D. Prostate Cancer

Incidence (New Cases)

A total of 3,843 cases of prostate cancer were diagnosed among men during 2001 in Maryland. Prostate cancer is the most common reportable cancer among men. Excluding non-melanoma skin cancer, prostate cancer accounts for 16.7% of all reportable cancers in 2001. The age-adjusted prostate cancer incidence rate in Maryland for 2001 is 170.7 per 100,000 men (165.2-176.3, 95% C.I.); this is statistically significantly lower than the 2001 U.S. SEER age-adjusted incidence rate for prostate cancer of 176.8 per 100,000 men.

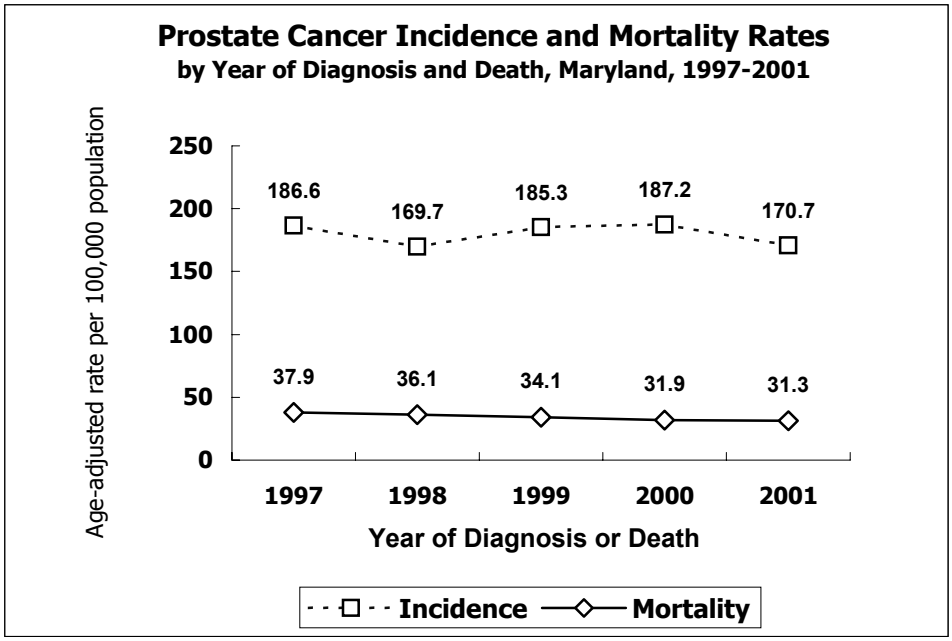
Mortality (Deaths)

Prostate cancer is the third leading cause of cancer deaths in Maryland among men after lung and colon and rectum cancer. In 2001, 552 men died of prostate cancer in Maryland; this accounts for 5.4% of all cancer deaths in Maryland. The age-adjusted mortality rate for prostate cancer is 31.3 per 100,000 men (28.7-34.1, 95% C.I.). This rate is similar to the 2001 U.S. mortality rate for prostate cancer of 29.1 per 100,000 men. Maryland has the 10th highest mortality rate for prostate cancer among the states and the District of Columbia for the period 1997-2001.

Table 38.
Prostate Cancer Incidence and Mortality Rates*
by Race, Maryland and the United States, 2001

Incidence 2001	*Total*	*Whites*	*Blacks*
New Cases (#)	3,843	2,628	962
Incidence Rate*	170.7	153.0	210.0
U.S. SEER Rate*	176.8	173.5	251.9
Mortality 2001	*Total*	*Whites*	*Blacks*
MD Deaths (#)	552	355	188
MD Mortality Rate*	31.3	25.1	65.7
U.S. Mortality Rate*	29.1	26.6	66.4

* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
Source: Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001
SEER, National Cancer Institute, 2001

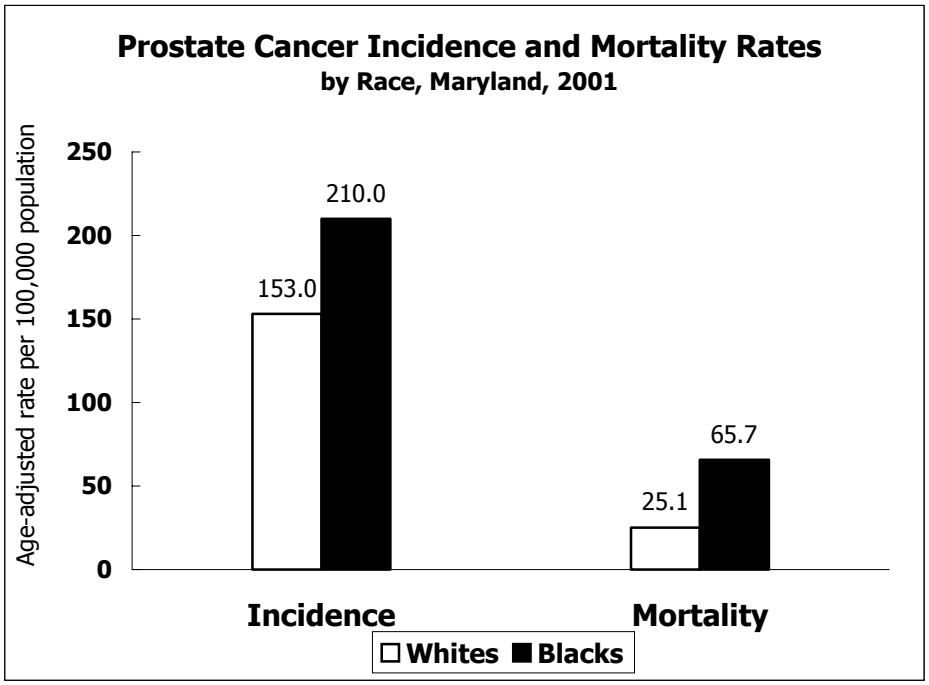


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001

Trends

Prostate cancer incidence rates have decreased an average of 0.8% per year from 1997 to 2001 in Maryland.

Prostate cancer mortality rates declined an average of 4.9% per year among men from 1997 to 2001.

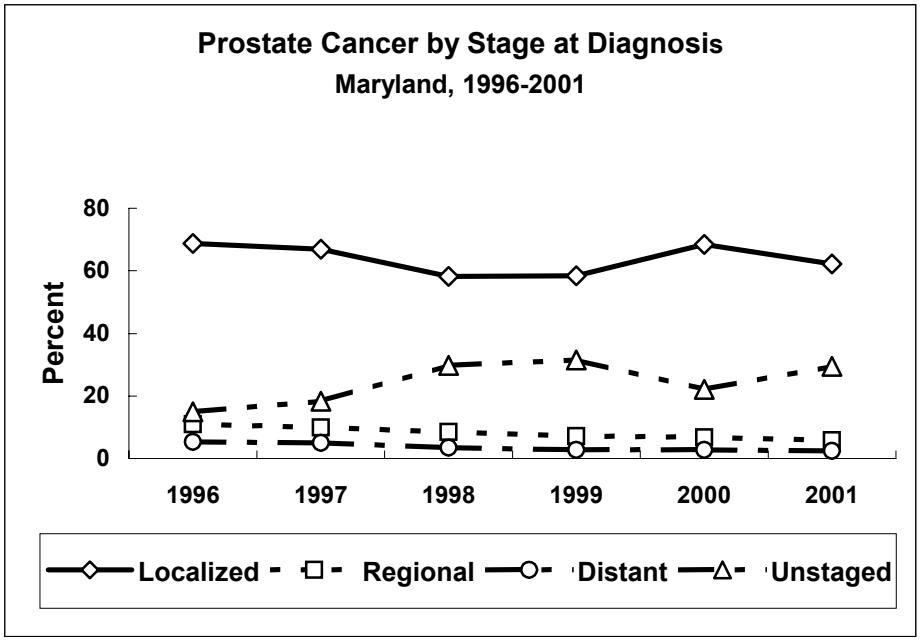


Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001

Race-Specific Rates

The prostate cancer incidence rate for black men was statistically significantly higher than that for white men in 2001.

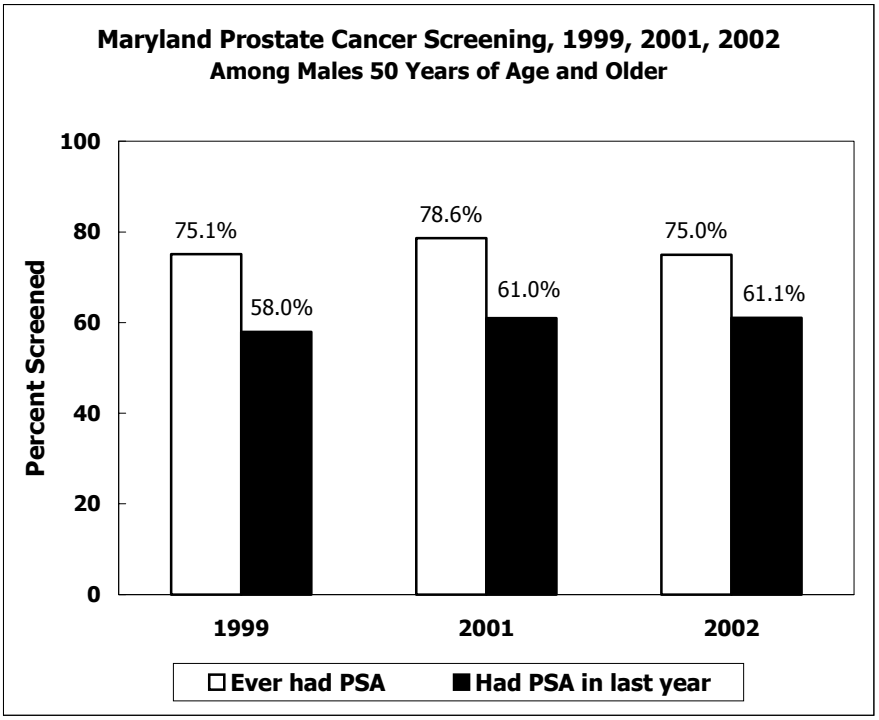
The 2001 prostate cancer mortality rate for black men was statistically significantly higher and over twice the corresponding rate for white men.



Maryland Cancer Registry, 1996-2001

Stage at Diagnosis

During 2001, 62.2% of prostate cancer cases were diagnosed at the localized (early) stage in Maryland. This was a decline from 68.7% in 1996. The percent of unstaged prostate cancers increased from 1996 to 2001.



BRFSS, Maryland DHMH Office of Surveillance and Assessment, 1999, 2001
Maryland Cancer Survey, DHMH Center for Cancer Surveillance and Control, 2002

Healthy People 2010 Objectives

There is no Healthy People 2010 objective for prostate cancer detection.

In 2002, 75.0% of Maryland men 50 years of age and older reported that they have *ever* had a prostate specific antigen (PSA) test, and 61.1% of men 50 years and older had a PSA in the past year.

Public Health Evidence (quoted from NCI, PDQ, 7/13/2004)

Screening

Digital rectal examination (DRE) and the serum prostate specific antigen (PSA) test are two commonly used methods of detecting prostate cancer. The evidence is insufficient to determine whether screening for prostate cancer with DRE or PSA reduces mortality from prostate cancer. Screening tests are able to detect prostate cancer at an early stage, but it is not clear whether this earlier detection and consequent earlier treatment leads to any change in the natural history and outcome of the disease. Ecological evidence shows a trend toward lower mortality for prostate cancer in some countries, but the relationship between these trends and intensity of screening is not clear, and associations with screening patterns are inconsistent. The observed trends may be due to screening or to other factors such as improved treatment.

Based on good evidence, screening with PSA and/or DRE detects some prostate cancers that would never have caused important clinical problems. Thus screening leads to some degree of overtreatment. Current prostate cancer treatments, including radical prostatectomy and radiation therapy, result in permanent side effects in many men. The most common of these side effects are erectile dysfunction and urinary incontinence.

Primary Prevention

The evidence is insufficient that the prevention strategies of dietary change (i.e., reducing dietary fat or increasing fruits and vegetables), or vitamin E (alpha-tocopherol), selenium, or lycopene supplementation, are effective in reducing prostate cancer incidence or mortality.

Chemoprevention

Based on good evidence, chemoprevention with finasteride reduces the incidence of prostate cancer, but the evidence is insufficient to determine whether chemoprevention with finasteride reduces mortality from prostate cancer. One large randomized controlled trial showed that finasteride, given to men who have not had prostate cancer, reduces the risk of developing this disease. Slightly fewer men in the finasteride group had urinary urgency and urinary frequency; however, the incidence of higher-grade prostate cancer increased in the finasteride group. The clinical significance of histologic grade in men taking finasteride is uncertain.

Men in the finasteride group had statistically significantly more erectile dysfunction, loss of libido, and gynecomastia than men in the placebo group.

Public Health Intervention for Prostate Cancer (American Cancer Society: Guidelines for the early detection of cancer: *CA Cancer J. Clin*. 2003, Jan-Feb; 53(1):27-43, and DHMH Prostate Cancer Medical Advisory Committee)

- On the basis of available data, men should be made aware of the availability of the PSA and DRE tests and the potential risks and benefits, in order to make an informed choice about screening.

- Clinicians should discuss with their patients the potential benefits and uncertainties regarding prostate cancer detection and subsequent treatment, consider individual patient preferences, and individualize the decision to screen.

- PSA and DRE should be offered annually to men 50-70 years of age who have at least a 10-year life expectancy. High risk men (African Americans, men with one or more first degree relatives diagnosed with prostate cancer) should begin testing at age 45.

Table 39.
Number of Prostate Cancer Cases
by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	3,843	2,628	962	102	151
Allegany	70	67	<6	0	<6
Anne Arundel	292	243	39	<6	s
Baltimore City	498	158	313	<6	s
Baltimore County	679	522	120	13	24
Calvert	55	42	10	<6	<6
Caroline	16	11	<6	<6	0
Carroll	124	117	<6	<6	<6
Cecil	45	40	<6	0	<6
Charles	65	44	s	<6	<6
Dorchester	25	19	6	0	0
Frederick	148	125	s	<6	12
Garrett	29	29	0	0	0
Harford	184	159	16	0	9
Howard	150	111	24	s	<6
Kent	17	11	<6	0	<6
Montgomery	610	454	74	50	32
Prince George's	484	179	267	16	22
Queen Anne's	42	37	<6	0	<6
Saint Mary's	39	32	s	0	<6
Somerset	11	<6	s	0	0
Talbot	45	38	s	0	<6
Washington	99	94	<6	<6	<6
Wicomico	52	36	s	0	<6
Worcester	63	54	s	0	<6
Unknown	<6	<6	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 40.
Prostate Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	170.7	153.0	210.0	121.2
Allegany	166.7	163.8	**	0.0
Anne Arundel	141.8	132.7	199.6	**
Baltimore City	187.6	139.3	212.4	**
Baltimore County	184.7	163.4	278.9	**
Calvert	190.9	170.9	**	**
Caroline	**	**	**	**
Carroll	187.3	182.6	**	**
Cecil	122.5	117.0	**	0.0
Charles	162.9	134.8	**	**
Dorchester	**	**	**	0.0
Frederick	204.6	182.0	**	**
Garrett	185.5	186.7	0.0	0.0
Harford	212.4	200.2	**	0.0
Howard	163.4	143.3	**	**
Kent	**	**	**	0.0
Montgomery	163.2	152.5	206.7	115.0
Prince George's	170.4	146.8	172.9	**
Queen Anne's	188.7	181.5	**	0.0
Saint Mary's	108.6	99.7	**	0.0
Somerset	**	**	**	0.0
Talbot	191.8	178.8	**	0.0
Washington	153.7	151.1	**	**
Wicomico	132.2	112.9	**	0.0
Worcester	192.2	182.8	**	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, 2001

Table 41.
Number of Prostate Cancer Deaths
by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	552	355	188	9
Allegany	9	9	0	0
Anne Arundel	40	31	s	<6
Baltimore City	113	34	79	0
Baltimore County	94	82	s	<6
Calvert	7	<6	<6	0
Caroline	<6	<6	<6	0
Carroll	17	17	0	0
Cecil	12	s	<6	0
Charles	9	6	<6	<6
Dorchester	9	<6	<6	0
Frederick	13	s	<6	0
Garrett	7	7	0	0
Harford	19	s	<6	0
Howard	14	11	<6	<6
Kent	<6	<6	<6	0
Montgomery	67	55	s	<6
Prince George's	63	21	42	0
Queen Anne's	<6	<6	<6	0
Saint Mary's	<6	<6	<6	0
Somerset	<6	<6	<6	0
Talbot	10	s	<6	0
Washington	13	13	0	0
Wicomico	10	<6	<6	<6
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 42.
Prostate Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	31.3	25.1	65.7	**
Allegany	**	**	0.0	0.0
Anne Arundel	27.8	24.1	**	**
Baltimore City	47.0	28.7	67.8	0.0
Baltimore County	29.3	27.5	**	**
Calvert	**	**	**	0.0
Caroline	**	**	**	0.0
Carroll	**	**	0.0	0.0
Cecil	**	**	**	0.0
Charles	**	**	**	**
Dorchester	**	**	**	0.0
Frederick	**	**	**	0.0
Garrett	**	**	0.0	0.0
Harford	**	**	**	0.0
Howard	**	**	**	**
Kent	**	**	**	0.0
Montgomery	21.3	20.7	**	**
Prince George's	37.1	**	66.5	0.0
Queen Anne's	**	**	**	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	**	**	0.0
Talbot	**	**	**	0.0
Washington	**	**	0.0	0.0
Wicomico	**	**	**	**
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 43.
Number of Prostate Cancer Cases
by Jurisdiction and Race, Maryland, 1997-2001

Jurisdiction	Total	Race			
		Whites	Blacks	Others	Unknown
Maryland	19,041	12,595	4,683	428	1,335
Allegany	348	335	6	<6	<6
Anne Arundel	1,552	1,221	208	18	105
Baltimore City	2,614	903	1,511	22	178
Baltimore County	3,292	2,524	503	41	224
Calvert	237	164	44	<6	s
Caroline	103	79	s	<6	0
Carroll	528	478	s	<6	34
Cecil	285	237	s	<6	33
Charles	410	284	101	13	12
Dorchester	140	89	48	<6	<6
Frederick	584	431	36	7	110
Garrett	124	124	0	0	0
Harford	782	650	71	<6	s
Howard	642	474	96	21	51
Kent	86	58	15	<6	s
Montgomery	3,049	2,269	390	178	212
Prince George's	2,531	891	1,360	87	193
Queen Anne's	149	125	18	<6	<6
Saint Mary's	216	170	41	<6	<6
Somerset	89	56	s	<6	0
Talbot	204	170	31	<6	<6
Washington	456	430	14	<6	s
Wicomico	271	189	74	<6	<6
Worcester	238	205	24	<6	s
Unknown	111	39	13	9	50

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 44.
Prostate Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 1997-2001

Jurisdiction	Total	Race		
		Whites	Blacks	Others
Maryland	178.6	152.7	227.1	132.2
Allegany	165.1	162.4	**	**
Anne Arundel	160.8	142.4	222.9	**
Baltimore City	195.4	151.4	211.1	**
Baltimore County	183.5	159.5	280.9	133.5
Calvert	177.3	141.6	254.9	**
Caroline	145.7	130.4	**	**
Carroll	177.7	165.8	**	**
Cecil	170.6	148.8	**	**
Charles	221.1	192.6	289.3	**
Dorchester	156.5	124.3	269.7	**
Frederick	172.4	133.1	229.6	**
Garrett	155.4	155.9	0.0	0.0
Harford	191.9	171.0	274.2	**
Howard	162.7	144.7	211.4	**
Kent	138.3	108.8	**	**
Montgomery	174.5	160.3	249.0	111.9
Prince George's	199.7	149.0	223.6	163.0
Queen Anne's	139.9	130.1	**	**
Saint Mary's	130.6	120.4	194.6	**
Somerset	142.5	117.5	223.5	**
Talbot	178.0	168.0	236.1	**
Washington	147.7	143.5	**	**
Wicomico	150.4	129.8	225.8	**
Worcester	149.5	144.5	**	**

* 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 45.
Number of Prostate Cancer Deaths
by Jurisdiction and Race, Maryland, 1997-2001

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2,868	1,875	969	24
Allegany	47	47	0	0
Anne Arundel	202	165	s	<6
Baltimore City	586	170	416	0
Baltimore County	463	392	s	<6
Calvert	39	25	14	0
Caroline	20	13	7	0
Carroll	70	s	<6	0
Cecil	69	60	9	0
Charles	60	38	s	<6
Dorchester	43	23	20	0
Frederick	71	63	8	0
Garrett	20	20	0	0
Harford	115	99	16	0
Howard	80	58	s	<6
Kent	16	9	7	0
Montgomery	357	291	54	12
Prince George's	336	s	208	<6
Queen Anne's	16	s	<6	0
Saint Mary's	34	24	10	0
Somerset	18	10	8	0
Talbot	36	30	6	0
Washington	82	s	<6	0
Wicomico	54	35	s	<6
Worcester	34	24	10	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 46.
Prostate Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 1997-2001

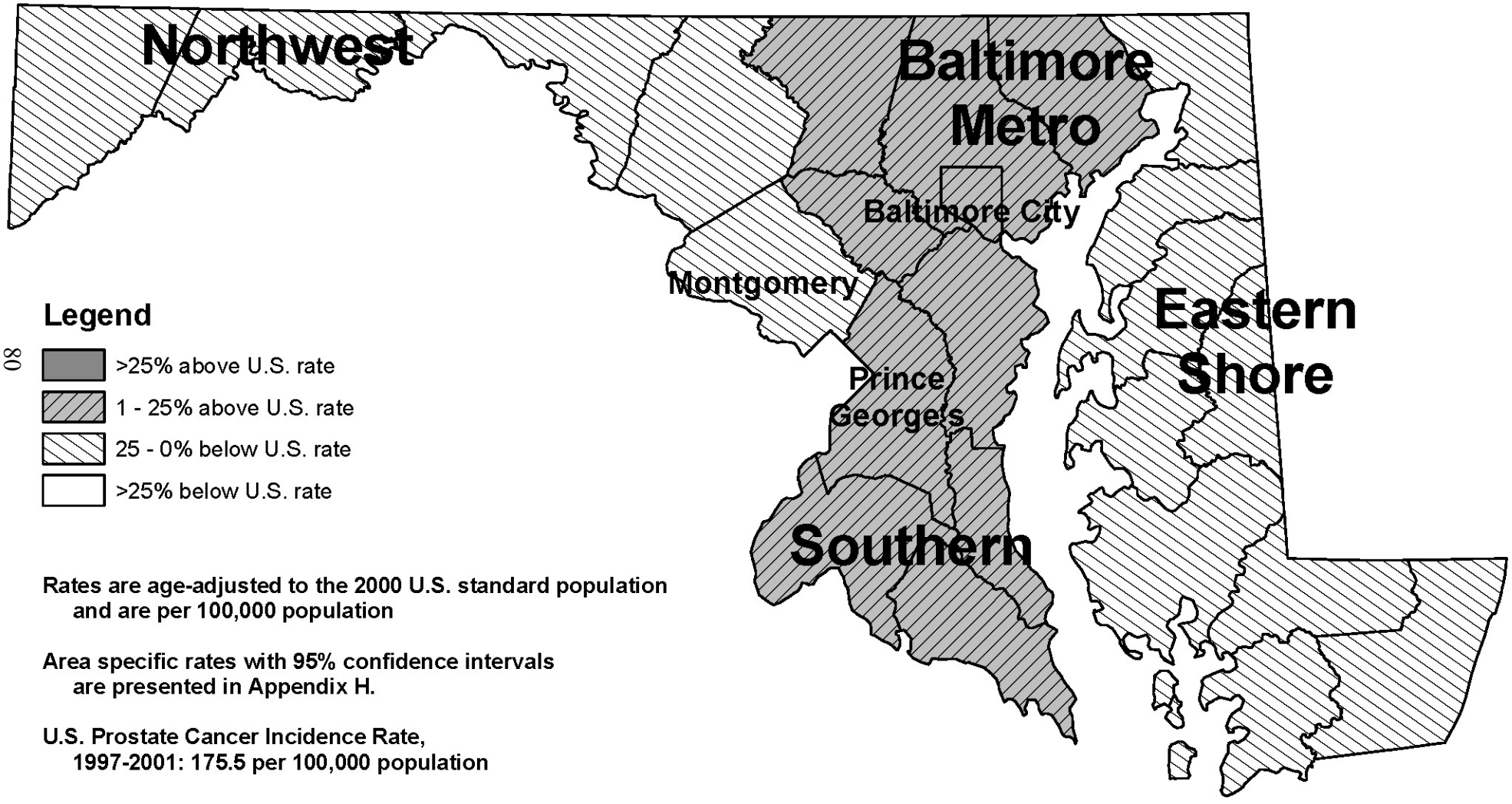
Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	34.3	27.8	71.6	**
Allegany	26.9	27.3	0.0	0.0
Anne Arundel	31.0	28.4	55.3	**
Baltimore City	50.1	28.9	74.1	0.0
Baltimore County	29.6	27.3	66.8	**
Calvert	43.8	**	**	0.0
Caroline	33.0	**	**	0.0
Carroll	30.8	29.9	**	0.0
Cecil	60.1	54.4	**	0.0
Charles	49.6	41.2	**	**
Dorchester	56.2	**	**	0.0
Frederick	26.0	24.4	**	0.0
Garrett	31.1	**	0.0	0.0
Harford	39.0	36.2	**	0.0
Howard	32.6	28.2	**	**
Kent	27.9	**	**	0.0
Montgomery	24.8	23.4	54.0	**
Prince George's	41.0	26.9	69.2	**
Queen Anne's	22.1	**	**	0.0
Saint Mary's	27.7	**	**	0.0
Somerset	35.4	**	**	0.0
Talbot	34.1	31.3	**	0.0
Washington	32.4	31.8	**	0.0
Wicomico	38.3	30.3	**	**
Worcester	26.7	**	**	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 Prostate Cancer Incidence Rates by Geographical Area: Comparison to U.S. Rates, 1997-2001



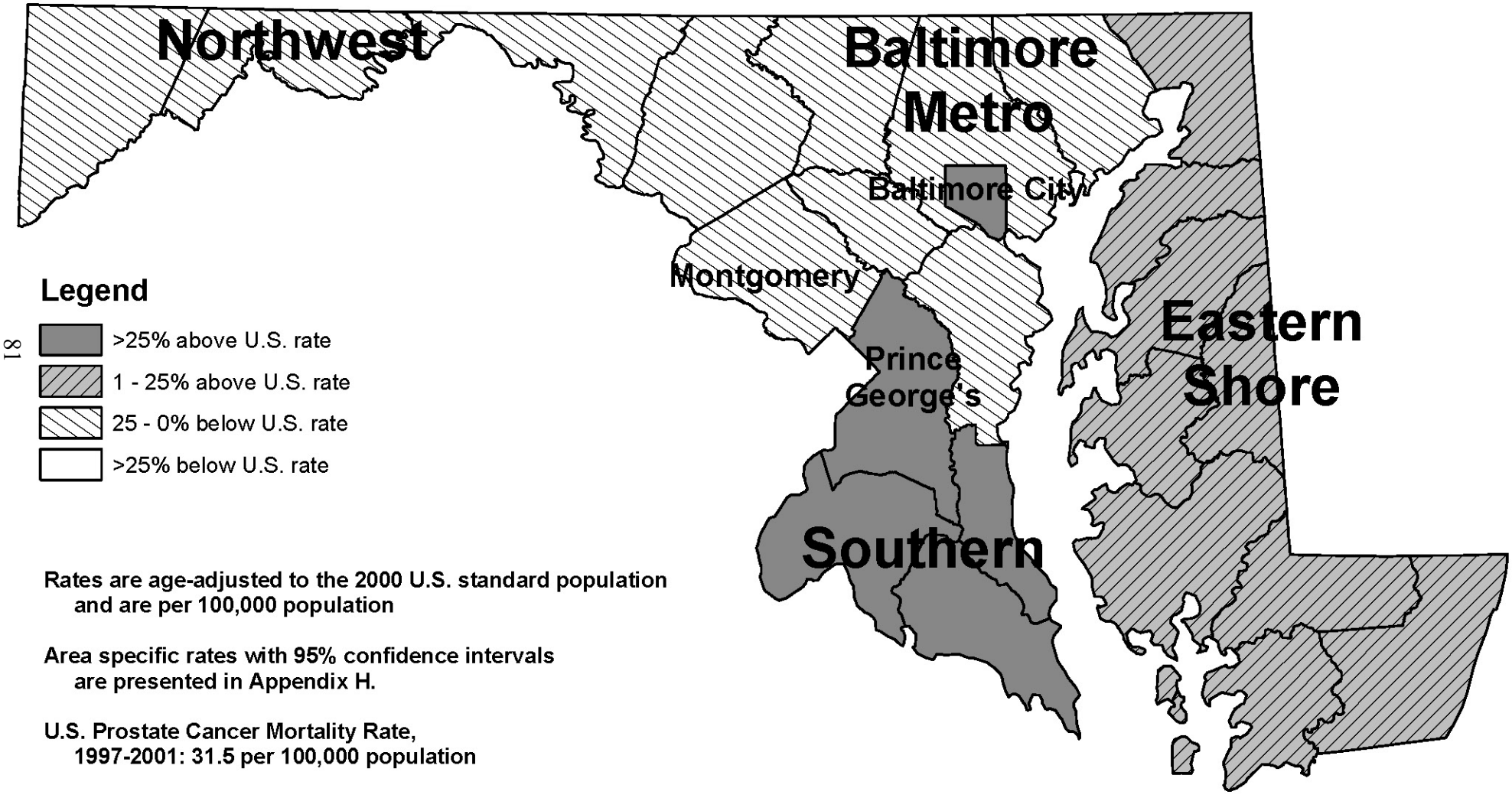
Rates are age-adjusted to the 2000 U.S. standard population and are per 100,000 population

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

U.S. Prostate Cancer Incidence Rate, 1997-2001: 175.5 per 100,000 population

Source: Maryland Cancer Registry, 1997-2001

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



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. Prostate Cancer Mortality Rate, 1997-2001: 31.5 per 100,000 population

Source: Maryland Division of Health Statistics, 1997-2001