

## E. Oral Cancer

### Incidence (New Cases)

A total of 529 cases of oral cavity and pharynx cancer (called oral cancer) were diagnosed in Maryland in 2002. The age-adjusted incidence rate for oral cancer in Maryland in 2002 is 9.7 per 100,000 population (8.9-10.6, 95% C.I.), which is statistically significantly lower than the 2002 U.S. SEER age-adjusted oral cancer incidence rate of 10.8 per 100,000 population.

### Mortality (Deaths)

In 2002, 158 persons in Maryland died of oral cancer. The age-adjusted mortality rate of 3.0 per 100,000 population (2.5-3.5, 95% C.I.) in Maryland is similar to the 2002 U.S. SEER oral cancer mortality rate of 2.7. Maryland ranks 15<sup>th</sup> highest for oral cancer mortality among the states and the District of Columbia for the period 1998-2002.

**Table 47.**  
**Oral Cancer Incidence and Mortality Rates**  
**by Gender and Race, Maryland and the United States, 2002**

| <i>Incidence 2002</i> | <i>Total</i> | <i>Males</i> | <i>Females</i> | <i>Whites</i> | <i>Blacks</i> | <i>Other</i> |
|-----------------------|--------------|--------------|----------------|---------------|---------------|--------------|
| New Cases (#)         | 529          | 373          | 156            | 393           | 122           | 13           |
| Incidence Rate*       | 9.7          | 14.9         | 5.3            | 9.9           | 9.5           | **           |
| U.S. SEER Rate*       | 10.8         | 15.9         | 6.5            | 11.0          | 10.9          | NA           |
| <i>Mortality 2002</i> | <i>Total</i> | <i>Males</i> | <i>Females</i> | <i>Whites</i> | <i>Blacks</i> | <i>Other</i> |
| Deaths (#)            | 158          | 98           | 60             | 110           | 46            | 2            |
| Mortality Rate*       | 3.0          | 4.2          | 2.0            | 2.8           | 3.8           | 1.3          |
| U.S. SEER Rate*       | 2.7          | 4.1          | 1.5            | 2.6           | 3.7           | NA           |

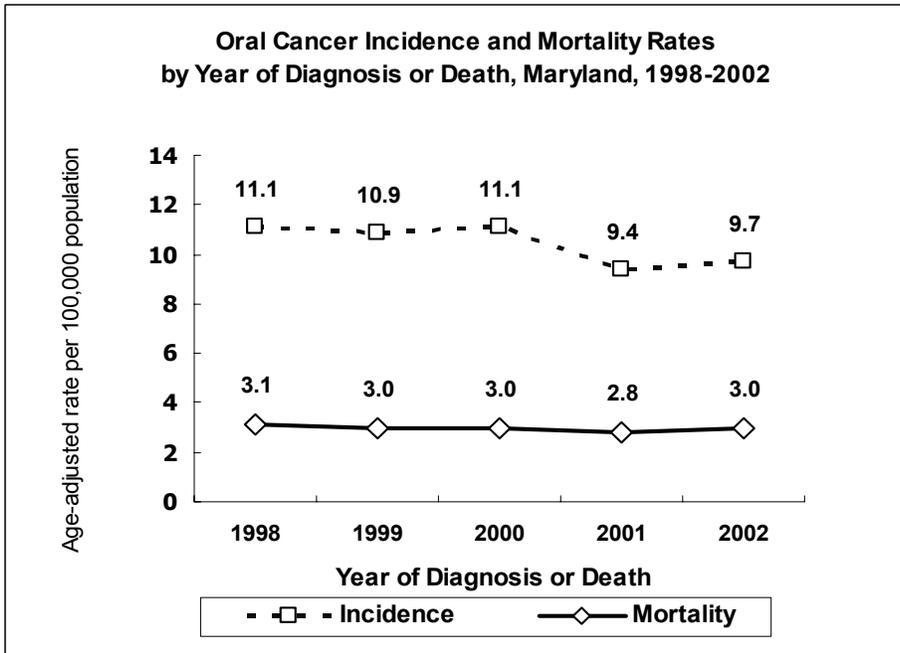
\* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

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

Source: Maryland Cancer Registry, 2002

CDC WONDER, 2002

SEER, National Cancer Institute, 2002



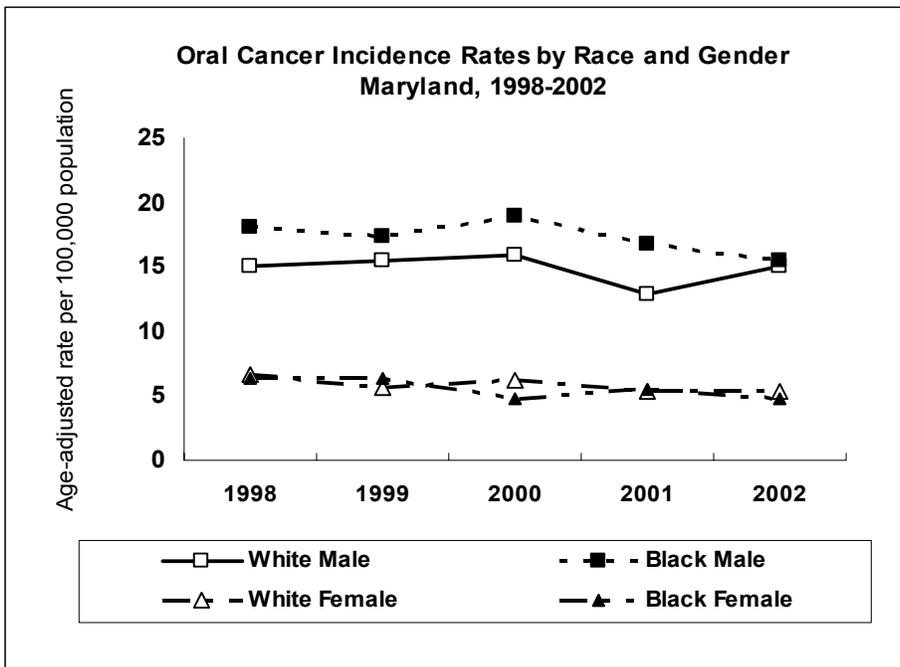
Rates are age-adjusted to 2000 U.S. standard population  
 Maryland Cancer Registry, 1998-2002  
 Maryland Division of Health Statistics, 1998-2001  
 CDC WONDER, 2002

**Incidence and Mortality Trends**

The incidence of oral cancer decreased an average of 4.1% per year in Maryland from 1998 to 2002.

Mortality rates for oral cancer declined an average of 1.3% per year from 1998 to 2002.

See Appendix I, Tables 1 and 2.



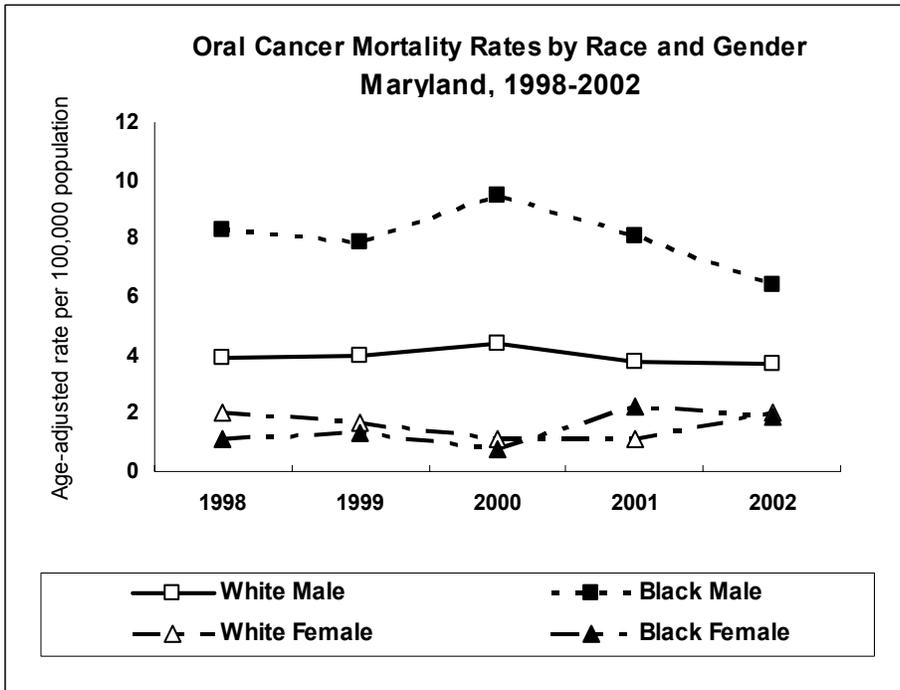
Rates are age-adjusted to 2000 U.S. standard population  
 Maryland Cancer Registry, 1998-2002

**Race and Gender Incidence Trends**

Males consistently had higher oral cancer incidence rates than females.

Oral cancer incidence rates have been declining for all gender and race categories, with the greatest average yearly decline of 6.7% occurring for black females.

See Appendix I, Table 13.



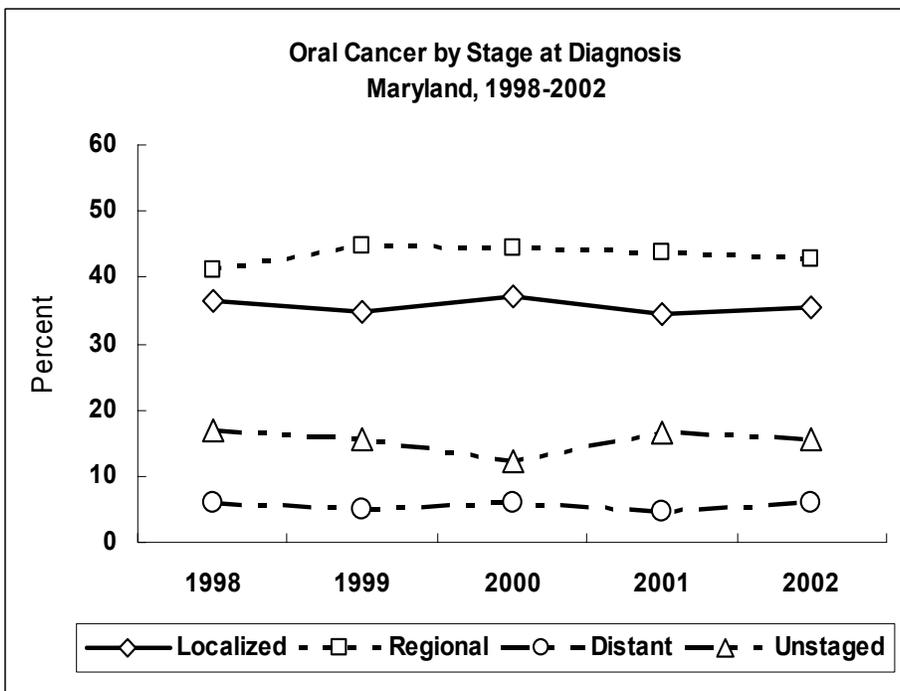
Rates are age-adjusted to 2000 U.S. standard population  
 Maryland Division of Health Statistics, 1998-2001  
 CDC WONDER, 2002

**Race and Gender Mortality Trends**

In 2002, males had higher oral cancer mortality rates than females; black females had the lowest mortality rates, while black males had the highest.

While oral cancer mortality rates have been declining for three race and gender categories, one group, black females, had an average annual rate increase of 17.6% from 1998 to 2002.

See Appendix I, Table 14.

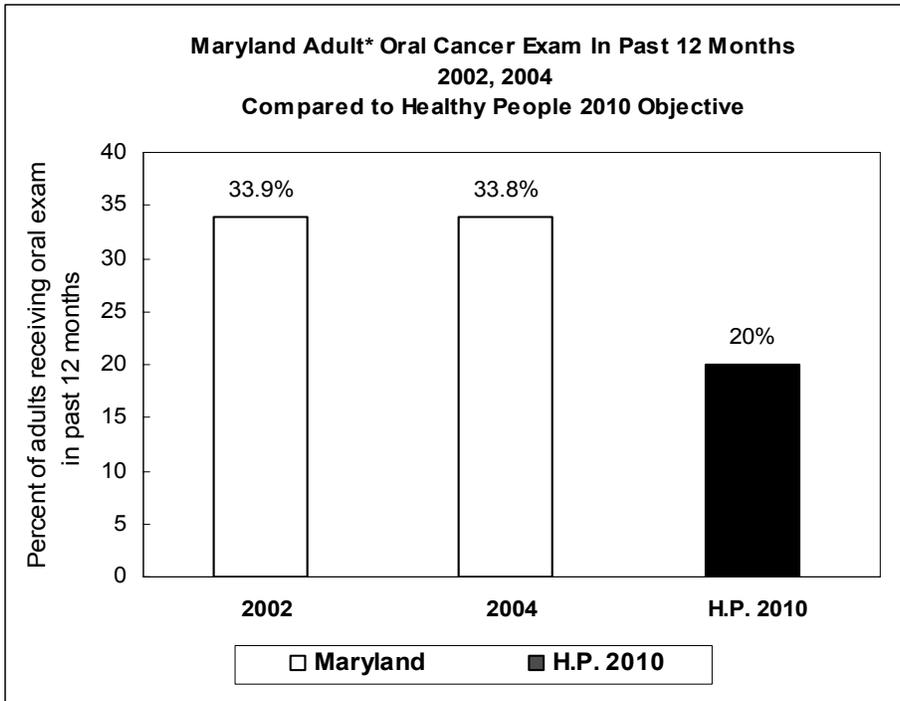


Maryland Cancer Registry, 1998-2002

**Stage at Diagnosis**

During 2002, 35.5% of oral cancer cases were diagnosed at the localized (early) stage in Maryland; 42.7% were diagnosed at the regional stage.

See Appendix J, Table 6.



\* Adults age 40 years and older  
 Maryland Cancer Survey, Maryland DHMH Center for Cancer Surveillance and Control, 2002, 2004  
 Healthy People 2010, U.S. Department of Health and Human Services, 2000

**Healthy People 2010 Objectives**

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

In the 2004 Maryland Cancer Survey, 33.8% of persons 40 years of age and older reported they had an oral cancer exam in the past year, again surpassing the Healthy People target.

## **Public Health Evidence (quoted from NCI, PDQ, 3/23/2006 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.

Avoidance or cessation of exposure to tobacco (e.g., cigarettes, pipes, cigars, and smokeless tobacco) would lead to a decrease in 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. Although alcohol use is a risk factor for oral cancer, there is inadequate evidence that cessation of alcohol use decreases the risk of oral cancer. A diet high in fruits and fiber is associated with a decreased risk of oral and pharyngeal cancer, particularly among smokers; however, there is inadequate evidence to determine whether a *change* in diet would decrease the risk of oral cancer. There is inadequate evidence to determine whether reducing sun exposure would prevent lip cancer.

### **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.

|   |
|---|
| <b>Public Health Intervention for Oral Cancer (DHMH Oral Cancer Medical Advisory Committee, 2005)</b> |
|---|

- |   |
|---|
| <ul style="list-style-type: none"><li>➤ Avoidance or cessation of smoking and other tobacco use.</li><li>➤ Avoidance or reduction of alcohol consumption.</li><li>➤ Avoidance of sun exposure; use of UV light-blocking lip balm.</li><li>➤ Screening for oral cancer targeted to individuals age 40 years and older.</li></ul> |
|---|

**Table 48.**  
**Number of Oral Cancer Cases**  
**by Jurisdiction, Gender and Race, Maryland, 2002**

| Jurisdiction     | Total | Gender |         | Race   |        |       |
|------------------|-------|--------|---------|--------|--------|-------|
|                  |       | Males  | Females | Whites | Blacks | Other |
| Maryland         | 529   | 373    | 156     | 393    | 122    | 13    |
| Allegany         | 9     | s      | <6      | s      | <6     | 0     |
| Anne Arundel     | 50    | 36     | 14      | s      | <6     | 0     |
| Baltimore City   | 98    | 72     | 26      | 42     | 56     | 0     |
| Baltimore County | 91    | 64     | 27      | 75     | s      | <6    |
| Calvert          | <6    | <6     | <6      | <6     | <6     | 0     |
| Caroline         | <6    | <6     | <6      | <6     | <6     | 0     |
| Carroll          | 15    | s      | <6      | 14     | 0      | 0     |
| Cecil            | 6     | <6     | <6      | <6     | <6     | 0     |
| Charles          | 9     | 9      | 0       | 9      | 0      | 0     |
| Dorchester       | <6    | <6     | 0       | 0      | <6     | 0     |
| Frederick        | 24    | 16     | 8       | 18     | <6     | <6    |
| Garrett          | <6    | <6     | 0       | <6     | 0      | 0     |
| Harford          | 23    | s      | <6      | s      | 0      | <6    |
| Howard           | 17    | s      | <6      | s      | 0      | <6    |
| Kent             | <6    | 0      | <6      | <6     | 0      | 0     |
| Montgomery       | 71    | 48     | 23      | 58     | s      | <6    |
| Prince George's  | 43    | 27     | 16      | 21     | s      | <6    |
| Queen Anne's     | <6    | <6     | <6      | <6     | 0      | 0     |
| Saint Mary's     | 14    | s      | <6      | 11     | <6     | <6    |
| Somerset         | <6    | 0      | <6      | 0      | <6     | 0     |
| Talbot           | 9     | <6     | <6      | s      | <6     | 0     |
| Washington       | 12    | <6     | s       | 12     | 0      | 0     |
| Wicomico         | 10    | <6     | s       | 10     | 0      | 0     |
| Worcester        | 8     | s      | <6      | s      | <6     | 0     |
| Unknown          | <6    | <6     | 0       | <6     | 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, 2002

**Table 49.**  
**Oral Cancer Age-Adjusted Incidence Rates\***  
**by Jurisdiction, Gender and Race, Maryland, 2002**

| Jurisdiction     | Total | Gender |         | Race   |        |       |
|------------------|-------|--------|---------|--------|--------|-------|
|                  |       | Males  | Females | Whites | Blacks | Other |
| Maryland         | 9.7   | 14.9   | 5.3     | 9.9    | 9.5    | **    |
| Allegany         | **    | **     | **      | **     | **     | 0.0   |
| Anne Arundel     | 10.1  | 15.3   | **      | 10.6   | **     | 0.0   |
| Baltimore City   | 15.3  | 25.7   | 6.8     | 17.3   | 14.3   | 0.0   |
| Baltimore County | 10.8  | 17.0   | 5.7     | 10.8   | **     | **    |
| Calvert          | **    | **     | **      | **     | **     | 0.0   |
| Caroline         | **    | **     | **      | **     | **     | 0.0   |
| Carroll          | **    | **     | **      | **     | 0.0    | 0.0   |
| Cecil            | **    | **     | **      | **     | **     | 0.0   |
| Charles          | **    | **     | 0.0     | **     | 0.0    | 0.0   |
| Dorchester       | **    | **     | 0.0     | 0.0    | **     | 0.0   |
| Frederick        | **    | **     | **      | **     | **     | **    |
| Garrett          | **    | **     | 0.0     | **     | 0.0    | 0.0   |
| Harford          | **    | **     | **      | **     | 0.0    | **    |
| Howard           | **    | **     | **      | **     | 0.0    | **    |
| Kent             | **    | 0.0    | **      | **     | 0.0    | 0.0   |
| Montgomery       | 7.6   | 11.0   | **      | 8.1    | **     | **    |
| Prince George's  | 5.8   | 7.6    | **      | **     | **     | **    |
| Queen Anne's     | **    | **     | **      | **     | 0.0    | 0.0   |
| Saint Mary's     | **    | **     | **      | **     | **     | **    |
| Somerset         | **    | 0.0    | **      | 0.0    | **     | 0.0   |
| Talbot           | **    | **     | **      | **     | **     | 0.0   |
| Washington       | **    | **     | **      | **     | 0.0    | 0.0   |
| Wicomico         | **    | **     | **      | **     | 0.0    | 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, 2002

**Table 50.**  
**Number of Oral Cancer Deaths**  
**by Jurisdiction, Gender and Race, Maryland, 2002**

| Jurisdiction     | Total | Gender |         | Race   |        |       |
|------------------|-------|--------|---------|--------|--------|-------|
|                  |       | Males  | Females | Whites | Blacks | Other |
| Maryland         | 158   | 98     | 60      | 110    | 46     | 2     |
| Allegany         | <6    | <6     | <6      | <6     | 0      | 0     |
| Anne Arundel     | 15    | 15     | 0       | 12     | 3      | 0     |
| Baltimore City   | 28    | 17     | 11      | 7      | 21     | 0     |
| Baltimore County | 27    | 17     | 10      | 24     | 3      | 0     |
| Calvert          | <6    | 0      | <6      | <6     | <6     | 0     |
| Caroline         | 0     | 0      | 0       | 0      | 0      | 0     |
| Carroll          | 3     | 2      | 1       | 3      | 0      | 0     |
| Cecil            | <6    | <6     | <6      | <6     | 0      | 0     |
| Charles          | 5     | 5      | 0       | 4      | 1      | 0     |
| Dorchester       | <6    | <6     | 0       | 0      | <6     | 0     |
| Frederick        | 4     | 2      | 2       | 2      | 2      | 0     |
| Garrett          | 0     | 0      | 0       | 0      | 0      | 0     |
| Harford          | 7     | 5      | 2       | 7      | 0      | 0     |
| Howard           | 3     | 0      | 3       | 3      | 0      | 0     |
| Kent             | <6    | <6     | 0       | <6     | 0      | 0     |
| Montgomery       | 20    | 9      | 11      | 15     | 3      | 2     |
| Prince George's  | 17    | 11     | 6       | 9      | 8      | 0     |
| Queen Anne's     | <6    | <6     | <6      | <6     | 0      | 0     |
| Saint Mary's     | <6    | <6     | 0       | 0      | <6     | 0     |
| Somerset         | 0     | 0      | 0       | 0      | 0      | 0     |
| Talbot           | <6    | 0      | <6      | <6     | 0      | 0     |
| Washington       | 5     | 3      | 2       | 4      | 1      | 0     |
| Wicomico         | <6    | <6     | <6      | <6     | <6     | 0     |
| Worcester        | <6    | <6     | <6      | <6     | 0      | 0     |

Cells with 5 or fewer non-zero cases where county population is less than 100,000

are not presented per CDC WONDER Data Use Restrictions

Source: CDC WONDER, 2002

**Table 51.  
Oral Cancer Age-Adjusted Mortality Rates\*  
by Jurisdiction, Gender and Race, Maryland, 2002**

| Jurisdiction     | Total | Gender |         | Race   |        |       |
|------------------|-------|--------|---------|--------|--------|-------|
|                  |       | Males  | Females | Whites | Blacks | Other |
| Maryland         | 3.0   | 4.2    | 2.0     | 2.8    | 3.8    | 1.3   |
| Allegany         | **    | **     | **      | **     | 0.0    | 0.0   |
| Anne Arundel     | 3.0   | 6.1    | 0.0     | 2.7    | 6.1    | 0.0   |
| Baltimore City   | 4.4   | 6.4    | 3.0     | 2.5    | 5.5    | 0.0   |
| Baltimore County | 3.0   | 4.4    | 1.9     | 3.1    | 2.6    | 0.0   |
| Calvert          | **    | 0.0    | **      | **     | **     | 0.0   |
| Caroline         | 0.0   | 0.0    | 0.0     | 0.0    | 0.0    | 0.0   |
| Carroll          | 2.2   | 3.8    | 0.9     | 2.2    | 0.0    | 0.0   |
| Cecil            | **    | **     | **      | **     | 0.0    | 0.0   |
| Charles          | 4.9   | 10.1   | 0.0     | 4.8    | 5.4    | 0.0   |
| Dorchester       | **    | **     | 0.0     | 0.0    | **     | 0.0   |
| Frederick        | 2.6   | 2.7    | 1.9     | 1.4    | 27.8   | 0.0   |
| Garrett          | 0.0   | 0.0    | 0.0     | 0.0    | 0.0    | 0.0   |
| Harford          | 3.5   | 7.0    | 1.6     | 3.8    | 0.0    | 0.0   |
| Howard           | 1.7   | 0.0    | 2.6     | 2.1    | 0.0    | 0.0   |
| Kent             | **    | **     | 0.0     | **     | 0.0    | 0.0   |
| Montgomery       | 2.3   | 2.4    | 2.1     | 2.1    | 3.8    | 2.7   |
| Prince George's  | 2.6   | 3.9    | 1.5     | 3.4    | 1.8    | 0.0   |
| Queen Anne's     | **    | **     | **      | **     | 0.0    | 0.0   |
| Saint Mary's     | **    | **     | 0.0     | 0.0    | **     | 0.0   |
| Somerset         | 0.0   | 0.0    | 0.0     | 0.0    | 0.0    | 0.0   |
| Talbot           | **    | 0.0    | **      | **     | 0.0    | 0.0   |
| Washington       | 3.3   | 4.6    | 2.3     | 2.7    | 24.4   | 0.0   |
| Wicomico         | **    | **     | **      | **     | **     | 0.0   |
| Worcester        | **    | **     | **      | **     | 0.0    | 0.0   |

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

\*\* Rates based on cells with 5 or fewer non-zero cases where county population is less than 100,000  
are not presented per CDC WONDER Data Use Restrictions

Source: CDC WONDER, 2002

**Table 52.**  
**Number of Oral Cancer Cases**  
**by Jurisdiction, Gender and Race, Maryland, 1998-2002**

| Jurisdiction     | Total | Gender |         | Race   |        |       |         |
|------------------|-------|--------|---------|--------|--------|-------|---------|
|                  |       | Males  | Females | Whites | Blacks | Other | Unknown |
| Maryland         | 2,680 | 1,844  | 836     | 1,898  | 648    | 84    | 50      |
| Allegany         | 57    | 41     | 16      | s      | <6     | 0     | 0       |
| Anne Arundel     | 271   | 197    | 74      | 230    | 34     | s     | <6      |
| Baltimore City   | 505   | 365    | 140     | 198    | 295    | <6    | s       |
| Baltimore County | 440   | 292    | 148     | 357    | 64     | 10    | 9       |
| Calvert          | 37    | 20     | 17      | 30     | s      | 0     | <6      |
| Caroline         | 17    | s      | <6      | 14     | <6     | 0     | <6      |
| Carroll          | 71    | 54     | 17      | s      | 0      | 0     | <6      |
| Cecil            | 46    | 35     | 11      | s      | <6     | 0     | <6      |
| Charles          | 41    | 30     | 11      | 36     | <6     | <6    | <6      |
| Dorchester       | 22    | 16     | 6       | s      | <6     | 0     | 0       |
| Frederick        | 65    | 45     | 20      | 58     | <6     | <6    | 0       |
| Garrett          | 9     | 9      | 0       | 9      | 0      | 0     | 0       |
| Harford          | 97    | 70     | 27      | 89     | <6     | <6    | <6      |
| Howard           | 78    | 55     | 23      | 61     | 8      | s     | <6      |
| Kent             | 9     | s      | <6      | 9      | 0      | 0     | 0       |
| Montgomery       | 345   | 204    | 141     | 268    | 35     | 35    | 7       |
| Prince George's  | 286   | 192    | 94      | 119    | 148    | s     | <6      |
| Queen Anne's     | 33    | 21     | 12      | s      | <6     | 0     | 0       |
| Saint Mary's     | 49    | 39     | 10      | 37     | 9      | <6    | <6      |
| Somerset         | 7     | <6     | <6      | <6     | <6     | 0     | <6      |
| Talbot           | 29    | 22     | 7       | s      | <6     | 0     | 0       |
| Washington       | 68    | 42     | 26      | 62     | <6     | <6    | <6      |
| Wicomico         | 49    | 34     | 15      | 34     | s      | <6    | 0       |
| Worcester        | 44    | 34     | 10      | 38     | <6     | 0     | <6      |
| Unknown          | <6    | <6     | <6      | <6     | 0      | 0     | <6      |

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

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

Source: Maryland Cancer Registry, 1998-2002

**Table 53.**  
**Oral Cancer Age-Adjusted Incidence Rates\***  
**by Jurisdiction, Gender and Race, Maryland, 1998-2002**

| Jurisdiction     | Total | Gender |         | Race   |        |       |
|------------------|-------|--------|---------|--------|--------|-------|
|                  |       | Males  | Females | Whites | Blacks | Other |
| Maryland         | 10.3  | 15.7   | 5.9     | 9.9    | 10.6   | 7.9   |
| Allegany         | 12.5  | 20.9   | **      | 12.2   | **     | 0.0   |
| Anne Arundel     | 11.8  | 18.7   | 6.1     | 11.5   | 14.0   | **    |
| Baltimore City   | 15.7  | 26.1   | 7.5     | 15.8   | 15.1   | **    |
| Baltimore County | 10.6  | 16.2   | 6.4     | 10.2   | 11.4   | **    |
| Calvert          | 11.9  | 13.0   | **      | 10.8   | **     | 0.0   |
| Caroline         | **    | **     | **      | **     | **     | 0.0   |
| Carroll          | 9.7   | 15.7   | **      | 9.5    | 0.0    | 0.0   |
| Cecil            | 11.4  | 17.8   | **      | 11.4   | **     | 0.0   |
| Charles          | 8.6   | 13.0   | **      | 10.0   | **     | **    |
| Dorchester       | 11.5  | **     | **      | **     | **     | 0.0   |
| Frederick        | 7.5   | 11.1   | **      | 7.1    | **     | **    |
| Garrett          | **    | **     | 0.0     | **     | 0.0    | 0.0   |
| Harford          | 9.4   | 14.6   | 5.0     | 9.4    | **     | **    |
| Howard           | 7.8   | 10.9   | **      | 7.7    | **     | **    |
| Kent             | **    | **     | **      | **     | 0.0    | 0.0   |
| Montgomery       | 7.9   | 10.5   | 5.9     | 7.9    | 6.9    | 7.1   |
| Prince George's  | 8.3   | 12.5   | 5.0     | 9.0    | 7.5    | **    |
| Queen Anne's     | 15.0  | **     | **      | 15.9   | **     | 0.0   |
| Saint Mary's     | 12.7  | 20.3   | **      | 11.5   | **     | **    |
| Somerset         | **    | **     | **      | **     | **     | 0.0   |
| Talbot           | 12.6  | **     | **      | **     | **     | 0.0   |
| Washington       | 9.5   | 13.1   | 6.7     | 9.0    | **     | **    |
| Wicomico         | 11.3  | 17.2   | **      | 9.9    | **     | **    |
| Worcester        | 13.9  | 23.1   | **      | 13.9   | **     | 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, 1998-2002

**Table 54.**  
**Number of Oral Cancer Deaths**  
**by Jurisdiction, Gender and Race, Maryland, 1999-2002**

| Jurisdiction     | Total | Gender |         | Race   |        |       |
|------------------|-------|--------|---------|--------|--------|-------|
|                  |       | Males  | Females | Whites | Blacks | Other |
| Maryland         | 597   | 419    | 178     | 398    | 189    | 10    |
| Allegany         | 13    | 6      | 7       | 13     | 0      | 0     |
| Anne Arundel     | 55    | 44     | 11      | 43     | 11     | 1     |
| Baltimore City   | 142   | 112    | 30      | 51     | 91     | 0     |
| Baltimore County | 99    | 67     | 32      | 85     | 13     | 1     |
| Calvert          | 8     | 5      | 3       | 7      | 1      | 0     |
| Caroline         | 0     | 0      | 0       | 0      | 0      | 0     |
| Carroll          | 8     | 6      | 2       | 8      | 0      | 0     |
| Cecil            | 8     | 7      | 1       | 7      | 1      | 0     |
| Charles          | 21    | 18     | 3       | 12     | 9      | 0     |
| Dorchester       | 5     | 4      | 1       | 2      | 3      | 0     |
| Frederick        | 10    | 7      | 3       | 8      | 2      | 0     |
| Garrett          | 2     | 2      | 0       | 2      | 0      | 0     |
| Harford          | 17    | 12     | 5       | 15     | 2      | 0     |
| Howard           | 18    | 8      | 10      | 14     | 2      | 2     |
| Kent             | 5     | 5      | 0       | 4      | 1      | 0     |
| Montgomery       | 66    | 34     | 32      | 53     | 8      | 5     |
| Prince George's  | 68    | 47     | 21      | 30     | 37     | 1     |
| Queen Anne's     | 8     | 5      | 3       | 8      | 0      | 0     |
| Saint Mary's     | 6     | 5      | 1       | 4      | 2      | 0     |
| Somerset         | 2     | 2      | 0       | 1      | 1      | 0     |
| Talbot           | 7     | 5      | 2       | 7      | 0      | 0     |
| Washington       | 12    | 7      | 5       | 11     | 1      | 0     |
| Wicomico         | 6     | 2      | 4       | 3      | 3      | 0     |
| Worcester        | 11    | 9      | 2       | 10     | 1      | 0     |

Source: CDC WONDER, 1999-2002

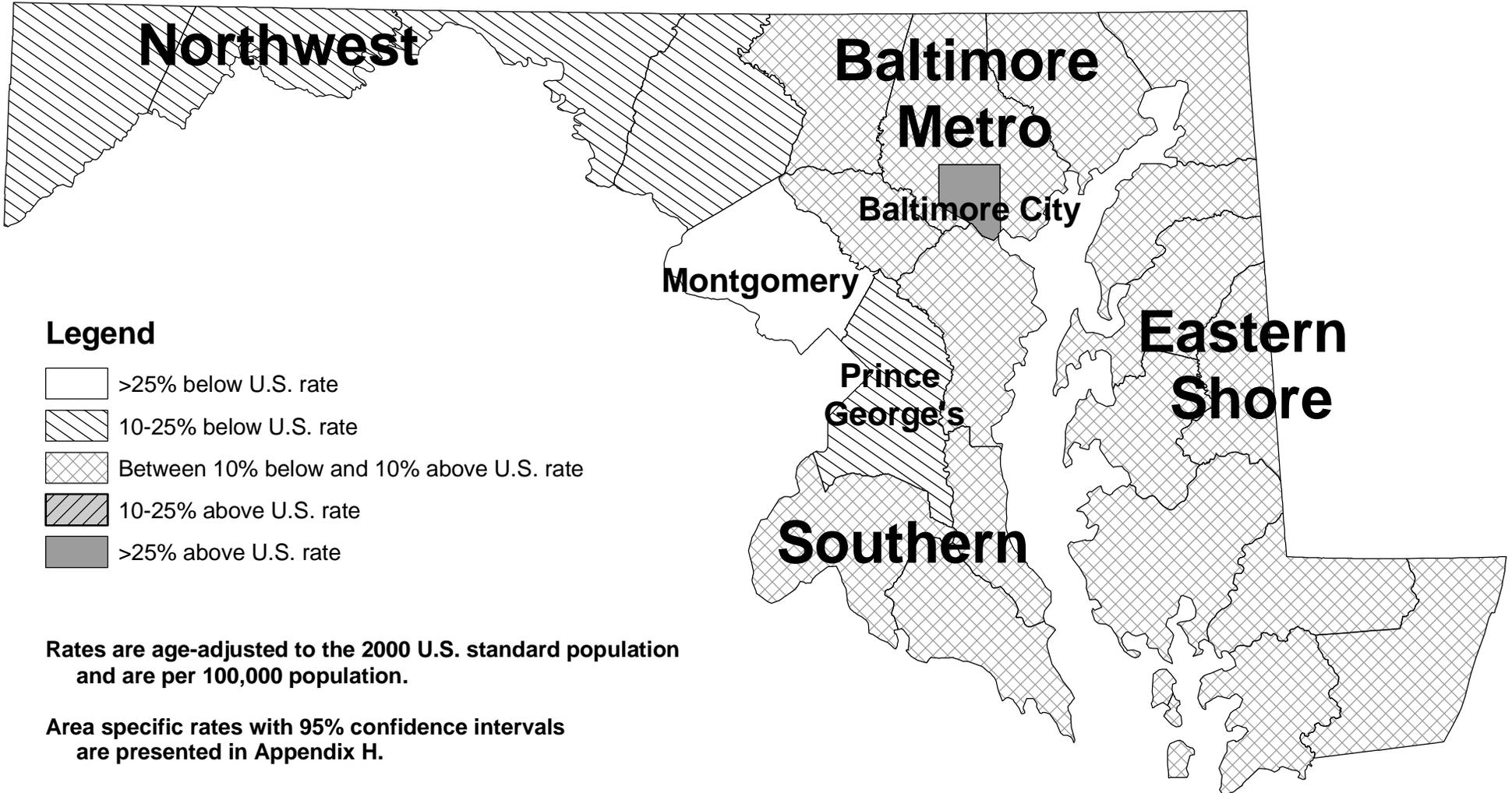
**Table 55.**  
**Oral Cancer Age-Adjusted Mortality Rates\***  
**by Jurisdiction, Gender and Race, Maryland, 1999-2002**

| Jurisdiction     | Total | Gender |         | Race   |        |       |
|------------------|-------|--------|---------|--------|--------|-------|
|                  |       | Males  | Females | Whites | Blacks | Other |
| Maryland         | 2.9   | 4.7    | 1.5     | 2.6    | 4.2    | 1.1   |
| Allegany         | 3.2   | 3.8    | 2.8     | 3.2    | 0.0    | 0.0   |
| Anne Arundel     | 3.1   | 5.5    | 1.2     | 2.8    | 7.0    | 1.3   |
| Baltimore City   | 5.5   | 10.3   | 1.9     | 4.7    | 5.9    | 0.0   |
| Baltimore County | 2.9   | 4.7    | 1.6     | 2.8    | 3.3    | 0.9   |
| Calvert          | 3.1   | 3.4    | 2.4     | 3.1    | 3.6    | 0.0   |
| Caroline         | 0.0   | 0.0    | 0.0     | 0.0    | 0.0    | 0.0   |
| Carroll          | 1.5   | 3.1    | 0.5     | 1.6    | 0.0    | 0.0   |
| Cecil            | 2.4   | 4.7    | 0.5     | 2.3    | 8.1    | 0.0   |
| Charles          | 5.2   | 9.6    | 1.4     | 4.1    | 9.5    | 0.0   |
| Dorchester       | 3.2   | 6.0    | 1.2     | 1.9    | 8.5    | 0.0   |
| Frederick        | 1.6   | 2.6    | 0.8     | 1.4    | 7.5    | 0.0   |
| Garrett          | 1.4   | 3.0    | 0.0     | 1.4    | 0.0    | 0.0   |
| Harford          | 2.3   | 4.3    | 1.1     | 2.2    | 3.2    | 0.0   |
| Howard           | 2.4   | 2.2    | 2.3     | 2.3    | 2.8    | 2.3   |
| Kent             | 4.4   | 10.3   | 0.0     | 4.1    | 5.6    | 0.0   |
| Montgomery       | 2.0   | 2.3    | 1.6     | 1.9    | 2.4    | 1.4   |
| Prince George's  | 2.7   | 4.2    | 1.5     | 2.8    | 2.7    | 0.6   |
| Queen Anne's     | 4.8   | 5.7    | 3.4     | 5.4    | 0.0    | 0.0   |
| Saint Mary's     | 2.3   | 3.9    | 0.7     | 2.0    | 4.5    | 0.0   |
| Somerset         | 1.7   | 3.8    | 0.0     | 1.1    | 3.7    | 0.0   |
| Talbot           | 3.3   | 5.5    | 1.5     | 3.8    | 0.0    | 0.0   |
| Washington       | 2.1   | 2.9    | 1.5     | 2.0    | 6.4    | 0.0   |
| Wicomico         | 1.7   | 1.3    | 2.1     | 1.1    | 4.8    | 0.0   |
| Worcester        | 3.7   | 7.2    | 1.2     | 3.9    | 3.0    | 0.0   |

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

Source: CDC WONDER, 1999-2002

# Maryland Oral Cancer Incidence Rates (1998-2002) by Geographical Area: Comparison to U.S. Rate (1998-2002)



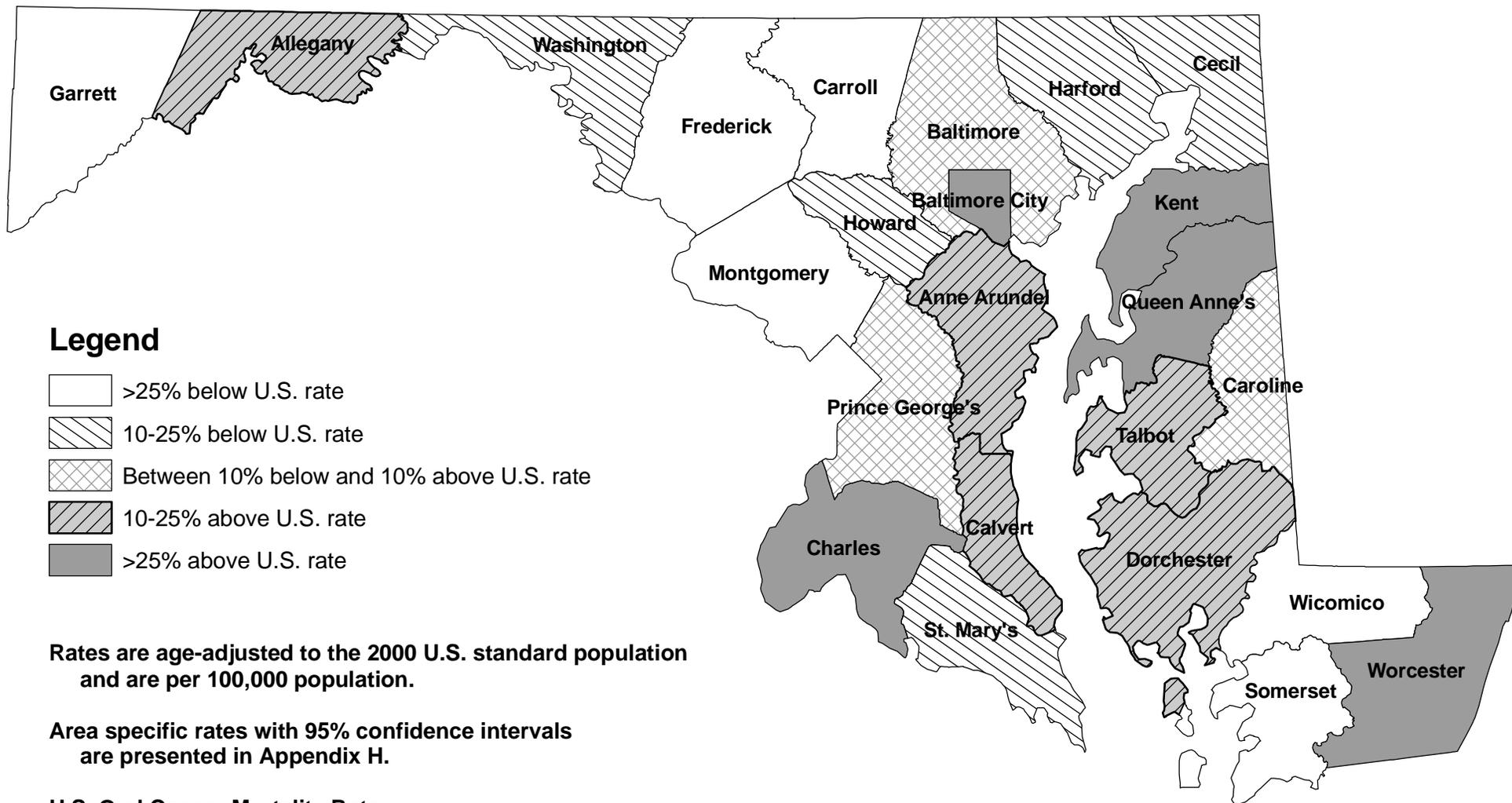
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population.

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

U.S. Oral Cancer Incidence Rate,  
1998-2002: 10.8 per 100,000 population

Source: Maryland Cancer Registry, 1998-2002

# Maryland Oral Cancer Mortality Rates (1999-2002) by Geographical Area: Comparison to U.S. Rate (1998-2002)



Source: CDC WONDER, 1999-2002

