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## Selected Cancer Sites: All, Breast, Cervical, Colorectal, Lung, and Prostate

This section of the report presents the findings of epidemiological analyses of cancer mortality and incidence for the five selected cancer sites: breast, cervical, colorectal, lung, and prostate. The numbers of estimated deaths due to cancer and estimated new cancer cases for 2006 were available from the American Cancer Society.<sup>1</sup>

### Michigan Mortality and Incidence

Age-adjusted mortality rates in 2004 and age-adjusted incidence rates in 2003 are presented for the selected cancers. These were calculated by the direct age-adjustment method, using the 2000 U.S. population age distribution as the standard population, to allow comparisons across population subgroups.<sup>2</sup>

Comparisons of age-adjusted mortality and incidence rates between gender and racial groups are presented, as are age-specific rates. The proportions of cases diagnosed at different stages are compared between gender and racial groups to highlight disparities where they exist.

Michigan-specific data on rates of survival from the selected cancers are not available at this time. National data from the National Cancer Institute's SEER program on relative survival rates are presented. The relative survival rate represents the likelihood that a patient will survive their cancer for some specified time (usually five years) after their initial cancer diagnosis.<sup>3</sup>

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<sup>1</sup> Cancer Facts and Figures 2006, American Cancer Society. Available at: <http://www.cancer.org/downloads/STT/CAFF2006PWSecured.pdf>.

<sup>2</sup> Michigan Department of Community Health (MDCH), Vital Records and Health Data Development Section.

<sup>3</sup> Relative survival rates for cases diagnosed 1996-2002.

## County Mortality and Incidence

Ten-year age-adjusted incidence and mortality rates are presented for the selected cancers for each county. Rates were calculated by the direct age-adjustment method using the 2000 US population age distribution, and annual state population estimates based on actual size of the county populations for years 1994 to 2003 and 1995 to 2004 were used in calculating ten-year incidence and mortality rates, respectively. Z tests were used to compare rates among counties, identifying counties with significantly higher or lower rates than the all-county rate. In conducting the Z tests, the age-adjusted rate for all counties combined was calculated including only deaths in the state for which the county was known. Differences in age-adjusted incidence and mortality rates were tested at 95% confidence levels.

## Stage at Diagnosis, by Site and by County

The percentages of cancer cases diagnosed at the localized stage (Breast, Colorectal, and Prostate Cancer) and at the in-situ stage (Cervical Cancer) are presented for each county for the time periods from 1991 to 1993 and 2001 to 2003 to highlight where changes in the percentages of cases diagnosed at a localized or in-situ stage have occurred. The percentage of cases localized at diagnosis is calculated out of all invasive cancers of the specific sites; the percentage of cases in-situ at diagnosis is calculated out of all invasive and in-situ cancers of the specific sites. To illustrate changes in stage at diagnosis, counties were ranked according to the percentage of resident cases that were diagnosed while the cancer was still localized and/or in-situ in the first three-year period. Counties were divided into quartiles for these ranked percentages. The same percentage ranges were used to classify counties during the second three-year period to allow comparison over time.

Conclusions from this analysis by county must take into consideration the various factors contributing to changes in stage at diagnosis at the county level. One factor to consider is the limitation of the low number of cases in some counties. Several counties had fewer than 20 reported cancer cases for at least one of the time periods and cancer sites. Therefore, a decrease in the percentage of cases localized at diagnosis could reflect a relatively small change in the number of cases at each stage. Also, it is important to note that changes in reporting and staging practices could have changed over time within a county. Usually increases in the percentage of cases localized or in-situ at diagnosis can be associated with an increase in screening but an equivalent decline in the percentage localized or in-situ does not necessarily reflect changes in prevention practices or quality of care. Yet, as an illustration of changing trends in stage at diagnosis, comparing the maps across time periods reveals where broad changes have occurred in the state as a whole.

### Average Mammography Workload, by County

Mammography workload data were obtained from the Michigan Department of Community Health's Radiation Safety Section.<sup>4</sup> Monthly patient workloads are provided by mammography facility staff that assist during annual inspections of mammography machines. In some cases, the data received can accurately reflect the mammography facility's true patient workload, but other times will only represent the facility respondent's best estimate of the total mammography patient workload. This analysis was based on the inspections of 4,129 machines with only 57 of these machines having no workload data recorded. For different reasons, one mammography machine may get inspected more than once in a calendar year, but the data used in this analysis only considers one inspection per machine when determining total mammography workload.

The average number of mammograms per 1000 women over the age of 40 was calculated by county for two time periods, 1996-1999 and 2000-2003, using the 1998 and 2002 Michigan female aged 40 and older populations, respectively. The percent change in mammography workload for each county was then calculated by using the average number of mammograms for the two time periods. It is important to note that the number of mammography machines per county may vary from year to year, and the percent change calculated for each county is not adjusted for any fluctuation in the number of mammography machines operating within each county. A follow-up survey has been planned to gather more detailed information on mammography facilities throughout the state of Michigan. Results of the survey will be published in a separate report.

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<sup>4</sup> Michigan Department of Community Health, Radiation Safety Section obtained November 2004.

## Summary

Analyses of deaths due to cancer and new cancer cases at all sites combined are shown in Tables 1 and 2. Most cancer cases and deaths occur in the population aged 55 years and older.

Tables showing statistics for five sites follow: breast cancer (Tables 3 through 11), cervical cancer (Tables 12 through 19), colorectal cancer (Tables 20 through 27), lung cancer (Tables 28 through 35), and prostate cancer (Tables 36 through 43).

Cancer mortality and incidence rates are higher in the older age groups for breast, colorectal, lung and prostate cancer. Cervical cancer mortality rates also increase with age, however cervical cancer incidence rates peak among women age 40-49 years and old stabilize and then decrease amongst women ages 65 and over.

Mortality rates for each of the cancer sites are higher among blacks than among whites. Although breast cancer incidence rates are higher in white women, breast cancer mortality rates are higher in black women (black to white rate ratio of 0.9 for incidence and 1.5 for mortality). For the other four cancer sites, incidence rates, like mortality rates, are higher among blacks than whites. The largest ratios of mortality rates were the ratios of black to white for cervical cancer and prostate cancer mortality rates which were both equal to 2.1. The ratio of black to white cervical cancer incidence rates was 1.8, and the ratio of black to white prostate cancer incidence rates was 1.7. Colorectal cancer black to white ratios for mortality and incidence rates were both 1.4 and lung cancer ratios for mortality and incidence rates were 1.2 and 1.3, respectively.

Five-year survival rates in the U.S. for each of the five cancer sites reveal a disparity in survival between blacks and whites. For breast and cervical cancer, blacks have a lower survival rate than whites even when cancers are detected at the same stage. The five-year survival rates for colorectal cancer are also lower for blacks than whites. When prostate cancer is detected at a localized or regional stage, the five-year survival rates are 100% for both blacks and whites, but as cancers are detected at a later stage, the five-year survival rates among blacks become lower than the rates among whites.

Significant differences in incidence and mortality rates among counties for each of the five sites over a ten-year period are shown in Figures 1, 2, 4, 5, 7, 8, 10, 11, 13 and 14.

Figures 3, 6, 9, 12, and 15, present maps of the percentage of cases diagnosed when the cancer was at the localized and/or in-situ stage between the time periods of 1991 through 1993 and 2001 through 2003. Diagnosis of cancers at an early stage improved most dramatically for prostate, although improvements in early diagnosis are also seen for breast, cervical and colorectal cancers (changes in the state as a whole are listed in Tables 3, 4, 5, 6, and 7 in the Appendix to this report). Statewide the percentage of prostate cancer cases detected while localized changed from 60.8% in 1991-1993 to 77.8% in 2001-2003. Detection of breast cancer while localized, cervical cancer while in-situ and colorectal cancer while localized showed modest improvement in Michigan. In the timeframe of 1991-1993, 57.7% of breast cancers were diagnosed at the localized stage in Michigan; 60.7% of breast cancer were diagnosed at the localized stage in the time period from 2001 through 2003. Cervical cancer detection while in-situ improved from 82.3% in 1991-1993 to 87.6% in 2001-2003. Colorectal cancer detection at the localized stage improved from 31.9% in 1991-1993 to 37.4% in 2001-2003. Lung cancer detection at the localized stage did not noticeably change. Observed differences in the percentage of cancers diagnosed while localized or in-situ may possibly be due to changes in early detection, changes in coding or pathology review and reporting, changes in record keeping, or due to the introduction of and increased access to new medical treatments.

Table 1.

Number of Cancer Deaths and New Cancer Cases  
by *Age Group* and *Gender*, All Sites, Michigan 2003-04

		All Ages	Under 35	35-54	55-74	75 and Over
Deaths, 2004	Total	19,654	249	2,326	8,362	8,717
	Males	10,198	127	1,186	4,528	4,357
	Females	9,456	122	1,140	3,834	4,360
New Cases, 2003	Total	49,659	1,730	9,517	23,305	15,107
	Males	25,835	728	4,055	13,385	7,667
	Females	23,796	998	5,454	9,907	7,437

Table 2.

Cancer Mortality and Incidence Rates  
by *Gender* and *Race*, All Sites, Michigan 2003-04

		Rate per 100,000*		Ratio
		Blacks	Whites	Blacks/Whites
2004 Mortality	Total	232.7	184.4	1.3
	Males	301.8	226.0	1.3
	Females	188.7	156.5	1.2
2003 Incidence	Total	547.9	468.4	1.2
	Males	731.6	545.1	1.3
	Females	423.3	417.0	1.0

\*Rates are age-adjusted and computed by race and gender.

Table 3.

Estimated Number of Breast Cancer Deaths and  
New Breast Cancer Cases, Michigan 2006

Deaths	1,360
New Cases	7,070

Table 4.

Number of Breast Cancer Deaths and  
New Breast Cancer Cases by *Age Group*,  
Michigan 2003-04

	All Ages	Under 35	35-54	55-74	75 and Over
Deaths, 2004	1,417	18	297	568	534
New Cases, 2003	6,837	160	2,182	2,912	1,583

Table 5.

### Breast Cancer Mortality Rates, Michigan 2004 vs. US 2003

	Number in Michigan	Age-Adjusted Rate*	
		Michigan (2004)	US-SEER (2003)
Total	1,417	24.3	25.2
Whites	1,165	22.9	24.6
Blacks	227	33.6	34.1

\*Rate per 100,000 race- and gender-specific population.

Table 6.

### Breast Cancer Incidence Rates, Michigan 2003 vs. US 2003

	Number in Michigan	Age-Adjusted Rate*	
		Michigan (2003)	US-SEER (2003)
Total	6,837	122.8	124.2
Whites	5,892	123.3	128.5
Blacks	770	113.2	120.5

\*Rate per 100,000 age- and gender-specific population.

Table 7.

### Age-Specific Breast Cancer Mortality Rates, Michigan 2004

	Number	Rate*
25-39 Years	44	4.4
40-49 Years	148	18.4
50-64 Years	389	44.2
65 Years and Over	835	114.2

\*Rate per 100,000 age- and gender-specific population.

Table 8.

### Age-Specific Breast Cancer Incidence Rates, Michigan 2003

	Number	Rate*
25-39 Years	360	35.3
40-49 Years	1,194	148.7
50-64 Years	2,364	276.4
65 Years and Over	2,911	401.6

\*Rate per 100,000 age- and gender-specific population.

Table 9.

Breast Cancer Five-Year Relative Survival Rates  
by Stage at Diagnosis and *Race*, US 1996-2002

	Total %	White %	Black %
All stages	88.5	89.7	77.3
Localized	98.1	98.5	93.6
Regional	83.1	84.6	71.8
Distant	26.0	27.7	16.1
Unknown	54.1	56.0	44.9

Table 10.

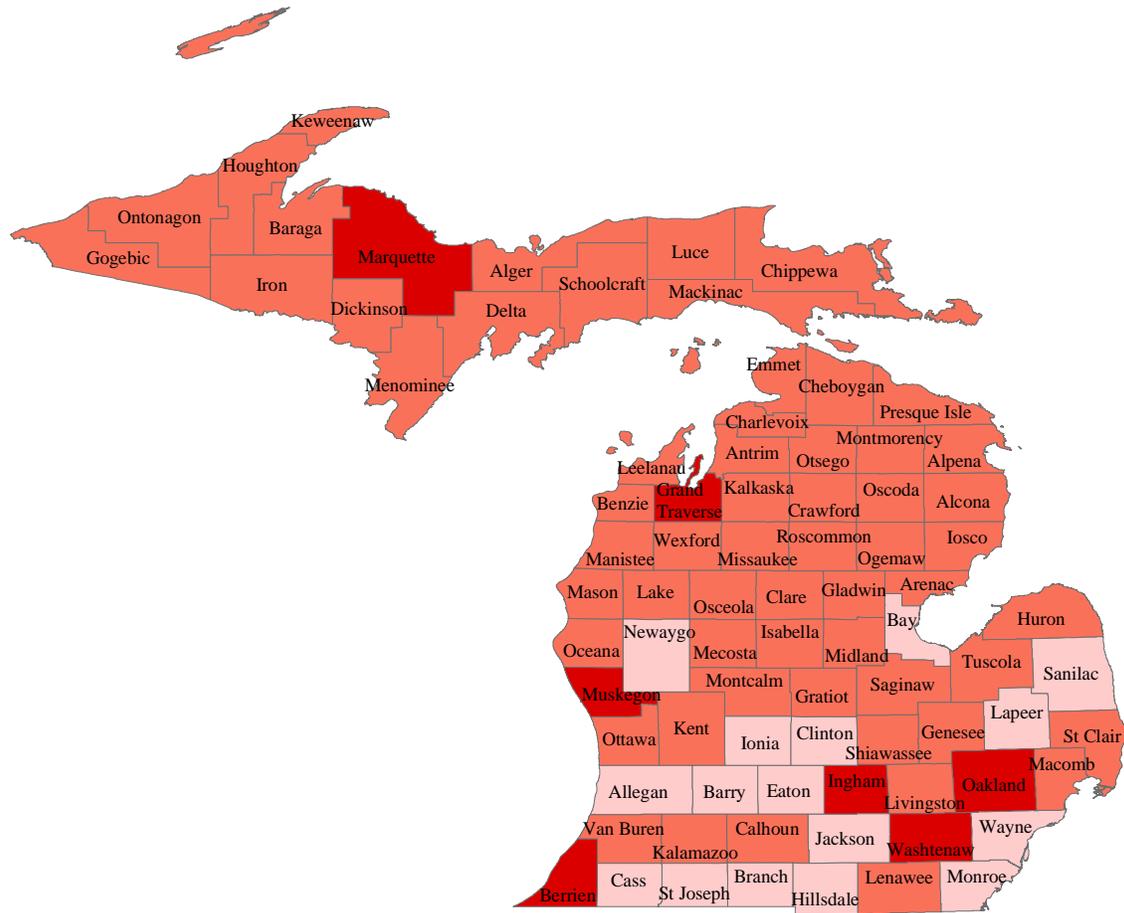
Numbers and Percentages of Invasive Breast Cancer  
by Stage at Diagnosis and *Race*,  
Michigan Residents, 2003

	Total Number	Stage at Diagnosis							
		Localized		Regional		Distant		Unknown	
		Number	%	Number	%	Number	%	Number	%
Total	6,837	4,129	60.4	1,971	28.8	255	3.7	482	7.0
Whites	5,892	3,639	61.8	1,651	28.0	191	3.2	411	7.0
Blacks	770	400	51.9	265	34.4	59	7.7	46	6.0



Figure 2.

## Breast Cancer Incidence Rates by County, 1994-2003



- Counties with significantly lower incidence rates\*
- Counties without significantly different incidence rates\*
- Counties with significantly higher incidence rates\*

\*Differences in age-adjusted incidence rates were statistically tested at 95% confidence levels to compare each county with the all-county rate.

Figure 3.

### Percentage of Breast Cancer Cases Localized at Diagnosis by County

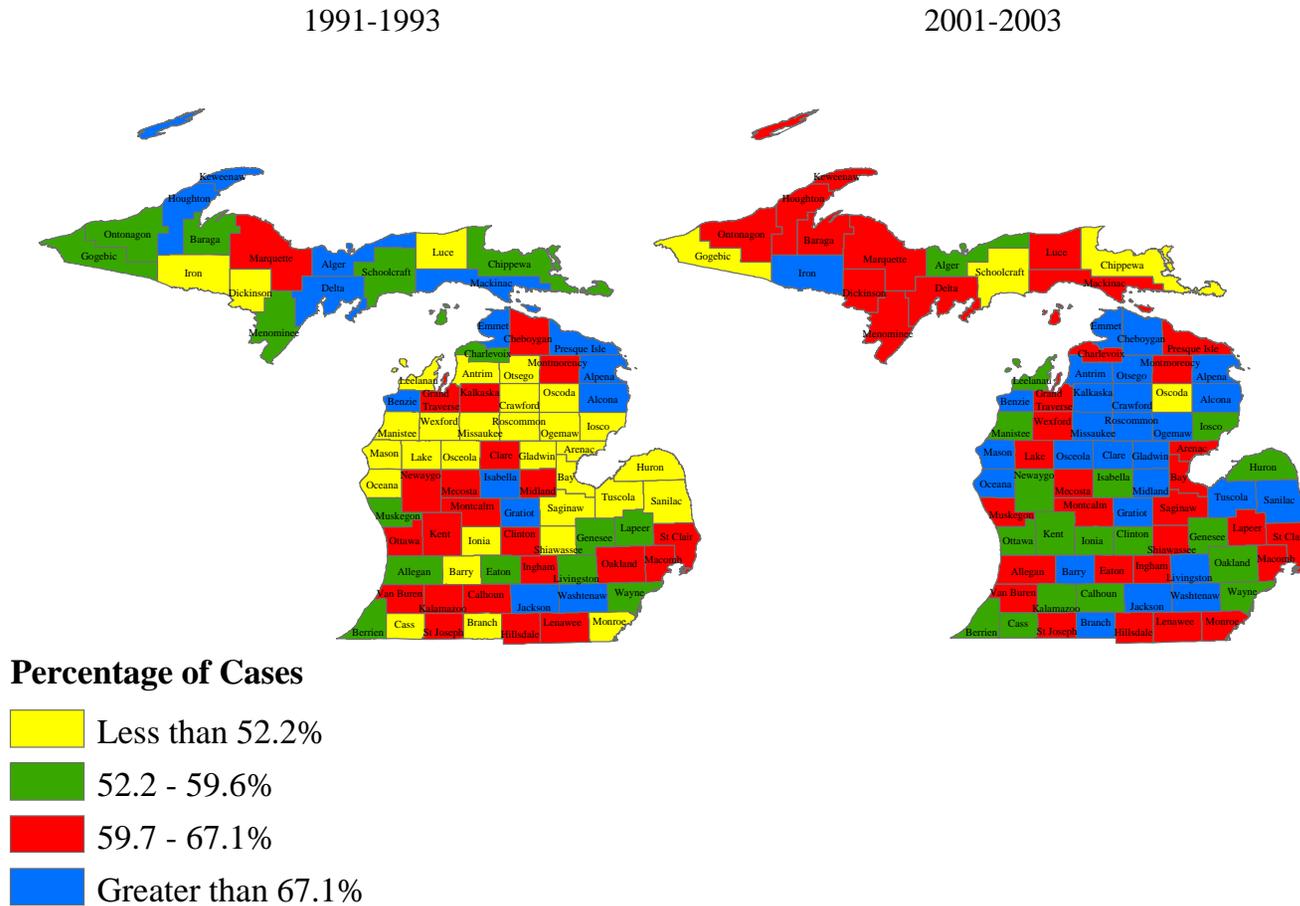


Table 12.

Estimated Number of Cervical Cancer Deaths and  
New Cervical Cancer Cases,  
Michigan 2006

Deaths	*
New Cases	260

\* Not Available

Table 13.

Number of Cervical Cancer Deaths and  
New Cervical Cancer Cases by *Age Group*,  
Michigan 2003-2004

	All Ages	Under 35	35-54	55-74	75 and Over
Deaths, 2004	118	8	35	50	25
New Cases, 2003	399	74	183	105	36

Table 14.

### Cervical Cancer Mortality Rates, Michigan 2004 vs. US 2003

	Number in Michigan	Age-Adjusted Rate*	
		Michigan (2004)	US-SEER (2003)
Total	118	2.1	2.5
Whites	90	1.9	2.2
Blacks	27	4.0	4.7

\*Rate per 100,000 age- and gender-specific population.

Table 15.

### Cervical Cancer Incidence Rates, Michigan 2003 vs. US 2003

	Number in Michigan	Age-Adjusted Rate*	
		Michigan (2003)	US-SEER (2003)
Total	399	7.6	7.1
Whites	288	6.6	6.6
Blacks	84	11.7	10.5

\*Rate per 100,000 age- and gender-specific population.

Table 16.

### Age-Specific Cervical Cancer Mortality Rates, Michigan 2004

	Number	Rate*
25-39 Years	14	1.4
40-49 Years	19	2.4
50-64 Years	34	3.9
65 Years and Over	51	7.0

\*Rate per 100,000 age- and gender-specific population.

Table 17.

### Age-Specific Cervical Cancer Incidence Rates, Michigan 2003

	Number	Rate*
25-39 Years	111	10.9
40-49 Years	101	12.6
50-64 Years	108	12.6
65 Years and Over	68	9.4

\*Rate per 100,000 age- and gender-specific population.

Table 18.

Cervical Cancer Five-Year Relative Survival Rates  
by Stage at Diagnosis and *Race*, US 1996-2002

	Total %	White %	Black %
All stages	71.6	72.8	62.6
Localized	92.0	92.6	86.4
Regional	55.5	56.0	47.6
Distant	14.6	15.5	6.8
Unknown	59.1	61.2	55.9

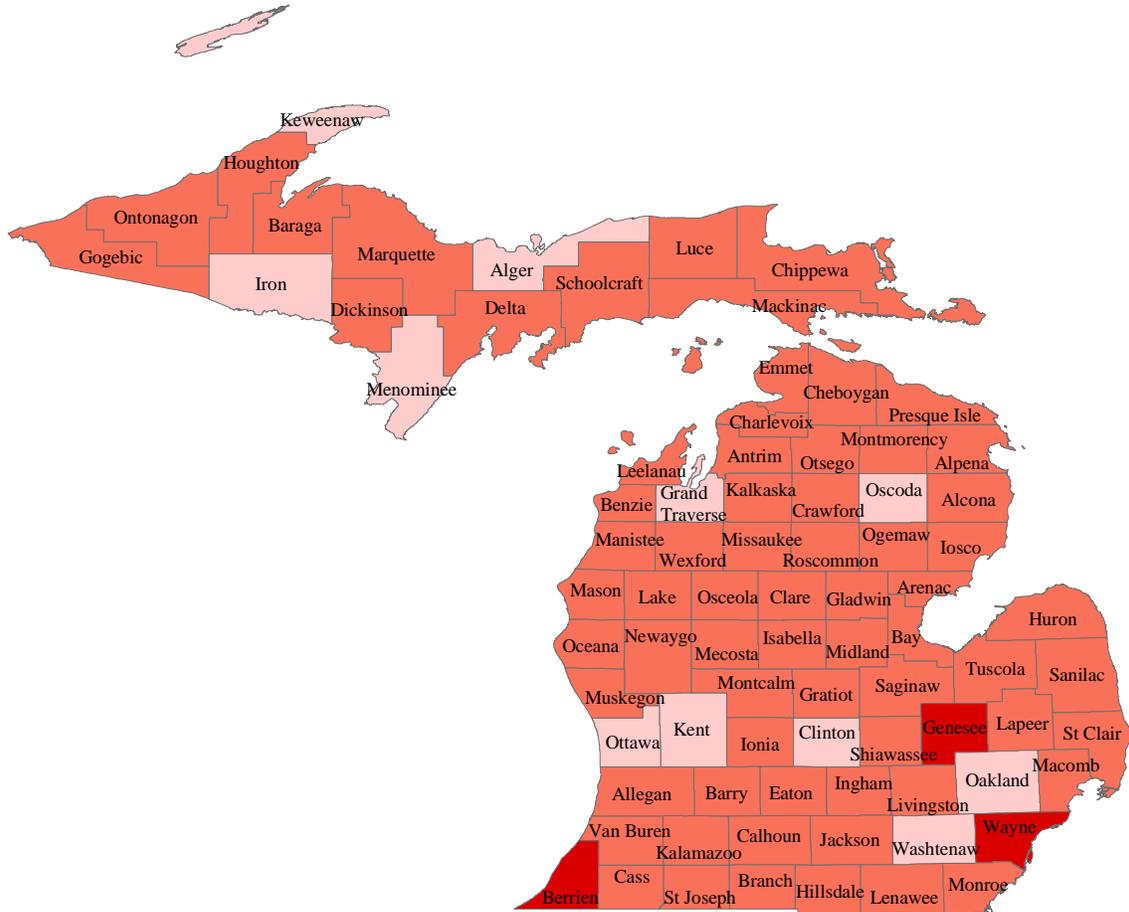
Table 19.

Numbers and Percentages of Invasive Cervical Cancer  
(Primary Site) by Stage at Diagnosis and *Race*,  
Michigan 2003

		Stage at Diagnosis							
		Localized		Regional		Distant		Unknown	
	Total Number	Number	%	Number	%	Number	%	Number	%
Total	399	191	47.9	119	29.8	35	8.8	54	13.5
Whites	288	139	48.3	85	29.5	28	9.7	39	12.5
Blacks	84	40	47.6	29	34.5	7	8.3	8	9.5

Figure 4.

## Cervical Cancer Mortality Rates by County, 1995-2004



- Counties with significantly lower mortality rates\*
- Counties without significantly different mortality rates\*
- Counties with significantly higher mortality rates\*

\*Differences in age-adjusted mortality rates were statistically tested at 95% confidence levels to compare each county with the all-county rate.



Figure 6.

## Percentage of Cervical Cancer Cases In-situ at Diagnosis by County

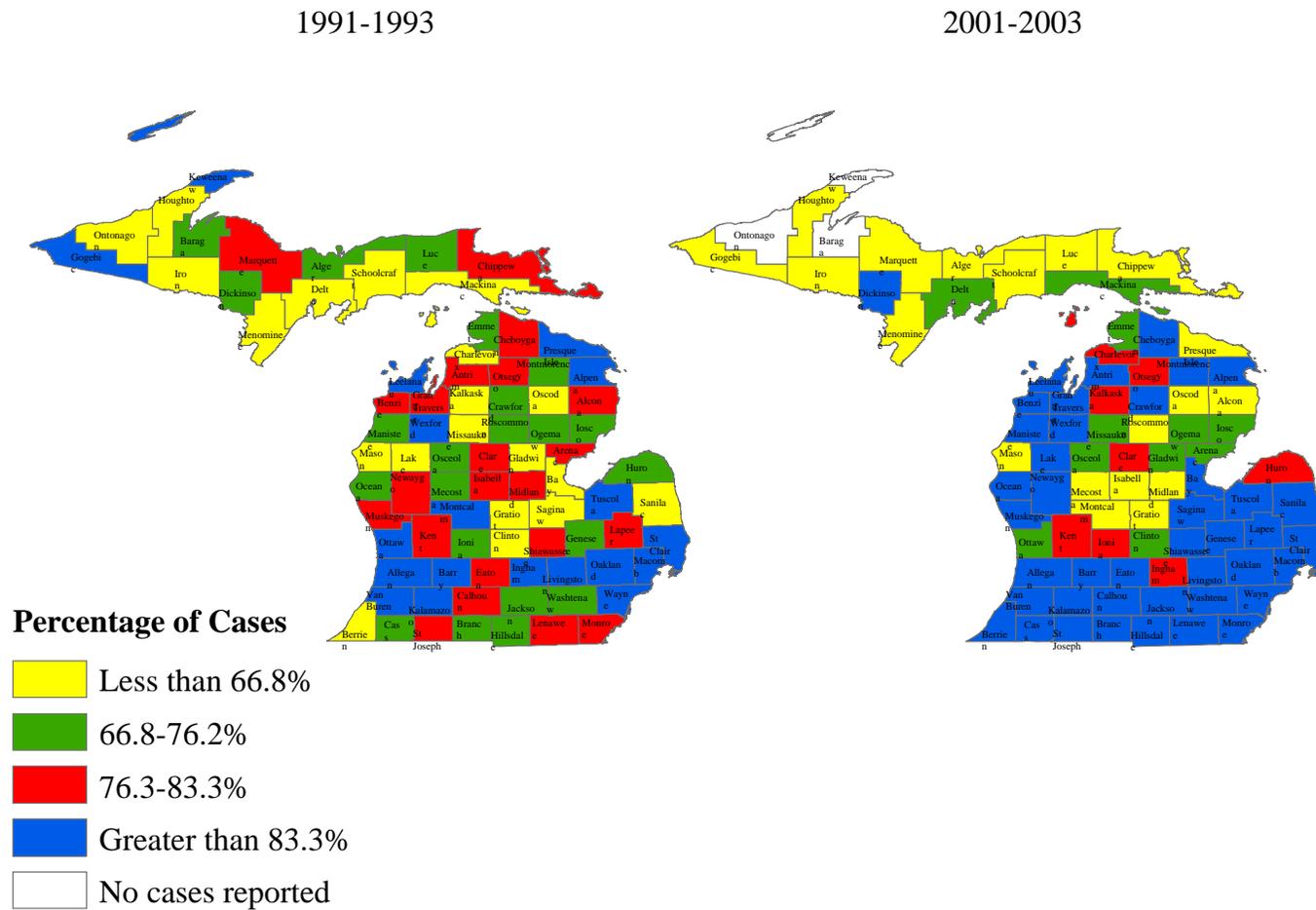


Table 20.

Estimated Number of Colorectal Cancer Deaths and  
New Colorectal Cancer Cases,  
Michigan 2006

Deaths	1,830
New Cases	4,930

Table 21.

Number of Colorectal Cancer Deaths and  
New Colorectal Cancer Cases  
by *Age Group* and *Gender*,  
Michigan 2003-04

		All Ages	Under 35	35-54	55-74	75 and Over
Deaths, 2004	Total	1,872	11	185	690	986
	Males	940	6	109	384	441
	Females	932	5	76	306	545
New Cases, 2003	Total	5,424	63	801	2,389	2,171
	Males	2,709	32	432	1,311	934
	Females	2,710	31	369	1,074	1,236

Table 22.

Colorectal Cancer Mortality Rates by *Gender*,  
Michigan 2004 vs. US 2003

	Number in Michigan	Age-Adjusted Rate*	
		Michigan (2004)	US-SEER (2003)
Total	1,872	18.0	19.0
Males	940	21.8	23.0
White Males	791	20.7	22.4
Black Males	133	31.4	32.1
Females	932	15.2	16.1
White Females	796	14.6	20.4
Black Females	123	19.4	25.4

\*Rate per 100,000 race- and gender-specific population.

Table 23.

Colorectal Cancer Incidence Rates by *Gender*,  
Michigan 2003 vs. US 2003

	Number in Michigan	Age-Adjusted Rate*	
		Michigan (2003)	US-SEER (2003)
Total	5,424	53.1	49.5
Males	2,709	61.4	58.0
White Males	2,217	57.0	57.1
Black Males	407	91.4	72.6
Females	2,710	46.7	42.8
White Females	2,286	44.9	42.4
Black Females	360	55.7	52.5

\*Rate per 100,000 race- and gender-specific population.

Table 24.

### Age-Specific Colorectal Cancer Mortality Rates by *Gender*, Michigan 2004

	Total		Males		Females	
	Number	Rate*	Number	Rate*	Number	Rate*
25-39 Years	28	1.4	17	1.7	11	1.1
40-49 Years	80	5.0	43	5.5	37	4.6
50-64 Years	362	21.0	204	24.2	158	18.0
65 Years and Over	1,402	112.5	676	146.0	726	99.3

\*Rate per 100,000 age- and gender-specific population.

Table 25.

### Age-Specific Colorectal Cancer Incidence Rates by *Gender*, Michigan 2003

	Total		Males		Females	
	Number	Rate*	Number	Rate*	Number	Rate*
25-39 Years	115	5.6	63	6.1	52	5.1
40-49 Years	361	22.7	194	24.6	167	20.8
50-64 Years	1,381	82.5	775	94.8	603	70.5
65 Years and Over	3,557	287.7	1,673	326.9	1,882	259.7

\*Rate per 100,000 age- and gender-specific population.

Table 26.

Colorectal Cancer Five-Year Relative Survival Rates  
by Stage at Diagnosis, *Gender* and *Race*, US 1996-2002

	Total %	Males		Females	
		White %	Black %	White %	Black %
All stages	64.1	66.0	55.6	64.2	53.9
Localized	90.4	91.9	85.9	89.9	83.4
Regional	68.1	69.9	62.2	68.2	58.6
Distant	9.8	10.0	7.7	10.3	7.2
Unknown	34.6	40.2	37.5	30.0	32.6

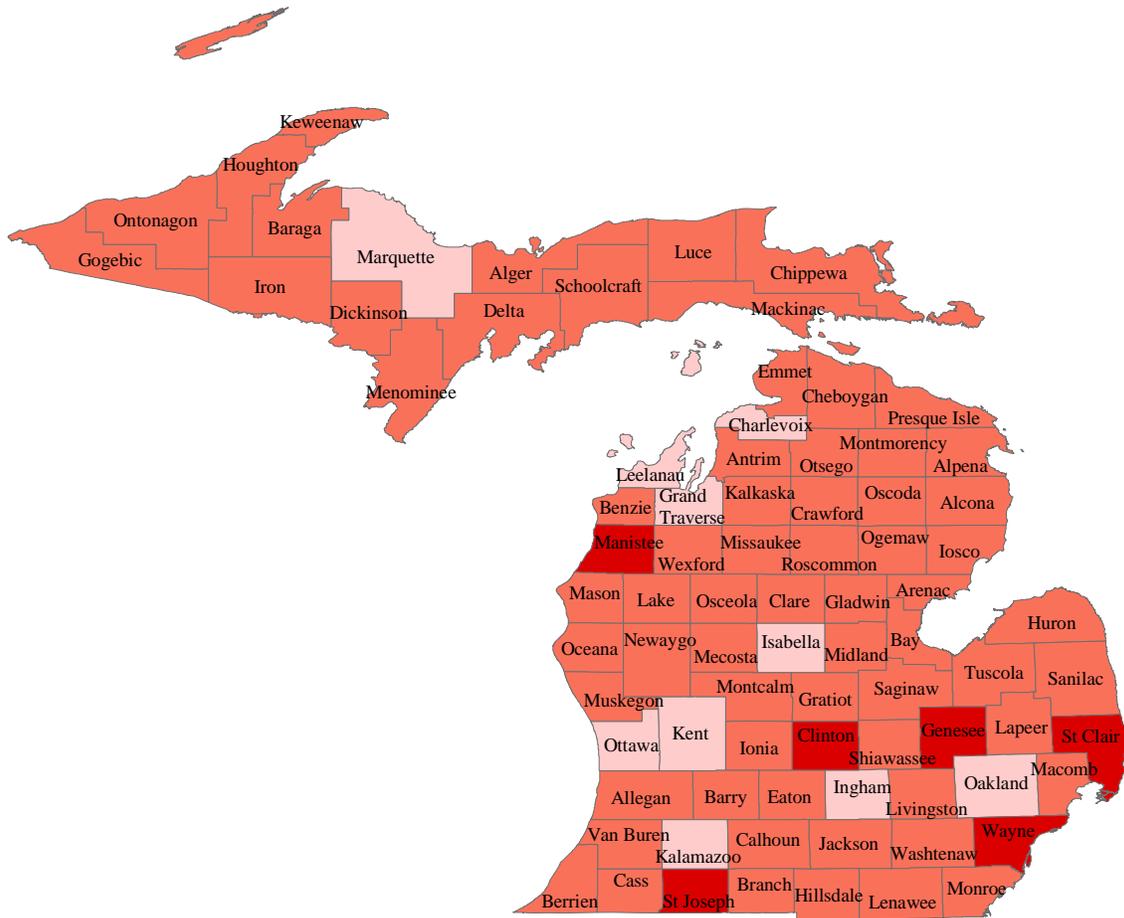
Table 27.

Numbers and Percentages of Invasive Colorectal Cancer  
(Primary Site) by Stage at Diagnosis and *Race*,  
Michigan 2003

	Total Number	Stage at Diagnosis							
		Localized		Regional		Distant		Unknown	
		Number	%	Number	%	Number	%	Number	%
Total	5,424	2,096	38.6	1,858	34.3	814	15.0	656	12.1
Whites	4,507	1,763	39.1	1,563	34.7	627	13.9	554	12.3
Blacks	767	275	35.9	248	32.3	164	21.4	80	10.4

Figure 7.

## Colorectal Cancer Mortality Rates by County, 1995-2004

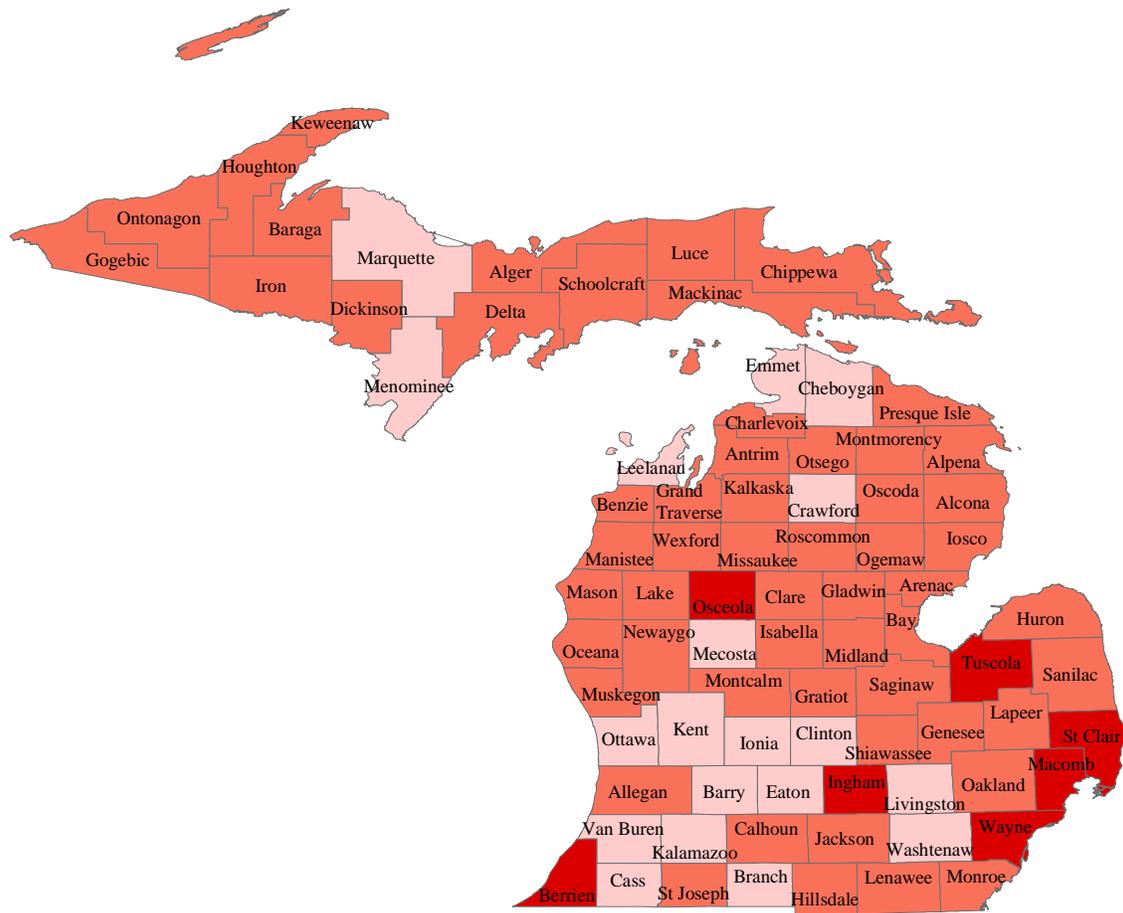


- Counties with significantly lower mortality rates\*
- Counties without significantly different mortality rates\*
- Counties with significantly higher mortality rates\*

\*Differences in age-adjusted mortality rates were statistically tested at 95% confidence levels to compare each county with the all-county rate.

Figure 8.

## Colorectal Cancer Incidence Rates by County, 1994-2003



- Counties with significantly lower incidence rates\*
- Counties without significantly different incidence rates\*
- Counties with significantly higher incidence rates\*

\*Differences in age-adjusted incidence rates were statistically tested at 95% confidence levels to compare each county with the all-county rate.

Figure 9.

## Percentage of Colorectal Cancer Cases Localized at Diagnosis by County

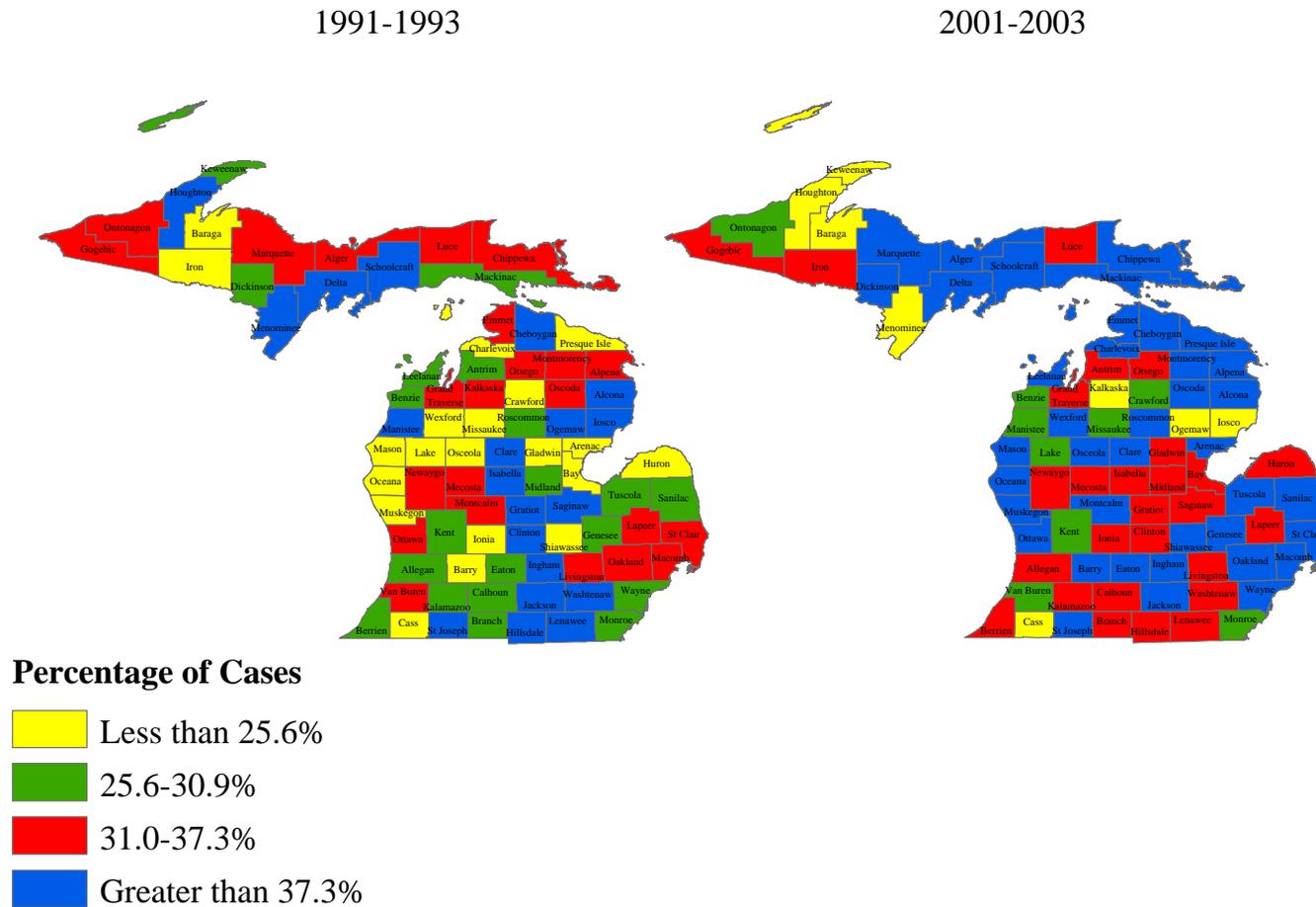


Table 28.

Estimated Number of Lung Cancer Deaths and  
New Lung Cancer Cases,  
Michigan 2006

Deaths	5,810
New Cases	6,240

Table 29.

Number of Lung Cancer Deaths and  
New Lung Cancer Cases  
by *Age Group* and *Gender*,  
Michigan 2003-04

		All Ages	Under 35	35-54	55-74	75 and Over
Deaths, 2004	Total	5,822	8	603	2,931	2,280
	Males	3,288	5	343	1,688	1,252
	Females	2,534	3	260	1,243	1,028
New Cases, 2003	Total	7,636	13	936	4,084	2,603
	Males	4,230	7	521	2,276	1,426
	Females	3,405	6	415	1,807	1,177

Table 30.

Lung Cancer Mortality Rates by *Gender*,  
Michigan 2004 vs. US 2003

	Number in Michigan	Age-Adjusted Rate*	
		Michigan (2004)	US-SEER (2003)
Total	5,822	56.8	54.2
Males	3,288	74.8	71.9
White Males	2,787	72.0	71.2
Black Males	452	99.7	93.1
Females	2,534	44.0	41.2
White Females	2,210	43.9	42.2
Black Females	299	46.6	40.3

\*Rate per 100,000 race- and gender-specific population.

Table 31.

Lung Cancer Incidence Rates by *Gender*,  
Michigan 2003 vs. US 2003

	Number in Michigan	Age-Adjusted Rate*	
		Michigan (2003)	US-SEER (2003)
Total	7,636	75.2	62.7
Males	4,230	96.0	78.5
White Males	3,544	91.4	77.1
Black Males	635	139.0	115.5
Females	3,405	60.2	51.3
White Females	2,934	59.6	53.9
Black Females	413	64.0	53.5

\*Rate per 100,000 race- and gender-specific population.

Table 32.

### Age-Specific Lung Cancer Mortality Rates by *Gender*, Michigan 2004

	Total		Males		Females	
	Number	Rate*	Number	Rate*	Number	Rate*
25-39 Years	25	1.2	12	1.2	13	1.3
40-49 Years	270	17.0	144	18.3	126	15.7
50-64 Years	1,445	84.0	837	99.5	608	69.1
65 Years and Over	4,081	327.4	2,294	444.8	1,787	244.5

\*Rate per 100,000 age- and gender-specific population.

Table 33.

### Age-Specific Lung Cancer Incidence Rates by *Gender*, Michigan 2003

	Total		Males		Females	
	Number	Rate*	Number	Rate*	Number	Rate*
25-39 Years	42	2.1	24	2.3	18	1.8
40-49 Years	435	27.3	243	30.8	192	23.9
50-64 Years	2,110	126.1	1,181	144.4	928	108.5
65 Years and Over	5,046	408.1	2,779	543.1	2,267	312.8

\*Rate per 100,000 age- and gender-specific population.

Table 34.

Lung Cancer Five-Year Relative Survival Rates  
by Stage at Diagnosis, *Gender* and *Race*, US 1996-2002

	Total %	Males		Females	
		White %	Black %	White %	Black %
All stages	15.0	13.4	10.5	17.4	14.5
Localized	49.3	46.0	38.7	53.3	45.8
Regional	15.5	14.6	11.6	17.1	15.5
Distant	2.1	1.7	2.0	2.3	1.9
Unknown	7.9	7.3	7.6	8.0	7.6

Table 35.

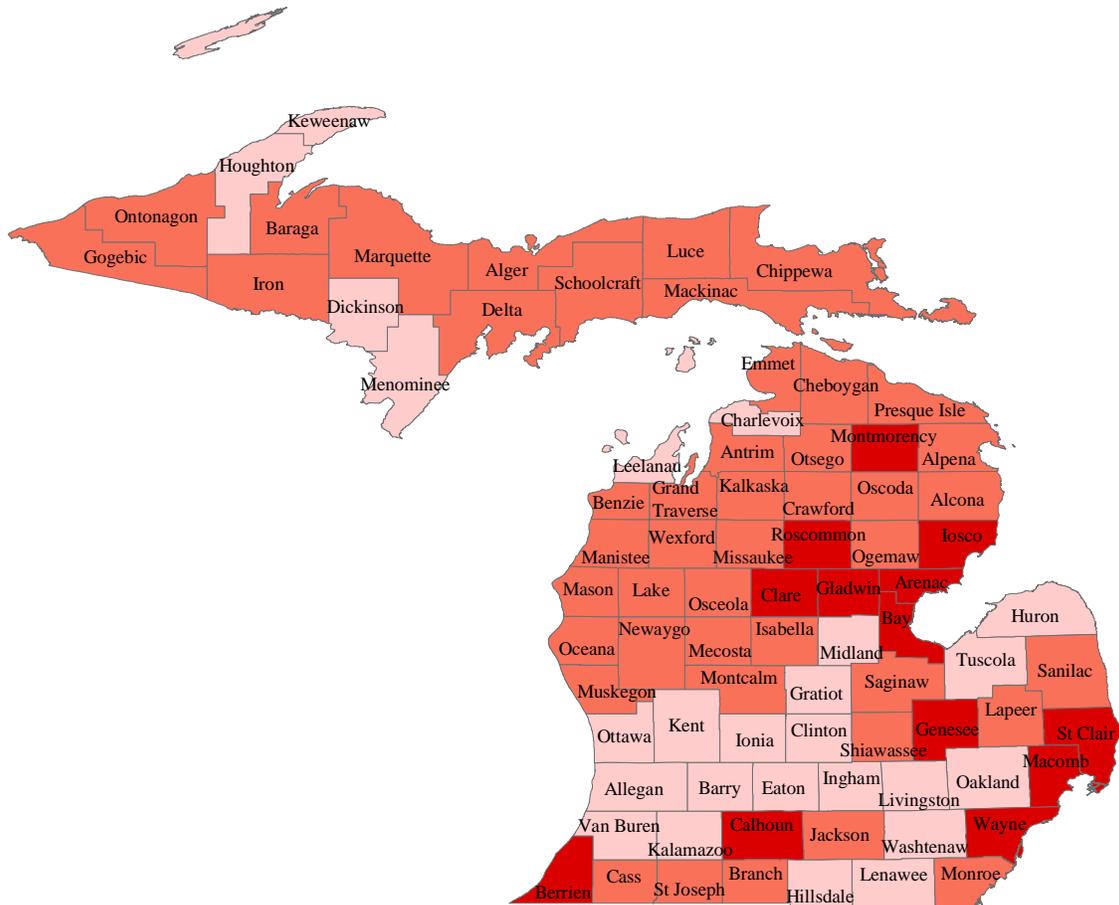
Numbers and Percentages of Invasive Lung Cancer  
(Primary Site) by Stage at Diagnosis and *Race*,  
Michigan 2003

	Total Number	Stage at Diagnosis							
		Localized		Regional		Distant		Unknown	
		Number	%	Number	%	Number	%	Number	%
Total	7,636	1,325	17.4	1,819	23.8	3,290	43.1	1,202	15.7
Whites	6,479	1,161	17.9	1,559	24.1	2,693	41.6	1,066	16.5
Blacks	1,048	150	14.3	229	21.9	553	52.8	116	11.1



Figure 11.

## Lung Cancer Incidence Rates by County, 1994-2003



- Counties with significantly lower incidence rates\*
- Counties without significantly different incidence rates\*
- Counties with significantly higher incidence rates\*

\*Differences in age-adjusted incidence rates were statistically tested at 95% confidence levels to compare each county with the all-county rate.

Figure 12.

## Percentage of Lung Cancer Cases Localized at Diagnosis by County

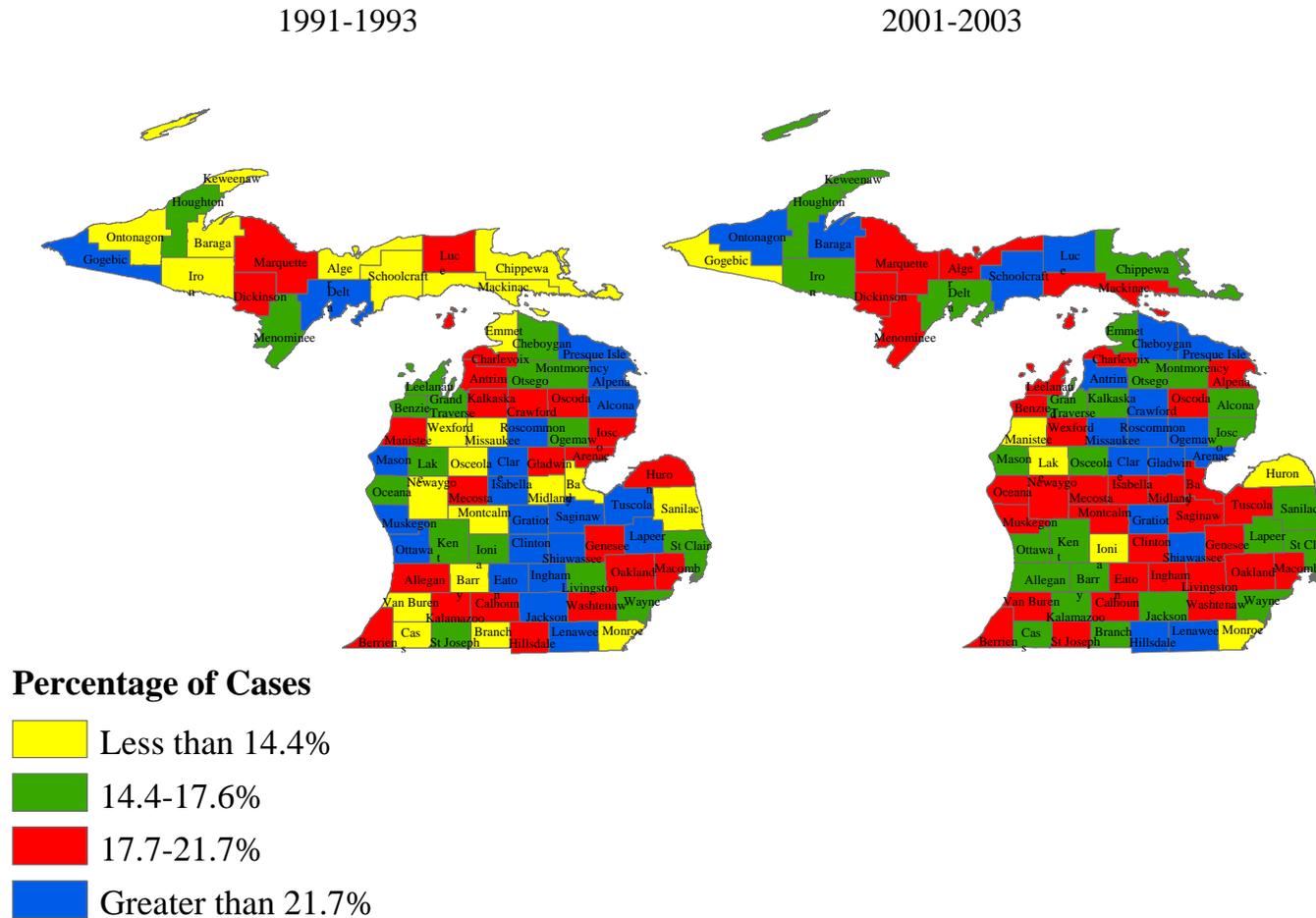


Table 36.

Estimated Number of Prostate Cancer Deaths and  
New Prostate Cancer Cases,  
Michigan 2006

Deaths	860
New Cases	7,370

Table 37.

Number of Prostate Cancer Deaths and  
New Prostate Cancer Cases by *Age Group*,  
Michigan 2003-04

	All Ages	Under 35	35-54	55-74	75 and Over
Deaths, 2004	967	1	26	254	686
New Cases, 2003	8,119	3	826	5,105	2,185

Table 38.

### Prostate Cancer Mortality Rates, Michigan 2004 vs. US 2003

	Number in Michigan	Age-Adjusted Rate*	
		Michigan (2004)	US-SEER (2003)
Total	967	24.3	26.6
Whites	779	21.9	24.5
Blacks	175	46.4	58.0

\*Rate per 100,000 race- and gender-specific population.

Table 39.

### Prostate Cancer Incidence Rates, Michigan 2003 vs. US 2003

	Number in Michigan	Age-Adjusted Rate*	
		Michigan (2003)	US-SEER (2003)
Total	8,119	180.5	164.9
Whites	6,324	159.5	160.0
Blacks	1,259	273.8	247.0

\*Rate per 100,000 race- and gender-specific population.

Table 40.

### Age-Specific Prostate Cancer Mortality Rates, Michigan 2004

	Number	Rate*
25-39 Years	0	0.0
40-49 Years	9	1.1
50-64 Years	88	10.5
65 Years and Over	869	168.5

\*Rate per 100,000 age- and gender-specific population.

Table 41.

### Age-Specific Prostate Cancer Incidence Rates, Michigan 2003

	Number	Rate*
25-39 Years	7	0.7
40-49 Years	238	30.2
50-64 Years	2,875	351.5
65 Years and Over	4,998	976.7

\*Rate per 100,000 age- and gender-specific population.

Table 42.

Prostate Cancer Five-Year Relative Survival Rates  
by Stage at Diagnosis and *Race*, US 1996-2002

	Total %	White %	Black %
All stages	99.9	99.9	97.6
Localized/Regional	100.0	100.0	100.0
Distant	33.3	32.7	31.1
Unknown	79.5	80.5	74.6

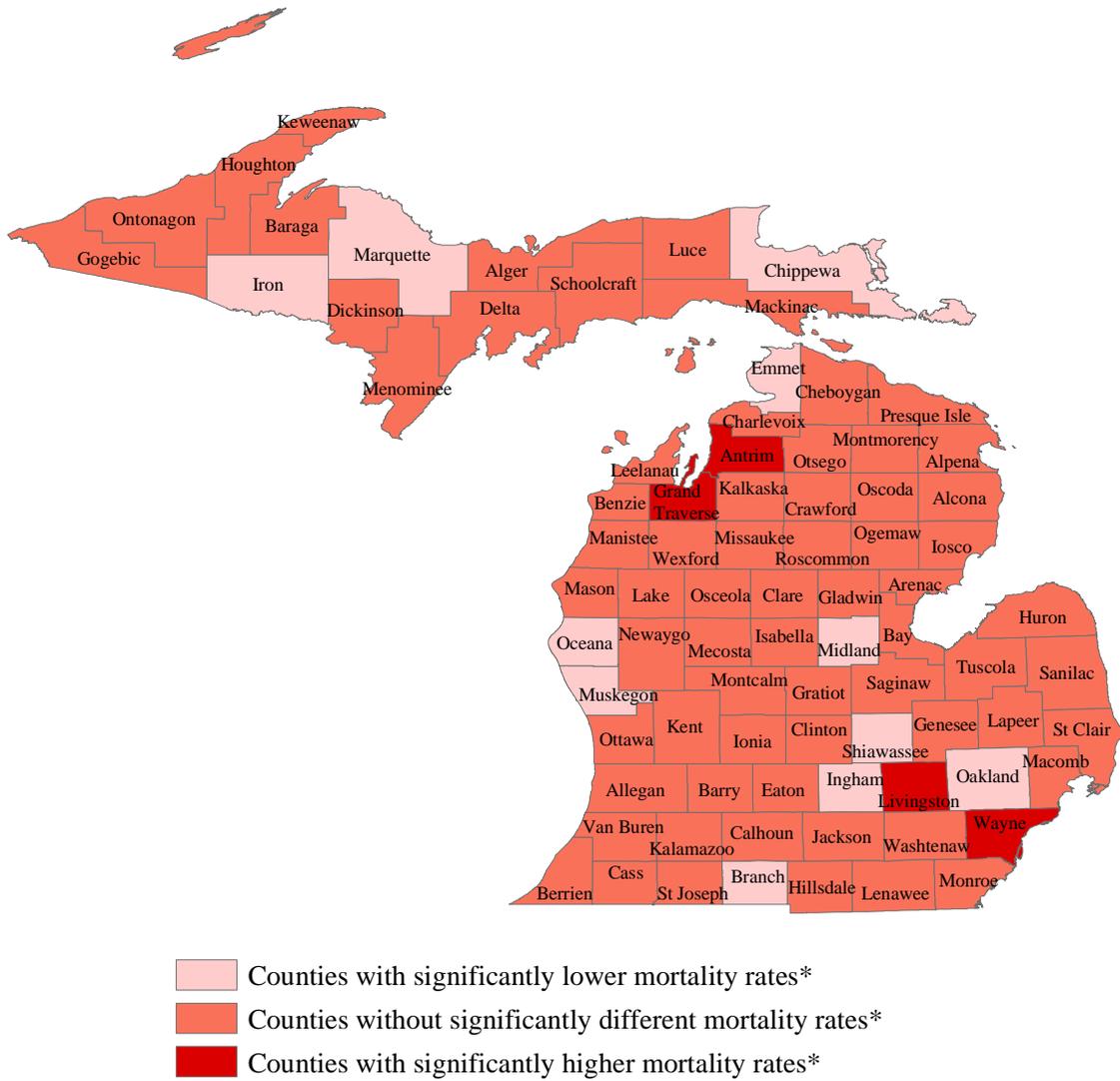
Table 43.

Numbers and Percentages of Invasive Prostate Cancer  
(Primary Site) by Stage at Diagnosis and *Race*,  
Michigan 2003

	Total Number	Stage at Diagnosis							
		Localized		Regional		Distant		Unknown	
		Number	%	Number	%	Number	%	Number	%
Total	8,119	6,331	78.0	723	8.9	192	2.4	873	10.8
Whites	6,324	5,007	79.2	550	8.7	129	2.0	638	10.1
Blacks	1,259	972	77.2	159	12.6	61	4.8	67	5.3

Figure 13.

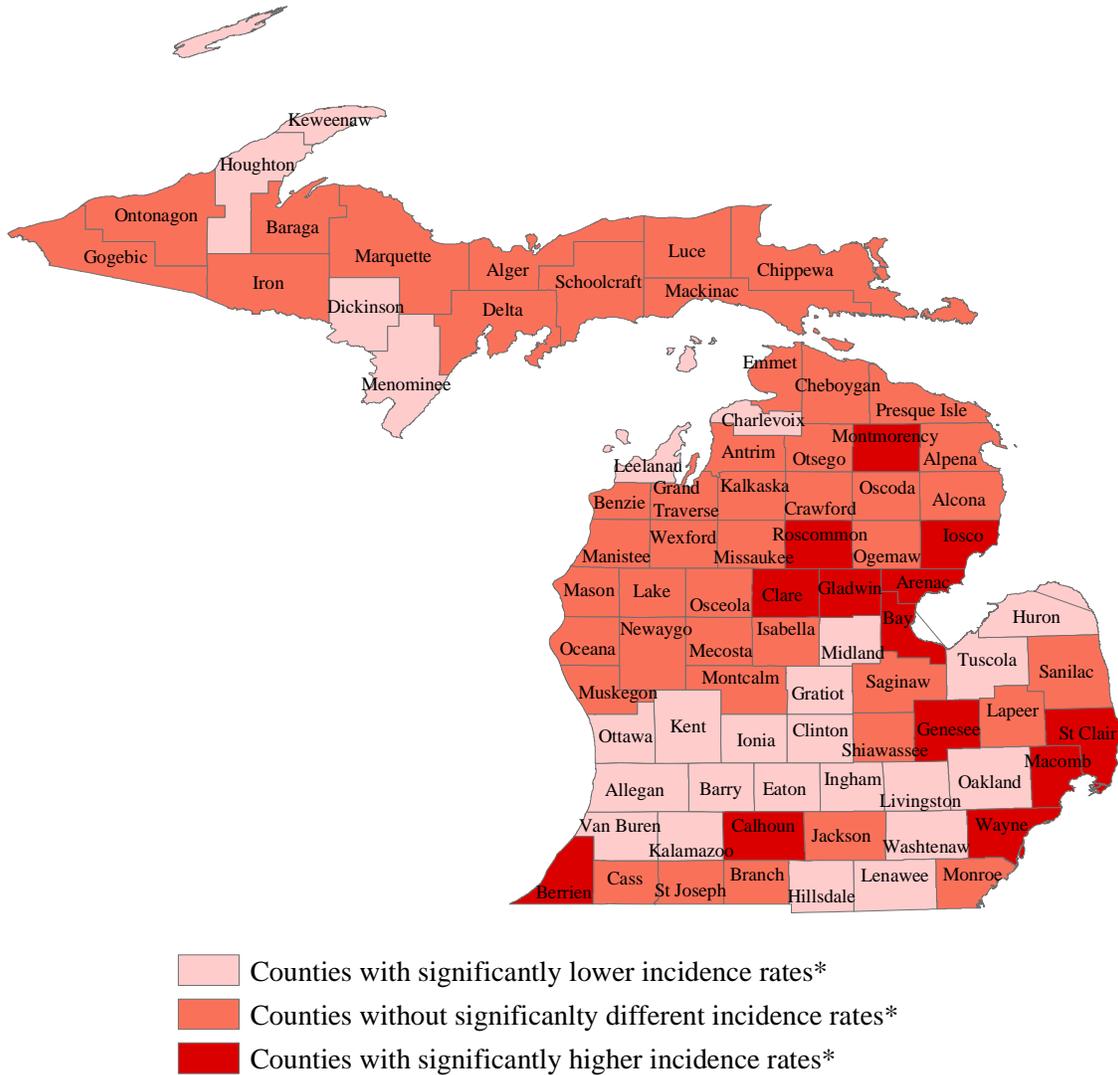
## Prostate Cancer Mortality Rates by County, 1995-2004



\*Differences in age-adjusted mortality rates were statistically tested at 95% confidence levels to compare each county with the all-county rate.

Figure 14.

## Prostate Cancer Incidence Rates by County, 1994-2003



\*Differences in age-adjusted incidence rates were statistically tested at 95% confidence levels to compare each county with the all-county rate.

Figure 15.

## Percentage of Prostate Cancer Cases Localized at Diagnosis by County

