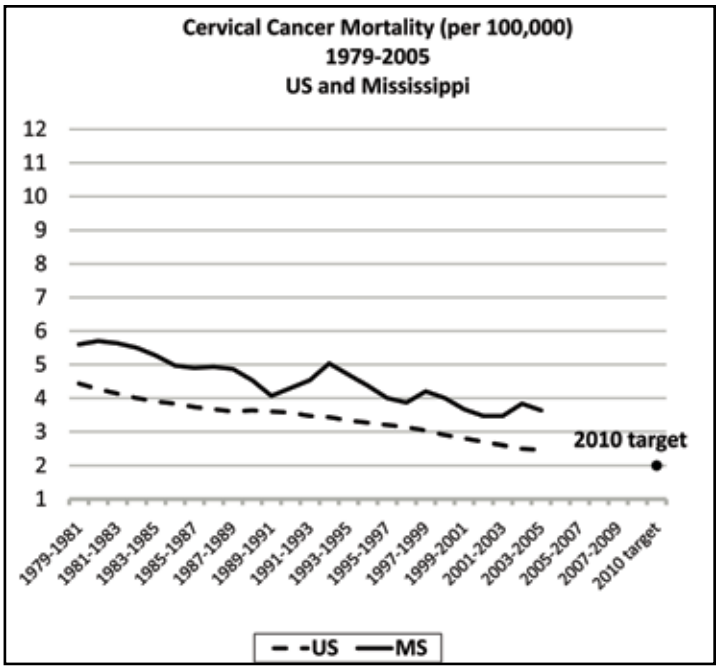
CERVICAL CANCER MORTALITY

Mississippi, the Nation, and Healthy People 2010

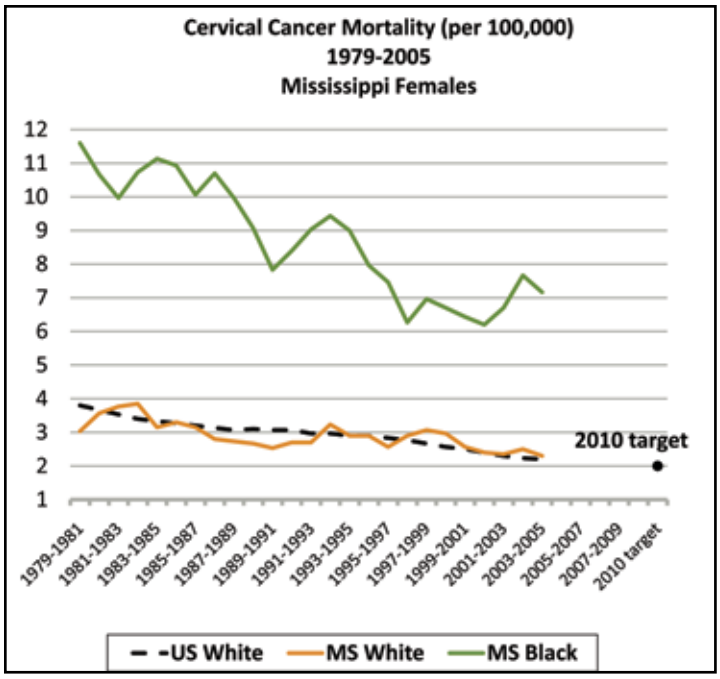
Since 1979, cervical cancer mortality rates have declined steadily. Using the 1998 US rate of 3.0 deaths per 100,000 as a baseline, Healthy People calls for a reduction in cervical cancer mortality to 2 deaths per 100,000 by 2010. **In 2005, females across the US had made encouraging progress toward the Healthy People goal** (achieving a rate of 2.5 per 100,000). **In contrast, Mississippi has not seen a significant decline in cervical cancer rate mortality in recent years** (fluctuating around the 1998 rate of 3.7 per 100,000, reaching a high of 4.7 in 1999 and a low of 2.7 in 2001). In 2005, Mississippi (with a rate of 3.5 per 100,000) trailed the nation by 1 death per 100,000. With no significant decline in rates since 1998, **Mississippi seems unlikely to meet the Healthy People 2010 goal**.



Source:CDC, Compressed Mortality Data, n.d.a; n.d.b

More than **1 in 3** cervical cancer deaths among **black Mississippians** would have been averted in 2005 if we had achieved at white national levels.

Cervical Cancer Mortality (per 100,000)	1979	2005
US white female	3.9	2.2
MS white female	3.1	2.4
MS black female	11.1	5.9



Source: CDC, Compressed Mortality Data, n.d.a; n.d.b

Because we were not equal...
2 more white females in Mississippi
21 more black females in Mississippi
...died of cervical cancer in 2005.

Mississippians: How Have We Compared?

Rates of cervical cancer mortality for whites across the US declined from 1979 to 2005 (from 3.9 per 100,000 to 2.2 per 100,000). **Cervical cancer mortality among white Mississippians tracked closely with rates among their national counterparts** (a rate of 3.1 per 100,000 in 1979 dropping to 2.4 per 100,000 in 2005). In 2005, cervical cancer deaths among white Mississippians only exceeded the US white rate by 0.2 per 100,000.

Black Mississippians, however, died of cervical cancer at consistently higher levels (a rate of 11.1 per 100,000 in 1979 dropping to 5.9 per 100,000 in 2005) than whites at the state and national levels. While the disparity between black Mississippians and their white counterparts has decreased over time, from 7.2 excess cervical cancer deaths per 100,000 in 1979 to 3.7 per 100,000 in 2005, the rate among black MS females in 2005 was still more than two and half times greater than white US rate.

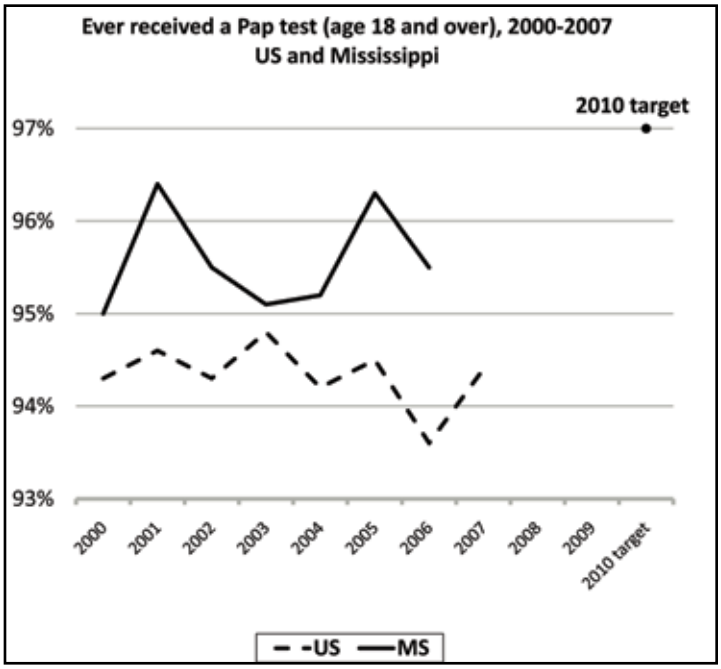
CERVICAL CANCER SCREENING

Cervical cancer is highly treatable if caught in early stages. Annual Papanicoloaou (Pap) tests very effectively identify cervical cancer in these early, treatable stages (American Cancer Society, 2008).

Mississippi, the Nation, and Healthy People 2010

Using the 1998 US rate of 92% of women having ever received a Pap test and 79% having received a Pap test recently, Healthy People sets two goals for women in 2010: 97% of all women 18+ should have received a Pap test at least once and 90% of women 18+ should have received a Pap test recently (in the preceding 3 years).

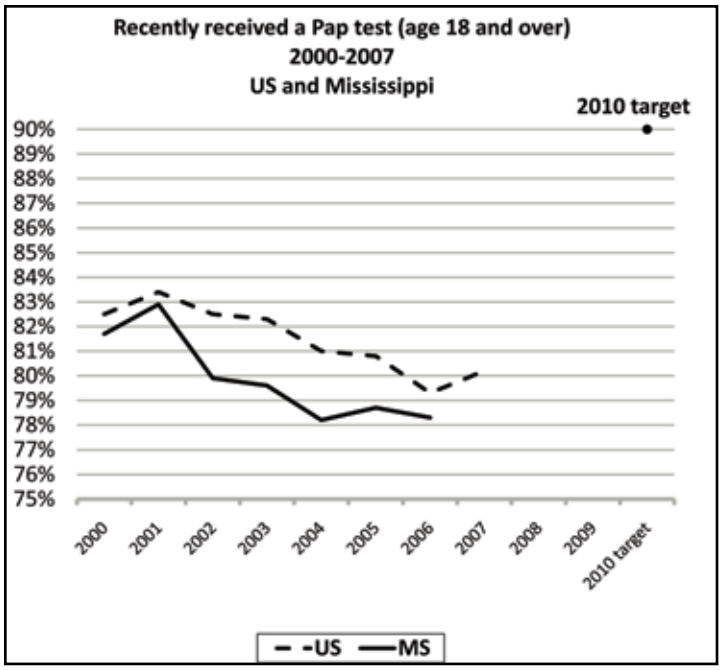
From 2000 to 2007, **rates for US women ever having received Pap test remained fairly stable, fluctuating slightly** (from a high of 94.8% in 2003 to a low of 93.6% in 2006 before rising back to 94.4% in 2007). **Given this trend, the US is unlikely to meet the Healthy People goal by 2010**. In Mississippi, rates of screening are also fairly static overall, though fluctuating more severely (starting from 95% in 2000 and peaking in 2001 and 2005 at 96.4 and 96.3%, respectively, before settling back to 95.5% in 2006). **While unlikely to meet the Healthy People 2010 goal for ever receiving a Pap test, Mississippians consistently outperform the US**. In 2006, 1.9% more Mississippians had received a Pap screening at least once in comparison to US women.



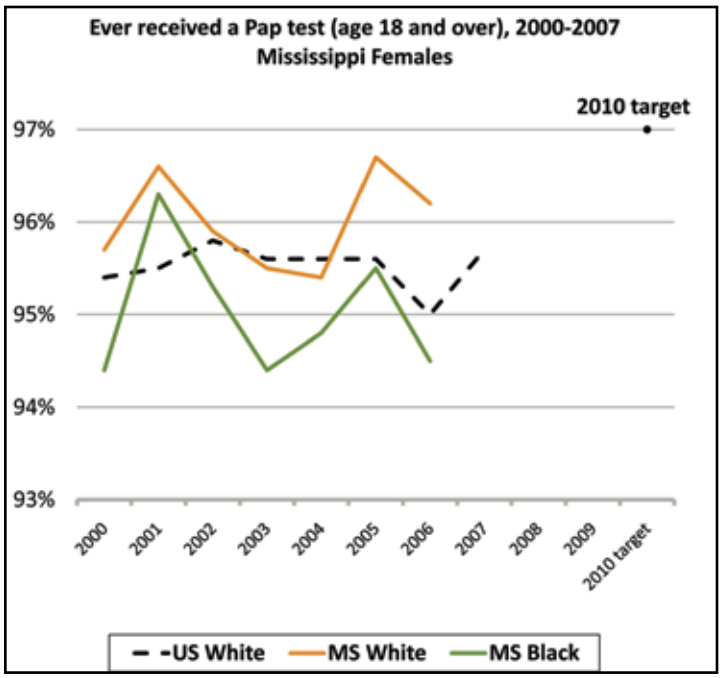
Source: CDC, , BRFSS, n.d.c.

While Mississippi outperforms the nation in numbers of women who have ever received a Pap test, Mississippians fall behind in achievement of recent Pap screening.

NOTE: Healthy People 2010 uses the National Health Interview Survey (health care provider-reported data) to set the baseline and track progress for Pap screening, while the data herein derives from BRFSS (self-reported data).



Source: CDC, , BRFSS, n.d.c.



Source: CDC, BRFSS, n.d.c

Ever received a Pap test	2000	2006
US white female	95.4%	95.0%
MS white female	95.7%	96.2%
MS black female	94.4%	94.5%

Because we were not equal...
0.5% fewer black females in Mississippi
...had ever received a pap test in 2006.

The relationship between Mississippi and the US reverses with regards to recent Pap screening, with US females receiving higher levels of recent screening compared to MS females. Moreover, while numbers of women ever receiving Pap screening is relatively static over the 2000 to 2007 period, **rates of women having received recent Pap screening declined** (rates in the US dropping from 82.5% to 80.2% and rates for Mississippians dropping from 81.7% in 2000 to 78.3% in 2006). **Neither the US nor Mississippi**, which trailed the US by 1.0% in 2006, **is approaching the Healthy People 2010 goal for recent Pap testing** – in fact, we are moving further and further away.

Mississippians: How Have We Compared?

Over the 2000 to 2007 period, rates of women ever having received a Pap smear remained fairly static overall. **Rates for white women in Mississippi** (95.7% screened in 2000 and 96.2% in 2006) **generally exceeded rates for white women across the nation** (95.4% in 2000 and 95.7% in 2007), with white US women trailing white MS women by 1.2% in 2006.

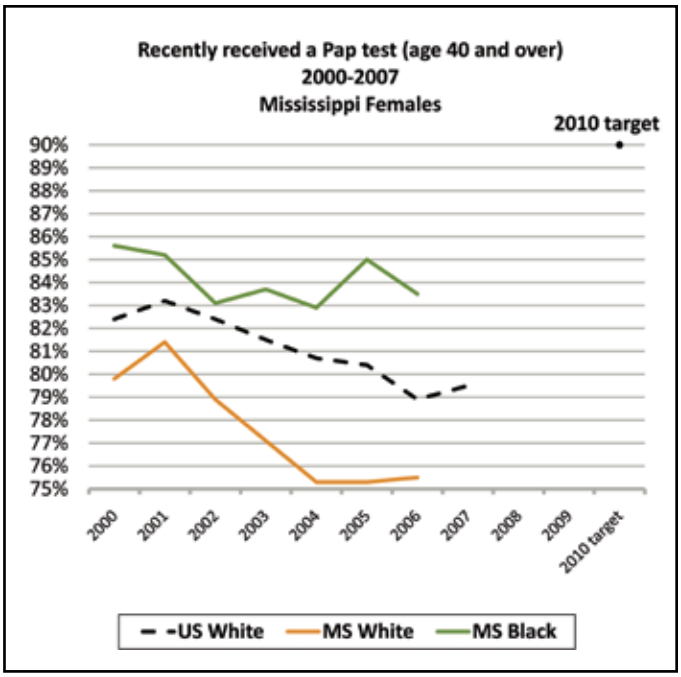
Black females, however, typically attained screening at slightly lower rates (with 94.4% screened in 2000 and 94.5% screened in 2006) than their white national counterparts; 0.5% fewer black females in Mississippi had ever received Pap screening in comparison to US whites in 2006. **Lower rates of ever having received a pap test among black females may explain their high rates of cervical cancer mortality**.

Interestingly, the relationship between black and white MS females is reversed when considering recent Pap testing. Moreover, the disparities between US whites, MS whites, and MS blacks are much larger in magnitude.

For all groups, from 2000 to 2007, the number of women having received a recent Pap test dropped. The sharpest drop occurred among white females, with rates for white MS females falling more rapidly (from 79.8% in 2000 to 75.5% in 2006) than rates among white US females (from 82.4% to 78.9%), leading to an increasing disparity. In 2006, white Mississippi females were 3.4% less likely to receive regular Pap screening compared their national counterparts.

Meanwhile, **black females in Mississippi actually saw higher rates of recent Pap screening compared to their white national counterparts.** The drop in recent Pap testing among black females in Mississippi was also less severe (from 85.6% in 2000 to 83.5% in 2006), resulting in an increase in the advantage experienced by black MS females. In 2006, 4.6% more black MS females recently received a Pap test compared to US whites.

Higher rates of recent pap screening for black females in Mississippi from 2000 to 2006, could lead to a future reduction in disparity between black Mississippians and their white national counterparts with regards to cervical cancer mortality. Meanwhile, lower rates of recent pap screening among white Mississippians could predict an increase in cervical cancer mortality in this group.



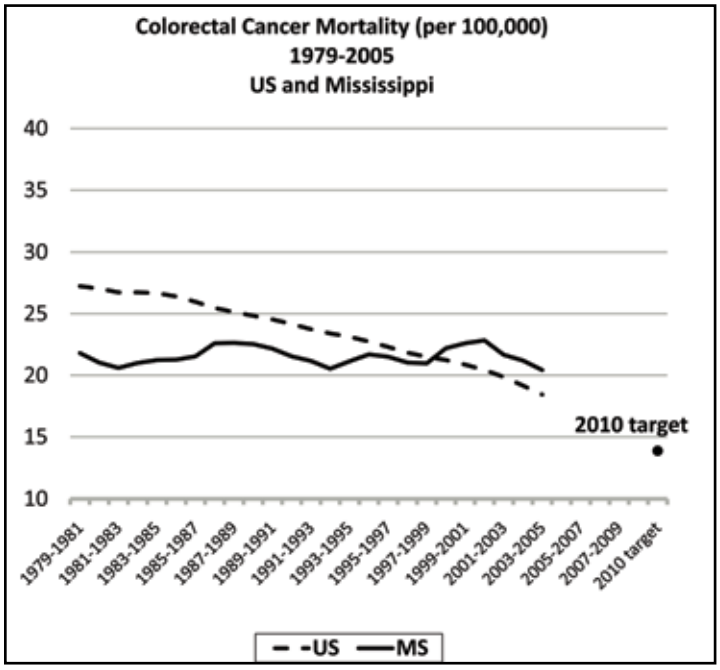
Source: CDC, BRFSS, n.d.c

Lower likelihood among **black females in Mississippi** of having ever received a Pap test may explain the currently dismal cervical cancer mortality rates plaguing this population. Higher rates of recent Pap screening among black Mississippians may predict improvements in cervical cancer mortality rates.

Recently received a Pap test	2000	2006
US white female	82.4%	78.9%
MS white female	79.8%	75.5%
MS black female	85.6%	83.5%

Because we were not equal...
3.4% fewer white females in Mississippi
...received regular pap tests in 2006.

COLORECTAL CANCER



Source: CDC, Compressed Mortality Data, n.d.a; n.d.b

COLORECTAL CANCER MORTALITY

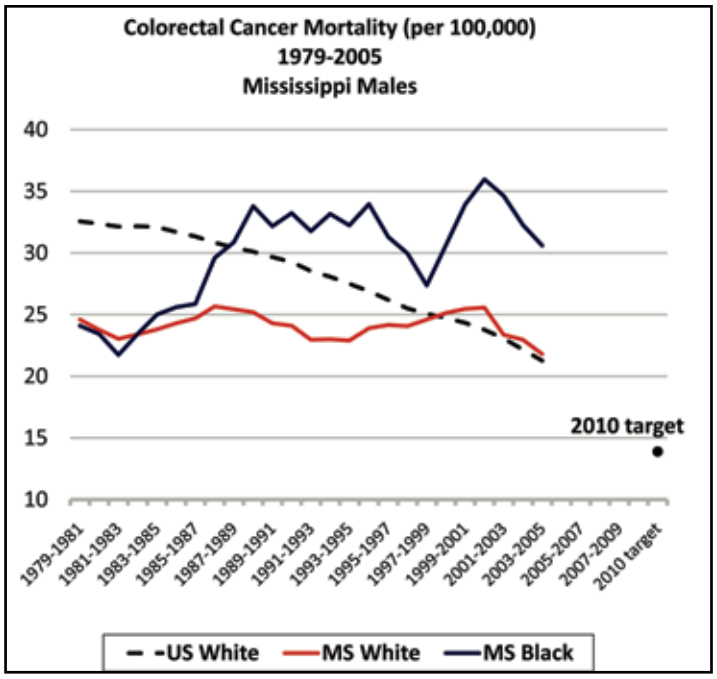
Mississippi, the Nation, and Healthy People 2010

Colorectal cancer is the third leading cause of cancer mortality in the United States. Using the 1998 US rate of 21.2 deaths per 100,000, Healthy People calls for a reduction in colorectal cancer mortality to 13.9 per 100,000 by 2010. **National rates for colorectal cancer mortality have declined consistently** (reaching 17.7 per 100,000 by 2005). If current trends continue, the **US could easily meet the Healthy People goal**. In Mississippi, however, rates have remained fairly static through the 1979 to 2005 period. Thus, while Mississippi once held an advantage over the nation, the 2005 Mississippi rate of colorectal cancer mortality (19.9 per 100,000) exceeded national rates by 2.2 per 100,000. While rates have begun to decline slightly in recent years, **the overall static nature of colorectal cancer mortality rates in Mississippi makes achievement of the Healthy People target unlikely**.

Mississippians: How Have We Compared?

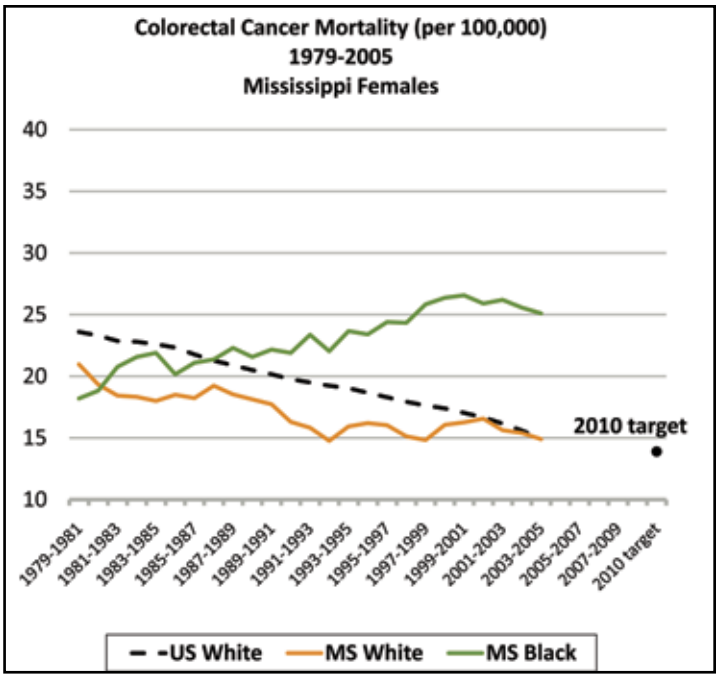
In 1979, black males in Mississippi (with a rate of 21 colorectal cancer deaths per 100,000) held an 11.6 per 100,000 advantage over white males across the nation, while white males in Mississippi (with a rate of 25.6 deaths per 100,000) held a 7 per 100,000 advantage. However, over the 1979 to 2005 period, **while rates of colorectal cancer mortality declined for white US males, rates for white males in Mississippi remained static and rates for black MS males rose. As a result, by 2005 both white and black Mississippians suffered higher rates of colorectal cancer mortality than their white national counterparts**. White Mississippians (with a rate of in 21.8 per 100,000) only exceeded their national counterparts by 1.4 per 100,000 in 2005. In contrast, black males in Mississippi (with a rate of 28.9 per 100,000 in 2005) died of colorectal cancer at a rate 8.5 per 100,000 higher than that of their white national counterparts.

The pattern of colorectal cancer mortality among female Mississippians is very similar to the male experience, but at lower rates. In 1979, black MS females (with a rate of 19.3 colorectal cancer deaths per 100,000) held an advantage of 4.5 per 100,000 over white US females; meanwhile white females in Mississippi (with a rate of 22.7 per 100,000) held an advantage of 1.1 per 100,000. Over the 1979 to 2005 period, **rates of colorectal cancer mortality dropped for white**



Source: CDC, Compressed Mortality Data, n.d.a; n.d.b

More than **1 in 4** colorectal cancer deaths among **black Mississippi males** would have been averted in 2005 if we had achieved at white national levels.



Source: CDC, Compressed Mortality Data, n.d.a; n.d.b.

Colorectal Cancer Mortality (per 100,000)	1979	2005
US white male	32.6	20.4
MS white male	25.6	21.8
MS black male	21.0	28.9
US white female	23.8	14.3
MS white female	22.7	14.4
MS black female	19.3	24.3

Because we were not equal...
1 more white female in Mississippi
12 more white males in Mississippi
43 more black males in Mississippi
57 more black females in Mississippi
...died of colorectal cancer in 2005.

females both in MS and across the nation. However, **because this decline was slower among white females in Mississippi, their advantage over their national counterparts has disappeared in recent years**.

Meanwhile, rates of colorectal cancer mortality rose among black females in Mississippi. By 1991, the advantage black females held over their white national counterparts disappeared, and **a disadvantage for black females in Mississippi emerged and grew rapidly**. In 2005, black MS females (with at a rate of 24.3 per 100,000) saw 10 more colorectal cancer deaths per 100,000 compared to the white national counterparts.

RECOMMENDED COLORECTAL CANCER SCREENING

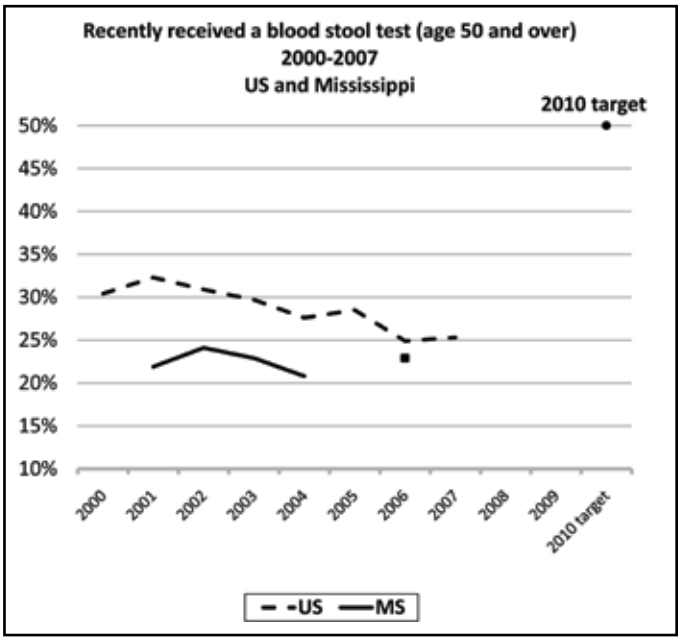
Colorectal cancer can be detected in early stages with Fecal Occult Blood Tests (FOBT) and sigmoidoscopy. Doctors recommend that adults over the age of 50 have an FOBT annually and a sigmoidoscopy regularly (American Cancer Society, 2008).

Mississippi, the Nation, and Healthy People 2010

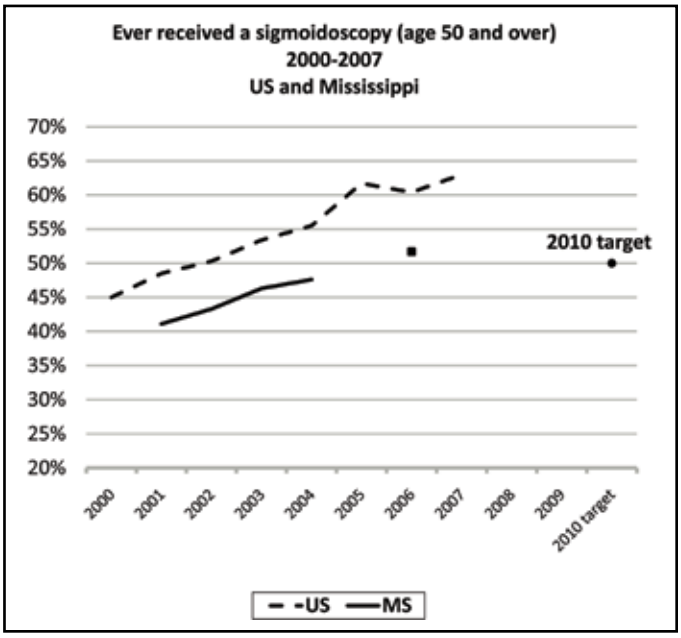
Using the respective 1998 US rates of 35% and 37% as baselines, Healthy People 2010 calls for 50% of adults over age 50 to have had a recent FOBT (in the previous 2 years) and a sigmoidoscopy at least once.

Disturbingly, the number of US adults having received a recent FOBT has declined in recent years (dropping to 25.3% in 2007). **In Mississippi, on the other hand, rates of FOBT screening remained fairly static** (at 21.9% in 2001 and 22.9% in 2006). As a result, the disparity between the US and Mississippi has lessened. The Mississippi FOBT rate trailed the US rate by 2.0% in 2006. Given these trends, **Mississippi and the US are highly unlikely to reach the Healthy People goal in 2010**.

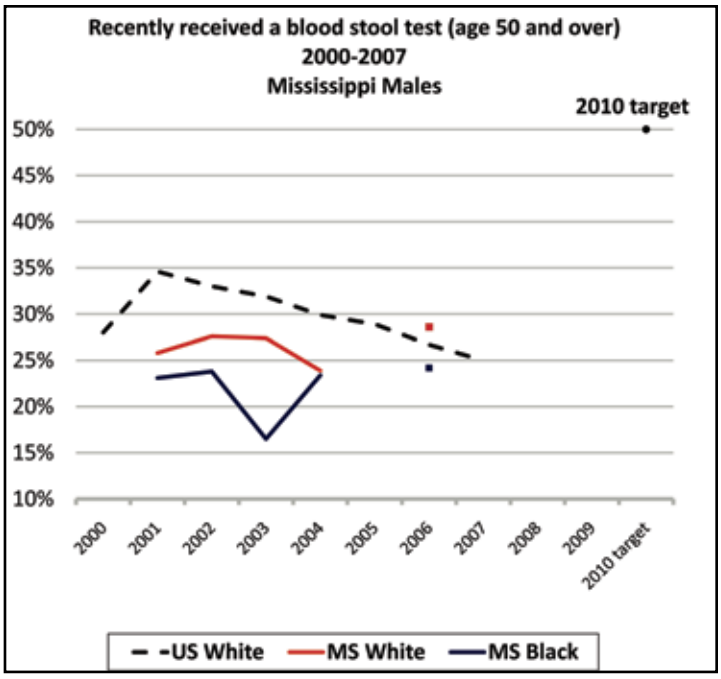
Meanwhile, **the number of adults ever receiving a sigmoidoscopy are on the rise, with US adults already meeting and exceeding the Healthy People goal by 2007** (with a rate of 63%). **Mississippians, while trailing the nation, also met the Healthy People goal** (rates rising from 41.1% in 2001 to 51.7% in 2006). However, **the disparity between Mississippi and the US is increasing**; in 2006, Mississippi trailed the nation in sigmoidoscopy by 8.7%.



Source: CDC, BRFSS, n.d.c



Source: CDC, BRFSS, n.d.c.



Source: CDC, BRFSS, n.d.c

The disparity between Mississippians and the US decreased for recent Fecal Occult Blood Test screening but increased for sigmoidoscopies.

Compared to MS males, females in Mississippi saw lower rates of recent FOBT screening as well as greater disparities from national rates.

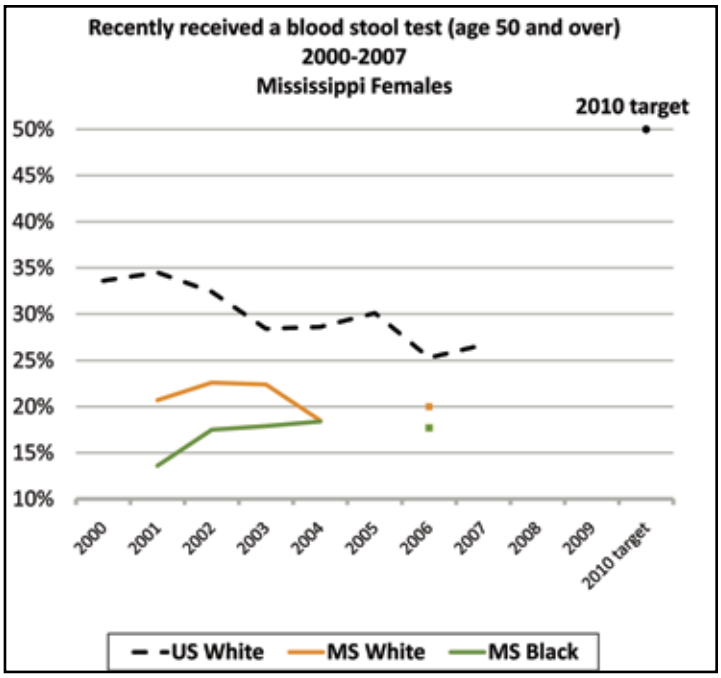
Recently received a blood stool Test	2001	2006
US white male	34.6%	26.7%
MS white male	25.8%	28.6%
MS black male	23.1%	24.2%
US white female	34.5%	25.3%
MS white female	20.7%	20.0%
MS black female	13.6%	17.7%

Mississippians: How Have We Compared?

While FOBT screening has declined among white US males (from 28% receiving a recent FOBT in 2000 to 25% in 2007), **screening rates have remained relatively static among both white and black Mississippians**. White males in Mississippi, who held an advantage of 1.9% over their white national counterparts in 2006, actually saw FOBT screening rates rise overall from 2001 to 2006 (from 25.8% to 28.6%), however data is insufficient to classify this as a true departure from stability to an upward trend.

While black Mississippians achieved recent FOBT screening at lower rates than their national white counterparts, the disparity between these two groups is decreasing rapidly. As rates of FOBT screening dropped among white US males, rates for black MS males rose slightly (from 23.1% in 2001 to 24.2% in 2006), and the disparity between the two groups fell from almost 5% to a mere 2.5%.

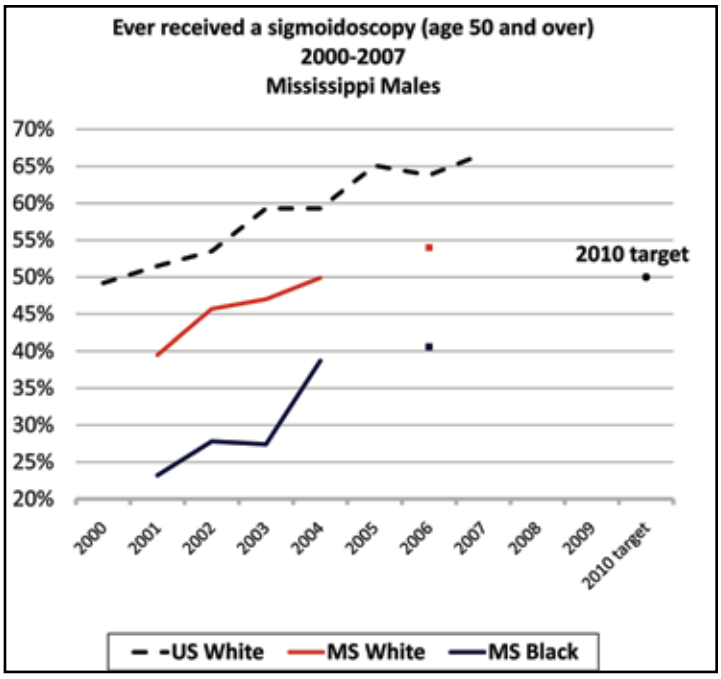
White females across the US saw an even more severe decline in FOBT (from 33.6% in 2000 to 26.7% in 2007). **Moreover, in a reversal of typical patterns, the disparity in screening between MS females and US females is actually larger than that between MS and US males.** Less severe drops in rates of screening for white MS females (from 20.7% in 2001 to 20% in 2006) led to a drop in disparity, with 5.3% fewer white females in Mississippi screened in 2006 compared to US females. While black females saw the lowest rates of screening, their screening rates actually rose over the observed period (from 13.6% in 2001 to 17.7% in 2006), and the disparity in FOBT screening between black MS females and white US females dropped from 20.9% to 7.6%.



Source: CDC, BRFSS, n.d.c

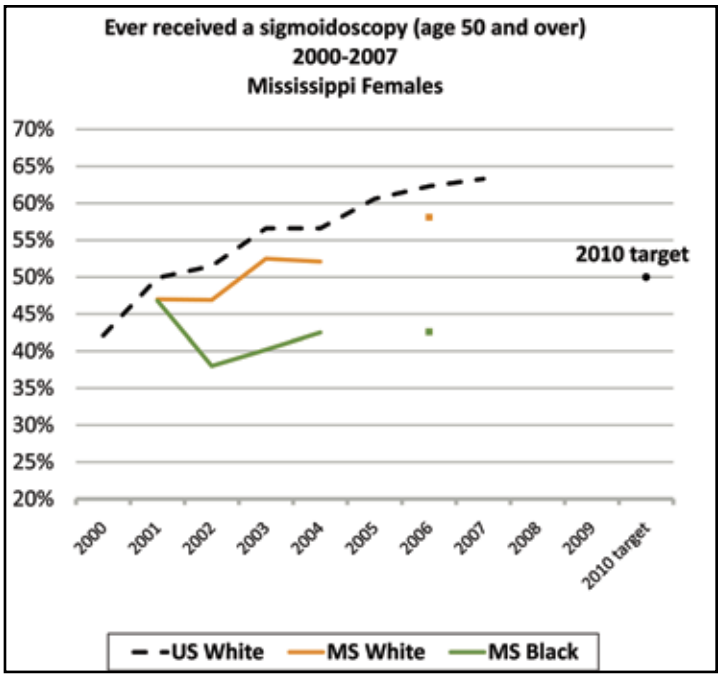
Because we were not equal...
2.5% fewer black males in Mississippi
5.3% fewer white females in Mississippi
7.6% fewer black females in Mississippi
...received regular blood stool tests in 2006.

While FOBT screening has declined for the country, Mississippians have seen static to slightly increasing rates of this low-cost screening. On the other hand, the percentage of Americans having had a sigmoidoscopy, a more effective screening tool, has increased rapidly, while Mississippians lag behind.



Source: CDC, BRFSS, n.d.c.

Sigmoidoscopy screening rose for all groups over the observed period. However, rates for Mississippians lagged behind national rates. Disparity between white MS males (whose rates rose from 39.5% to 54% between 2001 and 2006) and their national counterparts (whose rates rose from 49.2% to 66.7% between 2000 and 2007) decreased slightly; 12% fewer white MS males had received screening compared to their national counterparts in 2001; this disparity dropped to 9.8% in 2006 Black males in Mississippi did much more poorly (rates rising from 23.2% to 40.6%) and saw no real change in disparity. 23.2% fewer black MS males had received sigmoidoscopy screening compared to their white national counterparts in 2006.



Source: CDC, BRFSS, n.d.c.

Compared to MS males, females in Mississippi (particularly white females) saw higher rates of sigmoidoscopy screening as well as less disparity from national rates. This pattern lies in opposition to the pattern seen for FOBT testing among males versus females.

White females in the US (with rates that rose from 42.1% to 63.3% between 2000 and 2007) **are actually screened at slightly lower rates than white US males. In contrast, white and black females in Mississippi saw higher rates than MS males and smaller disparities**. White MS females tracked slightly beneath white US females (a rate of 47% in 2001 rising to 58.1% in 2006); 4.2% fewer white MS females received recent sigmoidoscopy screenings in comparison to their national counterparts. Black females in Mississippi began the decade with a rate (46.8%) very similar to those of white MS females. However, rates dropped for black MS females (42.6% in 2006), leaving them with only a very small advantage over their male partners by the end of the observed period. Black females in Mississippi trailed white US females by 19.7% in 2006.

Ever received a sigmoidoscopy	2001	2006
US white male	51.5%	63.8%
MS white male	39.5%	54.0%
MS black male	23.2%	40.6%
US white female	49.9%	62.3%
MS white female	47.0%	58.1%
MS black female	46.8%	42.6%

Because we were not equal...
4.2% fewer white females in Mississippi
9.8% fewer white males in Mississippi
19.7% fewer black females in Mississippi
23.2% fewer black males in Mississippi
...had ever received a sigmoidoscopy in 2006.

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