

G. Cervical Cancer

Incidence (New Cases)

A total of 205 women in Maryland were diagnosed with cervical cancer in 2001. The age-adjusted incidence rate for cervical cancer in Maryland for 2001 is 7.0 per 100,000 population of women (6.1-8.0, 95% C.I.). This rate is similar to the 2001 U.S. SEER age-adjusted cervical cancer incidence rate of 7.9 per 100,000 population of women.

Mortality (Deaths)

In 2001, a total of 82 women died of cervical cancer in Maryland. The age-adjusted cervical cancer mortality rate in Maryland is 2.8 per 100,000 women (2.2-3.5, 95% C.I.). This rate is similar to the 2001 U.S. cervical cancer mortality rate of 2.7 per 100,000 population of women. Maryland women rank 27th highest for cervical cancer mortality rate among the states and the District of Columbia for the period 1997-2001.

Table 65.
Cervical Cancer Incidence and Mortality Rates
by Race, Maryland and the United States, 2001

<i>Incidence 2001</i>	<i>Total</i>	<i>Whites</i>	<i>Blacks</i>
New Cases (#)	205	107	63
Incidence Rate*	7.0	5.4	8.2
U.S. SEER Rate*	7.9	7.3	11.1
<i>Mortality 2001</i>	<i>Total</i>	<i>Whites</i>	<i>Blacks</i>
MD Deaths (#)	82	48	s
MD Mortality Rate*	2.8	2.3	4.6
U.S. Mortality Rate*	2.7	2.4	4.8

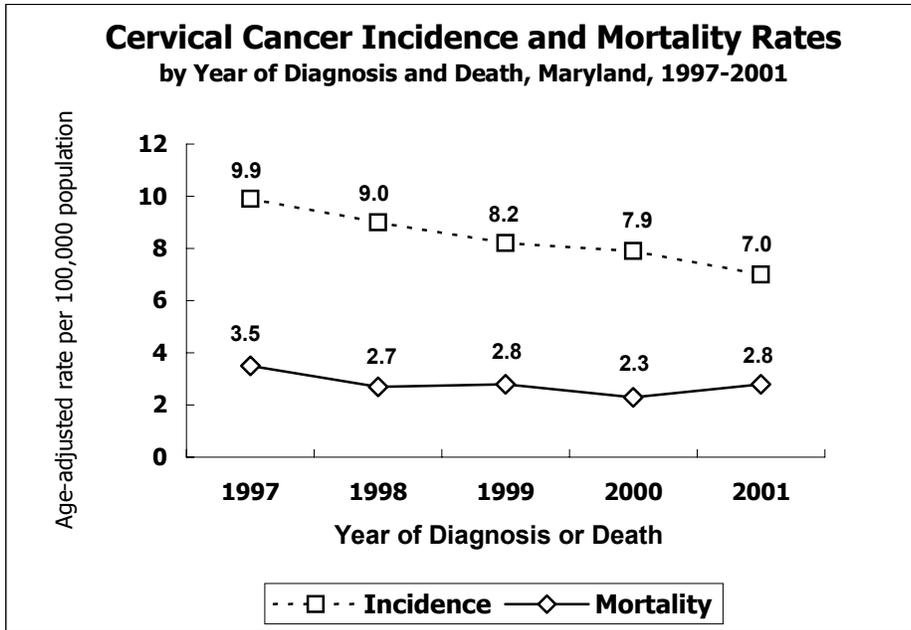
* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

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

Source: Maryland Cancer Registry, 2001

Maryland Division of Health Statistics, 2001

SEER, National Cancer Institute, 2001

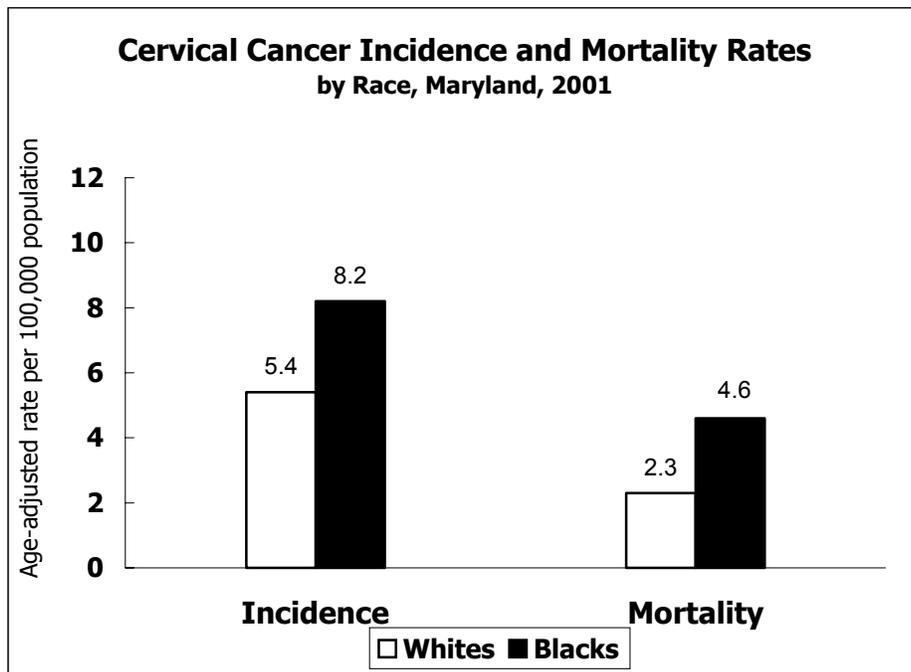


Trend

Cervical cancer incidence rates have decreased an average of 7.9% per year from 1997 to 2001 in Maryland.

Cervical cancer mortality rates have also decreased an average of 5.9% per year from 1997 to 2001 in Maryland.

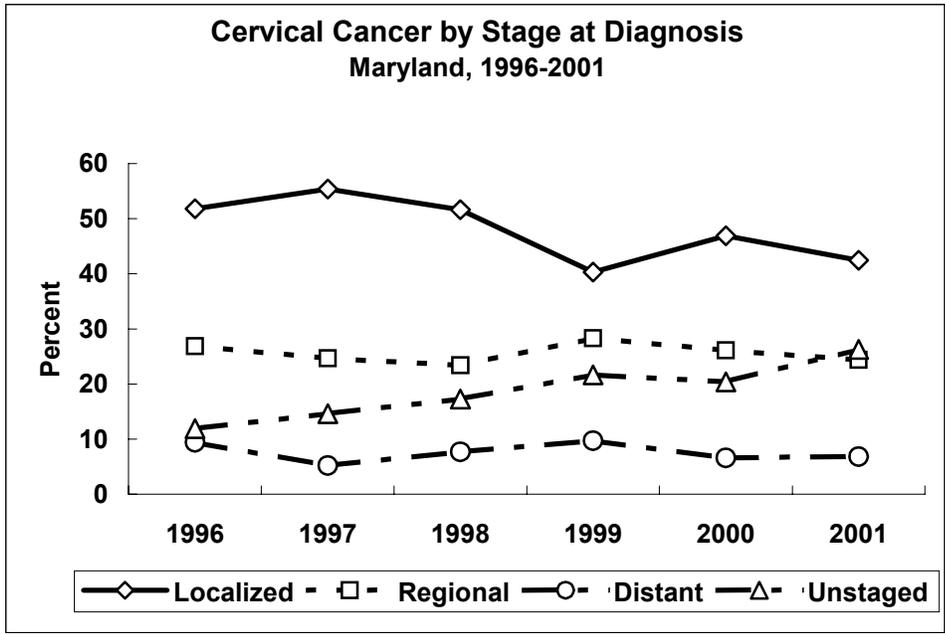
Rates are age-adjusted to 2000 U.S. standard population
 Maryland Cancer Registry, 1997-2001
 Maryland Division of Health Statistics, 1997-2001



Race-Specific Rates

Black women had a higher incidence rate than white women in Maryland, but the difference was not statistically significant. Black women had double the mortality rate of white women although the difference was not statistically significant.

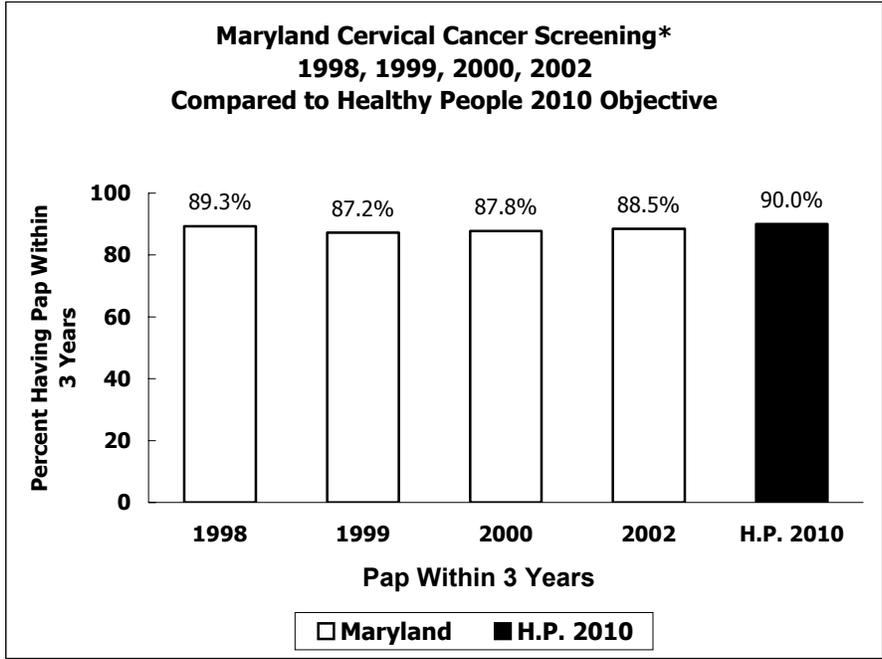
Rates are age-adjusted to 2000 U.S. standard population
 Maryland Cancer Registry, 2001
 Maryland Division of Health Statistics, 2001



Stage at Diagnosis

In 2001, 42.4% of all cervical cancer cases were diagnosed in the localized (early) stage, and 26.3% of cases were unstaged the same year. This compares with 51.8% localized cases with 11.9% unstaged in 1996.

Maryland Cancer Registry, 1996-2001



Healthy People 2010 Objectives

A Healthy People 2010 objective for cervical cancer is to increase the percent of women 18 years and older who have had a Pap test within the preceding 3 years to 90%. In 2002, 88.5% of women 18 years and older reported they had their Pap smear within the preceding 3 years.

* Women 18 years of age and older
BRFSS, Maryland DHMH Office of Surveillance and Assessment, 1998, 1999, 2000, 2002
Healthy People 2010, U.S. Department of Health and Human Services, 2000

Public Health Evidence (quoted from NCI, PDQ, 2/20/2004 and 7/13/2004 and USPSTF 1/2003)

Screening

Based on good evidence, regular screening of appropriate women for cervical cancer with the Papanicolaou (Pap) test reduces mortality from cervical cancer. Screening is effective when started within three years after beginning vaginal intercourse and becomes much less effective in women ages 65 years and older who have had recent negative Pap tests.

The evidence is insufficient to determine the additional benefits or harms of new technologies for screening, including liquid-based cytology, compared with traditional Pap testing. Although not suitable as a primary screening test, testing for human papillomavirus (HPV) DNA is a promising technology for differentiating between women with atypical squamous cells of undetermined significance (ASCUS) who would more likely benefit from colposcopy and women who would be unlikely to benefit.

Primary Prevention

Evidence supports a sexual mode of transmission of a carcinogen and HPV is strongly implicated epidemiologically as the main infectious etiologic agent. Barrier methods of contraception lower the incidence of cervical neoplasia presumably due to less exposure to HPV. Exposure to cigarette smoke is associated with increased risk. Increased intake of micronutrients and other dietary factors such as carotenoids are associated with decreased risk.

Preliminary evidence suggests a vaccine against HPV-16 using empty-viral capsids, called “virus-like particles,” reduces the risk of acquiring transient and persistent HPV-16 infections and cervical neoplasia.

Public Health Intervention for Cervical Cancer (NCI, PDQ, and USPSTF)
Early detection of cervical cancer: <ul style="list-style-type: none">➤ Screen using the Pap test for all women who have a cervix, within three years after onset of sexual activity or by age 21 if not sexually active.

Table 66.
Number of Cervical Cancer Cases
by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	205	107	63	25	10
Allegany	<6	<6	0	0	0
Anne Arundel	21	17	<6	<6	0
Baltimore City	39	11	25	<6	<6
Baltimore County	24	18	<6	<6	0
Calvert	<6	<6	0	0	0
Caroline	0	0	0	0	0
Carroll	<6	<6	0	<6	0
Cecil	<6	<6	0	0	<6
Charles	<6	<6	0	<6	0
Dorchester	<6	<6	0	0	0
Frederick	7	s	0	0	<6
Garrett	<6	<6	0	0	0
Harford	8	<6	<6	0	<6
Howard	10	<6	<6	<6	<6
Kent	<6	<6	0	0	0
Montgomery	36	18	s	9	<6
Prince George's	32	8	18	<6	<6
Queen Anne's	<6	0	<6	0	0
Saint Mary's	<6	<6	0	0	0
Somerset	<6	0	<6	0	0
Talbot	0	0	0	0	0
Washington	<6	<6	0	0	<6
Wicomico	<6	<6	0	0	0
Worcester	<6	<6	<6	0	0
Unknown	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 67.
Cervical Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 2001**

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	7.0	5.4	8.2	**
Allegany	**	**	0.0	0.0
Anne Arundel	**	**	**	**
Baltimore City	11.2	**	**	**
Baltimore County	**	**	**	**
Calvert	**	**	0.0	0.0
Caroline	0.0	0.0	0.0	0.0
Carroll	**	**	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
Harford	**	**	**	0.0
Howard	**	**	**	**
Kent	**	**	0.0	0.0
Montgomery	7.1	**	**	**
Prince George's	7.4	**	**	**
Queen Anne's	**	0.0	**	0.0
Saint Mary's	**	**	0.0	0.0
Somerset	**	0.0	**	0.0
Talbot	0.0	0.0	0.0	0.0
Washington	**	**	0.0	0.0
Wicomico	**	**	0.0	0.0
Worcester	**	**	**	0.0

* 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 68.
Number of Cervical Cancer Deaths
by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	82	48	s	<6
Allegany	<6	<6	0	0
Anne Arundel	6	<6	<6	0
Baltimore City	20	<6	s	0
Baltimore County	10	s	<6	0
Calvert	0	0	0	0
Caroline	<6	<6	0	0
Carroll	<6	<6	0	0
Cecil	0	0	0	0
Charles	<6	<6	0	0
Dorchester	<6	0	<6	0
Frederick	<6	<6	0	0
Garrett	<6	<6	0	0
Harford	0	0	0	0
Howard	<6	<6	<6	0
Kent	0	0	0	0
Montgomery	9	s	0	<6
Prince George's	13	<6	s	0
Queen Anne's	0	0	0	0
Saint Mary's	<6	<6	<6	0
Somerset	0	0	0	0
Talbot	0	0	0	0
Washington	<6	<6	0	0
Wicomico	<6	<6	0	0
Worcester	<6	<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 Division of Health Statistics, 2001

**Table 69.
Cervical Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2001**

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

* Rates are per 100,000 and 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, 2001

**Table 70.
Number of Cervical Cancer Cases
by Jurisdiction and Race, Maryland, 1997-2001**

Jurisdiction	Total	Race			
		Whites	Blacks	Others	Unknown
Maryland	1,172	682	358	76	56
Allegany	16	16	0	0	0
Anne Arundel	97	70	15	s	<6
Baltimore City	215	68	138	s	<6
Baltimore County	144	98	35	<6	s
Calvert	17	s	<6	0	0
Caroline	<6	<6	0	0	0
Carroll	29	s	<6	<6	<6
Cecil	23	19	<6	<6	<6
Charles	26	13	<6	<6	<6
Dorchester	6	<6	<6	0	0
Frederick	46	s	0	<6	<6
Garrett	8	8	0	0	0
Harford	42	32	s	0	<6
Howard	37	21	9	<6	<6
Kent	<6	<6	0	0	0
Montgomery	161	99	21	30	11
Prince George's	174	49	100	15	10
Queen Anne's	9	s	<6	0	0
Saint Mary's	15	11	<6	0	<6
Somerset	7	<6	<6	0	0
Talbot	9	<6	<6	0	0
Washington	28	s	<6	0	<6
Wicomico	28	21	<6	<6	<6
Worcester	18	s	<6	0	0
Unknown	9	<6	0	<6	<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, 1997-2001

**Table 71.
Cervical Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 1997-2001**

Jurisdiction	Total	Race		
		Whites	Blacks	Others
Maryland	8.3	7.0	10.1	13.0
Allegany	**	**	0.0	0.0
Anne Arundel	7.7	6.5	**	**
Baltimore City	11.8	10.2	12.3	**
Baltimore County	6.8	5.8	9.5	**
Calvert	**	**	**	0.0
Caroline	**	**	0.0	0.0
Carroll	7.4	6.9	**	**
Cecil	**	**	**	**
Charles	8.9	**	**	**
Dorchester	**	**	**	0.0
Frederick	9.6	9.8	0.0	**
Garrett	**	**	0.0	0.0
Harford	7.5	6.3	**	0.0
Howard	6.1	**	**	**
Kent	**	**	0.0	0.0
Montgomery	6.8	5.6	**	11.6
Prince George's	8.7	7.3	8.7	**
Queen Anne's	**	**	**	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	**	**	0.0
Talbot	**	**	**	0.0
Washington	8.1	7.7	**	0.0
Wicomico	12.6	**	**	**
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, 1997-2001

Table 72.
Number of Cervical Cancer Deaths
by Jurisdiction and Race, Maryland, 1997-2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	391	227	154	10
Allegany	7	7	0	0
Anne Arundel	20	s	<6	0
Baltimore City	108	s	76	<6
Baltimore County	37	29	s	<6
Calvert	<6	0	<6	0
Caroline	<6	<6	<6	0
Carroll	8	s	<6	0
Cecil	8	<6	<6	0
Charles	8	<6	<6	<6
Dorchester	8	<6	<6	0
Frederick	13	13	0	0
Garrett	<6	<6	0	0
Harford	11	s	<6	0
Howard	16	11	<6	<6
Kent	<6	<6	0	0
Montgomery	36	26	<6	<6
Prince George's	53	s	35	<6
Queen Anne's	<6	<6	0	0
Saint Mary's	<6	<6	<6	0
Somerset	<6	<6	<6	0
Talbot	<6	<6	<6	0
Washington	18	18	0	0
Wicomico	11	s	<6	0
Worcester	7	<6	<6	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 Division of Health Statistics, 1997-2001

**Table 73.
Cervical Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 1997-2001**

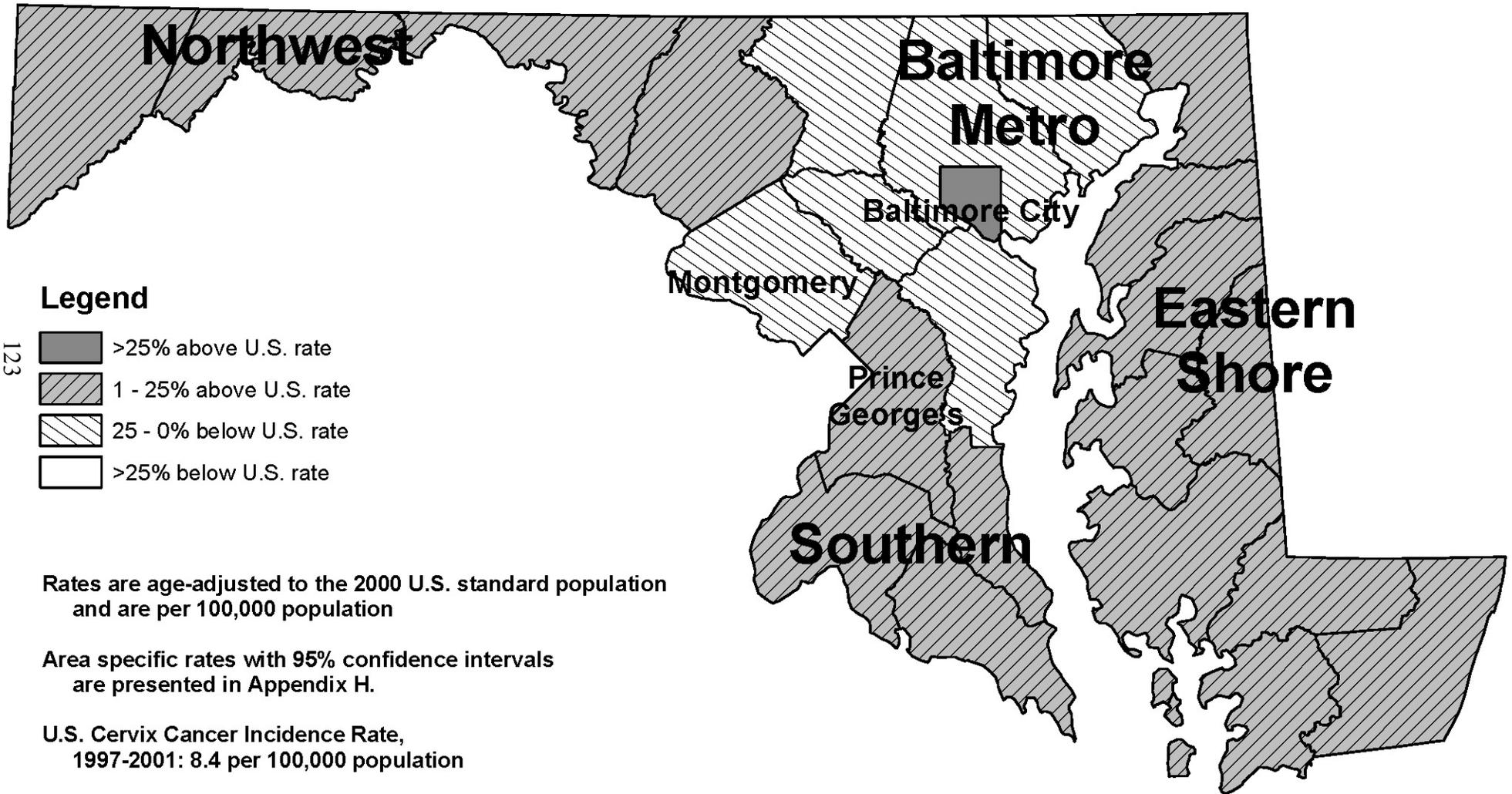
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2.8	2.2	4.6	**
Allegany	**	**	0.0	0.0
Anne Arundel	**	**	**	0.0
Baltimore City	5.9	4.3	6.8	**
Baltimore County	1.7	1.6	**	**
Calvert	**	0.0	**	0.0
Caroline	**	**	**	0.0
Carroll	**	**	**	0.0
Cecil	**	**	**	0.0
Charles	**	**	**	**
Dorchester	**	**	**	0.0
Frederick	**	**	0.0	0.0
Garrett	**	**	0.0	0.0
Harford	**	**	**	0.0
Howard	**	**	**	**
Kent	**	**	0.0	0.0
Montgomery	1.5	1.4	**	**
Prince George's	2.7	**	3.3	**
Queen Anne's	**	**	0.0	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	**	**	0.0
Talbot	**	**	**	0.0
Washington	**	**	0.0	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

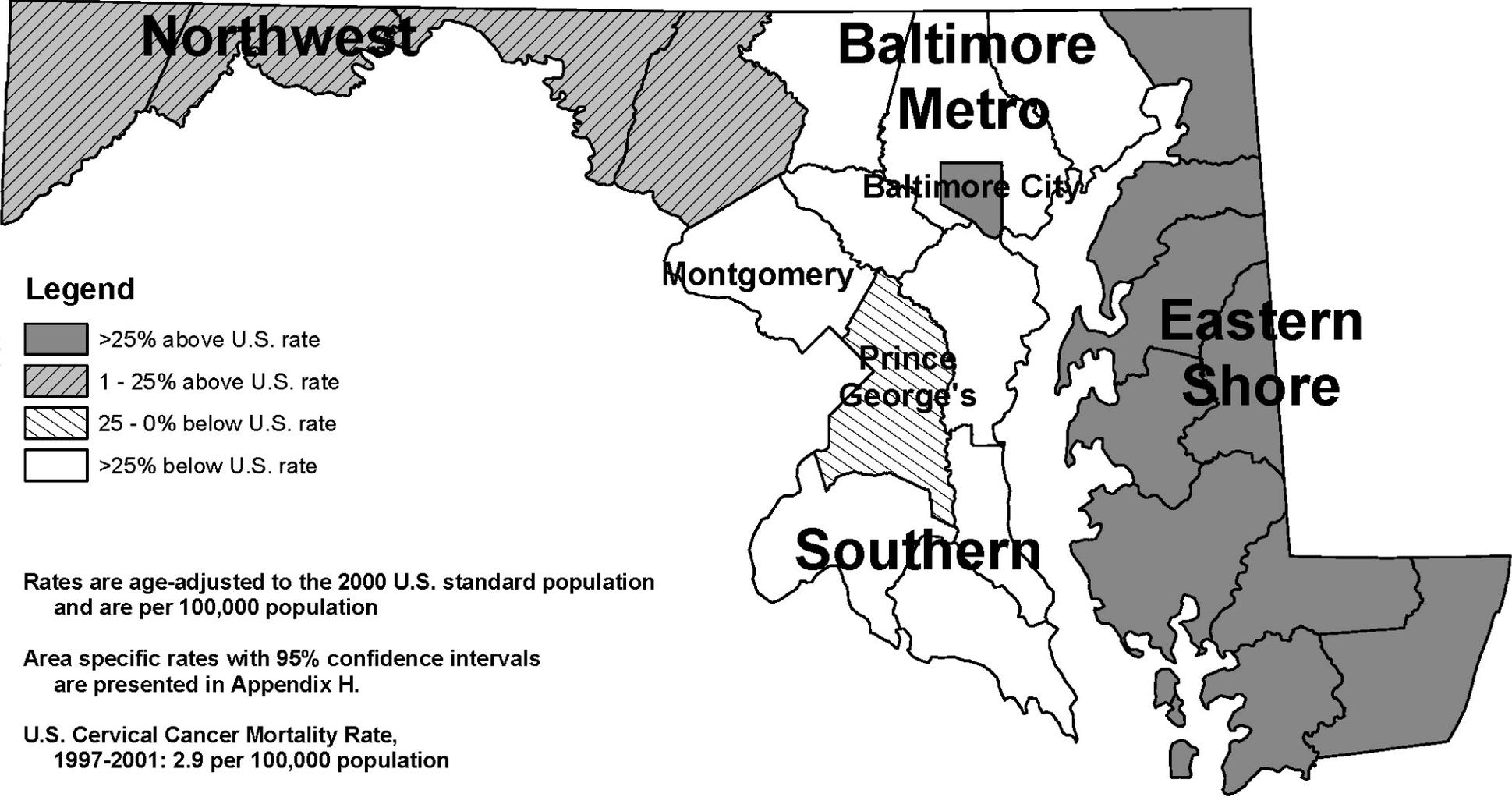
Maryland Cervical Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



123

Source: Maryland Cancer Registry, 1997-2001

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



124

Source: Maryland Division of Health Statistics, 1997-2001