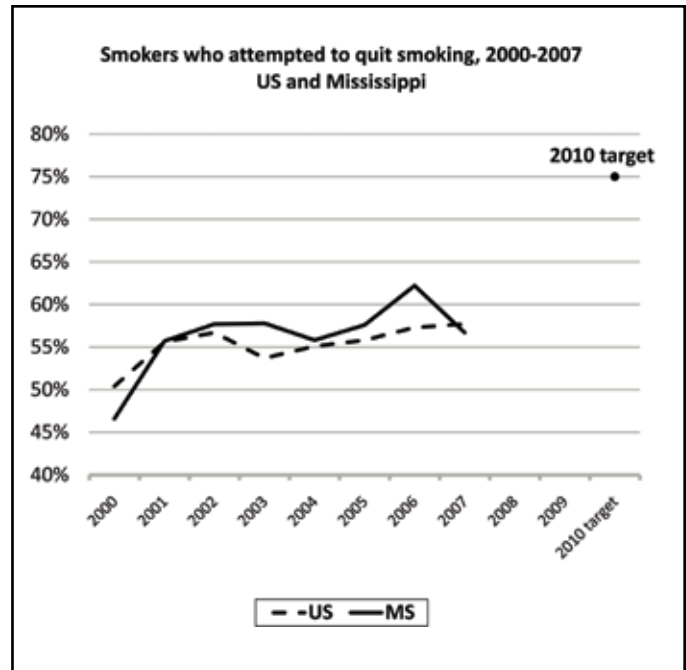


SMOKING CESSATION ATTEMPTS

Mississippi, the Nation, and Healthy People 2010

Smoking cessation attempts (or the number of smokers who attempted to quit smoking and stopped for one day or longer in the previous year) have improved for the US (increasing from 50.4% to 57.7% between 2000 and 2007). However, this rate of improvement is not sufficient to meet the Healthy People goal of 75% by 2010.

Mississippi has seen a slightly more rapid increase in smoking cessation attempts than the US (from 46.6% to 56.7%). Overall, the disparity between the US and Mississippi decreased from 3.9% in 2000 to 1% in 2007; moreover, **smoking cessation attempts by Mississippians actually exceeded national attempts** for the majority of the observed period. Unfortunately, **like the US, Mississippi is unlikely to meet the Healthy People goal by 2010.**



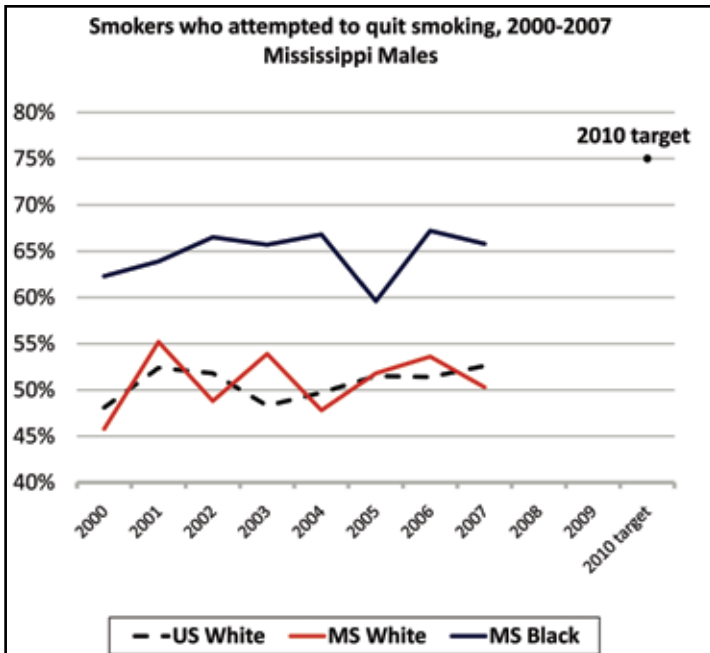
Source: CDC, BRFSS, n.d.c

White smokers in Mississippi and across the nation attempted to quit smoking at similar rates over the observed period. **Black smokers** in Mississippi attempted to quit at much higher rates.

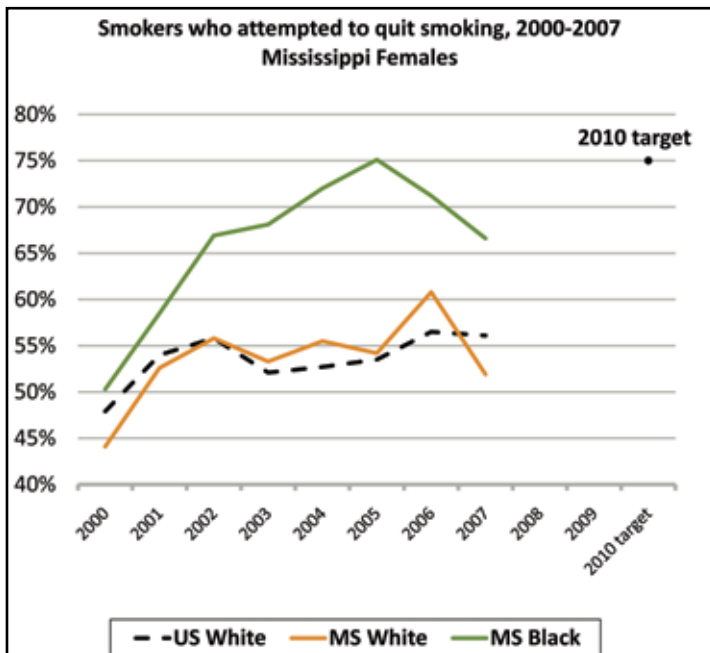
In the effort against tobacco use, The Partnership for a Healthy Mississippi provides information resources, school- and community-based programs, and policy support; and collaborates with public health organizations across Mississippi.

“Through a science-based approach, The Partnership for a Healthy Mississippi is leading the fight to ensure our youth are able to avoid the dangers of tobacco use, while also helping current tobacco users kick their addiction. The programs of The Partnership help save the lives of thousands of Mississippians and help save the taxpayers of Mississippi millions of dollars”

(The Partnership for a Healthy Mississippi, 2009, p. 1).



Source: CDC, BRFSS, n.d.c



Source: CDC, BRFSS, n.d.c

| Attempted smoking cessation | 2000 | 2007 |
|-----------------------------|-------|-------|
| US white male | 48.1% | 52.6% |
| MS white male | 45.8% | 50.3% |
| MS black male | 62.3% | 65.8% |
| US white female | 47.9% | 56.1% |
| MS white female | 44.1% | 51.9% |
| MS black female | 50.3% | 66.6% |

Mississippians: How Have We Compared?

Rates of **smoking cessation attempts for Mississippi whites and US whites track fairly close together** over the 2000 to 2007 period. Rates for white MS males rose slightly overall (from 45.8% to 50.3% in 2007) but fluctuated without showing any significant upward or downward trend for the majority of the period; white US males saw similar patterns (with a rate of 48.1% in 2000 and a rate of 52.6% in 2007).

Rates for white females in Mississippi and across the nation fluctuated similarly, rising overall but with little true trend in recent years. (Rates for white MS females saw an overall rise from 44.1% in 2000 to 51.9% in 2007, while rates for white US females rose from 47.9% in 2000 to 56.1% in 2007.)

Meanwhile, **rates of smoking cessation attempts for black Mississippians were much higher than white national rates. Rates for black males remained fairly stable** (from 62.3% in 2001 to 65.8% in 2007), and **rates for black females increased sharply** (from 50.3 in 2001 to 66.6% in 2007).

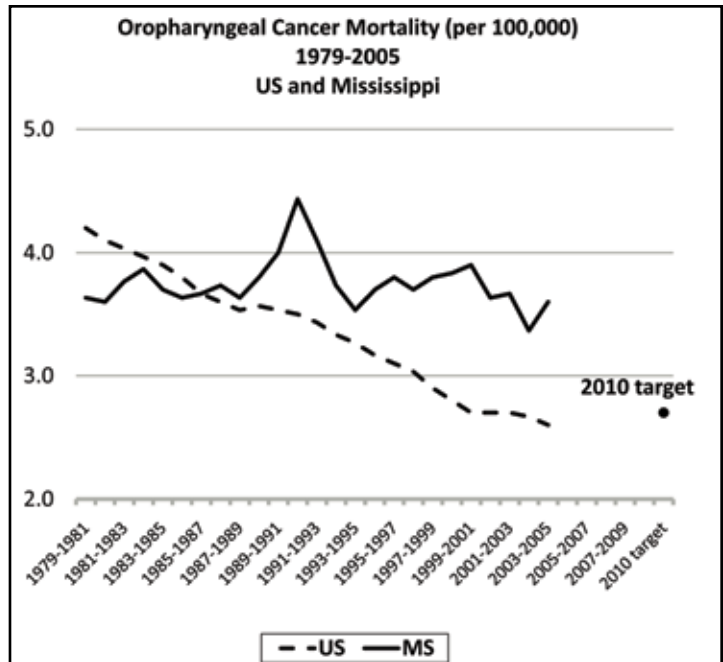
**Because we were not equal...
2.3% fewer white males in Mississippi
4.2% fewer white females in Mississippi
...attempted to quit smoking in 2007.**

OROPHARYNGEAL CANCER MORTALITY

Oropharyngeal cancer mortality occurs at much lower rates than lung cancer mortality. However, oropharyngeal cancer typically goes undiagnosed until it has spread, creating a five-year survival rate of 50%, similar to that of late-diagnosed lung cancer (American Cancer Society, 2008).

Mississippi, the Nation, and Healthy People 2010

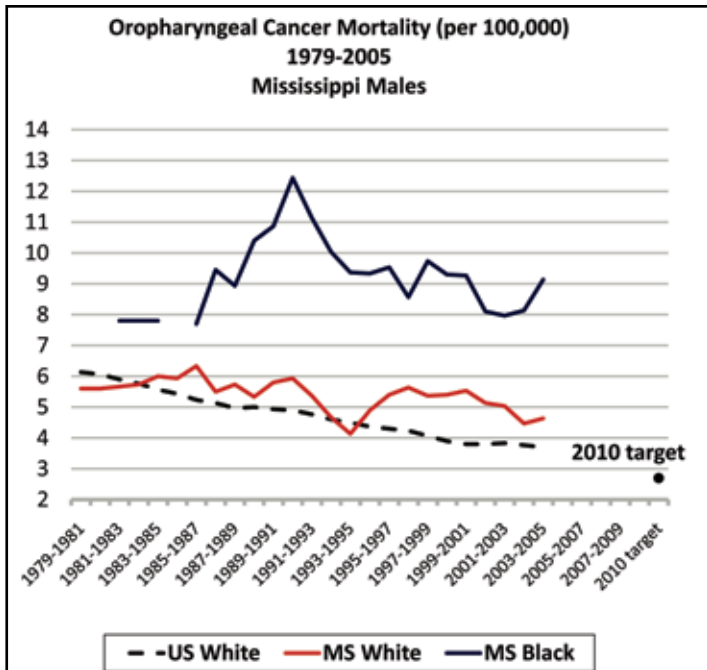
Similar to lung cancer patterns, **Mississippians suffer oropharyngeal cancer mortality at higher rates than the US, and this disparity is increasing.** Using the 1998 US rate of 3 per 100,000 deaths as a baseline, Healthy People calls for a drop to 2.7 oropharyngeal cancer deaths per 100,000 by 2010. **By 2005, the US had met and bettered the Healthy People 2010 goal** (with 2.5 oropharyngeal cancer deaths per 100,000). Mississippi rates, however, have fluctuated around 3.6 per 100,000 since 1998, and **Mississippi is therefore unlikely to achieve the Healthy People 2010 goal.** If Mississippians had achieved the national rate in 2005, 1.4 per 100,000 more Mississippians would have survived.



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

If Mississippi had achieved like the nation in 2005, more than **1 of every 3** oropharyngeal cancer deaths in Mississippi would have been averted.

| Oropharyngeal Cancer Mortality (per 100,000) | 1979 | 2005 |
|--|------|------|
| US white male | 6.2 | 3.6 |
| MS white male | 6.4 | 4.8 |
| MS black male | --- | 11.1 |



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

Mississippians: How Have We Compared?

In Mississippi, oropharyngeal cancer mortality measures are largely unreliable for females. **Males in Mississippi, on the other hand, clearly die at rates higher than the nation.** While oropharyngeal cancer mortality declined steadily among white US males (from 6.2 per 100,000 in 1979 to 3.6 per 100,000 in 2005), mortality among white MS males fell more slowly (from 6.4 to 4.8 per 100,000). **The slower decrease in mortality among white MS males created an increasing disparity from national rates,** with 0.2 excess deaths per 100,000 among white MS males becoming 1.2 per 100,000.

Rates of oropharyngeal cancer mortality were much greater among black Mississippi males and showed no overall decline over the observed period. As a result, **disparity between black MS males and their white national counterparts grew rapidly.** By 2005, the rate of oropharyngeal cancer mortality among black MS males (at 11.1 per 100,000) was more than 3 times higher than the national rate. 7.5 more black MS males died per 100,000 in 2005 because we did not achieve like the nation.

Roughly **1 in 4** oropharyngeal cancer deaths among **white Mississippi males** would have been averted in 2005 if we had achieved at white national levels.

Among black Mississippi males, **2 in 3** oropharyngeal cancer deaths would have been averted.

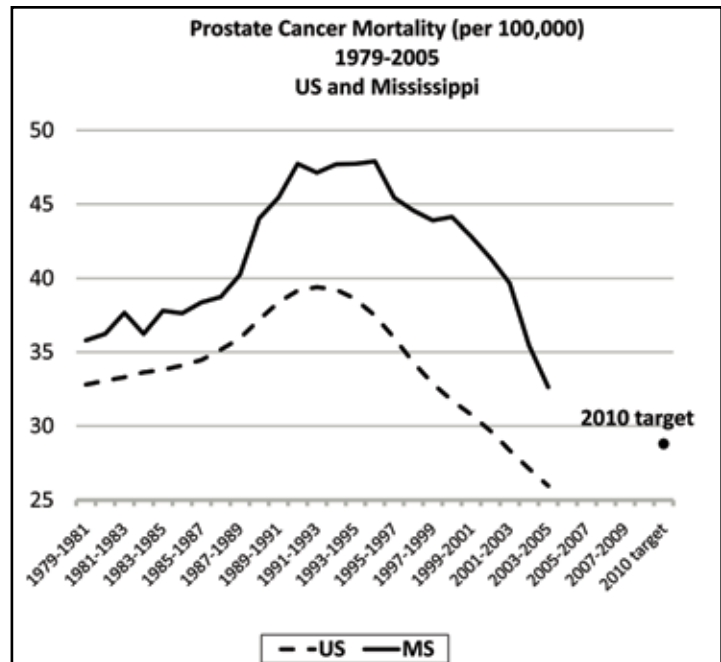
| |
|--|
| Because we were not equal... |
| 11 more white males in Mississippi |
| 38 more black males in Mississippi |
| ...died of oropharyngeal cancer in 2005. |

PROSTATE CANCER

PROSTATE CANCER MORTALITY

Mississippi, the Nation, and Healthy People 2010

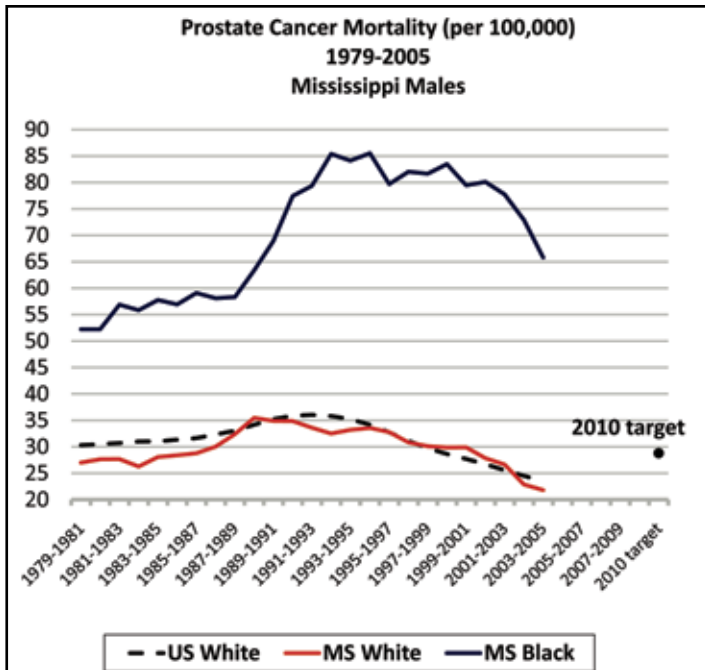
Prostate Cancer is the second leading cause of cancer mortality amongst American men. Using the 1998 US rate of 32 deaths per 100,000 as a baseline, Healthy People calls for a reduction in prostate cancer mortality to 28.8 per 100,000 by 2010. By 2005, **the national rate of prostate cancer mortality** (25 per 100,000) **had met and bettered the 2010 target**. In contrast, Mississippians, who died from prostate cancer at a much higher rate, had not yet reached the Healthy People target. In 2005, 6.9 per 100,000 more Mississippians died of prostate cancer compared to the nation. Nevertheless, the drop in Mississippi rates between 1998 and 2005 (46.3 per 100,000 to 31.9 per 100,000) is sufficiently steep so that, **if Mississippi rates continue to fall in this pattern, Mississippi will achieve the Healthy People goal by 2010**.



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

If Mississippi had achieved like the nation in 2005, more than **1 of every 5** prostate cancer deaths in Mississippi would have been averted.

The disparity in prostate cancer mortality between black Mississippians and whites across the nation nearly doubled between 1979 and 2005.



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

| Oropharyngeal Cancer Mortality (per 100,000) | 1979 | 2005 |
|--|------|------|
| US white male | 6.2 | 3.6 |
| MS white male | 6.4 | 4.8 |
| MS black male | --- | 11.1 |

Nearly **2 of every 3** prostate cancer deaths among **black Mississippians** would have been averted in 2005 if we had achieved the national white rate in 2005.

| |
|--|
| Because we were not equal... |
| 11 more white males in Mississippi |
| 38 more black males in Mississippi |
| ...died of oropharyngeal cancer in 2005. |

Mississippians: How Have We Compared?

Prostate cancer mortality among white males across the nation rose until 1991 (30.1 deaths per 100,000 in 1979 rising to a peak of 36.1 per 100,000); since then, rates have dropped (to 22.6 per 100,000 as of 2005). White males in Mississippi initially performed better than their national counterparts (with a rate of 24.8 per 100,000 in 1979). However, the gap between whites in Mississippi versus the nation has decreased, and periodically disappeared, over time. As of 2005, the rate of prostate cancer mortality among whites in Mississippi (21.7 per 100,000) only trailed the nation by 0.9 per 100,000.

While whites in Mississippi experienced similar or better rates than US whites, black males in Mississippi died at much higher rates, this disparity growing over time. In 1979 (with a rate of 53.4 per 100,000), 23.3 per 100,000 more black males in Mississippi died of prostate cancer because we did not achieve like whites across the nation. Rates among black MS males peaked later than US rates (at 89.8 per 100,000 in 1994), and the earliest signs of a sustained decline did not appear until 2003, widening the disparity between black MS males and whites across the nation. By 2005, the number of excess deaths among black males in Mississippi (with a rate of 63.4 per 100,000) had almost doubled to 40.8 excess per 100,000.

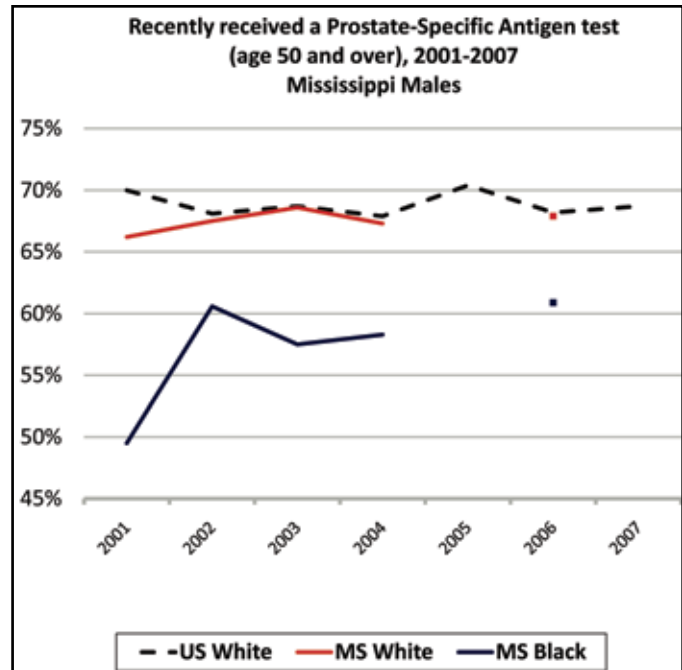
PROSTATE CANCER SCREENING

While Healthy People 2010 does not set forth targets for prostate cancer screenings, regular Prostate Specific Antigen (PSA) tests and Digital Rectal Exams (DRE) have proven successful in early detection of prostate cancer. According to the National Cancer Institute, while recommendations for PSA and DRE screenings vary, doctors typically advise annual examinations for men over the age of 50 (American Cancer Society, 2008).

Mississippians: How Have We Compared?

Whites across the nation have seen a slight decline in PSA screenings (measured as men over the age of 50 having received screening within the previous two years) over the 2001 to 2007 period (dropping from 70% to 68.2%). **In contrast to national rates, males in Mississippi have pursued PSA screening at slightly increasing rates.** The rise in screening among white males in Mississippi (from 66.2% in 2001 to 67.9% in 2006) **placing white Mississippians less than a percentage point behind whites across the nation as of 2006.**

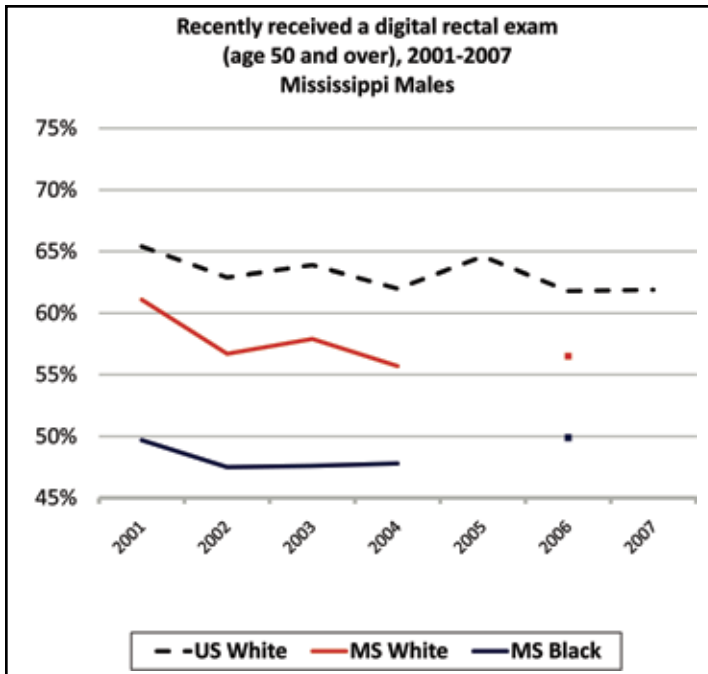
Black males in Mississippi saw an even sharper increase (from 49.5% in 2001 to 60.9% in 2006). However, **despite rising rates, black MS males remained far behind their white national counterparts** – 7.3% fewer received screening as of 2006.



Source: CDC, BRFSS, n.d.c

| Recently received a PSA test | 2001 | 2006 |
|------------------------------|-------|-------|
| US white male | 70.0% | 68.2% |
| MS white male | 66.2% | 67.9% |
| MS black male | 49.5% | 60.9% |

| |
|--|
| Because we were not equal... |
| 0.3% fewer white males in Mississippi |
| 7.3% fewer black males in Mississippi |
| ...received regular PSA testing in 2006. |



Source: CDC, BRFSS, n.d.c

| Recently received a digital rectal exam | 2001 | 2006 |
|---|-------|-------|
| US white male | 65.4% | 61.8% |
| MS white male | 61.1% | 56.5% |
| MS black male | 49.7% | 49.9% |

Because we were not equal...
 5.4% fewer white males in Mississippi
 12% fewer black males in Mississippi
 ...received regular DREs in 2006.

In contrast to PSA screening trends, **DRE screening has fallen not just among white US males** (from 65.4% to 61.8% between 2001 and 2007) **but also among white MS males. A slightly more rapid decline among white MS males** (from 61.1% to 56.5% between 2001 and 2006) **left whites in Mississippi trailing the US** by 5.3% as of 2006. While rates of DRE screening among black MS males remained fairly stable (49.7% in 2001 to 49.9% in 2006), **a huge disparity between MS blacks and US whites persists.** In 2006, black MS males trailed their white national counterparts by 11.9%.

The five-year survival rate for prostate cancer is almost 100% for whites, but only 95% for blacks. Similarly, prostate cancer is diagnosed in early stages for 92% of whites but only 89% of blacks (American Cancer Society, 2009). Increased screening for blacks could significantly reduce mortality disparities.

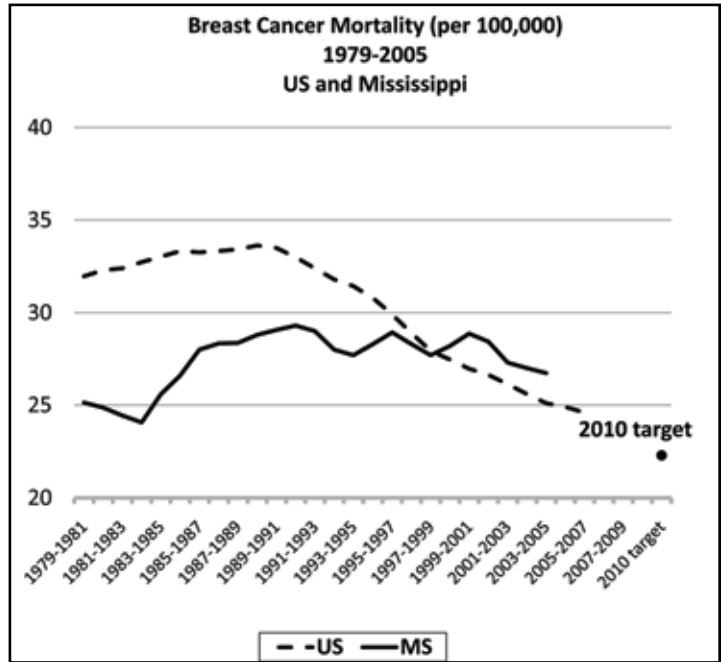


BREAST & CERVICAL CANCER

BREAST CANCER MORTALITY

Mississippi, the Nation, and Healthy People 2010

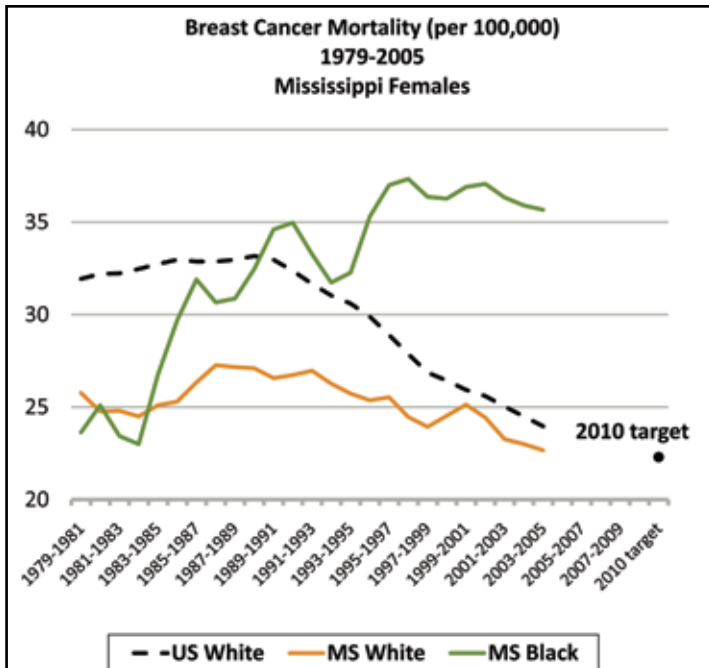
Breast cancer is the second leading cause of cancer mortality amongst US women, as well as the second most commonly diagnosed cancer overall (American Cancer Society, 2008). Using the 1998 US rate of 27.9 breast cancer deaths per 100,000 as a baseline, Healthy People calls for a reduction in female breast cancer mortality to 22.3 deaths per 100,000 by 2010. Since this time, breast cancer mortality has declined steadily for females across the nation (dropping to 24.6 deaths per 100,000 by 2005); **if the current rate of decline continues, US females should meet the Healthy People goal by 2010.** Unlike the nation, Mississippi has seen little change in breast cancer mortality rates in recent years (at 26.2 per 100,000 in 1998 and 26 per 100,000 in 2005). **Mississippi is thus unlikely to reach the Healthy People 2010 goal.** If Mississippians achieved at US levels, 1.4 more Mississippians per 100,000 would have survived in 2005.



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

More than **1 of every 3** breast cancer deaths among **black Mississippians** would have been averted in 2005 if we had achieved the national white rate.

| Breast Cancer Mortality (per 100,000) | 1979 | 2005 |
|---------------------------------------|------|------|
| US white female | 31.5 | 23.4 |
| MS white female | 26.7 | 21.0 |
| MS black female | 18.8 | 36.6 |



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

Unlike their state and national white counterparts, **black females in Mississippi** have not seen a sustained decline in breast cancer mortality.

Mississippians: How Have We Compared?

Since 1979, **national rates of breast cancer mortality for white females have declined steadily** (from 31.5 per 100,000 to 23.4 per 100,000 in 2005). Initially, both black and white Mississippians died of breast cancer at lower rates than US whites. Moreover, the black MS female rate (18.8 per 100,000) in 1979 was lower than even the white MS female rate (26.7 per 100,000). Since then, however, **while white MS breast cancer mortality also declined, black MS mortality rose.**

Compared to national rates, breast cancer mortality among white Mississippians has only declined slightly over the 1979 to 2005 period (from 26.7 per 100,000 to 21 per 100,000). While these rates remain below national rates, **the advantage white Mississippians held over their national counterparts has dropped by half**, from 4.8 per 100,000 in 1979 to only 2.4 per 100,000 fewer deaths in 2005.



Meanwhile, **breast cancer mortality among black Mississippians surpassed white US rates in the late 1980s and has shown no sustained decline** over the observed period (reaching a rate of 36.6 deaths per 100,000 by 2005). If black Mississippians had achieved the national white rate in 2005, 13.2 per 100,000 more would have survived.

The reduced likelihood of breast cancer diagnosis among African Americans during the early, local, and thus more treatable stage surely contributes to disparities in mortality. **Black women experience a 77% breast cancer survival rate over 5 years compared to a 90% rate among white women** (American Cancer Society, 2009).

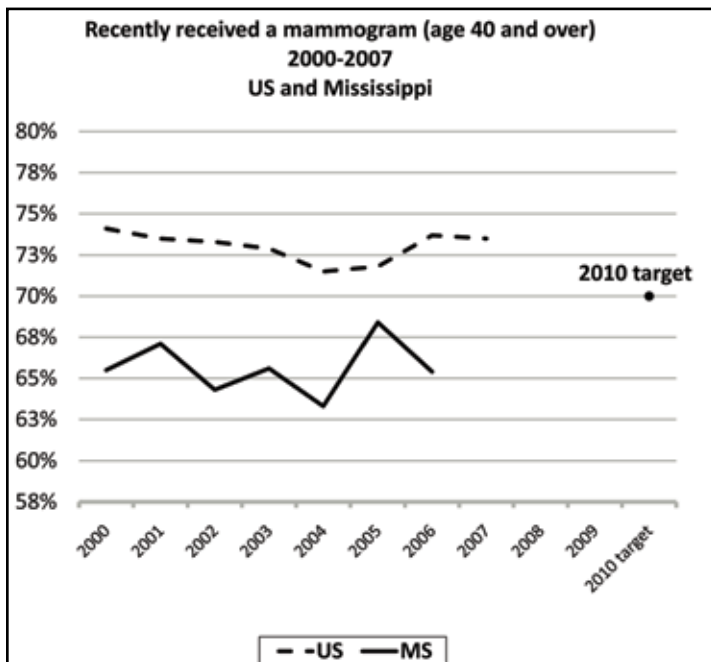
| |
|--------------------------------------|
| Because we were not equal... |
| 75 more black females in Mississippi |
| ...died of breast cancer in 2005. |

“Disparities in [breast cancer] survival are partially a function of diagnosis at a more advanced stage, possibly related to limited information available about breast cancer risk factors, limited opportunities for screening, or cultural beliefs about risks and mortality. Other factors, including disparate effects of therapy, may also play a role in mortality rates as minority women display worse stage-specific survival. Disparities may also emerge from interactions between genetic predisposition and various risk factors such as the effect of culturally related behaviors such as dietary and exercise patterns in certain individuals. There are also links between race/ethnicity and indicators of disadvantage, such as low income, low educational level, and lack of health insurance that are themselves independently associated with advanced stage diagnosis and diminished survival. To magnify the deleterious effect of social and economic risk factors, current treatments for palpable breast masses and diagnosed stages I and II cancers are reportedly used less frequently by disadvantaged and minority patients”

(Polacek, Ramos, & Ferrer, 2007, p. 159).

BREAST CANCER SCREENING

An often cited explanation for declining rates of breast cancer mortality is the increase in screening measures, particularly mammograms and physical breast examinations. Consistent examinations allow for early detection and treatment of breast cancer (National Cancer Institute, 2007).



Source: CDC, BRFSS, n.d.c

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

Mississippi, the Nation, and Healthy People 2010

Using the 1998 US rate of 67% as a baseline, Healthy People calls for 70% of women aged 40 and older to have received a recent mammogram (within the preceding 2 years) by 2010. According to the Behavioral Risk Factor Surveillance Survey (BRFSS) in 2000, women across the US met and exceeded the Healthy People target (with 74.1% receiving mammograms at appropriate intervals). However, that rate declined in the first part of the decade (dipping down to 71.5% in 2004) before rising back in 2007 (to 73.5%). **While the 2007 US mammogram rate achieves the Healthy People 2010 goal, it represents a decline in screening from previous years.**

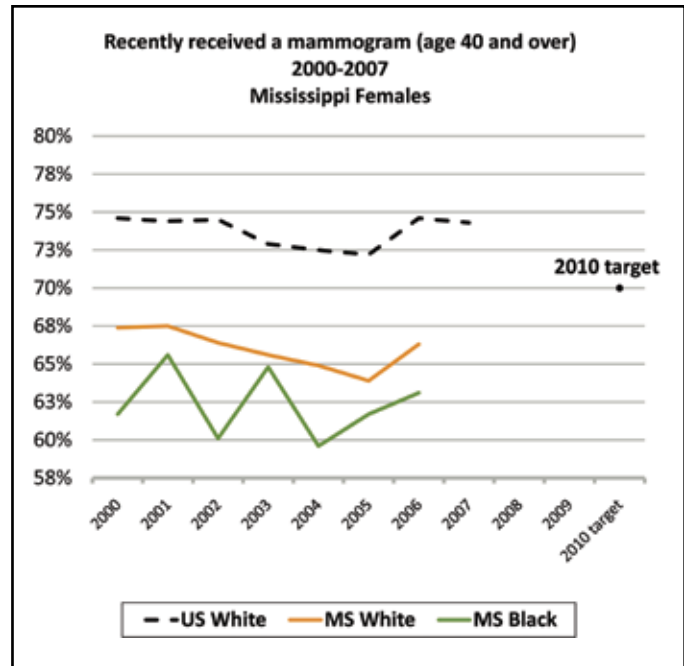
From 2000 to 2007, the rates of Mississippians receiving regular mammograms fluctuated (reaching a high of 67.1% in 2001 and a low of 63.3% in 2004) but, overall, remained unchanged (from 65.5% in 2000 to 65.4% in 2006). In 2006, Mississippians trailed the nation by 8.3% in regular mammogram screening, and given recent trends, **Mississippi is unlikely to achieve the Healthy People goal by 2010.**

Mississippians: How Have We Compared?

White US females saw fairly stable rates of mammogram screening from 2000 to 2007 (a rate of 74.6% in 2000 dropping to a low of 71.8% in 2005 but then rising back to 74.5% by 2007). Meanwhile, **despite bettering their national counterparts in breast cancer mortality, white MS females saw lower rates of mammogram screening.** Between 2000 and 2006, rates of mammogram screening for white MS females dropped (dipping from 67.4% in 2000 to 63.9% in 2005) before rising back (to 66.3%) in 2006, mirroring patterns observed for their national counterparts but at levels trailing below the nation by 7% to 8%.

As discussed previously, the advantage white MS females hold over their national counterparts in breast cancer mortality is narrowing sharply over time. The **lower levels of mammogram screening among white MS females may predict an impending jump in breast cancer mortality** that eliminates this advantage entirely.

Black females in Mississippi experience the lowest rates of mammogram screening. This bodes poorly for the group's rates of breast cancer mortality, which are already rising rapidly, reaching more than 1.5 times the white national rate in 2005. Rates of mammogram screening among black MS females fluctuated between 2000 and 2006 (beginning at 61.7% and settling at 63.1%), when black females in Mississippi trailed their white national counterparts by 11.5%.



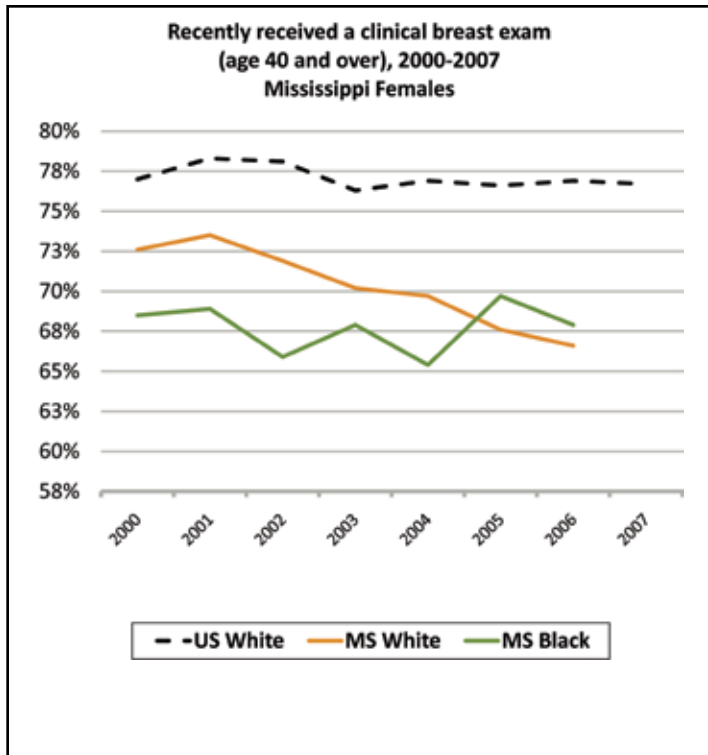
Source: CDC, BRFSS, n.d.c

| Recently received a mammogram | 2000 | 2006 |
|-------------------------------|-------|-------|
| US white female | 74.6% | 74.6% |
| MS white female | 67.4% | 66.3% |
| MS black female | 61.7% | 63.1% |

| |
|--|
| Because we were not equal... |
| 8.3% fewer white females in Mississippi |
| 11.5% fewer black females in Mississippi |
| ...received regular mammograms in 2006. |

Mammograms can detect breast cancer earlier, allowing earlier treatment, which in turn produces higher survival rates

(American Cancer Society, 2008).



Source: CDC, BRFSS, n.d.c

| Recently received a clinical breast exam | 2000 | 2006 |
|--|-------|-------|
| US white female | 77.0% | 76.9% |
| MS white female | 72.6% | 66.6% |
| MS black female | 68.5% | 67.9% |

| |
|--|
| Because we were not equal... |
| 9% fewer black females in Mississippi |
| 10.3% fewer white females in Mississippi |
| ...received regular clinical breast exams in 2006. |

While Healthy People 2010 does not set a target for clinical breast examinations, breast examinations remain a routine form of cancer screening (National Cancer Institute, 2009). Clinical breast exam screening rates (number of women aged 40 and older who have had an exam within the last two years) have **held fairly steady for white females in the US** (fluctuating since 2000 around a rate of 77% with a high of 78.3% in 2001 and a low of 76.3% in 2003). **Rates for black females in Mississippi also held fairly steady but fell far short of white US female rates** (with black MS rates fluctuating around a 2000 rate of 68.5%). In 2006, clinical breast exam screening for black Mississippians (67.9%) lagged behind the white national rate by 9.0%.

Meanwhile, **clinical breast exam rates for white females in Mississippi have declined steadily** (from 72.6% in 2000 to 66.6% in 2006). Where white Mississippians initially bettered their black counterparts, they now lag behind, and the **disparity between white Mississippi rates and white national rates has increased greatly**, 10.3% fewer white Mississippians receiving clinical breast exam screening in 2006.

Interestingly, small declines in breast cancer mortality observed in all groups from 2000 to 2006 do not coincide with an increase in mammogram or clinical breast exam screening rates. An increase in screening prior to the period covered by available screening data, which only begins in 2000, is one possible explanation for recent declines in mortality.

In this same vein, the decrease in mammogram and clinical breast exam screening for white Mississippi women is not correlated with an increase in mortality for this group but may predict a coming rise. Slight decreases in incidence of breast cancer due to reduced use of Hormone Replacement Therapy could also account for these seeming inconsistencies (American Cancer Society, 2008).