

Table 23.1
Cancer of the Prostate (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2006 With up to Four Joinpoints, 1992-2006 With up to Two Joinpoints,
All Ages by Race/Ethnicity

	<u>Joinpoint Trend 1</u>		<u>Joinpoint Trend 2</u>		<u>Joinpoint Trend 3</u>		<u>Joinpoint Trend 4</u>		<u>Joinpoint Trend 5</u>		<u>AAPC^d</u>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	1997-2006	2002-2006
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2006</u>												
All Races	1975-1988	2.6*	1988-1992	16.5*	1992-1995	-11.7*	1995-2000	2.4	2000-2006	-2.4*	-0.8	-2.4*
White	1975-1988	2.8*	1988-1992	16.3*	1992-1995	-12.4*	1995-2001	2.3*	2001-2006	-3.2*	-0.8	-3.2*
Black	1975-1989	2.0*	1989-1992	21.7*	1992-1996	-4.9*	1996-2000	1.1	2000-2006	-3.0*	-1.6*	-3.0*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2006</u>												
All Races	1992-1995	-11.2*	1995-2000	2.3	2000-2006	-2.7*					-1.1	-2.7*
White	1992-1995	-11.8*	1995-2001	2.0	2001-2006	-3.3*					-1.0	-3.3*
Black	1992-1996	-5.0*	1996-2000	1.6	2000-2006	-3.9*					-2.1	-3.9*
<u>SEER 9 Observed Incidence^a, 1975-2006</u>												
All Races	1975-1988	2.6*	1988-1992	16.4*	1992-1995	-11.4*	1995-2001	1.8	2001-2006	-3.4*	-1.1	-3.4*
White	1975-1988	2.8*	1988-1992	16.3*	1992-1995	-12.4*	1995-2001	2.1*	2001-2006	-3.9*	-1.2*	-3.9*
Black	1975-1989	2.0*	1989-1992	21.7*	1992-1996	-5.0*	1996-2000	1.0	2000-2006	-3.8*	-2.2*	-3.8*
<u>SEER 13 Observed Incidence^b, 1992-2006</u>												
All Races	1992-1995	-11.0*	1995-2001	1.6	2001-2006	-3.6*					-1.3*	-3.6*
White	1992-1995	-11.8*	1995-2001	1.9	2001-2006	-3.9*					-1.4*	-3.9*
White NH ^{ef}	1992-1994	-17.3*	1994-2001	1.0	2001-2006	-3.5*					-1.5*	-3.5*
Black	1992-1996	-5.1*	1996-2000	1.5	2000-2006	-4.6*					-2.6*	-4.6*
Black NH ^{ef}	1992-1996	-5.2*	1996-2000	1.5	2000-2006	-4.4*					-2.5*	-4.4*
API ^e	1992-1996	-7.7*	1996-2001	2.4	2001-2006	-3.1*					-0.7	-3.1*
AI/AN ^{eg}	1992-2006	-2.6*									-2.6*	-2.6*
Hispanic ^e	1992-2006	-1.4*									-1.4*	-1.4*
<u>U.S. Cancer Mortality^c, 1975-2006</u>												
All Races												
White												
Black												
<u>U.S. Cancer Mortality^c, 1992-2006</u>												
All Races												
White												
White NH ^{ef}												
Black												
Black NH ^{ef}												
API ^e												
AI/AN ^{eg}												
Hispanic ^e												

Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. (<http://srab.cancer.gov/joinpoint/>).

The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^a Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

^b Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry).

^c Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

^d The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

^e API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic

^f Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska

Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, ME, MD, MN, NH, NY, ND, OK and VT.

^g Data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

* The APC/AAPC is significantly different from zero ($p < .05$).

- Joinpoint regression line analysis could not be performed on data series.

Table 23.2
Cancer of the Prostate (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2006 With up to Four Joinpoints, 1992-2006 With up to Two Joinpoints,
Ages <65 by Race/Ethnicity

	<u>Joinpoint Trend 1</u>		<u>Joinpoint Trend 2</u>		<u>Joinpoint Trend 3</u>		<u>Joinpoint Trend 4</u>		<u>Joinpoint Trend 5</u>		<u>AAPC^d</u>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	1997-2006	2002-2006
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2006</u>												
All Races	1975-1988	3.1*	1988-1992	23.2*	1992-2001	3.5*	2001-2006	-1.1			0.9	-1.1
White	1975-1988	3.5*	1988-1992	23.2*	1992-2002	3.0*	2002-2006	-2.1			0.7	-2.1
Black	1975-1989	2.0*	1989-1993	25.9*	1993-2002	2.8*	2002-2006	-3.1*			0.1	-3.1*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2006</u>												
All Races	1992-2001	3.5*	2001-2006	-1.8							0.5	-1.8
White	1992-2001	3.5*	2001-2006	-1.8							0.5	-1.8
Black	1992-2001	3.9*	2001-2006	-2.9*							0.0	-2.9*
<u>SEER 9 Observed Incidence^a, 1975-2006</u>												
All Races	1975-1985	2.4*	1985-1989	7.7	1989-1992	25.4*	1992-2001	3.3*	2001-2006	-1.5	0.6	-1.5
White	1975-1985	2.6*	1985-1989	8.8*	1989-1992	24.7*	1992-2002	2.8*	2002-2006	-2.8*	0.3	-2.8*
Black	1975-1989	2.0*	1989-1993	26.0*	1993-2002	2.6*	2002-2006	-4.1*			-0.4	-4.1*
<u>SEER 13 Observed Incidence^b, 1992-2006</u>												
All Races	1992-2001	3.5*	2001-2006	-2.2							0.3	-2.2*
White	1992-2001	3.4*	2001-2006	-2.4							0.1	-2.4*
White NH ^{ef}	1992-2001	3.4*	2001-2006	-2.3							0.2	-2.3
Black	1992-2001	3.7*	2001-2006	-3.7*							-0.5	-3.7*
Black NH ^{ef}	1992-2001	3.7*	2001-2006	-3.5*							-0.4	-3.5*
API ^e	1992-2001	6.5*	2001-2006	-1.4							2.1	-1.4
AI/AN ^{eg}	1992-2006	-0.1									-0.1	-0.1
Hispanic ^e	1992-2002	4.6*	2002-2006	-3.6*							0.8	-3.6*
<u>U.S. Cancer Mortality^c, 1975-2006</u>												
All Races												
White												
Black												
<u>U.S. Cancer Mortality^c, 1992-2006</u>												
All Races												
White												
White NH ^{ef}												
Black												
Black NH ^{ef}												
API ^e												
AI/AN ^{eg}												
Hispanic ^e												

Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. (<http://srab.cancer.gov/joinpoint/>).

The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^a Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

^b Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry).

^c Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

^d The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

^e API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic

^f Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska

Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, ME, MD, MN, NH, NY, ND, OK and VT.

^g Data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

* The APC/AAPC is significantly different from zero (p<.05).

- Joinpoint regression line analysis could not be performed on data series.

Table 23.3
Cancer of the Prostate (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2006 With up to Four Joinpoints, 1992-2006 With up to Two Joinpoints,
Ages 65+ by Race/Ethnicity

	Joinpoint Trend 1		Joinpoint Trend 2		Joinpoint Trend 3		Joinpoint Trend 4		Joinpoint Trend 5		AAPC ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	1997-2006	2002-2006
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2006</u>												
All Races	1975-1988	2.5*	1988-1992	15.1*	1992-1995	-14.9*	1995-2000	1.4	2000-2006	-3.2*	-1.7*	-3.2*
White	1975-1988	2.7*	1988-1992	15.0*	1992-1995	-15.9*	1995-2000	2.0	2000-2006	-3.2*	-1.5*	-3.2*
Black	1975-1989	2.0*	1989-1992	20.0*	1992-1995	-8.7	1995-2006	-2.6*			-2.6*	-2.6*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2006</u>												
All Races	1992-1995	-14.2*	1995-2000	1.1	2000-2006	-3.3*					-1.8*	-3.3*
White	1992-1995	-14.9*	1995-2001	1.1	2001-2006	-3.8*					-1.7*	-3.8*
Black	1992-1995	-9.6*	1995-2000	-1.0	2000-2006	-4.8*					-3.5*	-4.8*
<u>SEER 9 Observed Incidence^a, 1975-2006</u>												
All Races	1975-1988	2.5*	1988-1992	15.1*	1992-1995	-15.0*	1995-2000	1.4	2000-2006	-3.5*	-1.9*	-3.5*
White	1975-1988	2.7*	1988-1992	14.9*	1992-1995	-15.7*	1995-2001	1.2	2001-2006	-4.6*	-2.0*	-4.6*
Black	1975-1989	2.0*	1989-1992	19.9*	1992-1995	-8.5	1995-2006	-3.1*			-3.1*	-3.1*
<u>SEER 13 Observed Incidence^b, 1992-2006</u>												
All Races	1992-1995	-14.0*	1995-2001	0.5	2001-2006	-4.1*					-2.1*	-4.1*
White	1992-1995	-15.0*	1995-2001	0.9	2001-2006	-4.4*					-2.1*	-4.4*
White NH ^{ef}	1992-1995	-15.4*	1995-2001	1.1	2001-2006	-4.4*					-2.0*	-4.4*
Black	1992-1995	-9.7*	1995-2000	-1.2	2000-2006	-5.5*					-4.0*	-5.5*
Black NH ^{ef}	1992-1995	-9.8*	1995-2000	-1.2	2000-2006	-5.3*					-4.0*	-5.3*
API ^e	1992-1997	-7.8*	1997-2000	4.1	2000-2006	-3.2*					-0.8	-3.2*
AI/AN ^{eg}	1992-2006	-3.4*									-3.4*	-3.4*
Hispanic ^e	1992-2006	-2.5*									-2.5*	-2.5*
<u>U.S. Cancer Mortality^c, 1975-2006</u>												
All Races												
White												
Black												
<u>U.S. Cancer Mortality^c, 1992-2006</u>												
All Races												
White												
White NH ^{ef}												
Black												
Black NH ^{ef}												
API ^e												
AI/AN ^{eg}												
Hispanic ^e												

Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. (<http://srab.cancer.gov/joinpoint/>).

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^a Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

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- Joinpoint regression line analysis could not be performed on data series.

Table 23.4
Cancer of the Prostate (Invasive)

Age-adjusted SEER Incidence^a Rates by Year, Race and Age

	All Races, Males			White Males			Black Males		
	All	<65	65+	All	<65	65+	All	<65	65+
Year of Diagnosis:									
1975	94.02	13.66	649.53	92.21	13.02	639.63	140.97	26.76	930.45
1976	97.92	14.57	674.08	97.31	13.90	673.91	140.79	29.38	910.86
1977	100.45	15.03	690.95	98.54	14.34	680.54	159.16	29.24	1,057.18
1978	99.41	15.23	681.22	97.72	14.80	670.92	148.11	26.83	986.42
1979	103.45	14.93	715.26	102.32	14.64	708.40	162.31	26.35	1,102.12
1980	105.99	15.47	731.75	104.95	14.64	729.19	160.99	33.62	1,041.42
1981	108.90	16.81	745.49	107.91	15.95	743.54	161.86	34.55	1,041.86
1982	108.18	16.30	743.32	107.30	15.75	740.10	167.63	31.32	1,109.83
1983	111.59	17.12	764.61	110.80	16.56	762.23	170.84	34.05	1,116.37
1984	111.69	17.26	764.41	110.10	16.22	759.05	178.77	37.08	1,158.14
1985	115.49	17.84	790.49	114.63	17.56	785.59	170.18	31.41	1,129.40
1986	119.02	18.51	813.79	118.98	18.27	815.14	168.59	34.08	1,098.34
1987	133.66	21.50	908.96	134.50	21.09	918.49	189.18	36.06	1,247.58
1988	137.59	22.18	935.31	138.69	22.30	943.22	190.19	34.71	1,264.94
1989	145.26	24.09	982.81	146.00	23.93	989.80	191.98	37.28	1,261.29
1990	170.89	28.77	1,153.26	172.66	28.86	1,166.62	221.75	44.28	1,448.44
1991	214.71	38.82	1,430.48	216.27	39.20	1,440.23	288.39	57.32	1,885.65
1992	237.21	49.36	1,535.71	238.18	49.44	1,542.78	328.10	77.26	2,061.99
1993	209.25	50.45	1,306.93	204.25	49.00	1,277.39	344.14	94.13	2,072.27
1994	180.04	48.60	1,088.63	174.05	46.82	1,053.50	312.82	95.00	1,818.52
1995	168.68	49.86	990.03	163.83	47.99	964.52	280.53	98.00	1,542.27
1996	168.90	53.33	967.76	164.43	51.82	942.80	282.46	100.46	1,540.47
1997	173.07	55.10	988.46	169.43	53.93	967.78	281.66	96.59	1,560.89
1998	170.10	54.72	967.67	166.43	52.87	951.39	284.38	101.94	1,545.49
1999	182.79	60.67	1,026.94	178.19	58.75	1,003.82	288.02	111.18	1,510.38
2000	181.84	61.55	1,013.37	178.16	59.62	997.53	288.86	113.14	1,503.51
2001	183.45	64.08	1,008.54	181.24	62.02	1,005.35	270.58	114.05	1,352.54
2002	180.45	64.81	979.78	177.70	63.02	970.41	284.75	116.53	1,447.49
2003	167.45	61.07	902.82	163.79	58.63	890.70	254.58	114.69	1,221.51
2004	162.62	60.63	867.63	158.87	58.64	851.65	247.19	103.69	1,239.11
2005	151.96	55.96	815.51	146.65	52.97	794.21	235.94	101.29	1,166.71
2006	163.06	61.18	867.29	157.10	58.07	841.60	232.77	100.69	1,145.73
1975-2006	151.48	39.28	927.05	148.48	37.52	915.49	233.86	73.37	1,343.23

^a SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 23.6
Cancer of the Prostate (Invasive)

SEER Incidence^a and U.S. Death^b Rates, Age-Adjusted and Age-Specific Rates, by Race

	Incidence ^a			US Death ^b		
	All Races, Males	White Males	Black Males	All Races, Males	White Males	Black Males
<u>Age-Adjusted Rates, 2002-2006</u>						
Age at Diagnosis/Death:						
All ages	159.3	153.0	239.8			
Under 65	57.2	54.7	101.2			
65 and over	864.9	832.8	1,198.0			
All ages (IARC world std) ^c	107.0	103.0	167.0			
<u>Age-Specific Rates, 2002-2006</u>						
Age at Diagnosis/Death:						
<1	-	-	-			
1-4	-	-	-			
5-9	-	-	-			
10-14	-	-	-			
15-19	-	-	-			
20-24	-	-	-			
25-29	-	-	-			
30-34	-	-	-			
35-39	0.8	0.7	1.8			
40-44	9.1	7.7	23.3			
45-49	40.2	36.6	85.9			
50-54	135.6	128.8	252.7			
55-59	324.8	310.9	577.2			
60-64	567.5	548.9	934.7			
65-69	860.8	835.7	1,299.4			
70-74	957.6	930.5	1,323.0			
75-79	941.4	903.4	1,246.5			
80-84	786.4	737.7	1,028.4			
85+	641.2	612.9	828.3			

^a SEER 17 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

^b US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

^c Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

- Rates are per 100,000 and are age-adjusted to the IARC world standard population.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 23.7
Cancer of the Prostate (Invasive)

Survival Rates, by Race, Diagnosis Year, Stage and Age

	All Races, Males			White Males			Black Males		
	All	<65	65+	All	<65	65+	All	<65	65+
5-Year Relative Survival Rates									
Year of Diagnosis:									
1960-1963 ^a	-	-	-	50	-	-	35	-	-
1970-1973 ^a	-	-	-	63	-	-	55	-	-
1975-1977 ^b	68.9	73.4	67.3	69.8	75.2	67.8	61.3	61.9	61.0
1978-1980 ^b	72.0	75.7	70.6	73.3	77.2	71.8	62.7	65.2	61.5
1981-1983 ^b	73.8	76.4	72.8	74.9	78.0	73.9	63.7	65.5	62.9
1984-1986 ^b	76.1	77.5	75.6	77.3	79.1	76.7	66.4	67.4	65.9
1987-1989 ^b	83.9	83.4	84.0	85.4	84.9	85.6	72.2	72.9	72.0
1990-1992 ^b	94.2	93.4	94.5	95.3	94.4	95.6	85.5	87.0	84.8
1993-1995 ^b	95.4	95.8	95.2	96.2	96.5	96.0	91.5	93.0	90.5
1996-1998 ^b	97.5	98.5	96.9	98.0	98.9	97.5	94.2	96.7	92.1
1999-2005 ^b	99.9 ^e	99.7 ^e	99.8 ^e	99.9 ^e	99.9 ^e	99.9 ^e	97.9 ^e	99.2 ^e	96.6 ^e
5-Year Period Survival Rates^{cd}									
Year of Diagnosis:									
1999-2005	99.9	99.5	99.7	99.9	99.7	99.8	96.9	98.9	94.7
Stage Distribution (%) 1999-2005^c									
All Stages									
Number of cases	301,531	114,406	187,125	240,385	89,361	151,024	37,704	18,216	19,488
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	80	77	82	80	77	82	78	77	80
Regional	12	18	8	12	19	9	12	17	7
Distant	4	3	5	4	3	5	6	4	8
Unstaged	3	2	5	3	1	4	4	2	5
5-Year Relative Survival Rates, 1999-2005^c									
Age at Diagnosis:									
Ages <45	94.7	-	-	94.6	-	-	94.4	-	-
Ages 45-54	97.9	-	-	97.9	-	-	97.4	-	-
Ages 55-64	99.8	-	-	100.0	-	-	98.9	-	-
Ages 65-74	100.0	-	-	100.0	-	-	98.0	-	-
Ages 75+	97.8	-	-	98.3	-	-	86.9	-	-
Ages <65	99.3	-	-	99.5	-	-	98.4	-	-
Ages 65+	99.7	-	-	99.7	-	-	94.8	-	-
Stage:									
All Stages	99.7	99.3	99.7	99.9	99.5	99.7	96.5	98.4	94.8
Localized	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Regional	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.4
Distant	30.6	31.4	30.2	30.0	31.3	29.5	28.5	28.5	28.3
Unstaged	75.5	84.8	72.8	75.6	84.8	73.1	65.9	80.5	59.1

^a Rates are based on End Results data from a series of hospital registries and one population-based registry.

^b Rates are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta).

Rates are based on follow-up of patients into 2006.

^c Rates are from the SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey). California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2005.

^d The remaining 13 SEER Areas contribute cases for the entire period 1999-2005. Rates are based on follow-up of patients into 2006.

Period survival provides a more up-to-date estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2003-2005: 0-1 year survival),

(2002-2004: 1-2 year survival), (2001-2003: 2-3 year survival), (2000-2002: 3-4 year survival), (1999-2001: 4-5 years survival).

^e The difference in rates between 1975-1977 and 1999-2005 is statistically significant ($p < .05$).

^f The standard error of the survival rate is between 5 and 10 percentage points.

^g The standard error of the survival rate is greater than 10 percentage points.

- Statistic could not be calculated due to fewer than 25 cases during the time period.

Table 23.8
Cancer of the Prostate (Invasive)

Survival Rates^a
By Year of Diagnosis

All Races, Males

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Relative Survival Rates (SEER ^b)																			
1-year	91.9	94.2	95.9	97.7	99.0	99.6	99.6	99.5	99.0	99.1	99.3	99.5	99.7	99.9	100.0	99.9	99.9	100.0	99.9
2-year	85.2	88.5	91.6	95.0	97.7	98.8	98.8	98.5	97.7	97.9	98.7	98.9	99.6	99.6	100.0	99.9	99.9	100.0	
3-year	79.1	82.8	87.4	92.9	96.6	98.6	97.7	97.0	96.9	97.2	98.4	98.5	99.6	99.3	100.0	99.9	99.9		
4-year	74.2	77.9	84.2	91.2	95.5	98.0	96.9	95.7	96.2	96.7	97.9	98.3	99.4	99.2	100.0	99.9			
5-year	70.1	73.6	81.5	90.1	94.1	96.9	95.7	94.9	95.6	96.3	97.6	98.3	99.4	99.2	100.0				
6-year	67.0	70.2	79.1	88.6	92.4	95.5	94.8	94.1	95.3	96.1	97.6	98.3	99.4	99.2					
7-year	63.8	66.9	76.9	86.2	91.5	94.4	93.6	93.3	95.0	95.6	97.6	98.3	99.4						
8-year	60.9	64.0	75.1	84.5	90.3	93.0	93.1	92.8	94.9	95.5	97.6	98.3							
9-year	58.4	62.0	73.2	83.2	89.3	92.2	91.9	92.2	94.9	95.4	97.6								
10-year	56.1	60.4	71.5	81.4	88.3	91.2	91.1	92.0	94.7	95.4									
11-year	53.7	58.5	69.8	80.0	87.0	90.8	90.9	91.3	94.2										
12-year	51.7	56.8	67.9	79.2	86.5	90.2	90.0	91.1											
13-year	50.1	55.2	66.3	78.7	85.7	89.8	89.6												
14-year	48.7	53.7	65.0	77.9	85.7	89.8													
15-year	47.8	52.6	63.6	77.4	85.6														
16-year	46.2	50.8	62.3	76.3															
17-year	44.8	49.7	62.2																
18-year	43.6	48.5																	
19-year	43.0	47.3																	
20-year	42.1	46.0																	

^a

^b

Survival rates are relative rates expressed as percents.

Rates are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 23.10
Cancer of the Prostate (Invasive)
SEER Incidence and U.S. Mortality
Age-Adjusted Rates and Trends^a
By Race/Ethnicity

SEER Incidence	SEER 17 Areas ^b	SEER 13 Areas ^b	SEER 9 Areas ^b
	Rate 2002-2006	Trend 1997-2006 ^c	Trend 1997-2006 ^d
	Rate per 100,000 persons	AAPC (%)	AAPC (%)
	Males	Males	Males
RACE/ETHNICITY			
All Races	159.3	-1.3*	-1.1
White	153.0	-1.4*	-1.2*
White Hispanic ^e	133.2	-2.1	-
White Non-Hispanic ^e	156.1	-1.5*	-
Black	239.8	-2.6*	-2.2*
Asian/Pacific Islander	91.1	-0.7	-
Amer Ind/Alaska Nat ^f	76.1	-2.6*	-
Hispanic ^e	133.4	-1.4*	-
U.S. Mortality ^g			
	Rate 2002-2006	Trend 1997-2006 ^h	
	Rate per 100,000 persons	AAPC (%)	
	Males	Males	
RACE/ETHNICITY			
All Races			
White			
White Hispanic ^e			
White Non-Hispanic ^e			
Black			
Asian/Pacific Islander			
Amer Ind/Alaska Nat			
Total U.S.			
CHSDA Counties			
Non-CHSDA Counties			
Hispanic ^e			

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 3.3, April 2008, National Cancer Institute.

Statistic not shown. Rate based on less than 16 cases for the time interval.

Trend based on less than 10 cases for at least one year within the time interval.

^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^b The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta.

The SEER 13 areas comprise the SEER 9 areas plus San Jose-Monterey, Los Angeles, the Alaska Native Registry and Rural Georgia.

The SEER 17 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

^c The 1997-2006 AAPC estimates are based on a Joinpoint analysis with up to 2 Joinpoints over diagnosis years 1992-2006.

^d The 1997-2006 AAPC estimates are based on a Joinpoint analysis with up to 4 Joinpoints over diagnosis years 1975-2006.

^e Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. The 2002-2006 Hispanic and Non-Hispanic death rates exclude deaths from Minnesota, New Hampshire and North Dakota. The 1997-2006 Hispanic and Non-Hispanic mortality trends exclude deaths from Connecticut, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma and Vermont.

^f Incidence data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

^g US Mortality Files, National Center for Health Statistics, CDC.

^h The 1997-2006 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2006.

* The APC is significantly different from zero (p<.05).

Table 23.11
Cancer of the Prostate (Invasive)

Age-Adjusted SEER Incidence Rates^a
By Registry, Race and Age

	All Races			Whites			Blacks		
	All Ages	Ages <65	Ages 65+	All Ages	Ages <65	Ages 65+	All Ages	Ages <65	Ages 65+
<u>SEER Incidence Rates^a, 2002-2006</u>									
Atlanta & Rural Georgia	173.97	68.52	902.91	148.33	55.58	789.42	259.14	106.91	1311.41
Atlanta	172.98	67.98	898.75	147.27	55.08	784.53	260.62	106.86	1323.47
Rural Georgia	190.04	78.03	964.29	165.10	64.12	863.16	240.26	105.51	1171.74
California	148.92	52.17	817.73	145.60	51.80	793.96	214.33	97.51	1021.88
Greater Bay Area	154.85	55.92	838.65	161.53	58.50	873.71	206.73	93.96	986.19
San Francisco-Oakland	153.48	56.88	821.22	156.61	57.94	838.70	206.68	94.79	980.07
San Jose-Monterey	157.90	54.11	875.31	170.59	59.47	938.75	211.89	88.59	1064.21
Los Angeles	148.14	50.22	825.01	137.80	47.77	760.15	215.02	98.67	1019.25
Greater California	147.16	51.64	807.39	143.93	51.26	784.51	218.89	98.64	1050.13
Connecticut	164.63	63.63	862.78	160.27	60.73	848.34	227.28	104.32	1077.21
Detroit	196.13	74.72	1035.37	170.06	61.61	919.69	280.48	117.17	1409.33
Hawaii	128.56	38.09	753.92	150.38	52.04	830.08	163.29	98.34	612.22
Iowa	144.87	50.70	795.84	140.41	48.76	773.90	197.48	94.26	910.97
Kentucky	142.46	50.31	779.43	135.69	45.47	759.28	223.74	94.97	1113.85
Louisiana	176.97	61.71	973.71	158.49	53.53	884.01	237.88	86.80	1282.19
New Jersey	177.91	66.52	947.88	165.42	61.58	883.15	257.73	106.43	1303.55
New Mexico	146.07	52.75	791.12	151.49	55.19	817.11	113.63	64.34	454.40
Seattle-Puget Sound	169.66	59.20	933.18	172.60	60.40	948.15	248.71	102.10	1262.08
Utah	182.17	63.90	999.74	184.67	65.28	1009.89	151.83	70.27	715.62
9 SEER Areas ^b	164.87	60.61	885.60	160.57	58.11	868.82	250.21	106.88	1240.95
11 SEER Areas ^b	160.77	57.94	871.57	156.48	56.08	850.47	239.81	104.55	1174.78
13 SEER Areas ^b	160.72	57.96	871.07	156.51	56.11	850.54	239.82	104.57	1174.76
17 SEER Areas ^b	159.30	57.22	864.90	153.04	54.70	832.81	239.77	101.15	1197.97

^a Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130)

^b The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta.

The SEER 11 areas comprise the SEER 9 areas plus San Jose-Monterey and Los Angeles.

The SEER 13 areas comprise the SEER 11 areas plus the Alaska Native Registry and Rural Georgia.

The SEER 17 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 23.14
Cancer of the Prostate (Invasive)

Estimated United States Cancer Prevalence Counts^a on January 1, 2006
By Race/Ethnicity and Years Since Diagnosis

Years Since Diagnosis	0 to <5	5 to <10	10 to <15	15 to <20	20 to <25	25 to <30	0 to <16 ^e	0 to <31 ^e	>=31 ^g	Complete ^h
<u>Race</u>										
All Races ^b	930,125	678,835	425,357	107,135	25,089	7,820	2,071,562	2,174,982	2,993	2,177,975
White ^b	771,984	573,491	371,231	97,545	22,772	7,134	1,750,649	1,844,754	3,289	1,848,043
Black ^b	120,753	83,385	44,242	7,854	2,057	592	251,034	258,895	267	259,162
Asian/Pacific Islander ^c	17,274	10,081	4,918	+	+	+	32,638	+	+	+
Hispanic ^d	48,519	29,822	15,122	+	+	+	94,658	+	+	+

Estimated prevalence percent^a on January 1, 2006, of the SEER 11 population diagnosed in the previous 16 years
By Age at Prevalence and Race/Ethnicity

Age at Prevalence	Age Specific (Crude)										Age-Adjusted ^f All Ages
	All Ages	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	
<u>Race</u>											
All Races ^c	1.2060%	0.0002%	0.0002%	-	0.0013%	0.0671%	0.9276%	4.6199%	10.8389%	12.5805%	1.5140%
White ^c	1.2659%	-	0.0003%	-	0.0010%	0.0597%	0.8924%	4.5828%	10.9325%	12.4498%	1.5071%
Black ^c	1.2893%	-	-	-	0.0036%	0.1619%	1.8218%	7.9219%	16.0258%	15.8494%	2.2927%
Asian/Pacific Islander ^c	0.6012%	-	-	-	-	0.0192%	0.2963%	1.9041%	5.5656%	8.4302%	0.7871%
Hispanic ^d	0.4084%	-	-	-	0.0006%	0.0342%	0.5452%	3.1990%	8.4377%	9.8517%	1.1356%

- ^a US 2006 cancer prevalence counts are based on 2006 cancer prevalence proportions from the SEER registries and 1/1/2006 US population estimates based on the average of 2005 and 2006 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.
- ^{b c d} Statistics based on (b) SEER 9 Areas (c) SEER 11 Areas and Rural Georgia (d) NHIA for Hispanic for SEER 11 Areas and Rural Georgia.
- ^e Maximum limited-duration prevalence: 31 years for 1975-2006 SEER 9 data; 16 years for 1990-2006 SEER 11 data (used to calculate prevalence for Hispanics and Asian Pacific Islanders).
- ^f Percentages are age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130) by 5-year age groups.
- ^{g h i} (g) Cases diagnosed more than 31 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000). (h) Complete prevalence is obtained by summing 0 to <31 and >=31. (i) Age-specific completeness index was approximated using empirical data from historical Connecticut tumor registry.
- Statistic not shown. Statistic based on fewer than 5 cases estimated alive in SEER for the time interval.
- + Not available.

SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates^a Cancer of the Prostate, by Race

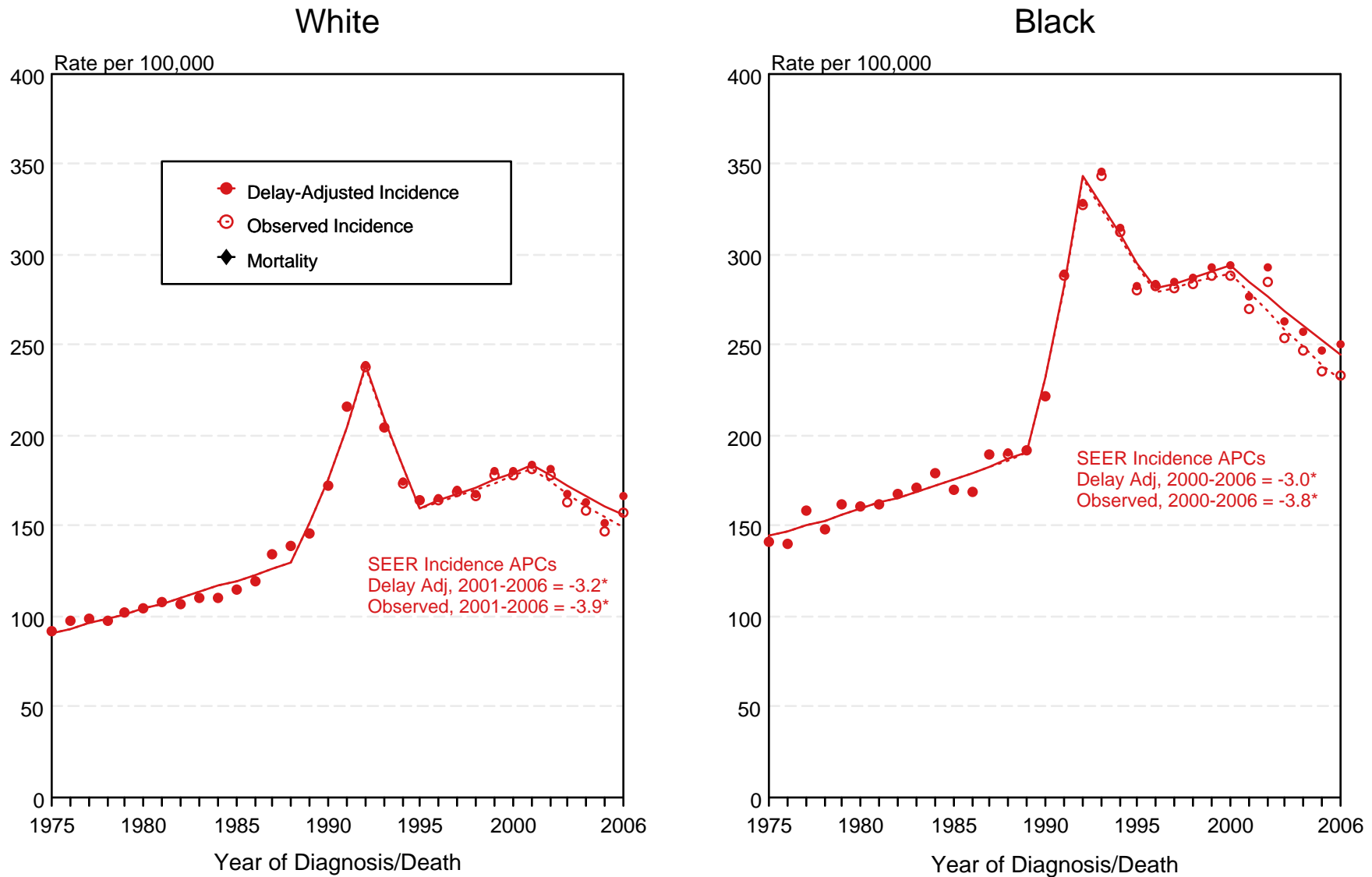


Figure 23.1

^a Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

* The APC is significantly different from zero ($p < 0.05$).

SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates^a Cancer of the Prostate, by Age and Race

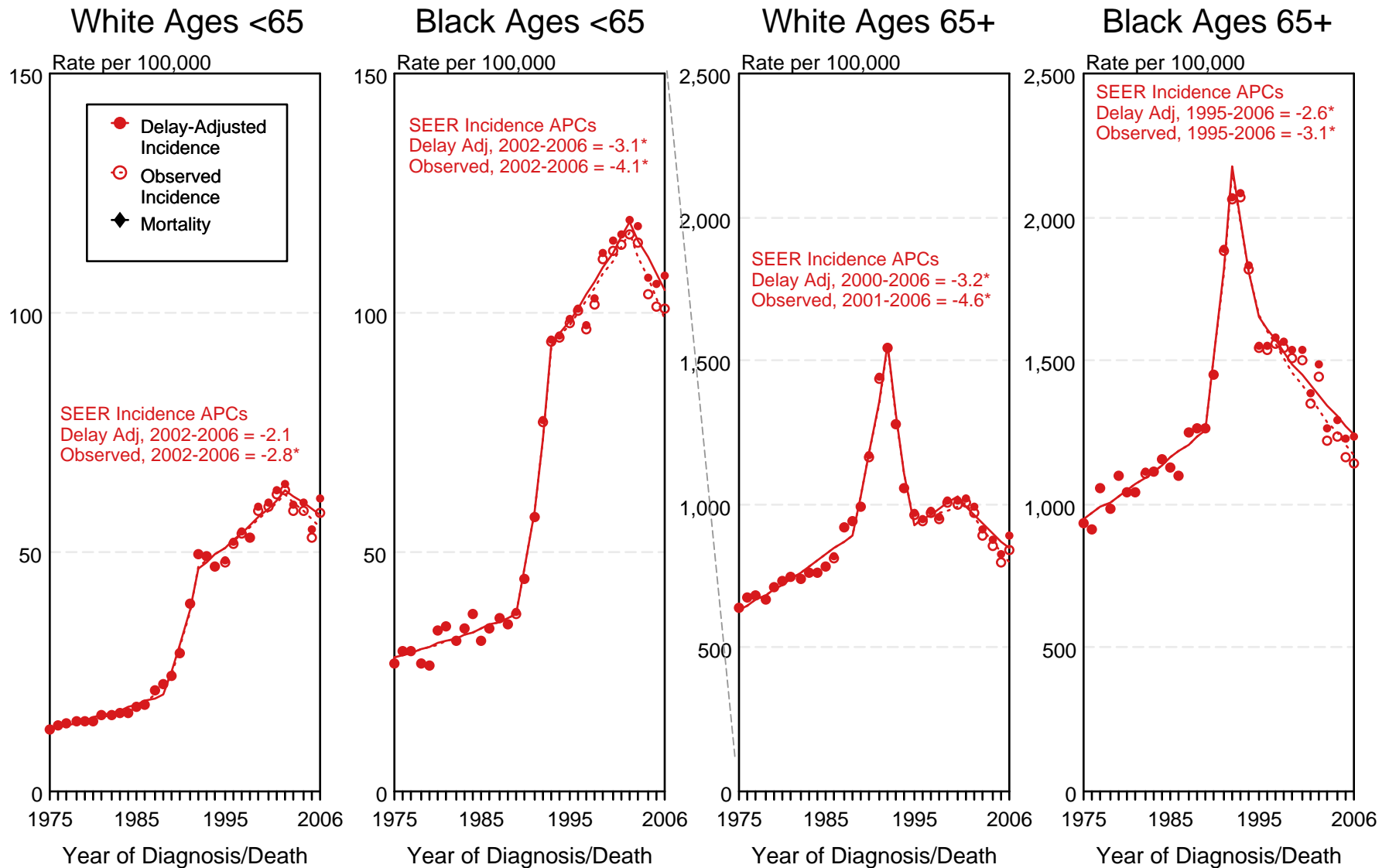


Figure 23.2

^a Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.
* The APC is significantly different from zero (p < 0.05).

SEER Incidence and US Death Rates^a Cancer of the Prostate

Joinpoint Analyses for Whites and Blacks from 1975-2006
and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2006

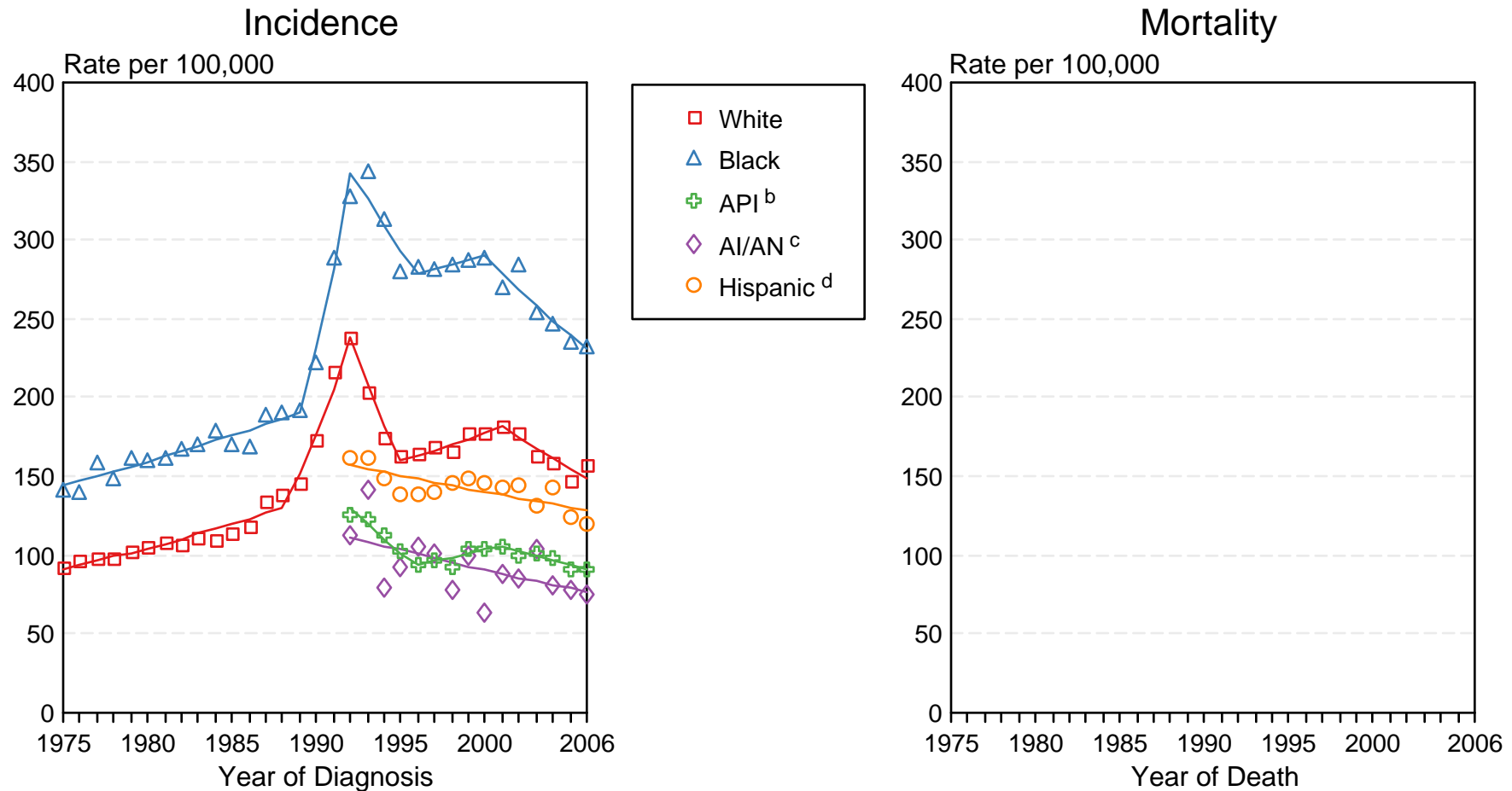


Figure 23.3

Source: Incidence data for whites and blacks are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta). Incidence data for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics are from the SEER 13 Areas (SEER 9 Areas, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Mortality data are from US Mortality Files, National Center for Health Statistics, CDC.

^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Regression lines are calculated using the Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2006 period allow a maximum of 4 joinpoints. Analyses for other ethnic groups during the period 1992-2006 allow a maximum of 2 joinpoints.

^b API = Asian/Pacific Islander.

^c AI/AN = American Indian/Alaska Native. Rates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

^d Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Mortality data for Hispanics exclude cases from Connecticut, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma, and Vermont.

Figure 23.4

Cancer of the Prostate

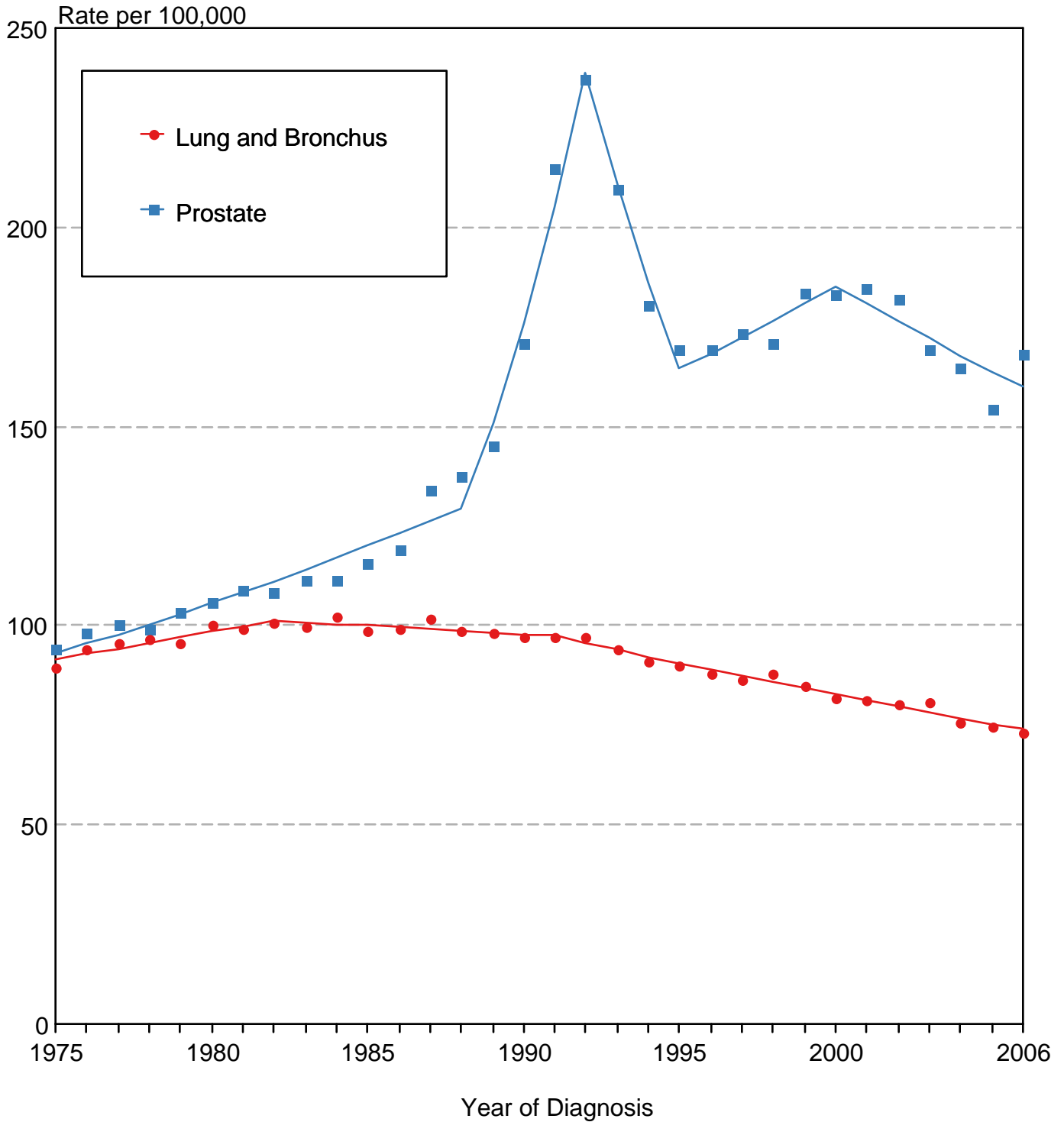
Delay-Adjusted SEER Incidence & US Mortality 1975-2006



Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines are calculated using the Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute.

Figure 23.5

Delay-Adjusted Incidence Rates for Cancer of the Prostate and Cancer of the Lung and Bronchus All Races, Males 1975-2006



Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines are calculated using the Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute.