

E. Oral Cancer

Incidence (New Cases)

A total of 497 cases of oral cavity and pharynx cancer (called oral cancer) were diagnosed in Maryland in 2001. The age-adjusted incidence rate for oral cancer in Maryland in 2001 is 9.4 per 100,000 population (8.6-10.3, 95% C.I.) which is statistically significantly lower than the 2001 U.S. SEER age-adjusted oral cancer incidence rate of 10.4 per 100,000 population.

Mortality (Deaths)

In 2001, 141 persons in Maryland died of oral cancer. The age-adjusted mortality rate of 2.8 per 100,000 population (2.3-3.3, 95% C.I.) in Maryland is similar to the 2001 U.S. oral cancer mortality rate of 2.7. Maryland ranks 12th highest for oral cancer mortality among the states and the District of Columbia for the period 1997-2001.

Table 47.
Oral Cancer Incidence and Mortality Rates
by Gender and Race, Maryland and the United States, 2001

<i>Incidence 2001</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Whites</i>	<i>Blacks</i>
New Cases (#)	497	336	161	336	131
Incidence Rate*	9.4	14.1	5.6	8.7	10.3
U.S. SEER Rate*	10.4	15.0	6.6	10.5	11.8
<i>Mortality 2001</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Whites</i>	<i>Blacks</i>
MD Deaths (#)	141	100	41	87	s
MD Mortality Rate*	2.8	4.6	1.4	2.3	4.5
U.S. Mortality Rate*	2.7	4.1	1.6	2.6	3.9

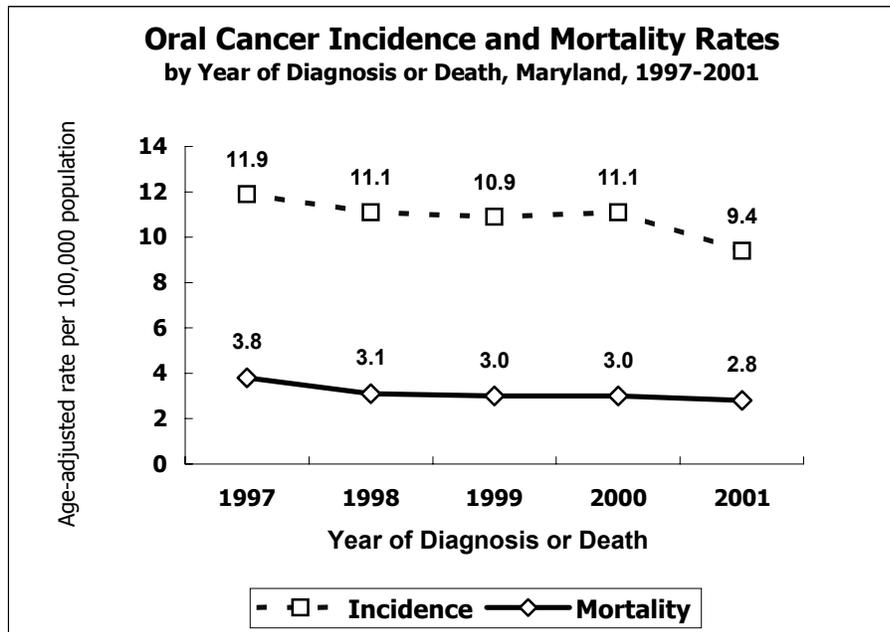
* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

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

Source: Maryland Cancer Registry, 2001

Maryland Division of Health Statistics, 2001

SEER, National Cancer Institute, 2001

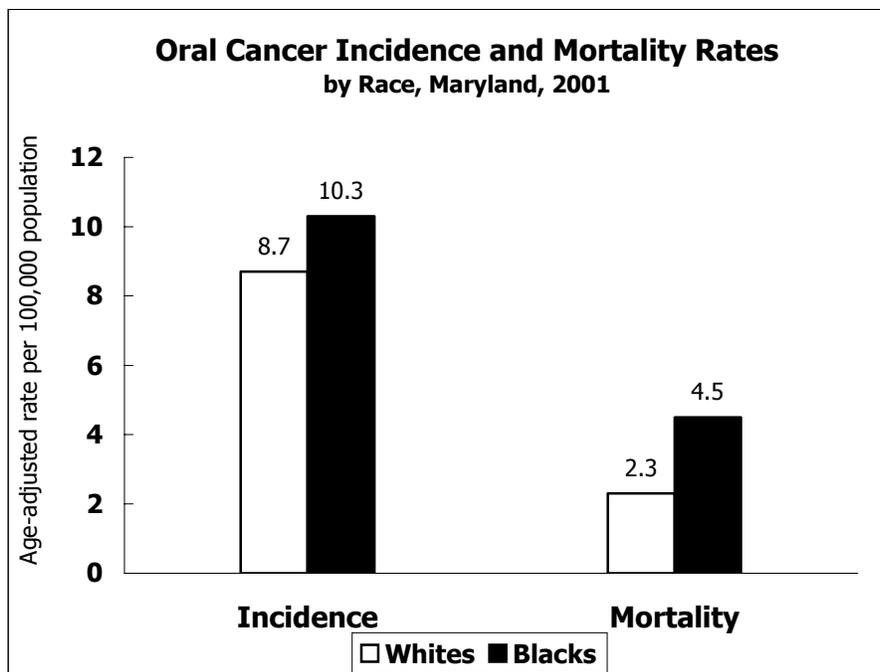


Trends

The incidence of oral cancer has decreased an average of 4.6% per year from 1997 to 2001 in Maryland.

Mortality rates for oral cancer overall declined an average of 6.2% per year from 1997 to 2001.

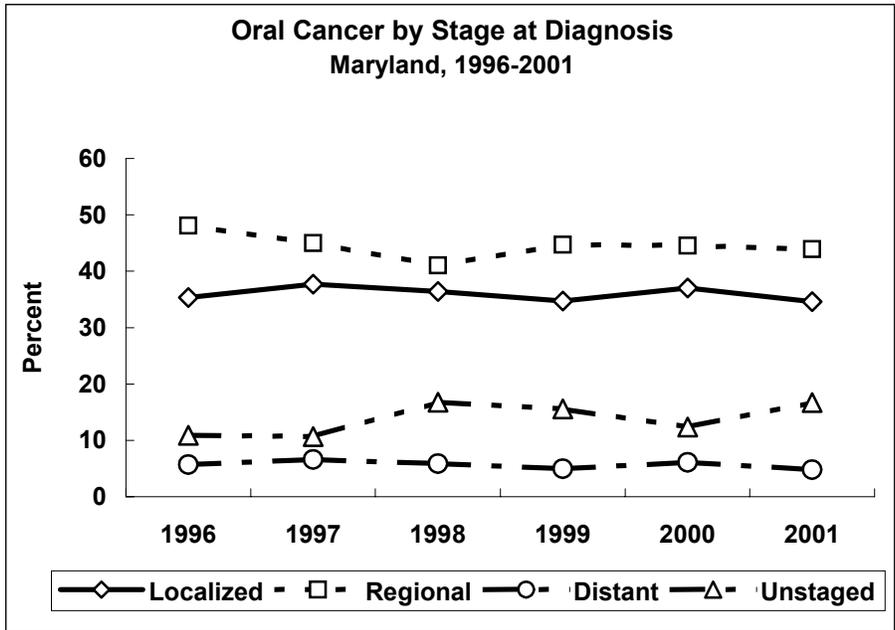
Rates are age-adjusted to 2000 U.S. standard population
 Maryland Cancer Registry, 1997-2001
 Maryland Division of Health Statistics, 1997-2001



Race-Specific Rates

Incidence rates for oral cancer for blacks were not statistically significantly different. On the other hand, blacks had a statistically significantly higher rate of oral cancer mortality.

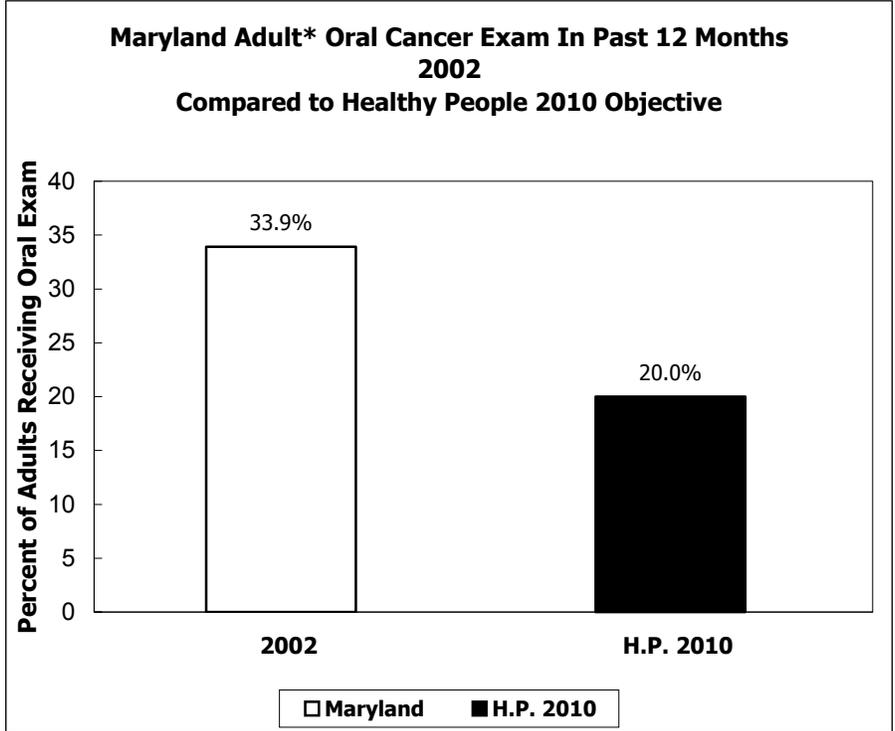
Rates are age-adjusted to 2000 U.S. standard population
 Maryland Cancer Registry, 2001
 Maryland Division of Health Statistics, 2001



Stage at Diagnosis

During 2001, 34.6% of oral cancer cases were diagnosed at the localized (early) stage in Maryland; 43.9% were diagnosed at the regional stage. The percent of un-staged cancers increased from 1996-2001 (10.9% to 16.7%).

Maryland Cancer Registry, 1996-2001



Healthy People 2010 Objectives

The Healthy People 2010 objective for oral cancer is to increase to 20% the proportion of adults 40 years and older who report having had an oral cancer screening examination in the past 12 months to detect oral and pharyngeal cancer.

In the 2002 Maryland Cancer Survey, 33.9% of persons 40 years of age and older in Maryland reported they had an oral cancer exam in the past year.

* Adults 40 years of age and older
 Maryland Cancer Survey, DHMH Center for Cancer Surveillance and Control, 2002
 Healthy People 2010, U.S. Department of Health and Human Services, 2000

Public Health Evidence (quoted from NCI, PDQ, 8/2004 and USPSTF 2/2004)

Primary Prevention

Tobacco (including cigarettes, cigars, pipes, and smokeless or spit tobacco) causes oral cancer. Tobacco use is responsible for more than 90% of oral cancer among men and 60% among women, and is responsible for more than 90% of oral cancer-related deaths in males. Alcohol use, particularly beer and hard liquor, is associated with an increased risk of oral cancer. The combined use of tobacco and alcohol increases the risks for oral cancer more than either risk behavior alone. For lip cancer, there is evidence that sunlight exposure is associated with an increased risk.

Avoiding or stopping smoking and avoiding or stopping the use of other tobacco products will decrease the incidence of oral cancer. A 50% reduction of oral cancer risk has been noted after 3 to 5 years of smoking cessation and a return to normal risk noted after 10 years of cessation. A diet high in fruits and fiber is associated with a decreased risk of oral and pharyngeal cancer, particularly among smokers.

Screening

While the routine examination of asymptomatic and symptomatic patients can lead to detection of earlier stage cancers as well as premalignant lesions, the United States Preventive Services Task Force (USPSTF) concludes that the evidence is insufficient to recommend for or against routinely screening adults for oral cancer. The USPSTF found no new good-quality evidence that screening for oral cancer leads to improved health outcomes for either high-risk adults (i.e., those over the age of 50 who use tobacco) or for average-risk adults in the general population. It is unlikely that controlled trials of screening for oral cancer will ever be conducted in the general population because of the very low incidence of oral cancer in the U.S. There is also no new evidence for the harms of screening. As a result, the USPSTF could not determine the balance between benefits and harms of screening.

Public Health Intervention for Oral Cancer (DHMH Oral Cancer Medical Advisory Committee, 8/2001)
<ul style="list-style-type: none">➤ Avoidance or cessation of smoking and other tobacco use➤ Avoidance or reduction of alcohol consumption➤ Avoidance of sun exposure; use of ultraviolet (UV) light-blocking lip balm➤ Screening for oral cancer targeted to individuals 40 years of age and older

Table 48.
Number of Oral Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Other	Unknown
Maryland	497	336	161	336	131	19	11
Allegany	14	s	<6	s	<6	0	0
Anne Arundel	54	41	13	45	<6	<6	0
Baltimore City	96	66	30	s	58	0	<6
Baltimore County	63	44	19	47	12	<6	<6
Calvert	9	s	<6	s	<6	0	0
Caroline	<6	<6	<6	<6	<6	0	0
Carroll	12	6	6	s	0	0	<6
Cecil	13	s	<6	13	0	0	0
Charles	7	<6	<6	<6	<6	0	0
Dorchester	<6	<6	<6	<6	0	0	0
Frederick	13	s	<6	13	0	0	0
Garrett	<6	<6	0	<6	0	0	0
Harford	11	<6	s	6	<6	0	<6
Howard	17	11	6	s	<6	<6	0
Kent	<6	<6	0	<6	0	0	0
Montgomery	70	40	30	56	s	7	<6
Prince George's	55	37	18	21	29	<6	<6
Queen Anne's	6	<6	<6	<6	<6	0	0
Saint Mary's	8	s	<6	<6	<6	0	0
Somerset	<6	<6	0	<6	0	0	0
Talbot	6	<6	<6	<6	<6	0	0
Washington	12	<6	s	s	<6	<6	0
Wicomico	9	s	<6	s	<6	0	0
Worcester	9	<6	<6	s	<6	0	0
Unknown	0	0	0	0	0	0	0

s=Number was suppressed to ensure confidentiality of cell in other column
Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy
Source: Maryland Cancer Registry, 2001

Table 49.
Oral Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	9.4	14.1	5.6	8.7	10.3	**
Allegany	**	**	**	**	**	0.0
Anne Arundel	11.4	18.0	**	10.9	**	**
Baltimore City	14.8	23.8	8.3	13.2	14.7	0.0
Baltimore County	7.5	11.8	**	6.6	**	**
Calvert	**	**	**	**	**	0.0
Caroline	**	**	**	**	**	0.0
Carroll	**	**	**	**	0.0	0.0
Cecil	**	**	**	**	0.0	0.0
Charles	**	**	**	**	**	0.0
Dorchester	**	**	**	**	0.0	0.0
Frederick	**	**	**	**	0.0	0.0
Garrett	**	**	0.0	**	0.0	0.0
Harford	**	**	**	**	**	0.0
Howard	**	**	**	**	**	**
Kent	**	**	0.0	**	0.0	0.0
Montgomery	8.0	10.7	6.0	8.1	**	**
Prince George's	7.8	12.7	**	**	7.0	**
Queen Anne's	**	**	**	**	**	0.0
Saint Mary's	**	**	**	**	**	0.0
Somerset	**	**	0.0	**	0.0	0.0
Talbot	**	**	**	**	**	0.0
Washington	**	**	**	**	**	**
Wicomico	**	**	**	**	**	0.0
Worcester	**	**	**	**	**	0.0

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

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

Source: Maryland Cancer Registry, 2001

Table 50.
Number of Oral Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	141	100	41	87	s	<6
Allegany	0	0	0	0	0	0
Anne Arundel	17	11	6	s	<6	0
Baltimore City	38	31	7	12	26	0
Baltimore County	26	18	8	s	<6	0
Calvert	0	0	0	0	0	0
Caroline	0	0	0	0	0	0
Carroll	<6	<6	0	<6	0	0
Cecil	0	0	0	0	0	0
Charles	<6	<6	<6	<6	<6	0
Dorchester	0	0	0	0	0	0
Frederick	<6	<6	0	<6	0	0
Garrett	<6	<6	0	<6	0	0
Harford	<6	<6	<6	<6	0	0
Howard	<6	<6	<6	<6	<6	<6
Kent	<6	<6	0	<6	<6	0
Montgomery	15	7	8	s	<6	0
Prince George's	16	s	<6	<6	11	<6
Queen Anne's	<6	<6	0	<6	0	0
Saint Mary's	<6	<6	<6	<6	0	0
Somerset	0	0	0	0	0	0
Talbot	<6	<6	0	<6	0	0
Washington	<6	<6	0	<6	0	0
Wicomico	0	0	0	0	0	0
Worcester	<6	<6	<6	<6	<6	0

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Source: Maryland Division of Health Statistics, 2001

**Table 51.
Oral Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 2001**

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	2.8	4.6	1.4	2.3	4.5	**
Allegany	0.0	0.0	0.0	0.0	0.0	0.0
Anne Arundel	**	**	**	**	**	0.0
Baltimore City	5.9	11.5	**	**	6.8	0.0
Baltimore County	2.9	**	**	**	**	0.0
Calvert	0.0	0.0	0.0	0.0	0.0	0.0
Caroline	0.0	0.0	0.0	0.0	0.0	0.0
Carroll	**	**	0.0	**	**	0.0
Cecil	0.0	0.0	0.0	0.0	0.0	0.0
Charles	**	**	**	**	**	0.0
Dorchester	0.0	0.0	0.0	0.0	0.0	0.0
Frederick	**	**	0.0	**	0.0	0.0
Garrett	**	**	0.0	**	0.0	0.0
Harford	**	**	**	**	0.0	0.0
Howard	**	**	**	**	**	**
Kent	**	**	0.0	**	**	0.0
Montgomery	**	**	**	**	**	0.0
Prince George's	**	**	**	**	**	**
Queen Anne's	**	**	0.0	**	0.0	0.0
Saint Mary's	**	**	**	**	0.0	0.0
Somerset	0.0	0.0	0.0	0.0	0.0	0.0
Talbot	**	**	0.0	**	0.0	0.0
Washington	**	**	0.0	**	0.0	0.0
Wicomico	0.0	0.0	0.0	0.0	0.0	0.0
Worcester	**	**	**	**	**	0.0

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

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Source: Maryland Division of Health Statistics, 2001

Table 52.
Number of Oral Cancer Cases
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race			
		Males	Females	Whites	Blacks	Others	Unknown
Maryland	2,713	1,829	884	1,909	658	83	63
Allegany	58	42	16	s	<6	0	0
Anne Arundel	266	185	81	222	36	s	<6
Baltimore City	511	361	150	195	301	<6	s
Baltimore County	440	284	156	353	67	9	11
Calvert	42	24	18	36	<6	0	<6
Caroline	18	s	<6	15	<6	0	<6
Carroll	73	55	18	s	0	0	<6
Cecil	49	38	11	s	0	0	<6
Charles	40	28	12	33	<6	<6	<6
Dorchester	28	18	10	25	<6	<6	0
Frederick	53	37	16	s	<6	0	0
Garrett	8	s	<6	8	0	0	0
Harford	91	60	31	83	<6	0	<6
Howard	71	45	26	52	10	s	<6
Kent	12	s	<6	12	0	0	0
Montgomery	354	202	152	273	33	36	12
Prince George's	305	207	98	131	153	13	8
Queen Anne's	33	21	12	s	<6	0	0
Saint Mary's	46	38	8	36	s	<6	<6
Somerset	9	s	<6	s	<6	0	<6
Talbot	32	25	7	s	<6	0	0
Washington	76	52	24	69	<6	<6	<6
Wicomico	42	32	10	27	s	<6	0
Worcester	47	34	13	40	<6	0	<6
Unknown	9	<6	<6	6	0	<6	<6

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

Source: Maryland Cancer Registry, 1997-2001

Table 53.
Oral Cancer Age-Adjusted Incidence Rates*
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Others
Maryland	10.7	16.1	6.3	10.2	11.2	8.3
Allegany	12.7	21.2	**	12.6	**	0.0
Anne Arundel	11.9	18.5	6.9	11.5	15.2	**
Baltimore City	15.8	25.9	8.0	15.0	15.5	**
Baltimore County	10.7	16.0	6.7	10.0	12.8	**
Calvert	14.1	**	**	14.1	**	0.0
Caroline	**	**	**	**	**	0.0
Carroll	10.3	16.8	**	10.2	0.0	0.0
Cecil	12.3	20.0	**	12.6	0.0	0.0
Charles	8.4	12.1	**	9.3	**	**
Dorchester	14.6	**	**	**	**	**
Frederick	6.4	9.9	**	6.7	**	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	9.1	12.6	5.9	9.0	**	0.0
Howard	7.5	9.7	5.3	6.9	**	**
Kent	**	**	**	**	0.0	0.0
Montgomery	8.5	11.0	6.5	8.3	6.9	8.1
Prince George's	9.3	14.2	5.5	9.8	8.2	**
Queen Anne's	15.1	**	**	15.5	**	0.0
Saint Mary's	12.5	20.8	**	11.9	**	**
Somerset	**	**	**	**	**	0.0
Talbot	14.2	**	**	15.3	**	0.0
Washington	10.8	16.5	**	10.2	**	**
Wicomico	9.9	16.5	**	7.9	**	**
Worcester	15.1	24.0	**	14.8	**	0.0

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

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

Source: Maryland Cancer Registry, 1997-2001

Table 54.
Number of Oral Cancer Deaths
by Jurisdiction, Gender and Race, Maryland, 1997-2001

Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	755	535	220	510	231	14
Allegany	13	7	6	13	0	0
Anne Arundel	70	51	19	56	14	0
Baltimore City	191	153	38	s	115	<6
Baltimore County	118	77	41	103	s	<6
Calvert	10	s	<6	s	<6	0
Caroline	<6	<6	0	0	<6	0
Carroll	13	s	<6	13	0	0
Cecil	13	s	<6	s	<6	0
Charles	24	18	6	13	11	0
Dorchester	<6	<6	<6	<6	<6	0
Frederick	16	s	<6	16	0	0
Garrett	<6	<6	0	<6	0	0
Harford	22	15	7	s	<6	0
Howard	22	11	11	15	<6	<6
Kent	<6	<6	0	<6	<6	0
Montgomery	71	40	31	60	s	<6
Prince George's	90	64	26	s	47	<6
Queen Anne's	<6	<6	<6	<6	0	0
Saint Mary's	7	<6	<6	s	<6	0
Somerset	<6	<6	0	<6	<6	0
Talbot	11	s	<6	s	<6	0
Washington	20	13	7	s	<6	0
Wicomico	11	<6	s	s	<6	0
Worcester	12	s	<6	s	<6	0

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Cells with 5 or fewer non-zero cases are not presented per DHMH/MCR Data Use Policy
Source: Maryland Division of Health Statistics, 1997-2001

Table 55.
Oral Cancer Age-Adjusted Mortality Rates*
by Jurisdiction, Gender and Race, Maryland, 1997-2001

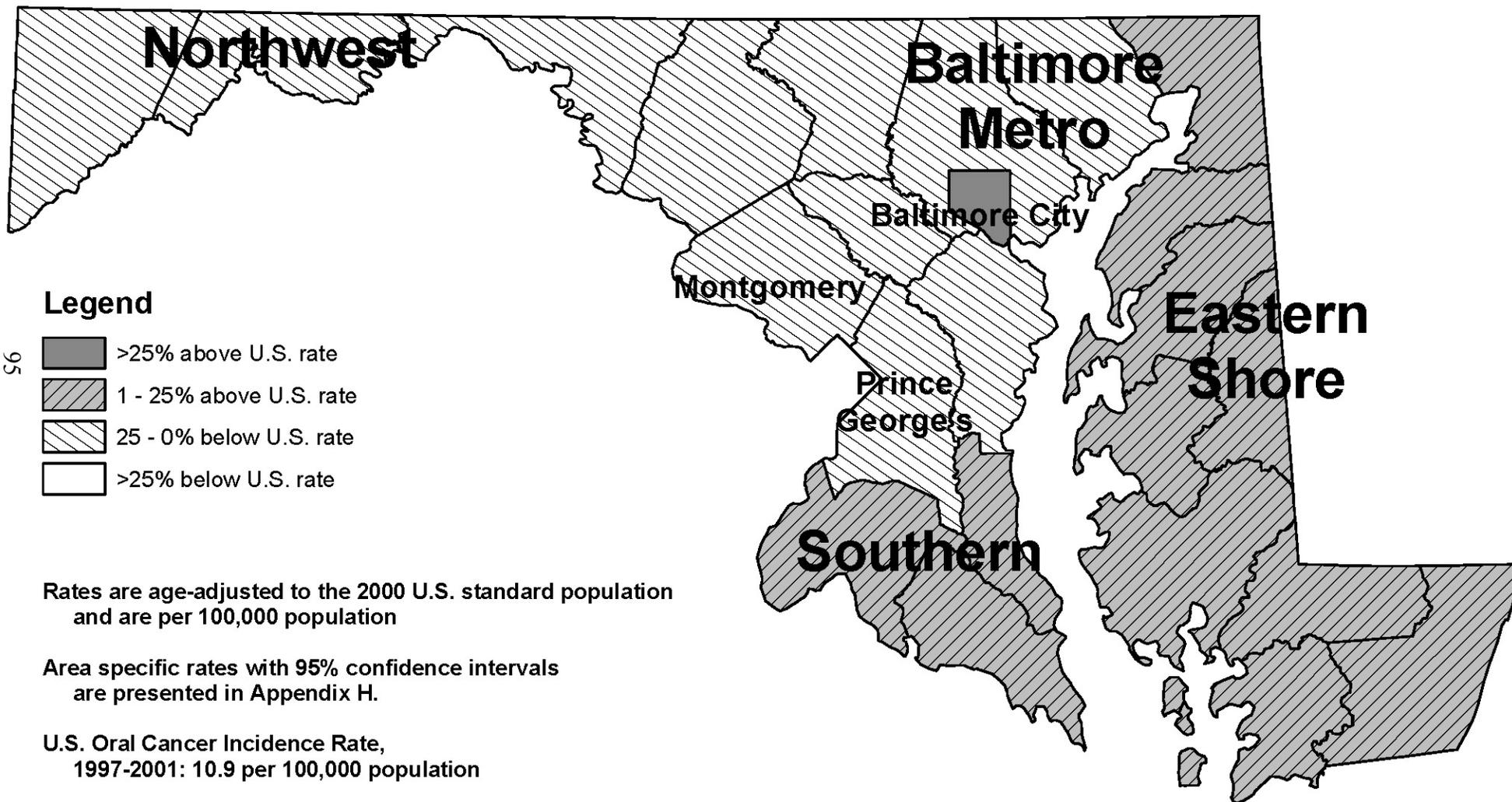
Jurisdiction	Total	Gender		Race		
		Males	Females	Whites	Blacks	Other
Maryland	3.1	5.1	1.6	2.7	4.4	**
Allegany	**	**	**	**	0.0	0.0
Anne Arundel	3.5	6.2	**	3.2	**	0.0
Baltimore City	5.8	11.4	1.9	5.2	6.1	**
Baltimore County	2.8	4.6	1.7	2.7	**	**
Calvert	**	**	**	**	**	0.0
Caroline	**	**	0.0	0.0	**	0.0
Carroll	**	**	**	**	0.0	0.0
Cecil	**	**	**	**	**	0.0
Charles	**	**	**	**	**	0.0
Dorchester	**	**	**	**	**	0.0
Frederick	**	**	0.0	**	0.0	0.0
Garrett	**	**	**	**	0.0	0.0
Harford	**	**	**	**	**	0.0
Howard	**	**	**	**	**	**
Kent	**	**	0.0	**	**	0.0
Montgomery	1.8	2.3	1.3	1.8	**	**
Prince George's	3.1	4.9	1.6	3.0	3.2	**
Queen Anne's	**	**	**	**	0.0	0.0
Saint Mary's	**	**	**	**	**	0.0
Somerset	**	**	0.0	**	**	0.0
Talbot	**	**	**	**	**	0.0
Washington	**	**	**	**	**	0.0
Wicomico	**	**	**	**	**	0.0
Worcester	**	**	**	**	**	0.0

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

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

Source: Maryland Division of Health Statistics, 1997-2001

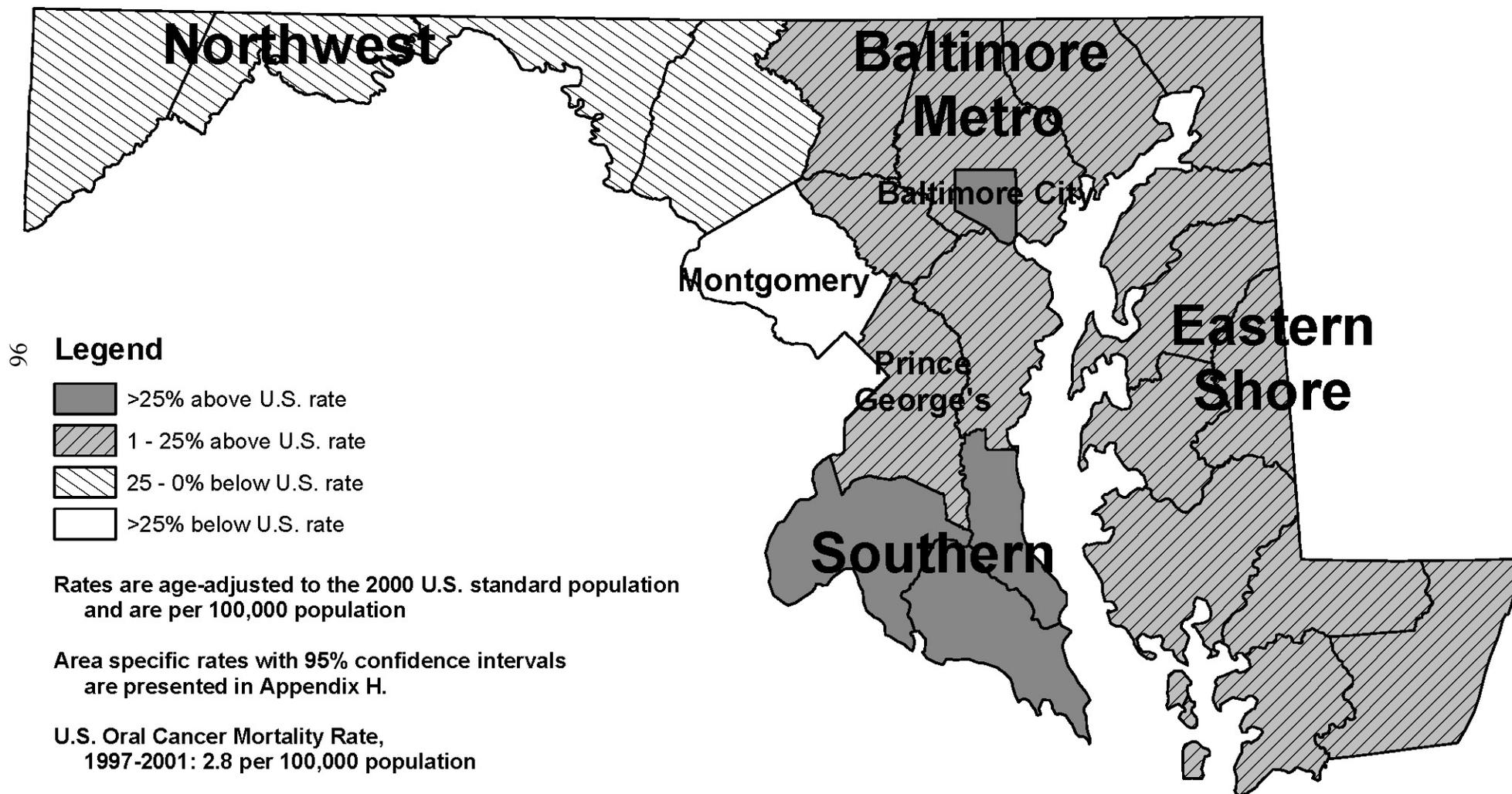
Maryland Oral Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



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Source: Maryland Cancer Registry, 1997-2001

Maryland Oral Cancer Mortality Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



Source: Maryland Division of Health Statistics, 1997-2001