

Table 6.1
Cancer of the Colon and Rectum (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2015 With up to Five Joinpoints, 1992-2015 With up to Four Joinpoints,
Both Sexes by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2006-15	2011-15
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2015</u>														
All Races	1975-85	0.8*	1985-95	-1.8*	1995-98	1.4	1998-08	-2.3*	2008-11	-4.5*	2011-15	-1.1	-2.5*	-1.1
White	1975-85	0.8*	1985-95	-2.0*	1995-98	1.6	1998-08	-2.5*	2008-11	-4.8*	2011-15	-0.8	-2.5*	-0.8
Black	1975-80	3.2*	1980-03	-0.1	2003-15	-2.9*							-2.9*	-2.9*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2015</u>														
All Races	1992-95	-2.1*	1995-98	1.6	1998-08	-2.2*	2008-12	-3.9*	2012-15	-0.7			-2.5*	-1.5*
White	1992-95	-2.2*	1995-98	1.7	1998-08	-2.4*	2008-12	-4.1*	2012-15	-0.1			-2.4*	-1.1
Black	1992-04	-0.1	2004-15	-3.2*									-3.2*	-3.2*
<u>SEER 9 Observed Incidence^a, 1975-2015</u>														
All Races	1975-85	0.8*	1985-95	-1.8*	1995-98	1.5	1998-08	-2.3*	2008-11	-4.5*	2011-15	-1.4*	-2.6*	-1.4*
White	1975-85	0.8*	1985-95	-2.0*	1995-98	1.6	1998-08	-2.5*	2008-11	-4.8*	2011-15	-1.1	-2.7*	-1.1
Black	1975-80	3.2*	1980-03	-0.1	2003-15	-3.1*							-3.1*	-3.1*
<u>SEER 13 Observed Incidence^b, 1992-2015</u>														
All Races	1992-95	-2.1*	1995-98	1.6	1998-08	-2.2*	2008-12	-4.0*	2012-15	-1.1			-2.6*	-1.8*
White	1992-95	-2.2*	1995-98	1.7	1998-08	-2.4*	2008-11	-4.7*	2011-15	-1.3*			-2.7*	-1.3*
White NH ^{ef}	1992-95	-2.1*	1995-98	1.8	1998-08	-2.5*	2008-11	-4.9*	2011-15	-1.0			-2.6*	-1.0
Black	1992-04	0.0	2004-15	-3.5*									-3.5*	-3.5*
Black NH ^{ef}	1992-04	0.0	2004-15	-3.4*									-3.4*	-3.4*
API ^e	1992-02	-0.3	2002-15	-2.6*									-2.6*	-2.6*
AI/AN ^{eg}	1992-15	-0.1											-0.1	-0.1
Hispanic ^f	1992-07	0.0	2007-15	-2.5*									-2.3*	-2.5*
<u>U.S. Cancer Mortality^c, 1975-2015</u>														
All Races	1975-84	-0.5*	1984-02	-1.8*	2002-05	-3.9*	2005-15	-2.4*					-2.4*	-2.4*
White	1975-78	0.2	1978-85	-1.0*	1985-02	-1.9*	2002-05	-3.8*	2005-12	-2.5*	2012-15	-1.6*	-2.2*	-1.8*
Black	1975-90	0.7*	1990-02	-0.9*	2002-15	-3.1*							-3.1*	-3.1*
<u>U.S. Cancer Mortality^c, 1992-2015</u>														
All Races	1992-02	-1.8*	2002-05	-3.9*	2005-15	-2.4*							-2.4*	-2.4*
White	1992-02	-1.9*	2002-05	-3.8*	2005-12	-2.5*	2012-15	-1.6*					-2.2*	-1.8*
White NH ^{ef}	1992-02	-1.8*	2002-05	-3.9*	2005-12	-2.5*	2012-15	-1.5*					-2.2*	-1.8*
Black	1992-01	-0.6*	2001-15	-3.0*									-3.0*	-3.0*
Black NH ^{ef}	1992-01	-0.6*	2001-15	-2.9*									-2.9*	-2.9*
API ^e	1992-15	-1.8*											-1.8*	-1.8*
AI/AN ^{eg}	1992-95	12.3	1995-15	-0.5									-0.5	-0.5
Hispanic ^f	1992-01	0.3	2001-15	-1.8*									-1.8*	-1.8*

Joinpoint Regression Program Version 4.6, February 2018, National Cancer Institute. (<https://surveillance.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).

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

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

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

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

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

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 New Hampshire and Oklahoma.

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 6.2
Cancer of the Colon and Rectum (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2015 With up to Five Joinpoints, 1992-2015 With up to Four Joinpoints,
Males by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2006-15	2011-15
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2015</u>														
All Races	1975-85	1.1*	1985-91	-1.2*	1991-95	-3.2*	1995-98	2.1	1998-15	-2.9*			-2.9*	-2.9*
White	1975-86	1.1*	1986-95	-2.3*	1995-98	1.4	1998-07	-2.9*	2007-12	-4.1*	2012-15	-0.5	-2.8*	-1.4
Black	1975-80	4.5	1980-02	0.0	2002-15	-2.7*							-2.7*	-2.7*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2015</u>														
All Races	1992-95	-2.6*	1995-98	1.4	1998-08	-2.5*	2008-12	-3.9*	2012-15	-1.1			-2.6*	-1.8*
White	1992-95	-2.8*	1995-98	1.5	1998-08	-2.7*	2008-12	-4.3*	2012-15	-0.4			-2.7*	-1.4*
Black	1992-03	0.0	2003-15	-3.0*									-3.0*	-3.0*
<u>SEER 9 Observed Incidence^a, 1975-2015</u>														
All Races	1975-86	1.1*	1986-95	-2.2*	1995-98	1.5	1998-15	-2.9*					-2.9*	-2.9*
White	1975-86	1.1*	1986-95	-2.3*	1995-98	1.4	1998-08	-2.9*	2008-11	-4.9*	2011-15	-1.5*	-3.0*	-1.5*
Black	1975-80	4.4	1980-02	0.1	2002-15	-2.9*							-2.9*	-2.9*
<u>SEER 13 Observed Incidence^b, 1992-2015</u>														
All Races	1992-95	-2.6*	1995-98	1.4	1998-08	-2.5*	2008-12	-3.9*	2012-15	-1.4*			-2.8*	-2.1*
White	1992-95	-2.8*	1995-98	1.5	1998-08	-2.7*	2008-12	-4.3*	2012-15	-0.8			-2.8*	-1.7*
White NH ^{ef}	1992-95	-2.9*	1995-98	1.6	1998-08	-2.9*	2008-12	-4.5*	2012-15	-0.3			-2.8*	-1.4*
Black	1992-04	-0.2	2004-15	-3.4*									-3.4*	-3.4*
Black NH ^{ef}	1992-04	-0.1	2004-15	-3.3*									-3.3*	-3.3*
API ^e	1992-01	-0.3	2001-15	-2.5*									-2.5*	-2.5*
AI/AN ^{eg}	1992-15	-0.2											-0.2	-0.2
Hispanic ^f	1992-98	1.6	1998-08	-0.9	2008-15	-2.9*							-2.4*	-2.9*
<u>U.S. Cancer Mortality^c, 1975-2015</u>														
All Races	1975-79	0.6	1979-87	-0.6*	1987-02	-1.9*	2002-05	-4.1*	2005-15	-2.5*			-2.5*	-2.5*
White	1975-79	0.6	1979-87	-0.8*	1987-02	-2.1*	2002-05	-4.3*	2005-15	-2.4*			-2.4*	-2.4*
Black	1975-90	1.2*	1990-02	-0.7*	2002-15	-2.8*							-2.8*	-2.8*
<u>U.S. Cancer Mortality^c, 1992-2015</u>														
All Races	1992-02	-2.0*	2002-05	-4.0*	2005-15	-2.5*							-2.5*	-2.5*
White	1992-02	-2.1*	2002-05	-4.1*	2005-12	-2.6*	2012-15	-1.8*					-2.3*	-2.0*
White NH ^{ef}	1992-02	-2.1*	2002-05	-4.3*	2005-15	-2.5*							-2.5*	-2.5*
Black	1992-02	-0.7*	2002-15	-2.8*									-2.8*	-2.8*
Black NH ^{ef}	1992-02	-0.7*	2002-15	-2.7*									-2.7*	-2.7*
API ^e	1992-15	-1.9*											-1.9*	-1.9*
AI/AN ^{eg}	1992-15	0.3											0.3	0.3
Hispanic ^f	1992-99	0.5	1999-15	-1.6*									-1.6*	-1.6*

Joinpoint Regression Program Version 4.6, February 2018, National Cancer Institute. (<https://surveillance.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).

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

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

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

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

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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 6.3
Cancer of the Colon and Rectum (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2015 With up to Five Joinpoints, 1992-2015 With up to Four Joinpoints,
Females by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2006-15	2011-15
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2015</u>														
All Races	1975-85	0.3	1985-95	-1.9*	1995-98	1.8	1998-08	-2.0*	2008-11	-4.6*	2011-15	-0.9	-2.4*	-0.9
White	1975-85	0.3	1985-95	-2.1*	1995-98	2.0	1998-08	-2.2*	2008-11	-4.6*	2011-15	-0.6	-2.3*	-0.6
Black	1975-04	-0.1	2004-15	-3.5*									-3.5*	-3.5*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2015</u>														
All Races	1992-95	-1.8	1995-98	1.8	1998-08	-1.9*	2008-12	-4.0*	2012-15	-0.6			-2.4*	-1.4*
White	1992-95	-1.7	1995-98	1.7	1998-08	-2.1*	2008-11	-4.5*	2011-15	-0.8			-2.3*	-0.8
Black	1992-06	-0.3	2006-15	-4.1*									-4.1*	-4.1*
<u>SEER 9 Observed Incidence^a, 1975-2015</u>														
All Races	1975-85	0.3	1985-95	-1.9*	1995-98	1.8	1998-08	-2.0*	2008-11	-4.7*	2011-15	-1.2	-2.6*	-1.2
White	1975-85	0.3	1985-95	-2.1*	1995-98	2.0	1998-08	-2.2*	2008-11	-4.6*	2011-15	-0.9	-2.4*	-0.9
Black	1975-04	0.0	2004-15	-3.7*									-3.7*	-3.7*
<u>SEER 13 Observed Incidence^b, 1992-2015</u>														
All Races	1992-95	-1.8	1995-98	1.8	1998-08	-2.0*	2008-12	-4.1*	2012-15	-0.9			-2.6*	-1.7*
White	1992-95	-1.7	1995-98	1.7	1998-08	-2.1*	2008-11	-4.6	2011-15	-1.1			-2.5*	-1.1
White NH ^{ef}	1992-95	-1.5	1995-98	1.9	1998-08	-2.2*	2008-11	-4.7	2011-15	-0.9			-2.5*	-0.9
Black	1992-06	-0.3	2006-15	-4.4*									-4.4*	-4.4*
Black NH ^{ef}	1992-06	-0.3	2006-15	-4.3*									-4.3*	-4.3*
API ^e	1992-02	0.1	2002-15	-2.7*									-2.7*	-2.7*
AI/AN ^{eg}	1992-15	-0.1											-0.1	-0.1
Hispanic ^f	1992-07	0.1	2007-15	-2.1*									-1.9*	-2.1*
<u>U.S. Cancer Mortality^c, 1975-2015</u>														
All Races	1975-84	-1.0*	1984-01	-1.8*	2001-12	-2.9*	2012-15	-1.4					-2.4*	-1.8*
White	1975-84	-1.2*	1984-01	-2.0*	2001-11	-2.9*	2011-15	-1.5*					-2.3*	-1.5*
Black	1975-85	0.7*	1985-01	-0.7*	2001-15	-3.3*							-3.3*	-3.3*
<u>U.S. Cancer Mortality^c, 1992-2015</u>														
All Races	1992-01	-1.7*	2001-10	-3.0*	2010-15	-2.0*							-2.5*	-2.0*
White	1992-01	-1.8*	2001-10	-3.0*	2010-15	-1.7*							-2.3*	-1.7*
White NH ^{ef}	1992-00	-1.7*	2000-11	-2.9*	2011-15	-1.4*							-2.2*	-1.4*
Black	1992-01	-0.7*	2001-15	-3.3*									-3.3*	-3.3*
Black NH ^{ef}	1992-01	-0.6*	2001-15	-3.2*									-3.2*	-3.2*
API ^e	1992-15	-1.7*											-1.7*	-1.7*
AI/AN ^{eg}	1992-15	-0.4											-0.4	-0.4
Hispanic ^f	1992-02	0.4	2002-15	-2.3*									-2.3*	-2.3*

Joinpoint Regression Program Version 4.6, February 2018, National Cancer Institute. (<https://surveillance.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).

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

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

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

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

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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.

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Table 6.4
Cancer of the Colon (Invasive) and Cancer of the Rectum (Invasive)

Trends in SEER 9 Observed Incidence^a Using the Joinpoint Regression Program,
1975-2015 With up to Five Joinpoints,
By Race and Sex

		JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC ^d
		Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2011-15
<u>SEER 9 Observed Incidence^a for Cancer of the Colon, 1975-2015</u>														
All Races	Both Sexes	1975-85	1.1*	1985-95	-1.6*	1995-00	0.0	2000-08	-2.7*	2008-11	-4.8*	2011-15	-1.6*	-1.6*
All Races	Male	1975-85	1.7*	1985-02	-1.5*	2002-15	-3.4*							-3.4*
All Races	Female	1975-85	0.6*	1985-93	-1.8*	1993-01	-0.2	2001-15	-2.9*					-2.9*
White	Both Sexes	1975-85	1.1*	1985-95	-1.9*	1995-98	1.4	1998-08	-2.5*	2008-11	-5.4*	2011-15	-1.3	-1.3
White	Male	1975-86	1.6*	1986-95	-2.2*	1995-98	1.0	1998-08	-3.0*	2008-11	-5.5*	2011-15	-1.8*	-1.8*
White	Female	1975-85	0.6*	1985-93	-2.1*	1993-01	-0.2	2001-15	-2.9*					-2.9*
Black	Both Sexes	1975-80	3.4*	1980-02	0.0	2002-15	-3.2*							-3.2*
Black	Male	1975-85	2.2*	1985-02	-0.2	2002-15	-3.2*							-3.2*
Black	Female	1975-03	0.0	2003-15	-3.7*									-3.7*
<u>SEER 9 Observed Incidence^a for Cancer of the Rectum, 1975-2015</u>														
All Races	Both Sexes	1975-87	-0.3	1987-95	-2.4*	1995-98	2.4	1998-15	-2.2*					-2.2*
All Races	Male	1975-89	-0.3	1989-94	-3.6*	1994-98	1.5	1998-15	-2.4*					-2.4*
All Races	Female	1975-84	-0.2	1984-95	-2.2*	1995-98	2.3	1998-15	-2.0*					-2.0*
White	Both Sexes	1975-85	-0.1	1985-95	-2.3*	1995-98	2.1	1998-15	-2.5*					-2.5*
White	Male	1975-89	-0.3	1989-94	-4.0*	1994-98	1.7	1998-15	-2.7*					-2.7*
White	Female	1975-84	-0.2	1984-95	-2.3*	1995-98	2.1	1998-15	-2.3*					-2.3*
Black	Both Sexes	1975-08	0.0	2008-15	-3.9*									-3.9*
Black	Male	1975-07	0.1	2007-15	-3.1*									-3.1*
Black	Female	1975-09	-0.1	2009-15	-5.3*									-5.3*

Joinpoint Regression Program Version 4.6, February 2018, National Cancer Institute. (<https://surveillance.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).
Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).
The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.
The APC/AAPC is significantly different from zero (p<.05).
- Joinpoint regression line analysis could not be performed on data series.

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Table 6.5
Cancer of the Colon and Rectum (Invasive)

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

Year of Diagnosis:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-1979	61.57	72.07	54.53	62.29	73.21	55.10	58.74	64.39	54.86
1980	63.75	74.55	56.54	63.95	74.88	56.84	70.83	79.71	64.23
1981	64.24	75.80	56.49	64.86	76.65	57.14	62.83	72.89	55.97
1982	62.79	75.20	54.49	63.45	76.27	55.04	61.25	68.97	55.92
1983	63.66	75.55	55.61	64.24	76.51	56.04	66.79	75.80	61.13
1984	64.80	77.65	56.05	65.82	79.26	56.71	62.54	70.57	58.20
1985	66.30	79.19	57.31	67.19	80.20	58.36	64.13	74.56	56.39
1986	64.18	77.79	54.70	64.58	78.89	54.72	64.61	72.98	58.75
1987	62.74	77.53	52.68	62.92	78.25	52.64	66.28	77.63	59.01
1988	61.38	75.20	51.81	61.56	75.78	51.75	63.00	72.41	56.62
1989	61.70	74.99	52.42	61.96	75.45	52.66	64.52	79.41	54.76
1990	60.70	74.36	51.28	60.66	74.76	51.03	66.87	75.15	61.66
1991	59.48	72.91	50.04	59.28	73.11	49.64	65.71	76.42	58.27
1992	58.00	70.41	49.22	57.82	70.66	48.70	65.66	78.59	57.57
1993	56.79	68.44	48.30	56.32	68.08	47.79	64.50	78.14	55.25
1994	55.64	66.28	47.74	55.39	66.33	47.19	64.51	75.45	57.98
1995	54.05	63.84	46.93	53.71	63.40	46.63	62.04	71.49	55.98
1996	54.78	65.60	46.68	54.74	65.95	46.35	58.67	66.74	53.11
1997	56.40	68.07	47.94	56.36	67.87	48.00	64.68	77.66	56.26
1998	56.80	67.08	49.33	56.69	67.22	49.02	63.31	74.49	56.30
1999	55.48	65.76	47.84	55.31	65.88	47.23	63.41	72.18	58.31
2000	54.13	63.68	46.76	53.80	63.08	46.52	64.55	74.37	58.15
2001	53.62	63.09	46.23	53.04	62.73	45.38	64.55	75.35	57.60
2002	53.17	61.53	46.64	52.31	60.36	45.89	63.36	74.32	56.65
2003	50.81	59.51	43.92	50.23	58.58	43.46	62.77	75.87	54.68
2004	49.91	58.63	43.18	49.06	57.89	42.11	62.55	74.41	54.72
2005	47.82	55.26	41.90	47.40	55.08	41.15	58.63	65.54	54.82
2006	46.87	53.28	41.67	46.12	52.61	40.70	58.34	65.47	53.68
2007	46.43	53.35	40.76	45.55	52.23	40.00	57.94	65.83	52.32
2008	45.34	51.61	40.14	44.55	50.55	39.52	54.98	64.68	47.92
2009	43.39	49.08	38.72	42.10	47.60	37.46	53.99	61.19	49.50
2010	41.05	47.17	36.10	39.76	45.79	34.70	49.93	57.13	45.22
2011	39.79	45.58	35.04	38.68	43.83	34.34	48.56	56.29	43.17
2012	38.96	44.14	34.58	38.11	42.75	34.07	48.30	57.29	41.90
2013	37.74	43.52	32.89	36.61	41.36	32.58	47.30	59.02	39.05
2014	38.89	44.12	34.49	38.17	42.82	34.16	45.01	51.64	40.28
2015	37.55	42.24	33.43	36.82	41.28	32.82	46.13	54.47	39.82

Reference: [Cancer Incidence Rates Adjusted for Reporting Delay](#).

Individual rates for diagnosis years 1975-1979 available in web browser version of [Cancer Statistics Review](#).

^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).

- Delay-adjusted rate is not shown for observed rates based on less than 16 cases for the time interval.

Table 6.6
Cancer of the Colon and Rectum (Invasive)

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

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Year of Diagnosis:									
1975-2015	52.70	61.60	45.95	52.74	61.65	45.97	58.53	67.76	52.37
1975-1979	61.57	72.07	54.53	62.29	73.21	55.10	58.74	64.39	54.86
1980	63.75	74.55	56.54	63.95	74.88	56.84	70.83	79.71	64.23
1981	64.24	75.80	56.49	64.86	76.65	57.14	62.83	72.89	55.97
1982	62.79	75.20	54.49	63.45	76.27	55.04	61.25	68.97	55.92
1983	63.66	75.55	55.61	64.24	76.51	56.04	66.79	75.80	61.13
1984	64.80	77.65	56.05	65.82	79.26	56.71	62.54	70.57	58.20
1985	66.30	79.19	57.31	67.19	80.20	58.36	64.13	74.56	56.39
1986	64.18	77.79	54.70	64.58	78.89	54.72	64.61	72.98	58.75
1987	62.74	77.53	52.68	62.92	78.25	52.64	66.28	77.63	59.01
1988	61.38	75.20	51.81	61.56	75.78	51.75	63.00	72.41	56.62
1989	61.70	74.99	52.42	61.96	75.45	52.66	64.52	79.41	54.76
1990	60.70	74.36	51.28	60.66	74.76	51.03	66.87	75.15	61.66
1991	59.48	72.91	50.04	59.28	73.11	49.64	65.71	76.42	58.27
1992	58.00	70.41	49.22	57.82	70.66	48.70	65.66	78.59	57.57
1993	56.79	68.44	48.30	56.32	68.08	47.79	64.50	78.14	55.25
1994	55.64	66.28	47.74	55.39	66.33	47.19	64.51	75.45	57.98
1995	54.05	63.84	46.93	53.71	63.40	46.63	62.04	71.49	55.98
1996	54.78	65.60	46.68	54.74	65.95	46.35	58.67	66.74	53.11
1997	56.40	68.07	47.94	56.36	67.87	48.00	64.68	77.66	56.26
1998	56.80	67.08	49.33	56.69	67.22	49.02	63.31	74.49	56.30
1999	55.48	65.76	47.84	55.31	65.88	47.23	63.41	72.18	58.31
2000	54.13	63.68	46.76	53.80	63.08	46.52	64.55	74.37	58.15
2001	53.62	63.09	46.23	53.04	62.73	45.38	64.55	75.35	57.60
2002	53.17	61.53	46.64	52.31	60.36	45.89	63.36	74.32	56.65
2003	50.81	59.51	43.92	50.23	58.58	43.46	62.77	75.87	54.68
2004	49.91	58.63	43.18	49.06	57.89	42.11	62.55	74.41	54.72
2005	47.82	55.26	41.90	47.40	55.08	41.15	58.63	65.54	54.82
2006	46.87	53.28	41.67	46.12	52.61	40.70	58.34	65.47	53.68
2007	46.41	53.32	40.74	45.51	52.20	39.97	57.82	65.69	52.21
2008	45.29	51.55	40.09	44.49	50.48	39.47	54.76	64.42	47.72
2009	43.31	48.99	38.65	42.01	47.50	37.38	53.66	60.79	49.20
2010	40.96	47.05	36.02	39.65	45.66	34.60	49.54	56.67	44.87
2011	39.66	45.44	34.93	38.55	43.68	34.23	48.07	55.73	42.74
2012	38.82	43.98	34.46	37.96	42.57	33.93	47.71	56.57	41.40
2013	37.54	43.28	32.72	36.39	41.10	32.38	46.60	58.17	38.45
2014	38.57	43.75	34.20	37.81	42.42	33.84	44.07	50.54	39.47
2015	36.98	41.61	32.92	36.17	40.56	32.24	44.70	52.84	38.54

Individual rates for diagnosis years 1975-1979 available in web browser version of [Cancer Statistics Review](#).

^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 6.7
Cancer of the Colon (Invasive)

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

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Year of Diagnosis:									
1975-2015	37.91	42.70	34.35	37.94	42.75	34.35	44.68	50.64	40.83
1975-1979	43.22	48.45	39.89	43.64	49.10	40.23	44.79	48.25	42.59
1980	45.57	50.67	42.34	45.59	50.88	42.34	55.19	58.35	52.85
1981	45.47	51.32	41.73	45.88	51.91	42.13	46.85	50.60	44.36
1982	45.76	53.46	40.66	46.08	54.12	40.84	48.27	52.48	45.19
1983	46.10	53.00	41.63	46.40	53.44	41.86	50.26	58.65	45.25
1984	46.50	54.57	41.30	47.02	55.55	41.57	48.83	54.33	46.05
1985	47.87	55.06	42.93	48.39	55.61	43.62	50.08	57.66	44.33
1986	46.79	54.38	41.56	47.05	55.18	41.49	49.31	55.30	45.46
1987	45.26	54.44	39.18	45.16	54.52	39.10	51.42	59.99	45.73
1988	44.31	52.61	38.67	44.30	52.88	38.44	48.79	54.02	45.32
1989	44.38	52.46	38.96	44.48	52.52	39.18	49.00	60.41	41.70
1990	44.19	51.99	38.92	44.06	52.01	38.75	52.14	57.98	48.56
1991	43.59	51.84	37.90	43.28	51.85	37.38	51.79	57.75	47.77
1992	42.30	49.65	37.25	42.04	49.75	36.71	51.04	60.45	45.43
1993	41.60	48.95	36.32	41.07	48.62	35.67	51.16	60.58	45.02
1994	40.86	46.95	36.37	40.64	47.04	35.84	50.19	57.24	46.30
1995	39.67	45.08	35.86	39.32	44.67	35.50	48.88	55.18	45.36
1996	39.39	45.41	34.88	39.31	45.84	34.41	44.71	48.62	42.13
1997	41.10	48.36	35.99	41.09	48.22	36.13	49.37	59.24	42.73
1998	41.08	46.86	37.08	40.95	47.10	36.61	48.00	54.98	44.25
1999	39.82	45.50	35.67	39.61	45.50	35.13	48.70	55.07	45.12
2000	39.37	44.46	35.46	39.01	43.95	35.19	51.18	57.80	47.05
2001	39.26	44.16	35.52	38.90	43.96	34.94	49.34	56.46	44.83
2002	38.71	43.32	35.14	37.96	42.28	34.53	49.78	57.51	45.00
2003	36.98	41.49	33.38	36.59	40.73	33.17	48.02	57.43	42.33
2004	36.36	41.45	32.54	35.77	40.98	31.80	47.66	55.41	42.66
2005	34.48	38.03	31.70	34.24	38.06	31.14	44.86	49.59	42.60
2006	33.99	37.38	31.23	33.50	36.92	30.62	45.14	49.80	42.00
2007	33.10	36.21	30.61	32.72	35.81	30.24	42.51	46.40	39.56
2008	32.77	36.00	30.10	32.45	35.63	29.78	40.42	45.95	36.45
2009	30.98	33.46	28.97	30.24	32.72	28.12	39.52	44.26	36.93
2010	28.98	32.28	26.32	28.25	31.49	25.51	36.13	40.36	33.54
2011	28.12	31.02	25.74	27.42	29.96	25.26	36.04	41.43	32.40
2012	27.66	30.02	25.69	27.25	29.21	25.52	35.62	41.32	31.69
2013	26.60	29.22	24.40	25.95	27.96	24.24	34.79	42.12	29.72
2014	27.05	29.37	25.14	26.64	28.63	25.00	33.49	36.92	30.85
2015	26.10	28.20	24.26	25.64	27.59	23.92	33.05	38.46	29.01

Individual rates for diagnosis years 1975-1979 available in web browser version of [Cancer Statistics Review](#).

^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 6.8
Cancer of the Rectum (Invasive)

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

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Year of Diagnosis:									
1975-2015	14.79	18.90	11.60	14.80	18.89	11.62	13.85	17.12	11.54
1975-1979	18.34	23.62	14.64	18.65	24.11	14.87	13.95	16.14	12.28
1980	18.18	23.88	14.20	18.37	23.99	14.50	15.65	21.36	11.38
1981	18.76	24.48	14.76	18.99	24.73	15.01	15.99	22.30	11.61
1982	17.02	21.73	13.83	17.36	22.15	14.19	12.98	16.49	10.73
1983	17.56	22.54	13.98	17.85	23.07	14.18	16.54	17.15	15.89
1984	18.30	23.08	14.74	18.80	23.72	15.15	13.71	16.24	12.15
1985	18.43	24.13	14.38	18.80	24.59	14.73	14.05	16.90	12.06
1986	17.39	23.41	13.13	17.52	23.72	13.23	15.31	17.68	13.28
1987	17.49	23.09	13.50	17.76	23.73	13.54	14.87	17.64	13.29
1988	17.07	22.59	13.14	17.26	22.90	13.30	14.21	18.38	11.30
1989	17.32	22.52	13.46	17.48	22.93	13.48	15.52	19.00	13.05
1990	16.51	22.37	12.36	16.60	22.75	12.28	14.73	17.16	13.10
1991	15.88	21.07	12.14	16.00	21.25	12.26	13.91	18.68	10.50
1992	15.70	20.75	11.97	15.78	20.91	11.99	14.62	18.14	12.14
1993	15.19	19.48	11.98	15.26	19.46	12.12	13.33	17.56	10.22
1994	14.78	19.33	11.37	14.75	19.29	11.35	14.32	18.21	11.68
1995	14.38	18.76	11.07	14.39	18.73	11.12	13.16	16.31	10.63
1996	15.39	20.18	11.79	15.43	20.11	11.93	13.95	18.12	10.99
1997	15.30	19.71	11.95	15.27	19.65	11.87	15.31	18.42	13.52
1998	15.72	20.22	12.25	15.74	20.12	12.40	15.31	19.52	12.05
1999	15.66	20.26	12.18	15.71	20.38	12.09	14.72	17.11	13.20
2000	14.76	19.22	11.30	14.78	19.14	11.33	13.36	16.57	11.10
2001	14.35	18.93	10.70	14.15	18.76	10.44	15.21	18.88	12.77
2002	14.46	18.21	11.51	14.35	18.08	11.36	13.58	16.82	11.64
2003	13.83	18.02	10.54	13.64	17.85	10.29	14.75	18.44	12.35
2004	13.55	17.18	10.64	13.28	16.91	10.31	14.89	19.01	12.06
2005	13.34	17.23	10.21	13.16	17.03	10.01	13.77	15.96	12.22
2006	12.88	15.90	10.44	12.62	15.69	10.08	13.20	15.67	11.68
2007	13.30	17.11	10.12	12.80	16.39	9.73	15.31	19.29	12.65
2008	12.51	15.55	9.99	12.04	14.85	9.69	14.34	18.47	11.27
2009	12.33	15.53	9.69	11.77	14.77	9.26	14.14	16.53	12.27
2010	11.97	14.77	9.69	11.40	14.17	9.09	13.41	16.31	11.33
2011	11.55	14.42	9.20	11.13	13.72	8.97	12.03	14.30	10.34
2012	11.16	13.96	8.77	10.71	13.36	8.41	12.09	15.25	9.71
2013	10.94	14.06	8.32	10.44	13.15	8.14	11.81	16.05	8.73
2014	11.52	14.38	9.06	11.17	13.79	8.84	10.58	13.62	8.61
2015	10.87	13.41	8.66	10.53	12.97	8.32	11.64	14.38	9.53

Individual rates for diagnosis years 1975-1979 available in web browser version of [Cancer Statistics Review](#).

^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 6.9
Cancer of the Colon and Rectum (Invasive)
Age-adjusted U.S. Death^a Rates by Year, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Year of Death:									
1975-2015	21.05	25.22	18.05	20.81	24.97	17.79	26.00	31.35	22.54
1975-1979	28.31	33.35	25.00	28.47	33.72	25.04	27.75	31.10	25.49
1980	28.05	33.74	24.35	28.12	33.99	24.32	28.81	33.18	25.89
1981	27.52	32.95	23.97	27.53	33.16	23.85	28.93	32.83	26.32
1982	27.24	32.96	23.55	27.21	33.11	23.42	29.11	33.71	26.12
1983	27.12	33.08	23.23	27.13	33.32	23.11	28.67	32.90	25.82
1984	27.35	33.02	23.61	27.30	33.12	23.49	29.58	34.65	26.22
1985	26.93	32.66	23.11	26.75	32.74	22.77	30.49	34.10	28.04
1986	26.16	32.05	22.31	26.00	32.01	22.07	29.82	35.36	26.35
1987	25.89	31.91	21.95	25.68	31.85	21.63	29.85	35.10	26.48
1988	25.28	31.08	21.46	25.08	31.04	21.16	29.18	34.29	25.88
1989	25.01	30.80	21.16	24.70	30.52	20.82	30.05	36.37	26.07
1990	24.65	30.77	20.64	24.25	30.43	20.18	30.77	37.64	26.59
1991	24.01	29.64	20.30	23.63	29.35	19.85	30.02	35.80	26.50
1992	23.62	29.32	19.85	23.25	28.99	19.42	29.47	36.23	25.43
1993	23.31	28.56	19.77	22.88	28.18	19.28	29.77	35.84	26.04
1994	22.92	28.28	19.28	22.50	27.89	18.84	29.04	35.66	24.88
1995	22.59	27.65	19.14	22.11	27.16	18.64	29.54	36.30	25.47
1996	21.86	26.71	18.51	21.39	26.29	17.98	28.59	34.52	24.86
1997	21.47	26.23	18.11	20.95	25.68	17.59	28.84	35.07	24.80
1998	21.19	25.62	18.03	20.68	25.13	17.48	28.31	33.90	24.78
1999	20.93	25.48	17.75	20.43	24.99	17.20	28.51	34.50	24.70
2000	20.67	25.08	17.50	20.16	24.46	17.02	28.15	34.98	23.88
2001	20.16	24.37	17.12	19.61	23.83	16.52	27.75	33.39	24.26
2002	19.76	24.01	16.63	19.24	23.39	16.13	27.08	33.73	22.96
2003	19.15	23.18	16.19	18.61	22.62	15.62	26.64	32.49	22.92
2004	18.10	21.81	15.34	17.61	21.28	14.85	25.01	30.64	21.41
2005	17.56	21.22	14.83	17.00	20.60	14.27	25.13	30.87	21.45
2006	17.28	20.70	14.73	16.77	20.04	14.27	24.43	31.28	20.30
2007	16.91	20.23	14.36	16.43	19.66	13.90	23.56	29.29	19.87
2008	16.46	19.64	13.98	15.96	18.99	13.54	22.84	28.73	18.95
2009	15.81	19.06	13.28	15.37	18.57	12.84	21.89	26.98	18.54
2010	15.51	18.75	12.99	15.04	18.15	12.57	21.50	27.45	17.62
2011	15.11	18.07	12.77	14.64	17.51	12.33	21.09	26.16	17.71
2012	14.69	17.59	12.37	14.30	17.05	12.05	19.89	25.43	16.18
2013	14.47	17.36	12.13	14.14	16.88	11.88	19.30	24.64	15.69
2014	14.11	16.86	11.89	13.82	16.43	11.67	18.53	23.14	15.30
2015	13.99	16.65	11.84	13.67	16.23	11.55	18.64	23.14	15.53

^a Individual rates for years of death 1975-1979 available in web browser version of [Cancer Statistics Review](#).
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).
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 6.10
Cancer of the Colon and Rectum (Invasive)
SEER Incidence^a and U.S. Death^b Rates, Age-Adjusted and Age-Specific Rates, by Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER Incidence</u>									
<u>Age at Diagnosis</u>									
Age-Adjusted Rates, 2011-2015									
All ages	39.4	45.2	34.5	38.8	44.4	34.0	47.6	55.5	41.9
Under 65	18.2	20.6	16.0	17.6	19.9	15.4	22.9	25.7	20.5
65 and over	185.7	215.5	162.7	184.9	213.6	162.4	218.3	261.3	189.9
All ages (WHO world std) ^c	28.7	33.0	25.0	28.1	32.1	24.5	35.3	41.1	31.0
Age-Specific Rates, 2011-2015									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	0.1	-	-	0.1	-	-	-	-	-
10-14	0.3	0.2	0.3	0.3	0.3	0.4	-	-	-
15-19	0.7	0.6	0.8	0.8	0.6	0.9	0.5	-	-
20-24	1.3	1.3	1.4	1.5	1.5	1.5	0.9	0.7	1.0
25-29	2.8	2.9	2.8	2.9	2.9	2.9	2.6	2.6	2.6
30-34	5.4	5.2	5.6	5.5	5.3	5.8	5.4	5.1	5.7
35-39	10.0	10.4	9.6	10.1	10.7	9.6	10.5	10.1	10.8
40-44	18.0	18.8	17.2	18.1	19.0	17.1	19.5	19.8	19.3
45-49	31.9	34.3	29.5	31.1	33.4	28.8	38.8	41.5	36.4
50-54	59.3	66.7	52.2	56.2	63.5	48.9	75.5	82.1	69.6
55-59	68.8	81.4	56.9	65.5	77.1	54.1	93.4	110.8	78.3
60-64	91.9	111.4	74.0	87.4	105.3	70.6	124.9	151.6	103.0
65-69	125.4	151.0	102.5	120.1	143.9	98.4	170.6	210.4	139.7
70-74	159.2	188.6	134.4	156.1	184.6	131.5	203.5	243.3	174.6
75-79	201.8	232.4	178.0	202.8	232.6	179.2	236.2	276.2	209.8
80-84	250.5	284.7	226.8	254.4	286.0	232.1	268.5	338.8	228.9
85+	270.9	304.3	253.5	276.0	310.9	257.8	265.0	295.6	252.1
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2011-2015									
All ages	14.5	17.3	12.2	14.1	16.8	11.9	19.4	24.4	16.1
Under 65	4.9	5.8	4.0	4.6	5.5	3.8	7.1	8.6	5.9
65 and over	80.8	96.7	68.9	79.5	94.7	68.0	104.4	133.6	86.3
All ages (WHO world std) ^c	9.7	11.7	8.1	9.4	11.3	7.8	13.5	16.9	11.0
Age-Specific Rates, 2011-2015									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	0.0	0.0	-	0.0	-	-	-	-	-
20-24	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
25-29	0.4	0.5	0.4	0.4	0.5	0.4	0.5	0.5	0.5
30-34	1.1	1.2	1.0	1.1	1.2	0.9	1.6	1.5	1.6
35-39	2.3	2.5	2.0	2.2	2.5	1.9	3.0	3.5	2.6
40-44	4.3	4.8	3.8	4.2	4.7	3.7	5.7	6.3	5.1
45-49	8.2	9.3	7.0	7.8	8.9	6.8	11.5	13.5	9.7
50-54	13.9	16.4	11.6	13.2	15.6	10.9	20.6	24.3	17.3
55-59	20.4	25.0	16.1	19.3	23.7	15.1	30.8	37.9	24.7
60-64	29.3	36.5	22.7	27.8	34.5	21.4	45.4	57.7	35.3
65-69	40.1	49.7	31.5	38.4	47.3	30.3	61.9	80.6	47.4
70-74	56.8	70.2	45.3	55.2	68.0	44.0	81.0	105.9	63.1
75-79	81.1	98.5	67.3	80.0	96.7	66.5	105.3	135.6	85.6
80-84	114.1	135.5	99.1	112.6	133.2	98.0	143.6	185.5	120.5
85+	181.0	206.7	167.8	181.3	206.2	168.4	199.9	244.6	181.6

^a SEER 18 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 world (WHO 2000-2025) standard million.

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

Table 6.11
Cancer of the Colon (Invasive) and Cancer of the Rectum (Invasive)
SEER Incidence^a Rates, Age-Adjusted and Age-Specific Rates, by Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>Cancer of the Colon</u>									
<u>Age at Diagnosis</u>									
Age-Adjusted Rates, 2011-2015									
All ages	27.7	30.7	25.3	27.3	30.1	24.9	35.4	40.2	32.0
Under 65	11.2	12.3	10.3	10.8	11.8	9.8	15.6	17.0	14.4
65 and over	141.7	157.8	129.3	141.5	156.8	129.5	172.5	200.6	153.7
All ages (WHO world std) ^b	19.7	21.8	17.8	19.2	21.3	17.5	25.8	29.3	23.3
Age-Specific Rates, 2011-2015									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	0.1	-	-	0.1	-	-	-	-	-
10-14	0.3	0.2	0.3	0.3	0.3	0.4	-	-	-
15-19	0.6	0.5	0.7	0.7	0.5	0.8	-	-	-
20-24	1.0	0.9	1.0	1.1	1.0	1.1	0.6	-	0.8
25-29	1.9	1.9	1.9	2.0	1.9	2.1	1.8	1.9	1.6
30-34	3.3	3.2	3.5	3.5	3.3	3.6	3.3	3.1	3.6
35-39	6.0	6.1	5.9	6.0	6.3	5.8	7.0	6.5	7.5
40-44	10.9	10.9	10.8	10.7	10.9	10.6	13.7	13.7	13.7
45-49	18.9	19.6	18.3	18.1	18.9	17.4	26.2	27.0	25.4
50-54	34.7	38.0	31.5	32.9	36.2	29.6	48.0	52.0	44.5
55-59	42.6	48.7	36.9	40.3	46.0	34.8	63.4	73.3	54.8
60-64	60.5	70.4	51.5	57.0	66.2	48.3	90.9	104.2	80.0
65-69	87.3	102.0	74.3	83.3	96.3	71.5	128.0	156.7	105.7
70-74	118.7	134.9	105.1	116.5	132.2	103.0	159.3	184.7	140.8
75-79	155.0	171.1	142.4	155.7	171.2	143.5	190.6	217.0	173.3
80-84	198.8	215.8	187.0	203.5	218.5	192.9	212.2	257.2	186.8
85+	220.5	238.5	211.1	225.2	244.9	214.9	220.3	236.4	213.6
<u>Cancer of the Rectum</u>									
<u>Age at Diagnosis</u>									
Age-Adjusted Rates, 2011-2015									
All ages	11.7	14.6	9.2	11.5	14.2	9.1	12.2	15.3	9.9
Under 65	7.0	8.3	5.7	6.8	8.1	5.6	7.3	8.7	6.1
65 and over	44.0	57.7	33.4	43.4	56.8	32.9	45.8	60.7	36.2
All ages (WHO world std) ^b	9.0	11.2	7.1	8.8	10.9	7.0	9.5	11.8	7.7
Age-Specific Rates, 2011-2015									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	0.1	-	-	0.1	-	-	-	-	-
20-24	0.4	0.4	0.3	0.4	0.4	0.4	-	-	-
25-29	0.9	1.0	0.8	0.9	1.0	0.8	0.8	-	0.9
30-34	2.1	2.1	2.2	2.1	2.0	2.1	2.1	2.0	2.2
35-39	4.0	4.3	3.6	4.1	4.4	3.8	3.4	3.6	3.3
40-44	7.1	7.9	6.3	7.3	8.1	6.5	5.8	6.1	5.6
45-49	13.0	14.7	11.3	13.0	14.5	11.4	12.6	14.5	11.0
50-54	24.6	28.7	20.7	23.3	27.3	19.3	27.4	30.1	25.0
55-59	26.2	32.7	20.1	25.1	31.1	19.3	30.0	37.5	23.4
60-64	31.4	41.0	22.5	30.5	39.2	22.3	34.0	47.5	23.0
65-69	38.0	49.1	28.2	36.8	47.6	26.9	42.6	53.6	34.0
70-74	40.5	53.7	29.4	39.6	52.4	28.5	44.2	58.6	33.8
75-79	46.8	61.3	35.6	47.1	61.4	35.7	45.6	59.2	36.6
80-84	51.7	68.9	39.8	50.9	67.6	39.2	56.3	81.6	42.1
85+	50.4	65.8	42.3	50.9	66.0	42.9	44.7	59.3	38.5

^a SEER 18 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 Rates are per 100,000 and are age-adjusted to the world (WHO 2000-2025) standard million.

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

Table 6.12
Cancer of the Colon and Rectum (Invasive)

5-Year Relative and Period Survival (Percent) by Race, Sex, Diagnosis Year, Stage and Age

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
5-Year Relative Survival (Percent)									
Year of Diagnosis:									
1960-1963 ^a	-	-	-	-	-	-	-	-	-
1970-1973 ^a	-	-	-	-	-	-	-	-	-
1975-1977 ^b	49.8	49.0	50.6	50.1	49.4	50.8	44.7	43.4	45.9
1978-1980 ^b	51.2	50.2	52.2	51.6	50.6	52.5	45.4	43.4	46.9
1981-1983 ^b	54.0	53.8	54.2	54.4	54.4	54.3	46.5	42.9	49.5
1984-1986 ^b	57.7	57.7	57.6	58.4	58.5	58.3	48.4	47.5	49.0
1987-1989 ^b	59.6	59.8	59.3	60.1	60.6	59.5	52.3	49.9	54.5
1990-1992 ^b	61.2	61.0	61.3	61.9	61.7	62.1	52.9	54.4	51.5
1993-1995 ^b	59.9	59.8	60.0	60.5	60.3	60.6	51.8	51.3	52.1
1996-1998 ^b	62.4	62.4	62.5	63.0	62.8	63.2	54.0	55.2	53.0
1999-2001 ^b	65.1	66.1	64.1	66.6	67.4	65.7	54.2	55.7	53.0
2002-2004 ^b	65.8	65.8	65.9	66.8	67.1	66.4	56.6	55.5	57.5
2005-2007 ^b	66.4	66.4	66.4	67.3	67.7	66.9	58.9	55.8	61.5
2008-2014 ^b	66.2 ^f	66.1 ^f	66.4 ^f	67.0 ^f	67.0 ^f	67.0 ^f	58.3 ^f	57.1 ^f	59.4 ^f
5-Year Period Survival (Percent)^{cd}									
2014	64.2	63.5	64.8	64.6	64.0	65.2	57.9	55.7	60.0
Stage Distribution (%) 2008-2014^{ce}									
All Stages									
Number of cases	207,848	107,821	100,027	160,564	83,895	76,669	25,697	12,518	13,179
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	39	39	39	39	39	39	38	37	38
Regional	35	35	35	36	36	36	32	32	32
Distant	21	22	21	21	21	21	26	27	25
Unstaged/Unknown	4	4	5	4	4	5	5	4	5
5-Year Relative Survival (Percent), 2008-2014^c									
Age at Diagnosis:									
Ages <45	68.7	66.4	71.2	69.9	67.6	72.4	61.8	57.6	65.4
Ages 45-54	70.9	69.2	73.0	71.6	69.9	73.7	63.8	60.4	67.5
Ages 55-64	67.3	66.2	68.8	68.1	67.0	69.6	60.2	58.4	62.4
Ages 65-74	67.1	66.0	68.4	67.5	66.7	68.5	59.3	55.2	63.3
Ages 75+	55.5	55.1	55.7	56.7	56.1	57.2	44.7	42.4	45.9
Ages <65	68.8	67.3	70.7	69.6	68.1	71.5	61.8	59.0	64.8
Ages 65+	60.7	60.8	60.6	61.4	61.4	61.3	52.6	50.3	54.3
Stage^e:									
All Stages	64.5	64.1	64.9	65.0	64.7	65.4	57.8	55.7	59.8
Localized	89.8	89.1	90.6	90.0	89.2	90.9	86.4	84.8	87.9
Regional	71.1	70.9	71.3	71.8	71.8	71.7	65.2	62.6	67.6
Distant	13.8	12.8	14.9	14.3	13.4	15.4	10.4	9.5	11.3
Unstaged/Unknown	35.0	38.4	31.9	31.8	35.1	28.8	37.7	38.9	36.6

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

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

Based on follow-up of patients into 2015. [Expected survival rates](#) are derived from the U.S. Annual Life Tables.

^c SEER 18 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, New Jersey and Georgia excluding ATL/RG). Expected survival rates are derived from life tables by socio-economic status, geography and race developed by the SEER program.

Based on follow-up of patients into 2015.

^d Period survival provides a 2014 estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2010-2012: 0-1 year survival), (2009-2011: 1-2 year survival), (2008-2010: 2-3 year survival), (2007-2009: 3-4 year survival), (2006-2008: 4-5 years survival).

^e Stage at diagnosis is classified using SEER Summary Stage 2000. Stage distribution percentages may not sum to 100 due to rounding.

^f The difference between 1975-1977 and 2008-2014 is statistically significant ($p < .05$).

^g The standard error is between 5 and 10 percentage points.

^h The standard error is greater than 10 percentage points.

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

Table 6.13
Cancer of the Colon (Invasive)

5-Year Relative and Period Survival (Percent) by Race, Sex, Diagnosis Year, Stage and Age

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
5-Year Relative Survival (Percent)									
Year of Diagnosis:									
1960-1963 ^a	-	-	-	43	42	44	34	32	35
1970-1973 ^a	-	-	-	49	47	50	37	36	38
1975-1977 ^b	50.6	50.1	51.1	50.9	50.5	51.3	44.8	44.1	45.3
1978-1980 ^b	52.3	51.3	53.2	52.5	51.3	53.4	48.9	47.5	49.8
1981-1983 ^b	55.2	55.6	54.8	55.4	56.2	54.8	48.5	44.7	51.5
1984-1986 ^b	58.3	58.8	57.8	59.0	59.6	58.5	49.2	49.0	49.3
1987-1989 ^b	60.2	60.8	59.7	60.7	61.4	59.9	52.4	50.7	53.8
1990-1992 ^b	62.0	62.3	61.7	62.8	63.1	62.4	53.4	54.6	52.4
1993-1995 ^b	59.8	60.2	59.5	60.5	60.7	60.3	51.2	51.2	51.0
1996-1998 ^b	62.1	62.4	61.9	62.9	62.9	62.8	53.7	55.9	51.9
1999-2001 ^b	64.9	66.2	63.7	66.6	67.9	65.5	52.6	54.0	51.6
2002-2004 ^b	64.8	64.7	64.9	65.7	65.8	65.7	55.6	55.0	56.0
2005-2007 ^b	65.8	66.0	65.6	67.1	67.7	66.5	57.1	54.6	59.0
2008-2014 ^b	65.1 ^f	65.4 ^f	64.8 ^f	66.3 ^f	66.6 ^f	66.1 ^f	55.3 ^f	55.8 ^f	54.8 ^f
5-Year Period Survival (Percent)^{cd}									
2014	63.0	62.8	63.2	63.8	63.6	64.1	56.0	55.1	56.8
Stage Distribution (%) 2008-2014^{ce}									
All Stages									
Number of cases	144,128	71,272	72,856	111,670	55,630	56,040	18,725	8,782	9,943
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	38	38	37	38	39	38	35	35	35
Regional	36	35	36	36	36	36	34	33	34
Distant	23	23	22	22	22	22	27	28	27
Unstaged/Unknown	4	4	4	4	3	4	4	4	4
5-Year Relative Survival (Percent), 2008-2014^c									
Age at Diagnosis:									
Ages <45	67.5	65.2	69.7	69.4	67.2	71.7	59.2	55.5	62.1
Ages 45-54	68.3	67.6	69.2	69.6	68.8	70.6	60.2	58.5	61.9
Ages 55-64	66.1	65.8	66.4	67.2	66.7	67.7	58.2	58.0	58.3
Ages 65-74	67.1	66.3	68.1	67.8	67.0	68.6	59.2	56.0	62.1
Ages 75+	56.7	56.3	56.9	58.2	57.6	58.6	45.5	43.5	46.5
Ages <65	67.0	66.3	67.9	68.3	67.5	69.3	59.0	57.9	60.1
Ages 65+	61.1	61.2	61.0	62.1	62.1	62.0	52.7	51.0	53.9
Stage^e:									
All Stages	63.6	63.6	63.6	64.5	64.4	64.5	56.0	55.0	56.9
Localized	90.4	89.8	91.1	90.8	89.9	91.7	86.3	85.5	87.0
Regional	71.4	71.5	71.2	72.0	72.4	71.7	66.3	64.8	67.6
Distant	13.5	12.7	14.3	14.1	13.3	14.8	9.9	9.3	10.5
Unstaged/Unknown	26.2	31.3	22.1	24.4	29.2	20.5	28.0	32.2	24.2

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

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

Based on follow-up of patients into 2015. [Expected survival rates](#) are derived from the U.S. Annual Life Tables.

^c SEER 18 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, New Jersey and Georgia excluding ATL/RG). Expected survival rates are derived from life tables by socio-economic status, geography and race developed by the SEER program.

Based on follow-up of patients into 2015.

^d Period survival provides a 2014 estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2010-2012: 0-1 year survival), (2009-2011: 1-2 year survival), (2008-2010: 2-3 year survival), (2007-2009: 3-4 year survival), (2006-2008: 4-5 years survival).

^e Stage at diagnosis is classified using SEER Summary Stage 2000. Stage distribution percentages may not sum to 100 due to rounding.

^f The difference between 1975-1977 and 2008-2014 is statistically significant ($p < .05$).

^g The standard error is between 5 and 10 percentage points.

^h The standard error is greater than 10 percentage points.

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

Table 6.14
Cancer of the Rectum (Invasive)

5-Year Relative and Period Survival (Percent) by Race, Sex, Diagnosis Year, Stage and Age

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
5-Year Relative Survival (Percent)									
Year of Diagnosis:									
1960-1963 ^a	-	-	-	38	36	41	27	28	27
1970-1973 ^a	-	-	-	45	43	48	30	20	40
1975-1977 ^b	48.1	47.0	49.5	48.3	47.4	49.4	44.4	41.4	46.8
1978-1980 ^b	48.9	48.4	49.5	49.7	49.3	50.2	34.8	33.5	35.8
1981-1983 ^b	51.4	50.2	52.8	52.0	51.0	53.2	40.3	38.1	42.5
1984-1986 ^b	56.3	55.6	57.1	57.0	56.4	57.7	45.9	43.4	48.2
1987-1989 ^b	58.1	57.9	58.4	58.7	58.9	58.4	52.3	47.7	56.9
1990-1992 ^b	59.2	58.4	60.2	59.9	59.0	61.1	51.2	53.7	48.5
1993-1995 ^b	60.1	59.0	61.5	60.6	59.5	61.9	53.8	51.4	56.4
1996-1998 ^b	63.2	62.4	64.3	63.5	62.9	64.4	55.0	53.6	56.2
1999-2001 ^b	65.9	66.1	65.5	66.5	66.5	66.4	59.3	60.3	58.1
2002-2004 ^b	68.4	68.1	68.7	69.4	70.0	68.6	59.8	56.8	62.6
2005-2007 ^b	67.9	67.3	68.7	68.1	67.9	68.3	64.0	58.9	68.6
2008-2014 ^b	68.8 ^f	67.5 ^f	70.6 ^f	68.6 ^f	67.9 ^f	69.7 ^f	65.9 ^f	59.8 ^f	73.0 ^f
5-Year Period Survival (Percent)^{cd}									
2014	66.7	64.9	69.0	66.3	64.9	68.2	63.1	57.3	69.8
Stage Distribution (%) 2008-2014^{ce}									
All Stages									
Number of cases	63,720	36,549	27,171	48,894	28,265	20,629	6,972	3,736	3,236
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	42	41	44	41	40	42	46	43	50
Regional	34	35	33	35	36	34	27	29	25
Distant	19	19	18	19	19	18	20	23	18
Unstaged/Unknown	5	5	6	5	4	5	7	6	7
5-Year Relative Survival (Percent), 2008-2014^c									
Age at Diagnosis:									
Ages <45	70.6	67.9	73.7	70.6	68.2	73.5	66.9	60.9	73.1
Ages 45-54	74.6	71.4	79.0	74.4	71.5	78.5	70.6	63.7	79.1
Ages 55-64	69.5	66.9	74.0	69.7	67.4	73.5	65.2	59.0	73.9
Ages 65-74	66.9	65.4	69.1	66.7	65.8	68.1	59.8	52.5	68.0
Ages 75+	50.9	51.1	50.6	51.1	51.1	51.1	41.2	37.8	42.8
Ages <65	71.6	68.7	76.0	71.6	69.0	75.5	67.6	61.1	76.0
Ages 65+	59.5	59.6	59.3	59.3	59.7	58.8	52.1	47.7	55.8
Stage^e:									
All Stages	66.6	65.2	68.6	66.3	65.3	67.8	62.6	57.3	68.7
Localized	88.7	87.9	89.6	88.3	87.7	89.0	86.7	83.5	89.5
Regional	70.4	69.8	71.3	71.1	70.7	71.7	61.3	56.3	67.3
Distant	14.7	13.1	17.0	15.0	13.6	17.1	12.3	10.2	15.4
Unstaged/Unknown	49.6	48.4	51.0	45.1	43.9	46.4	52.9	48.6	56.4

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

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

Based on follow-up of patients into 2015. [Expected survival rates](#) are derived from the U.S. Annual Life Tables.

^c SEER 18 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, New Jersey and Georgia excluding ATL/RG). Expected survival rates are derived from life tables by socio-economic status, geography and race developed by the SEER program.

Based on follow-up of patients into 2015.

^d Period survival provides a 2014 estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2010-2012: 0-1 year survival), (2009-2011: 1-2 year survival), (2008-2010: 2-3 year survival), (2007-2009: 3-4 year survival), (2006-2008: 4-5 years survival).

^e Stage at diagnosis is classified using SEER Summary Stage 2000. Stage distribution percentages may not sum to 100 due to rounding.

^f The difference between 1975-1977 and 2008-2014 is statistically significant ($p < .05$).

^g The standard error is between 5 and 10 percentage points.

^h The standard error is greater than 10 percentage points.

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

Table 6.15
Cancer of the Colon and Rectum (Invasive)

SEER^a Relative Survival (Percent)
By Year of Diagnosis

All Races, Males and Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Survival Time																								
1-year	74.0	77.1	80.0	80.9	79.5	81.3	80.3	82.0	82.3	81.9	83.1	83.3	82.4	83.5	84.0	83.6	84.0	84.7	84.3	84.2	83.7	84.1	84.0	84.4
2-year	63.0	66.8	71.1	72.4	71.3	73.3	72.4	74.5	74.5	74.5	75.6	76.8	75.8	76.6	77.0	77.1	77.2	78.3	77.4	77.3	76.7	76.4	77.4	
3-year	56.8	60.5	65.7	67.2	65.8	68.6	67.3	69.4	70.0	70.3	71.1	72.2	70.8	71.6	72.5	72.1	72.4	73.3	72.4	72.1	71.8	71.4		
4-year	53.0	56.4	61.9	63.3	62.0	65.0	64.2	66.3	66.9	67.0	68.2	69.0	67.7	68.3	68.9	68.4	69.1	70.0	68.9	68.7	68.2			
5-year	50.4	53.7	59.3	60.7	59.7	62.5	61.5	63.3	64.5	64.8	66.1	66.3	65.4	65.8	66.2	66.2	66.7	67.4	66.5	66.2				
6-year	48.6	51.8	57.6	59.0	57.3	61.3	59.8	61.4	63.0	63.1	64.1	64.5	63.5	63.9	64.6	64.6	64.7	65.5	64.6					
7-year	47.4	50.3	56.0	57.4	55.5	60.2	58.8	60.1	61.9	61.7	62.2	63.0	62.2	62.8	62.9	62.9	63.3	63.7						
8-year	46.4	49.3	55.0	56.2	54.9	59.4	58.0	59.3	60.6	60.3	61.3	62.0	61.4	61.8	61.8	61.7	62.0							
9-year	45.8	48.4	54.1	55.4	54.6	58.7	57.2	58.0	59.8	59.6	60.4	60.8	60.2	60.9	61.2	60.7								
10-year	45.1	47.8	53.3	54.6	53.9	58.1	56.4	57.3	59.2	59.0	59.7	60.4	59.0	60.0	60.3									
11-year	44.5	47.2	52.8	54.1	53.0	57.5	55.6	56.4	58.5	58.1	59.2	59.7	58.2	58.8										
12-year	44.1	46.7	52.4	53.5	52.3	57.4	55.2	56.2	57.9	57.6	58.3	58.7	57.8											
13-year	43.7	46.4	51.7	53.0	51.7	56.8	55.0	55.7	57.6	57.1	57.6	58.3												
14-year	43.2	45.9	51.4	52.6	51.1	55.9	54.1	55.5	56.9	56.7	57.0													
15-year	42.8	45.6	50.9	52.2	50.5	55.4	53.4	55.4	56.5	56.5														
16-year	42.4	45.2	50.6	52.2	50.0	54.9	52.6	55.1	55.4															
17-year	42.0	44.7	50.1	51.6	49.5	53.8	52.2	54.6																
18-year	41.5	44.4	49.7	51.1	48.8	53.7	51.5																	
19-year	41.5	43.9	49.4	50.5	48.0	53.1																		
20-year	41.3	43.7	49.0	49.8	47.2																			
21-year	40.9	42.9	49.0	49.3																				
22-year	40.6	42.5	48.8																					
23-year	40.1	42.3	48.3																					
24-year	39.8	41.9	47.7																					
25-year	39.5	41.4	47.4																					
26-year	39.0	40.9	46.7																					
27-year	38.5	40.6																						
28-year	38.4	40.0																						
29-year	38.0	40.0																						
30-year	37.5	39.5																						

^a Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). [Expected survival rates](#) are derived from the U.S. Annual Life Tables.

Table 6.16
Cancer of the Colon and Rectum (Invasive)

SEER^a Relative Survival (Percent)
By Year of Diagnosis

All Races, Males

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Survival Time																								
1-year	74.0	78.0	81.0	81.7	81.0	82.6	81.3	82.1	83.4	83.6	85.1	83.2	83.2	84.5	84.6	84.7	85.4	86.3	85.6	85.5	84.1	84.8	84.4	85.4
2-year	63.0	67.2	72.4	73.3	72.6	75.0	73.6	74.4	75.2	76.3	77.4	76.6	76.3	77.9	77.9	78.2	78.4	79.3	78.6	78.4	77.1	77.1	77.5	
3-year	56.3	60.6	66.7	67.9	66.9	69.7	68.3	68.8	70.5	72.0	72.8	72.0	71.1	72.5	73.1	72.9	73.4	74.0	73.4	73.0	71.3	71.6		
4-year	52.1	56.2	62.4	63.5	63.1	65.3	65.2	65.4	67.5	69.0	69.9	68.7	67.9	69.1	68.8	68.8	69.6	70.3	69.4	68.8	68.0			
5-year	49.4	53.3	59.7	60.5	60.0	62.4	62.3	62.4	64.9	66.1	67.3	65.7	65.4	66.2	65.8	66.5	66.8	67.7	66.7	66.1				
6-year	47.2	51.2	57.8	58.6	57.3	61.0	60.3	60.1	63.7	63.8	65.0	63.5	62.9	64.2	63.7	64.7	64.4	65.5	64.8					
7-year	45.9	49.5	56.3	56.8	55.7	59.8	59.6	58.7	62.5	62.0	63.1	61.7	61.5	62.6	61.6	63.0	62.8	63.7						
8-year	44.8	48.4	55.3	55.4	55.1	59.4	58.3	57.4	61.1	60.1	62.4	60.4	60.3	61.5	60.5	61.6	61.5							
9-year	44.1	47.5	54.3	54.5	54.6	58.9	57.4	56.2	60.0	59.8	61.5	59.4	59.0	60.8	59.8	60.4								
10-year	43.3	46.7	53.6	53.6	53.9	58.0	56.7	55.5	59.1	58.7	60.5	59.2	57.7	59.8	59.1									
11-year	42.8	46.1	53.1	53.1	53.1	57.3	55.8	54.5	58.5	57.9	59.7	58.4	56.7	58.7										
12-year	42.1	45.7	52.6	52.7	52.2	57.0	55.6	54.0	57.8	57.2	59.1	57.2	56.1											
13-year	41.7	45.4	51.9	51.9	51.7	56.6	55.3	53.5	57.2	56.9	58.3	56.9												
14-year	41.0	44.7	51.8	51.4	50.7	55.7	54.5	53.1	56.2	56.4	57.8													
15-year	40.8	44.6	51.2	50.9	49.8	55.5	54.3	53.0	56.0	56.0														
16-year	40.3	44.3	51.1	50.9	49.2	55.2	53.1	52.8	54.7															
17-year	39.7	43.7	50.6	50.5	48.9	54.2	52.0	52.1																
18-year	39.4	43.4	50.2	49.9	47.9	54.2	51.1																	
19-year	39.3	42.9	49.9	49.6	47.2	54.1																		
20-year	39.2	42.6	49.5	49.1	45.7																			
21-year	39.0	41.8	49.4	48.6																				
22-year	38.5	41.2	49.4																					
23-year	38.1	40.9	48.8																					
24-year	37.7	40.4	48.0																					
25-year	37.3	40.1	47.6																					
26-year	36.4	39.4	46.8																					
27-year	35.9	38.9																						
28-year	35.7	38.5																						
29-year	35.4	38.4																						
30-year	34.4	37.6																						

^a Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). [Expected survival rates](#) are derived from the U.S. Annual Life Tables.

Table 6.17
Cancer of the Colon and Rectum (Invasive)

SEER^a Relative Survival (Percent)
By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Survival Time																								
1-year	73.9	76.3	78.9	80.0	78.0	79.9	79.3	82.0	81.2	80.2	81.0	83.4	81.7	82.5	83.4	82.5	82.5	83.1	83.0	82.9	83.3	83.4	83.6	83.3
2-year	63.0	66.4	69.8	71.6	70.0	71.6	71.1	74.6	73.9	72.5	73.7	77.1	75.3	75.3	76.0	76.0	75.9	77.3	76.1	76.1	76.4	75.7	77.2	
3-year	57.4	60.3	64.6	66.4	64.6	67.4	66.2	70.0	69.5	68.5	69.3	72.4	70.5	70.6	71.9	71.3	71.3	72.6	71.4	71.2	72.2	71.1		
4-year	53.8	56.6	61.2	63.0	60.8	64.7	63.1	67.2	66.2	64.9	66.5	69.3	67.6	67.5	68.9	68.1	68.6	69.8	68.4	68.6	68.4			
5-year	51.4	54.1	58.9	60.9	59.4	62.7	60.6	64.1	64.1	63.5	64.7	66.9	65.3	65.3	66.7	65.9	66.6	67.2	66.2	66.2				
6-year	49.8	52.3	57.2	59.5	57.3	61.5	59.2	62.7	62.4	62.4	63.2	65.5	64.2	63.5	65.4	64.6	64.9	65.5	64.3					
7-year	48.7	51.0	55.7	58.1	55.4	60.6	57.9	61.4	61.3	61.4	61.3	64.3	62.8	63.0	64.3	62.8	63.7	63.7						
8-year	47.9	50.1	54.6	57.1	54.7	59.4	57.6	61.0	60.1	60.4	60.1	63.7	62.5	62.1	63.2	61.7	62.4							
9-year	47.3	49.3	53.9	56.3	54.5	58.5	57.0	59.9	59.5	59.4	59.2	62.2	61.4	61.1	62.7	61.0								
10-year	46.7	48.7	53.1	55.6	53.8	58.0	56.0	59.1	59.3	59.3	58.8	61.6	60.5	60.3	61.5									
11-year	46.1	48.2	52.5	55.0	53.0	57.7	55.3	58.3	58.4	58.3	58.6	61.0	59.9	59.0										
12-year	45.9	47.7	52.3	54.4	52.4	57.6	54.7	58.3	58.0	57.8	57.3	60.2	59.6											
13-year	45.5	47.4	51.4	54.1	51.6	56.9	54.4	57.9	58.0	57.2	56.9	59.7												
14-year	45.1	47.0	51.0	53.8	51.5	56.1	53.7	57.7	57.6	56.9	56.2													
15-year	44.6	46.6	50.5	53.5	51.3	55.2	52.4	57.7	56.9	56.9														
16-year	44.2	45.9	50.1	53.4	50.6	54.6	52.0	57.3	56.1															
17-year	44.0	45.6	49.5	52.7	50.0	53.4	52.0	57.0																
18-year	43.4	45.3	49.2	52.3	49.5	53.1	51.9																	
19-year	43.4	44.8	48.9	51.4	48.8	52.0																		
20-year	43.1	44.6	48.5	50.5	48.4																			
21-year	42.7	44.0	48.5	50.0																				
22-year	42.5	43.6	48.2																					
23-year	41.9	43.4	47.8																					
24-year	41.6	43.2	47.3																					
25-year	41.5	42.5	47.2																					
26-year	41.2	42.3	46.6																					
27-year	40.7	42.0																						
28-year	40.7	41.4																						
29-year	40.2	41.4																						
30-year	40.1	41.1																						

^a Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). [Expected survival rates](#) are derived from the U.S. Annual Life Tables.

Table 6.18
Cancer of the Colon and Rectum (Invasive)

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years,
Lifetime Risk of Being Diagnosed with Cancer Given Alive and Cancer-Free at Current Age, and
Lifetime Risk of Dying from Cancer Given Alive at Current Age
Both Sexes, 2013-2015 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever				+10 yrs	+20 yrs	+30 yrs	Ever	
All Races	0	0.00	0.01	0.03	4.23	1.79	Asian/ Pacific Islander	0	0.00	0.00	0.02	4.41	1.85
	10	0.01	0.03	0.11	4.28	1.81		10	0.00	0.02	0.08	4.44	1.86
	20	0.02	0.10	0.35	4.29	1.81		20	0.02	0.08	0.29	4.44	1.86
	30	0.08	0.33	0.92	4.30	1.83		30	0.07	0.28	0.81	4.45	1.87
	40	0.26	0.85	1.74	4.28	1.83		40	0.21	0.75	1.61	4.41	1.86
	50	0.61	1.53	2.73	4.13	1.82		50	0.54	1.42	2.51	4.25	1.84
	60	0.97	2.25	3.40	3.75	1.75		60	0.91	2.03	3.20	3.83	1.76
	70	1.46	2.76	-	3.15	1.62		70	1.21	2.46	-	3.14	1.64
White	80	1.75	-	-	2.28	1.40	American Indian/ Alaska Native ^a	80	1.50	-	-	2.31	1.45
	0	0.00	0.01	0.03	4.16	1.75		0	0.00	0.01	0.02	4.61	1.85
	10	0.01	0.03	0.11	4.20	1.77		10	0.01	0.02	0.10	4.66	1.87
	20	0.02	0.11	0.35	4.21	1.78		20	0.02	0.10	0.33	4.68	1.88
	30	0.08	0.33	0.89	4.22	1.79		30	0.08	0.32	0.86	4.74	1.91
	40	0.25	0.82	1.67	4.19	1.80		40	0.24	0.80	1.69	4.78	1.95
	50	0.58	1.46	2.66	4.05	1.78		50	0.58	1.51	3.05	4.74	1.97
	60	0.93	2.21	3.35	3.68	1.72		60	1.00	2.66	3.91	4.48	1.92
Black	70	1.44	2.75	-	3.12	1.60	Hispanic ^b	70	1.90	3.33	-	3.99	1.84
	80	1.77	-	-	2.27	1.38		80	1.95	-	-	2.85	1.60
	0	0.00	0.00	0.02	4.32	2.07		0	0.00	0.01	0.02	4.16	1.77
	10	0.00	0.02	0.10	4.41	2.11		10	0.01	0.02	0.08	4.20	1.78
	20	0.02	0.10	0.39	4.42	2.12		20	0.02	0.08	0.26	4.20	1.79
	30	0.08	0.37	1.11	4.46	2.14		30	0.06	0.25	0.76	4.21	1.80
	40	0.30	1.04	2.14	4.47	2.16		40	0.19	0.70	1.57	4.19	1.80
	50	0.78	1.92	3.17	4.34	2.15		50	0.53	1.41	2.54	4.08	1.79
	60	1.25	2.63	3.62	3.91	2.08		60	0.92	2.10	3.22	3.72	1.73
	70	1.66	2.86	-	3.22	1.92		70	1.31	2.54	-	3.09	1.60
	80	1.75	-	-	2.28	1.66		80	1.56	-	-	2.25	1.38

Devcan 6.7.6, April 2018, National Cancer Institute (<https://surveillance.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 18 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, New Jersey, and Georgia excluding ATL/RG). Mortality data are from the NCHS public use data file for the total US.

^a Underlying incidence and mortality data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

^b 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.

- Statistic could not be calculated.

A percent of 0.00 represents a value that is below 0.005.

Table 6.19
Cancer of the Colon and Rectum (Invasive)

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years,
Lifetime Risk of Being Diagnosed with Cancer Given Alive and Cancer-Free at Current Age, and
Lifetime Risk of Dying from Cancer Given Alive at Current Age
Males, 2013-2015 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever				+10 yrs	+20 yrs	+30 yrs	Ever	
All Races	0	0.00	0.01	0.03	4.42	1.87	Asian/ Pacific Islander	0	0.00	0.00	0.02	4.80	1.98
	10	0.01	0.03	0.11	4.47	1.90		10	0.00	0.02	0.09	4.83	2.00
	20	0.02	0.10	0.37	4.49	1.90		20	0.02	0.08	0.32	4.84	2.00
	30	0.08	0.35	1.01	4.52	1.92		30	0.07	0.30	0.95	4.85	2.01
	40	0.27	0.95	1.98	4.51	1.94		40	0.24	0.89	1.97	4.82	2.01
	50	0.70	1.76	3.08	4.38	1.93		50	0.66	1.76	3.02	4.66	1.99
	60	1.15	2.57	3.69	3.98	1.86		60	1.15	2.46	3.62	4.17	1.91
	70	1.66	2.97	-	3.32	1.72		70	1.44	2.72	-	3.32	1.74
White	80	1.87	-	-	2.36	1.47	American Indian/ Alaska Native ^a	80	1.60	-	-	2.35	1.52
	0	0.00	0.01	0.03	4.34	1.83		0	0.00	0.01	0.02	4.30	2.03
	10	0.01	0.03	0.11	4.38	1.85		10	0.01	0.02	0.10	4.36	2.06
	20	0.02	0.11	0.37	4.39	1.86		20	0.01	0.09	0.28	4.38	2.08
	30	0.08	0.35	0.98	4.42	1.88		30	0.08	0.28	0.82	4.46	2.13
	40	0.27	0.91	1.89	4.41	1.89		40	0.20	0.77	1.74	4.53	2.17
	50	0.66	1.68	2.98	4.28	1.88		50	0.60	1.62	3.14	4.57	2.22
	60	1.10	2.50	3.63	3.91	1.82		60	1.12	2.79	3.90	4.36	2.23
Black	70	1.64	2.96	-	3.29	1.68	Hispanic ^b	70	1.97	3.28	-	3.81	2.17
	80	1.89	-	-	2.36	1.44		80	1.90	-	-	2.67	1.85
	0	0.00	0.00	0.02	4.42	2.20		0	0.00	0.00	0.02	4.49	2.00
	10	0.00	0.02	0.10	4.52	2.25		10	0.00	0.02	0.08	4.54	2.02
	20	0.02	0.10	0.39	4.54	2.26		20	0.02	0.08	0.27	4.55	2.03
	30	0.08	0.38	1.21	4.61	2.30		30	0.06	0.25	0.82	4.58	2.04
	40	0.31	1.15	2.41	4.65	2.33		40	0.19	0.77	1.79	4.57	2.06
	50	0.89	2.21	3.53	4.56	2.33		50	0.59	1.63	2.95	4.49	2.05
	60	1.48	2.96	3.91	4.12	2.27		60	1.11	2.50	3.71	4.14	2.00
	70	1.90	3.11	-	3.38	2.12		70	1.58	2.95	-	3.44	1.85
	80	1.95	-	-	2.39	1.87		80	1.82	-	-	2.46	1.58

Devcan 6.7.6, April 2018, National Cancer Institute (<https://surveillance.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 18 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, New Jersey, and Georgia excluding ATL/RG). Mortality data are from the NCHS public use data file for the total US.

^a Underlying incidence and mortality data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

^b 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.

- Statistic could not be calculated.

A percent of 0.00 represents a value that is below 0.005.

Table 6.20
Cancer of the Colon and Rectum (Invasive)

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years,
Lifetime Risk of Being Diagnosed with Cancer Given Alive and Cancer-Free at Current Age, and
Lifetime Risk of Dying from Cancer Given Alive at Current Age
Females, 2013-2015 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever				+10 yrs	+20 yrs	+30 yrs	Ever	
All Races	0	0.00	0.01	0.03	4.06	1.71	Asian/ Pacific Islander	0	0.00	0.00	0.02	4.07	1.74
	10	0.01	0.03	0.11	4.10	1.73		10	0.00	0.02	0.08	4.10	1.75
	20	0.02	0.10	0.34	4.10	1.73		20	0.01	0.08	0.27	4.10	1.75
	30	0.08	0.32	0.83	4.10	1.74		30	0.06	0.25	0.69	4.10	1.75
	40	0.24	0.75	1.51	4.05	1.74		40	0.19	0.63	1.31	4.05	1.74
	50	0.53	1.30	2.40	3.90	1.72		50	0.44	1.13	2.07	3.90	1.72
	60	0.81	1.97	3.14	3.54	1.66		60	0.71	1.67	2.84	3.55	1.65
	70	1.28	2.58	-	3.01	1.55		70	1.02	2.26	-	3.00	1.56
White	80	1.66	-	-	2.23	1.36	American Indian/ Alaska Native ^a	80	1.43	-	-	2.29	1.41
	0	0.00	0.01	0.03	4.00	1.68		0	0.00	0.00	0.03	4.93	1.68
	10	0.01	0.03	0.11	4.03	1.69		10	0.00	0.03	0.11	4.97	1.70
	20	0.02	0.10	0.34	4.03	1.70		20	0.02	0.11	0.38	4.98	1.70
	30	0.08	0.31	0.80	4.03	1.70		30	0.09	0.36	0.90	5.01	1.71
	40	0.24	0.73	1.46	3.98	1.70		40	0.28	0.83	1.65	5.02	1.74
	50	0.50	1.25	2.34	3.82	1.68		50	0.57	1.41	2.97	4.90	1.75
	60	0.78	1.93	3.11	3.48	1.63		60	0.89	2.54	3.90	4.59	1.66
Black	70	1.27	2.57	-	2.99	1.52	Hispanic ^b	70	1.84	3.36	-	4.13	1.58
	80	1.68	-	-	2.22	1.34		80	1.99	-	-	2.99	1.43
	0	0.00	0.00	0.02	4.24	1.96		0	0.00	0.01	0.03	3.87	1.57
	10	0.00	0.02	0.11	4.32	2.00		10	0.01	0.03	0.09	3.90	1.59
	20	0.02	0.10	0.38	4.32	2.01		20	0.02	0.08	0.26	3.90	1.59
	30	0.09	0.37	1.02	4.33	2.01		30	0.06	0.24	0.70	3.90	1.59
	40	0.29	0.94	1.90	4.31	2.02		40	0.18	0.64	1.36	3.86	1.59
	50	0.68	1.67	2.86	4.15	2.00		50	0.47	1.20	2.17	3.73	1.57
	60	1.06	2.35	3.38	3.74	1.94		60	0.76	1.77	2.82	3.38	1.51
	70	1.49	2.69	-	3.11	1.79		70	1.09	2.23	-	2.82	1.40
	80	1.64	-	-	2.22	1.56		80	1.38	-	-	2.10	1.25

Devcan 6.7.6, April 2018, National Cancer Institute (<https://surveillance.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 18 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, New Jersey, and Georgia excluding ATL/RG). Mortality data are from the NCHS public use data file for the total US.

^a Underlying incidence and mortality data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

^b 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.

- Statistic could not be calculated.

A percent of 0.00 represents a value that is below 0.005.

Table 6.21
Cancer of the Colon and Rectum (Invasive)

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

SEER Incidence	SEER 18 Areas ^b Rate 2011-2015 Rate per 100,000 persons			SEER 13 Areas ^b Trend 2006-2015 ^c AAPC (%)			SEER 9 Areas ^b Trend 2006-2015 ^d AAPC (%)		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
	RACE/ETHNICITY								
All Races	39.4	45.2	34.5	-2.6*	-2.8*	-2.6*	-2.6*	-2.9*	-2.6*
White	38.8	44.4	34.0	-2.7*	-2.8*	-2.5*	-2.7*	-3.0*	-2.4*
White Hispanic ^e	34.7	41.2	29.5	-2.2*	-2.6*	-1.8*	-	-	-
White Non-Hispanic ^e	39.7	45.2	34.9	-2.6*	-2.8*	-2.5*	-	-	-
Black	47.6	55.5	41.9	-3.5*	-3.4*	-4.4*	-3.1*	-2.9*	-3.7*
Asian/Pacific Islander	33.0	39.3	28.0	-2.6*	-2.5*	-2.7*	-	-	-
Amer Ind/Alaska Nat ^f	41.8	45.1	39.2	-0.1	-0.2	-0.1	-	-	-
Hispanic ^e	33.5	39.7	28.6	-2.3*	-2.4*	-1.9*	-	-	-
<u>U.S. Mortality^g</u>									
	Rate 2011-2015 Rate per 100,000 persons			Trend 2006-2015 ^h AAPC (%)					
	Total	Males	Females	Total	Males	Females			
	RACE/ETHNICITY								
All Races	14.5	17.3	12.2	-2.4*	-2.5*	-2.5*			
White	14.1	16.8	11.9	-2.2*	-2.3*	-2.3*			
White Hispanic ^e	12.1	15.6	9.5	-1.6*	-1.3*	-2.1*			
White Non-Hispanic ^e	14.3	16.9	12.1	-2.2*	-2.5*	-2.2*			
Black	19.4	24.4	16.1	-3.0*	-2.8*	-3.3*			
Asian/Pacific Islander	10.1	12.1	8.6	-1.8*	-1.9*	-1.7*			
Amer Ind/Alaska Nat									
Total U.S.	11.6	14.1	9.7	-1.5*	-1.7*	-1.2*			
CHSDA Counties	16.5	20.2	13.6	-0.5	0.3	-0.4			
Non-CHSDA Counties	6.4	7.6	5.6	-2.2*	-3.1*	-1.9*			
Hispanic ^e	11.5	14.7	9.0	-1.8*	-1.6*	-2.3*			

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 4.6, February 2018, National Cancer Institute.

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

a 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).

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 18 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey, and Georgia excluding ATL/RG.

c The 2006-2015 AAPC estimates are based on a Joinpoint analysis with up to 4 Joinpoints over diagnosis years 1992-2015.

d The 2006-2015 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over diagnosis years 1975-2015.

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 2006-2015 Hispanic and Non-Hispanic mortality trends exclude deaths from New Hampshire and Oklahoma.

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 2006-2015 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2015.

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

Table 6.22
Cancer of the Colon (Invasive) and Cancer of the Rectum (Invasive)

SEER Incidence
Age-Adjusted Rates and Trends^a
By Race/Ethnicity and Sex

Cancer of the Colon SEER Incidence	SEER 18 Areas ^b Rate 2011-2015 Rate per 100,000 persons			SEER 13 Areas ^b Trend 2006-2015 ^c AAPC (%)			SEER 9 Areas ^b Trend 2006-2015 ^d AAPC (%)		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
	RACE/ETHNICITY								
All Races	27.7	30.7	25.3	-3.0*	-3.1*	-2.9*	-2.9*	-3.4*	-2.9*
White	27.3	30.1	24.9	-2.9*	-3.2*	-2.7*	-2.9*	-3.3*	-2.9*
White Hispanic ^e	23.9	27.3	21.3	-2.5*	-3.0*	-2.0*	-	-	-
White Non-Hispanic ^e	28.0	30.7	25.6	-2.9*	-3.1*	-2.9*	-	-	-
Black	35.4	40.2	32.0	-3.8*	-3.5*	-4.6*	-3.2*	-3.2*	-3.7*
Asian/Pacific Islander	21.6	24.3	19.4	-2.9*	-3.0*	-3.4*	-	-	-
Amer Ind/Alaska Nat ^f	28.9	29.8	28.3	-0.6	-0.9	-0.4	-	-	-
Hispanic ^e	23.1	26.3	20.7	-2.6*	-3.0*	-2.0*	-	-	-
Cancer of the Rectum SEER Incidence	SEER 18 Areas ^b Rate 2011-2015 Rate per 100,000 persons			SEER 13 Areas ^b Trend 2006-2015 ^c AAPC (%)			SEER 9 Areas ^b Trend 2006-2015 ^d AAPC (%)		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
	RACE/ETHNICITY								
All Races	11.7	14.6	9.2	-2.1*	-2.2*	-2.0*	-2.2*	-2.4*	-2.0*
White	11.5	14.2	9.1	-1.8*	-2.6*	-1.9*	-2.5*	-2.7*	-2.3*
White Hispanic ^e	10.7	13.9	8.1	-0.9*	-1.2*	-0.7*	-	-	-
White Non-Hispanic ^e	11.7	14.4	9.3	-1.8*	-2.0*	-2.0*	-	-	-
Black	12.2	15.3	9.9	-3.4*	-3.2*	-3.8*	-3.0*	-2.7*	-3.6*
Asian/Pacific Islander	11.4	15.0	8.6	-2.6*	-1.9*	-2.9*	-	-	-
Amer Ind/Alaska Nat ^f	12.9	15.3	10.9	0.9	1.1	0.7	-	-	-
Hispanic ^e	10.4	13.4	7.9	-0.9*	-1.2*	-0.7*	-	-	-

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 4.6, February 2018, 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 18 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey, and Georgia excluding ATL/RG.

^c The 2006-2015 AAPC estimates are based on a Joinpoint analysis with up to 4 Joinpoints over diagnosis years 1992-2015.

^d The 2006-2015 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over diagnosis years 1975-2015.

^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.

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

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

Table 6.23
Cancer of the Colon and Rectum (Invasive)

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

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER Incidence Rates^a, 2011-2015</u>									
California	36.24	41.45	31.84	36.01	40.98	31.72	43.70	49.62	39.11
Greater Bay Area	34.95	39.49	31.01	34.85	38.73	31.37	44.64	47.72	42.07
San Francisco-Oakland	35.62	39.86	31.91	35.07	38.29	32.06	45.91	49.70	42.84
San Jose-Monterey	33.64	38.78	29.24	34.48	39.50	30.16	36.03	35.65	36.36
Los Angeles	36.97	43.02	32.11	36.14	41.83	31.43	43.70	50.79	38.69
Greater California	36.38	41.47	32.03	36.33	41.35	31.98	43.52	49.82	38.27
Connecticut	37.65	42.92	33.36	37.12	42.18	32.96	40.71	49.63	35.00
Detroit	42.08	47.84	37.54	39.79	44.78	35.74	51.24	61.02	44.50
Georgia	41.77	49.27	35.87	39.99	47.24	33.99	47.97	57.27	41.64
Atlanta	39.44	47.03	33.71	36.75	43.21	31.56	44.87	55.93	37.75
Rural Georgia	49.05	58.22	41.88	40.11	48.68	32.51	66.54	79.42	58.04
Greater Georgia	42.85	50.25	36.92	41.27	48.78	35.01	49.72	57.54	44.17
Hawaii	42.40	49.76	35.72	40.52	43.73	36.80	39.73	47.86	-
Iowa	44.85	51.16	39.33	44.85	51.07	39.42	46.75	51.49	41.22
Kentucky	49.48	57.99	42.43	49.20	57.75	42.09	52.60	59.47	47.35
Louisiana	46.49	54.86	39.96	43.38	51.16	37.06	55.90	66.73	48.41
New Jersey	41.85	47.90	36.97	42.14	48.50	36.91	45.04	50.91	40.98
New Mexico	33.20	38.20	28.91	32.76	37.58	28.60	29.27	29.84	28.34
Seattle-Puget Sound	36.81	41.66	32.63	36.50	40.88	32.69	40.28	47.16	33.18
Utah	30.64	34.17	27.55	30.28	33.90	27.10	51.24	55.27	44.16
SEER 9 Areas ^b	38.27	43.55	33.80	37.34	42.02	33.29	46.12	54.66	40.01
SEER 13 Areas ^b	37.81	43.25	33.27	36.89	41.79	32.69	45.66	53.71	39.88
SEER 18 Areas ^b	39.40	45.24	34.53	38.76	44.37	34.00	47.59	55.47	41.91

^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 13 areas comprise the SEER 9 areas plus San Jose-Monterey, Los Angeles, the Alaska Native Registry and Rural Georgia.
 The SEER 18 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG.
 - Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 6.24
Cancer of the Colon and Rectum (Invasive)

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

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER Death Rates^a, 2011-2015</u>									
California	13.30	15.62	11.41	13.30	15.61	11.41	19.53	23.10	16.90
Greater Bay Area	11.98	13.73	10.55	11.99	13.75	10.55	18.24	20.14	16.91
San Francisco-Oakland	12.49	14.17	11.10	12.46	14.18	11.00	18.46	20.32	17.19
San Jose-Monterey	10.99	12.91	9.47	11.16	12.99	9.74	17.09	18.99	15.34
Los Angeles	13.87	16.54	11.77	13.46	15.92	11.48	20.22	24.49	17.33
Greater California	13.50	15.88	11.55	13.61	16.02	11.62	19.60	23.24	16.59
Connecticut	11.71	13.47	10.35	11.68	13.43	10.31	13.67	17.29	11.47
Detroit	15.08	18.05	12.86	13.76	16.31	11.78	20.59	26.32	16.80
Georgia	15.33	19.25	12.43	14.17	17.56	11.49	19.64	26.50	15.50
Atlanta	14.65	19.22	11.48	12.90	16.19	10.51	18.67	26.85	13.87
Rural Georgia	20.22	23.22	18.32	15.44	16.34	14.72	29.75	40.19	24.32
Greater Georgia	15.63	19.36	12.77	14.66	18.19	11.81	20.09	25.90	16.51
Hawaii	13.22	16.66	10.31	13.45	14.63	12.31	-	-	-
Iowa	15.67	18.23	13.60	15.65	18.25	13.55	18.31	14.03	21.25
Kentucky	16.99	20.67	14.08	16.81	20.48	13.89	21.15	25.04	18.22
Louisiana	17.51	21.31	14.62	15.92	19.18	13.36	22.39	28.54	18.22
New Jersey	14.77	17.90	12.36	14.82	17.84	12.46	18.68	24.62	14.70
New Mexico	13.87	16.79	11.45	13.91	16.74	11.53	16.14	-	15.79
Seattle-Puget Sound	12.41	14.65	10.55	12.47	14.56	10.70	15.35	19.82	11.69
Utah	11.21	12.96	9.68	11.02	12.62	9.62	27.34	31.19	-
SEER 9 Areas ^b	13.35	15.80	11.39	13.04	15.23	11.26	18.38	23.49	14.98
SEER 13 Areas ^b	13.37	15.82	11.42	13.02	15.21	11.23	18.91	23.83	15.63
SEER 18 Areas ^b	14.14	16.86	11.98	13.87	16.44	11.79	19.69	24.86	16.17
Total U.S.	14.46	17.28	12.19	14.10	16.80	11.88	19.44	24.43	16.05

^a 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).

^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 18 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG.

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

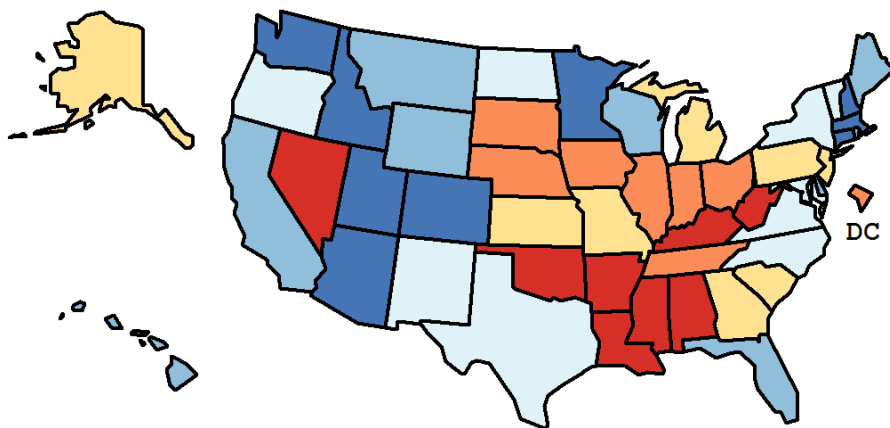
Table 6.25
Cancer of the Colon and Rectum (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2011-2015

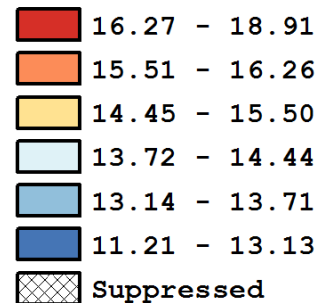
Males and Females

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	14.46	0.03		
High Five States				
Mississippi	18.91	0.34	01(01,02)	30.80 ^c
West Virginia	18.39	0.39	02(01,07)	27.17 ^c
Louisiana	17.51	0.27	03(02,07)	21.10 ^c
Arkansas	17.28	0.32	04(02,08)	19.48 ^c
Oklahoma	17.16	0.29	05(03,15)	18.70 ^c
Low Five States				
Washington	12.78	0.19	47(39,49)	-11.64 ^c
Massachusetts	12.66	0.18	48(37,49)	-12.41 ^c
Colorado	12.33	0.22	49(42,50)	-14.74 ^c
Connecticut	11.71	0.23	50(49,51)	-19.00 ^c
Utah	11.21	0.32	51(50,51)	-22.44 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	16.36	0.25	08(05,19)	13.14 ^c	Montana	13.53	0.47	36(24,49)	-6.41
Alaska	15.29	0.80	20(02,43)	5.73	Nebraska	15.76	0.39	14(05,24)	9.02
Arizona	12.93	0.19	45(37,49)	-10.60 ^c	Nevada	16.51	0.35	07(03,18)	14.16 ^c
Arkansas	17.28	0.32	04(02,08)	19.48 ^c	New Hampshire	13.06	0.41	44(25,49)	-9.67
California	13.30	0.08	41(36,46)	-8.05	New Jersey	14.77	0.17	23(17,28)	2.15
Colorado	12.33	0.22	49(42,50)	-14.74 ^c	New Mexico	13.87	0.35	31(23,48)	-4.07
Connecticut	11.71	0.23	50(49,51)	-19.00 ^c	New York	13.79	0.11	33(27,39)	-4.65
Delaware	13.33	0.50	40(23,49)	-7.78	North Carolina	14.01	0.16	28(27,41)	-3.13
D.C.	16.22	0.74	10(02,29)	12.17 ^c	North Dakota	14.29	0.59	26(05,43)	-1.20
Florida	13.35	0.10	39(34,45)	-7.69	Ohio	15.88	0.15	13(07,17)	9.82
Georgia	15.33	0.18	19(14,25)	6.05	Oklahoma	17.16	0.29	05(03,15)	18.70 ^c
Hawaii	13.22	0.40	42(23,49)	-8.56	Oregon	13.86	0.25	32(24,43)	-4.18
Idaho	13.13	0.40	43(27,49)	-9.21	Pennsylvania	15.50	0.14	17(11,22)	7.19
Illinois	15.63	0.15	16(11,23)	8.08	Rhode Island	13.71	0.46	34(16,47)	-5.18
Indiana	15.93	0.21	11(08,22)	10.19 ^c	South Carolina	14.99	0.24	22(12,26)	3.68
Iowa	15.67	0.29	15(06,22)	8.39	South Dakota	15.93	0.57	12(04,29)	10.15 ^c
Kansas	15.05	0.31	21(12,30)	4.06	Tennessee	16.26	0.21	09(05,16)	12.43 ^c
Kentucky	16.99	0.26	06(03,12)	17.52 ^c	Texas	14.44	0.11	25(22,30)	-0.16
Louisiana	17.51	0.27	03(02,07)	21.10 ^c	Utah	11.21	0.32	51(50,51)	-22.44 ^c
Maine	13.38	0.39	37(23,49)	-7.43	Vermont	14.00	0.61	29(13,49)	-3.17
Maryland	14.18	0.21	27(23,38)	-1.96	Virginia	14.00	0.18	30(25,40)	-3.20
Massachusetts	12.66	0.18	48(37,49)	-12.41 ^c	Washington	12.78	0.19	47(39,49)	-11.64 ^c
Michigan	14.53	0.16	24(20,30)	0.46	West Virginia	18.39	0.39	02(01,07)	27.17 ^c
Minnesota	12.86	0.21	46(36,49)	-11.06 ^c	Wisconsin	13.66	0.20	35(26,43)	-5.51
Mississippi	18.91	0.34	01(01,02)	30.80 ^c	Wyoming	13.36	0.67	38(16,50)	-7.61
Missouri	15.41	0.21	18(10,23)	6.57					



Age-Adjusted Death
Rates per 100,000
Quantile Interval



U.S. rate: 14.46

- ^a 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).
- ^b Difference between state rate and total U.S. rate is statistically significant ($p \leq .0002$).
- ^c Absolute percent difference between state rate and total U.S. rate is 10% or more.
- ^d Rank of state level death rate and the 95% confidence intervals (low, high) for the rank.
- SE Standard error of the rate.
- PD Percent difference between state rate and total U.S. rate.
- Statistic not shown. Rate based on less than 16 cases for the time interval.

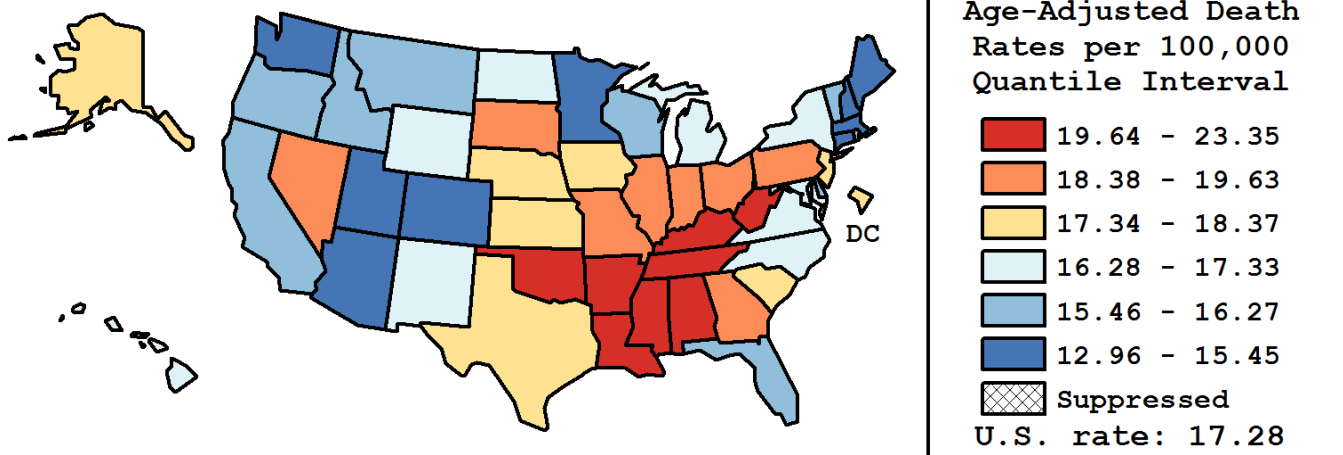
Table 6.26
Cancer of the Colon and Rectum (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2011-2015

Males

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	17.28	0.05		
High Five States				
Mississippi	23.35	0.59	01(01,03)	35.10 ^c
West Virginia	21.68	0.65	02(01,09)	25.46 ^c
Louisiana	21.31	0.46	03(01,08)	23.31 ^c
Arkansas	21.16	0.53	04(01,10)	22.45 ^c
Oklahoma	20.88	0.48	05(02,15)	20.85 ^c
Low Five States				
Minnesota	14.75	0.34	47(38,49)	-14.62 ^c
Colorado	14.35	0.36	48(43,51)	-16.96 ^c
New Hampshire	13.57	0.63	49(40,51)	-21.48 ^c
Connecticut	13.47	0.38	50(46,51)	-22.03 ^c
Utah	12.96	0.50	51(48,51)	-24.98 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	20.13	0.42	07(02,15)	16.49 ^c	Montana	16.27	0.75	34(21,49)	-5.87
Alaska	17.43	1.30	24(02,48)	0.84	Nebraska	18.37	0.63	17(07,36)	6.28
Arizona	15.23	0.30	44(35,48)	-11.87 ^c	Nevada	19.63	0.55	09(02,21)	13.58 ^c
Arkansas	21.16	0.53	04(01,10)	22.45 ^c	New Hampshire	13.57	0.63	49(40,51)	-21.48 ^c
California	15.62	0.14	42(35,45)	-9.60	New Jersey	17.90	0.29	22(15,30)	3.60
Colorado	14.35	0.36	48(43,51)	-16.96 ^c	New Mexico	16.79	0.57	30(16,44)	-2.87
Connecticut	13.47	0.38	50(46,51)	-22.03 ^c	New York	16.38	0.19	33(27,39)	-5.21
Delaware	16.14	0.83	36(11,48)	-6.58	North Carolina	17.03	0.28	27(22,37)	-1.44
D.C.	18.31	1.23	18(02,47)	5.96	North Dakota	16.96	0.97	28(05,47)	-1.86
Florida	15.94	0.16	39(32,44)	-7.78	Ohio	19.15	0.26	12(06,17)	10.84 ^c
Georgia	19.25	0.32	11(07,22)	11.40 ^c	Oklahoma	20.88	0.48	05(02,15)	20.85 ^c
Hawaii	16.66	0.67	31(12,44)	-3.59	Oregon	16.06	0.40	38(25,46)	-7.06
Idaho	15.70	0.64	40(25,49)	-9.17	Pennsylvania	18.40	0.23	16(11,24)	6.48
Illinois	18.94	0.26	14(10,23)	9.60	Rhode Island	16.22	0.78	35(18,49)	-6.15
Indiana	19.00	0.35	13(07,24)	9.93	South Carolina	18.01	0.40	20(10,29)	4.20
Iowa	18.23	0.48	19(06,26)	5.50	South Dakota	19.27	0.94	10(02,34)	11.50 ^c
Kansas	17.89	0.51	23(10,33)	3.54	Tennessee	19.67	0.36	08(04,17)	13.81 ^c
Kentucky	20.67	0.45	06(02,13)	19.63 ^c	Texas	17.92	0.19	21(17,28)	3.70
Louisiana	21.31	0.46	03(01,08)	23.31 ^c	Utah	12.96	0.50	51(48,51)	-24.98 ^c
Maine	15.45	0.64	43(20,48)	-10.60 ^c	Vermont	15.65	0.96	41(16,51)	-9.46
Maryland	17.13	0.36	26(19,37)	-0.85	Virginia	16.66	0.30	32(23,41)	-3.60
Massachusetts	15.08	0.30	45(32,47)	-12.71 ^c	Washington	14.83	0.30	46(39,49)	-14.18 ^c
Michigan	17.33	0.26	25(20,34)	0.28	West Virginia	21.68	0.65	02(01,09)	25.46 ^c
Minnesota	14.75	0.34	47(38,49)	-14.62 ^c	Wisconsin	16.07	0.33	37(28,45)	-7.02
Mississippi	23.35	0.59	01(01,03)	35.10 ^c	Wyoming	16.88	1.10	29(06,49)	-2.31
Missouri	18.67	0.35	15(08,25)	8.05					



- ^a 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).
- ^b Difference between state rate and total U.S. rate is statistically significant ($p \leq .0002$).
- ^c Absolute percent difference between state rate and total U.S. rate is 10% or more.
- ^d Rank of state level death rate and the 95% confidence intervals (low, high) for the rank.
- SE Standard error of the rate.
- PD Percent difference between state rate and total U.S. rate.
- Statistic not shown. Rate based on less than 16 cases for the time interval.

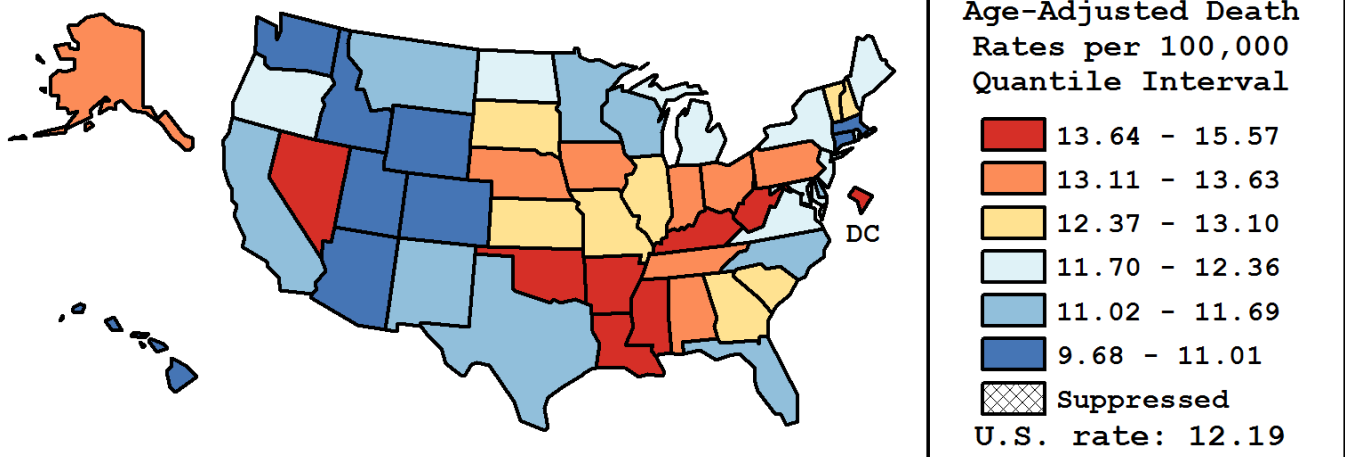
Table 6.27
Cancer of the Colon and Rectum (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2011-2015

Females

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	12.19	0.04		
High Five States				
West Virginia	15.57	0.49	01(01,15)	27.76 ^c
Mississippi	15.51	0.42	02(01,05)	27.25 ^c
D.C.	14.71	0.93	03(01,24)	20.66 ^c
Louisiana	14.62	0.33	04(01,10)	19.96 ^c
Arkansas	14.14	0.39	05(01,16)	16.03 ^c
Low Five States				
Colorado	10.69	0.28	47(32,50)	-12.33 ^c
Connecticut	10.35	0.29	48(41,51)	-15.08 ^c
Hawaii	10.31	0.48	49(29,51)	-15.44 ^c
Wyoming	10.12	0.79	50(18,51)	-16.98 ^c
Utah	9.68	0.40	51(45,51)	-20.59 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	13.39	0.30	14(07,28)	9.89	Montana	11.08	0.58	41(21,51)	-9.09
Alaska	13.59	1.02	12(01,48)	11.46 ^c	Nebraska	13.62	0.49	10(02,24)	11.75 ^c
Arizona	10.91	0.23	45(33,49)	-10.53 ^c	Nevada	13.65	0.43	08(02,27)	11.99 ^c
Arkansas	14.14	0.39	05(01,16)	16.03 ^c	New Hampshire	12.54	0.54	22(03,36)	2.88
California	11.41	0.10	38(33,45)	-6.37	New Jersey	12.36	0.20	25(14,30)	1.37
Colorado	10.69	0.28	47(32,50)	-12.33 ^c	New Mexico	11.45	0.43	37(25,50)	-6.06
Connecticut	10.35	0.29	48(41,51)	-15.08 ^c	New York	11.81	0.14	31(24,37)	-3.08
Delaware	11.05	0.60	42(24,51)	-9.30	North Carolina	11.66	0.20	35(28,46)	-4.32
D.C.	14.71	0.93	03(01,24)	20.66 ^c	North Dakota	11.99	0.73	28(02,46)	-1.61
Florida	11.15	0.12	40(34,47)	-8.52	Ohio	13.36	0.19	15(06,22)	9.63
Georgia	12.43	0.22	23(17,34)	1.94	Oklahoma	14.08	0.35	06(04,24)	15.54 ^c
Hawaii	10.31	0.48	49(29,51)	-15.44 ^c	Oregon	12.03	0.31	27(18,43)	-1.31
Idaho	10.91	0.50	44(24,51)	-10.52 ^c	Pennsylvania	13.22	0.17	16(07,22)	8.50
Illinois	13.10	0.18	17(09,25)	7.45	Rhode Island	11.83	0.57	30(04,42)	-2.95
Indiana	13.43	0.26	13(07,25)	10.15 ^c	South Carolina	12.58	0.29	21(09,32)	3.24
Iowa	13.60	0.36	11(03,23)	11.57 ^c	South Dakota	13.03	0.69	18(04,47)	6.91
Kansas	12.61	0.38	20(11,39)	3.49	Tennessee	13.63	0.26	09(03,20)	11.85 ^c
Kentucky	14.08	0.32	07(02,19)	15.48 ^c	Texas	11.61	0.13	36(26,39)	-4.75
Louisiana	14.62	0.33	04(01,10)	19.96 ^c	Utah	9.68	0.40	51(45,51)	-20.59 ^c
Maine	11.72	0.49	33(18,49)	-3.82	Vermont	12.38	0.76	24(04,49)	1.58
Maryland	11.95	0.26	29(22,42)	-1.98	Virginia	11.78	0.22	32(24,42)	-3.34
Massachusetts	10.88	0.22	46(32,49)	-10.74 ^c	Washington	11.01	0.23	43(32,49)	-9.71
Michigan	12.30	0.20	26(16,32)	0.95	West Virginia	15.57	0.49	01(01,15)	27.76 ^c
Minnesota	11.28	0.26	39(28,48)	-7.45	Wisconsin	11.69	0.25	34(21,42)	-4.08
Mississippi	15.51	0.42	02(01,05)	27.25 ^c	Wyoming	10.12	0.79	50(18,51)	-16.98 ^c
Missouri	12.86	0.26	19(08,28)	5.50					



^a 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).

^b Difference between state rate and total U.S. rate is statistically significant ($p \leq .0002$).

^c Absolute percent difference between state rate and total U.S. rate is 10% or more.

^d Rank of state level death rate and the 95% confidence intervals (low, high) for the rank.

SE Standard error of the rate.

PD Percent difference between state rate and total U.S. rate.

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

Table 6.28
Cancer of the Colon and Rectum (Invasive)

Estimated United States Cancer Prevalence Counts^a on January 1, 2015
By Race/Ethnicity, Sex 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 <23 ^e	0 to <40 ^e	>=40 ^g	Complete ^h
Race	Sex										
All Races ^b	Both Sexes	447,553	319,613	230,266	144,957	84,440	50,527	1,226,830	1,317,472	14,613	1,332,085
	Males	230,709	159,813	116,063	71,042	40,942	22,968	618,570	656,924	4,967	661,891
	Females	216,844	159,800	114,203	73,915	43,498	27,559	608,260	660,548	9,646	670,194
White ^b	Both Sexes	363,785	265,104	195,662	124,291	72,877	43,954	1,021,720	1,101,263	12,801	1,114,064
	Males	187,930	134,335	100,036	61,410	35,750	20,338	519,463	553,592	4,393	557,985
	Females	175,855	130,769	95,626	62,881	37,127	23,616	502,257	547,671	8,408	556,079
Black ^b	Both Sexes	53,105	35,166	22,389	13,660	7,621	4,579	131,941	139,509	1,103	140,612
	Males	26,310	15,480	9,844	6,043	3,272	1,642	60,949	63,465	360	63,825
	Females	26,795	19,686	12,545	7,617	4,349	2,937	70,992	76,044	743	76,787
Asian/ Pacific Islander ^c	Both Sexes	21,099	13,834	8,888	+	+	+	51,045	+	+	+
	Males	11,200	7,073	4,344	+	+	+	26,176	+	+	+
	Females	9,899	6,761	4,544	+	+	+	24,869	+	+	+
Hispanic ^d	Both Sexes	36,634	22,641	12,824	+	+	+	82,068	+	+	+
	Males	19,270	12,122	6,694	+	+	+	43,225	+	+	+
	Females	17,364	10,519	6,130	+	+	+	38,843	+	+	+

Estimated prevalence percent^a on January 1, 2015, of the SEER^c population diagnosed in the previous 23 years
By Age at Prevalence, Race/Ethnicity and Sex

Age at Prevalence		Age Specific (Crude)										Age-Adjusted ^f
		All Ages	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	All Ages
Race	Sex											
All Races ^c	Both Sexes	0.3463%	-	0.0011%	0.0059%	0.0306%	0.1175%	0.3876%	0.8224%	1.6560%	2.8348%	0.3182%
	Males	0.3544%	-	0.0009%	0.0054%	0.0309%	0.1219%	0.4212%	0.9449%	1.9405%	3.2643%	0.3641%
	Females	0.3384%	-	0.0014%	0.0064%	0.0303%	0.1132%	0.3553%	0.7116%	1.4222%	2.5741%	0.2823%
White ^c	Both Sexes	0.3631%	-	0.0013%	0.0064%	0.0325%	0.1176%	0.3741%	0.7855%	1.6522%	2.9066%	0.3164%
	Males	0.3709%	-	0.0010%	0.0057%	0.0325%	0.1207%	0.4052%	0.9065%	1.9374%	3.3212%	0.3612%
	Females	0.3552%	-	0.0017%	0.0072%	0.0325%	0.1143%	0.3433%	0.6721%	1.4114%	2.6510%	0.2804%
Black ^c	Both Sexes	0.2944%	-	-	0.0033%	0.0272%	0.1221%	0.4416%	1.0341%	1.8656%	2.7366%	0.3506%
	Males	0.2858%	-	-	0.0032%	0.0293%	0.1230%	0.4572%	1.1520%	2.0796%	3.3274%	0.3948%
	Females	0.3022%	-	-	0.0034%	0.0253%	0.1213%	0.4278%	0.9416%	1.7162%	2.4419%	0.3224%
Asian/ Pacific Islander ^c	Both Sexes	0.3071%	-	-	0.0042%	0.0222%	0.1076%	0.3846%	0.8274%	1.4876%	2.4516%	0.2924%
	Males	0.3244%	-	-	0.0041%	0.0222%	0.1179%	0.4442%	0.9672%	1.8015%	2.8634%	0.3442%
	Females	0.2912%	-	-	0.0044%	0.0222%	0.0985%	0.3332%	0.7135%	1.2419%	2.1974%	0.2530%
Hispanic ^d	Both Sexes	0.1527%	-	0.0007%	0.0038%	0.0239%	0.0842%	0.3041%	0.6918%	1.3015%	2.0040%	0.2466%
	Males	0.1587%	-	-	0.0034%	0.0247%	0.0863%	0.3270%	0.8089%	1.6429%	2.5025%	0.2965%
	Females	0.1466%	-	0.0010%	0.0043%	0.0229%	0.0820%	0.2819%	0.5898%	1.0450%	1.7023%	0.2098%

- ^a US 2015 cancer prevalence counts are based on 2015 cancer prevalence proportions from the SEER registries and 1/1/2015 US population estimates based on the average of 2014 and 2015 population estimates from the US Bureau of the Census.
- ^{b c d} Prevalence was calculated using the first invasive tumor for each cancer site diagnosed during the previous 40/23 years. Statistics based on (b) SEER 9 Areas (c) SEER 13 Areas excluding the Alaska Native Registry
- ^e (d) NHIA for Hispanic for SEER 13 Areas excluding the Alaska Native Registry.
- ^f Maximum limited-duration prevalence: 40 years for 1975-2015 SEER 9 data; 23 years for 1992-2015 SEER 13 data (excluding the Alaska Native Registry) used to calculate prevalence for Hispanics and Asian Pacific Islanders.
- ^{g h i} Percentages are age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130) by 5-year age groups. (g) Cases diagnosed more than 40 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 <40 and >=40. (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 6.29

Cancer of the Colon And Rectum (Invasive)

Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2011-2015
Both Sexes 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	179,444	99.5%	139,111	99.5%	22,002	99.5%	15,055	99.4%	1,114	99.3%	20,395	99.4%
Epidermoid carcinoma ^d (8051-8131)	1,212	0.7%	1,036	0.7%	124	0.6%	23	0.2%	-	-	101	0.5%
Squamous cell carcinoma (8070-8078,8083-8084)	1,173	0.7%	1,007	0.7%	120	0.5%	22	0.1%	-	-	97	0.5%
Adenocarcinoma (8050,8140-8147, 8160-8162,8180-8221, 8250-8507,8520-8551,8560, 8570-8574,8576,8940-8941)	166,146	92.1%	129,982	93.0%	19,713	89.1%	13,858	91.5%	1,024	91.3%	18,742	91.3%
Adenocarcinoma, NOS (8140)	114,035	63.2%	89,047	63.7%	13,451	60.8%	9,989	65.9%	735	65.5%	13,013	63.4%
Adenocarcinoma in adenomatous polyp (8210)	15,834	8.8%	12,226	8.7%	1,882	8.5%	1,304	8.6%	119	10.6%	1,432	7.0%
Adenocarcinoma in villous adenoma (8261)	3,394	1.9%	2,713	1.9%	392	1.8%	247	1.6%	-	-	464	2.3%
Mucinous adenocarcinoma (8470-8473,8480,8482)	11,319	6.3%	9,293	6.6%	1,160	5.2%	746	4.9%	54	4.8%	1,439	7.0%
Mucin-producing adenocarcinoma (8481)	1,183	0.7%	910	0.7%	176	0.8%	87	0.6%	-	-	137	0.7%
Signet ring adenocarcinoma (8490)	2,052	1.1%	1,670	1.2%	224	1.0%	138	0.9%	-	-	249	1.2%
Other adenocarcinomas ^e	18,329	10.2%	14,123	10.1%	2,428	11.0%	1,347	8.9%	93	8.3%	2,008	9.8%
Other specific carcinomas (8012-8015,8030-8046, 8150-8155,8170-8175, 8230-8249,8508,8510-8513, 8561-8562,8575,8580-8671)	10,702	5.9%	7,023	5.0%	1,990	9.0%	1,074	7.1%	67	6.0%	1,388	6.8%
Neuroendocrine carcinoid (8240-8245)	7,941	4.4%	4,992	3.6%	1,568	7.1%	855	5.6%	59	5.3%	1,100	5.4%
Other ^f	2,761	1.5%	2,031	1.5%	422	1.9%	219	1.4%	-	-	288	1.4%
Unspecified, Carcinoma, NOS (8010-8011, 8020-8022)	1,384	0.8%	1,070	0.8%	175	0.8%	100	0.7%	18	1.6%	164	0.8%

Source: SEER 18 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, New Jersey and Georgia excluding ATL/RG).

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.

^f Includes histologies 8050, 8141-8147, 8160-8162, 8180-8204, 8211-8221, 8250-8260, 8262-8264, 8270-8463, 8500-8507, 8514, 8520-8551, 8560, 8570-8574, 8576, 8940-8941.

^f Includes histologies 8012-8015, 8030-8046, 8150-8155, 8170-8175, 8230-8231, 8246-8249, 8508, 8510-8513, 8561-8562, 8575, 8580-8671.

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

Table 6.29 - continued

Cancer of the Colon And Rectum (Invasive)

Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2011-2015
Both Sexes 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
Sarcoma and other soft tissue tumors (8680-8713,8800-8921, 8990-8991,9040-9044, 9120-9136,9150-9252, 9370-9373,9540-9582)	115	0.1%	89	0.1%	16	0.1%	-	-	-	-	17	0.1%
Other specific types (8720-8790,8930-8936, 8950-8983,9000-9030, 9060-9110,9260-9365, 9380-9539)	285	0.2%	195	0.1%	41	0.2%	46	0.3%	-	-	39	0.2%
Unspecified (8000-8005)	542	0.3%	427	0.3%	58	0.3%	44	0.3%	-	-	75	0.4%
Total ^d	180,386	100.0%	139,822	100.0%	22,117	100.0%	15,153	100.0%	1,122	100.0%	20,526	100.0%

Source: SEER 18 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, New Jersey and Georgia excluding ATL/RG).

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.

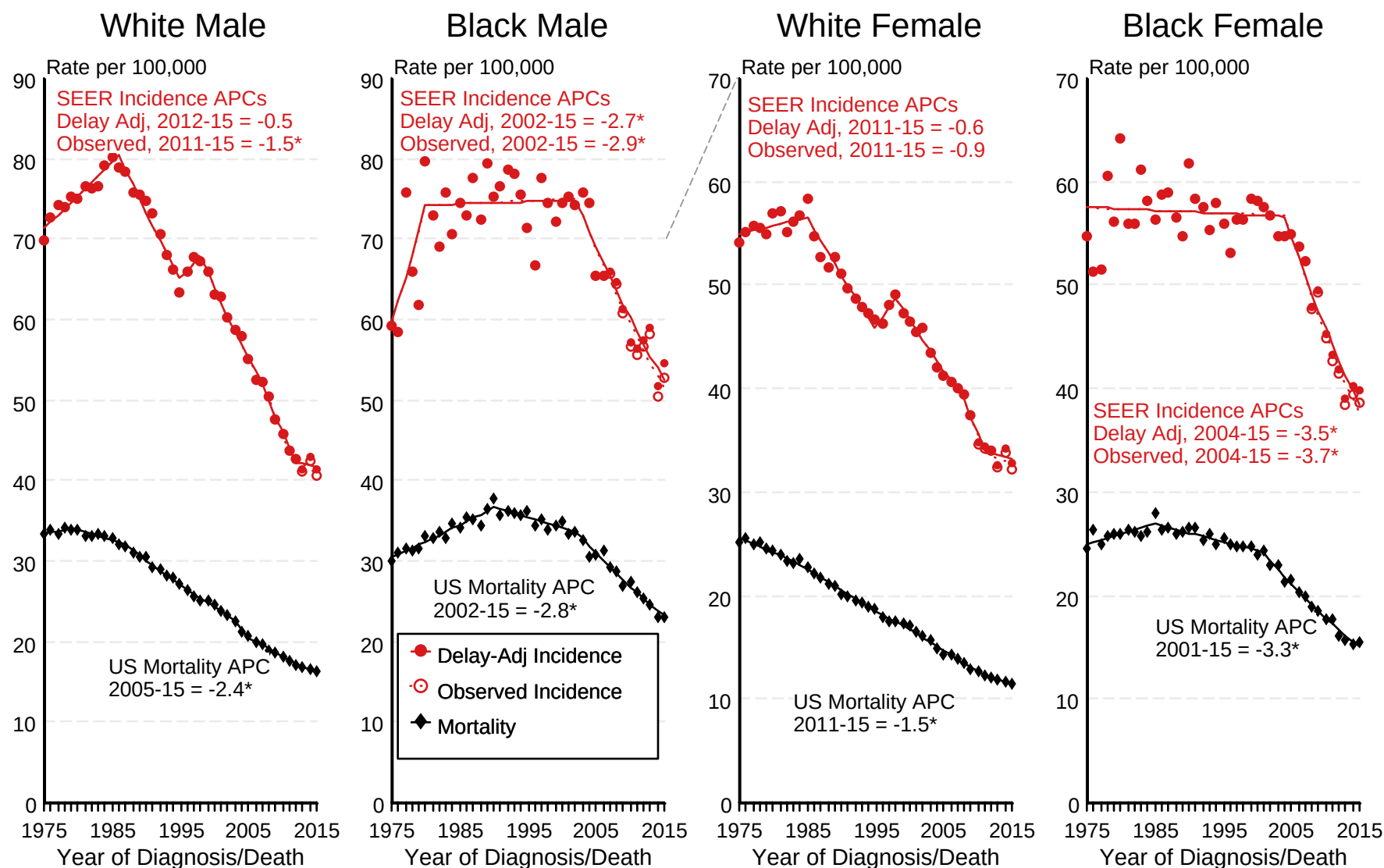
^d Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

^e Total includes carcinoma cases from the previous page.

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

Figure 6.1

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



Source: SEER 9 areas and 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).

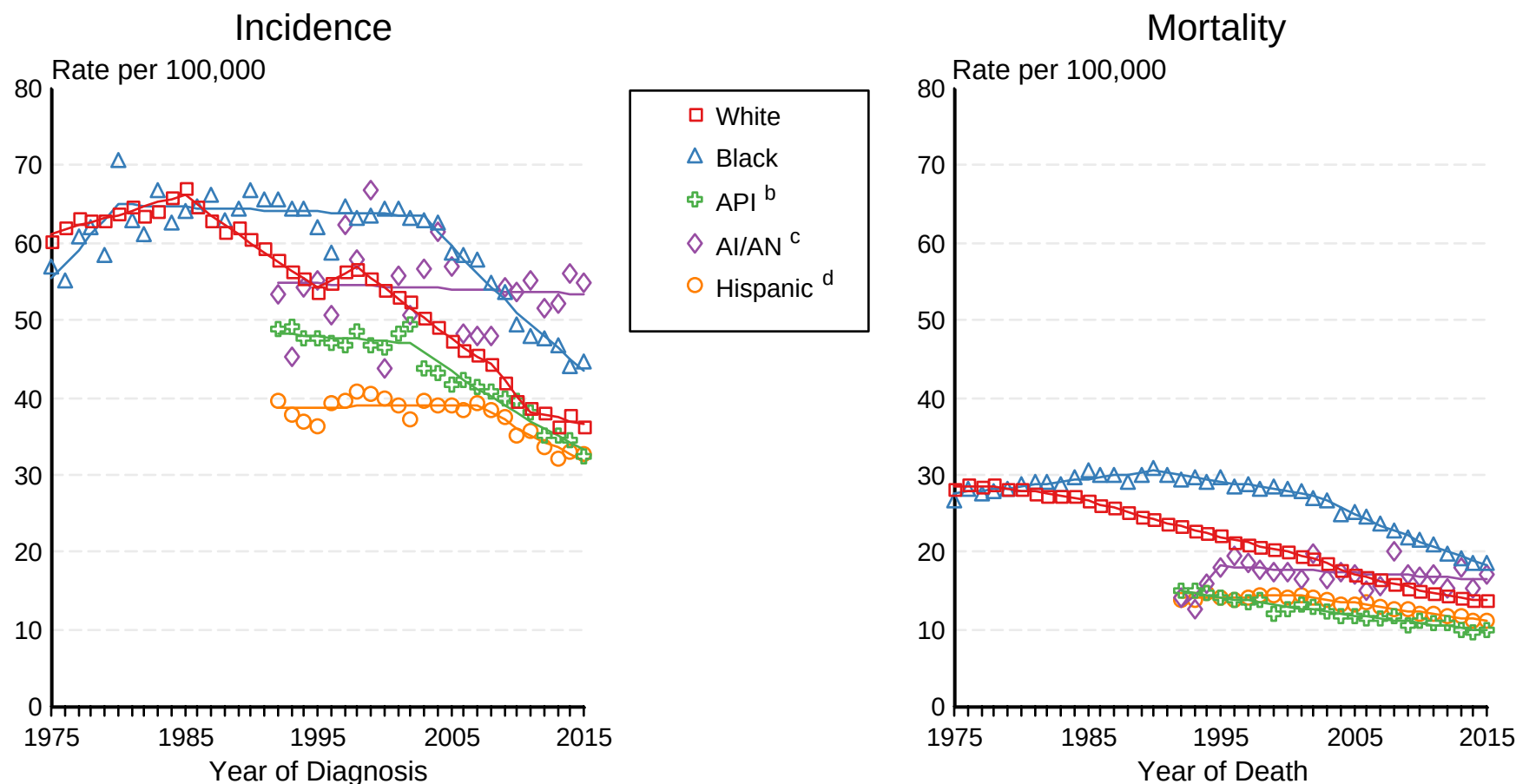
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.6, February 2018, National Cancer Institute.

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 ($p < 0.05$).

Figure 6.2

SEER Incidence and US Death Rates^a Cancer of the Colon and Rectum, Both Sexes Joinpoint Analyses for Whites and Blacks from 1975-2015 and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2015



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 4.6, February 2018, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2015 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2015 allow a maximum of 4 joinpoints.

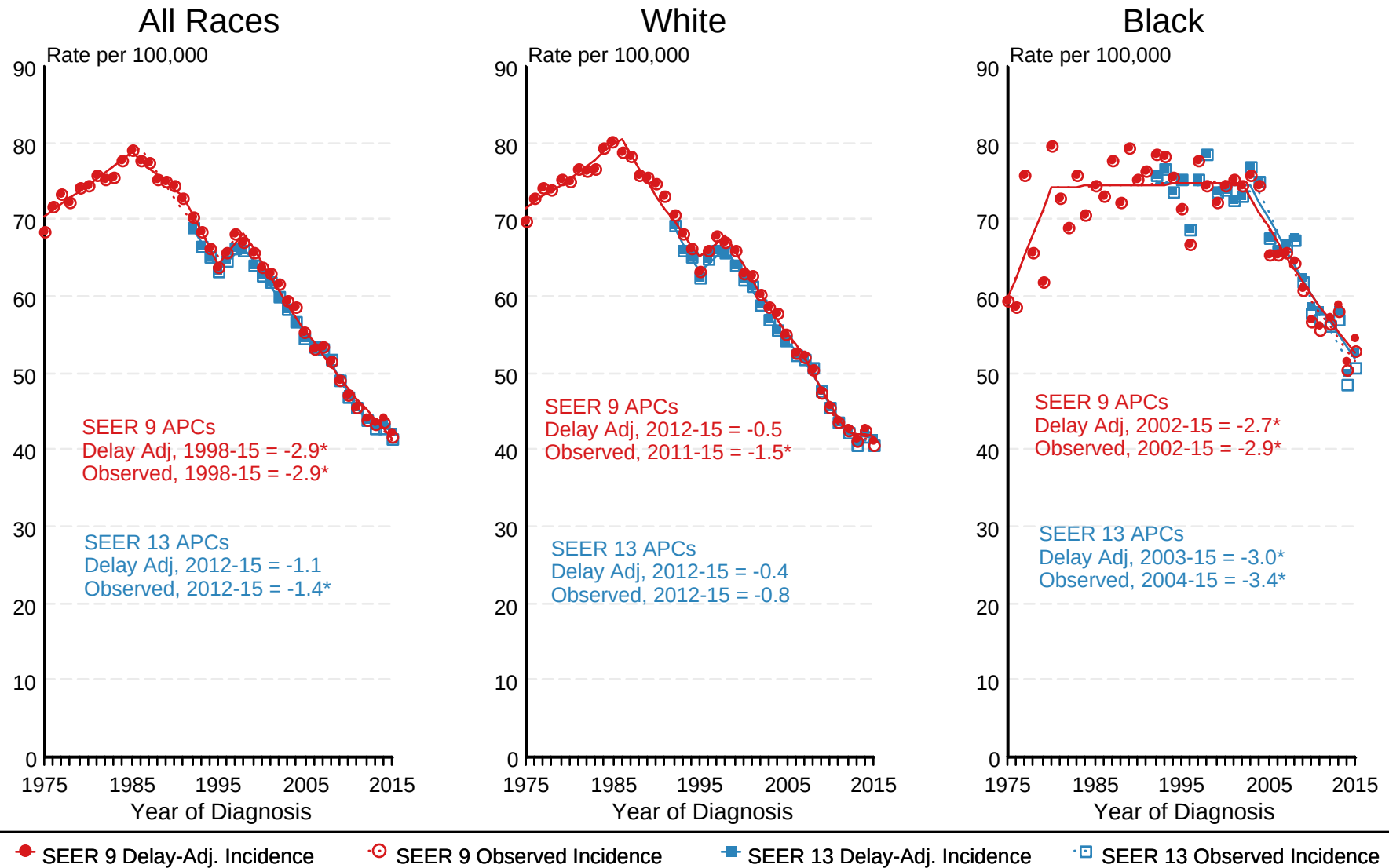
^b API = Asian/Pacific Islander.

^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 New Hampshire and Oklahoma.

Figure 6.3

SEER Observed Incidence and SEER Delay Adjusted Incidence Rates^a SEER 9 Areas Compared to SEER 13 Areas Cancer of the Colon and Rectum, Male, by Race



Source: SEER 9 areas and SEER 13 areas.

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

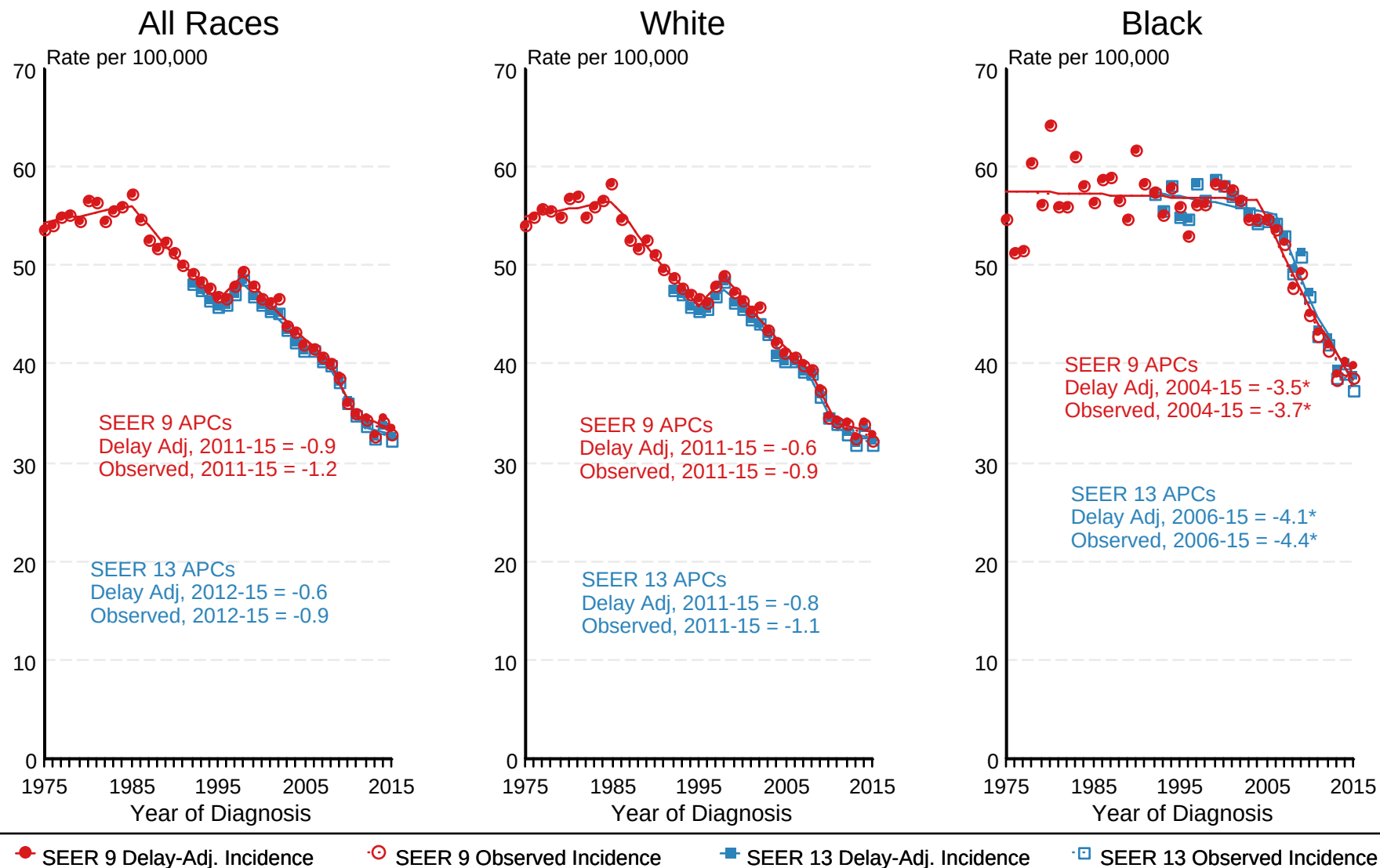
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.6, February 2018, National Cancer Institute.

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 ($p < 0.05$).

Figure 6.4

SEER Observed Incidence and SEER Delay Adjusted Incidence Rates^a SEER 9 Areas Compared to SEER 13 Areas Cancer of the Colon and Rectum, Female, by Race



Source: SEER 9 areas and SEER 13 areas.

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

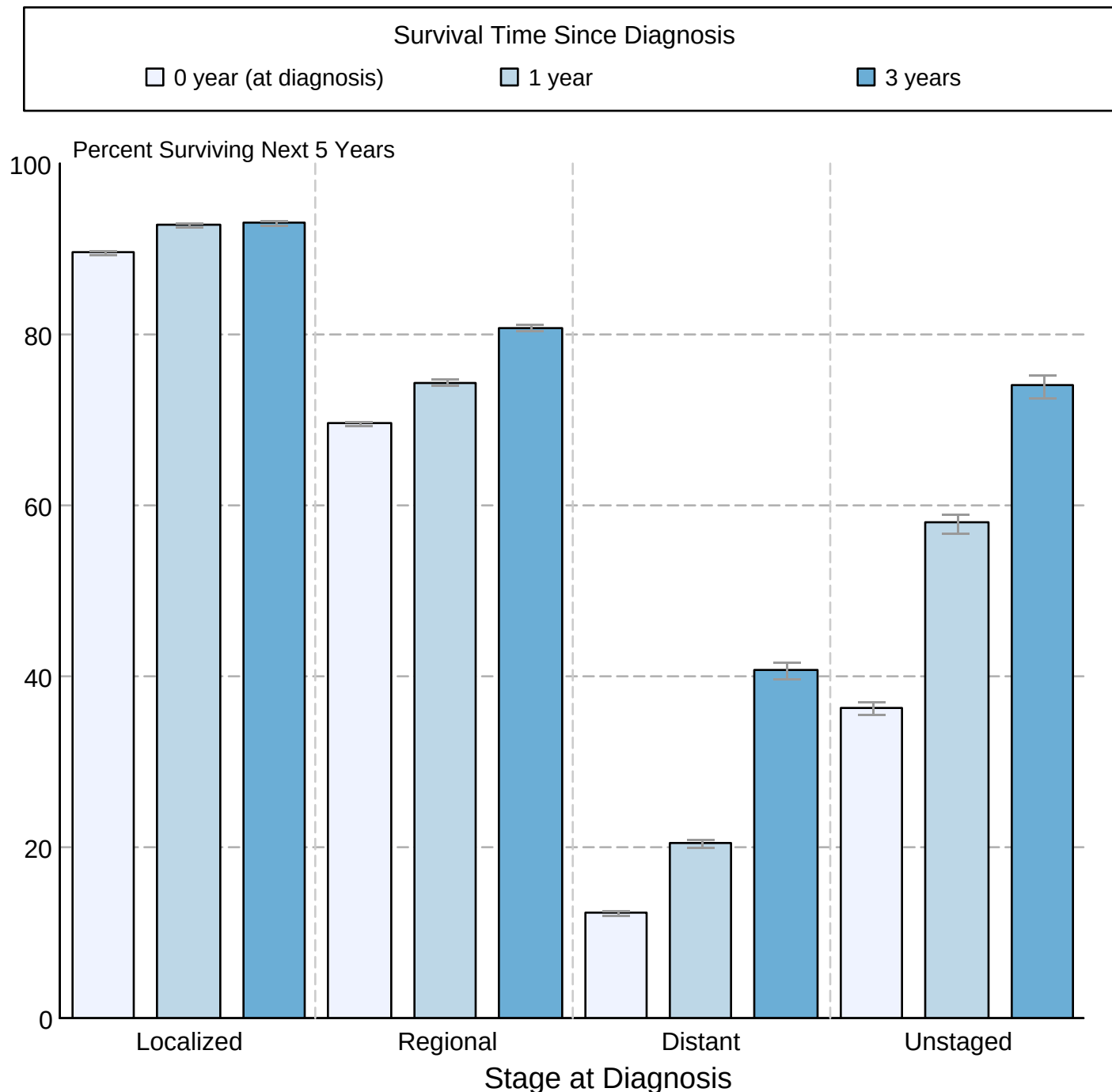
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.6, February 2018, National Cancer Institute.

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 ($p < 0.05$).

Figure 6.5

Cancer of the Colon and Rectum
5-Year SEER Conditional Relative Survival and
95% Confidence Intervals
 Probability of surviving the next 5 years given the cohort
 has already survived 0, 1, or 3 years
 1998-2014 by stage at diagnosis



Source: SEER 18 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, New Jersey and Georgia excluding ATL/RG). California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG contribute cases for diagnosis years 2000 and later. The remaining 13 SEER Areas contribute cases for the entire time period. Percent surviving is not shown if based on less than 25 cases. Confidence intervals are not shown if length of the confidence interval is greater than 5 times the standard error.