

D. Prostate Cancer

Incidence (New Cases)

A total of 4,294 cases of prostate cancer were diagnosed among men in Maryland during 2002. Prostate cancer is the most common reportable cancer among men. The age-adjusted prostate cancer incidence rate in Maryland for 2002 is 187.7 per 100,000 men (182.0-193.5, 95% C.I.); this is statistically significantly higher than the 2002 U.S. SEER age-adjusted incidence rate for prostate cancer of 176.3 per 100,000 men.

Mortality (Deaths)

Prostate cancer is the second leading cause of cancer deaths in Maryland among men after lung cancer. In 2002, 570 men died of prostate cancer in Maryland; this accounts for 5.5% of all cancer deaths in Maryland. The age-adjusted mortality rate for prostate cancer is 30.9 per 100,000 men (28.4-33.4, 95% C.I.). This rate is statistically significantly higher than the 2002 U.S. SEER mortality rate for prostate cancer of 28.1 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 1998-2002.

Table 38.
Prostate Cancer Incidence and Mortality Rates
by Race, Maryland and the United States, 2002

<i>Incidence 2002</i>	<i>Total</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
New Cases (#)	4,294	3,019	1,169	105
Incidence Rate*	187.7	173.2	259.7	129.1
U.S. SEER Rate*	176.3	171.9	275.8	NA
<i>Mortality 2002</i>	<i>Total</i>	<i>Whites</i>	<i>Blacks</i>	<i>Other</i>
Deaths (#)	570	344	220	6
Mortality Rate*	30.9	23.5	71.4	14.1
U.S. SEER Rate*	28.1	25.8	63.0	NA

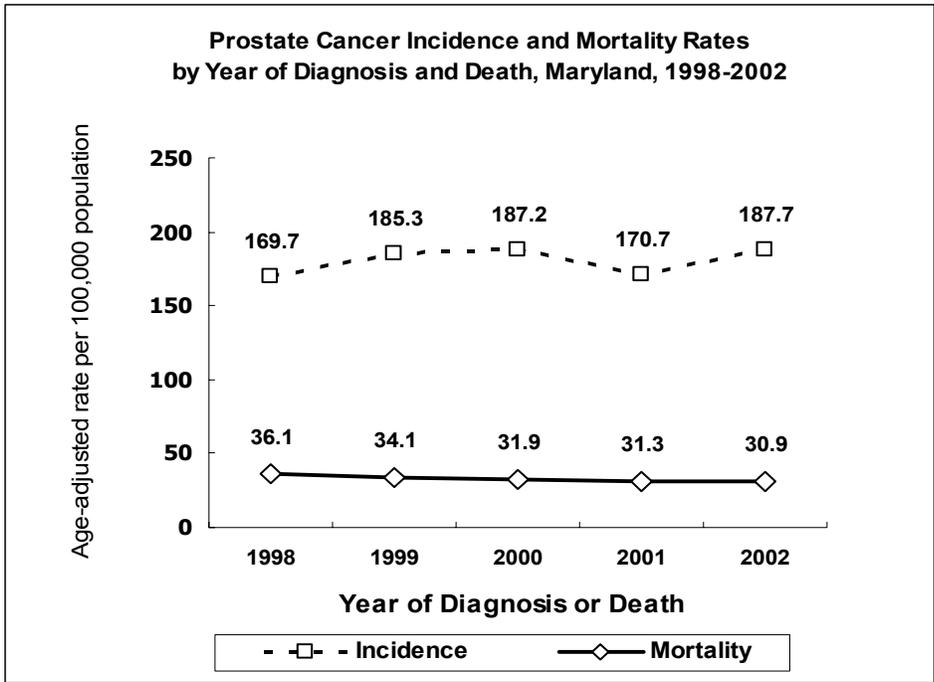
Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

NA: Data were not available

Source: Maryland Cancer Registry, 2002

CDC WONDER, 2002

SEER, National Cancer Institute, 2002



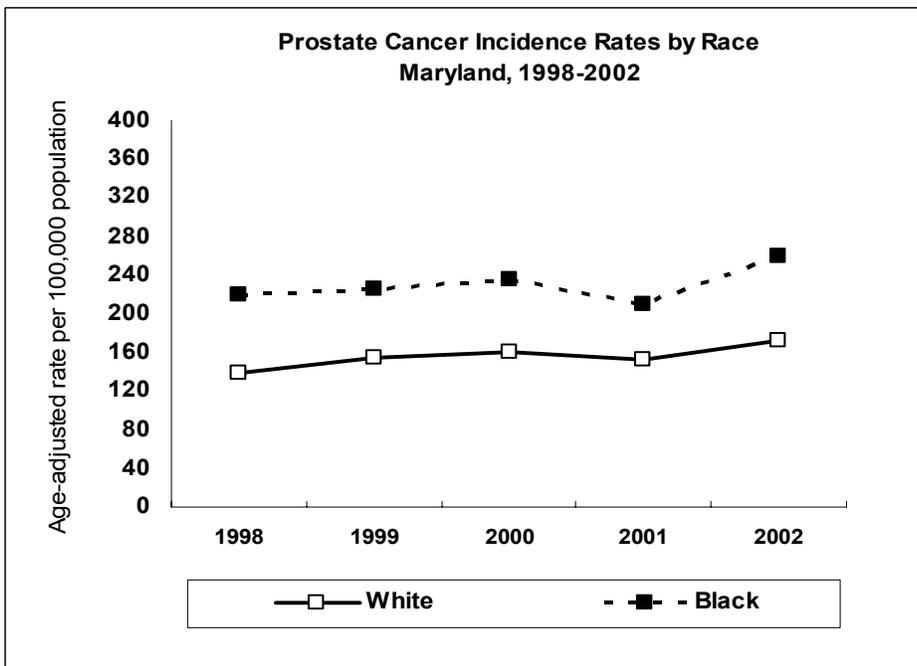
Rates are age-adjusted to 2000 U.S. standard population
 Maryland Cancer Registry, 1998-2002
 Maryland Division of Health Statistics, 1998-2001
 CDC WONDER, 2002

Incidence and Mortality Trends

Prostate cancer incidence rates increased an average of 1.2% per year from 1998 to 2002 in Maryland.

Prostate cancer mortality rates declined an average of 3.9% per year among men from 1998 to 2002.

See Appendix I, Tables 1 and 2.



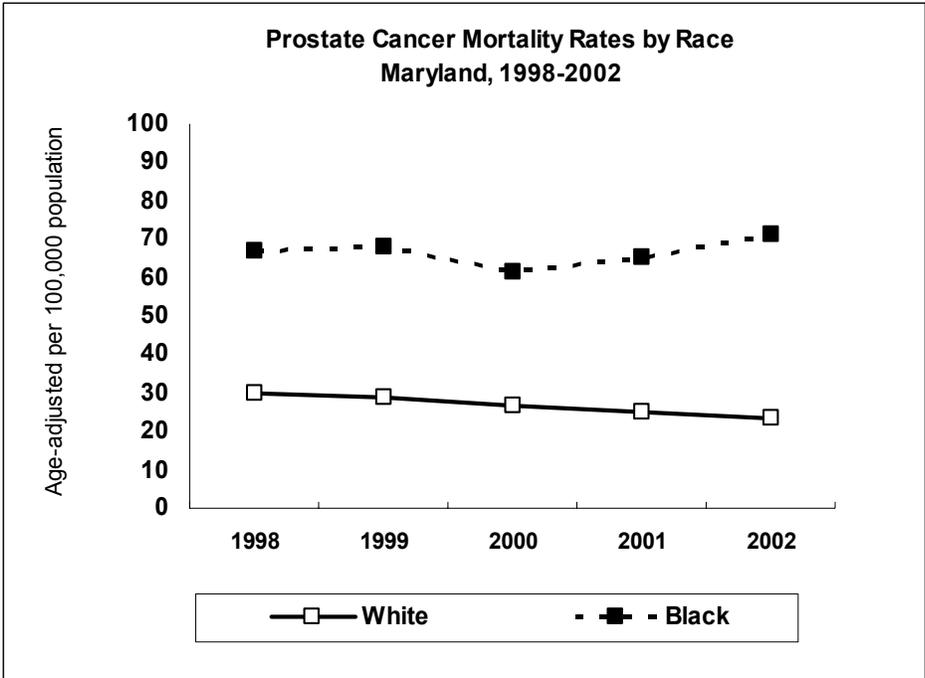
Rates are age-adjusted to 2000 U.S. standard population
 Maryland Cancer Registry, 1998-2002

Race Incidence Trends

Black men consistently experienced prostate cancer incidence rates above those of white men from 1998 to 2002.

Rates for both white and black men have been increasing. The fastest increase in rates was for white males, having an average annual increase of 4.4%, compared to 2.6% for black men from 1998 to 2002.

See Appendix I, Table 11.



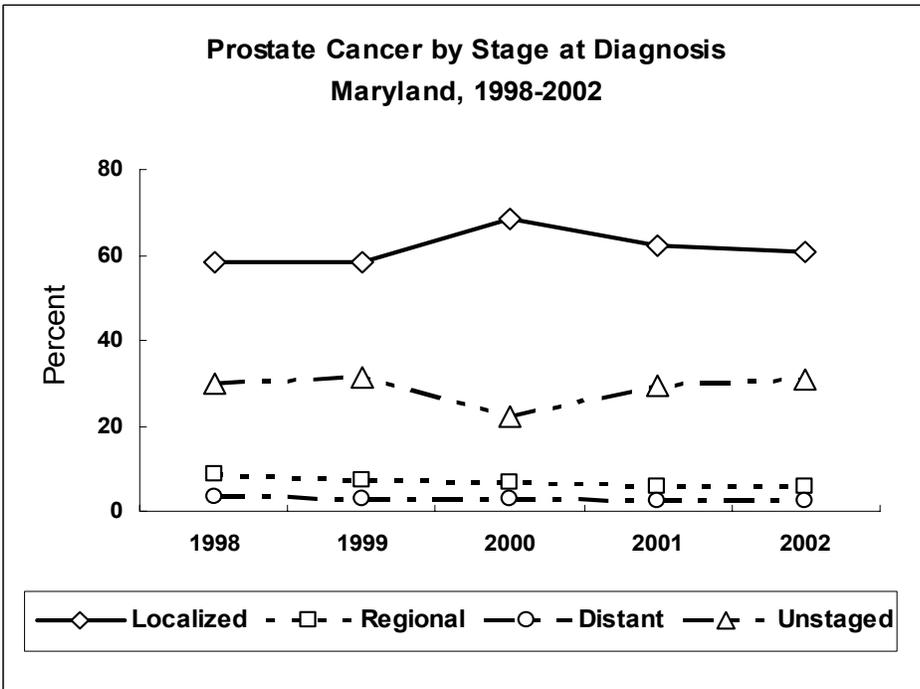
Rates are age-adjusted to 2000 U.S. standard population
 Maryland Division of Health Statistics, 1998-2001
 CDC WONDER, 2002

Race Mortality Trends

Prostate cancer mortality rates for black men consistently exceeded rates for white men from 1998 to 2002.

Rates for black men increased at an average annual rate of 0.8% compared to an average annual decrease of 6.0% for white men from 1998 to 2002.

See Appendix I, Table 12.

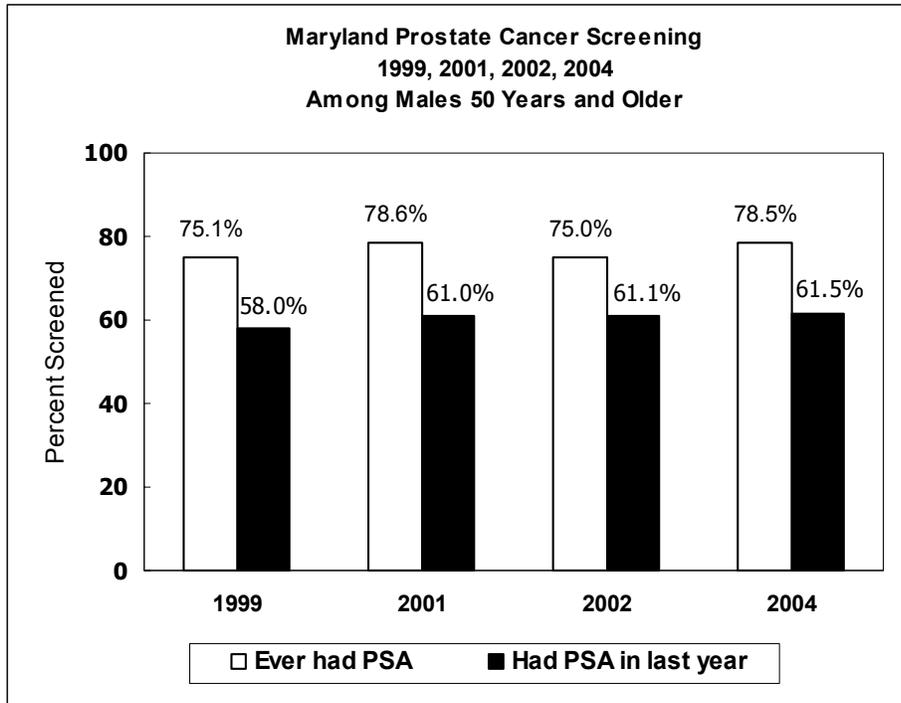


Maryland Cancer Registry, 1998-2002

Stage at Diagnosis

During 2002, 60.9% of prostate cancer cases were diagnosed at the localized (early) stage in Maryland. This was an increase from 58.2% in 1998.

See Appendix J, Table 5.



**Healthy People 2010
Objectives**

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

In 2004, 78.5% of Maryland men age 50 years and older reported that they have ever had a prostate specific antigen (PSA) test, and 61.5% of men age 50 years and older had a PSA in the past year.

* Men 50 years and older
BRFSS, Maryland DHMH Center for Preventive Health Services, 1999, 2001
Maryland Cancer Survey, Maryland DHMH Center for Cancer Surveillance and Control, 2002, 2004

Public Health Evidence (quoted from NCI, PDQ, 7/21/2006 and 7/21/2006)

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. Observational 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

There is insufficient evidence 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 solid 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.

Public Health Intervention for Prostate Cancer (American Cancer Society Guidelines for the Early Detection of Cancer, 2005 CA Cancer J Clin 2005 55: 31-44 and DHMH Prostate Cancer Medical Advisory Committee, 2005)

- 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 age 50-70 years who have at least a 10-year life expectancy. High-risk men (African American men or men with one or more first degree relatives diagnosed with prostate cancer) should begin testing at age 45 years. Men at even higher risk of prostate cancer (African American men who have one first-degree relative with prostate cancer diagnosed before the age of 65 years or men of any race or ethnicity who have *more than one* first-degree relative diagnosed with prostate cancer before age 65 years) may begin screening at age 40 years.

Table 39.
Number of Prostate Cancer Cases
by Jurisdiction and Race, Maryland, 2002

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	4,294	3,019	1,169	105
Allegany	75	71	<6	<6
Anne Arundel	401	349	44	7
Baltimore City	515	172	333	10
Baltimore County	734	585	140	9
Calvert	53	39	14	0
Caroline	22	16	6	0
Carroll	126	s	<6	<6
Cecil	70	54	16	0
Charles	69	52	17	0
Dorchester	38	27	11	0
Frederick	200	181	s	<6
Garrett	24	s	<6	0
Harford	211	177	s	<6
Howard	176	129	39	8
Kent	15	s	<6	0
Montgomery	717	526	135	56
Prince George's	493	s	295	<6
Queen Anne's	43	36	s	<6
Saint Mary's	31	23	8	0
Somerset	28	19	s	<6
Talbot	48	38	10	0
Washington	99	90	s	<6
Wicomico	60	44	s	<6
Worcester	43	36	7	0
Unknown	<6	<6	<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 Cancer Registry, 2002

**Table 40.
Prostate Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 2002**

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	187.7	173.2	259.7	129.1
Allegany	183.9	178.1	**	**
Anne Arundel	187.4	184.2	214.8	**
Baltimore City	199.5	156.6	234.1	**
Baltimore County	197.7	182.9	341.0	**
Calvert	178.6	160.7	**	0.0
Caroline	**	**	**	0.0
Carroll	190.4	193.0	**	**
Cecil	191.4	154.6	**	0.0
Charles	140.4	137.6	**	0.0
Dorchester	215.8	196.0	**	0.0
Frederick	269.8	260.5	**	**
Garrett	**	**	**	0.0
Harford	219.7	198.1	602.1	**
Howard	200.0	179.6	397.1	**
Kent	**	**	**	0.0
Montgomery	184.1	170.8	367.8	149.6
Prince George's	171.8	155.9	201.6	**
Queen Anne's	197.4	179.9	**	**
Saint Mary's	87.8	**	**	0.0
Somerset	239.5	**	**	**
Talbot	209.8	189.8	**	0.0
Washington	148.5	139.7	**	**
Wicomico	155.5	142.9	**	**
Worcester	123.2	114.5	**	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 41.
Number of Prostate Cancer Deaths
by Jurisdiction and Race, Maryland, 2002**

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	570	344	220	6
Allegany	17	17	0	0
Anne Arundel	35	24	11	0
Baltimore City	121	18	103	0
Baltimore County	85	70	14	1
Calvert	7	<6	<6	0
Caroline	<6	<6	<6	0
Carroll	18	18	0	0
Cecil	6	<6	<6	0
Charles	6	5	1	0
Dorchester	7	<6	<6	0
Frederick	20	18	2	0
Garrett	<6	<6	0	0
Harford	14	14	0	0
Howard	15	10	4	1
Kent	<6	<6	<6	0
Montgomery	79	63	12	4
Prince George's	78	28	50	0
Queen Anne's	<6	<6	<6	0
Saint Mary's	<6	<6	<6	0
Somerset	<6	<6	<6	0
Talbot	10	8	<6	0
Washington	14	14	0	0
Wicomico	8	6	<6	0
Worcester	<6	<6	<6	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 42.
Prostate Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 2002**

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	30.9	23.5	71.4	14.1
Allegany	42.9	43.7	0.0	0.0
Anne Arundel	23.8	18.2	86.7	0.0
Baltimore City	51.1	16.3	86.4	0.0
Baltimore County	24.9	22.4	64.0	6.7
Calvert	31.8	**	**	0.0
Caroline	**	**	**	0.0
Carroll	37.5	38.5	0.0	0.0
Cecil	18.4	**	**	0.0
Charles	21.3	24.1	11.9	0.0
Dorchester	40.2	**	**	0.0
Frederick	29.1	27.9	74.3	0.0
Garrett	**	**	0.0	0.0
Harford	20.5	21.7	0.0	0.0
Howard	26.8	21.4	69.1	53.5
Kent	**	**	**	0.0
Montgomery	24.4	22.9	59.2	17.8
Prince George's	41.3	28.8	65.0	0.0
Queen Anne's	**	**	**	0.0
Saint Mary's	**	**	**	0.0
Somerset	**	**	**	0.0
Talbot	46.5	40.2	**	0.0
Washington	25.9	26.5	0.0	0.0
Wicomico	26.1	24.5	**	0.0
Worcester	**	**	**	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 43.
Number of Prostate Cancer Cases
by Jurisdiction and Race, Maryland, 1998-2002

Jurisdiction	Total	Race			
		Whites	Blacks	Other	Unknown
Maryland	19,589	13,149	4,941	448	1,051
Allegany	347	334	8	<6	<6
Anne Arundel	1,638	1,321	222	21	74
Baltimore City	2,620	874	1,561	29	156
Baltimore County	3,373	2,623	529	42	179
Calvert	255	180	49	<6	s
Caroline	94	73	s	<6	0
Carroll	559	520	s	<6	25
Cecil	307	254	s	<6	27
Charles	395	278	97	11	9
Dorchester	146	97	s	<6	<6
Frederick	679	543	s	<6	86
Garrett	131	s	<6	0	0
Harford	864	722	89	<6	s
Howard	706	529	118	25	34
Kent	78	61	s	0	<6
Montgomery	3,138	2,312	446	208	172
Prince George's	2,536	912	1,401	75	148
Queen Anne's	167	139	22	<6	<6
Saint Mary's	204	161	38	<6	<6
Somerset	93	60	s	<6	0
Talbot	203	165	35	<6	<6
Washington	468	438	20	<6	s
Wicomico	274	187	80	<6	<6
Worcester	239	206	26	<6	s
Unknown	75	s	s	<6	33

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 44.
Prostate Cancer Age-Adjusted Incidence Rates*
by Jurisdiction and Race, Maryland, 1998-2002

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	179.3	156.4	230.8	125.7
Allegany	166.2	163.5	**	**
Anne Arundel	163.2	148.0	230.9	**
Baltimore City	197.4	150.7	217.9	135.6
Baltimore County	186.0	165.0	275.4	121.2
Calvert	183.0	150.8	267.4	**
Caroline	133.6	121.4	**	**
Carroll	180.9	173.7	**	**
Cecil	178.1	155.2	**	**
Charles	196.3	174.1	254.7	**
Dorchester	163.3	137.3	254.6	**
Frederick	195.3	164.6	281.1	**
Garrett	161.5	161.1	**	0.0
Harford	201.5	180.4	348.7	**
Howard	172.7	156.1	256.1	**
Kent	125.2	113.9	**	0.0
Montgomery	173.6	159.4	266.5	123.6
Prince George's	190.5	150.6	211.1	129.9
Queen Anne's	155.7	142.2	**	**
Saint Mary's	119.2	109.8	175.4	**
Somerset	151.4	126.9	216.7	**
Talbot	175.9	161.7	274.4	**
Washington	147.5	142.4	**	**
Wicomico	148.0	125.3	237.2	**
Worcester	145.2	139.1	150.5	**

* 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, 1998-2002

Table 45.
Number of Prostate Cancer Deaths
by Jurisdiction and Race, Maryland, 1999-2002

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	2,254	1,458	773	23
Allegany	47	47	0	0
Anne Arundel	146	112	32	2
Baltimore City	474	132	342	0
Baltimore County	363	305	56	2
Calvert	36	20	16	0
Caroline	18	10	8	0
Carroll	64	62	2	0
Cecil	47	39	8	0
Charles	35	19	15	1
Dorchester	31	16	15	0
Frederick	63	54	9	0
Garrett	18	18	0	0
Harford	79	71	8	0
Howard	53	38	13	2
Kent	12	8	4	0
Montgomery	281	232	38	11
Prince George's	270	103	163	4
Queen Anne's	16	11	5	0
Saint Mary's	27	21	6	0
Somerset	15	10	5	0
Talbot	33	26	7	0
Washington	59	59	0	0
Wicomico	41	25	15	1
Worcester	26	20	6	0

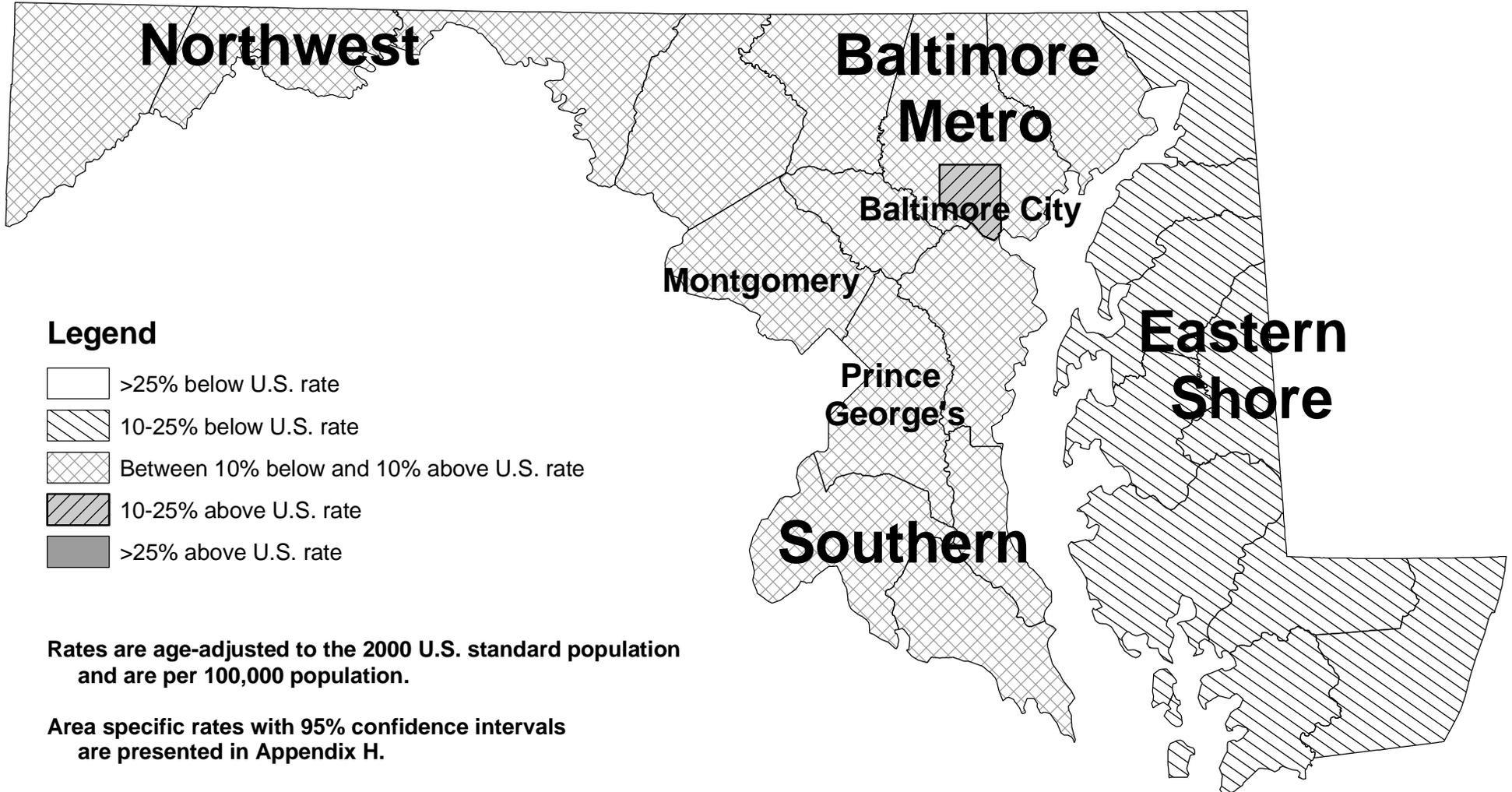
Source: CDC WONDER, 1999-2002

Table 46.
Prostate Cancer Age-Adjusted Mortality Rates*
by Jurisdiction and Race, Maryland, 1999-2002

Jurisdiction	Total	Race		
		Whites	Blacks	Other
Maryland	32.1	26.0	66.6	12.3
Allegany	31.4	31.9	0.0	0.0
Anne Arundel	26.0	22.2	64.1	24.4
Baltimore City	50.3	28.4	74.2	0.0
Baltimore County	28.2	25.9	62.4	9.3
Calvert	46.7	33.5	135.8	0.0
Caroline	38.3	25.4	113.0	0.0
Carroll	35.3	35.5	29.7	0.0
Cecil	45.1	41.0	144.4	0.0
Charles	32.1	24.8	61.5	29.9
Dorchester	48.5	30.4	119.3	0.0
Frederick	26.4	24.1	86.9	0.0
Garrett	35.5	35.6	0.0	0.0
Harford	29.2	27.9	59.9	0.0
Howard	25.4	22.0	58.3	22.4
Kent	25.6	20.2	69.6	0.0
Montgomery	22.8	22.1	44.4	12.5
Prince George's	38.9	27.7	59.9	12.6
Queen Anne's	23.5	17.8	59.7	0.0
Saint Mary's	26.2	23.7	41.5	0.0
Somerset	36.1	33.7	50.4	0.0
Talbot	38.6	33.5	68.0	0.0
Washington	27.7	28.3	0.0	0.0
Wicomico	36.0	26.9	78.5	61.7
Worcester	25.8	23.7	47.7	0.0

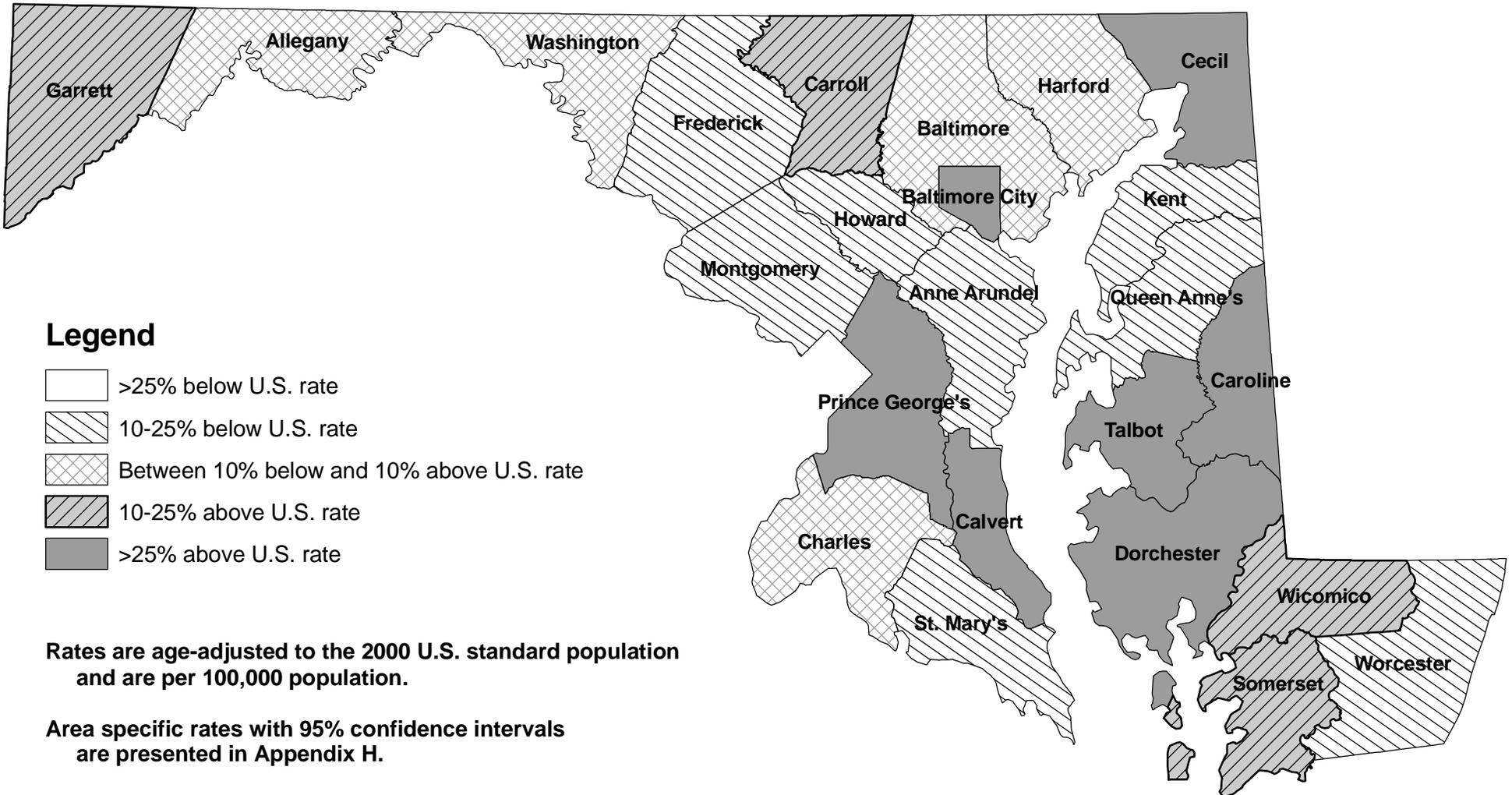
* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population
Source: CDC WONDER, 1999-2002

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



Source: Maryland Cancer Registry, 1998-2002

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



Source: CDC WONDER, 1999-2002

