



FLHealthCHARTS.com Statistical Brief

Trends in Colorectal Cancer Rates in Florida 2005 Through 2014

Description

In Florida, during 2014 there were 9,638 newly diagnosed colorectal cancer cases and 3,682 deaths from colorectal cancer. The age-adjusted incidence rate (AAIR) was 36.9 cases per 100,000 population in 2014 and the age-adjusted death rate (AADR) was 13.9 deaths per 100,000 population.¹ Nationally the rates were slightly higher. In the U.S. for 2014 the AAIR for colorectal cancer incidence was 37.4 per 100,000 population and the AADR for the U.S. was 14.1.²

In Florida, during 2005 through 2014 there were statistically significant decreasing trends in the AAIR and the AADR (see Table 1 and Graph 1). The annual percent change for the 10-year period was -2.46% (95% CI -3.25% to -1.67%) for the AAIR and -1.75% (95% CI -2.15% to -1.34%) for the AADR. Since the 95% confidence intervals for both trends do not include one, they are statistically significant at the alpha level 0.05. The ratio of AADR to AAIR did not change significantly during the 10-year period. The annual percent change for the ratio was 0.73% (95% CI -0.03 to 1.50) and since the 95% confidence interval includes one, this is not a statistically significant trend.

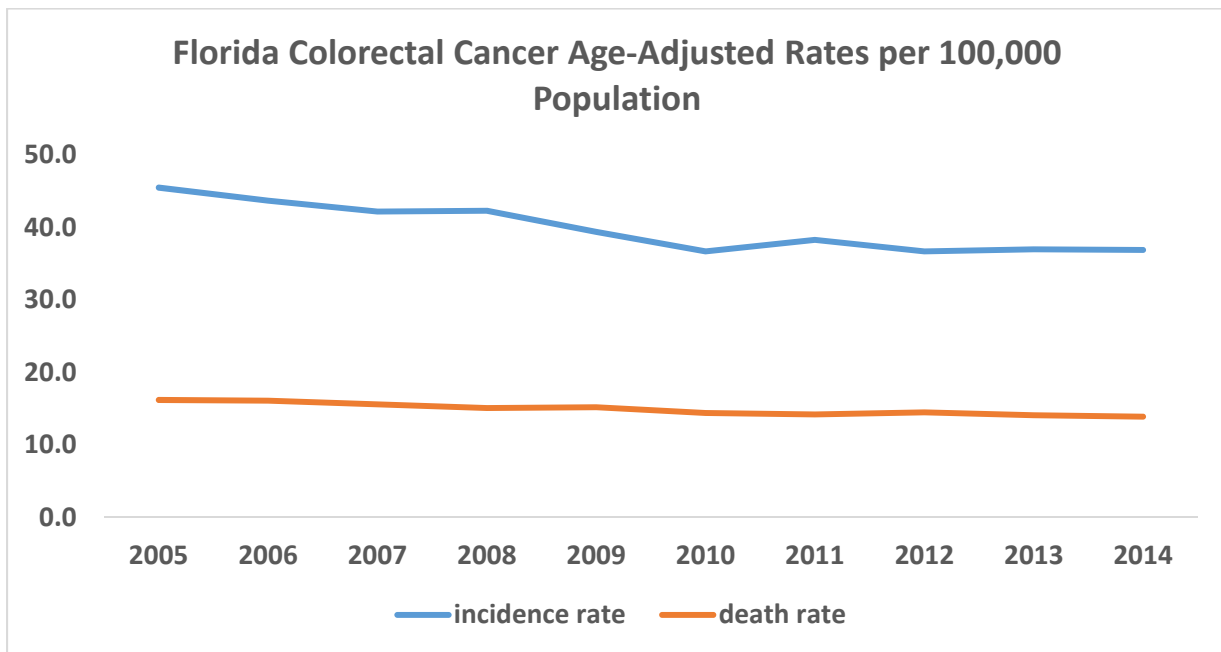
Table 1

Florida Colorectal Cancer Rates Per 100,000 Population, 2005-2014

Year	Colorectal Cases	Age-Adjusted Incidence Rate	Colorectal Deaths	Age-Adjusted Death Rate	Age-Adjusted Death Rate to Incidence Rate Ratio
2005	10,336	45.5	3,751	16.2	0.356
2006	10,173	43.7	3,754	16.1	0.368
2007	9,999	42.2	3,710	15.6	0.370
2008	10,199	42.3	3,815	15.1	0.357
2009	9,593	39.4	3,634	15.2	0.386
2010	9,100	36.7	3,604	14.4	0.392
2011	9,609	38.3	3,656	14.2	0.371
2012	9,245	36.7	3,637	14.5	0.395
2013	9,545	37.0	3,706	14.1	0.381
2014	9,638	36.9	3,682	13.9	0.377
Annual Percent Change		-2.46%		-1.75%	0.73%
95% CI Lower Limit		-3.25%		-2.15%	-0.03%
95% CI Upper Limit		-1.67%		-1.34%	1.50%

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Graph 1



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During the 10-year period, colorectal cancer AAIRs decreased significantly for the White and Black population (see Table 2 and Graph 2). However, AAIRs were generally higher for Florida’s Black population than for the White population. The ratio of the Black AAIR to the White AAIR ranged from a low of 1.01 in 2007 to a high of 1.22 in 2014. There was a statistically significant increasing trend for this ratio as shown in Table 2 by the annual percent change of 1.32% (95% CI 0.14% to 2.51%).

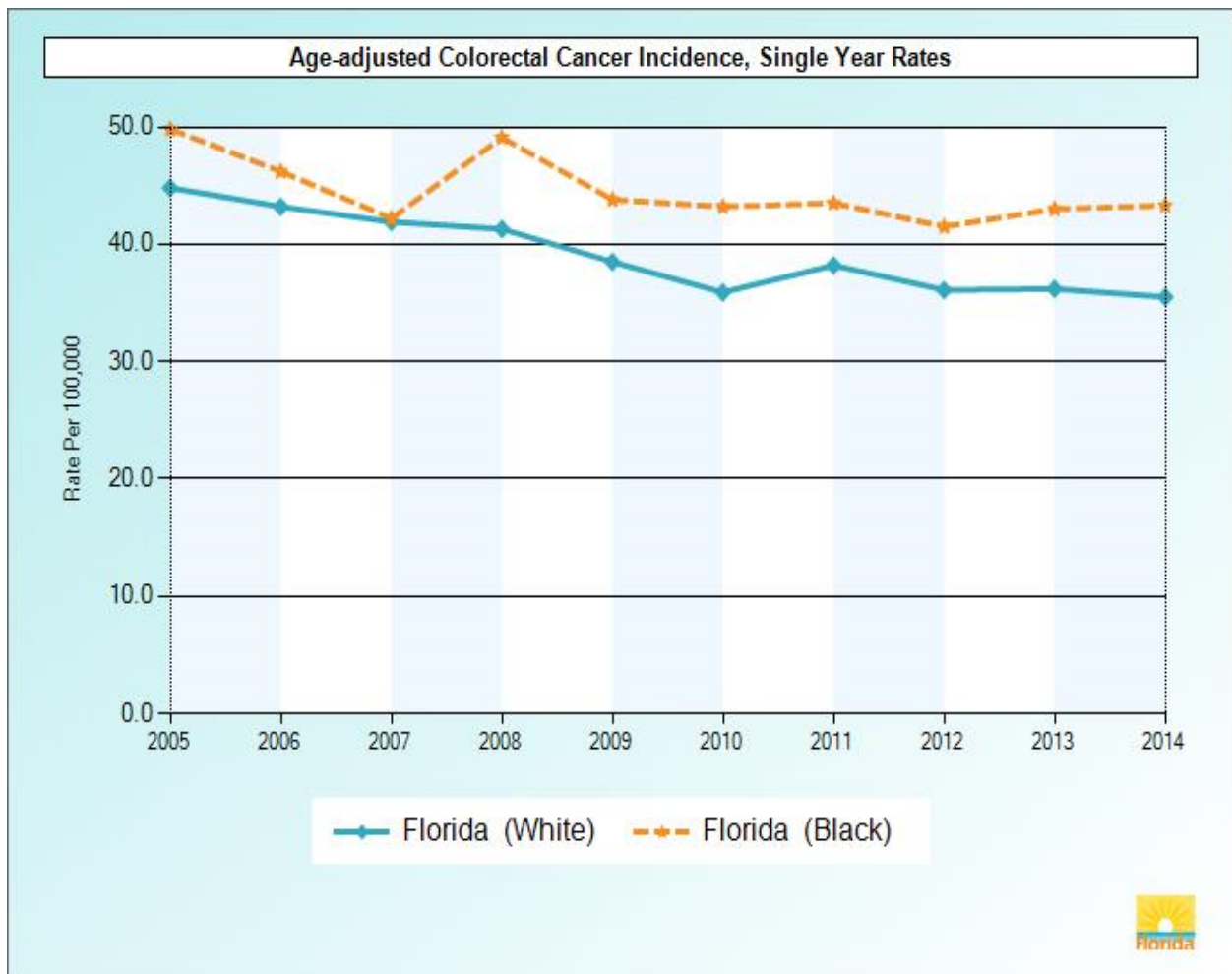
Table 2

Florida Age-adjusted Colorectal Cancer Incidence, Single Year Rates					
	White	White	Black	Black	Black:White
Year	Count	Rate	Count	Rate	Rate Ratio
2005	9,087	44.8	990	49.8	1.11
2006	8,914	43.2	986	46.2	1.07
2007	8,769	41.9	934	42.2	1.01
2008	8,757	41.3	1,134	49.1	1.19
2009	8,210	38.5	1,034	43.8	1.14
2010	7,806	35.9	1,058	43.2	1.20
2011	8,295	38.2	1,070	43.5	1.14
2012	7,906	36.1	1,071	41.5	1.15
2013	8,067	36.2	1,166	43.0	1.19
2014	8,045	35.5	1,223	43.3	1.22

Annual Percent Change		-2.62%		-1.34%	1.32%
95% Lower Limit		-3.39%		-2.58%	0.14%
95% Upper Limit		-1.85%		-0.08%	2.51%

Trends in Colorectal Cancer Rates in Florida 2005 Through 2014

Graph 2



Trends in Colorectal Cancer Rates in Florida 2005 Through 2014

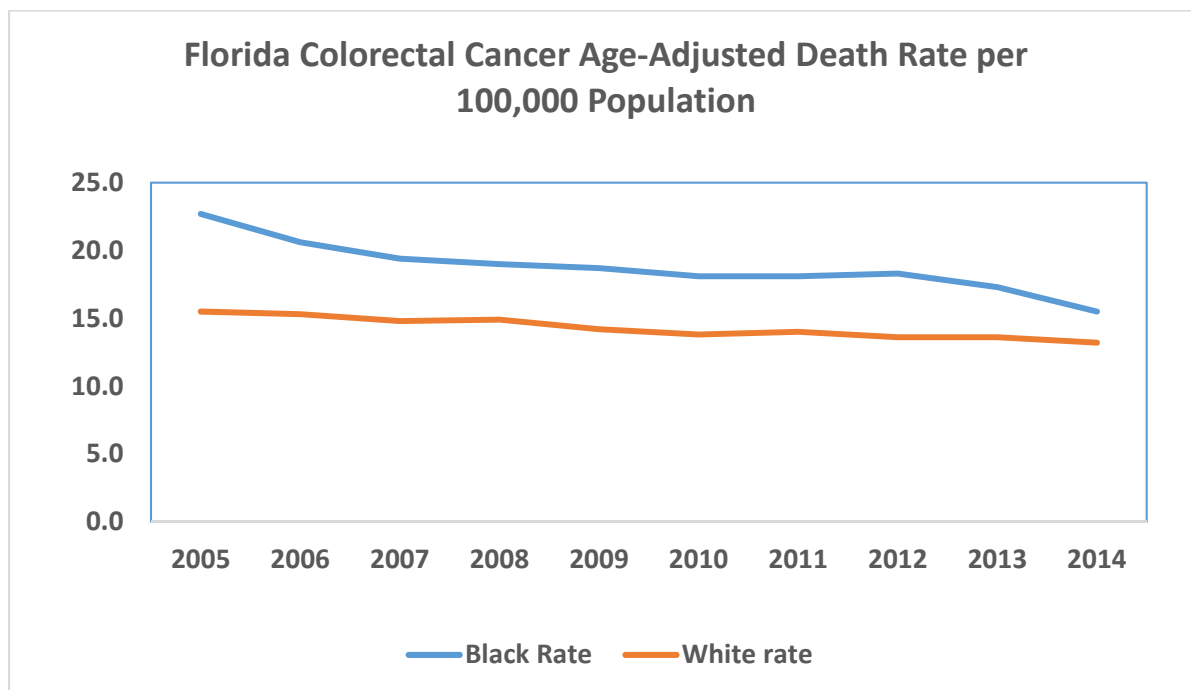
Like the AAIRs, the AADR_s also decreased significantly for the Black and White population in the 10-year period (see Table 3 and Graph 3). In striking contrast to the AAIRs, the trend for the ratio of Black AADR_s to White AADR_s decreased significantly with an annual percent change of -1.33% (95% CI -2.33 to -0.33).

Table 3

Florida Colorectal Cancer Age-Adjusted Death Rate					
	White	White	Black	Black	Black:White
Years	Count	Rate	Count	Rate	Rate Ratio
2005	3,273	15.5	425	22.7	1.46
2006	3,303	15.3	407	20.6	1.35
2007	3,238	14.8	406	19.4	1.31
2008	3,332	14.9	423	19.0	1.28
2009	3,160	14.2	425	18.7	1.32
2010	3,119	13.8	418	18.1	1.31
2011	3,141	14.0	435	18.1	1.29
2012	3,102	13.6	458	18.3	1.35
2013	3,188	13.6	445	17.3	1.27
2014	3,169	13.2	422	15.5	1.17
Annual Percent Change		-1.75%		-3.06%	-1.33%
95% Lower Limit		-2.08%		-4.04%	-2.33%
95% Upper Limit		-1.41%		-2.07%	-0.33%

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Graph 3



Trends in Colorectal Cancer Rates in Florida 2005 Through 2014

Colorectal AADRs showed a significant decreasing trend for both males and females. Colorectal cancer AADRs were much higher for males than for females (see Table 4 and Graph 4). The ratio of male to female AADRs ranged from 1.35 in 2006 to 1.48 in 2013. This means the male AADR was 35% to 48% higher than the female AADR in the 10-year period. The trend in the AADR rate ratio was not statistically significant which indicates a flat trend for the ratio.

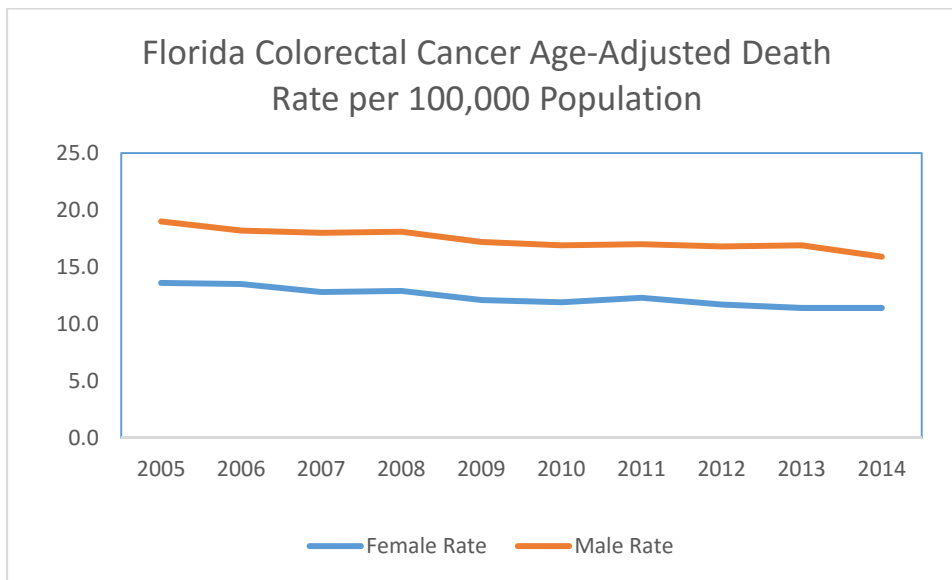
Table 4

Colorectal Cancer Age-Adjusted Death Rate per 100,000 Population					
	Male	Male	Female	Female	Male:Female
Years	Count	Rate	Count	Rate	Rate Ratio
2005	1,940	19.0	1,811	13.6	1.40
2006	1,914	18.2	1,840	13.5	1.35
2007	1,932	18.0	1,778	12.8	1.41
2008	1,996	18.1	1,819	12.9	1.40
2009	1,923	17.2	1,710	12.1	1.42
2010	1,916	16.9	1,687	11.9	1.42
2011	1,912	17.0	1,744	12.3	1.38
2012	1,939	16.8	1,698	11.7	1.44
2013	2,012	16.9	1,694	11.4	1.48
2014	1,949	15.9	1,733	11.4	1.39

Annual Percent Change	-1.61%	-2.03%	0.43%
95% Lower Limit	-2.05%	-2.53%	-0.14%
95% Upper Limit	-1.16%	-1.52%	1.01%

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Graph 4



Discussion

In general, colorectal cancer incidence rates and death rates are decreasing. The decrease in incidence rates could be due to an increase in colorectal cancer screenings and lifestyle changes. The decline in death rates appear to be mainly due the decrease in incidence. This is indicated by the flat trend for the ratio of age-adjusted death rates to age-adjusted incidence rates. The data seem to indicate the risk of getting colorectal cancer has decreased, but for individuals who are diagnosed with colorectal cancer, the risk of dying from it has not decreased.

Age-adjusted incidence rates and death rates are higher for the Black population compared to the White population but the gap between the White and Black death rates appears to be getting smaller. The AAIRs show the opposite pattern in that the gap between Black and White AAIRs increased significantly in the 10-year period.

Comparing death rates by gender, males have much higher AADR than females. The male AADRs were 35% to 48% higher than the female AADRs during the 10 years. The trend in the gender gap is essentially flat.

Sources:

1. Florida Department of Health, CHARTS : <http://www.flhealthcharts.com/charts/Default.aspx>
2. National Cancer Institute, Colorectal Cancer (<https://seer.cancer.gov/statfacts/html/1d/colorect.html>)