



# FLHealthCHARTS.com Statistical Brief

## Trends in Colorectal Cancer Rates in Florida 2007 Through 2016

### Description

In Florida in 2016 there were 10,078 newly diagnosed colorectal cancer cases and 3,953 deaths from colorectal cancer. The age-adjusted incidence rate (AAIR) was 36.5 cases per 100,000 population in 2016 and the age-adjusted death rate (AADR) was 13.7 deaths per 100,000 population. Nationally the rates were slightly higher. In the U.S. for 2015 the AAIR for colorectal cancer incidence was 38.0 per 100,000 population and the AADR for the U.S. was 14.0<sup>1</sup>. In Florida in the 10-year period 2007 through 2016 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 -1.65% (95% CI -2.48% to -0.81%) for the AAIR and -1.31% (95% CI -1.74% to -0.87%) 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 0.35% (95% CI -0.31 to 1.01) and since the 95% confidence interval includes one, this is not a statistically significant trend.

Table 1

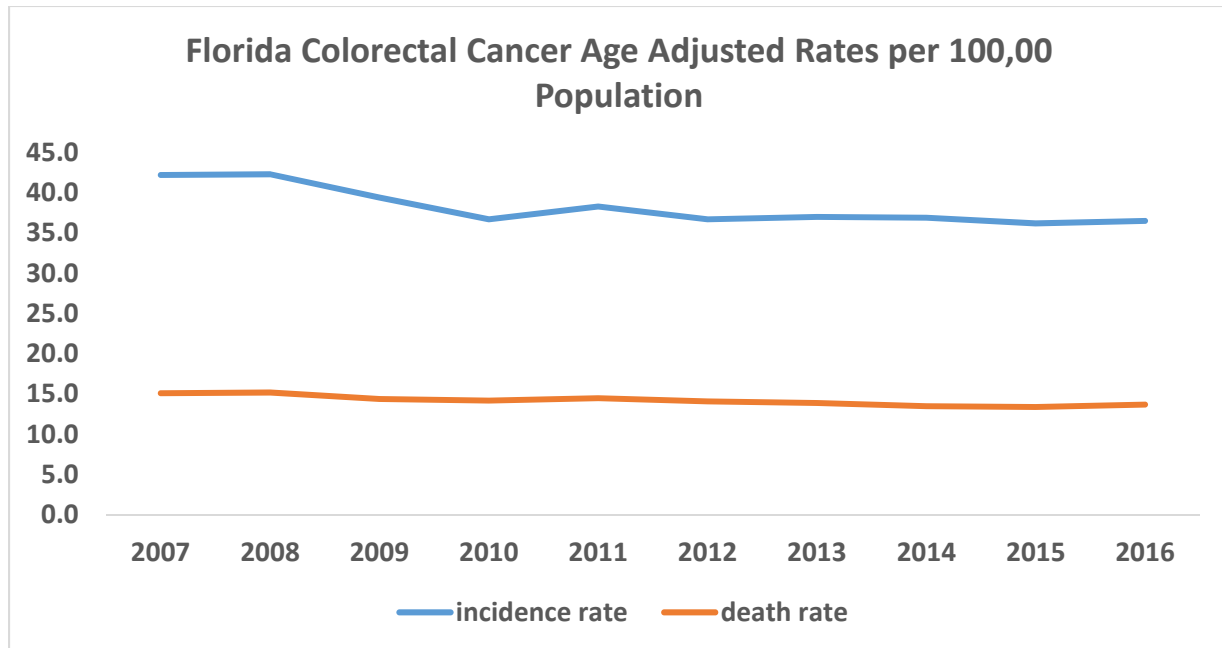
Florida Colorectal Cancer Rates Per 100,000 Population					
		Age-Adjusted		Age-Adjusted	Age-Adjusted
	Colorectal	Incidence	Colorectal	Death	Death Rate to
Year	Cases	Rate	Deaths	Rate	Incidence Rate Ratio
2007	9,999	42.2	3,710	15.1	0.358
2008	10,199	42.3	3,815	15.2	0.359
2009	9,593	39.4	3,634	14.4	0.365
2010	9,100	36.7	3,604	14.2	0.387
2011	9,609	38.3	3,656	14.5	0.379
2012	9,245	36.7	3,637	14.1	0.384
2013	9,545	37.0	3,706	13.9	0.376
2014	9,638	36.9	3,682	13.5	0.366
2015	9,719	36.2	3,765	13.4	0.370
2016	10,078	36.5	3,953	13.7	0.375
<b>Annual Percent Change</b>		-1.65%		-1.31%	0.35%
<b>95% CI Lower Limit</b>		-2.48%		-1.74%	-0.31%
<b>95% CI Upper Limit</b>		-0.81%		-0.87%	1.01%

Source: Florida CHARTS and Florida Cancer Data System (FCDS)

## Trends in Colorectal Cancer Rates in Florida 2005 Through 2014

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Graph 1



Source: Florida CHARTS and Florida Cancer Data System (FCDS)

## Trends in Colorectal Cancer Rates in Florida 2005 Through 2014

In the 10-year period 2007 through 2016, 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 White AAIR ranged from a low of 1.01 in 2007 to a high of 1.22 in 2014. The trend for this ratio was essentially flat and not statistically significant

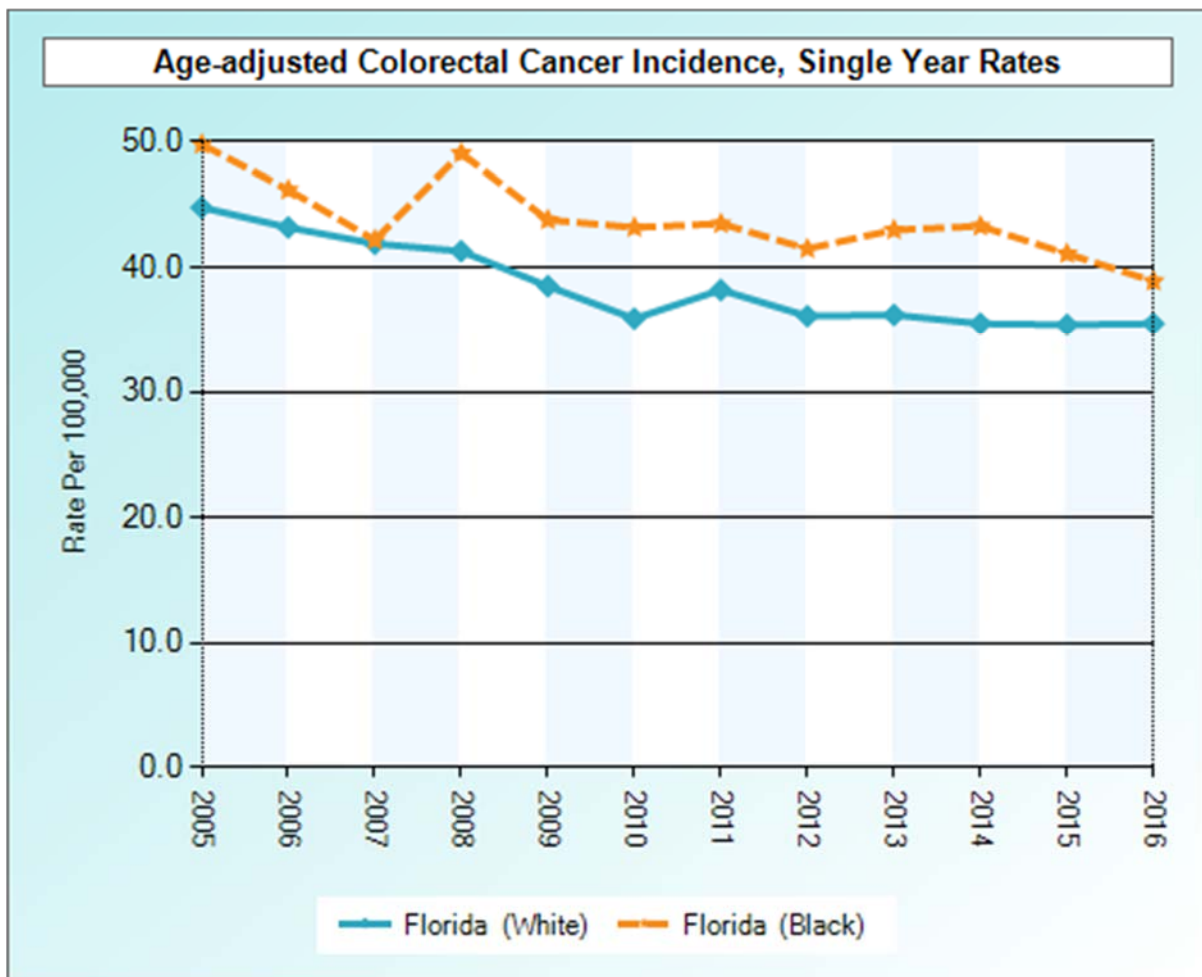
Table 2

<b>Florida Age-adjusted Colorectal Cancer Incidence, Single Year Rates</b>					
	<b>White</b>	<b>White</b>	<b>Black</b>	<b>Black</b>	<b>Black:White</b>
<b>Year</b>	<b>Count</b>	<b>Rate</b>	<b>Count</b>	<b>Rate</b>	<b>Rate Ratio</b>
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
2015	8,129	35.4	1,210	41.1	1.16
2016	8,397	35.5	1,199	38.9	1.10
<b>Annual Percent Change</b>		-1.81%		-1.26%	0.55%
<b>95% Lower Limit</b>		-2.64%		-2.46%	-0.87%
<b>95% Upper Limit</b>		-0.96%		-0.05%	2.00%

Source: Florida CHARTS and Florida Cancer Data System (FCDS)

## Trends in Colorectal Cancer Rates in Florida 2005 Through 2014

Graph 2



Source: Florida CHARTS and Florida Cancer Data System (FCDS)

## Trends in Colorectal Cancer Rates in Florida 2005 Through 2014

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Like the AAIRs, the AADRs also decreased significantly for the Black and White population in the 10-year period 2007 to 2016 (see Table 3 and Graph 3). As with the AAIRs the trend for the ratio of Black AADR to White AADR was essentially flat and was not statistically significant.

Table 3

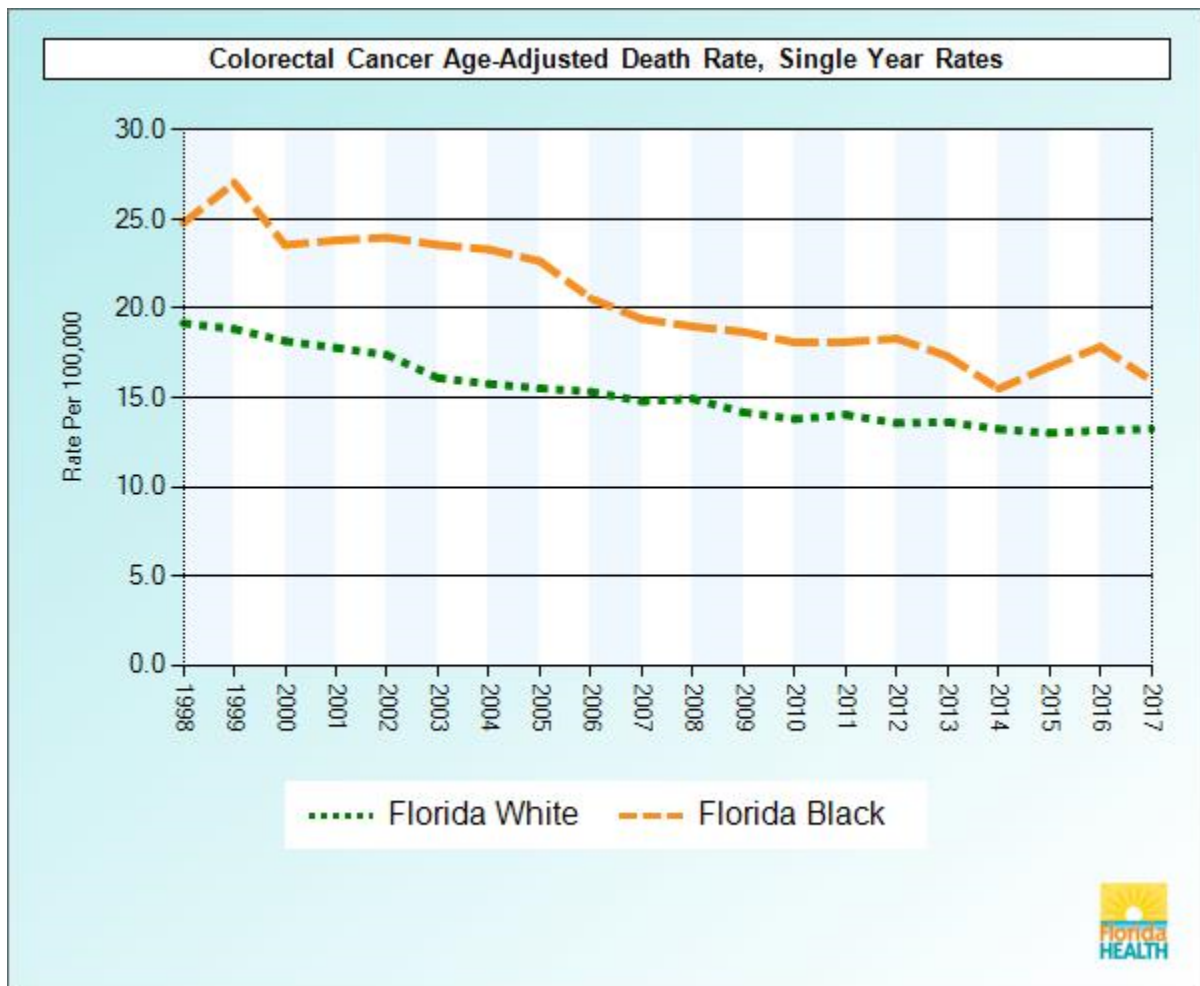
<b>Florida Colorectal Cancer Age-Adjusted Death Rate</b>					
	<b>White</b>	<b>White</b>	<b>Black</b>	<b>Black</b>	<b>Black:White</b>
<b>Years</b>	<b>Count</b>	<b>Rate</b>	<b>Count</b>	<b>Rate</b>	<b>Rate Ratio</b>
2007	3,238	14.8	406	19.4	1.31
2008	3,332	14.9	423	19.0	1.28
2009	3,160	14.2	425	18.7	1.32
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
2015	3,196	13.0	473	16.7	1.28
2016	3,330	13.2	530	17.9	1.36

Annual Percent Change		-1.46%		-1.62%	-1.62%
95% Lower Limit		-1.85%		-2.78%	-1.22%
95% Upper Limit		-1.07%		-4.40%	0.91%

Source: Florida CHARTS

## Trends in Colorectal Cancer Rates in Florida 2005 Through 2014

Graph 3



Source: Florida CHARTS

## Trends in Colorectal Cancer Rates in Florida 2005 Through 2014

Colorectal AADRs showed a significantly decreasing trend for both males and females. But Colorectal AADRs were much higher for males than for females (see Table 4 and Graph 4). The ratio of male to Female AADRs ranged from 1.38 in 2011 to 1.48 in 2013. This means the male AADR was 38% 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

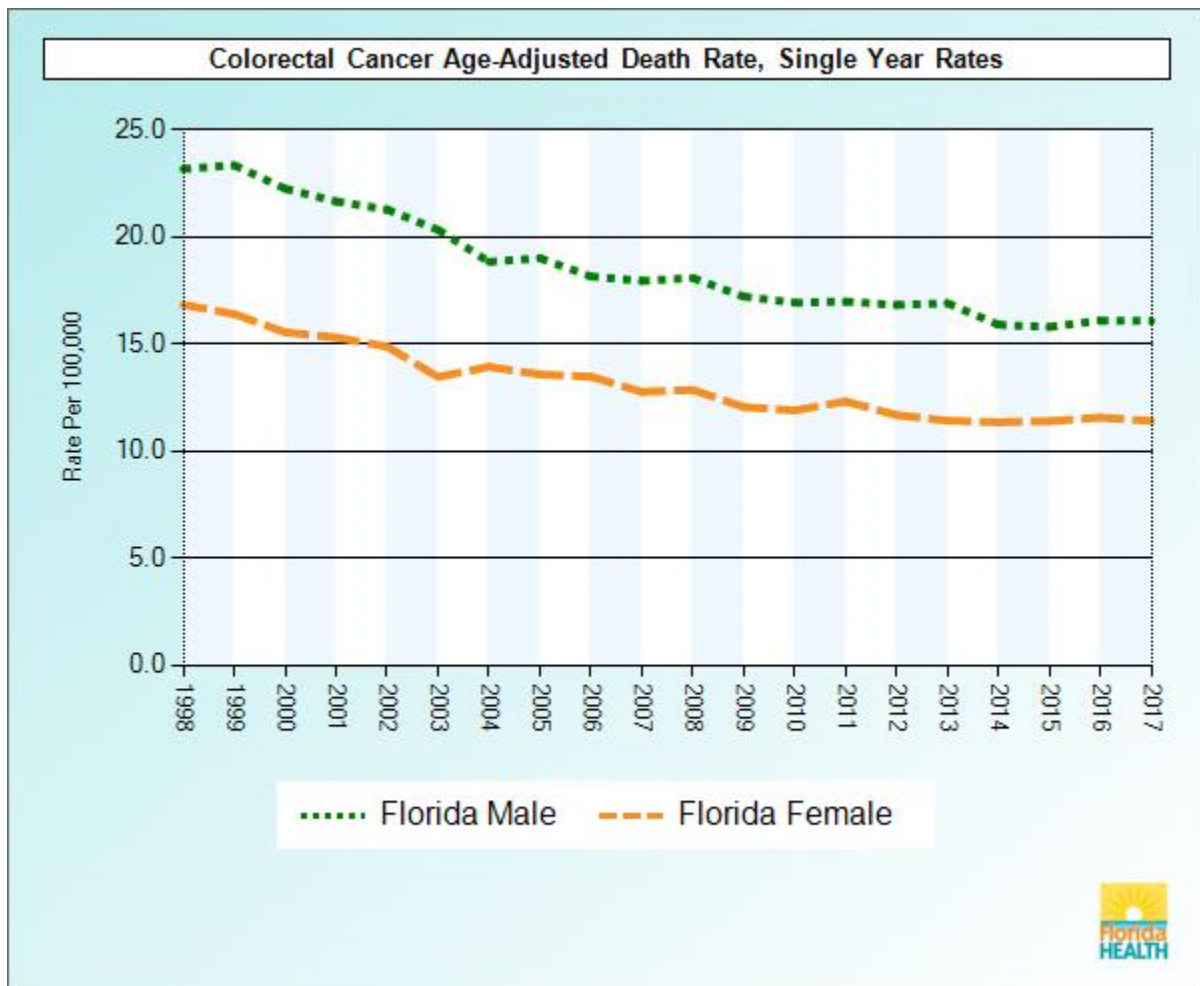
<b>Colorectal Cancer Age-Adjusted Death Rate per 100,000 Population</b>					
	<b>Male</b>	<b>Male</b>	<b>Female</b>	<b>Female</b>	<b>Male:Female</b>
<b>Years</b>	<b>Count</b>	<b>Rate</b>	<b>Count</b>	<b>Rate</b>	<b>Rate Ratio</b>
2007	1,932	18.0	1,778	12.8	1.41
2008	1,996	18.1	1,819	12.9	1.40
2009	1,923	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
2015	1,994	15.8	1,771	11.4	1.39
2016	2,109	16.1	1,844	11.6	1.39

<b>Annual Percent Change</b>		-1.42%		-1.34%	-0.08%
<b>95% Lower Limit</b>		-1.89%		-1.93%	-0.64%
<b>95% Upper Limit</b>		-0.96%		-0.74%	0.49%

Source: Florida CHARTS

## Trends in Colorectal Cancer Rates in Florida 2005 Through 2014

Graph 4



Source: Florida CHARTS



## Trends in Colorectal Cancer Rates in Florida 2005 Through 2014

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### Discussion

In general, colorectal incidence rates and death rates are going down. The decrease in incidence rates could be due to more effective screening and healthier diets. The decreases 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 gone down but the risk of dying from colorectal cancer, for people who get it, has not decreased.

Age-adjusted Incidence rates and death rates are higher for the Black population compared to the White population.

Comparing death rates by gender, males have much higher AADRs than females. The male AADRs were 38% to 48% higher than the female AADRs during the 10 years. And the trend in the gender gap is essentially flat.

### References:

- (1) United States Cancer Statistics: 1999 - 2015 Mortality, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention; 2018. Accessed at <http://wonder.cdc.gov/CancerMort-v2015.html>