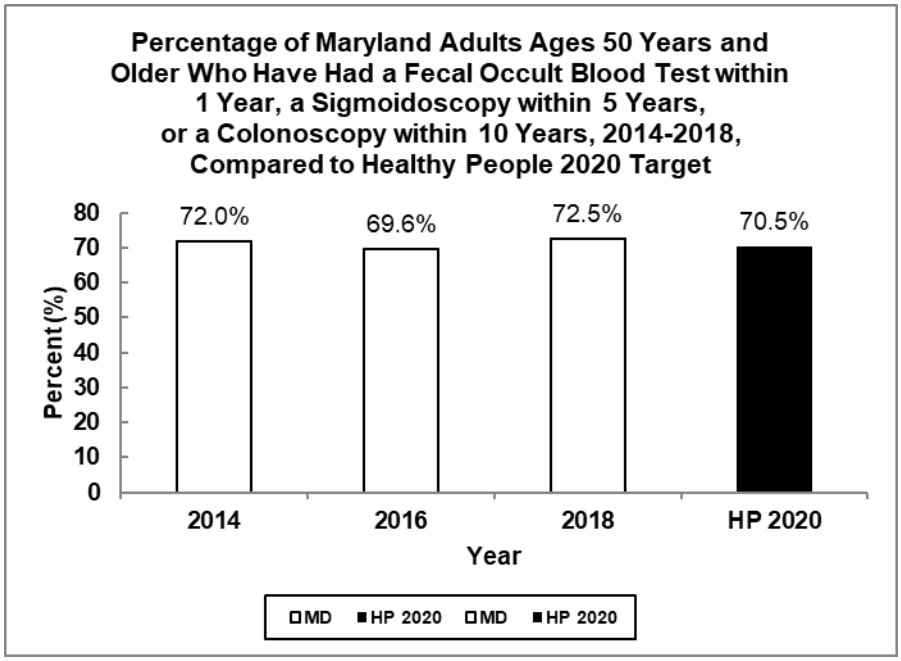


Source: Maryland Cancer Registry
Note: Due to a methodology change, SEER summary stage 2000 was used in 2016-2018, while the derived SEER summary stage 2000 was used from 2014-2015

Stage at Diagnosis

In 2018, 32.2% of colorectal cancers diagnosed in Maryland were detected at the local stage, 37.2% at the regional stage, and 19.8% at the distant stage. In 2018, 10.9% of colorectal cancers diagnosed were reported as unstaged. The proportion of colorectal cancers reported as unstaged increased 7.2% per year from 2014 to 2018.

See Appendix G, Table 3.



Source: Maryland BRFSS 2014, 2016, 2018
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 old who have had a blood stool test in the past year, sigmoidoscopy in the past five years and blood stool test in the past three 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 aims to increase the proportion of adults age 50 years and older who are screened based on recent guidelines to 70.5%.* The percent of Maryland adults ages 50 years and older who were up-to-date for colorectal cancer screening in 2018 (72.5%) was slightly above the Healthy People target of 70.5%.

Table 21.
Number of Colorectal Cancer Cases by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2,597	1,327	1,270	1,635	801	129
Allegany	35	21	14	33	<6	0
Anne Arundel	235	127	108	185	43	6
Baltimore City	304	156	148	91	210	<6
Baltimore	391	197	194	285	88	15
Calvert	39	23	16	32	6	0
Caroline	23	12	11	18	<6	0
Carroll	73	36	37	70	<6	<6
Cecil	51	24	27	47	<6	0
Charles	60	30	30	26	31	<6
Dorchester	28	16	12	23	<6	0
Frederick	94	56	38	82	9	<6
Garrett	20	12	8	s	0	<6
Harford	134	61	73	113	21	0
Howard	108	55	53	63	28	16
Kent	10	7	<6	s	<6	0
Montgomery	361	169	192	230	57	58
Prince George's	355	182	173	87	241	20
Queen Anne's	29	12	17	27	<6	0
St Mary's	42	21	21	33	s	<6
Somerset	11	<6	7	<6	6	0
Talbot	20	10	10	17	<6	<6
Washington	78	47	31	68	8	<6
Wicomico	48	26	22	35	13	0
Worcester	35	16	19	28	7	0

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

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 22.
Colorectal Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	36.4	41.1	32.8	35.0	40.8	26.7
Allegany	36.0	44.9	**	36.0	**	0.0
Anne Arundel	35.8	42.0	30.9	34.9	44.2	**
Baltimore City	45.6	55.5	39.5	41.4	48.4	**
Baltimore	38.2	43.5	34.5	39.4	37.7	**
Calvert	37.3	44.5	32.5	36.6	**	0.0
Caroline	57.2	**	**	54.0	**	0.0
Carroll	34.7	37.4	32.5	34.7	**	**
Cecil	40.0	34.6	44.0	38.4	**	0.0
Charles	34.6	38.4	32.0	26.3	46.6	**
Dorchester	67.5	86.4	**	77.7	**	0.0
Frederick	31.3	39.8	24.5	30.9	**	**
Garrett	49.4	**	**	46.9	0.0	**
Harford	43.6	42.4	45.2	42.7	64.2	0.0
Howard	30.8	32.4	28.6	27.4	45.1	26.3
Kent	**	**	**	**	**	0.0
Montgomery	28.7	30.0	27.7	27.5	28.9	26.8
Prince George's	36.5	41.9	32.5	34.3	36.8	37.1
Queen Anne's	40.7	**	43.7	42.1	**	0.0
St Mary's	33.3	35.5	31.7	32.7	**	**
Somerset	**	**	**	**	**	0.0
Talbot	29.9	**	**	30.3	**	**
Washington	39.6	52.1	28.2	37.2	**	**
Wicomico	40.4	47.5	34.9	40.4	**	0.0
Worcester	37.3	35.7	38.8	32.8	**	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, SEER*Stat Static data as of March 03, 2021

Table 23.
Number of Deaths for Colorectal Cancer by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	982	528	454	617	327	38
Allegany	14	<10	<10	12	<10	<10
Anne Arundel	76	46	30	56	s	<10
Baltimore City	120	53	67	s	92	<10
Baltimore	153	86	67	115	s	<10
Calvert	<10	<10	<10	<10	<10	<10
Caroline	<10	<10	<10	<10	<10	<10
Carroll	36	14	22	34	<10	<10
Cecil	17	s	<10	14	<10	<10
Charles	24	s	<10	<10	16	<10
Dorchester	<10	<10	<10	<10	<10	<10
Frederick	42	21	21	37	<10	<10
Garrett	12	<10	<10	s	<10	<10
Harford	45	26	19	35	<10	<10
Howard	37	22	15	24	<10	<10
Kent	<10	<10	<10	<10	<10	<10
Montgomery	147	72	75	101	34	12
Prince George's	126	70	56	s	89	<10
Queen Anne's	<10	<10	<10	<10	<10	<10
St. Mary's	15	<10	<10	14	<10	<10
Somerset	<10	<10	<10	<10	<10	<10
Talbot	<10	<10	<10	<10	<10	<10
Washington	39	27	12	s	<10	<10
Wicomico	19	s	<10	16	<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 C for methods)

Source: CDC WONDER, 2018, as of May 5, 2021

Table 24.
Colorectal Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	13.6	16.5	11.3	12.7	17.3	8.0
Allegany	**	**	**	**	**	**
Anne Arundel	11.4	15.3	8.2	10.1	**	**
Baltimore City	17.8	20.3	16.7	12.0	21.1	**
Baltimore	14.0	18.0	11.0	14.1	15.8	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	16.0	**	18.6	15.9	**	**
Cecil	**	**	**	**	**	**
Charles	15.0	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	13.6	14.3	12.6	13.8	**	**
Garrett	**	**	**	**	**	**
Harford	14.3	17.8	**	12.7	**	**
Howard	10.4	13.2	**	9.6	**	**
Kent	**	**	**	**	**	**
Montgomery	11.8	12.9	10.7	11.9	18.3	**
Prince George's	13.3	17.1	10.5	12.7	14.0	**
Queen Anne's	**	**	**	**	**	**
St. Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	19.9	29.6	**	21.8	**	**
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, 2018, as of May 5, 2021

Table 25.
Number of Colorectal Cancer Cases by Jurisdiction, Gender, and Race, Maryland, 2014-2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	12,502	6,320	6,179	8,081	3,704	560
Allegany	213	117	96	206	s	<6
Anne Arundel	1,117	547	570	877	200	36
Baltimore City	1,340	669	671	421	884	20
Baltimore	1,893	959	933	1,368	455	62
Calvert	217	119	98	180	36	0
Caroline	96	55	41	79	13	<6
Carroll	440	212	228	416	17	7
Cecil	258	131	127	243	15	0
Charles	322	155	167	188	123	10
Dorchester	108	57	51	78	27	0
Frederick	472	269	203	403	44	22
Garrett	95	53	42	s	0	<6
Harford	604	312	292	517	79	7
Howard	525	261	264	329	129	62
Kent	56	28	28	45	10	0
Montgomery	1,808	884	922	1,168	322	249
Prince George's	1,683	835	848	432	1,151	64
Queen Anne's	113	51	62	102	11	0
St Mary's	202	109	93	163	34	<6
Somerset	63	35	28	48	15	0
Talbot	86	46	40	74	s	<6
Washington	361	202	159	325	29	6
Wicomico	237	114	123	169	59	7
Worcester	160	79	81	134	26	0

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

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 26.
Colorectal Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2014-2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	36.1	40.6	32.5	35.1	39.6	24.8
Allegany	43.5	51.1	38.7	44.4	**	**
Anne Arundel	35.1	37.3	33.4	33.9	43.6	29.0
Baltimore City	40.9	48.0	36.0	39.0	41.5	24.9
Baltimore	36.7	43.1	31.7	36.1	40.8	23.8
Calvert	40.9	46.8	35.9	40.1	50.9	0.0
Caroline	50.9	62.8	38.7	49.5	**	**
Carroll	41.3	43.5	40.1	40.9	54.8	**
Cecil	43.6	44.3	42.3	43.7	**	0.0
Charles	40.1	42.9	37.8	40.9	41.1	**
Dorchester	50.0	57.6	44.2	48.1	48.5	0.0
Frederick	32.9	39.8	26.8	31.8	38.9	34.5
Garrett	44.8	53.6	38.1	44.6	0.0	**
Harford	40.3	45.6	36.0	39.7	55.7	**
Howard	30.7	32.8	28.5	28.7	45.6	23.2
Kent	32.7	37.9	29.2	29.7	**	0.0
Montgomery	29.9	32.2	27.7	28.3	34.2	25.3
Prince George's	36.1	41.1	32.4	35.2	36.3	24.8
Queen Anne's	36.7	33.7	39.4	36.7	**	0.0
St Mary's	32.9	37.5	29.0	32.6	38.3	**
Somerset	42.1	48.1	37.4	47.3	**	0.0
Talbot	28.7	34.1	24.0	28.2	**	**
Washington	38.4	46.4	31.5	37.4	49.1	**
Wicomico	41.1	44.2	38.8	39.1	45.5	**
Worcester	37.8	40.2	36.2	35.7	57.1	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, SEER*Stat Static data as of March 03, 2021

Table 27.
Number of Deaths for Colorectal Cancer by Jurisdiction, Gender, and Race, Maryland, 2014-2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	4,748	2,462	2,286	3,088	1,508	152
Allegany	80	48	32	77	<10	<10
Anne Arundel	400	212	188	316	69	15
Baltimore City	608	310	298	s	427	<10
Baltimore	783	387	396	596	s	<10
Calvert	66	38	28	53	s	<10
Caroline	27	16	11	22	<10	<10
Carroll	158	72	86	153	<10	<10
Cecil	95	49	46	86	<10	<10
Charles	123	65	58	66	s	<10
Dorchester	43	27	16	32	s	<10
Frederick	171	92	79	152	s	<10
Garrett	40	25	15	39	<10	<10
Harford	227	131	96	191	s	<10
Howard	178	86	92	108	46	24
Kent	26	15	11	23	<10	<10
Montgomery	609	288	321	412	134	63
Prince George's	620	339	281	166	438	16
Queen Anne's	29	13	16	22	<10	<10
St. Mary's	75	47	28	66	<10	<10
Somerset	14	<10	<10	s	<10	<10
Talbot	20	s	s	16	<10	<10
Washington	170	99	71	162	<10	<10
Wicomico	114	50	64	81	s	<10
Worcester	72	37	35	60	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 C for methods)

Source: CDC WONDER, 2014-2018, as of May 5, 2021

Table 28.
Colorectal Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2014-2018

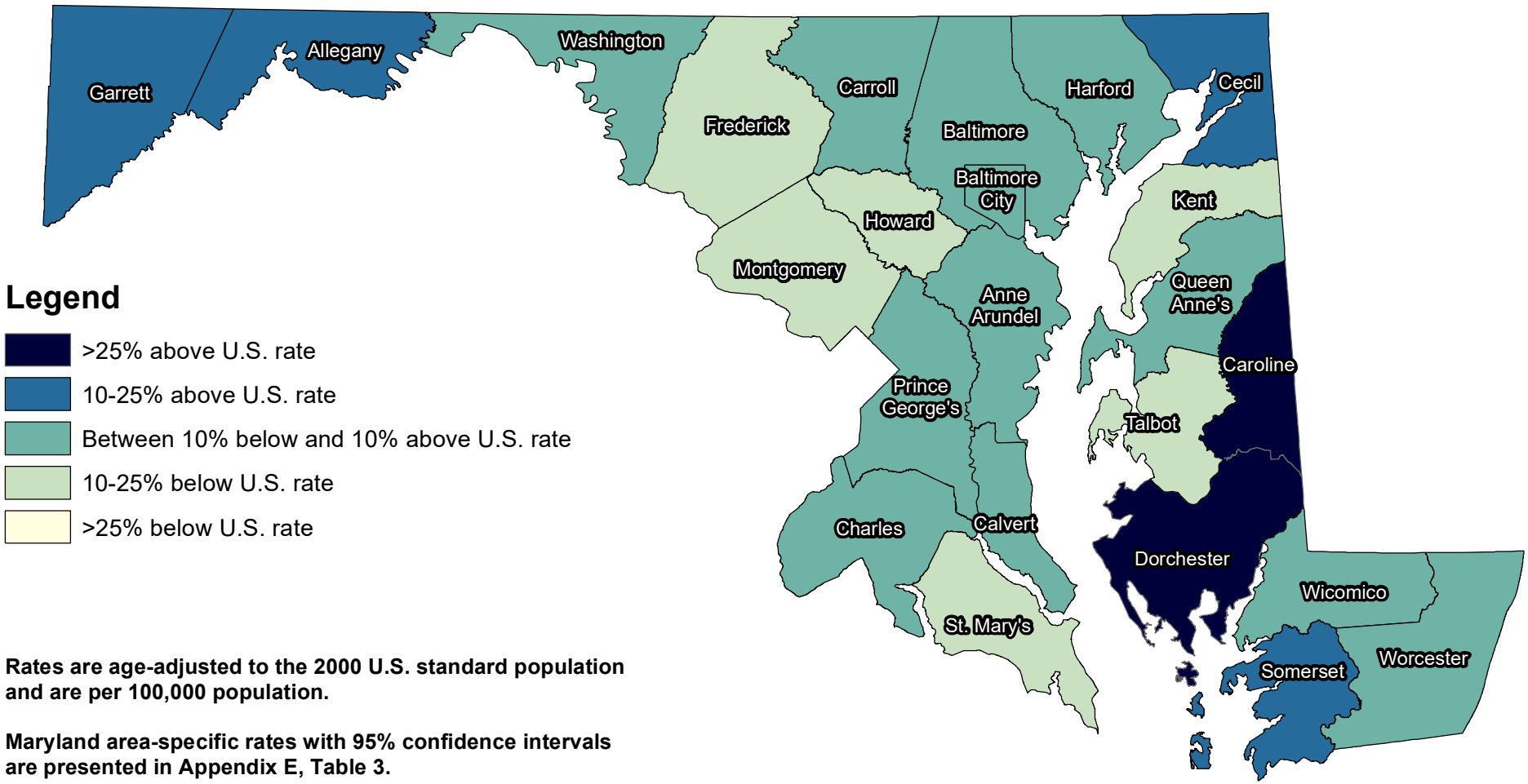
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	13.7	16.4	11.6	13.0	17.0	7.3
Allegany	15.7	21.8	10.9	15.7	**	**
Anne Arundel	12.7	15.2	10.7	12.1	16.5	**
Baltimore City	18.8	24.0	15.3	16.1	20.5	**
Baltimore	14.5	17.1	12.4	14.4	16.6	**
Calvert	12.6	16.3	9.7	12.2	**	**
Caroline	13.9	**	**	13.2	**	**
Carroll	14.8	15.6	14.7	15.1	**	**
Cecil	16.3	17.4	15.4	15.7	**	**
Charles	15.8	17.6	13.8	14.7	17.5	**
Dorchester	18.5	25.5	**	17.9	**	**
Frederick	12.3	14.9	10.4	12.2	**	**
Garrett	18.5	26.5	**	18.3	**	**
Harford	15.3	20.2	11.6	14.7	26.1	**
Howard	10.9	11.9	9.9	9.4	18.3	9.8
Kent	16.5	**	**	17.7	**	**
Montgomery	9.9	10.9	9.2	9.4	15.7	6.8
Prince George's	13.6	17.4	10.8	13.6	14.3	**
Queen Anne's	9.2	**	**	7.7	**	**
St. Mary's	12.6	16.6	8.9	13.1	**	**
Somerset	**	**	**	**	**	**
Talbot	5.2	**	**	**	**	**
Washington	17.1	22.7	12.6	17.4	**	**
Wicomico	19.3	19.3	19.7	18.2	24.2	**
Worcester	15.5	17.3	13.9	14.4	**	**

* 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, 2014-2018, as of May 5, 2021

Maryland Colorectal Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2014-2018



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

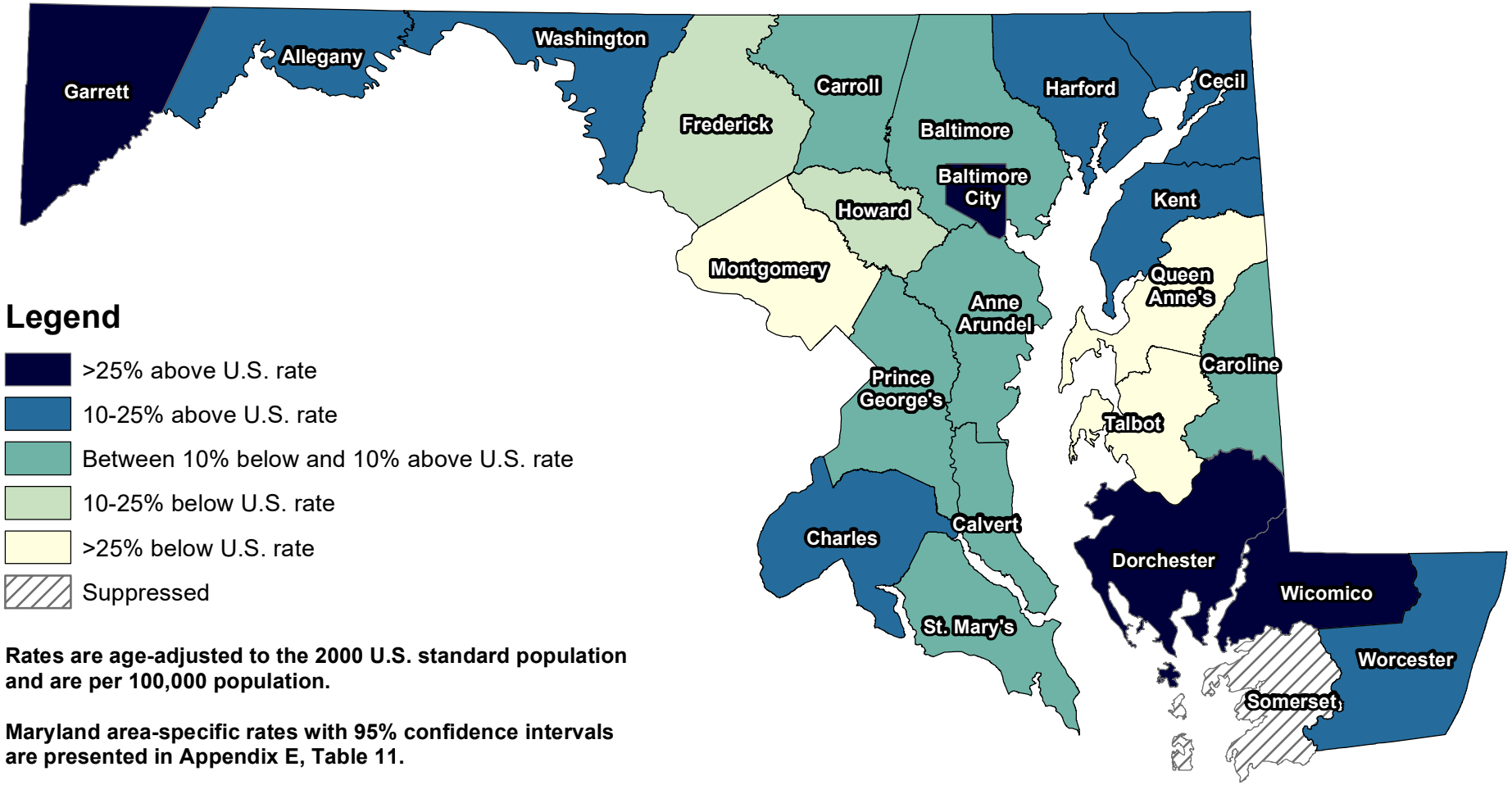
Maryland area-specific rates with 95% confidence intervals are presented in Appendix E, Table 3.

U.S. colorectal cancer incidence rate, 2014-2018: 38.0 / 100,000

Maryland colorectal cancer incidence rate, 2014-2018: 36.1 / 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, 2014-2018



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, 2014-2018: 13.7 / 100,000

Maryland colorectal cancer mortality rate, 2014-2018: 13.7 / 100,000

Sources: CDC WONDER
U.S. SEER, Cancer Statistics Review

Note: Rates based on case counts of 0-19 are suppressed per MDH/CCPC Data Use Policy and Procedures.

C. Female Breast Cancer

Incidence (New Cases)

In 2018, a total of 4,967 cases of breast cancer were reported among Maryland women. The 2018 age-adjusted incidence rate in Maryland was 129.9 per 100,000 women (126.2-133.7, 95% CI), which is statistically significantly higher than the 2018 U.S. SEER age-adjusted female breast cancer incidence rate of 127.9 per 100,000 women (126.9-128.9, 95% CI).

Mortality (Deaths)

In 2018, a total of 838 women died of breast cancer in Maryland. Female breast cancer accounted for 15.7% of cancer deaths among women and 7.7% of all cancer deaths in Maryland in 2018. Breast cancer is the second leading cause of cancer death among women in Maryland after lung cancer. The 2018 age-adjusted mortality rate for female breast cancer in Maryland was 21.2 per 100,000 women (19.7-22.7, 95% CI). This rate is statistically significantly higher than the U.S. female breast cancer mortality rate of 19.7 per 100,000 women (19.5-19.9, 95% CI). Maryland had the eighth highest female breast cancer mortality rate among the states and the District of Columbia for the period from 2014 to 2018.

Table 29.
Female Breast Cancer Incidence and Mortality Rates
by Race, Maryland (MD) and the United States, 2018

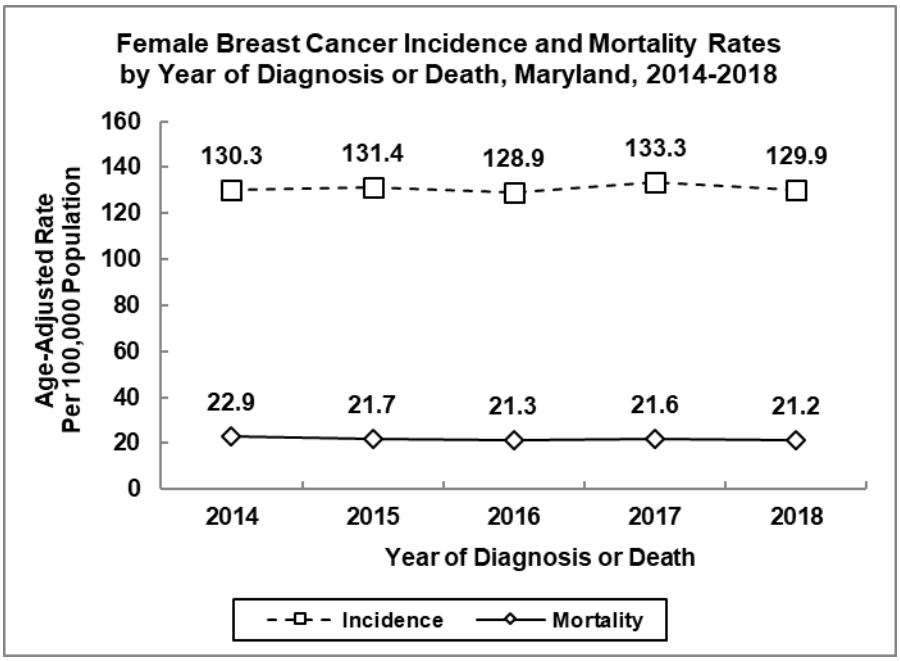
Incidence 2018	*Total**	*Whites*	*Blacks*	*Other*
MD New Cases (count)	4,967	3,179	1,472	255
MD Incidence Rate	129.9	132.3	126.5	92.2
U.S. SEER Rate	127.9	129.4	122.7	105.2
Mortality 2018	*Total*	*Whites*	*Blacks*	*Other*
MD Deaths (count)	838	499	311	28
MD Mortality Rate	21.2	19.1	27.7	10.6
U.S. Mortality Rate	19.7	19.2	26.8	11.9

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

* Total includes unknown race and unknown jurisdiction

** 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 Underlying Cause of Death in CDC WONDER, 2018
U.S. SEER, Cancer Statistics Review



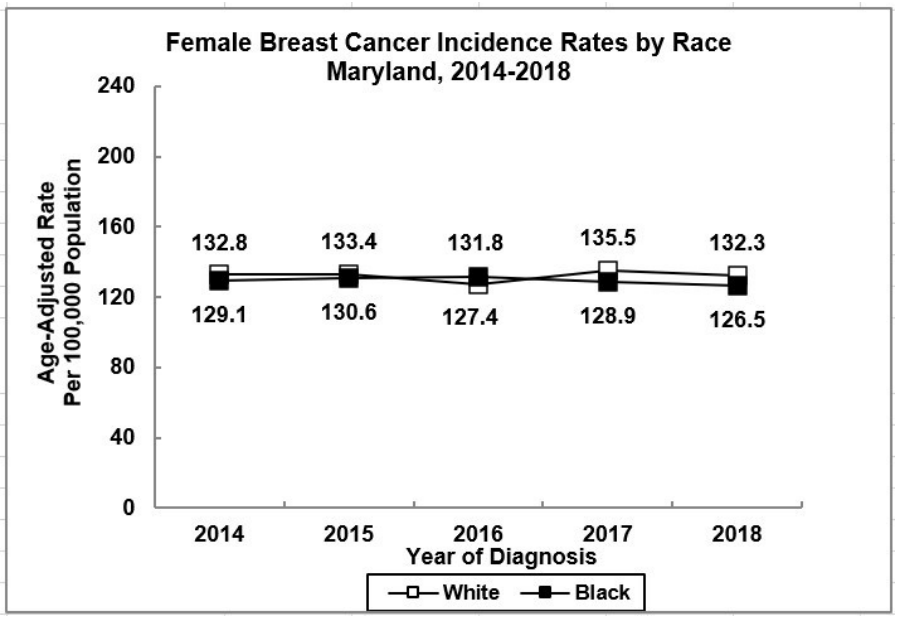
Source: Maryland Cancer Registry
NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Incidence and Mortality Trends

From 2014 to 2018, incidence rates for female breast cancer increased in Maryland at a rate of 0.1% annually.

Breast cancer mortality rates for females decreased at a rate of 1.6% per year.

See Appendix F, Tables 1 and 2.

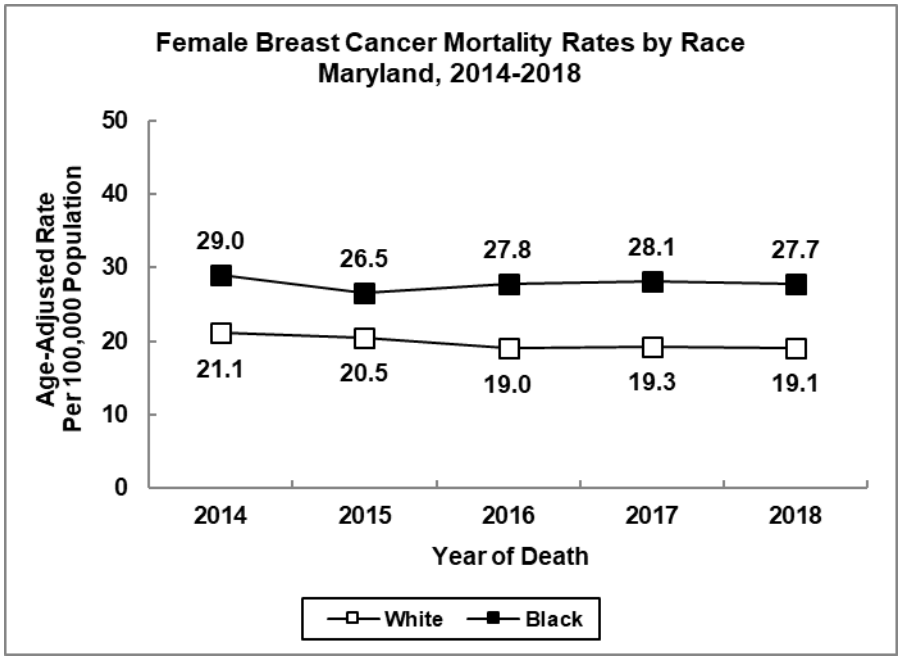


Source: Maryland Cancer Registry

Incidence Trends by Race

Female breast cancer incidence rates decreased at a rate of 0.5% per year among black females while rates among white females increased at a rate of 0.1% per year in Maryland from 2014 to 2018.

See Appendix F, Table 3.

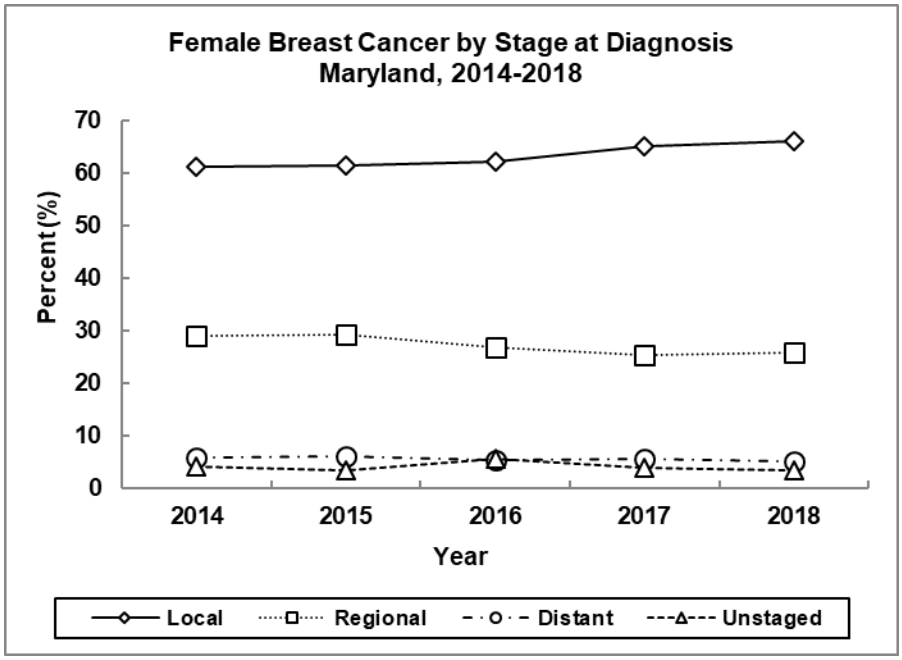


Source: NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Mortality Trends by Race

Female breast cancer mortality rates decreased for both black and white women from 2014 to 2018. The mortality rate in black females decreased at a rate of 0.3% per year between 2014 and 2018 and decreased at a rate of 2.6% per year among white females during the same time period.

See Appendix F, Table 5.

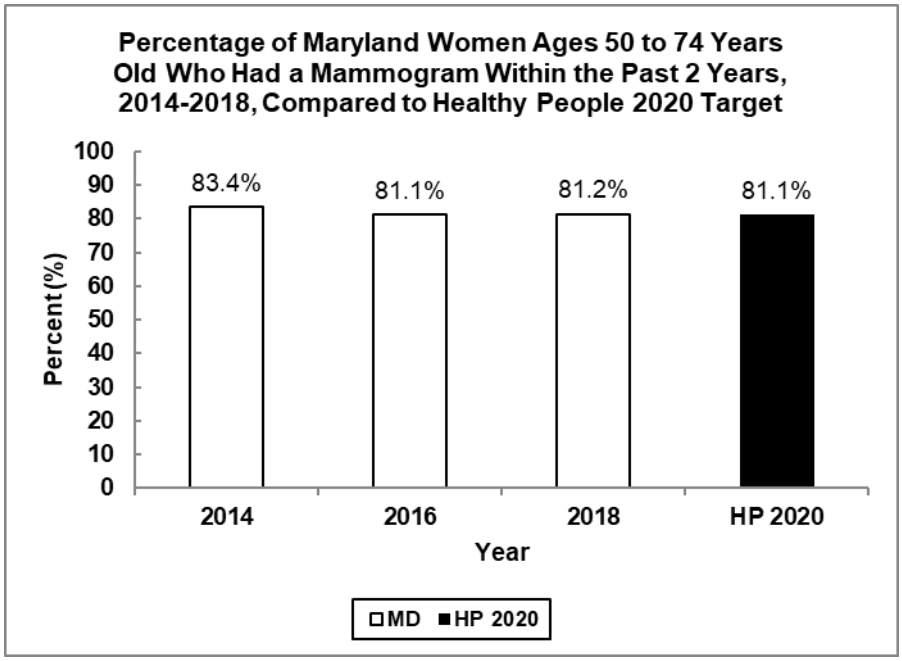


Source: Maryland Cancer Registry
Note: Due to a methodology change, SEER summary stage 2000 was used in 2016-2018, while the derived SEER summary stage 2000 was used from 2014-2015.

Stage at Diagnosis

In 2018, 66.0% of all female breast cancer cases in Maryland were diagnosed at the local stage, 25.7% were found at the regional stage, and 5.0% were diagnosed at the distant stage. The proportion of female breast cancers reported as unstaged in 2018 was 3.3%. Unstaged breast cancer diagnoses decreased 2.9% per year from 2014 to 2018.

See Appendix G, Table 4.



Source: Maryland BRFSS 2014, 2016, 2018
Healthy People 2020, U.S. Department of Health and Human Services

Breast Cancer Screening

The Healthy People 2020 target for the proportion of women who had a breast cancer screening based on the most recent guidelines is 81.1%. Maryland women have consistently met or surpassed the Healthy People 2020 target. In 2018, 81.2% of Maryland women ages 50 to 74 years reported receiving a mammogram within the past two years.

Table 30.
Number of Female Breast Cancer Cases by Jurisdiction and Race, Maryland, 2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	4,967	3,179	1,472	255
Allegany	73	s	<6	0
Anne Arundel	477	382	76	18
Baltimore City	423	144	271	6
Baltimore	841	598	206	31
Calvert	80	67	10	<6
Caroline	20	18	<6	0
Carroll	150	145	<6	<6
Cecil	63	56	<6	<6
Charles	108	s	58	<6
Dorchester	28	19	9	0
Frederick	180	158	17	<6
Garrett	25	25	0	0
Harford	240	209	24	7
Howard	255	181	41	30
Kent	26	23	<6	0
Montgomery	811	521	143	116
Prince George's	712	133	538	29
Queen Anne's	37	33	<6	<6
St Mary's	86	68	s	<6
Somerset	24	20	<6	0
Talbot	41	33	s	<6
Washington	129	116	11	<6
Wicomico	68	50	16	<6
Worcester	67	57	10	0

Total includes cases reported as unknown race and unknown jurisdiction

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 31.
Female Breast Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	129.9	132.3	126.5	92.2
Allegany	153.0	156.6	**	0.0
Anne Arundel	131.5	132.7	133.5	97.1
Baltimore City	116.8	137.4	109.8	**
Baltimore	149.4	156.5	141.5	99.0
Calvert	148.0	151.3	**	**
Caroline	82.7	90.3	**	0.0
Carroll	138.4	141.4	**	**
Cecil	93.6	90.5	**	**
Charles	110.9	104.2	126.8	**
Dorchester	106.7	88.6	**	0.0
Frederick	117.9	119.7	133.7	**
Garrett	114.0	115.3	0.0	0.0
Harford	140.9	143.1	114.6	**
Howard	133.8	151.5	112.4	83.4
Kent	186.7	207.7	**	0.0
Montgomery	123.2	122.3	117.1	99.8
Prince George's	128.1	104.7	135.1	89.1
Queen Anne's	106.2	101.0	**	**
St Mary's	133.5	129.0	189.8	**
Somerset	138.9	165.2	**	0.0
Talbot	145.9	131.2	**	**
Washington	136.2	134.3	**	**
Wicomico	105.5	104.8	102.0	**
Worcester	141.3	139.8	**	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, SEER*Stat Static data as of March 03, 2021

Table 32.
Number of Deaths for Female Breast Cancer by Jurisdiction and Race, Maryland, 2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	838	499	311	28
Allegany	11	s	<10	<10
Anne Arundel	64	49	s	<10
Baltimore City	104	s	82	<10
Baltimore	131	84	s	<10
Calvert	12	<10	<10	<10
Caroline	<10	<10	<10	<10
Carroll	23	22	<10	<10
Cecil	12	11	<10	<10
Charles	29	14	s	<10
Dorchester	<10	<10	<10	<10
Frederick	30	25	<10	<10
Garrett	<10	<10	<10	<10
Harford	42	36	<10	<10
Howard	28	22	<10	<10
Kent	<10	<10	<10	<10
Montgomery	124	93	s	<10
Prince George's	133	s	96	<10
Queen Anne's	<10	<10	<10	<10
St. Mary's	17	11	<10	<10
Somerset	<10	<10	<10	<10
Talbot	<10	<10	<10	<10
Washington	25	21	<10	<10
Wicomico	15	11	<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 C for methods)

Source: CDC WONDER, 2018, as of May 5, 2021

Table 33.
Female Breast Cancer Age-Adjusted Mortality Rates* by Jurisdiction and Race, Maryland, 2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	21.2	19.1	27.7	10.6
Allegany	**	**	**	**
Anne Arundel	18.0	16.9	**	**
Baltimore City	28.3	18.5	33.4	**
Baltimore	22.0	19.0	30.4	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	18.5	18.7	**	**
Cecil	**	**	**	**
Charles	32.4	**	**	**
Dorchester	**	**	**	**
Frederick	19.9	18.7	**	**
Garrett	**	**	**	**
Harford	24.4	23.7	**	**
Howard	14.6	17.9	**	**
Kent	**	**	**	**
Montgomery	17.7	20.1	19.3	**
Prince George's	24.0	24.5	24.3	**
Queen Anne's	**	**	**	**
St. Mary's	**	**	**	**
Somerset	**	**	**	**
Talbot	**	**	**	**
Washington	25.1	20.8	**	**
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, 2018, as of May 5, 2021

Table 34.
Number of Female Breast Cancer Cases by Jurisdiction and Race, Maryland, 2014-2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	24,474	15,787	7,194	1,172
Allegany	321	314	<6	<6
Anne Arundel	2,294	1,860	350	69
Baltimore City	2,243	731	1,465	35
Baltimore	3,952	2,806	990	135
Calvert	361	296	55	9
Caroline	125	100	25	0
Carroll	739	705	18	13
Cecil	384	347	31	<6
Charles	548	292	237	15
Dorchester	147	105	s	<6
Frederick	963	831	95	29
Garrett	142	s	<6	0
Harford	1,196	1,043	117	33
Howard	1,276	860	237	165
Kent	111	92	19	0
Montgomery	3,989	2,684	664	484
Prince George's	3,416	646	2,557	147
Queen Anne's	198	186	9	<6
St Mary's	376	307	60	8
Somerset	112	85	26	0
Talbot	200	172	24	<6
Washington	636	587	39	6
Wicomico	421	321	89	8
Worcester	291	255	31	<6

Total includes cases reported as unknown race and unknown jurisdiction

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 35.
Female Breast Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2014-2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	130.8	132.3	129.3	90.4
Allegany	132.1	132.9	**	**
Anne Arundel	132.8	133.8	133.7	85.4
Baltimore City	123.1	135.7	118.1	77.2
Baltimore	143.6	145.5	144.8	94.6
Calvert	129.5	128.1	137.7	**
Caroline	115.0	109.0	162.3	0.0
Carroll	134.6	135.3	100.3	**
Cecil	124.3	121.2	181.5	**
Charles	118.6	124.0	117.3	**
Dorchester	124.3	112.1	149.4	**
Frederick	130.0	128.2	164.2	83.5
Garrett	122.8	122.3	**	0.0
Harford	144.4	146.9	121.3	113.3
Howard	135.4	140.1	138.4	104.6
Kent	149.3	147.9	161.9	0.0
Montgomery	123.6	126.5	116.7	86.8
Prince George's	125.9	102.3	131.6	98.8
Queen Anne's	123.0	126.4	**	**
St Mary's	118.9	118.7	135.5	**
Somerset	151.8	160.9	131.5	0.0
Talbot	127.3	123.0	145.9	**
Washington	133.7	131.9	139.0	**
Wicomico	136.0	139.8	124.1	**
Worcester	135.2	136.6	126.7	**

* 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, SEER*Stat Static data as of March 03, 2021

Table 36.
Number of Deaths for Female Breast Cancer by Jurisdiction and Race, Maryland, 2014-2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	4,211	2,575	1,509	127
Allegany	52	51	<10	<10
Anne Arundel	350	271	s	<10
Baltimore City	489	s	355	<10
Baltimore	666	448	200	18
Calvert	69	54	s	<10
Caroline	23	18	<10	<10
Carroll	125	116	<10	<10
Cecil	60	57	<10	<10
Charles	118	60	s	<10
Dorchester	26	17	<10	<10
Frederick	156	133	s	<10
Garrett	28	s	<10	<10
Harford	196	168	s	<10
Howard	157	108	s	<10
Kent	15	12	<10	<10
Montgomery	640	451	142	47
Prince George's	675	146	504	25
Queen Anne's	22	s	<10	<10
St. Mary's	67	51	s	<10
Somerset	14	<10	<10	<10
Talbot	29	24	<10	<10
Washington	114	106	<10	<10
Wicomico	70	49	s	<10
Worcester	50	45	<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 C for methods)

Source: CDC WONDER, 2014-2018, as of May 5, 2021

Table 37.
Female Breast Cancer Age-Adjusted Mortality Rates* by Jurisdiction and Race, Maryland, 2014-2018

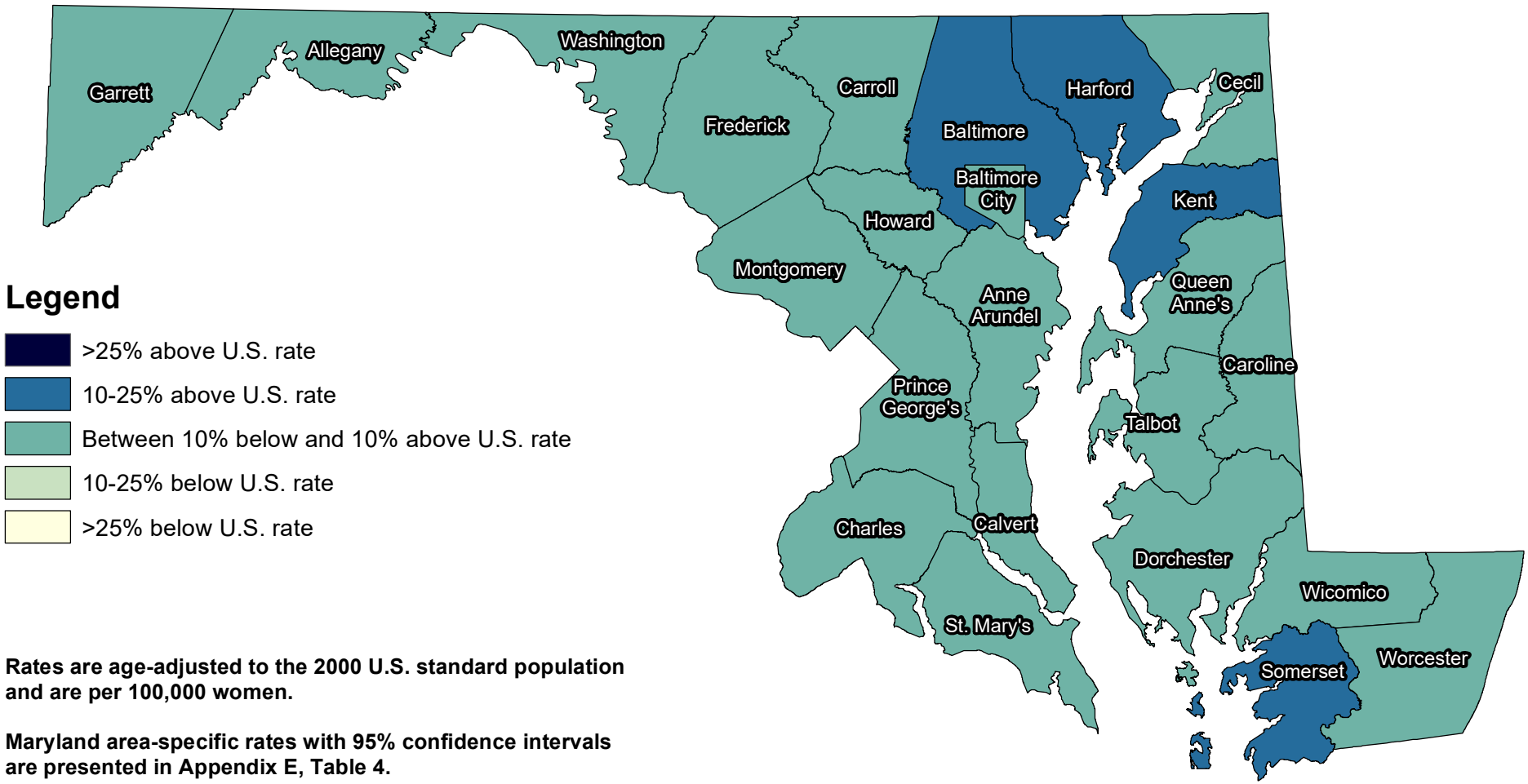
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	21.8	19.8	27.8	10.3
Allegany	17.6	17.7	**	**
Anne Arundel	19.6	18.3	29.6	**
Baltimore City	26.4	22.3	28.7	**
Baltimore	22.7	20.6	29.5	**
Calvert	23.9	22.1	**	**
Caroline	21.2	**	**	**
Carroll	21.6	21.1	**	**
Cecil	18.7	18.8	**	**
Charles	26.8	23.6	31.0	**
Dorchester	22.2	**	**	**
Frederick	21.3	20.6	37.1	**
Garrett	23.8	24.0	**	**
Harford	23.3	22.7	30.3	**
Howard	16.5	16.6	23.2	**
Kent	**	**	**	**
Montgomery	18.6	18.9	25.8	8.5
Prince George's	25.6	21.6	27.1	17.8
Queen Anne's	12.4	13.6	**	**
St. Mary's	22.7	20.5	**	**
Somerset	**	**	**	**
Talbot	14.7	12.8	**	**
Washington	22.2	21.5	**	**
Wicomico	21.3	19.7	27.4	**
Worcester	20.7	21.8	**	**

* 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

Source: CDC WONDER, 2014-2018, as of May 5, 2021

Maryland Female Breast Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2014-2018



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

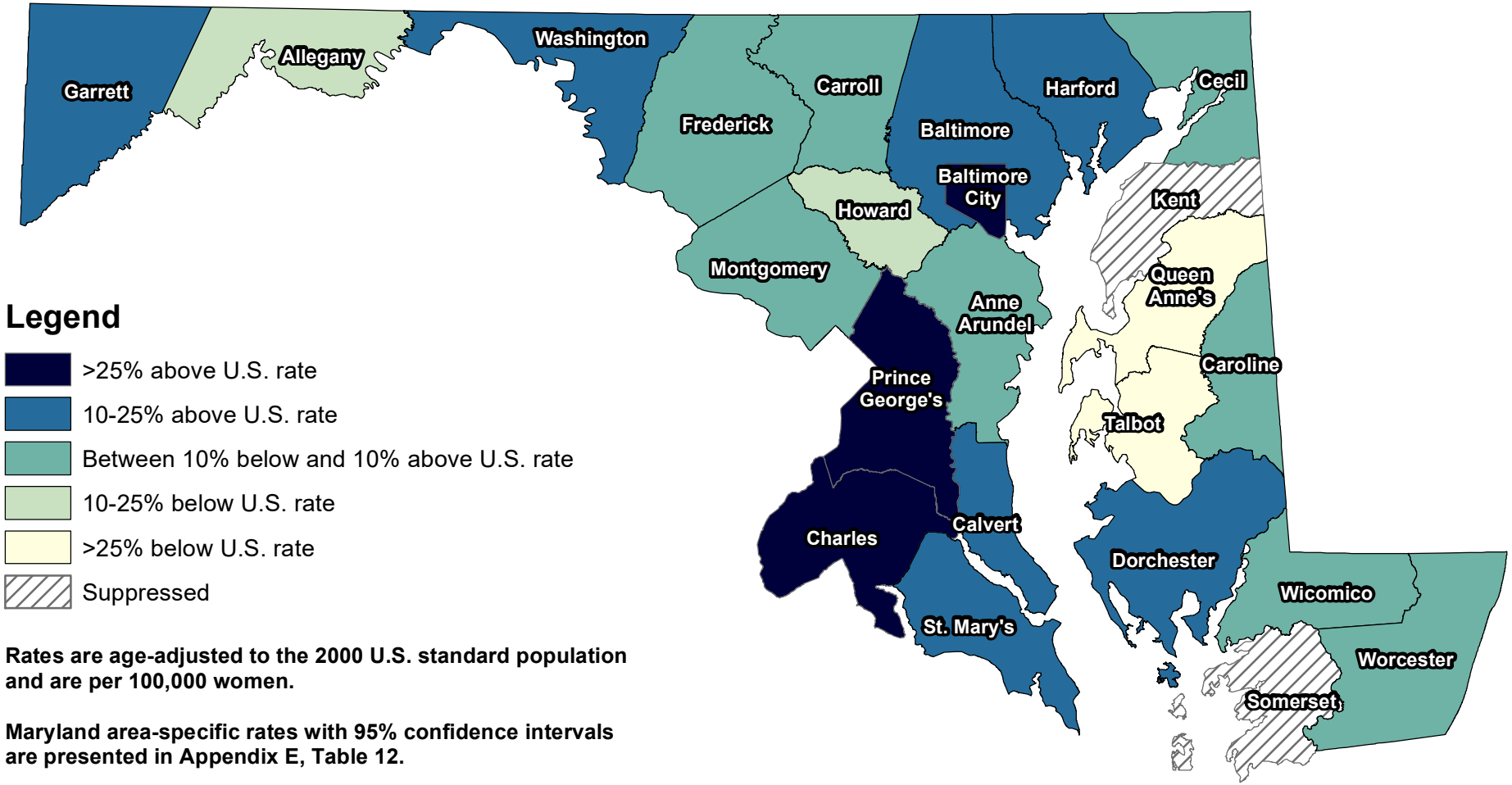
Maryland area-specific rates with 95% confidence intervals are presented in Appendix E, Table 4.

U.S. female breast cancer incidence rate, 2014-2018: 127.4 / 100,000

Maryland female breast cancer incidence rate, 2014-2018: 130.8 / 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, 2014-2018



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, 2014-2018: 20.1 / 100,000

Maryland female breast cancer mortality rate, 2014-2018: 21.8 / 100,000

Sources: CDC WONDER
U.S. SEER, Cancer Statistics Review

Note: Rates based on case counts of 0-19 are suppressed per MDH/CCPC Data Use Policy and Procedures.

D. Prostate Cancer

Incidence (New Cases)

In 2018, a total of 4,849 cases of prostate cancer were reported among men in Maryland. The age-adjusted prostate cancer incidence rate in Maryland for 2018 was 135.3 per 100,000 men (131.4-139.2, 95% CI), which is statistically significantly higher than the 2018 U.S. SEER age-adjusted prostate cancer incidence rate of 110.9 per 100,000 men (109.9-111.8, 95% CI).

Mortality (Deaths)

Prostate cancer is the second leading cause of cancer death among men in Maryland after lung cancer. In 2018, 559 men died of prostate cancer in Maryland, accounting for 5.1% of all cancer deaths and 10.0% of cancer deaths among men in Maryland. The 2018 age-adjusted mortality rate for prostate cancer in Maryland was 19.1 per 100,000 men (17.5-20.7, 95% CI). This rate is statistically similar to the 2018 U.S. prostate cancer mortality rate of 18.9 per 100,000 men (18.7-19.1, 95% CI). Maryland had the 15th highest prostate cancer mortality rate among the states and the District of Columbia for the period from 2014 to 2018.

Table 38.
Prostate Cancer Incidence and Mortality Rates
by Race, Maryland (MD) and the United States, 2018

Incidence 2018	*Total**	*Whites*	*Blacks*	*Other*
MD New Cases (count)	4,849	2,874	1,776	119
MD Incidence Rate	135.3	117.4	191.0	53.2
U.S. SEER Rate	110.9	102.3	170.7	57.0
Mortality 2018	*Total*	*Whites*	*Blacks*	*Other*
MD Deaths (count)	559	337	210	12
MD Mortality Rate	19.1	16.1	32.3	**
U.S. Mortality Rate	18.9	17.7	36.7	9.7

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

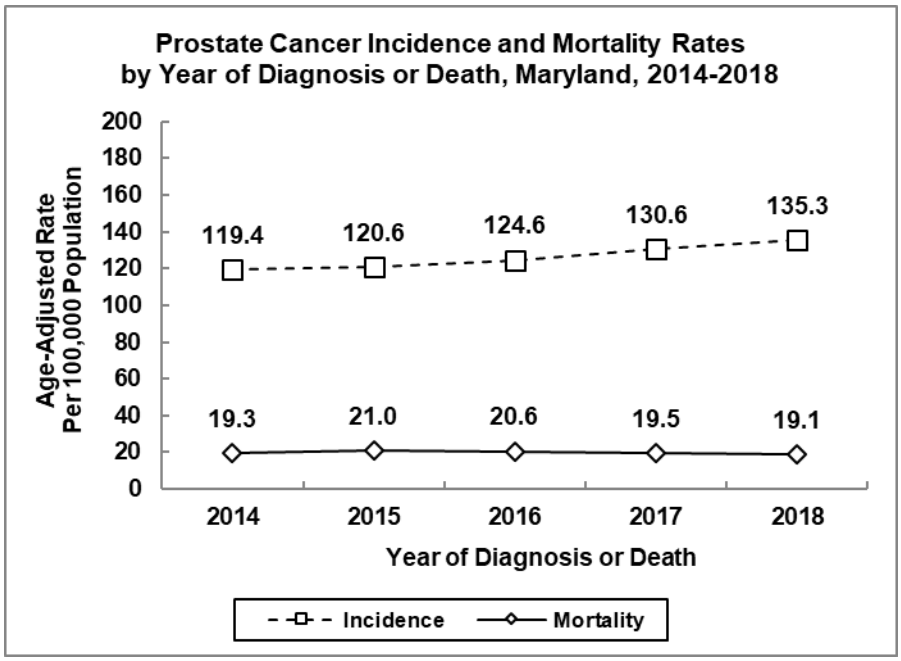
* Total includes unknown race and unknown jurisdiction

<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)

** 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 Underlying Cause of Death in CDC WONDER, 2018
U.S. SEER, Cancer Statistics Review



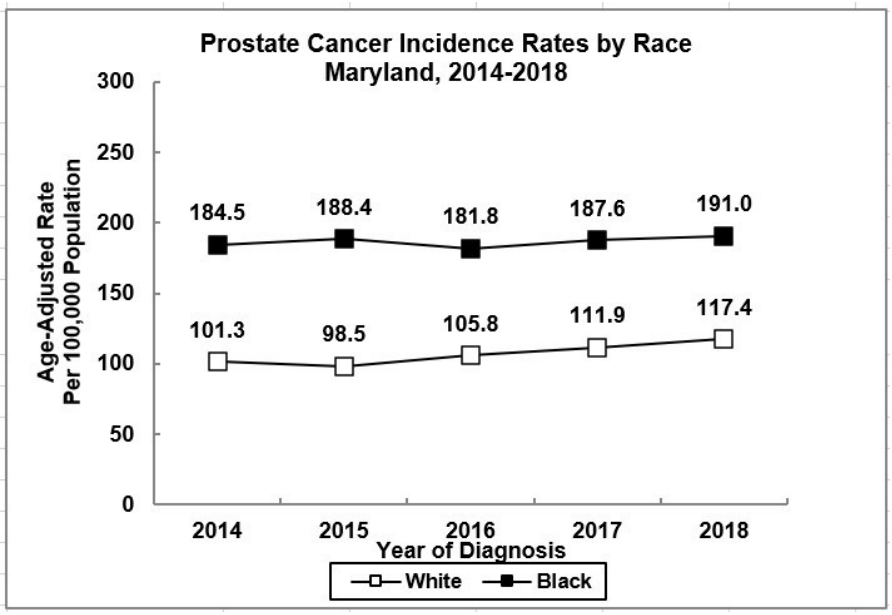
Source: Maryland Cancer Registry
NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Incidence and Mortality Trends

The prostate cancer incidence rate in Maryland increased at a rate of 3.4% per year from 2014 to 2018.

Prostate cancer mortality rates decreased from 2014 to 2018, with a yearly decrease of 0.9%.

See Appendix F, Tables 1 and 2.



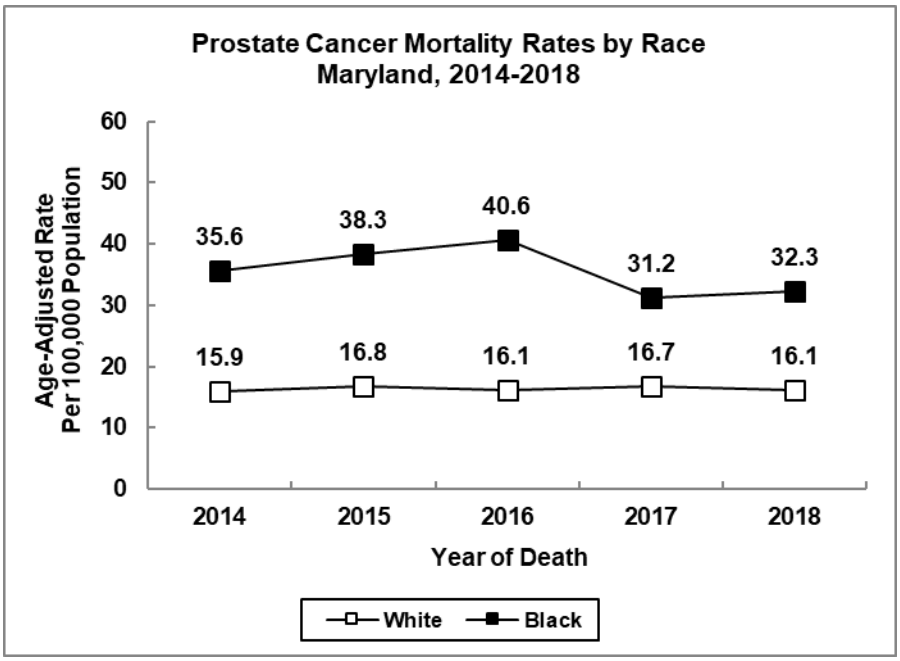
Source: Maryland Cancer Registry

Incidence Trends by Race

From 2014 to 2018, black men consistently had higher prostate cancer incidence rates than white men.

During this 5-year period, incidence rates increased 0.7% per year among black men and 4.3% per year among white men.

See Appendix F, Table 3.



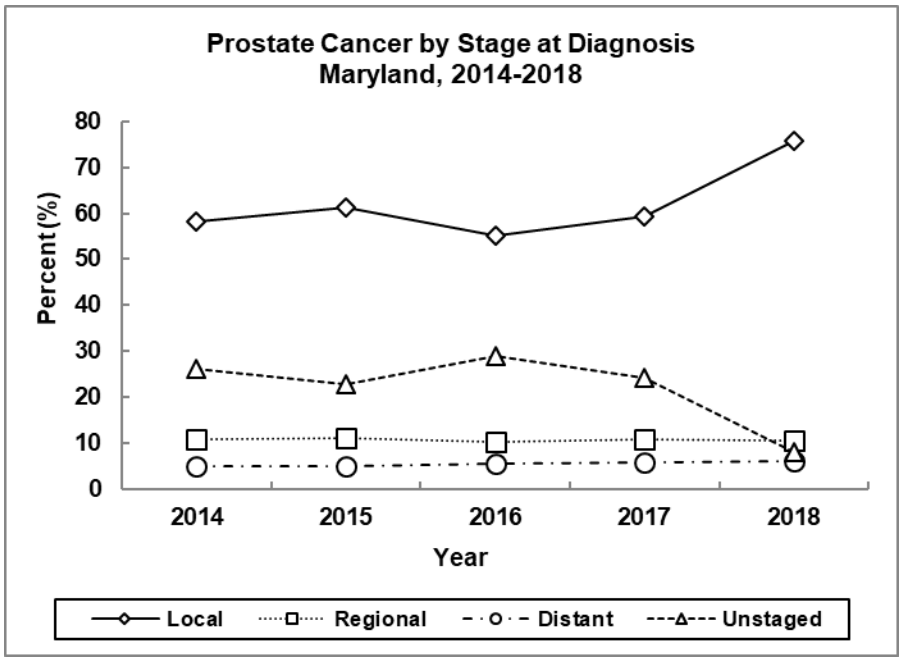
Source: NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Mortality Trends by Race

From 2014 to 2018, black men consistently had higher prostate cancer mortality rates than white men.

During this 5-year period, mortality rates decreased 3.9% per year among black men and increased 0.2% per year among white men.

See Appendix F, Table 5.

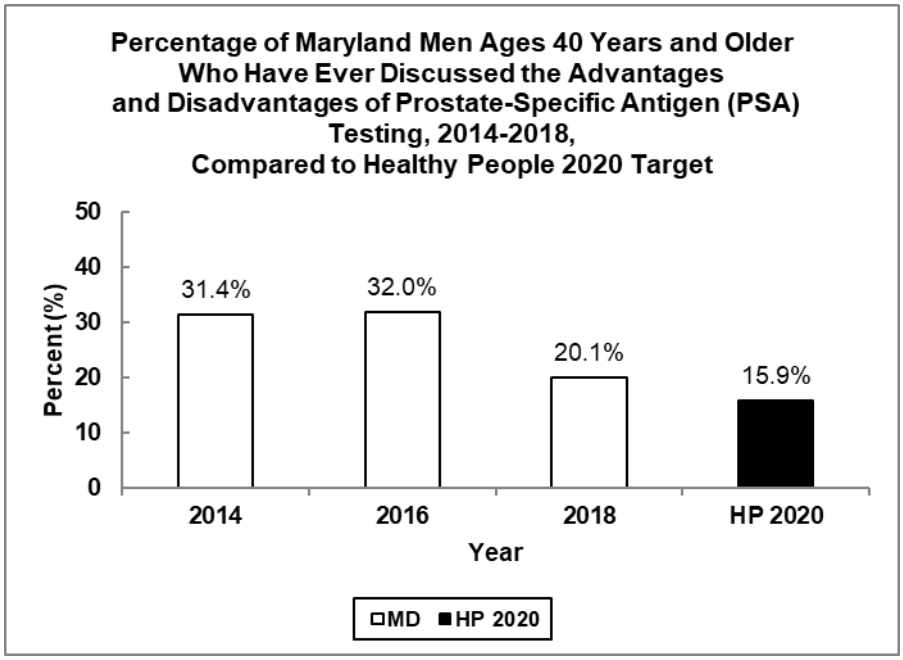


Source: Maryland Cancer Registry
Note: Due to a methodology change, SEER summary stage 2000 was used in 2016-2018, while the derived SEER summary stage 2000 was used from 2014-2015

Stage at Diagnosis

Of prostate cancers diagnosed in Maryland in 2018, most (75.7%) were detected at the local stage, 10.4% were found at the regional stage, and 6.0% were diagnosed at the distant stage. In 2018, 7.9% of prostate cancers were reported as unstaged.

See Appendix G, Table 5.



Source: Maryland BRFSS 2014, 2016, 2018
Healthy People 2020, U.S. Department of Health and Human Services

Prostate-Specific Antigen Test

In 2018, 20.1% Maryland men ages 40 years and older reported that they had discussed both the advantages and the disadvantages of a PSA test with a healthcare provider. This surpasses the Healthy People 2020 target of 15.9%.

Table 39.
Number of Prostate Cancer Cases by Jurisdiction and Race, Maryland, 2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	4,849	2,874	1,776	119
Allegany	52	47	<6	<6
Anne Arundel	380	281	82	10
Baltimore City	426	112	301	<6
Baltimore	656	439	204	6
Calvert	65	50	13	<6
Caroline	28	26	<6	0
Carroll	151	140	8	<6
Cecil	77	70	6	0
Charles	125	56	65	<6
Dorchester	48	29	19	0
Frederick	156	131	23	<6
Garrett	25	25	0	0
Harford	186	151	30	<6
Howard	287	195	72	15
Kent	19	13	6	0
Montgomery	700	463	161	54
Prince George's	683	106	554	11
Queen Anne's	47	40	7	0
St Mary's	65	48	15	<6
Somerset	18	9	9	0
Talbot	53	50	<6	0
Washington	117	101	15	0
Wicomico	70	40	27	<6
Worcester	61	52	9	0

Total includes cases reported as unknown race and unknown jurisdiction

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 40.
Prostate Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	135.3	117.4	191.0	53.2
Allegany	100.5	96.9	**	**
Anne Arundel	110.8	98.6	165.4	**
Baltimore City	136.6	100.4	154.7	**
Baltimore	129.3	116.7	183.6	**
Calvert	104.7	96.9	**	**
Caroline	124.7	136.4	**	0.0
Carroll	130.2	126.6	**	**
Cecil	110.6	108.5	**	0.0
Charles	144.2	111.3	189.7	**
Dorchester	187.3	152.0	340.2	0.0
Frederick	102.2	95.7	218.0	**
Garrett	108.0	109.0	0.0	0.0
Harford	110.6	103.6	155.3	**
Howard	154.2	147.2	267.4	**
Kent	102.3	**	**	0.0
Montgomery	115.7	110.0	183.0	54.8
Prince George's	142.4	87.2	169.5	**
Queen Anne's	125.8	113.4	**	0.0
St Mary's	102.5	90.3	**	**
Somerset	108.3	**	**	0.0
Talbot	159.9	171.7	**	0.0
Washington	116.9	109.4	**	0.0
Wicomico	120.0	88.5	212.2	**
Worcester	123.6	115.1	**	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, SEER*Stat Static data as of March 03, 2021

Table 41.
Number of Deaths for Prostate Cancer by Jurisdiction and Race, Maryland, 2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	559	337	210	12
Allegany	12	s	<10	<10
Anne Arundel	47	39	<10	<10
Baltimore City	72	s	56	<10
Baltimore	92	69	s	<10
Calvert	<10	<10	<10	<10
Caroline	<10	<10	<10	<10
Carroll	14	s	<10	<10
Cecil	<10	<10	<10	<10
Charles	15	<10	<10	<10
Dorchester	<10	<10	<10	<10
Frederick	20	17	<10	<10
Garrett	<10	<10	<10	<10
Harford	22	21	<10	<10
Howard	23	18	<10	<10
Kent	<10	<10	<10	<10
Montgomery	64	35	s	<10
Prince George's	86	s	67	<10
Queen Anne's	<10	<10	<10	<10
St. Mary's	12	11	<10	<10
Somerset	<10	<10	<10	<10
Talbot	<10	<10	<10	<10
Washington	15	13	<10	<10
Wicomico	19	15	<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 C for methods)

Source: CDC WONDER, 2018, as of May 5, 2021

Table 42.
Prostate Cancer Age-Adjusted Mortality Rates* by Jurisdiction and Race, Maryland, 2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	19.1	16.1	32.3	**
Allegany	**	**	**	**
Anne Arundel	18.4	18.0	**	**
Baltimore City	28.4	**	35.5	**
Baltimore	20.3	18.5	31.6	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	**	**	**	**
Cecil	**	**	**	**
Charles	**	**	**	**
Dorchester	**	**	**	**
Frederick	17.0	**	**	**
Garrett	**	**	**	**
Harford	16.5	17.8	**	**
Howard	15.9	**	**	**
Kent	**	**	**	**
Montgomery	11.5	8.7	34.6	**
Prince George's	25.9	**	31.6	**
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, 2018, as of May 5, 2021

Table 43.

Number of Prostate Cancer Cases by Jurisdiction and Race, Maryland, 2014-2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	21,722	12,664	8,126	625
Allegany	298	269	25	<6
Anne Arundel	1,779	1,369	353	43
Baltimore City	2,080	509	1,521	26
Baltimore	3,243	2,091	1,033	89
Calvert	318	245	71	<6
Caroline	115	97	17	0
Carroll	672	624	34	8
Cecil	369	326	39	<6
Charles	602	284	297	14
Dorchester	156	96	s	<6
Frederick	712	589	105	13
Garrett	112	110	<6	0
Harford	976	787	168	16
Howard	1,028	706	243	67
Kent	104	79	24	0
Montgomery	3,268	2,114	788	253
Prince George's	3,368	524	2,724	64
Queen Anne's	213	178	s	<6
St Mary's	281	210	64	6
Somerset	89	51	s	<6
Talbot	211	184	27	0
Washington	495	434	58	<6
Wicomico	386	232	142	7
Worcester	288	233	54	<6

Total includes cases reported as unknown race and unknown jurisdiction

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 44.

Prostate Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2014-2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	126.3	107.2	186.7	59.6
Allegany	118.7	112.7	270.4	**
Anne Arundel	108.8	99.5	169.0	82.9
Baltimore City	136.9	95.0	159.7	76.8
Baltimore	130.5	112.1	203.4	72.5
Calvert	112.4	102.6	190.8	**
Caroline	110.4	107.9	130.6	0.0
Carroll	121.8	118.6	176.0	**
Cecil	115.2	109.7	226.1	**
Charles	147.1	117.7	190.4	**
Dorchester	129.5	102.0	227.9	**
Frederick	101.0	93.0	227.1	**
Garrett	98.9	96.5	**	0.0
Harford	123.4	113.8	213.2	66.9
Howard	115.0	109.5	195.4	53.0
Kent	127.8	109.5	242.7	0.0
Montgomery	112.3	104.0	190.8	55.0
Prince George's	147.9	86.8	178.0	47.2
Queen Anne's	120.1	108.8	294.8	**
St Mary's	89.7	80.0	149.6	**
Somerset	107.6	86.3	162.3	**
Talbot	129.2	126.5	165.5	0.0
Washington	103.0	97.5	194.3	**
Wicomico	135.0	107.0	238.1	**
Worcester	122.9	110.2	247.4	**

* 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, SEER*Stat Static data as of March 03, 2021

Table 45.
Number of Deaths for Prostate Cancer by Jurisdiction and Race, Maryland, 2014-2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2,732	1,626	1,047	60
Allegany	43	40	<10	<10
Anne Arundel	231	186	s	<10
Baltimore City	367	s	288	<10
Baltimore	447	319	s	<10
Calvert	46	34	s	<10
Caroline	14	13	<10	<10
Carroll	68	61	<10	<10
Cecil	43	39	<10	<10
Charles	54	30	s	<10
Dorchester	25	17	<10	<10
Frederick	86	73	s	<10
Garrett	17	s	<10	<10
Harford	96	84	s	<10
Howard	105	76	s	<10
Kent	17	13	<10	<10
Montgomery	368	244	91	33
Prince George's	430	s	339	<10
Queen Anne's	21	19	<10	<10
St. Mary's	45	38	<10	<10
Somerset	11	<10	<10	<10
Talbot	30	24	<10	<10
Washington	59	53	<10	<10
Wicomico	65	45	s	<10
Worcester	44	33	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 C for methods)

Source: CDC WONDER, 2014-2018, as of May 5, 2021

Table 46.
Prostate Cancer Age-Adjusted Mortality Rates* by Jurisdiction and Race, Maryland, 2014-2018

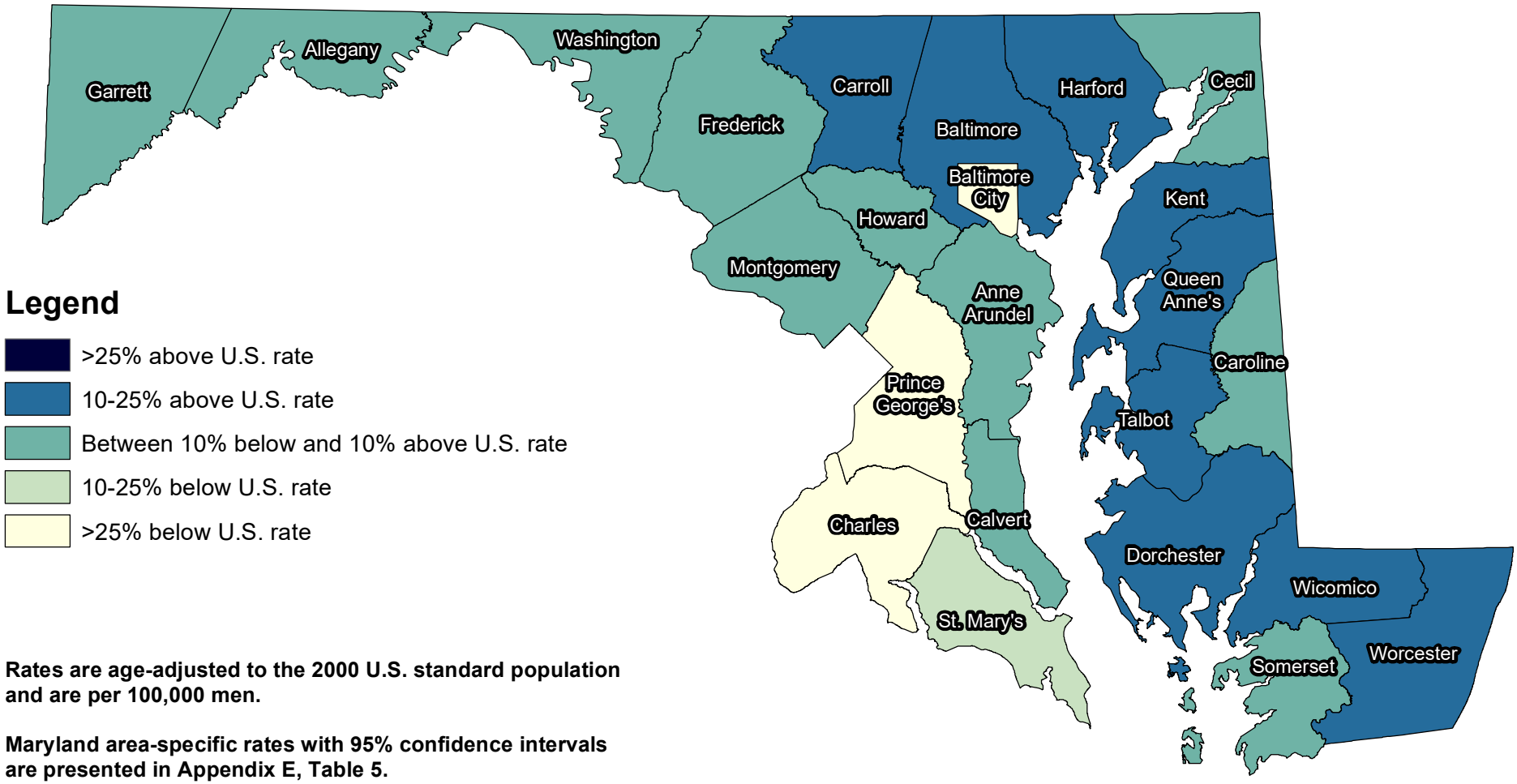
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	19.9	16.3	35.4	7.4
Allegany	18.9	18.0	**	**
Anne Arundel	19.1	18.0	30.3	**
Baltimore City	30.3	16.7	39.7	**
Baltimore	20.0	17.4	37.3	**
Calvert	22.1	18.9	**	**
Caroline	**	**	**	**
Carroll	16.3	15.4	**	**
Cecil	17.5	17.4	**	**
Charles	20.5	17.9	29.3	**
Dorchester	23.2	**	**	**
Frederick	15.8	15.0	**	**
Garrett	**	**	**	**
Harford	16.3	15.8	**	**
Howard	16.5	16.9	33.9	**
Kent	**	**	**	**
Montgomery	14.7	13.2	31.7	8.8
Prince George's	27.0	16.7	34.3	**
Queen Anne's	15.4	**	**	**
St. Mary's	18.9	18.9	**	**
Somerset	**	**	**	**
Talbot	16.7	14.7	**	**
Washington	14.3	13.5	**	**
Wicomico	27.4	23.9	44.9	**
Worcester	20.1	16.2	**	**

* 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, 2014-2018, as of May 5, 2021

Maryland Prostate Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2014-2018



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

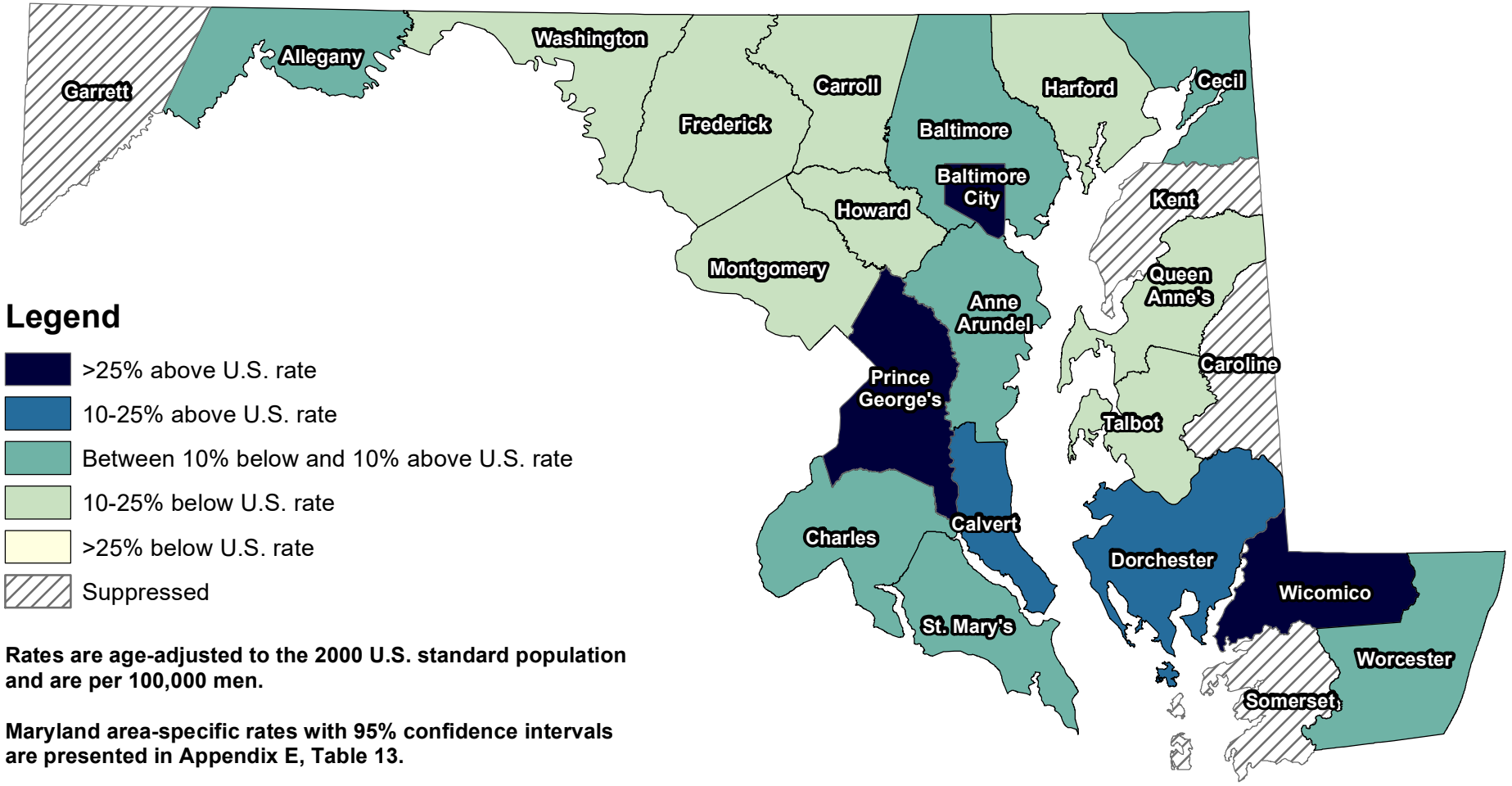
Maryland area-specific rates with 95% confidence intervals are presented in Appendix E, Table 5.

U.S. prostate cancer incidence rate, 2014-2018: 108.2 / 100,000

Maryland prostate cancer incidence rate, 2014-2018: 126.3 / 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, 2014-2018



Legend

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

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, 2014-2018: 19.0 / 100,000

Maryland prostate cancer mortality rate, 2014-2018: 19.9 / 100,000

Sources: CDC WONDER
U.S. SEER, Cancer Statistics Review

Note: Rates based on case counts of 0-19 are suppressed per MDH/CCPC Data Use Policy and Procedures.

E. Oral Cancer

Incidence (New Cases)

In 2018, a total of 857 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 2018 was 11.3 per 100,000 population (10.6-12.2, 95% CI), which is statistically similar to the 2018 U.S. SEER age-adjusted oral cancer incidence rate of 11.5 per 100,000 population (11.3-11.8, 95% CI).

Mortality (Deaths)

In 2018, 185 persons in Maryland died of oral cancer. The 2018 age-adjusted mortality rate for oral cancer in Maryland was 2.4 per 100,000 population (2.1-2.8, 95% CI), accounting for 1.7% of Maryland cancer deaths in 2018. This rate is statistically similar to the 2018 U.S. oral cancer mortality rate of 2.5 per 100,000 population (2.4-2.5, 95% CI). Maryland had the 28th highest oral cancer mortality rate among the states and the District of Columbia for the period from 2014 to 2018.

Table 47.
Oral Cancer Incidence and Mortality Rates
by Gender and Race, Maryland (MD) and the United States, 2018

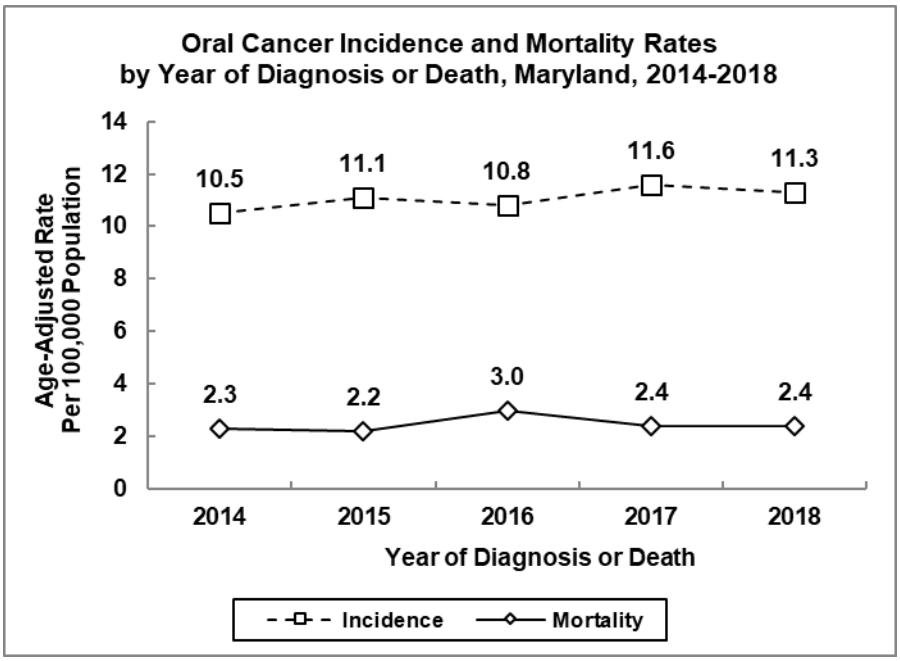
Incidence 2018	*Total**	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD New Cases (count)	857	600	257	644	166	37
MD Incidence Rate	11.3	17.2	6.4	13.0	7.8	7.2
U.S. SEER Rate	11.5	17.3	6.5	12.3	8.3	7.7
Mortality 2018	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (count)	185	139	46	137	s	<10
MD Mortality Rate	2.4	4.2	1.1	2.7	2.0	**
U.S. Mortality Rate	2.5	3.8	1.3	2.5	2.5	1.8

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 jurisdiction

** 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 Underlying Cause of Death in CDC WONDER, 2018
U.S. SEER, Cancer Statistics Review



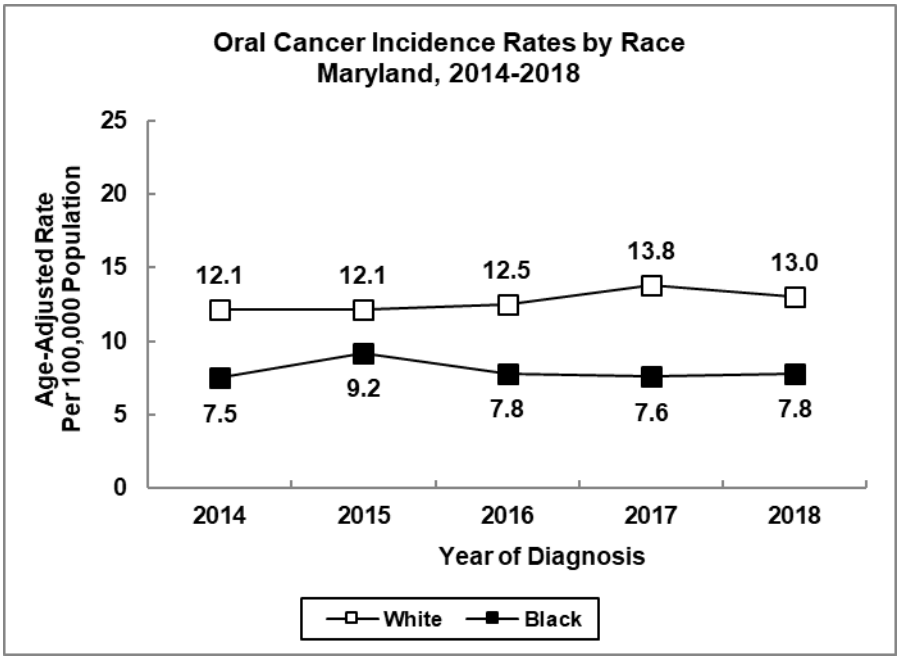
Source: Maryland Cancer Registry
NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Incidence and Mortality Trends

The incidence of oral cancer in Maryland increased at a rate of 1.9% per year from 2014 to 2018.

Oral cancer mortality rates increased from 2014 to 2018 at a rate of 1.7% annually.

See Appendix F, Tables 1 and 2.

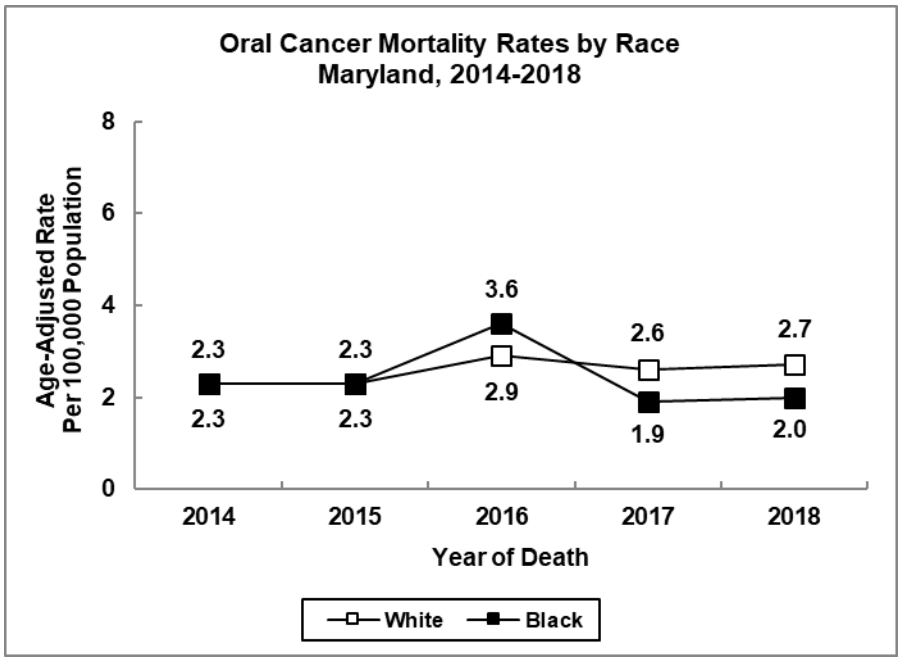


Source: Maryland Cancer Registry

Incidence Trends by Race

Over the 5-year period from 2014 to 2018, oral cancer incidence rates in Maryland decreased at a rate of 1.1% per year for blacks and increased at a rate of 2.8% per year for whites.

See Appendix F, Table 3.

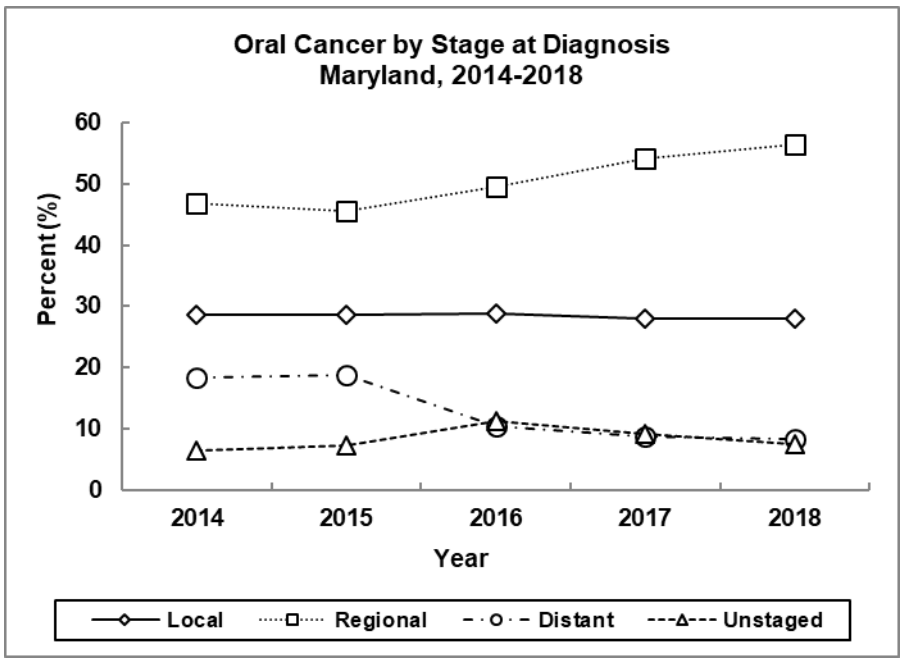


Source: NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Mortality Trends by Race

Over the 5-year period from 2014 to 2018, oral cancer mortality rates increased at a rate of 4.5% per year for whites and decreased at a rate of 4.6% per year for blacks.

See Appendix F, Table 5.

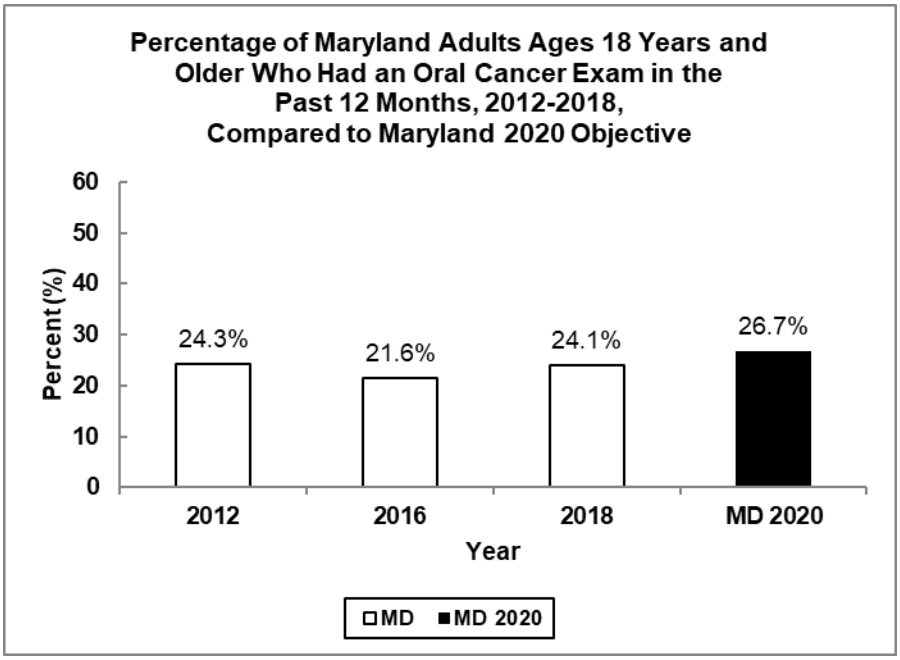


Source: Maryland Cancer Registry
Note: Due to a methodology change, SEER summary stage 2000 was used in 2016-2018, while the derived SEER summary stage 2000 was used from 2014-2015

Stage at Diagnosis

In 2018, 27.9% of oral cancers in Maryland were diagnosed at the local stage, 56.4% were diagnosed at the regional stage, and 8.3% were diagnosed at the distant stage. From 2014 to 2018, the proportion of oral cancers reported as unstaged increased at a rate of 5.9% per year.

See Appendix G, Table 6.



Source: Maryland BRFSS, 2012, 2016, 2018
Maryland Comprehensive Cancer Control Plan, 2016-2020

Oral Cancer Screening

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

In 2012, 2016, and 2018 Maryland fell short of this target. In 2018, 24.1% of Maryland adults reported that they had an oral cancer exam in the past year.

Table 48.
Number of Oral Cancer Cases by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	857	600	257	644	166	37
Allegany	20	13	7	20	0	0
Anne Arundel	93	67	26	85	6	<6
Baltimore City	67	39	28	23	43	0
Baltimore	148	101	47	115	28	<6
Calvert	10	7	<6	10	0	0
Caroline	<6	<6	0	<6	<6	0
Carroll	30	19	11	27	0	<6
Cecil	23	16	7	s	<6	0
Charles	27	22	<6	18	9	0
Dorchester	9	7	<6	s	<6	0
Frederick	40	26	14	37	<6	<6
Garrett	6	<6	<6	6	0	0
Harford	41	29	12	38	<6	<6
Howard	33	22	11	21	<6	9
Kent	<6	<6	<6	<6	<6	0
Montgomery	104	76	28	71	14	16
Prince George's	81	55	26	33	44	<6
Queen Anne's	8	8	0	8	0	0
St Mary's	20	15	<6	13	7	0
Somerset	<6	<6	<6	<6	<6	0
Talbot	10	8	<6	10	0	0
Washington	36	26	10	34	<6	0
Wicomico	25	21	<6	23	<6	0
Worcester	10	9	<6	10	0	0

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

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 49.
Oral Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	11.3	17.2	6.4	13.0	7.8	7.2
Allegany	18.1	**	**	18.9	0.0	0.0
Anne Arundel	12.8	19.2	6.8	14.2	**	**
Baltimore City	9.5	12.8	7.0	10.0	9.5	0.0
Baltimore	14.0	21.1	8.1	15.9	11.2	**
Calvert	**	**	**	**	0.0	0.0
Caroline	**	**	0.0	**	**	0.0
Carroll	12.4	16.5	**	11.3	0.0	**
Cecil	17.7	26.3	**	17.8	**	0.0
Charles	14.0	24.9	**	17.2	**	0.0
Dorchester	**	**	**	**	**	0.0
Frederick	12.3	17.4	**	12.8	**	**
Garrett	**	**	**	**	0.0	0.0
Harford	12.6	19.7	**	13.4	**	**
Howard	8.3	11.5	**	7.9	**	**
Kent	**	**	**	**	**	0.0
Montgomery	8.0	12.9	3.8	8.0	**	7.6
Prince George's	8.1	12.6	4.9	13.4	6.3	**
Queen Anne's	**	**	0.0	**	0.0	0.0
St Mary's	14.9	**	**	**	**	0.0
Somerset	**	**	**	**	**	0.0
Talbot	**	**	**	**	0.0	0.0
Washington	18.6	25.9	**	19.4	**	0.0
Wicomico	19.3	36.6	**	24.3	**	0.0
Worcester	**	**	**	**	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, SEER*Stat Static data as of March 03, 2021

Table 50.
Number of Deaths for Oral Cancer by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	185	139	46	137	s	<10
Allegany	<10	<10	<10	<10	<10	<10
Anne Arundel	12	<10	<10	11	<10	<10
Baltimore City	29	s	<10	s	16	<10
Baltimore	23	s	<10	18	<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	s	<10	<10
Howard	<10	<10	<10	<10	<10	<10
Kent	<10	<10	<10	<10	<10	<10
Montgomery	25	14	11	18	<10	<10
Prince George's	16	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 C for methods)

Source: CDC WONDER, 2018, as of May 5, 2021

Table 51.
Oral Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.4	4.2	1.1	2.7	2.0	**
Allegany	**	**	**	**	**	**
Anne Arundel	**	**	**	**	**	**
Baltimore City	4.0	7.1	**	**	**	**
Baltimore	2.2	4.5	**	**	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	**	**	**	**	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	**	**	**	**	**	**
Garrett	**	**	**	**	**	**
Harford	**	**	**	**	**	**
Howard	**	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	1.9	**	**	**	**	**
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, 2018, as of May 5, 2021

Table 52.
Number of Oral Cancer Cases by Jurisdiction, Gender, and Race, Maryland, 2014-2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	4,023	2,829	1,194	3,054	791	147
Allegany	69	45	24	67	<6	0
Anne Arundel	442	322	120	397	33	9
Baltimore City	400	281	119	163	232	<6
Baltimore	601	400	201	478	107	13
Calvert	70	51	19	61	9	0
Caroline	27	24	<6	22	<6	<6
Carroll	139	99	40	134	<6	<6
Cecil	100	70	30	93	<6	<6
Charles	113	92	21	82	26	<6
Dorchester	29	24	<6	24	<6	0
Frederick	180	129	51	165	8	<6
Garrett	25	15	10	25	0	0
Harford	188	128	60	171	12	<6
Howard	157	112	45	111	21	23
Kent	27	19	8	25	<6	0
Montgomery	549	357	192	415	62	64
Prince George's	386	263	123	159	210	12
Queen Anne's	40	36	<6	40	0	0
St Mary's	110	81	29	91	17	<6
Somerset	21	16	<6	14	7	0
Talbot	53	41	12	50	<6	0
Washington	130	99	31	126	<6	0
Wicomico	94	71	23	78	s	<6
Worcester	63	46	17	57	<6	0

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

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 53.
Oral Cancer Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2014-2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	11.1	16.9	6.2	12.7	8.0	6.2
Allegany	14.2	19.3	8.5	14.5	**	0.0
Anne Arundel	12.8	19.8	6.7	14.0	7.3	**
Baltimore City	11.9	18.8	6.4	15.0	10.5	**
Baltimore	11.4	16.8	7.0	12.7	9.3	**
Calvert	11.7	16.3	6.9	12.1	**	0.0
Caroline	12.4	23.5	**	12.0	**	**
Carroll	12.2	18.0	6.7	12.4	**	**
Cecil	15.3	21.9	9.2	15.1	**	**
Charles	13.2	23.3	5.0	16.6	8.0	**
Dorchester	11.6	20.7	**	12.6	**	0.0
Frederick	11.8	17.8	6.5	12.3	**	**
Garrett	12.2	**	**	12.3	0.0	0.0
Harford	11.7	17.0	7.2	12.3	**	**
Howard	8.6	13.0	4.8	8.9	6.9	7.9
Kent	14.7	22.4	**	16.0	**	0.0
Montgomery	9.0	12.9	5.7	10.0	6.3	6.3
Prince George's	7.9	12.2	4.6	12.5	6.2	**
Queen Anne's	11.2	20.0	**	12.3	0.0	0.0
St Mary's	17.5	25.6	9.6	17.7	17.9	**
Somerset	13.2	20.4	**	**	**	0.0
Talbot	16.5	26.6	**	17.7	**	0.0
Washington	13.4	21.1	6.7	14.2	**	0.0
Wicomico	15.6	25.3	7.5	17.9	**	**
Worcester	13.3	20.8	6.7	13.6	**	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, SEER*Stat Static data as of March 03, 2021

Table 54.
Number of Deaths for Oral Cancer by Jurisdiction, Gender, and Race, Maryland, 2014-2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	886	627	259	622	230	34
Allegany	18	s	<10	s	<10	<10
Anne Arundel	81	60	21	71	s	<10
Baltimore City	127	89	38	s	86	<10
Baltimore	131	85	46	110	s	<10
Calvert	16	s	<10	13	<10	<10
Caroline	<10	<10	<10	<10	<10	<10
Carroll	22	s	<10	s	<10	<10
Cecil	12	<10	<10	s	<10	<10
Charles	28	s	<10	15	s	<10
Dorchester	11	<10	<10	s	<10	<10
Frederick	32	s	<10	28	<10	<10
Garrett	<10	<10	<10	<10	<10	<10
Harford	35	21	14	31	<10	<10
Howard	31	s	<10	18	<10	<10
Kent	<10	<10	<10	<10	<10	<10
Montgomery	113	69	44	88	11	14
Prince George's	105	78	27	37	62	<10
Queen Anne's	10	<10	<10	s	<10	<10
St. Mary's	21	s	<10	20	<10	<10
Somerset	<10	<10	<10	<10	<10	<10
Talbot	<10	<10	<10	<10	<10	<10
Washington	20	s	<10	19	<10	<10
Wicomico	22	s	<10	14	<10	<10
Worcester	23	s	<10	19	<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 C for methods)

Source: CDC WONDER, 2014-2018, as of May 5, 2021

Table 55.
Oral Cancer Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2014-2018

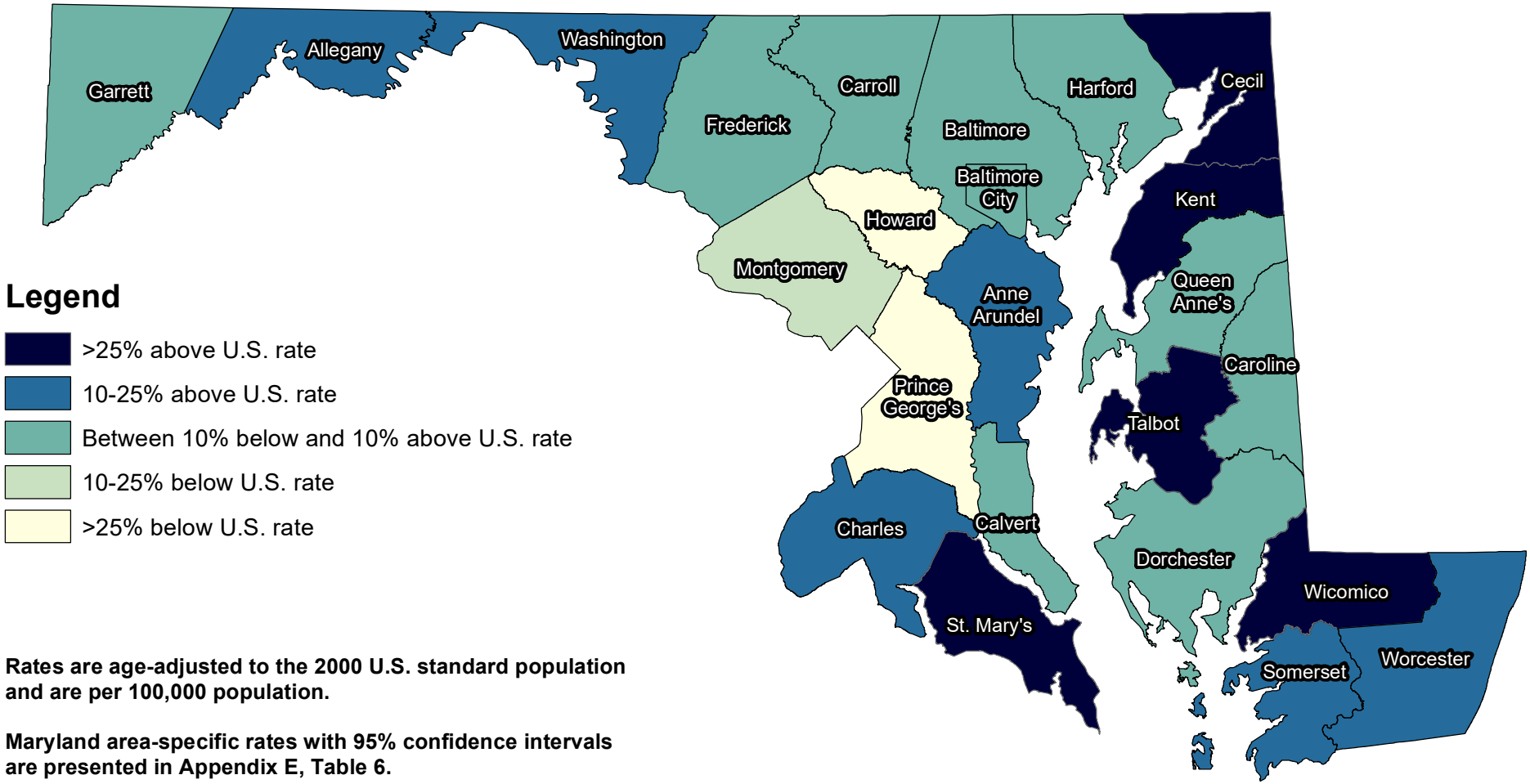
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.5	3.9	1.3	2.6	2.4	1.5
Allegany	**	**	**	**	**	**
Anne Arundel	2.4	3.9	1.2	2.5	**	**
Baltimore City	3.8	6.3	2.0	3.6	4.0	**
Baltimore	2.4	3.8	1.4	2.7	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	1.9	**	**	2.0	**	**
Cecil	**	**	**	**	**	**
Charles	3.4	5.8	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	2.2	3.7	**	2.1	**	**
Garrett	**	**	**	**	**	**
Harford	2.3	3.2	**	2.4	**	**
Howard	1.9	3.2	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	1.9	2.6	1.3	2.1	**	**
Prince George's	2.2	3.8	1.0	2.9	1.9	**
Queen Anne's	**	**	**	**	**	**
St. Mary's	3.4	**	**	4.0	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	2.0	**	**	**	**	**
Wicomico	3.5	**	**	**	**	**
Worcester	5.1	**	**	**	**	**

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

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

Source: CDC WONDER, 2014-2018, as of May 5, 2021

Maryland Oral Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2014-2018



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

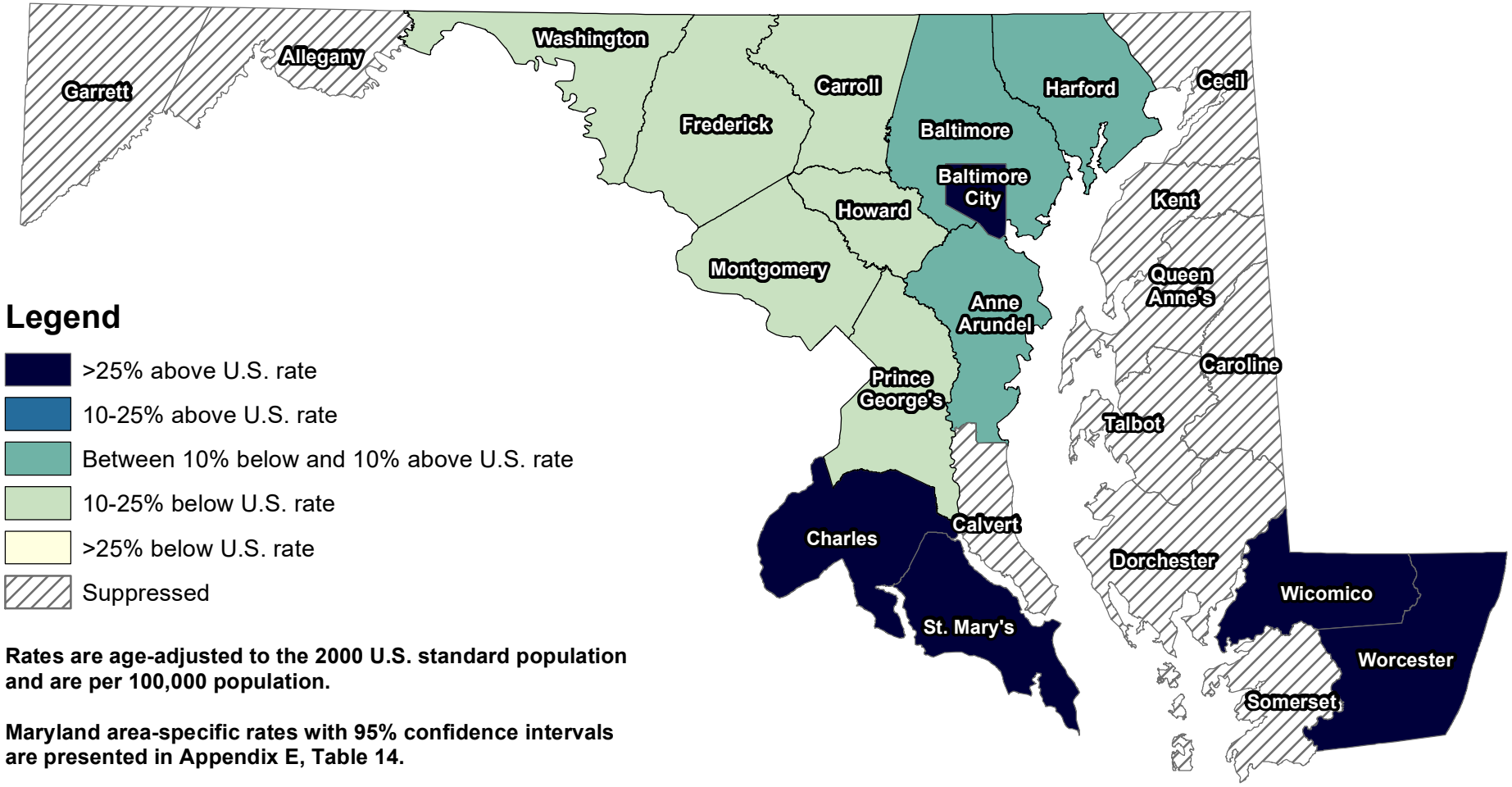
Maryland area-specific rates with 95% confidence intervals are presented in Appendix E, Table 6.

U.S. oral cancer incidence rate, 2014-2018: 11.5 / 100,000

Maryland oral cancer incidence rate, 2014-2018: 11.1 / 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, 2014-2018



Legend

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

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, 2014-2018: 2.5 / 100,000

Maryland oral cancer mortality rate, 2014-2018: 2.5 / 100,000

Sources: CDC WONDER
U.S. SEER, Cancer Statistics Review

Note: Rates based on case counts of 0-19 are suppressed per MDH/CCPC Data Use Policy and Procedures.

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

Incidence (New Cases)

In 2018, a total of 1,696 cases of melanoma of the skin were reported in Maryland. The age-adjusted incidence rate for melanoma in 2018 was 23.7 per 100,000 population (22.5-24.9, 95% CI), which is statistically significantly higher than the 2018 U.S. SEER age-adjusted melanoma incidence rate of 23.5 per 100,000 population (23.2-23.8, 95% CI).

Mortality (Deaths)

In 2018, a total of 125 persons died of melanoma in Maryland. The 2018 age-adjusted mortality rate for melanoma in Maryland was 1.8 per 100,000 population (1.5-2.1, 95% CI). This rate is statistically significantly lower than the 2018 U.S. melanoma of the skin mortality rate of 2.1 per 100,000 population (2.0-2.1, 95% CI). Maryland had the 46th highest melanoma cancer mortality rate among the states and the District of Columbia for the period from 2014 to 2018.

Table 56.
Melanoma Incidence and Mortality Rates
by Gender and Race, Maryland (MD) and the United States, 2018

Incidence 2018	*Total**	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD New Cases (count)	1,696	1,001	695	1,646	15	9
MD Incidence Rate	23.7	30.9	18.7	35.2	**	**
U.S. SEER Rate	23.5	30.0	18.6	28.2	0.8	1.5
Mortality 2018	*Total*	*Males*	*Females*	*Whites*	*Blacks*	*Other*
MD Deaths (count)	125	75	50	117	<10	<10
MD Mortality Rate	1.8	2.5	1.3	2.5	**	**
U.S. Mortality Rate	2.1	3.0	1.4	2.4	0.3	0.3

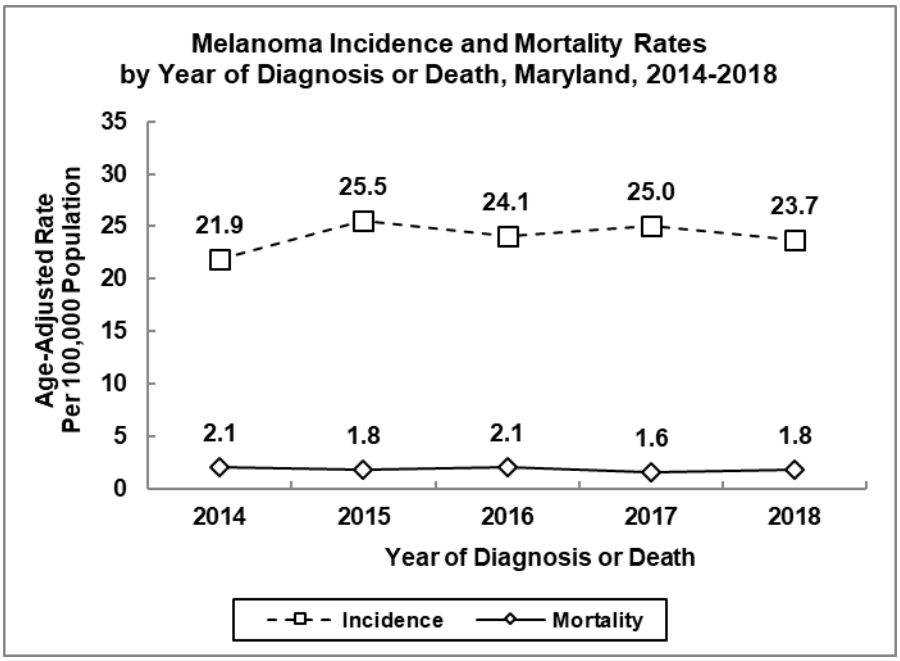
Rates are per 100,000 population and are age-adjusted to 2000 U.S. standard population

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

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

** 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 Underlying Cause of Death in CDC WONDER, 2018
U.S. SEER, Cancer Statistics Review



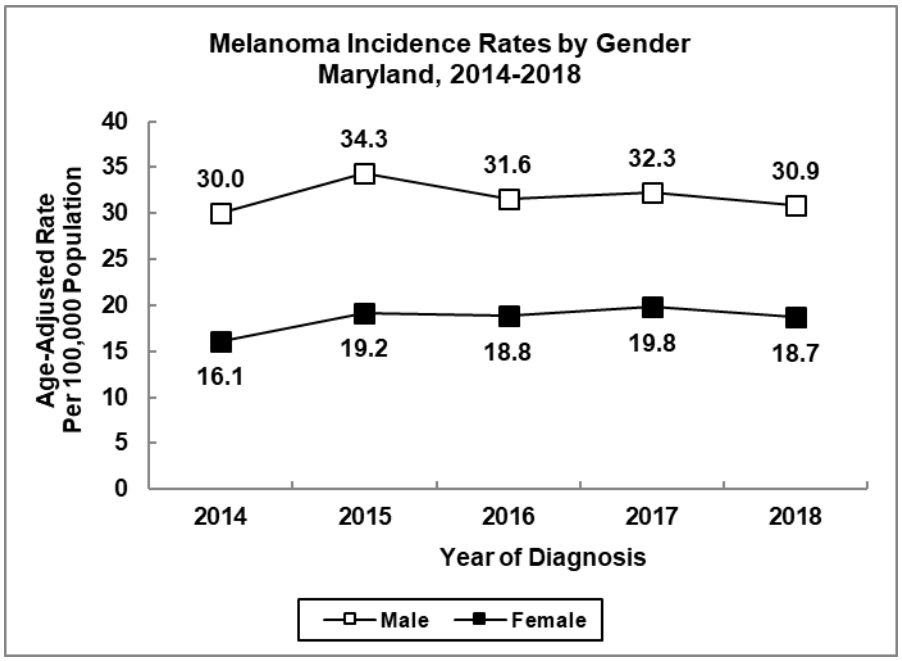
Source: Maryland Cancer Registry
NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Incidence and Mortality Trends

Melanoma incidence rates in Maryland increased at a rate of 1.4% per year from 2014 to 2018.

Melanoma mortality rates decreased at a rate of 4.2% per year from 2014 to 2018.

See Appendix F, Tables 1 and 2.

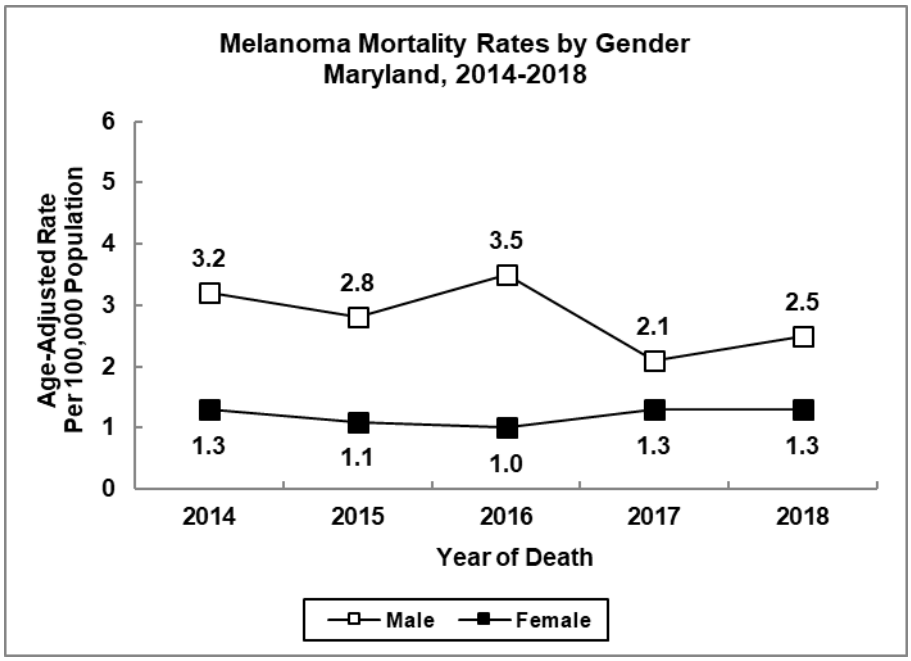


Source: Maryland Cancer Registry

Incidence Trends by Gender

Over the 5-year period from 2014 to 2018, incidence rates remained stagnant among males but increased at a rate of 3.4% per year among females. In 2018, melanoma incidence rates were 65.2% higher among males than females in Maryland.

See Appendix F, Table 4.

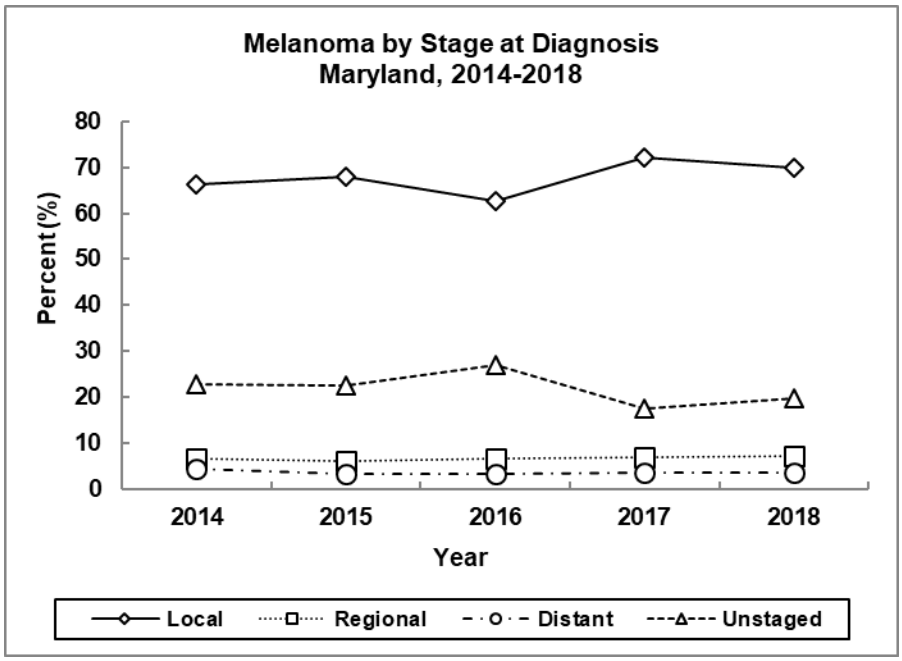


Source: NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Mortality Trends by Gender

Melanoma mortality rates in males decreased at a rate of 7.5% per year from 2014 to 2018. Female melanoma mortality rates increased at a rate of 1.7% per year in the same time period.

See Appendix F, Table 6.



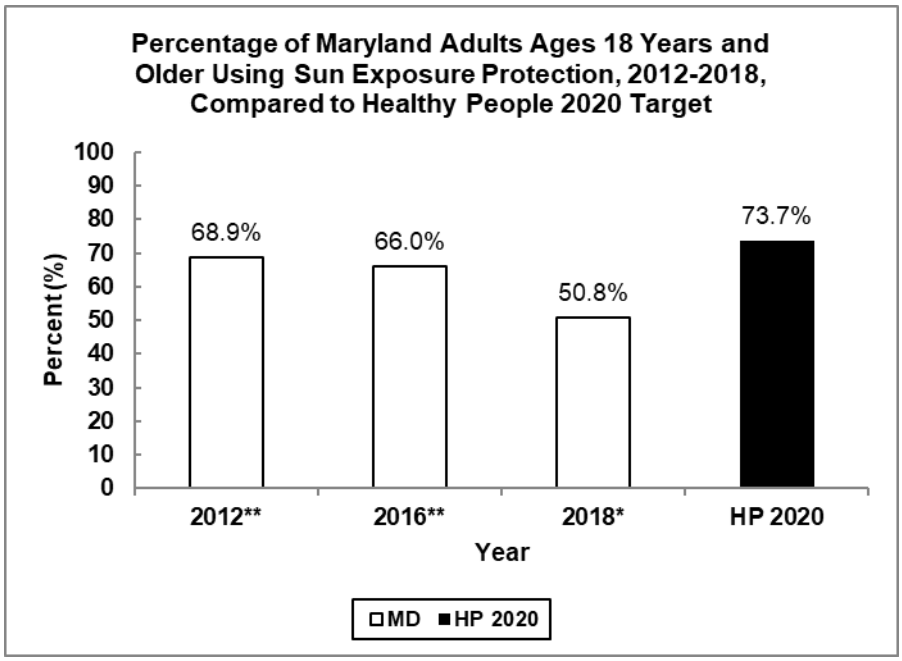
Source: Maryland Cancer Registry
Note: Due to a methodology change, SEER summary stage 2000 was used in 2016-2018, while the derived SEER summary stage 2000 was used from 2014-2015

Stage at Diagnosis

During the 5-year period from 2014 to 2018, the percent of new melanoma cases diagnosed at the local stage increased 1.7% per year.

In 2018, 69.9% of all melanoma was diagnosed at the local stage, 7.2% was found at the regional stage, and 3.4% was found at the distant stage. The proportion of melanoma reported as unstaged was 19.6%.

See Appendix G, Table 7.



Source: Maryland BRFSS 2012, 2016, 2018
Healthy People 2020, U.S. Department of Health and Human Services

* The Maryland BRFSS question in the 2018 survey was phrased differently than past years. The estimate indicated is based on adults who reported "always" or "almost always" using one or more of the following measures: limiting exposure to the sun when outside for more than an hour on a warm, sunny day; 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. These estimates exclude adults who reported not going out in the sun..

** The Maryland BRFSS 2012 and 2016 estimates are 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. These estimates exclude adults who reported not going out in the sun.

*** 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.

Sun Exposure Protection

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

In 2018, 50.8% of Maryland adults used at least one method of protection against sun exposure.[*] This number excludes adults who reported that they do not go out in the sun.

Table 57.
Number of Melanoma Cases by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	1,696	1,001	695	1,646	15	9
Allegany	16	12	<6	16	0	0
Anne Arundel	229	134	95	223	0	0
Baltimore City	78	49	29	76	<6	0
Baltimore	284	171	113	279	0	<6
Calvert	25	14	11	24	0	0
Caroline	12	8	<6	11	0	0
Carroll	83	46	37	81	<6	0
Cecil	34	16	18	34	0	0
Charles	31	20	11	27	<6	<6
Dorchester	9	<6	<6	9	0	0
Frederick	88	50	38	87	0	0
Garrett	11	8	<6	11	0	0
Harford	133	69	64	131	<6	0
Howard	111	70	41	s	<6	<6
Kent	17	12	<6	17	0	0
Montgomery	227	138	89	215	<6	<6
Prince George's	51	31	20	45	<6	<6
Queen Anne's	23	11	12	23	0	0
St Mary's	33	20	13	s	<6	0
Somerset	9	<6	<6	9	0	0
Talbot	25	16	9	23	0	0
Washington	55	29	26	55	0	0
Wicomico	38	27	11	37	0	0
Worcester	48	27	21	s	<6	0

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

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 58.
Melanoma Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	23.7	30.9	18.7	35.2	**	**
Allegany	16.9	**	**	18.3	0.0	0.0
Anne Arundel	34.4	44.2	27.1	41.4	0.0	0.0
Baltimore City	11.3	17.3	7.3	33.4	**	0.0
Baltimore	27.2	36.9	20.5	38.2	0.0	**
Calvert	23.1	**	**	26.0	0.0	0.0
Caroline	**	**	**	**	0.0	0.0
Carroll	40.6	45.2	40.2	42.3	**	0.0
Cecil	28.9	27.6	30.7	30.9	0.0	0.0
Charles	17.0	23.2	**	28.6	**	**
Dorchester	**	**	**	**	0.0	0.0
Frederick	30.2	37.9	25.4	34.3	0.0	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	42.5	48.9	40.4	49.1	**	0.0
Howard	29.3	40.9	20.6	43.7	**	**
Kent	48.3	**	**	56.3	0.0	0.0
Montgomery	18.1	23.9	13.9	25.7	**	**
Prince George's	5.5	7.9	4.0	18.1	**	**
Queen Anne's	40.0	**	**	43.9	0.0	0.0
St Mary's	29.2	36.3	**	33.9	**	0.0
Somerset	**	**	**	**	0.0	0.0
Talbot	36.9	51.7	**	39.8	0.0	0.0
Washington	28.3	32.9	25.1	30.9	0.0	0.0
Wicomico	33.0	51.8	**	44.1	0.0	0.0
Worcester	50.2	59.2	43.0	56.5	**	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, SEER*Stat Static data as of March 03, 2021

Table 59.
Number of Deaths for Melanoma by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	125	75	50	117	<10	<10
Allegany	<10	<10	<10	<10	<10	<10
Anne Arundel	15	<10	<10	s	<10	<10
Baltimore City	<10	<10	<10	<10	<10	<10
Baltimore	21	s	<10	19	<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	14	<10	<10	s	<10	<10
Howard	<10	<10	<10	<10	<10	<10
Kent	<10	<10	<10	<10	<10	<10
Montgomery	24	10	14	21	<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 C for methods)

Source: CDC WONDER, 2018, as of May 5, 2021

Table 60.
Melanoma Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	1.8	2.5	1.3	2.5	**	**
Allegany	**	**	**	**	**	**
Anne Arundel	**	**	**	**	**	**
Baltimore City	**	**	**	**	**	**
Baltimore	2.0	**	**	**	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	**	**	**	**	**	**
Cecil	**	**	**	**	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	**	**	**	**	**	**
Garrett	**	**	**	**	**	**
Harford	**	**	**	**	**	**
Howard	**	**	**	**	**	**
Kent	**	**	**	**	**	**
Montgomery	1.9	**	**	2.6	**	**
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, 2018, as of May 5, 2021

Table 61.
Number of Melanoma Cases by Jurisdiction, Gender, and Race, Maryland, 2014-2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	8,265	4,890	3,374	8,037	90	39
Allegany	88	51	37	88	0	0
Anne Arundel	1,098	629	469	1,077	<6	<6
Baltimore City	373	215	158	360	9	<6
Baltimore	1,545	924	621	1,511	15	<6
Calvert	156	94	62	154	0	0
Caroline	50	28	22	49	0	0
Carroll	381	226	155	376	<6	<6
Cecil	187	101	86	184	<6	0
Charles	131	89	42	121	7	<6
Dorchester	49	28	21	49	0	0
Frederick	399	222	177	396	0	<6
Garrett	55	33	22	s	0	<6
Harford	588	344	244	572	<6	<6
Howard	466	277	189	455	<6	<6
Kent	63	38	25	63	0	0
Montgomery	1,139	714	425	1,089	14	16
Prince George's	269	159	110	241	16	<6
Queen Anne's	152	94	58	150	<6	0
St Mary's	156	91	64	150	<6	0
Somerset	56	25	31	56	0	0
Talbot	137	78	59	131	<6	0
Washington	246	149	97	241	0	0
Wicomico	184	101	83	180	<6	0
Worcester	205	131	74	s	<6	0

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

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 62.
Melanoma Age-Adjusted Incidence Rates* by Jurisdiction, Gender, and Race, Maryland, 2014-2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	24.1	31.8	18.5	35.6	1.0	1.7
Allegany	18.4	22.1	16.6	19.7	0.0	0.0
Anne Arundel	34.2	42.4	28.0	41.3	**	**
Baltimore City	11.4	15.9	8.5	33.4	**	**
Baltimore	30.4	41.3	22.8	41.7	**	**
Calvert	30.8	39.6	23.8	35.9	0.0	0.0
Caroline	25.9	30.6	21.5	29.9	0.0	0.0
Carroll	38.6	48.8	31.5	40.4	**	**
Cecil	33.0	37.1	30.7	35.0	**	0.0
Charles	15.9	24.3	9.7	26.9	**	**
Dorchester	22.0	25.3	19.9	29.6	0.0	0.0
Frederick	28.4	34.2	24.0	32.2	0.0	**
Garrett	25.9	34.9	19.3	25.8	0.0	**
Harford	39.6	50.6	31.4	44.8	**	**
Howard	26.5	35.2	19.8	38.6	**	**
Kent	37.9	46.5	31.5	44.4	0.0	0.0
Montgomery	18.8	26.1	13.3	26.5	**	1.6
Prince George's	5.9	8.6	4.3	19.3	0.4	**
Queen Anne's	48.3	60.8	38.6	52.3	**	0.0
St Mary's	27.5	32.6	23.0	31.8	**	0.0
Somerset	36.2	34.5	43.0	54.0	0.0	0.0
Talbot	42.6	49.4	37.7	46.8	**	0.0
Washington	26.1	33.8	19.9	28.0	0.0	0.0
Wicomico	32.8	38.5	30.0	44.2	**	0.0
Worcester	48.9	63.9	36.5	56.0	**	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, SEER*Stat Static data as of March 03, 2021

Table 63.
Number of Deaths for Melanoma by Jurisdiction, Gender, and Race, Maryland, 2014-2018

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	638	409	229	608	s	<10
Allegany	<10	<10	<10	<10	<10	<10
Anne Arundel	81	57	24	79	<10	<10
Baltimore City	30	s	<10	26	<10	<10
Baltimore	117	77	40	111	<10	<10
Calvert	11	<10	<10	s	<10	<10
Caroline	<10	<10	<10	<10	<10	<10
Carroll	33	23	10	s	<10	<10
Cecil	21	s	<10	s	<10	<10
Charles	11	<10	<10	s	<10	<10
Dorchester	<10	<10	<10	<10	<10	<10
Frederick	32	20	12	s	<10	<10
Garrett	<10	<10	<10	<10	<10	<10
Harford	45	32	13	s	<10	<10
Howard	21	<10	s	20	<10	<10
Kent	<10	<10	<10	<10	<10	<10
Montgomery	91	53	38	83	<10	<10
Prince George's	35	23	12	26	<10	<10
Queen Anne's	<10	<10	<10	<10	<10	<10
St. Mary's	13	s	<10	s	<10	<10
Somerset	<10	<10	<10	<10	<10	<10
Talbot	<10	<10	<10	<10	<10	<10
Washington	34	18	16	s	<10	<10
Wicomico	12	<10	<10	s	<10	<10
Worcester	11	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 C for methods)

Source: CDC WONDER, 2014-2018, as of May 5, 2021

Table 64.
Melanoma Age-Adjusted Mortality Rates* by Jurisdiction, Gender, and Race, Maryland, 2014-2018

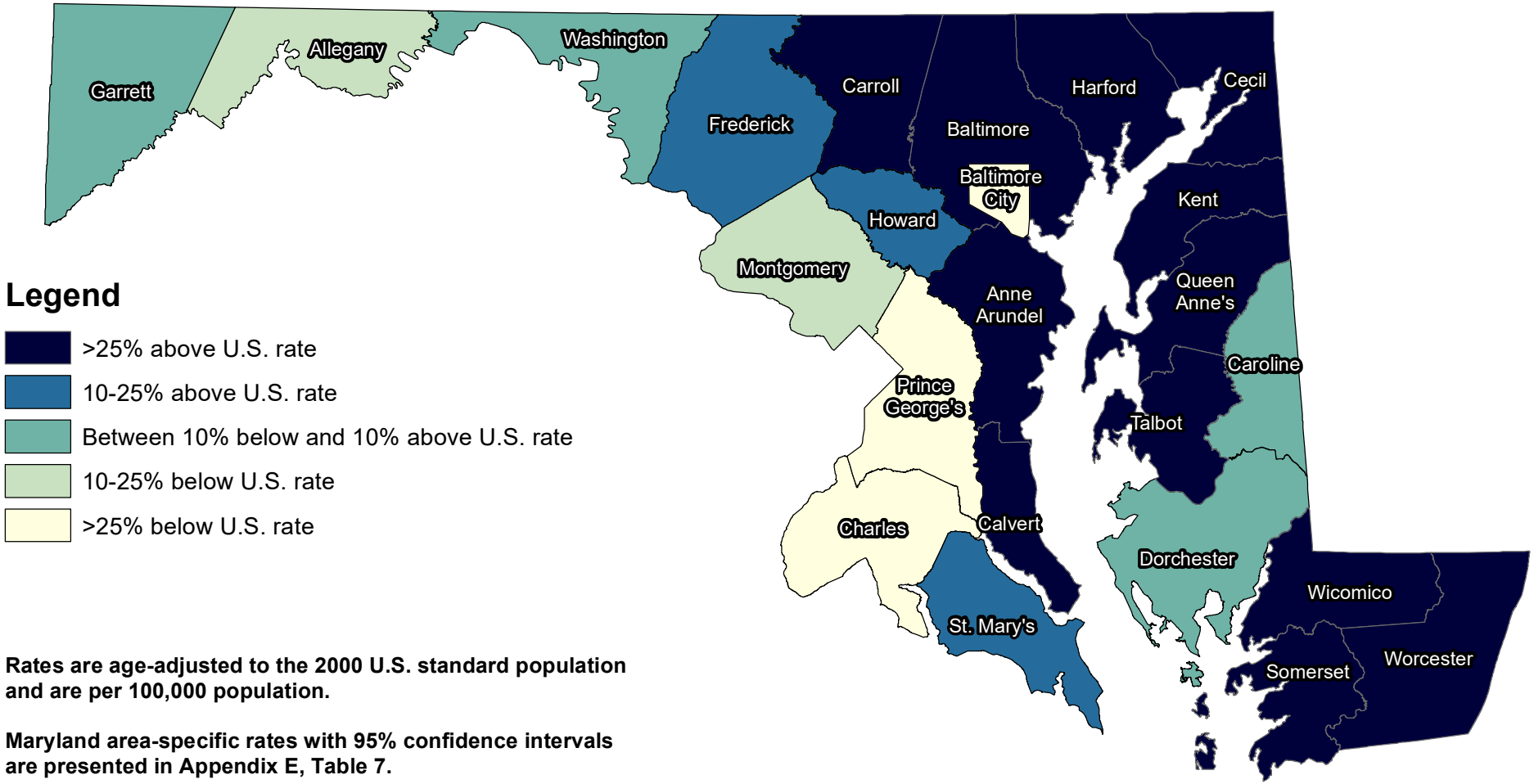
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	1.9	2.8	1.2	2.6	0.3	**
Allegany	**	**	**	**	**	**
Anne Arundel	2.5	3.9	1.3	2.9	**	**
Baltimore City	1.0	1.7	**	2.6	**	**
Baltimore	2.2	3.5	1.3	2.7	**	**
Calvert	**	**	**	**	**	**
Caroline	**	**	**	**	**	**
Carroll	3.5	5.4	**	3.7	**	**
Cecil	4.1	**	**	4.4	**	**
Charles	**	**	**	**	**	**
Dorchester	**	**	**	**	**	**
Frederick	2.5	3.6	**	2.8	**	**
Garrett	**	**	**	**	**	**
Harford	3.0	5.0	**	3.4	**	**
Howard	1.2	**	**	1.6	**	**
Kent	**	**	**	**	**	**
Montgomery	1.4	1.9	1.1	1.8	**	**
Prince George's	0.9	1.5	**	2.2	**	**
Queen Anne's	**	**	**	**	**	**
St. Mary's	**	**	**	**	**	**
Somerset	**	**	**	**	**	**
Talbot	**	**	**	**	**	**
Washington	3.5	**	**	3.8	**	**
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, 2014-2018, as of May 5, 2021

Maryland Melanoma Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2014-2018



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

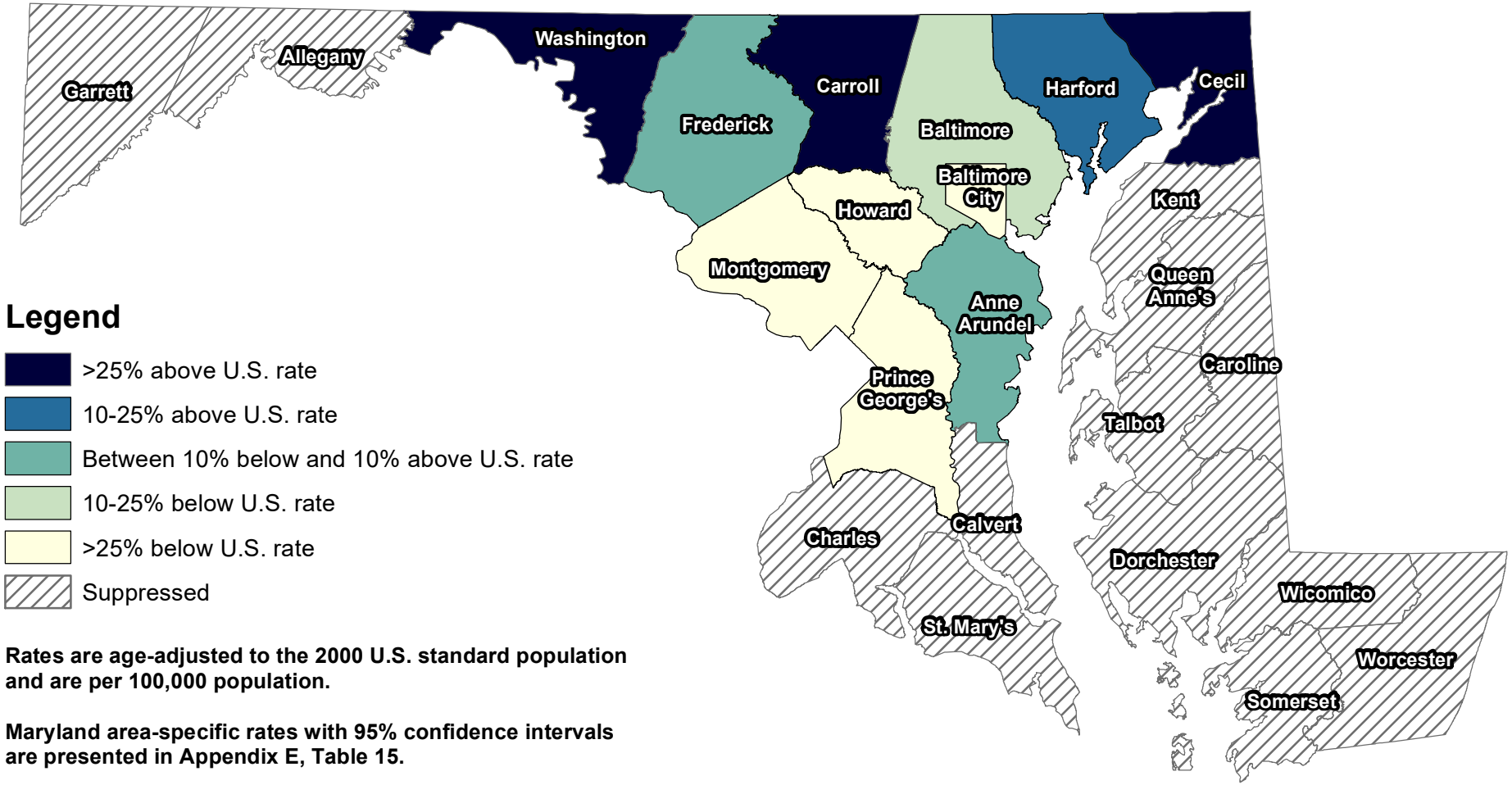
Maryland area-specific rates with 95% confidence intervals are presented in Appendix E, Table 7.

U.S. melanoma cancer incidence rate, 2014-2018: 23.9 / 100,000

Maryland melanoma cancer incidence rate, 2014-2018: 24.1 / 100,000

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

Maryland Melanoma Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rate, 2014-2018



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 cancer mortality rate, 2014-2018: 2.5 / 100,000

Maryland melanoma cancer mortality rate, 2014-2018: 1.9 / 100,000

Sources: CDC WONDER
U.S. SEER, Cancer Statistics Review

Note: Rates based on case counts of 0-19 are suppressed per MDH/CCPC Data Use Policy and Procedures.

G. Cervical Cancer

Incidence (New Cases)

A total of 215 cases of cervical cancer among women in Maryland were reported in 2018. The age-adjusted incidence rate for cervical cancer in Maryland in 2018 was 6.4 per 100,000 women (5.6-7.4, 95% CI), which is statistically similar to the 2018 U.S. SEER age-adjusted cervical cancer incidence rate of 7.5 per 100,000 women (7.3-7.8, 95% CI).

Mortality (Deaths)

In 2018, a total of 81 women died of cervical cancer in Maryland. The age-adjusted cervical cancer mortality rate in Maryland in 2018 was 2.2 per 100,000 women (1.7-2.7, 95% CI). This rate is statistically similar to the 2018 U.S. cervical cancer mortality rate of 2.2 per 100,000 women (2.1-2.2, 95% CI). Maryland had the 34th highest cervical cancer mortality rate among the states and the District of Columbia for the period from 2014 to 2018.

Table 65.
Cervical Cancer Incidence and Mortality Rates
by Race, Maryland (MD) and the United States, 2018

Incidence 2018	*Total**	*Whites*	*Blacks*	*Other*
MD New Cases (count)	215	118	81	11
MD Incidence Rate	6.4	6.0	7.5	**
U.S. SEER Rate	7.5	7.5	8.7	5.7
Mortality 2018	*Total*	*Whites*	*Blacks*	*Other*
MD Deaths (count)	81	41	s	<10
MD Mortality Rate	2.2	1.9	3.0	**
U.S. Mortality Rate	2.2	2.1	3.2	1.6

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

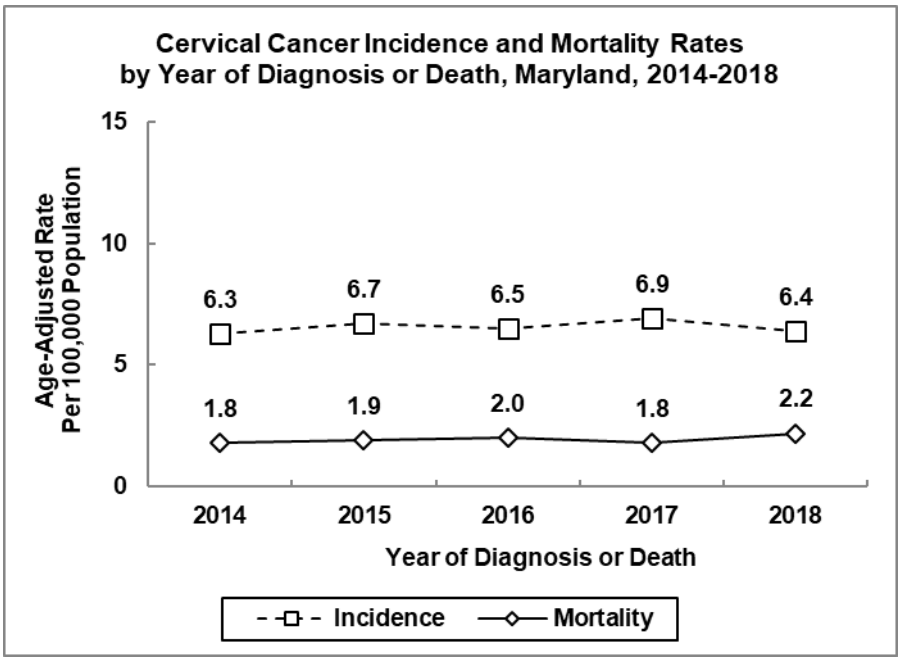
* Total includes unknown race and unknown jurisdiction

<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 Underlying Cause of Death in CDC WONDER, 2018
U.S. SEER, Cancer Statistics Review



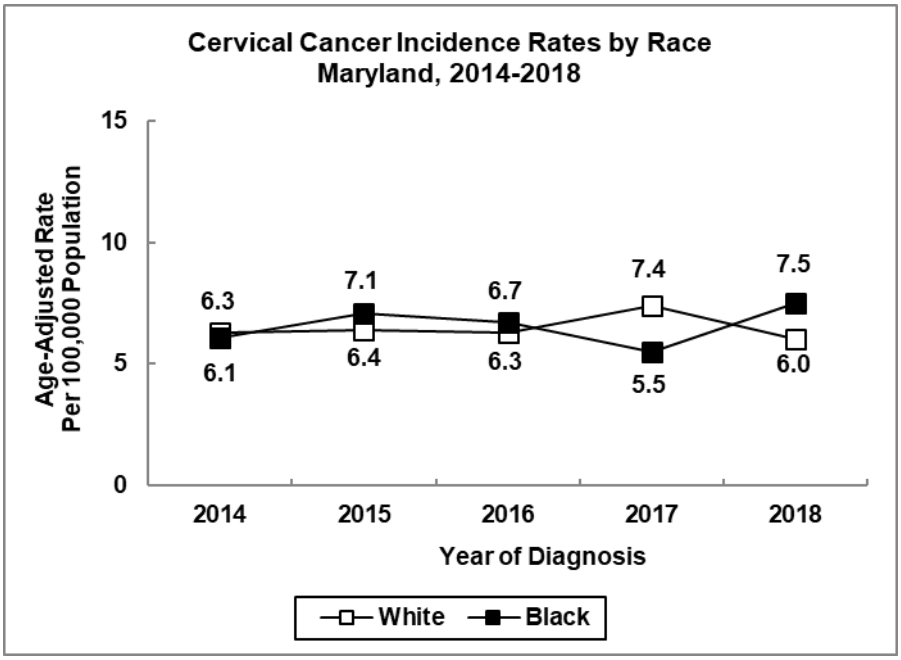
Source: Maryland Cancer Registry
NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Incidence and Mortality Trends

Cervical cancer incidence rates among Maryland women increased at a rate of 0.6% per year from 2014 to 2018.

Cervical cancer mortality rates increased at a rate of 3.5% per year from 2014 to 2018.

See Appendix F, Tables 1 and 2.

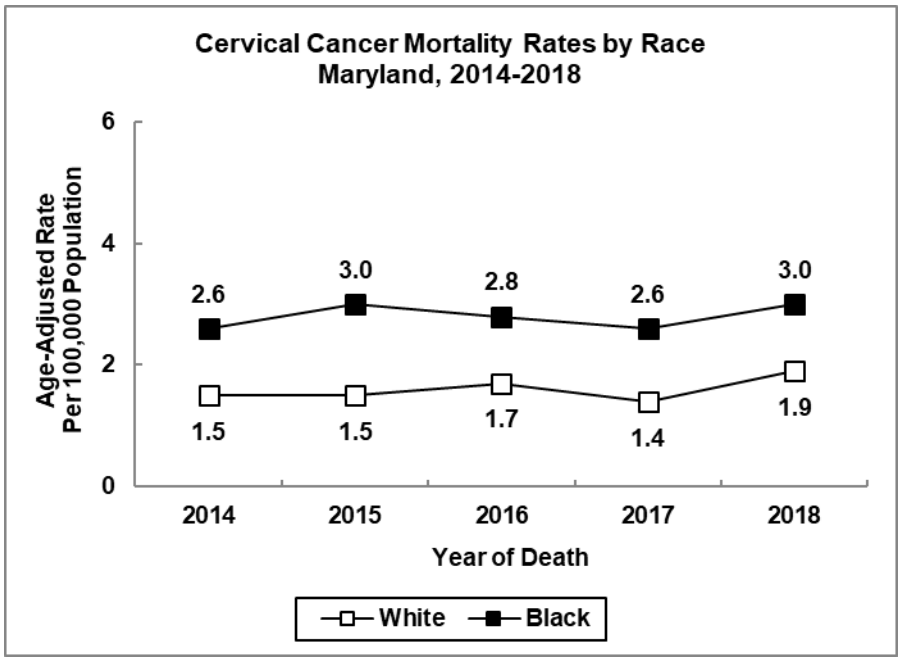


Source: Maryland Cancer Registry

Incidence Trends by Race

From 2014 to 2018, cervical cancer incidence rates among black females increased at a rate of 1.6% per year and at a rate of 0.5% per year among white females.

See Appendix F, Table 3.

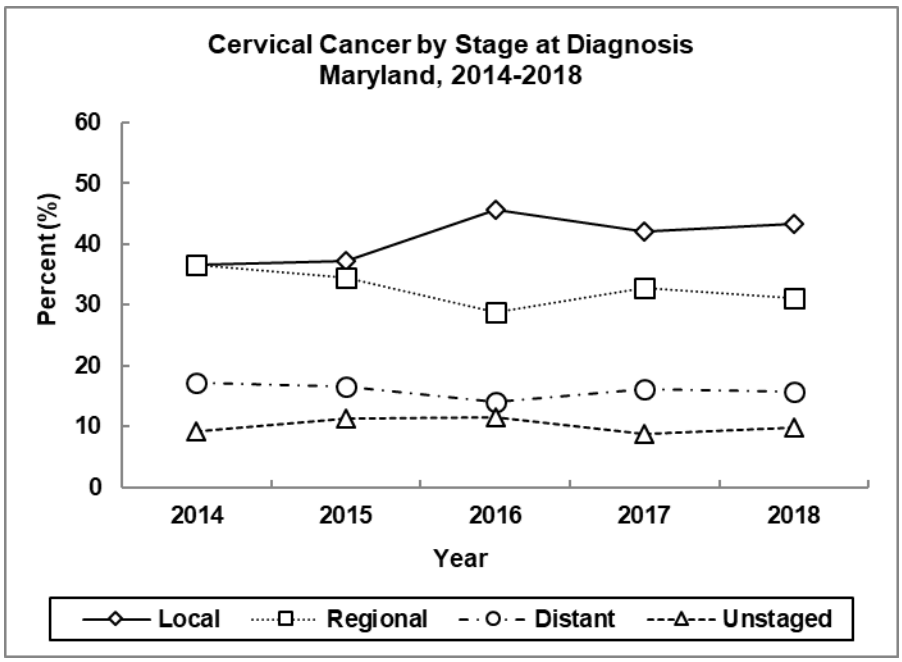


Source: NCHS Underlying Cause of Death in CDC WONDER, 2017-2018
NCHS Compressed Mortality File in CDC WONDER, 2014-2016

Mortality Trends by Race

From 2014 to 2018, mortality rates increased at a rate of 4.1% per year for white females and at a rate of 1.4% per year for black females.

See Appendix F, Table 5.

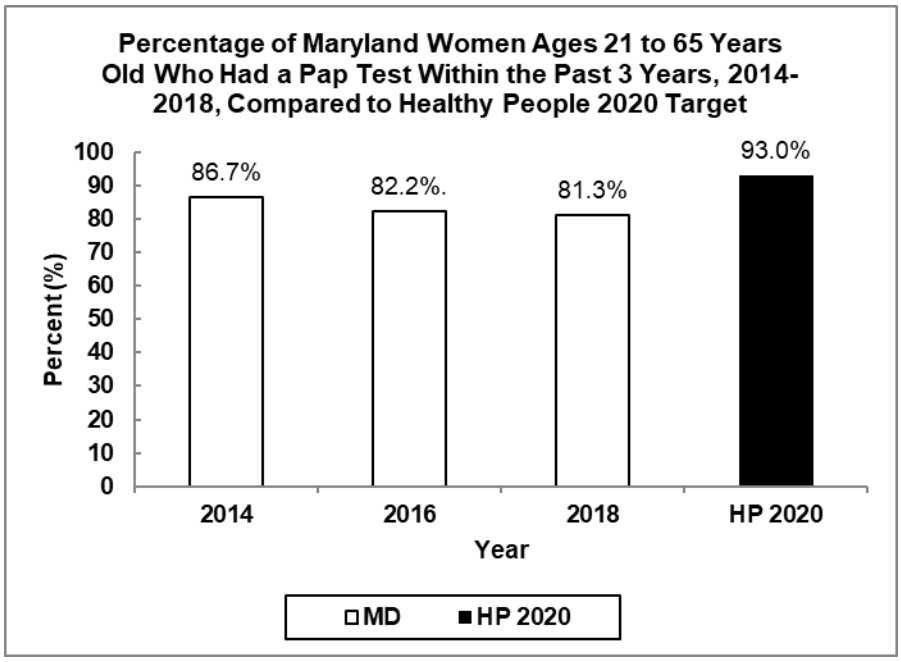


Source: Maryland Cancer Registry
Note: Due to a methodology change, SEER summary stage 2000 was used in 2016-2018, while the derived SEER summary stage 2000 was used from 2014-2015

Stage at Diagnosis

In 2018, 43.3% of all cervical cancer cases in Maryland were diagnosed at the local stage, 31.2% were diagnosed at the regional stage, and 15.8% were found at the distant stage. The proportion of cervical cancer cases reported as unstaged decreased at a rate of 1.5% per year from 2014 to 2018.

See Appendix G, Table 8.



Source: Maryland BRFSS 2014, 2016, 2018
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 the percentage of women who have had a cervical cancer screening test based on the most recent guidelines to 93.0%.

In 2018, 81.3% of Maryland women ages 21 to 65 years, old reported they had a Pap test within the past three years.

Table 66.
Number of Cervical Cancer Cases by Jurisdiction and Race, Maryland, 2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	215	118	81	11
Allegany	<6	<6	0	0
Anne Arundel	22	15	s	<6
Baltimore City	35	12	20	<6
Baltimore	28	16	10	<6
Calvert	<6	<6	0	0
Caroline	<6	0	<6	0
Carroll	<6	<6	0	0
Cecil	<6	<6	0	0
Charles	9	<6	6	0
Dorchester	<6	<6	<6	0
Frederick	7	7	0	0
Garrett	<6	<6	0	0
Harford	11	s	<6	0
Howard	<6	<6	<6	0
Kent	0	0	0	0
Montgomery	25	15	<6	<6
Prince George's	39	11	25	<6
Queen Anne's	<6	<6	0	0
St Mary's	<6	<6	0	0
Somerset	0	0	0	0
Talbot	<6	<6	0	0
Washington	<6	<6	<6	0
Wicomico	<6	<6	0	0
Worcester	<6	<6	0	0

Total includes cases reported as unknown race and unknown jurisdiction

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 67.
Cervical Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	6.4	6.0	7.5	**
Allegany	**	**	0.0	0.0
Anne Arundel	7.1	**	**	**
Baltimore City	10.4	**	9.3	**
Baltimore	6.5	6.3	**	**
Calvert	**	**	0.0	0.0
Caroline	**	0.0	**	0.0
Carroll	**	**	0.0	0.0
Cecil	**	**	0.0	0.0
Charles	**	**	**	0.0
Dorchester	**	**	**	0.0
Frederick	**	**	0.0	0.0
Garrett	**	**	0.0	0.0
Harford	**	**	**	0.0
Howard	**	**	**	0.0
Kent	0.0	0.0	0.0	0.0
Montgomery	3.9	**	**	**
Prince George's	8.2	**	7.2	**
Queen Anne's	**	**	0.0	0.0
St Mary's	**	**	0.0	0.0
Somerset	0.0	0.0	0.0	0.0
Talbot	**	**	0.0	0.0
Washington	**	**	**	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, SEER*Stat Static data as of March 03, 2021

Table 68.
Number of Deaths for Cervical Cancer by Jurisdiction and Race, Maryland, 2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	81	41	s	<10
Allegany	<10	<10	<10	<10
Anne Arundel	<10	<10	<10	<10
Baltimore City	19	<10	15	<10
Baltimore	13	<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	11	<10	<10	<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 C for methods)

Source: CDC WONDER, 2018, as of May 5, 2021

Table 69.
Cervical Cancer Age-Adjusted Mortality Rates* by Jurisdiction and Race, Maryland, 2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2.2	1.9	3.0	**
Allegany	**	**	**	**
Anne Arundel	**	**	**	**
Baltimore City	**	**	**	**
Baltimore	**	**	**	**
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, 2018, as of May 5, 2021

Table 70.
Number of Cervical Cancer Cases by Jurisdiction and Race, Maryland, 2014-2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	1,101	645	357	60
Allegany	19	18	0	0
Anne Arundel	111	84	22	<6
Baltimore City	175	56	110	6
Baltimore	150	103	39	<6
Calvert	8	8	0	0
Caroline	6	<6	<6	0
Carroll	22	20	<6	0
Cecil	23	s	<6	<6
Charles	27	12	13	<6
Dorchester	9	<6	<6	0
Frederick	36	31	<6	<6
Garrett	<6	<6	0	0
Harford	40	36	<6	<6
Howard	37	19	8	9
Kent	<6	<6	0	0
Montgomery	165	88	33	28
Prince George's	158	43	101	<6
Queen Anne's	8	s	<6	0
St Mary's	17	12	<6	0
Somerset	<6	<6	<6	0
Talbot	6	6	0	0
Washington	33	28	<6	0
Wicomico	25	23	<6	0
Worcester	13	s	<6	0

Total includes cases reported as unknown race and unknown jurisdiction

<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 C for methods)

Source: Maryland Cancer Registry, SEER*Stat Static data as of March 03, 2021

Table 71.
Cervical Cancer Age-Adjusted Incidence Rates* by Jurisdiction and Race, Maryland, 2014-2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	6.6	6.5	6.6	4.6
Allegany	10.8	10.3	0.0	0.0
Anne Arundel	7.3	7.3	8.6	**
Baltimore City	10.2	11.0	9.4	**
Baltimore	6.3	7.0	5.5	**
Calvert	**	**	0.0	0.0
Caroline	**	**	**	0.0
Carroll	4.6	4.6	**	0.0
Cecil	8.5	8.4	**	**
Charles	6.2	**	**	**
Dorchester	**	**	**	0.0
Frederick	5.3	5.4	**	**
Garrett	**	**	0.0	0.0
Harford	5.6	6.3	**	**
Howard	4.3	3.7	**	**
Kent	**	**	0.0	0.0
Montgomery	5.5	4.6	5.6	5.1
Prince George's	6.4	7.6	5.6	**
Queen Anne's	**	**	**	0.0
St Mary's	5.4	**	**	0.0
Somerset	**	**	**	0.0
Talbot	**	**	0.0	0.0
Washington	9.2	8.8	**	0.0
Wicomico	9.6	13.2	**	0.0
Worcester	**	**	**	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, SEER*Stat Static data as of March 03, 2021

Table 72.
Number of Deaths for Cervical Cancer by Jurisdiction and Race, Maryland, 2014-2018

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	356	180	154	22
Allegany	<10	<10	<10	<10
Anne Arundel	20	16	<10	<10
Baltimore City	77	s	52	<10
Baltimore	55	36	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	<10	<10	<10	<10
Howard	<10	<10	<10	<10
Kent	<10	<10	<10	<10
Montgomery	40	21	<10	s
Prince George's	71	s	54	<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	12	11	<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 C for methods)

Source: CDC WONDER, 2014-2018, as of May 5, 2021

Table 73.
Cervical Cancer Age-Adjusted Mortality Rates* by Jurisdiction and Race, Maryland, 2014-2018

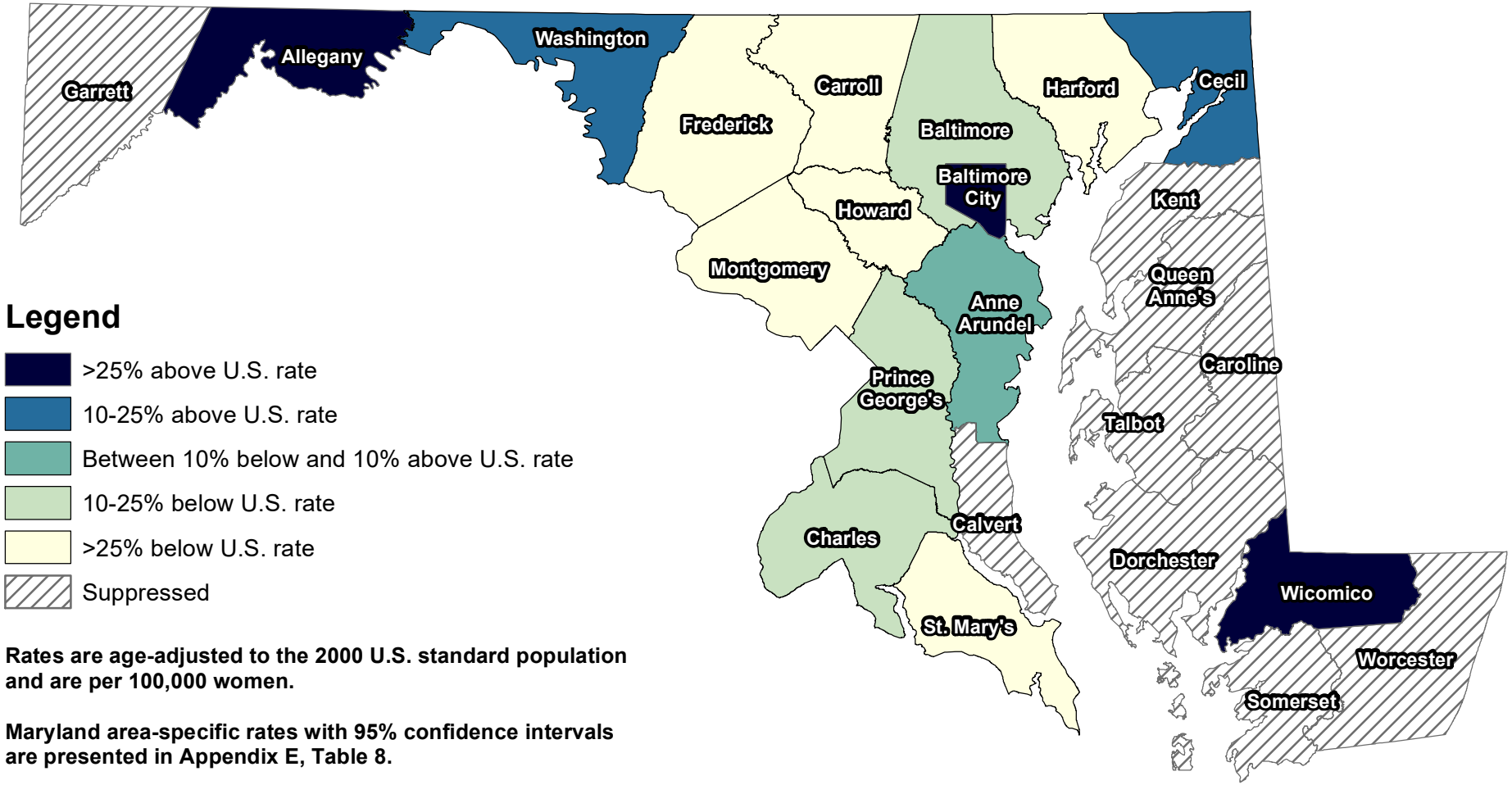
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	1.9	1.6	2.8	1.7
Allegany	**	**	**	**
Anne Arundel	1.2	**	**	**
Baltimore City	4.3	4.1	4.3	**
Baltimore	2.0	2.0	**	**
Calvert	**	**	**	**
Caroline	**	**	**	**
Carroll	**	**	**	**
Cecil	**	**	**	**
Charles	**	**	**	**
Dorchester	**	**	**	**
Frederick	**	**	**	**
Garrett	**	**	**	**
Harford	**	**	**	**
Howard	**	**	**	**
Kent	**	**	**	**
Montgomery	1.3	1.0	**	**
Prince George's	2.7	**	3.0	**
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, 2014-2018, as of May 5, 2021

Maryland Cervical Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rate, 2014-2018



Legend

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

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.

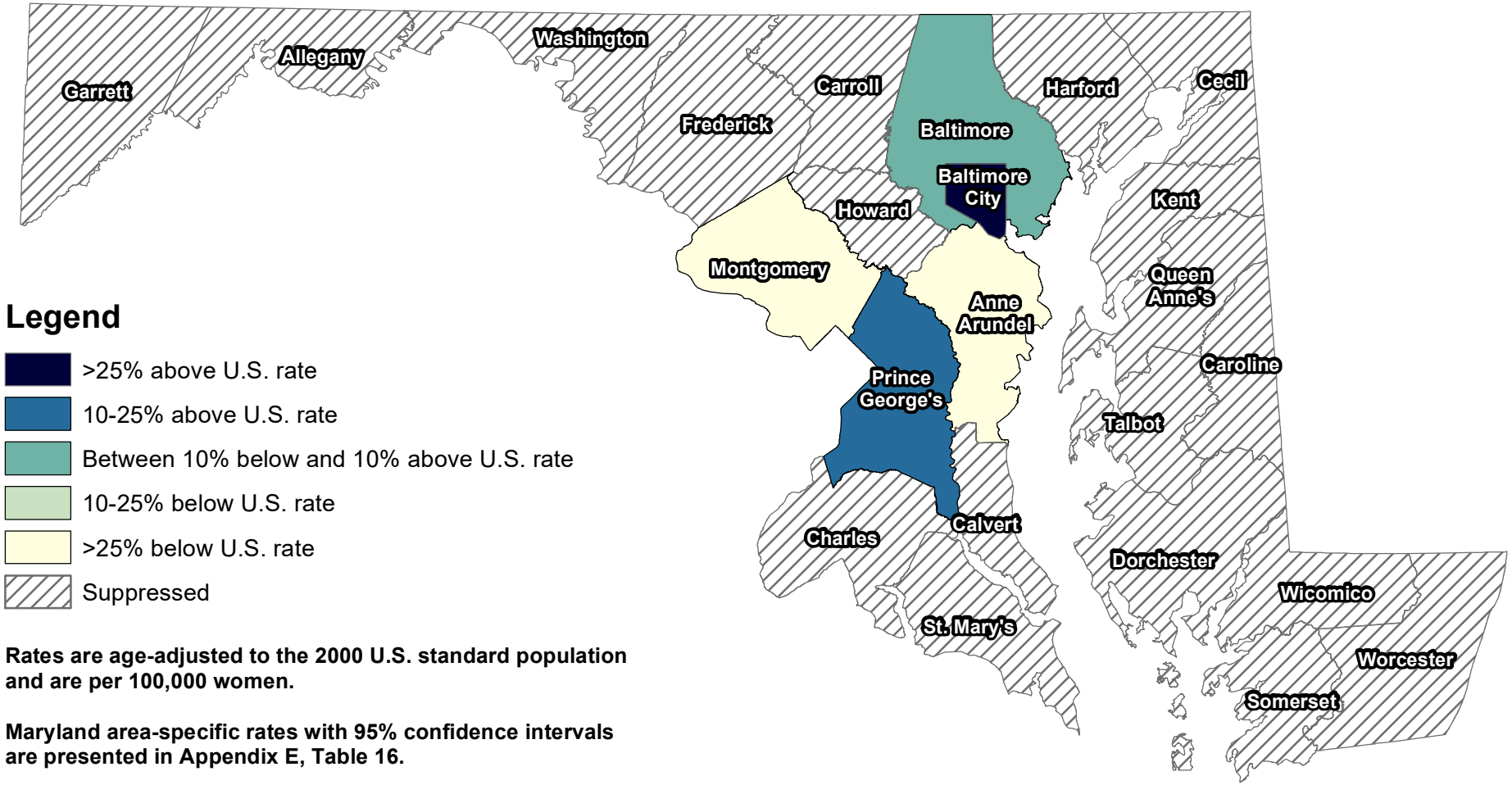
U.S. cervical cancer incidence rate, 2014-2018: 7.6 / 100,000

Maryland cervical cancer incidence rate, 2014-2018: 6.6 / 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, 2014-2018



Legend

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

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, 2014-2018: 2.2 / 100,000

Maryland cervical cancer mortality rate, 2014-2018: 1.9 / 100,000

Sources: CDC WONDER
U.S. SEER, Cancer Statistics Review

Note: Rates based on case counts of 0-19 are suppressed per MDH/CCPC Data Use Policy and Procedures.

Appendix A

Cancer Data Sources, References, and Data Considerations

(This page intentionally left blank)

2021 Cigarette Restitution Fund (CRF) Cancer Report
Sources, References, and Data Considerations

I. DATA SOURCES

Data and information presented in the 2021 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 2021 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 March 3, 2021, for the diagnosis year 2018.

Maryland cancer reporting law (Health-General Article §18-203 and 18-204) and regulations (Code of Maryland Regulations 10.14.01) 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. The MCR has also signed the NAACCR National Interstate Data Exchange Agreement and at the point of reporting receives abstracts from 31 other states/ jurisdictions, including Alabama, Alaska, Arkansas, California, Colorado, Delaware, Florida, Georgia, Idaho, Louisiana, Massachusetts, Michigan, Mississippi, Montana, Nebraska, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Vermont, 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.

2. Surveillance, Epidemiology, and End Results Program

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 (2014-2018), 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 2018 presented in Appendix B were also obtained from SEER*Stat.

B. Cancer Mortality Data

Maryland mortality data for 2018 and the 5-year aggregate data (2014 to 2018) were acquired from 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 intuitive, 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 https://wonder.cdc.gov/.

Maryland mortality single year data for 2018, and the 5-year aggregate data (2014 to 2018), presented in this report were obtained from the National Center for Health Statistics (NCHS) Underlying Causes of Death accessed using CDC WONDER. The Underlying Cause of Death data available on WONDER are county-level national mortality and population data spanning the years 1999-2019. Data are based on death certificates for U.S. residents. Each death certificate identifies a single underlying cause of death and demographic data. Single year data from 2014 to 2016 were obtained from

the NCHS CMF. The NCHS CMF is a county-level national mortality and population database spanning the years 1979 to 2016. 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). The U.S. mortality rates for single year 2018 and 5-year aggregate data (2014 to 2018) 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

The Maryland 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 can be accessed at https://ibis.health.maryland.gov 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 Risk Behavior Survey

The Maryland Youth Risk Behavior Survey (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 CDC's Youth Tobacco Survey (YTS) measures youth tobacco use behaviors, secondhand smoke exposure, and tobacco-related attitudes and beliefs for youth in middle and high school. Biennial surveillance of youth tobacco use behaviors is mandated by State statute (Maryland Health-General Code Ann. §13–1003 and §13–1004). To comply with these statutes, the Department implemented the YTS as the baseline survey in 2000 for surveillance of tobacco use behaviors for youth in middle and high school. The YTS was then conducted biennially in the fall of even years at a jurisdiction-level. In 2013, Maryland combined the YRBS and YTS (YRBS/YTS), utilizing the YRBS survey methodology, to create one survey tool to reduce the survey burden on schools and students. This survey tool is disseminated to selected schools by the Department with assistance from MSDE. All public middle schools and high schools in Maryland selected to participate in the biennial Maryland YRBS/YTS are mandated by statute to do so; however, parents may opt their child out of the survey by signing and returning the parental opt out form. Maryland data results for 2013, 2014, 2016, and 2018 can be accessed at https://phpa.health.maryland.gov/ccdpc/Reports/Pages/YRBS-Main.aspx.

3. Healthy People 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.

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

The MCCCP contains goals and targets to be met by the State by the end of a 5-year period (2016 to 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 2016-2020 MCCCP was the coordinated effort of 83 stakeholders and several MDH offices and centers, with the aim of developing a cancer resource for individuals, healthcare 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.

DATA CONSIDERATIONS

A. Data Confidentiality

MDH regards all individual data reported to and received and processed by the MCR as confidential and ensures they are secured from unauthorized access and disclosure. The MCR manages and releases cancer information in accordance with Health-General Article, §§18-203 – 204 and §4-101 et seq., Annotate Code of Maryland, and Code of Maryland Regulations 10.14.01 ("Cancer Registry").

Because incidence data and mortality data come from different sources, separate suppression procedures are employed for release of non-confidential data. For the number of cancer cases collected by the 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 are from CDC WONDER. ICD-10 codes listed in Appendix D of this report were used for identifying the 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 CDC 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 of 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 2018 were calculated using Maryland resident cancer cases diagnosed from January 1 through December 31 of that year, and reported to the MCR as of January 3, 2020. The individual year mortality data for 2018 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 2014 to 2018 data. Corresponding mortality rates were extracted from CDC WONDER, as 5-year combined data from 2014 to 2018.

Age-adjustment, also called age-standardization, is a tool used to control for different and changing age distributions of populations in the U.S. (by 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., national, states, regions, and 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% CI 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 2018 lung cancer incidence rate was 50.6 per 100,000, with a 95% confidence interval of 49.0-52.3. The 2018 U.S. SEER age-adjusted lung cancer incidence rate was 47.7 per 100,000 population, with a 95% confidence interval of 47.3-48.1. 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 cancer 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 (2014-2018) 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 (2014-2018) U.S. rate was used as a basis for comparison with rates for Maryland jurisdictions. 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 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 U.S. 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 2018 and 5-year aggregate data (2014 to 2018) obtained from SEER CSR only report U.S. mortality for whites and blacks.

H. Healthy People 2020 Targets

In the 2020 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 is 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, 2018 (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, 2014-2018 (Appendix E)
- Trends in Cancer Incidence and Mortality Rates in Maryland by Cancer Site, Race or Gender, and Year, 2014-2018 (Appendix F)

- Trends in Cancer Stage of Disease at Diagnosis in Maryland by Cancer Site and Year, 2014-2018 (Appendix G)
- Trends in All Cancer Sites Incidence and Mortality Rates in Maryland and U.S. by Year, 2009-2018 (Appendix H)

(This page intentionally left blank)

Appendix B

Maryland Population Estimates, 2018

(This page intentionally left blank)

Maryland Population Estimates by Jurisdiction, 2018

Jurisdiction	Total All Genders	Total Males	Total Females	Total Whites	White Males	White Females	Total Blacks	Black Males	Black Females
Maryland	6,042,718	2,928,921	3,113,797	3,628,187	1,793,563	1,834,624	1,932,392	904,067	1,028,325
Baltimore Metropolitan Area	2,752,538	1,326,238	1,426,300	1,696,272	834,648	861,624	861,970	397,537	464,433
Anne Arundel County	576,031	285,333	290,698	436,888	217,926	218,962	107,995	52,726	55,269
Baltimore City	602,495	282,375	320,120	194,660	96,422	98,238	385,933	175,443	210,490
Baltimore County	828,431	392,710	435,721	514,181	248,154	266,027	253,827	114,971	138,856
Carroll County	168,429	83,295	85,134	156,802	77,303	79,499	7,060	3,883	3,177
Harford County	253,956	124,388	129,568	204,932	100,823	104,109	38,914	18,747	20,167
Howard County	323,196	158,137	165,059	188,809	94,020	94,789	68,241	31,767	36,474
Eastern Shore Region	455,423	222,124	233,299	361,996	176,451	185,545	82,046	40,156	41,890
Caroline County	33,304	16,326	16,978	27,390	13,448	13,942	5,077	2,421	2,656
Cecil County	102,826	51,039	51,787	92,449	45,826	46,623	8,128	4,125	4,003
Dorchester County	31,998	15,211	16,787	21,749	10,484	11,265	9,651	4,455	5,196
Kent County	19,383	9,242	10,141	15,973	7,643	8,330	3,055	1,427	1,628
Queen Anne's County	50,251	24,945	25,306	45,727	22,669	23,058	3,473	1,781	1,692
Somerset County	25,675	13,878	11,797	14,064	7,246	6,818	11,177	6,412	4,765
Talbot County	36,968	17,461	19,507	31,131	14,722	16,409	5,037	2,362	2,675
Wicomico County	103,195	48,895	54,300	69,943	33,217	36,726	29,273	13,775	15,498
Worcester County	51,823	25,127	26,696	43,570	21,196	22,374	7,175	3,398	3,777
National Capital Area	1,961,875	946,665	1,015,210	900,697	450,625	450,072	820,329	381,012	439,317
Montgomery County	1,052,567	508,919	543,648	650,993	320,185	330,808	218,664	102,142	116,522
Prince George's County	909,308	437,746	471,562	249,704	130,440	119,264	601,665	278,870	322,795
Northwest Region	506,712	254,346	252,366	431,222	212,947	218,275	55,137	31,637	23,500
Allegany County	70,975	36,998	33,977	63,543	31,668	31,875	6,343	4,814	1,529
Frederick County	255,648	126,126	129,522	211,901	104,446	107,455	28,519	14,366	14,153
Garrett County	29,163	14,389	14,774	28,581	14,072	14,509	389	248	141
Washington County	150,926	76,833	74,093	127,197	62,761	64,436	19,886	12,209	7,677
Southern Region	366,170	179,548	186,622	238,000	118,892	119,108	112,910	53,725	59,185
Calvert County	92,003	45,613	46,390	76,376	38,041	38,335	12,837	6,272	6,565
Charles County	161,503	77,776	83,727	71,383	35,416	35,967	82,080	38,683	43,397
Saint Mary's County	112,664	56,159	56,505	90,241	45,435	44,806	17,993	8,770	9,223

Source: SEER*Stat static data as of March 03, 2021

(This page intentionally left blank)

Appendix C

U.S. Standard Population, 2000

(This page intentionally left blank)

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

(This page intentionally left blank)

Appendix D

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

(This page intentionally left blank)

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
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

(This page intentionally left blank)

Appendix E

Maryland Cancer Incidence and Mortality Rates by Geographical Area, 2014-2018

(This page intentionally left blank)

Appendix E

Table 1: All Cancer Sites Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2014-2018

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	446.1	443.8	448.4
Baltimore Metropolitan Area ^	466.8	463.0	470.7
Anne Arundel	457.4	449.9	465.0
Baltimore City	483.9	476.2	491.6
Baltimore	483.4	477.2	489.6
Carroll	478.8	465.3	492.6
Harford	509.1	497.6	520.8
Howard	394.3	384.8	404.0
Eastern Shore Region	495.2	487.0	503.5
Caroline	470.0	439.8	501.7
Cecil	523.9	505.1	543.1
Dorchester	487.8	458.3	518.8
Kent	467.9	431.9	506.5
Queen Anne's	480.3	455.7	505.9
Somerset	494.7	459.4	532.1
Talbot	453.3	428.3	479.7
Wicomico	523.9	505.0	543.3
Worcester	498.3	475.5	522.0
National Capital Area	386.3	382.5	390.1
Montgomery	374.3	369.3	379.3
Prince George's	401.6	395.8	407.5
Northwest Region	460.8	453.1	468.7
Allegany	502.2	482.0	523.0
Frederick	444.1	432.9	455.5
Garrett	428.7	400.4	458.7
Washington	472.0	457.9	486.4
Southern Region	434.9	425.5	444.5
Calvert	442.2	423.9	461.0
Charles	436.1	421.6	451.1
St. Mary's	427.6	410.9	444.9

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

^ Area rate does not include Baltimore City

Source: Maryland Cancer Registry

Appendix E

Table 2: Lung and Bronchus Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2014-2018

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	54.1	53.4	54.9
Baltimore Metropolitan Area ^	59.0	57.6	60.3
Anne Arundel	60.2	57.5	63.0
Baltimore City	80.0	76.9	83.2
Baltimore	64.7	62.5	66.9
Carroll	54.5	50.1	59.2
Harford	67.3	63.2	71.6
Howard	35.2	32.3	38.3
Eastern Shore Region	67.6	64.7	70.5
Caroline	65.1	54.6	77.2
Cecil	86.9	79.5	94.9
Dorchester	63.7	53.9	75.0
Kent	55.6	44.5	69.3
Queen Anne's	63.5	55.1	73.0
Somerset	80.7	67.3	96.1
Talbot	44.2	37.3	52.3
Wicomico	76.8	69.9	84.3
Worcester	58.9	51.9	66.7
National Capital Area	35.0	33.8	36.1
Montgomery	29.8	28.5	31.3
Prince George's	41.6	39.7	43.6
Northwest Region	57.7	55.1	60.5
Allegany	75.3	68.0	83.3
Frederick	47.2	43.6	51.0
Garrett	43.1	35.0	52.9
Washington	66.9	61.8	72.4
Southern Region	56.2	52.8	59.8
Calvert	52.7	46.5	59.5
Charles	51.5	46.5	56.9
St. Mary's	66.1	59.5	73.2

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

^ Area rate does not include Baltimore City

Source: Maryland Cancer Registry

Appendix E

Table 3: Colorectal Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2014-2018

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	36.1	35.5	36.8
Baltimore Metropolitan Area ^	36.4	35.3	37.5
Anne Arundel	35.1	33.1	37.3
Baltimore City	40.9	38.7	43.2
Baltimore	36.7	35.0	38.5
Carroll	41.3	37.4	45.6
Harford	40.3	37.1	43.7
Howard	30.7	28.0	33.5
Eastern Shore Region	39.9	37.6	42.4
Caroline	50.9	41.0	62.6
Cecil	43.6	38.3	49.5
Dorchester	50.0	40.6	61.1
Kent	32.7	24.4	43.7
Queen Anne's	36.7	30.0	44.6
Somerset	42.1	32.0	54.5
Talbot	28.7	22.3	36.6
Wicomico	41.1	35.9	46.9
Worcester	37.8	31.6	45.1
National Capital Area	32.5	31.4	33.6
Montgomery	29.9	28.5	31.3
Prince George's	36.1	34.3	37.9
Northwest Region	37.3	35.1	39.6
Allegany	43.5	37.7	50.1
Frederick	32.9	29.9	36.1
Garrett	44.8	35.9	55.4
Washington	38.4	34.4	42.6
Southern Region	38.0	35.2	40.9
Calvert	40.9	35.4	47.0
Charles	40.1	35.7	44.9
St. Mary's	32.9	28.5	38.0

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

^ Area rate does not include Baltimore City

Source: Maryland Cancer Registry

Appendix E

Table 4: Female Breast Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2014-2018

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	130.8	129.1	132.5
Baltimore Metropolitan Area ^	139.2	136.3	142.1
Anne Arundel	132.8	127.3	138.5
Baltimore City	123.1	117.9	128.5
Baltimore	143.6	139.0	148.3
Carroll	134.6	124.6	145.1
Harford	144.4	136.1	153.1
Howard	135.4	127.9	143.2
Eastern Shore Region	129.9	123.9	136.1
Caroline	115.0	95.1	138.1
Cecil	124.3	111.7	137.9
Dorchester	124.3	103.5	148.4
Kent	149.3	118.1	186.7
Queen Anne's	123.0	105.5	142.7
Somerset	151.8	123.2	185.4
Talbot	127.3	107.9	149.6
Wicomico	136.0	122.7	150.2
Worcester	135.2	118.0	154.5
National Capital Area	124.5	121.6	127.5
Montgomery	123.6	119.7	127.6
Prince George's	125.9	121.6	130.3
Northwest Region	131.4	125.6	137.5
Allegany	132.1	117.0	148.9
Frederick	130.0	121.7	138.7
Garrett	122.8	102.6	146.4
Washington	133.7	123.1	145.0
Southern Region	121.2	114.5	128.2
Calvert	129.5	116.0	144.3
Charles	118.6	108.6	129.2
St. Mary's	118.9	107.0	131.9

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

^ Area rate does not include Baltimore City

Source: Maryland Cancer Registry

Appendix E

Table 5: Prostate Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2014-2018

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	126.3	124.6	128.1
Baltimore Metropolitan Area ^	120.9	118.2	123.8
Anne Arundel	108.8	103.6	114.1
Baltimore City	136.9	130.9	143.2
Baltimore	130.5	125.9	135.1
Carroll	121.8	112.5	131.7
Harford	123.4	115.5	131.7
Howard	115.0	107.8	122.5
Eastern Shore Region	122.1	116.6	127.8
Caroline	110.4	90.6	133.5
Cecil	115.2	103.2	128.2
Dorchester	129.5	109.4	152.7
Kent	127.8	103.8	157.0
Queen Anne's	120.1	104.1	138.2
Somerset	107.6	86.0	133.5
Talbot	129.2	111.5	149.5
Wicomico	135.0	121.5	149.6
Worcester	122.9	108.7	138.8
National Capital Area	127.9	124.8	131.1
Montgomery	112.3	108.4	116.4
Prince George's	147.9	142.7	153.2
Northwest Region	104.3	99.1	109.6
Allegany	118.7	105.5	133.3
Frederick	101.0	93.4	109.0
Garrett	98.9	80.8	120.4
Washington	103.0	94.0	112.7
Southern Region	119.6	112.7	126.8
Calvert	112.4	99.9	126.2
Charles	147.1	135.0	160.0
St. Mary's	89.7	79.3	101.2

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

^ Area rate does not include Baltimore City

Source: Maryland Cancer Registry

Appendix E

Table 6: Oral Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2014-2018

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	11.1	10.7	11.4
Baltimore Metropolitan Area ^	11.5	10.9	12.1
Anne Arundel	12.8	11.6	14.1
Baltimore City	11.9	10.7	13.1
Baltimore	11.4	10.5	12.4
Carroll	12.2	10.2	14.6
Harford	11.7	10.1	13.6
Howard	8.6	7.2	10.1
Eastern Shore Region	14.2	12.9	15.7
Caroline	12.4	8.1	18.4
Cecil	15.3	12.4	18.8
Dorchester	11.6	7.6	17.3
Kent	14.7	9.6	22.6
Queen Anne's	11.2	7.9	15.6
Somerset	13.2	8.0	20.7
Talbot	16.5	11.9	22.5
Wicomico	15.6	12.5	19.2
Worcester	13.3	10.1	17.5
National Capital Area	8.5	7.9	9.0
Montgomery	9.0	8.2	9.8
Prince George's	7.9	7.1	8.7
Northwest Region	12.6	11.4	13.9
Allegany	14.2	11.0	18.3
Frederick	11.8	10.1	13.8
Garrett	12.2	7.6	18.7
Washington	13.4	11.2	16.0
Southern Region	14.0	12.4	15.8
Calvert	11.7	9.1	15.0
Charles	13.2	10.8	16.0
St. Mary's	17.5	14.3	21.2

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

^ Area rate does not include Baltimore City

Source: Maryland Cancer Registry

Appendix E

Table 7: Melanoma Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2014-2018

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	24.1	23.5	24.6
Baltimore Metropolitan Area ^	32.6	31.6	33.7
Anne Arundel	34.2	32.2	36.4
Baltimore City	11.4	10.2	12.6
Baltimore	30.4	28.8	32.0
Carroll	38.6	34.7	42.9
Harford	39.6	36.3	43.0
Howard	26.5	24.1	29.1
Eastern Shore Region	37.2	34.9	39.6
Caroline	25.9	19.1	34.5
Cecil	33.0	28.3	38.3
Dorchester	22.0	15.9	29.7
Kent	37.9	28.0	50.5
Queen Anne's	48.3	40.6	57.1
Somerset	36.2	27.1	47.6
Talbot	42.6	35.0	51.7
Wicomico	32.8	28.1	38.1
Worcester	48.9	41.6	57.2
National Capital Area	13.1	12.4	13.9
Montgomery	18.8	17.7	19.9
Prince George's	5.9	5.2	6.7
Northwest Region	26.2	24.3	28.1
Allegany	18.4	14.6	23.0
Frederick	28.4	25.6	31.4
Garrett	25.9	19.2	34.5
Washington	26.1	22.9	29.7
Southern Region	23.5	21.3	25.9
Calvert	30.8	26.0	36.2
Charles	15.9	13.3	19.0
St. Mary's	27.5	23.2	32.2

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

^ Area rate does not include Baltimore City

Source: Maryland Cancer Registry

Appendix E

Table 8: Cervical Cancer Incidence
Age-Adjusted Incidence Rates
by Geographical Area, Maryland, 2014-2018

Geographical Area	Incidence Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	6.6	6.2	7.0
Baltimore Metropolitan Area ^	6.0	5.4	6.7
Anne Arundel	7.3	6.0	8.8
Baltimore City	10.2	8.7	11.9
Baltimore	6.3	5.3	7.4
Carroll	4.6	2.8	7.2
Harford	5.6	3.9	7.7
Howard	4.3	3.0	5.9
Eastern Shore Region	7.9	6.3	9.8
Caroline	**	**	**
Cecil	8.5	5.3	13.0
Dorchester	**	**	**
Kent	**	**	**
Queen Anne's	**	**	**
Somerset	**	**	**
Talbot	**	**	**
Wicomico	9.6	6.1	14.4
Worcester	**	**	**
National Capital Area	5.9	5.2	6.6
Montgomery	5.5	4.6	6.4
Prince George's	6.4	5.4	7.5
Northwest Region	7.1	5.7	8.8
Allegany	10.8	6.2	17.4
Frederick	5.3	3.7	7.4
Garrett	**	**	**
Washington	9.2	6.2	13.1
Southern Region	5.2	3.8	6.9
Calvert	**	**	**
Charles	6.2	4.1	9.2
St. Mary's	5.4	3.1	8.7

* 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 DHMH/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, 2014-2018

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	154.8	153.4	156.1
Baltimore Metropolitan Area ^	154.6	152.4	156.8
Anne Arundel	156.7	152.2	161.1
Baltimore City	206.9	201.8	211.9
Baltimore	164.0	160.5	167.5
Carroll	152.1	144.5	159.6
Harford	163.4	156.8	169.9
Howard	117.2	111.8	122.6
Eastern Shore Region	172.1	167.4	176.8
Caroline	179.1	160.4	197.8
Cecil	185.5	174.2	196.8
Dorchester	191.4	173.6	209.3
Kent	144.0	126.0	162.1
Queen Anne's	148.8	135.5	162.0
Somerset	187.2	165.4	209.0
Talbot	130.0	117.6	142.3
Wicomico	197.9	186.3	209.4
Worcester	167.1	154.7	179.4
National Capital Area	132.7	130.5	135.0
Montgomery	115.6	112.8	118.3
Prince George's	154.7	150.9	158.4
Northwest Region	154.4	150.0	158.9
Allegany	165.4	154.2	176.6
Frederick	147.4	140.8	153.9
Garrett	139.9	124.2	155.6
Washington	163.7	155.5	171.8
Southern Region	163.0	157.1	168.9
Calvert	158.2	147.1	169.3
Charles	161.4	152.2	170.6
St. Mary's	169.9	159.0	180.8

* 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, 2014-2018

Appendix E

Table 10: Lung and Bronchus Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2014-2018

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	37.1	36.4	37.7
Baltimore Metropolitan Area ^	38.5	37.4	39.6
Anne Arundel	40.3	38.0	42.5
Baltimore City	56.0	53.4	58.6
Baltimore	41.8	40.0	43.5
Carroll	37.9	34.2	41.6
Harford	42.0	38.7	45.3
Howard	23.1	20.7	25.6
Eastern Shore Region	48.0	45.6	50.5
Caroline	53.9	43.7	64.0
Cecil	59.3	52.9	65.6
Dorchester	48.7	39.9	57.4
Kent	36.2	27.5	46.8
Queen Anne's	44.2	37.1	51.3
Somerset	68.0	55.0	81.0
Talbot	28.1	22.5	34.5
Wicomico	52.8	46.9	58.7
Worcester	42.5	36.5	48.5
National Capital Area	25.7	24.7	26.6
Montgomery	20.9	19.8	22.1
Prince George's	31.8	30.1	33.5
Northwest Region	37.8	35.6	40.0
Allegany	47.0	41.1	53.0
Frederick	32.4	29.3	35.4
Garrett	28.3	21.9	36.0
Washington	43.1	38.9	47.3
Southern Region	39.9	37.0	42.9
Calvert	36.5	31.1	41.8
Charles	35.7	31.4	40.0
St. Mary's	49.0	43.2	54.9

* 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, 2014-2018

Appendix E

Table 11: Colorectal Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2014-2018

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	13.7	13.3	14.1
Baltimore Metropolitan Area ^	13.7	13.0	14.3
Anne Arundel	12.7	11.4	14.0
Baltimore City	18.8	17.3	20.3
Baltimore	14.5	13.4	15.5
Carroll	14.8	12.5	17.2
Harford	15.3	13.3	17.4
Howard	10.9	9.2	12.5
Eastern Shore Region	14.3	12.9	15.6
Caroline	13.9	9.1	20.4
Cecil	16.3	13.1	20.1
Dorchester	18.5	13.2	25.2
Kent	16.5	10.3	25.0
Queen Anne's	9.2	6.1	13.3
Somerset	**	**	**
Talbot	5.2	3.2	8.0
Wicomico	19.3	15.7	22.9
Worcester	15.5	12.0	19.6
National Capital Area	11.6	10.9	12.3
Montgomery	9.9	9.1	10.7
Prince George's	13.6	12.5	14.7
Northwest Region	14.8	13.4	16.2
Allegany	15.7	12.4	19.7
Frederick	12.3	10.4	14.2
Garrett	18.5	13.2	25.3
Washington	17.1	14.5	19.7
Southern Region	14.0	12.2	15.7
Calvert	12.6	9.7	16.1
Charles	15.8	12.9	18.7
St. Mary's	12.6	9.8	15.8

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

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

^ Area rate does not include Baltimore City

Source: CDC WONDER, 2014-2018

Appendix E

Table 12: Female Breast Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2014-2018

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	21.8	21.1	22.4
Baltimore Metropolitan Area ^	21.0	19.9	22.1
Anne Arundel	19.6	17.5	21.7
Baltimore City	26.4	24.0	28.8
Baltimore	22.7	20.9	24.5
Carroll	21.6	17.7	25.5
Harford	23.3	20.0	26.7
Howard	16.5	13.9	19.2
Eastern Shore Region	18.6	16.5	20.8
Caroline	21.2	13.1	32.4
Cecil	18.7	14.2	24.2
Dorchester	22.2	13.7	33.9
Kent	**	**	**
Queen Anne's	12.4	7.7	19.0
Somerset	**	**	**
Talbot	14.7	9.4	21.8
Wicomico	21.3	16.5	27.1
Worcester	20.7	14.9	28.0
National Capital Area	21.7	20.5	22.9
Montgomery	18.6	17.1	20.1
Prince George's	25.6	23.6	27.6
Northwest Region	21.2	18.9	23.5
Allegany	17.6	12.9	23.4
Frederick	21.3	17.8	24.7
Garrett	23.8	15.5	34.9
Washington	22.2	17.9	26.5
Southern Region	24.7	21.6	27.8
Calvert	23.9	18.5	30.4
Charles	26.8	21.9	31.7
St. Mary's	22.7	17.5	29.0

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

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

^ Area rate does not include Baltimore City

Source: CDC WONDER, 2014-2018

Appendix E

Table 13: Prostate Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2014-2018

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	19.9	19.1	20.6
Baltimore Metropolitan Area ^	18.5	17.3	19.8
Anne Arundel	19.1	16.5	21.6
Baltimore City	30.3	27.1	33.5
Baltimore	20.0	18.1	21.9
Carroll	16.3	12.6	20.7
Harford	16.3	13.1	20.1
Howard	16.5	13.3	19.8
Eastern Shore Region	20.1	17.6	22.5
Caroline	**	**	**
Cecil	17.5	12.5	23.9
Dorchester	23.2	14.9	34.5
Kent	**	**	**
Queen Anne's	15.4	9.5	23.6
Somerset	**	**	**
Talbot	16.7	11.3	23.9
Wicomico	27.4	21.1	35.1
Worcester	20.1	14.5	27.1
National Capital Area	19.6	18.2	21.0
Montgomery	14.7	13.2	16.2
Prince George's	27.0	24.3	29.7
Northwest Region	16.1	13.8	18.3
Allegany	18.9	13.7	25.5
Frederick	15.8	12.6	19.7
Garrett	**	**	**
Washington	14.3	10.8	18.5
Southern Region	20.4	17.0	23.9
Calvert	22.1	16.0	29.9
Charles	20.5	15.3	27.1
St. Mary's	18.9	13.7	25.3

* 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 DHMH/CCPC Mortality Data Suppression Policy

^ Area rate does not include Baltimore City

Source: CDC WONDER, 2014-2018

Appendix E

Table 14: Oral Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2014-2018

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	2.5	2.3	2.6
Baltimore Metropolitan Area ^	2.3	2.0	2.6
Anne Arundel	2.4	1.9	3.0
Baltimore City	3.8	3.1	4.5
Baltimore	2.4	2.0	2.8
Carroll	1.9	1.2	2.9
Harford	2.3	1.6	3.3
Howard	1.9	1.3	2.6
Eastern Shore Region	3.2	2.5	3.8
Caroline	**	**	**
Cecil	**	**	**
Dorchester	**	**	**
Kent	**	**	**
Queen Anne's	**	**	**
Somerset	**	**	**
Talbot	**	**	**
Wicomico	3.5	2.2	5.3
Worcester	5.1	3.2	7.8
National Capital Area	2.0	1.7	2.3
Montgomery	1.9	1.5	2.2
Prince George's	2.2	1.8	2.6
Northwest Region	2.3	1.8	2.9
Allegany	**	**	**
Frederick	2.2	1.5	3.1
Garrett	**	**	**
Washington	2.0	1.2	3.1
Southern Region	3.2	2.4	4.1
Calvert	**	**	**
Charles	3.4	2.2	5.0
St. Mary's	3.4	2.1	5.3

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

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

^ Area rate does not include Baltimore City

Source: CDC WONDER, 2014-2018

Appendix E

Table 15: Melanoma Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2014-2018

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	1.9	1.7	2.0
Baltimore Metropolitan Area ^	2.3	2.1	2.6
Anne Arundel	2.5	2.0	3.1
Baltimore City	1.0	0.7	1.4
Baltimore	2.2	1.8	2.6
Carroll	3.5	2.3	5.0
Harford	3.0	2.2	4.1
Howard	1.2	0.7	1.8
Eastern Shore Region	2.6	2.0	3.3
Caroline	**	**	**
Cecil	4.1	2.5	6.3
Dorchester	**	**	**
Kent	**	**	**
Queen Anne's	**	**	**
Somerset	**	**	**
Talbot	**	**	**
Wicomico	**	**	**
Worcester	**	**	**
National Capital Area	1.2	1.0	1.4
Montgomery	1.4	1.1	1.8
Prince George's	0.9	0.6	1.2
Northwest Region	2.6	2.0	3.2
Allegany	**	**	**
Frederick	2.5	1.7	3.6
Garrett	**	**	**
Washington	3.5	2.4	5.0
Southern Region	2.0	1.3	2.8
Calvert	**	**	**
Charles	**	**	**
St. Mary's	**	**	**

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

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

^ Area rate does not include Baltimore City

Source: CDC WONDER, 2014-2018

Appendix E

Table 16: Cervical Cancer Mortality
Age-Adjusted Mortality Rates
by Geographical Area, Maryland, 2014-2018

Geographical Area	Mortality Rates*	95% Confidence Interval	
		Lower CI	Upper CI
Maryland	1.9	1.7	2.1
Baltimore Metropolitan Area ^	1.4	1.1	1.8
Anne Arundel	1.2	0.7	1.8
Baltimore City	4.3	3.4	5.4
Baltimore	2.0	1.5	2.6
Carroll	**	**	**
Harford	**	**	**
Howard	**	**	**
Eastern Shore Region	1.8	1.1	2.7
Caroline	**	**	**
Cecil	**	**	**
Dorchester	**	**	**
Kent	**	**	**
Queen Anne's	**	**	**
Somerset	**	**	**
Talbot	**	**	**
Wicomico	**	**	**
Worcester	**	**	**
National Capital Area	1.9	1.5	2.2
Montgomery	1.3	0.9	1.7
Prince George's	2.7	2.1	3.4
Northwest Region	2.0	1.3	2.9
Allegany	**	**	**
Frederick	**	**	**
Garrett	**	**	**
Washington	**	**	**
Southern Region	**	**	**
Calvert	**	**	**
Charles	**	**	**
St. Mary's	**	**	**

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

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

^ Area rate does not include Baltimore City

Source: CDC WONDER, 2014-2018

(This page intentionally left blank)

Appendix F

Trends in Cancer Incidence and Mortality Rates in Maryland by Cancer Site, Race or Gender, and Year, 2014-2018

(This page intentionally left blank)

Appendix F. Trends in Cancer Incidence and Mortality Rates in Maryland by Cancer Site, Race or Gender, and Year, 2014-2018

Table 1: Cancer Incidence Rates by Cancer Site and Year Maryland, 2014-2018

Cancer Site	2014	2015	2016	2017	2018	APC 2014-2018	MD Trend
All Cancer Sites	442.0	449.3	443.6	449.6	445.9	0.2%	↑
Lung	55.8	55.5	54.0	55.1	50.6	-2.0%	↓
Colorectal	37.3	35.9	35.4	35.8	36.4	-0.5%	↓
Female Breast	130.3	131.4	128.9	133.3	129.9	0.1%	↑
Prostate	119.4	120.6	124.6	130.6	135.3	3.4%	↑
Oral	10.5	11.1	10.8	11.6	11.3	1.9%	↑
Melanoma	21.9	25.5	24.1	25.0	23.7	1.4%	↑
Cervical	6.3	6.7	6.5	6.9	6.4	0.6%	↑

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, 2014-2018

Cancer Site	2014	2015	2016	2017	2018	APC 2014-2018	MD Trend
All Cancer Sites	161.8	155.1	156.5	151.5	149.9	-1.7%	↓
Lung	41.3	37.6	37.5	35.9	33.4	-4.6%	↓
Colorectal	14.4	13.5	13.8	13.3	13.6	-1.3%	↓
Female Breast	22.9	21.7	21.3	21.6	21.2	-1.6%	↓
Prostate	19.3	21.0	20.6	19.5	19.1	-0.9%	↓
Oral	2.3	2.2	3.0	2.4	2.4	1.7%	↑
Melanoma	2.1	1.8	2.1	1.6	1.8	-4.2%	↓
Cervical	1.8	1.9	2.0	1.8	2.2	3.5%	↑

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

APC = Annual Percent Change (%)

Source: CDC WONDER, 2014-2018

Appendix F. Trends in Cancer Incidence and Mortality Rates in Maryland by Cancer Site, Race or Gender, and Year, 2014-2018

Table 3: Cancer Incidence Rates by Race and Year Maryland, 2014-2018

Cancer Site	Race	2014	2015	2016	2017	2018	APC 2014-2018
All Cancer Sites	White	450.6	462.1	453.0	462.8	454.6	0.2%
	Black	443.6	441.8	430.4	436.6	441.9	-0.2%
Lung	White	57.6	59.7	57.0	57.6	53.1	-2.0%
	Black	56.7	51.0	50.4	54.0	49.6	-2.1%
Colorectal	White	35.8	35.1	35.2	34.7	35.0	-0.6%
	Black	41.8	39.1	36.3	40.0	40.8	-0.3%
Female Breast	White	132.8	133.4	127.4	135.5	132.3	0.1%
	Black	129.1	130.6	131.8	128.9	126.5	-0.5%
Prostate	White	101.3	98.5	105.8	111.9	117.4	4.3%
	Black	184.5	188.4	181.8	187.6	191.0	0.7%
Oral	White	12.1	12.1	12.5	13.8	13.0	2.8%
	Black	7.5	9.2	7.8	7.6	7.8	-1.1%
Cervix	White	6.3	6.4	6.3	7.4	6.0	0.5%
	Black	6.1	7.1	6.7	5.5	7.5	1.6%

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, 2014-2018

Cancer Site	Gender	2014	2015	2016	2017	2018	APC 2014-2018
Melanoma	Male	30.0	34.3	31.6	32.3	30.9	0.0%
	Female	16.1	19.2	18.8	19.8	18.7	3.4%

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, 2014-2018

Table 5: Mortality Rates by Race and Year Maryland, 2014-2018

Cancer Site	Race	2014	2015	2016	2017	2018	APC 2014-2018
All Cancer Sites	White	160.6	152.2	154.7	151.1	147.3	-1.8%
	Black	181.0	176.3	176.2	166.6	170.4	-1.8%
Lung	White	43.7	38.2	39.3	38.1	34.1	-4.9%
	Black	40.2	39.7	37.7	34.1	35.4	-4.0%
Colorectal	White	13.8	12.8	13.1	12.7	12.7	-1.7%
	Black	18.0	17.3	16.4	16.0	17.3	-1.6%
Female Breast	White	21.1	20.5	19.0	19.3	19.1	-2.6%
	Black	29.0	26.5	27.8	28.1	27.7	-0.3%
Prostate	White	15.9	16.8	16.1	16.7	16.1	0.2%
	Black	35.6	38.3	40.6	31.2	32.3	-3.9%
Oral	White	2.3	2.3	2.9	2.6	2.7	4.5%
	Black	2.3	2.3	3.6	1.9	2.0	-4.6%
Cervix	White	1.5	1.5	1.7	1.4	1.9	4.1%
	Black	2.6	3.0	2.8	2.6	3.0	1.4%

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

APC = Annual Percent Change (%)

Source: CDC WONDER, 2014-2018

Table 6: Melanoma Mortality Rates by Gender and Year Maryland, 2014-2018

Cancer Site	Gender	2014	2015	2016	2017	2018	APC 2014-2018
Melanoma	Male	3.2	2.8	3.5	2.1	2.5	-7.5%
	Female	1.3	1.1	1.0	1.3	1.3	1.7%

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

APC = Annual Percent Change (%)

Source: CDC WONDER, 2014-2018

(This page intentionally left blank)

Appendix G

Trends in Cancer Stage of Disease at Diagnosis in Maryland by Cancer Site and Year, 2014-2018

(This page intentionally left blank)

Appendix G

Table 1: All Cancer Sites
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2014-2018

Stage	2014	2015	2016	2017	2018
	%	%	%	%	%
Local	44.0%	44.9%	42.9%	43.9%	48.1%
Regional	20.8%	20.8%	19.3%	19.8%	19.7%
Distant	23.1%	23.0%	22.8%	22.5%	20.6%
Unstaged	12.0%	11.4%	15.0%	13.8%	11.6%

Source: Maryland Cancer Registry

Note: Due to a methodology change, SEER summary stage 2000 was used in 2016 to 2018, while the derived SEER summary stage 2000 was used from 2014 to 2015

Table 2: Lung Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2014-2018

Stage	2014	2015	2016	2017	2018
	%	%	%	%	%
Local	21.2%	21.7%	26.1%	27.0%	27.8%
Regional	22.9%	23.2%	22.2%	23.6%	23.1%
Distant	48.6%	48.5%	42.4%	40.0%	39.2%
Unstaged	7.3%	6.7%	9.3%	9.4%	9.9%

Source: Maryland Cancer Registry

Note: Due to a methodology change, SEER summary stage 2000 was used in 2016 to 2018, while the derived SEER summary stage 2000 was used from 2014 to 2015

Table 3: Colorectal Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2014-2018

Stage	2014	2015	2016	2017	2018
	%	%	%	%	%
Local	35.2%	34.4%	32.3%	30.8%	32.2%
Regional	34.0%	33.3%	34.4%	35.3%	37.2%
Distant	22.4%	21.4%	19.8%	21.1%	19.8%
Unstaged	8.4%	10.8%	13.5%	12.8%	10.9%

Source: Maryland Cancer Registry

Note: Due to a methodology change, SEER summary stage 2000 was used in 2016 to 2018, while the derived SEER summary stage 2000 was used from 2014 to 2015

Table 4: Female Breast Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2014-2018

Stage	2014	2015	2016	2017	2018
	%	%	%	%	%
Local	61.1%	61.4%	62.2%	65.2%	66.0%
Regional	29.0%	29.3%	26.8%	25.4%	25.7%
Distant	5.8%	5.9%	5.3%	5.6%	5.0%
Unstaged	4.1%	3.4%	5.6%	3.9%	3.3%

Source: Maryland Cancer Registry

Note: Due to a methodology change, SEER summary stage 2000 was used in 2016 to 2018, while the derived SEER summary stage 2000 was used from 2014 to 2015

Appendix G

Table 5: Prostate Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2014-2018

Stage	2014	2015	2016	2017	2018
	%	%	%	%	%
Local	58.3%	61.3%	55.2%	59.3%	75.7%
Regional	10.7%	11.0%	10.2%	10.7%	10.4%
Distant	5.0%	5.0%	5.6%	5.8%	6.0%
Unstaged	26.0%	22.7%	29.0%	24.3%	7.9%

Source: Maryland Cancer Registry

Note: Due to a methodology change, SEER summary stage 2000 was used in 2016 to 2018, while the derived SEER summary stage 2000 was used from 2014 to 2015

Table 6: Oral Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2014-2018

Stage	2014	2015	2016	2017	2018
	%	%	%	%	%
Local	28.6%	28.5%	28.8%	27.9%	27.9%
Regional	46.8%	45.5%	49.5%	54.1%	56.4%
Distant	18.3%	18.7%	10.4%	8.8%	8.3%
Unstaged	6.3%	7.3%	11.3%	9.1%	7.5%

Source: Maryland Cancer Registry

Note: Due to a methodology change, SEER summary stage 2000 was used in 2016 to 2018, while the derived SEER summary stage 2000 was used from 2014 to 2015

Table 7: Melanoma
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2014-2018

Stage	2014	2015	2016	2017	2018
	%	%	%	%	%
Local	66.3%	68.1%	62.8%	72.3%	69.9%
Regional	6.5%	6.0%	6.7%	6.8%	7.2%
Distant	4.3%	3.3%	3.3%	3.5%	3.4%
Unstaged	22.9%	22.6%	27.1%	17.5%	19.6%

Source: Maryland Cancer Registry

Note: Due to a methodology change, SEER summary stage 2000 was used in 2016 to 2018, while the derived SEER summary stage 2000 was used from 2014 to 2015

Table 8: Cervical Cancer
Distribution of Cancer Stage at Diagnosis by Year
Maryland, 2014-2018

Stage	2014	2015	2016	2017	2018
	%	%	%	%	%
Local	36.7%	37.3%	45.6%	42.1%	43.3%
Regional	36.7%	34.6%	28.8%	32.9%	31.2%
Distant	17.2%	16.7%	14.0%	16.2%	15.8%
Unstaged	9.3%	11.4%	11.6%	8.8%	9.8%

Source: Maryland Cancer Registry

Note: Due to a methodology change, SEER summary stage 2000 was used in 2016 to 2018, while the derived SEER summary stage 2000 was used from 2014 to 2015

(This page intentionally left blank)

Appendix H

Trends in All Cancer Sites Incidence and Mortality Rates in Maryland and U.S. by Year, 2009-2018

(This page intentionally left blank)

Appendix H. Trends in All Cancer Sites Incidence and Mortality Rates in Maryland and U.S. by Year, 2009-2018

Table 1: All Cancer Sites Incidence Rates by Year
Maryland and U.S., 2009-2018

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	APC 2009-2018	Trend
Maryland	443.7	449.8	440.7	432.1	452.2	442.0	449.3	443.6	449.6	445.9	0.1%	▲
U.S.	464.8	451.9	443.7	436.7	431.0	428.6	429.5	424.1	427.0	431.4	-0.8%	▼

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., 2009-2018

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	APC 2009-2018	Trend
Maryland	177.7	170.9	165.7	165.7	162.9	161.8	155.1	156.5	151.5	149.9	-1.7%	▼
U.S.	173.1	171.8	168.7	166.4	163.0	161.3	158.7	155.9	152.6	149.0	-1.6%	▼

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

APC = Annual Percent Change (%)

Sources: CDC WONDER, 2012-2018 (MD)

Maryland Vital Statistics Administration from MATCH, 2009-2010 (MD)

Maryland Vital Statistics Administration, 2011 (MD)

U.S. SEER, Cancer Statistics Review, 2009-2018 (U.S.)

(This page intentionally left blank)

For comments or questions about these data contact:

Center for Cancer Prevention and Control
Maryland Department of Health
201 West Preston Street
Baltimore, Maryland 21201

410-767-5088
FAX: 410-333-5210

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

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