

Table 21.1
Cancer of the Ovary (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

	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	1975-1985	0.1	1985-2001	-0.7*	2001-2006	-2.1*					-1.5*	-2.1*
White	1975-1989	0.1	1989-2006	-1.0*							-1.0*	-1.0*
Black	1975-2006	-0.5*									-0.5*	-0.5*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2006</u>												
All Races	1992-2001	-0.6*	2001-2006	-1.9*							-1.3*	-1.9*
White	1992-2001	-0.4*	2001-2006	-2.1*							-1.4*	-2.1*
Black	1992-2006	-0.7									-0.7	-0.7
<u>SEER 9 Observed Incidence^a, 1975-2006</u>												
All Races	1975-1985	0.1	1985-2001	-0.7*	2001-2006	-2.6*					-1.8*	-2.6*
White	1975-1985	0.3	1985-2001	-0.7*	2001-2006	-2.9*					-1.9*	-2.9*
Black	1975-2006	-0.6*									-0.6*	-0.6*
<u>SEER 13 Observed Incidence^b, 1992-2006</u>												
All Races	1992-2001	-0.6*	2001-2006	-2.4*							-1.6*	-2.4*
White	1992-2001	-0.5*	2001-2006	-2.7*							-1.7*	-2.7*
White NH ^{ef}	1992-2001	-0.5	2001-2006	-2.6*							-1.7*	-2.6*
Black	1992-2006	-0.9									-0.9*	-0.9*
Black NH ^{ef}	1992-2006	-0.9									-0.9	-0.9
API ^e	1992-2006	0.0									0.0	0.0
AI/AN ^{eg}	1992-2006	0.7									0.7	0.7
Hispanic ^e	1992-2006	-0.6									-0.6	-0.6
<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												

Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

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 21.2
Cancer of the Ovary (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	1975-2006	-1.1*									-1.1*	-1.1*
White	1975-2006	-1.1*									-1.1*	-1.1*
Black	1975-2006	-1.0*									-1.0*	-1.0*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2006</u>												
All Races	1992-2006	-0.9*									-0.9*	-0.9*
White	1992-2006	-1.0*									-1.0*	-1.0*
Black	1992-2006	-0.3									-0.3	-0.3
<u>SEER 9 Observed Incidence^a, 1975-2006</u>												
All Races	1975-2006	-1.2*									-1.2*	-1.2*
White	1975-2006	-1.2*									-1.2*	-1.2*
Black	1975-2006	-1.1*									-1.1*	-1.1*
<u>SEER 13 Observed Incidence^b, 1992-2006</u>												
All Races	1992-2006	-1.1*									-1.1*	-1.1*
White	1992-2001	-0.3	2001-2006	-3.2*							-2.0*	-3.2*
White NH ^{ef}	1992-2006	-1.2*									-1.2*	-1.2*
Black	1992-2006	-0.6									-0.6	-0.6
Black NH ^{ef}	1992-2006	-0.6									-0.6	-0.6
API ^e	1992-2006	-0.3									-0.3	-0.3
AI/AN ^{eg}	1992-2006	-0.4									-0.4	-0.4
Hispanic ^e	1992-2006	-0.7									-0.7	-0.7
<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												

Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

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

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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 21.3
Cancer of the Ovary (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	1975-1990	1.4*	1990-2006	-1.0*							-1.0*	-1.0*
White	1975-1990	1.5*	1990-2006	-0.8*							-0.8*	-0.8*
Black	1975-2003	0.5	2003-2006	-12.9							-4.2	-9.7
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2006</u>												
All Races	1992-2006	-1.0*									-1.0*	-1.0*
White	1992-2006	-0.9*									-0.9*	-0.9*
Black	1992-2006	-1.0									-1.0	-1.0
<u>SEER 9 Observed Incidence^a, 1975-2006</u>												
All Races	1975-1990	1.4*	1990-2006	-1.1*							-1.1*	-1.1*
White	1975-1990	1.5*	1990-2006	-1.0*							-1.0*	-1.0*
Black	1975-2003	0.5	2003-2006	-13.9							-4.6	-10.5
<u>SEER 13 Observed Incidence^b, 1992-2006</u>												
All Races	1992-2006	-1.2*									-1.2*	-1.2*
White	1992-2006	-1.1*									-1.1*	-1.1*
White NH ^{ef}	1992-2006	-1.1*									-1.1*	-1.1*
Black	1992-2006	-1.2									-1.2	-1.2
Black NH ^{ef}	1992-2006	-1.3									-1.3	-1.3
API ^e	1992-2006	0.6									0.6	0.6
AI/AN ^{eg}	1992-2006	1.3									1.3	1.3
Hispanic ^e	1992-2006	-0.4									-0.4	-0.4
<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												

Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

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

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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 21.4
Cancer of the Ovary (Invasive)

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

	All Races, Females			White Females			Black Females		
	All	<65	65+	All	<65	65+	All	<65	65+
Year of Diagnosis:									
1975	16.32	11.61	48.88	16.77	12.00	49.79	11.72	7.40	41.58
1976	15.85	11.22	47.86	16.63	11.87	49.55	11.41	7.37	39.32
1977	15.62	11.20	46.15	16.19	11.58	48.07	11.34	8.69	29.65
1978	15.38	10.78	47.18	16.16	11.36	49.31	9.96	6.07	36.83
1979	15.38	10.69	47.79	15.83	10.90	49.91	11.94	9.07	31.79
1980	15.44	10.64	48.61	16.20	11.18	50.88	11.74	7.42	41.60
1981	15.42	10.48	49.53	16.00	10.87	51.47	11.68	7.58	40.08
1982	15.56	10.08	53.43	16.13	10.48	55.14	12.33	7.43	46.23
1983	15.97	10.44	54.18	16.41	10.71	55.78	13.06	9.18	39.89
1984	16.25	10.96	52.79	17.15	11.71	54.71	10.98	5.87	46.31
1985	16.53	10.76	56.41	17.43	11.40	59.13	11.30	7.25	39.27
1986	15.01	9.87	50.55	15.71	10.47	51.91	10.69	6.24	41.47
1987	16.15	10.15	57.58	17.04	10.85	59.80	11.82	6.26	50.27
1988	15.26	9.56	54.69	16.01	10.08	56.95	11.56	6.63	45.65
1989	15.51	9.53	56.80	16.49	10.27	59.53	10.99	5.42	49.45
1990	15.39	9.44	56.48	16.26	10.05	59.15	10.23	5.68	41.65
1991	15.75	9.69	57.66	16.54	10.29	59.74	11.03	5.48	49.47
1992	14.90	9.33	53.40	15.65	9.73	56.55	11.23	7.77	35.16
1993	15.22	9.13	57.35	16.04	9.62	60.42	11.62	6.59	46.34
1994	14.47	8.87	53.14	15.00	9.16	55.32	12.44	6.49	53.54
1995	14.56	8.74	54.80	15.33	9.30	57.03	10.30	4.89	47.70
1996	14.10	8.40	53.51	15.26	9.22	57.05	9.03	4.53	40.11
1997	14.71	9.20	52.79	15.42	9.68	55.09	10.61	5.65	44.91
1998	14.31	8.80	52.43	15.08	9.24	55.50	10.76	5.93	44.19
1999	14.65	8.68	55.89	15.39	8.92	60.13	10.69	6.25	41.36
2000	14.26	9.01	50.53	15.17	9.62	53.53	10.78	5.49	47.33
2001	14.48	9.12	51.53	15.51	9.71	55.62	9.36	6.19	31.29
2002	13.73	7.94	53.78	14.35	8.28	56.30	10.35	5.54	43.60
2003	13.48	8.32	49.21	14.02	8.78	50.23	11.92	5.95	53.21
2004	12.99	7.86	48.42	13.63	8.06	52.13	9.87	6.15	35.57
2005	12.67	7.91	45.52	13.23	8.02	49.27	10.29	6.91	33.59
2006	12.48	7.41	47.52	13.10	7.73	50.21	8.44	5.16	31.09
1975-2006	14.82	9.39	52.38	15.59	9.90	54.93	10.90	6.38	42.12

Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

^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 21.6
Cancer of the Ovary (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, Females	White Females	Black Females	All Races, Females	White Females	Black Females
<u>Age-Adjusted Rates, 2002-2006</u>						
Age at Diagnosis/Death:						
All ages	13.1	13.8	10.1			
Under 65	8.0	8.4	5.8			
65 and over	48.4	51.1	39.4			
All ages (IARC world std) ^c	9.3	9.8	7.0			
<u>Age-Specific Rates, 2002-2006</u>						
Age at Diagnosis/Death:						
<1	-	-	-			
1-4	-	-	-			
5-9	0.3	0.3	-			
10-14	0.8	0.8	-			
15-19	1.5	1.5	1.1			
20-24	1.7	1.7	1.1			
25-29	2.2	2.2	1.6			
30-34	3.2	3.1	3.1			
35-39	4.7	4.6	4.4			
40-44	8.6	9.0	5.5			
45-49	15.3	15.9	11.6			
50-54	21.7	22.9	15.2			
55-59	28.0	29.8	18.4			
60-64	36.1	38.9	27.2			
65-69	41.3	44.1	32.2			
70-74	46.7	50.0	37.0			
75-79	52.3	55.6	40.1			
80-84	57.2	59.2	47.8			
85+	50.7	52.0	49.4			

- ^a Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473. 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. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.
- ^c 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 21.7
Cancer of the Ovary(Invasive)

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

	All Races, Females			White Females			Black Females		
	All	<65	65+	All	<65	65+	All	<65	65+
5-Year Relative Survival Rates									
Year of Diagnosis:									
1960-1963 ^a	-	-	-	32	-	-	32	-	-
1970-1973 ^a	-	-	-	36	-	-	32	-	-
1975-1977 ^b	37.2	44.4	21.9	36.5	43.7	21.6	43.1	49.2	25.5 ^f
1978-1980 ^b	38.9	47.5	22.6	38.1	46.6	22.8	40.3	49.7	13.0
1981-1983 ^b	40.7	50.6	24.4	40.3	50.6	24.5	38.9	45.7	23.4 ^f
1984-1986 ^b	39.9	49.6	25.0	39.0	48.7	24.7	41.0	53.1	21.3
1987-1989 ^b	39.9	51.3	24.7	39.9	51.5	25.1	35.2	47.3	17.9
1990-1992 ^b	42.6	55.7	25.6	42.5	56.3	25.5	38.1	50.2	17.7
1993-1995 ^b	43.6	55.9	28.1	42.7	55.6	27.6	43.3	55.3	27.5
1996-1998 ^b	45.7	57.2	29.7	45.1	56.8	29.7	41.3	53.0	22.5
1999-2005 ^b	45.6 ^e	55.9 ^e	30.0 ^e	45.5 ^e	56.2 ^e	30.3 ^e	37.2	45.1	21.6
5-Year Period Survival Rates^{cd}									
Year of Diagnosis:									
1999-2005	46.2	56.5	30.1	46.1	56.7	30.6	38.3	46.6	21.9
Stage Distribution (%) 1999-2005^c									
All Stages									
Number of cases	29,168	16,000	13,168	24,849	13,201	11,648	2,074	1,238	836
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	15	21	7	14	20	7	15	20	7
Regional	17	20	13	17	20	13	15	15	15
Distant	62	55	69	63	56	70	62	58	67
Unstaged	7	4	10	7	4	10	8	7	11
5-Year Relative Survival Rates, 1999-2005^c									
Age at Diagnosis:									
Ages <45	72.8	-	-	73.3	-	-	66.7	-	-
Ages 45-54	57.0	-	-	58.1	-	-	42.3	-	-
Ages 55-64	45.4	-	-	45.9	-	-	31.6	-	-
Ages 65-74	35.7	-	-	36.1	-	-	24.2	-	-
Ages 75+	23.2	-	-	23.8	-	-	16.4	-	-
Ages <65	56.5	-	-	56.8	-	-	46.2	-	-
Ages 65+	29.8	-	-	30.1	-	-	20.9	-	-
Stage:									
All Stages	45.9	56.5	29.8	45.8	56.8	30.1	37.4	46.2	20.9
Localized	93.8	93.9	93.5	93.7	93.7	93.3	92.1	96.1	75.1 ^g
Regional	72.8	79.7	56.7	73.3	80.4	57.2	57.4	65.0	43.9 ^f
Distant	28.2	34.9	20.0	28.8	35.9	20.7	19.6	24.9	11.0
Unstaged	27.3	48.9	13.0	26.8	50.0	13.4	27.4	42.4 ^f	9.0

Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

^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 21.8
Cancer of the Ovary (Invasive)

Survival Rates^a
By Year of Diagnosis

All Races, Females

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	65.2	70.7	70.8	72.3	72.9	74.9	72.7	72.3	74.0	74.8	77.3	76.0	74.6	77.5	76.7	76.4	76.7	75.9	75.9
2-year	49.8	54.1	55.0	58.0	59.1	60.9	59.3	61.6	61.2	62.5	66.3	65.2	62.7	65.1	66.2	64.6	67.2	65.4	
3-year	43.0	46.9	47.6	49.5	49.9	52.1	50.0	54.5	52.3	54.0	57.9	56.5	54.2	55.8	57.1	55.3	59.8		
4-year	39.7	42.7	42.9	45.2	44.8	47.8	44.2	48.6	47.7	47.7	50.4	51.9	49.2	48.7	51.7	49.5			
5-year	37.8	40.5	39.7	42.2	41.8	43.8	40.4	46.2	44.3	43.8	46.0	47.2	44.5	44.7	47.4				
6-year	36.6	38.8	37.9	40.5	39.6	41.5	38.6	42.9	41.1	40.7	42.8	44.8	42.3	41.6					
7-year	35.6	38.2	36.9	39.4	38.2	40.2	38.1	41.3	39.6	39.6	40.6	43.2	40.5						
8-year	35.0	37.1	36.2	38.3	37.1	39.6	37.2	40.7	38.2	38.7	39.5	41.5							
9-year	34.7	36.4	35.9	37.8	36.7	39.3	36.4	39.2	37.0	38.4	38.6								
10-year	34.6	35.9	35.7	37.7	36.3	39.3	35.6	38.5	36.8	38.1									
11-year	34.5	35.9	35.6	37.4	36.0	39.1	35.2	37.8	36.4										
12-year	34.2	35.6	35.5	37.4	35.8	38.7	35.1	37.8											
13-year	34.1	35.4	35.4	37.4	35.8	38.5	35.1												
14-year	34.1	35.3	35.3	37.4	35.8	38.5													
15-year	33.7	35.3	35.3	37.4	35.8														
16-year	33.7	35.3	35.3	37.4															
17-year	33.7	35.3	35.3																
18-year	33.7	35.3																	
19-year	33.7	35.3																	
20-year	33.7	35.3																	

^a Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

^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 21.10
Cancer of the Ovary (Invasive)

SEER Incidence and U.S. Mortality
Age-Adjusted Rates and Trends^a
By Race/Ethnicity and Sex

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 (%)
	Females	Females	Females
RACE/ETHNICITY			
All Races	13.1	-1.6*	-1.8*
White	13.8	-1.7*	-1.9*
White Hispanic ^e	11.7	-0.7	-
White Non-Hispanic ^e	14.1	-1.7*	-
Black	10.1	-0.9*	-0.6*
Asian/Pacific Islander	9.9	0.0	-
Amer Ind/Alaska Nat ^f	10.8	-	-
Hispanic ^e	11.3	-0.6	-
U.S. Mortality ^g	Rate 2002-2006	Trend 1997-2006 ^h	
	Rate per 100,000 persons	AAPC (%)	
	Females	Females	
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.

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).

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.

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

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

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.

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

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

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 21.11
Cancer of the Ovary (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	12.26	7.14	47.63	13.08	7.34	52.77	10.74	7.16	35.47
Atlanta	12.22	7.15	47.23	13.05	7.38	52.22	10.70	7.15	35.19
Rural Georgia	13.01	7.14	53.61	13.09	-	61.29	12.21	-	-
California	13.05	8.04	47.73	13.82	8.37	51.55	9.44	5.72	35.11
Greater Bay Area	12.95	8.33	44.94	13.63	8.34	50.23	8.95	5.73	31.21
San Francisco-Oakland	13.20	8.43	46.15	13.83	8.31	51.99	9.36	5.97	32.86
San Jose-Monterey	12.47	8.12	42.53	13.27	8.37	47.14	-	-	-
Los Angeles	12.95	8.18	45.89	14.00	8.69	50.73	9.69	5.48	38.77
Greater California	13.13	7.85	49.65	13.79	8.22	52.29	9.32	6.01	32.19
Connecticut	13.50	8.24	49.90	13.93	8.61	50.68	9.07	4.89	37.94
Detroit	12.98	7.82	48.59	13.86	8.61	50.13	10.64	5.60	45.44
Hawaii	10.71	7.08	35.86	12.51	8.41	40.81	-	-	-
Iowa	13.28	8.13	48.88	13.32	8.12	49.25	-	-	-
Kentucky	12.24	7.48	45.17	12.46	7.59	46.09	8.83	5.44	32.28
Louisiana	11.77	6.60	47.47	12.61	7.34	49.01	10.04	5.01	44.81
New Jersey	14.42	9.27	50.06	15.24	9.92	51.97	10.92	6.42	42.05
New Mexico	12.41	7.72	44.80	12.48	7.71	45.39	-	-	-
Seattle-Puget Sound	14.46	8.04	58.88	15.02	8.33	61.28	8.94	4.66	-
Utah	12.49	7.28	48.52	12.68	7.35	49.53	-	-	-
9 SEER Areas ^b	13.06	7.87	48.88	13.65	8.16	51.64	10.14	5.94	39.21
11 SEER Areas ^b	13.01	7.97	47.87	13.73	8.31	51.23	9.98	5.81	38.80
13 SEER Areas ^b	13.01	7.97	47.86	13.73	8.30	51.26	10.00	5.83	38.81
17 SEER Areas ^b	13.10	7.99	48.39	13.78	8.38	51.15	10.06	5.81	39.42

^b Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.

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 21.14
Cancer of the Ovary (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	54,346	30,384	22,476	18,636	15,590	11,063	111,375	154,428	21,579	176,007
White ^b	47,888	26,827	19,849	17,082	13,988	9,915	98,499	137,232	18,682	155,914
Black ^b	3,790	1,969	1,531	993	1,040	845	7,424	10,332	1,896	12,228
Asian/Pacific Islander ^c	2,033	1,128	790	+	+	+	4,062	+	+	+
Hispanic ^d	4,070	2,028	1,431	+	+	+	7,776	+	+	+

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	0.0675%	0.0003%	0.0053%	0.0169%	0.0267%	0.0637%	0.1345%	0.2007%	0.2134%	0.1618%	0.0643%
White ^c	0.0741%	0.0004%	0.0057%	0.0170%	0.0266%	0.0669%	0.1430%	0.2176%	0.2337%	0.1726%	0.0686%
Black ^c	0.0355%	-	0.0040%	0.0112%	0.0251%	0.0402%	0.0779%	0.1208%	0.1137%	0.1023%	0.0397%
Asian/Pacific Islander ^c	0.0589%	-	0.0049%	0.0226%	0.0280%	0.0633%	0.1310%	0.1525%	0.1526%	0.1081%	0.0557%
Hispanic ^d	0.0363%	-	0.0069%	0.0173%	0.0223%	0.0474%	0.0999%	0.1593%	0.1794%	0.1254%	0.0516%

- ^a Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473.
^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.
^{b c d} Prevalence was calculated using the First Malignant Primary Only for a person. 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.

Table 21.15

Cancer of the Ovary (Invasive)Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2002-2006
Females by Race

Histology ^a	All Races		White		Black		Asian/Pacific Islander		American Indian/ Alaska Native ^b		Hispanic ^c	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Carcinoma	22,480	92.4%	19,225	92.7%	1,496	89.9%	1,545	91.0%	103	92.8%	2,263	86.6%
Epidermoid carcinoma ^d (8051-8131)	186	0.8%	139	0.7%	-	-	28	1.6%	-	-	23	0.9%
Adenocarcinoma ^e	20,667	84.9%	17,735	85.5%	1,313	78.9%	1,432	84.3%	90	81.1%	2,036	77.9%
Adenocarcinoma, NOS (8140)	3,266	13.4%	2,757	13.3%	305	18.3%	177	10.4%	-	-	320	12.2%
Papillary adenocarcinoma, NOS (8050,8260)	687	2.8%	583	2.8%	67	4.0%	31	1.8%	-	-	55	2.1%
Clear cell adenocarcinoma (8310,9110)	1,229	5.0%	989	4.8%	47	2.8%	183	10.8%	-	-	101	3.9%
Endometrioid carcinoma (8380-8383,8570)	2,611	10.7%	2,227	10.7%	121	7.3%	234	13.8%	-	-	250	9.6%
Cystadenocarcinoma, NOS (8440,8450)	168	0.7%	133	0.6%	22	1.3%	-	-	-	-	17	0.7%
Serous cystadenocarcinoma (8441)	2,595	10.7%	2,243	10.8%	144	8.7%	184	10.8%	-	-	228	8.7%
Papillary serous cystadenocarcinoma (8460-8462)	7,462	30.7%	6,607	31.9%	439	26.4%	359	21.1%	30	27.0%	735	28.1%
Mucinous cystadenocarcinoma (8470-8473)	588	2.4%	477	2.3%	30	1.8%	67	3.9%	-	-	90	3.4%
Mucinous adenocarcinoma (8480,8482)	877	3.6%	707	3.4%	79	4.7%	79	4.7%	-	-	106	4.1%
Mucin-producing adenocarcinoma(8481)	92	0.4%	75	0.4%	-	-	-	-	-	-	-	-
Other	1,092	4.5%	937	4.5%	49	2.9%	101	5.9%	-	-	120	4.6%
Other specific carcinomas ^f	541	2.2%	421	2.0%	82	4.9%	32	1.9%	-	-	81	3.1%
Stromal cell tumor (8620-8631,8650)	308	1.3%	225	1.1%	61	3.7%	19	1.1%	-	-	49	1.9%
Other	190	0.8%	160	0.8%	18	1.1%	-	-	-	-	29	1.1%
Unspecified, "Carcinoma, NOS" (8010,8020-8022)	1,086	4.5%	930	4.5%	86	5.2%	53	3.1%	-	-	123	4.7%

Source: 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). Percents may not sum to 100 due to rounding.

^a Excludes Kaposi Sarcoma, mesothelioma, lymphomas, leukemias, myelomas, lymphoreticular, and immunoproliferative diseases.

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

^c Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives.

^d Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

^e Epidermoid carcinoma includes squamous, basal, and transitional cell carcinomas.

^e Adenocarcinoma includes histologies 8050, 8140-8147, 8160-8162, 8180-8221, 8250-8507, 8514, 8520-8551, 8560, 8570-8574, 8576, 8940-8941, 9110.

^f Other specific carcinomas includes histologies 8011-8015, 8030-8046, 8150-8155, 8170-8175, 8230-8231, 8247-8249, 8508, 8510-8513, 8561-8562, 8575, 8580-8671.

- Statistic not shown due to fewer than 16 cases during the time period.

Table 21.15 - continued

Cancer of the Ovary (Invasive)Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2002-2006
Females by Race

Histology ^a	<u>All Races</u>		<u>White</u>		<u>Black</u>		<u>Asian/Pacific Islander</u>		<u>American Indian/ Alaska Native^b</u>		<u>Hispanic^c</u>	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Sarcoma and other soft tissue tumors (8680-8713,8800-8921, 8990-8991,9040-9044, 9120-9136,9141-9340, 9540-9582)	81	0.3%	61	0.3%	18	1.1%	-	-	-	-	-	-
Other specific types (8240-8246,8720-8790, 8930-8936,8950-8983, 9000-9030,9060-9105, 9350-9364,9380-9513, 9530-9539)	1,595	6.6%	1,298	6.3%	134	8.1%	143	8.4%	-	-	303	11.6%
Mullerian mixed tumor (8950-8951,8980)	675	2.8%	586	2.8%	43	2.6%	42	2.5%	-	-	64	2.4%
Teratoma, malignant (9080-9085,9102)	336	1.4%	246	1.2%	36	2.2%	48	2.8%	-	-	101	3.9%
Other	584	2.4%	466	2.2%	55	3.3%	53	3.1%	-	-	138	5.3%
Unspecified (8000-8005)	182	0.7%	154	0.7%	16	1.0%	-	-	-	-	33	1.3%
Total ^d	24,338	100.0%	20,738	100.0%	1,664	100.0%	1,698	100.0%	111	100.0%	2,614	100.0%

Source: 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). Percents may not sum to 100 due to rounding.

^a Excludes Kaposi Sarcoma, mesothelioma, lymphomas, leukemias, myelomas, lymphoreticular, and immunoproliferative diseases.

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

^c Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives.

Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

^d Total includes carcinoma cases from the previous page.

- Statistic not shown due to fewer than 16 cases during the time period.

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

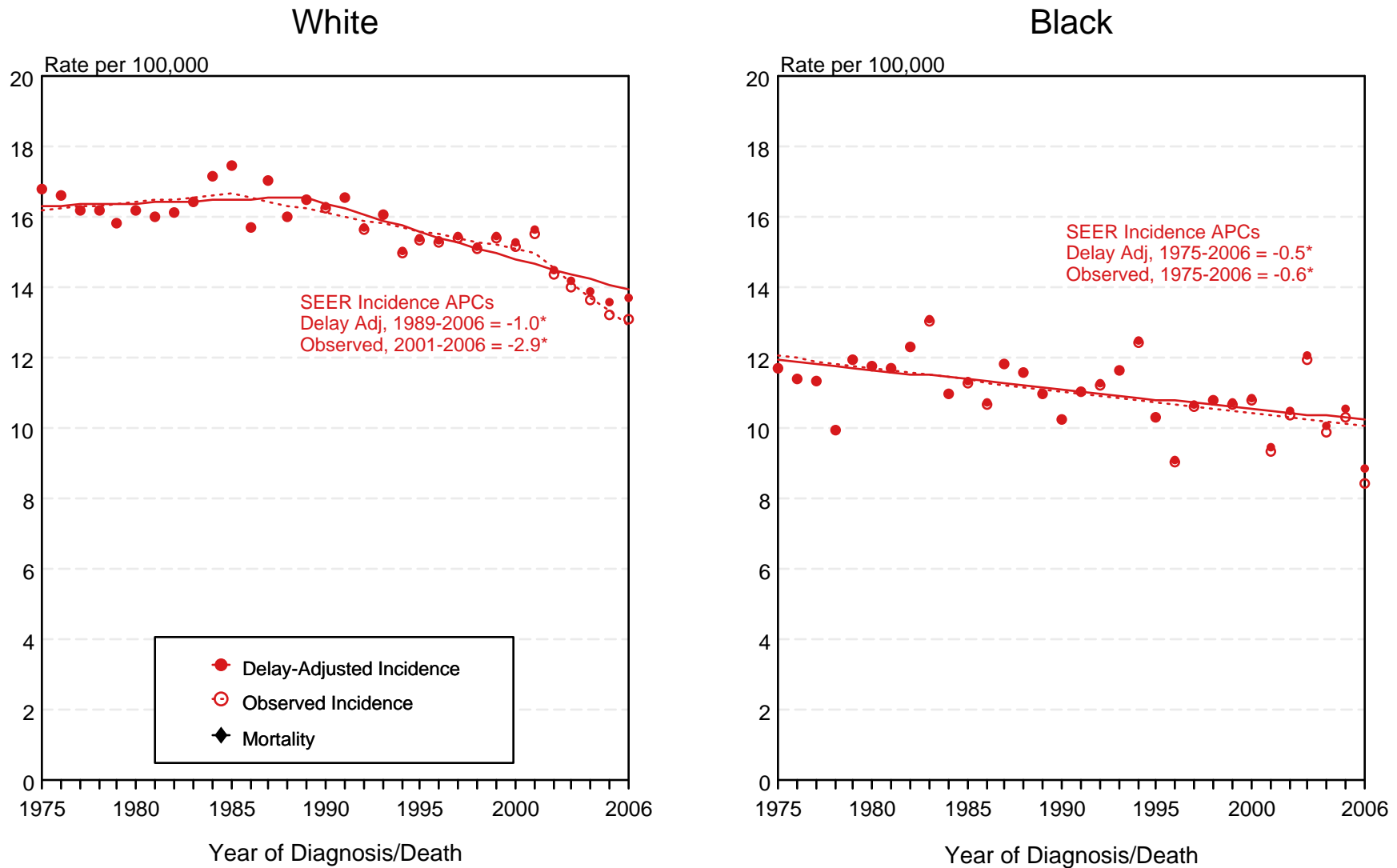


Figure 21.1

^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). Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473. 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 Ovary, by Age and Race

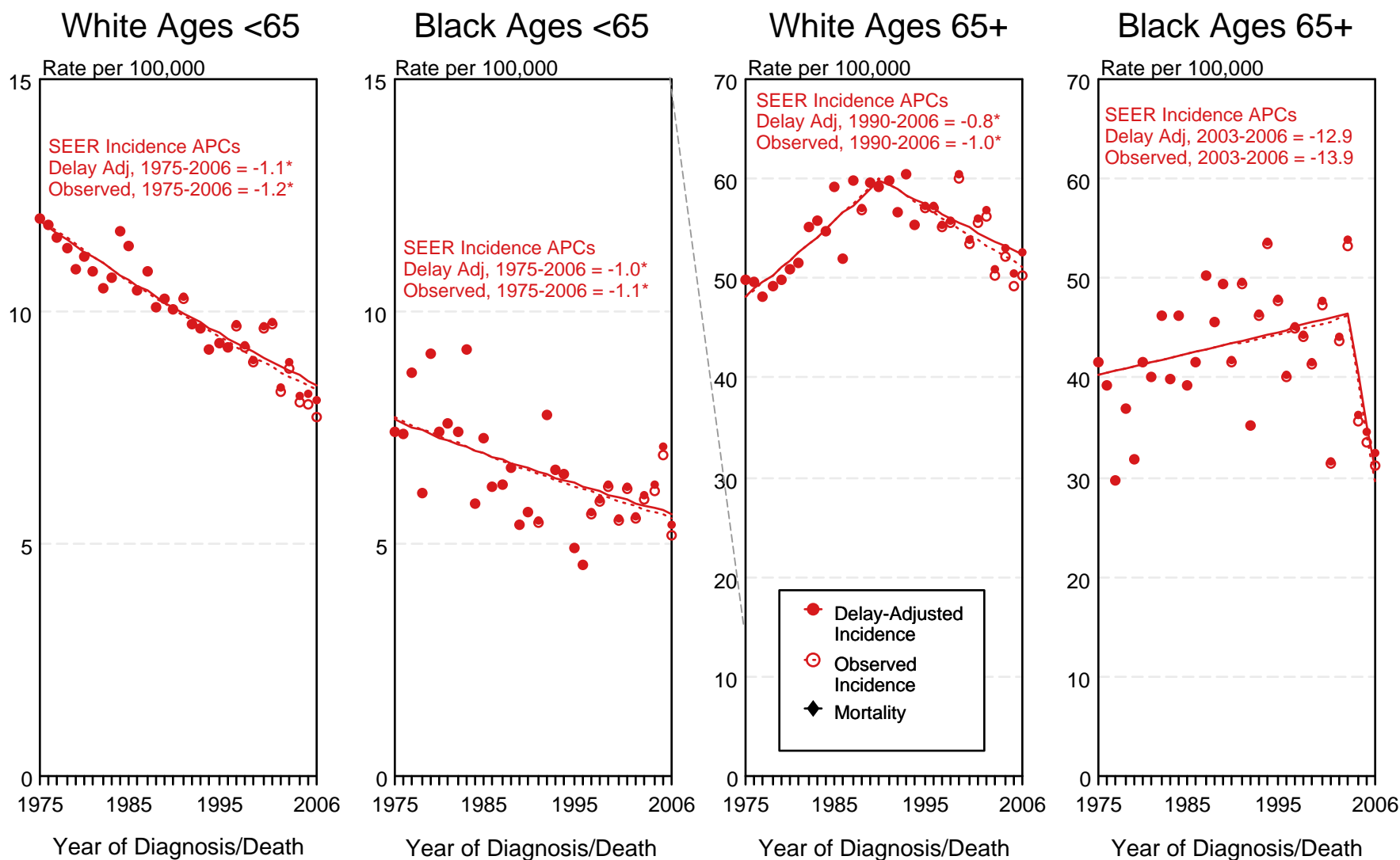


Figure 21.2

^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). Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473. 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 Ovary

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

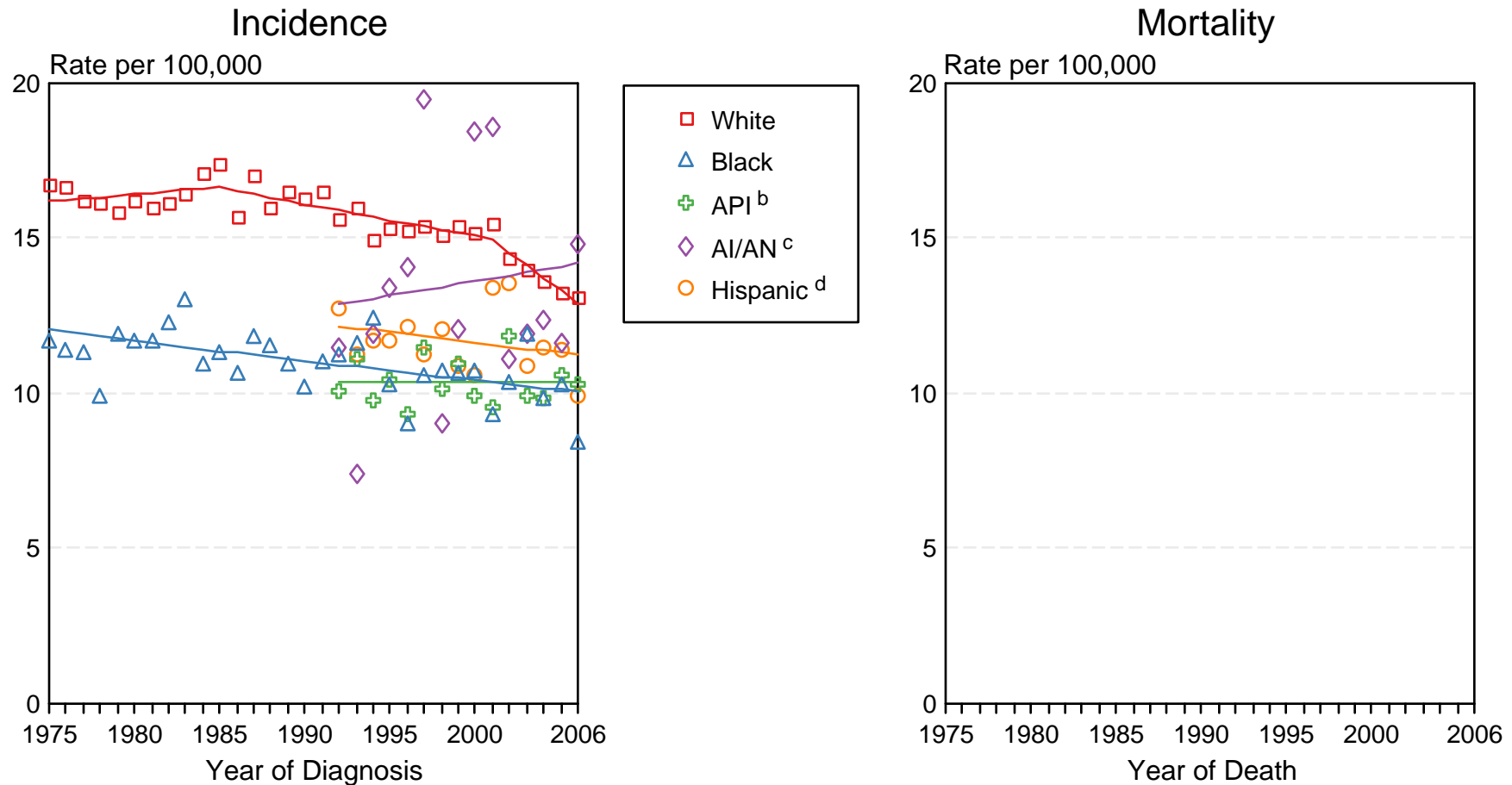


Figure 11.3

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). Ovary excludes borderline cases or histologies 8442, 8451, 8462, 8472, and 8473. 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.