

The 14th Maryland State Council on Cancer Control Conference

**Martin's West, Baltimore, Maryland
November 14, 2007**

Impact of the Cigarette Restitution Fund Program on Cancer Mortality in Maryland

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Cigarette Restitution Fund Program, and
Office of Minority Health and Health Disparities**



CIGARETTE RESTITUTION FUND

PROGRAM - History

- **Tobacco Manufacturers agreed to pay \$206 billion over 25 years and beyond - 1998**
- **Maryland established Cigarette Restitution Fund to receive \$200 M annually - 1999**
- **Maryland CRF programs funds were dedicated to the control of cancer, tobacco-use, tobacco-related diseases, substance abuse and the conversion of tobacco crop to other uses**
- **7 targeted cancers were identified that accounted for 57% mortality in 1997; lung, colorectal, breast, prostate, oral, Melanoma and cervix**

CIGARETTE RESTITUTION FUND

PROGRAM – Mission and Vision

- **MISSION**

- To reduce the use of tobacco products in Maryland and thereby reduce tobacco-related disease
- To reduce mortality from cancer in Maryland
- To reduce disparities in Maryland from cancer and tobacco-related disease among ethnic and racial minorities

- **VISION**

- The Cigarette Restitution Fund Program envisions a future Maryland free of cancer and disability due to tobacco use and where health disparities are eliminated resulting in the highest level of health for all Marylanders

PROGRAM DESCRIPTION

- **Local Public Health – Cancer and Tobacco Programs**
 - Counties and Academic Health Centers provide cancer education, screening and treatment
 - Counties provide tobacco awareness, education, smoking cessation and prevention activities
 - Establishes partnerships at local levels between schools, communities, and health providers
- **Surveillance and Evaluation – Cancer and Tobacco Programs**
 - State collects, analyses and reports cancer incidence, morbidity and mortality by jurisdiction
 - State collects, analyses and reports tobacco-use among adults and youth

PROGRAM DESCRIPTION (2)

- **Statewide Academic Health Centers – Cancer Program**
 - Johns Hopkins and University of Maryland Medical Group – Cancer Research Grants
 - University of Maryland Medical Group – Tobacco-Related Diseases (76+ research grants)
 - University of Maryland Medical Group - Statewide Health Network (32 tele-health linkages)
- **Minority Outreach and Technical Assistance – Cancer and Tobacco Programs**
 - Engages minorities in the CRFP in local jurisdictions to reduce ethnic and racial disparities
 - Assists local health departments to reach minority, remote and hard-to-reach groups
 - Promotes partnerships and increases cultural competence between minorities and CRFP providers

PROGRAM DESCRIPTION (3)

- **Media and Public Relations Campaign – Tobacco Program**

- Launched the Maryland Tobacco Quitline through multi-media outlets and events - 2007
- Expanded the scope and content of the website, www.SmokingStopsHere.com

- **Statewide Public Health – Tobacco Program**

- Provides legal assistance to local health departments, elected officials and individuals
- Maintains website containing tobacco control information.

ACCOMPLISHMENTS

- **Cancer Mortality is down: Maryland ranks 23 among states, down from 9th in 1995**
- **Maryland ranks 23rd in colorectal cancer deaths, down from 3rd highest 1996-2000**
- **Cancer mortality disparity between Blacks and Whites reduced by 50% between 2000 and 2005**
- **CRF Investment pays returns: Academics have leveraged almost \$300 million**
- **Adult tobacco use is down for males, females and minorities**
- **Underage tobacco use is down: 49% reduction in middle school & 36% in high school**
- **High demand for smoking cessation continues**

CHALLENGES

- A. Extra effort is needed to reach the very hard to reach**

- B. Maintain vigilance to hold the gains in colorectal cancer mortality**

- C. Expand program focus on the other targeted cancers**

Ratio or Difference to Measure Trends in Health Disparities?

- Hypothetical mortality rates: (deaths per 100,000)

	<u>2010</u>	<u>2020</u>	<u>change</u>	<u>% change</u>
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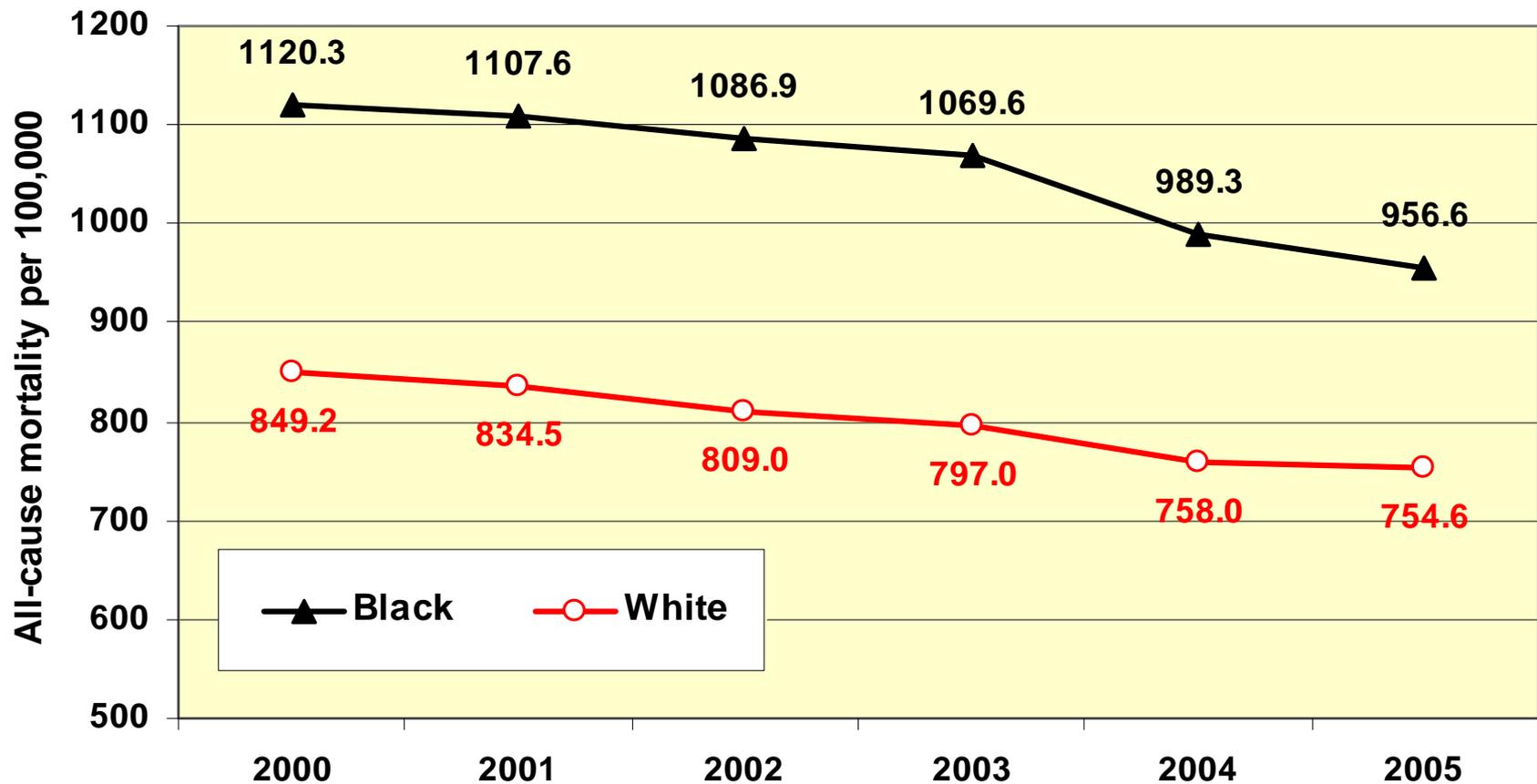
- | | | | | |
|--------------|------|------|------|------|
| • Black | 200 | 90 | -110 | -55% |
| • White | 100 | 30 | -70 | -70% |
| • Difference | 100 | 60 | -40 | -40% |
| • Ratio | 2.00 | 3.00 | 1.00 | 50% |

Tracking Progress in Health Disparities

- Three questions matter, when comparing a minority group to the white population:
 - 1. Are the groups different for this outcome?
 - Is there vertical separation of the trend lines?
 - 2. Is either group changing over time?
 - Are trend line slopes different from zero?
 - 3. Are the groups making progress differently?
 - Do the groups have different trend line slopes?
 - Is the vertical separation changing?

All-Cause Mortality

Age-adjusted all-cause mortality rates, African Americans and Whites, Maryland statewide, 2000 to 2005
(Maryland 2005 Vital Statistics Report)



All-Cause Mortality

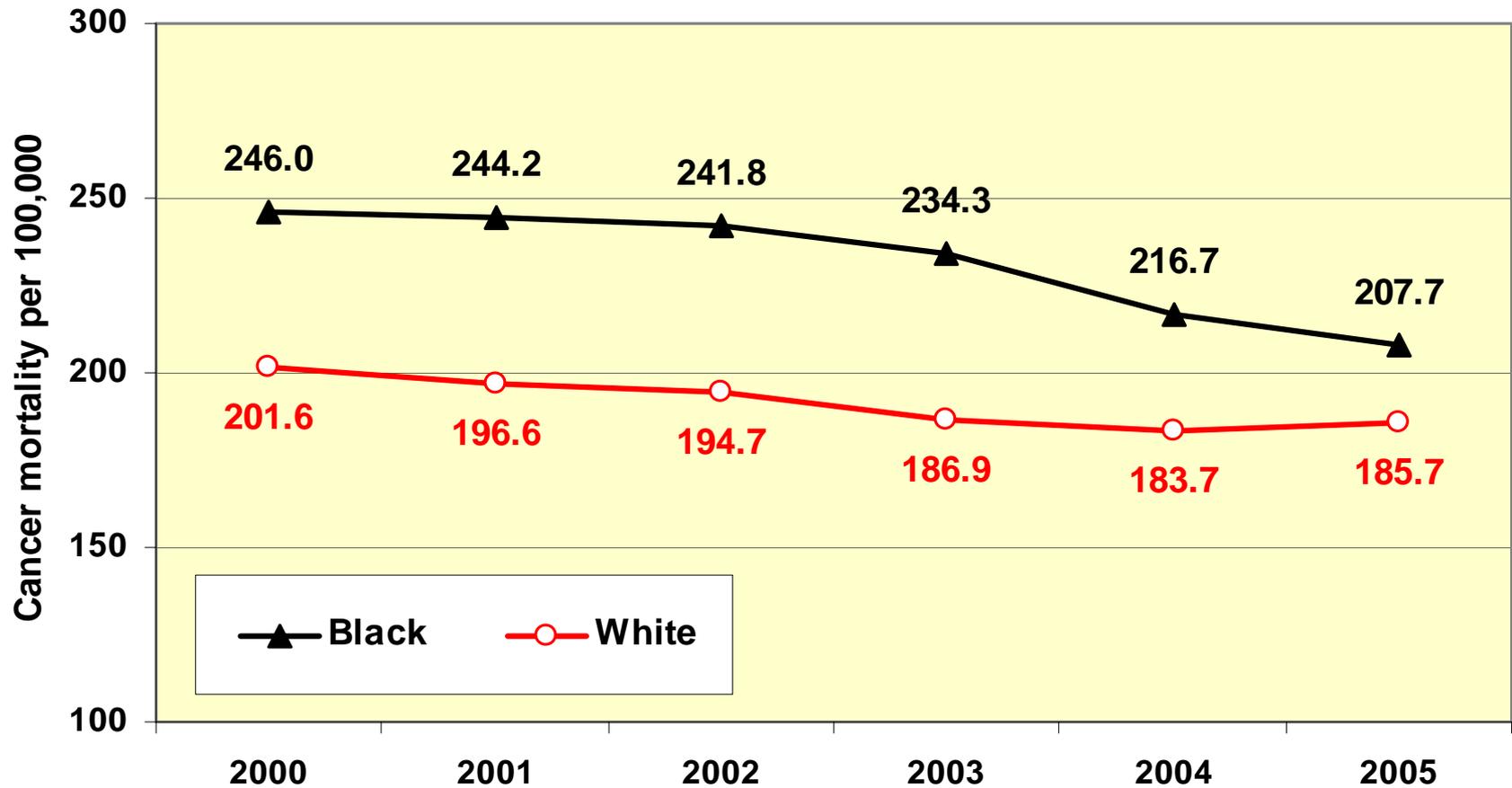
Source: Maryland Vital Statistics Annual Report 2005

Mortality Rates, Differences, and % Change, By White or Black Race, Maryland 2000 and 2005 (rates are age-adjusted rates per 100,000)

	2000	2005	Percent Change
Black <u>ALL-CAUSE</u> Mortality	1120.3	956.6	-14.6%
White <u>ALL-CAUSE</u> Mortality	849.2	754.6	-11.1%
Mortality Difference	271.1	202.0	-25.5%

Cancer Mortality Success Story

Age-adjusted all-cancer mortality rates, African Americans and Whites, Maryland statewide, 2000 to 2005
(Maryland 2005 Vital Statistics Report)



Cancer Mortality

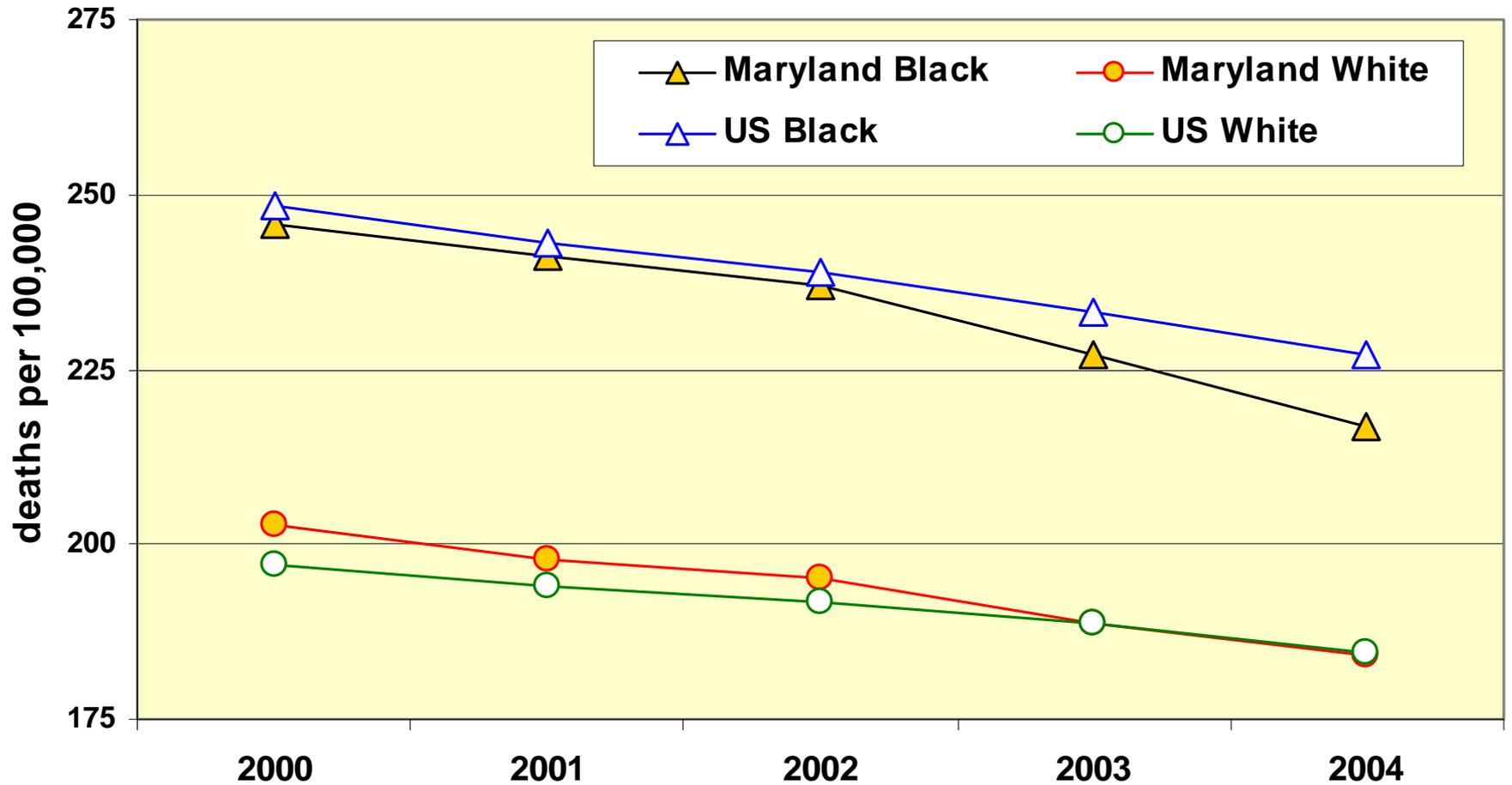
Source: Maryland Vital Statistics Annual Report 2005

Mortality Rates, Differences, and % Change, By White or Black Race, Maryland 2000 and 2005 (rates are age-adjusted rates per 100,000)

	2000	2005	Percent Change
Black Cancer Mortality	246.0	207.7	-15.6%
White Cancer Mortality	201.6	185.7	-7.9%
Mortality Difference	44.4	22.0	-50.5%

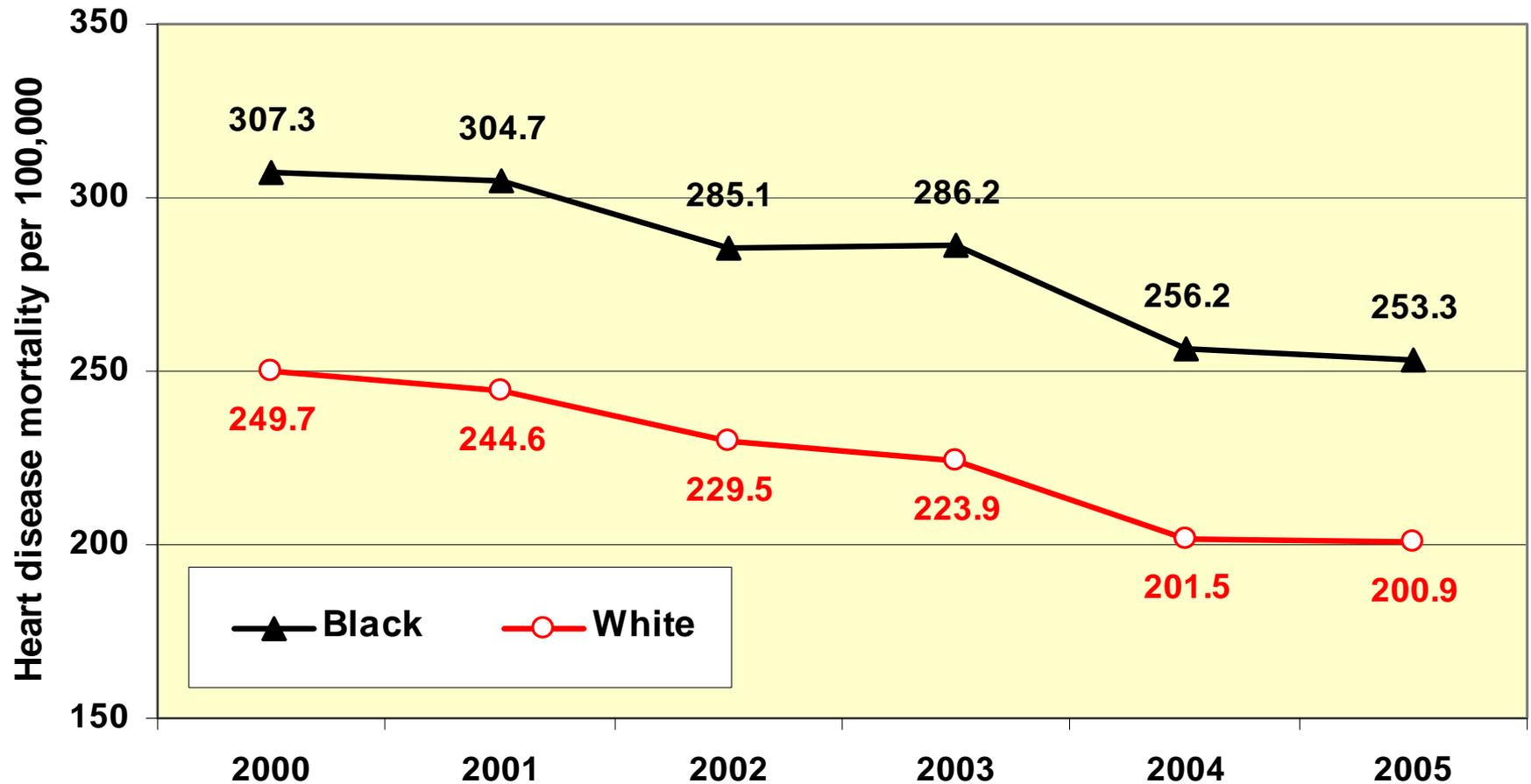
All-cancer Mortality, Maryland vs. U.S

Age-adjusted All-cancer Mortality, by Black or White Race, Maryland and United States 2000 to 2004 (CDC Wonder)



Heart Disease Mortality

Age-adjusted heart disease mortality rates, African Americans and Whites, Maryland statewide, 2000 to 2005
(Maryland 2005 Vital Statistics Report)



Heart Disease Mortality

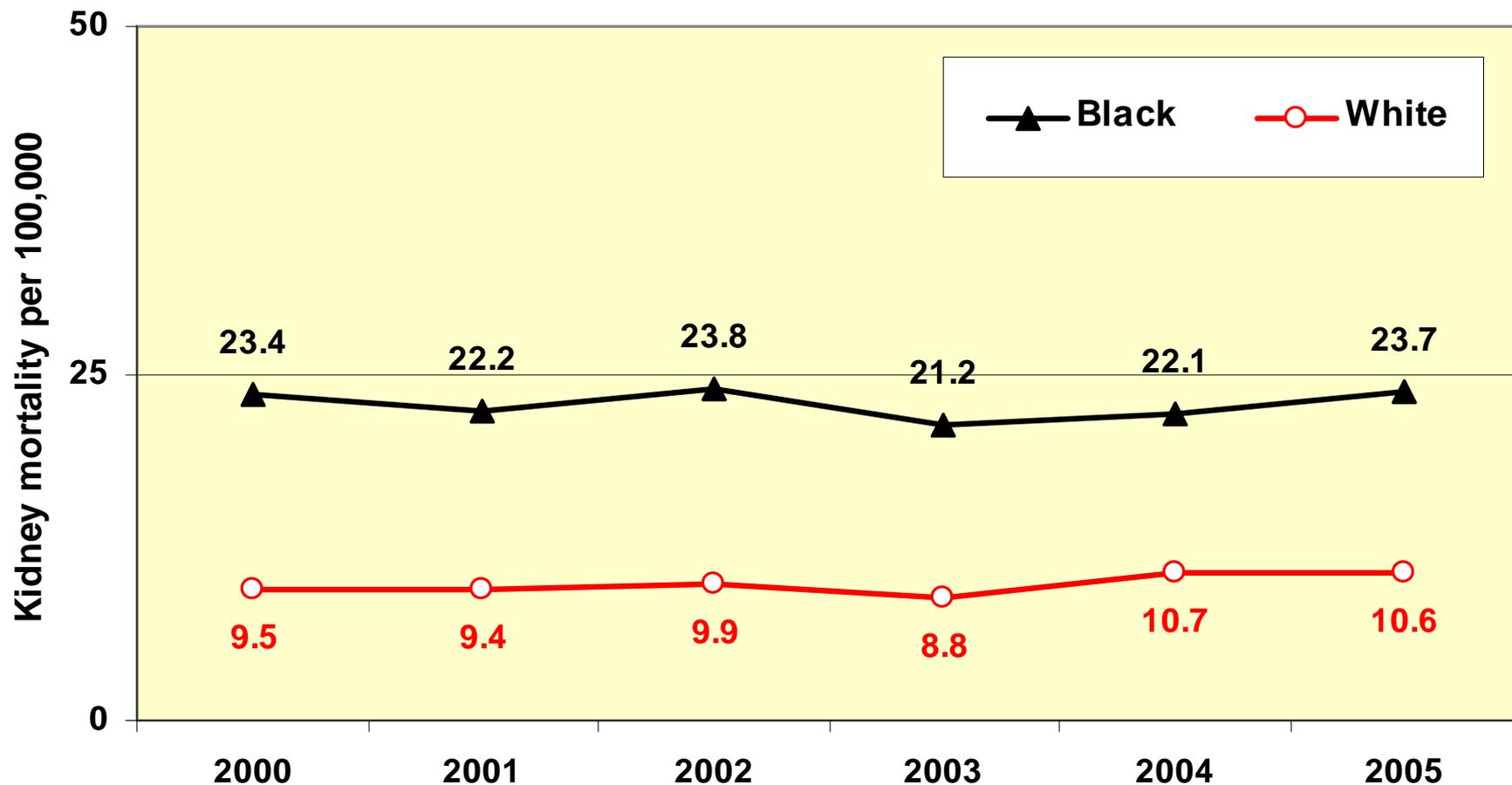
Source: Maryland Vital Statistics Annual Report 2005

Mortality Rates, Differences, and % Change, By White or Black Race, Maryland 2000 and 2005 (rates are age-adjusted rates per 100,000)

	2000	2005	Percent Change
Black Heart Dis Mortality	307.3	253.3	-17.6%
White Heart Dis Mortality	249.7	200.9	-19.5%
Mortality Difference	57.6	52.4	-9.0%

Kidney Disease Mortality Challenge

Age-adjusted kidney disease mortality rates, African Americans and Whites, Maryland statewide, 2000 to 2005
(Maryland 2005 Vital Statistics Report)



Kidney Disease Mortality

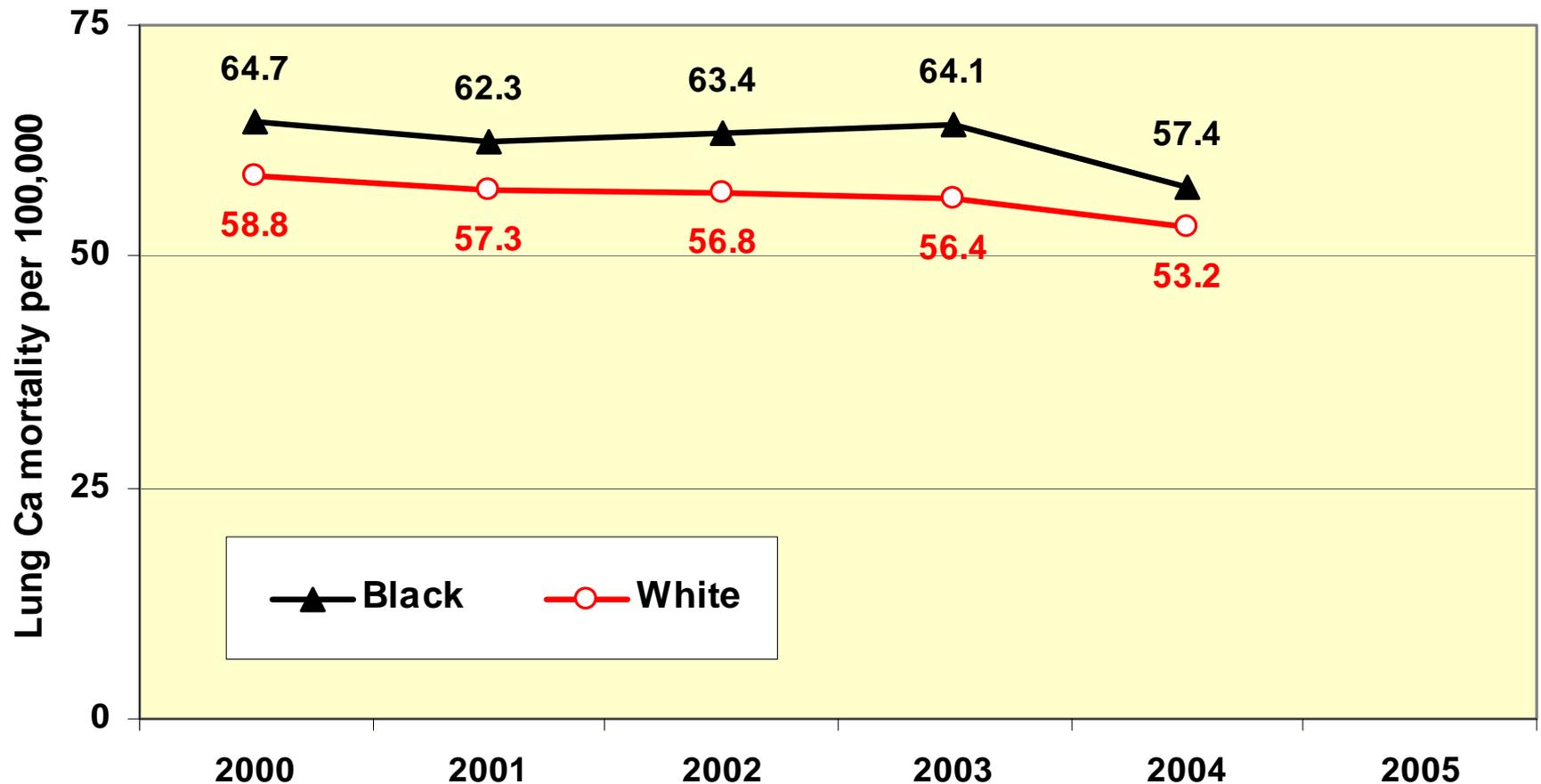
Source: Maryland Vital Statistics Annual Report 2005

Mortality Rates, Differences, and % Change, By White or Black Race, Maryland 2000 and 2005 (rates are age-adjusted rates per 100,000)

	2000	2005	Percent Change
Black Kidney Dis Mortality	23.4	23.7	1.3%
White Kidney Dis Mortality	9.5	10.6	11.6%
Mortality Difference	13.9	13.1	-5.8%

Lung Cancer Mortality

Age-adjusted lung cancer mortality rates, African Americans and Whites, Maryland statewide, 2000 to 2004
(CDC Wonder)



Lung Cancer Mortality

Source: CDC Wonder

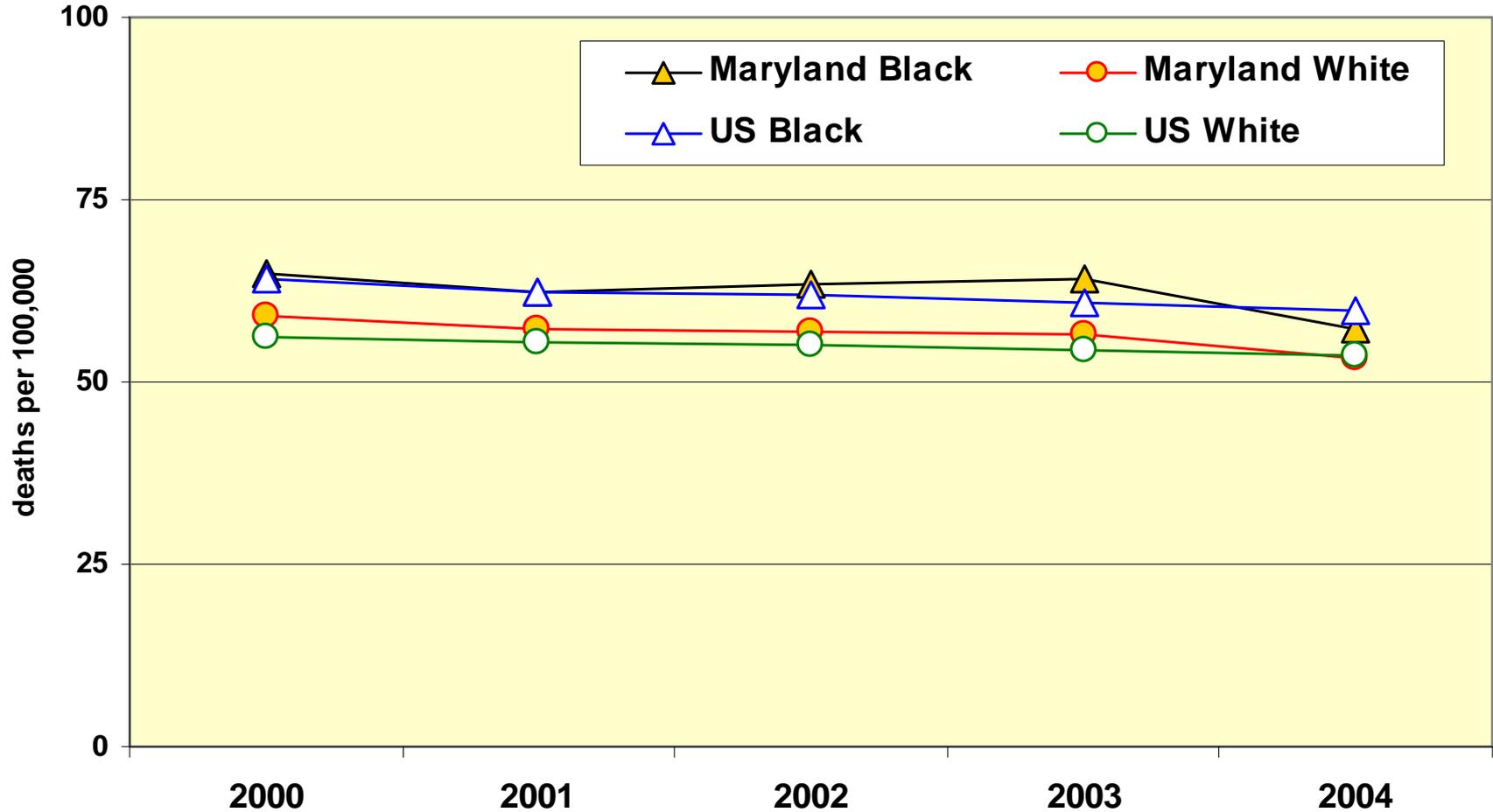
Mortality Rates, Differences, and % Change, By White or Black Race, Maryland 2000 and 2004 (rates are age-adjusted rates per 100,000)

	2000	2004	Percent Change
Black Lung Ca Mortality	64.7	57.4	-11.3%
White Lung Ca Mortality	58.9	53.2	-9.7%
Mortality Difference	5.8	4.2	-27.6%

(657 African American deaths is the minimum cell numerator, in 2001)

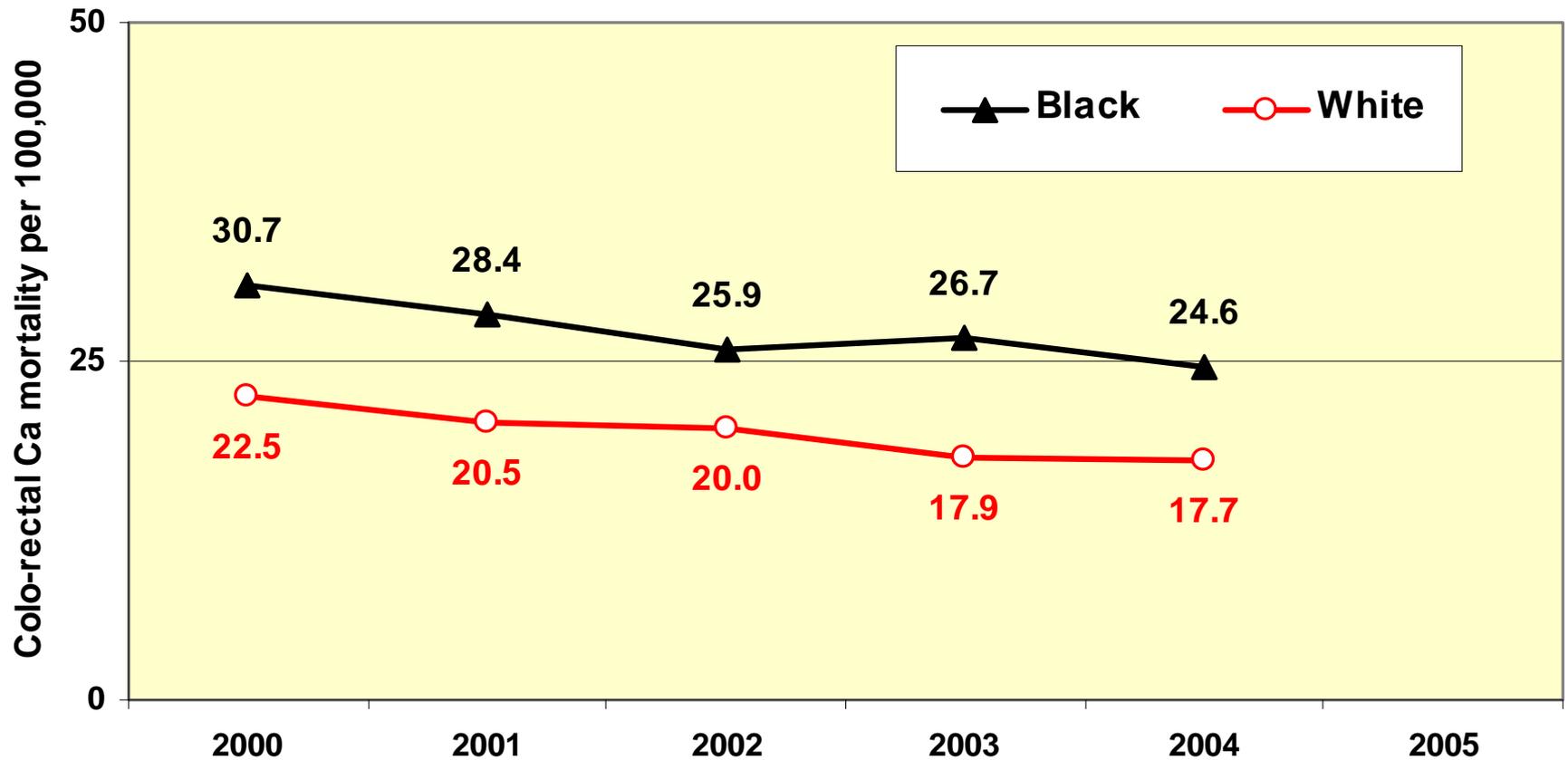
Lung Cancer Maryland vs. U.S.

Age-adjusted Lung Cancer Mortality, by Black or White Race, Maryland and United States 2000 to 2004 (CDC Wonder)



Colo-rectal Cancer Mortality

Age-adjusted colo-rectal cancer mortality rates,
African Americans and Whites,
Maryland statewide, 2000 to 2004 (CDC Wonder)



Colo-rectal Cancer Mortality

Source: CDC Wonder

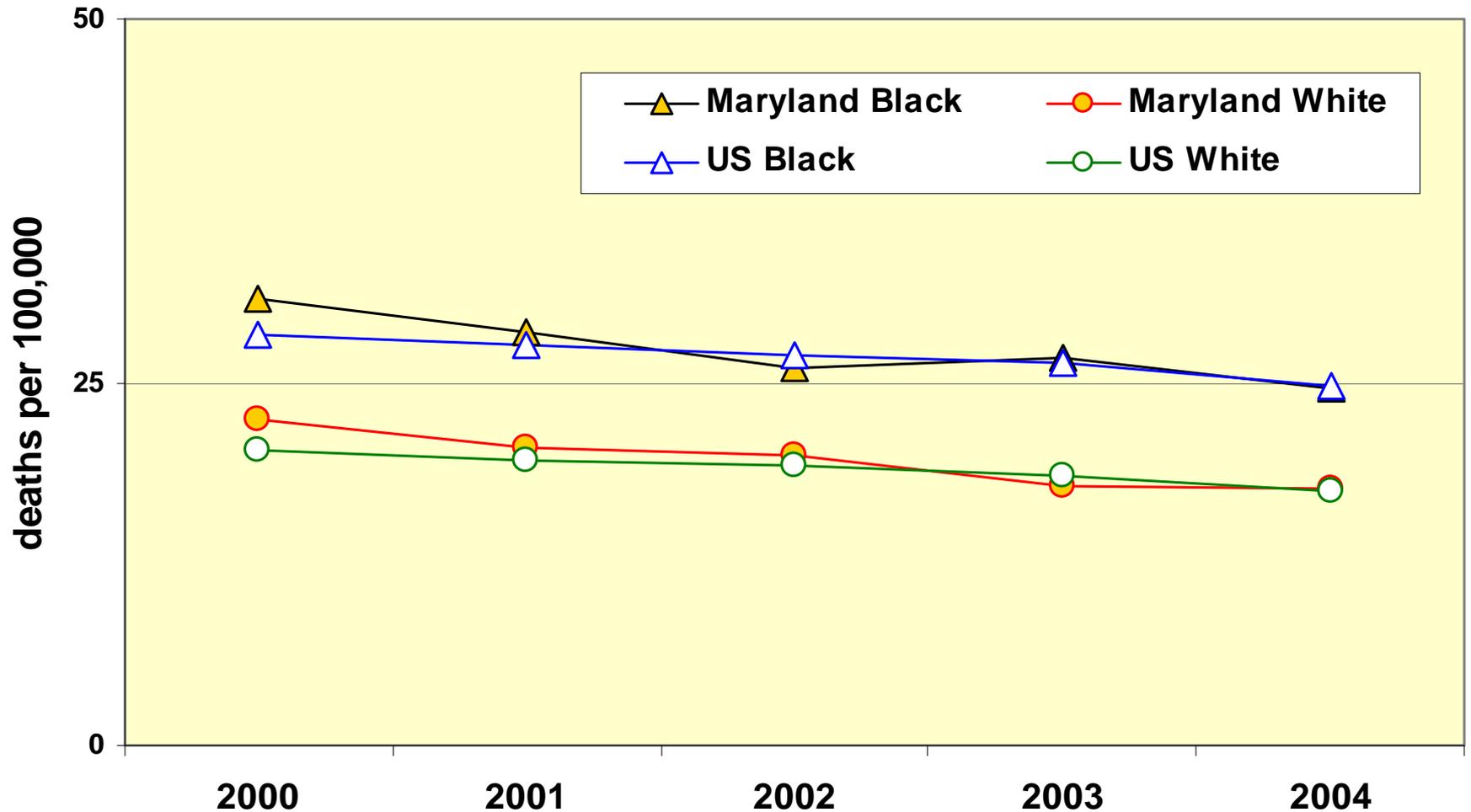
Mortality Rates, Differences, and % Change, By White or Black Race, Maryland 2000 and 2004 (rates are age-adjusted rates per 100,000)

	2000	2004	Percent Change
Black Colo-rectal Mortality	30.7	24.6	-19.9%
White Colo-rectal Mortality	22.5	17.7	-21.3%
Mortality Difference	8.2	6.9	-15.9%

(272 African American deaths is the minimum cell numerator, in 2002)

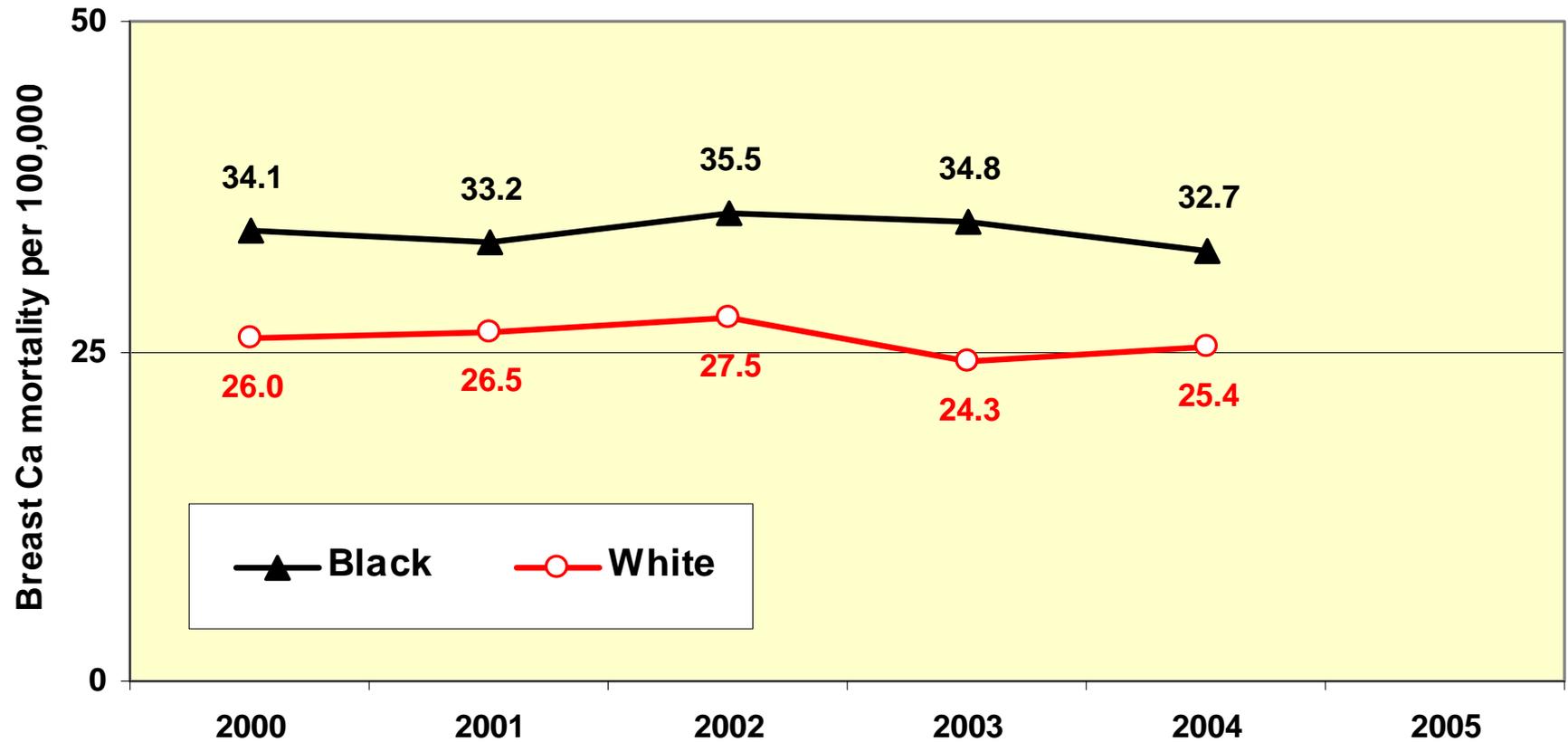
Colo-rectal Cancer Mortality Maryland vs. U.S.

Age-adjusted Colo-rectal Cancer Mortality, Black or White Race, Maryland and United States 2000 to 2004 (CDC Wonder)



Breast Cancer Mortality

Age-adjusted breast cancer mortality rates,
African Americans and Whites,
Maryland statewide, 2000 to 2004 (CDC Wonder)



Breast Cancer Mortality

Source: CDC Wonder

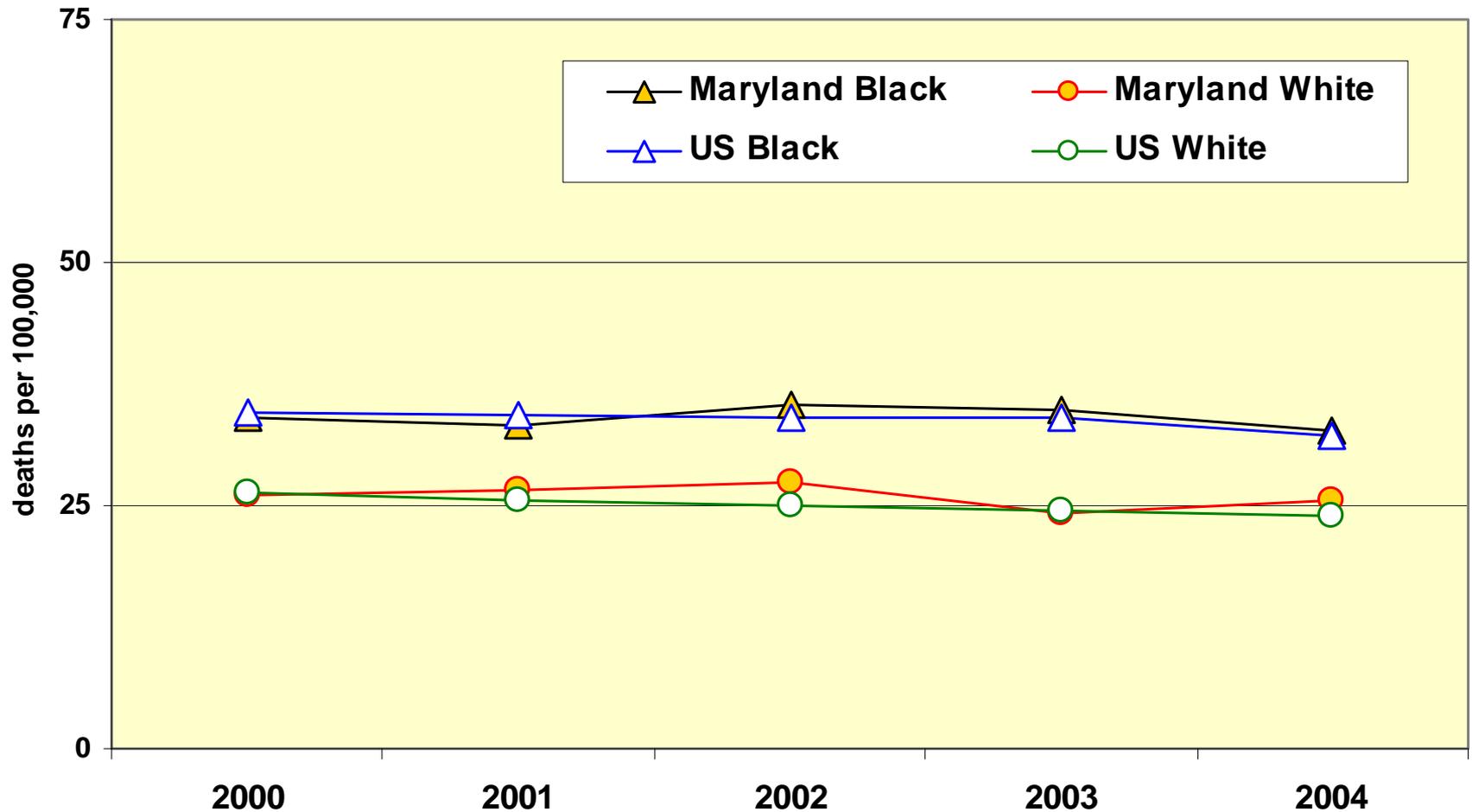
Mortality Rates, Differences, and % Change, By White or Black Race, Maryland 2000 and 2004 (rates are age-adjusted rates per 100,000)

	2000	2004	Percent Change
Black Breast Ca Mortality	34.1	32.7	-4.1%
White Breast Ca Mortality	26.0	25.4	-2.3%
Mortality Difference	8.1	7.3	-9.9%

(221 African American deaths is the minimum cell numerator, in 2000)

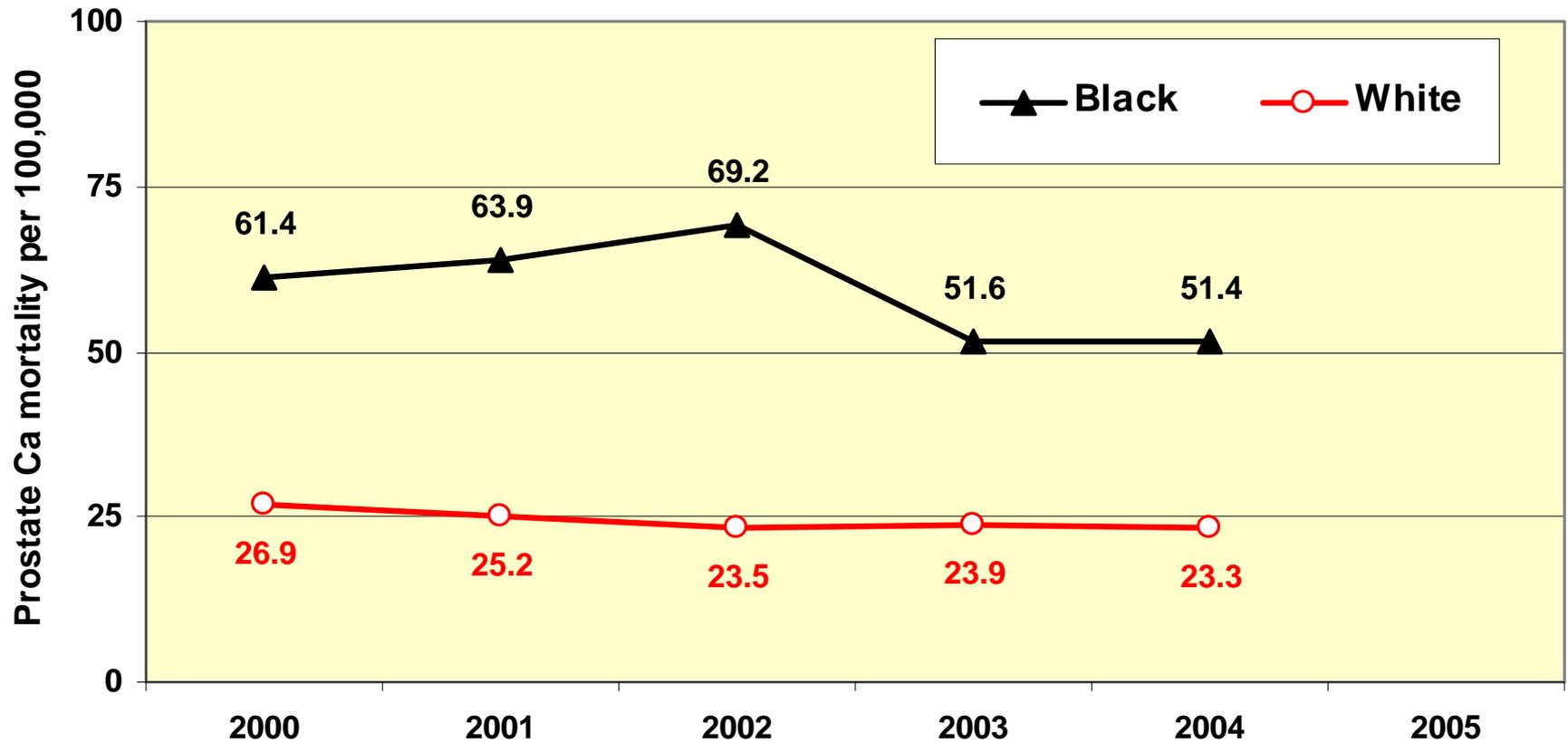
Breast Cancer Mortality Maryland vs. U.S.

Age-adjusted Breast Cancer Mortality, Black or White Race, Maryland and United States 2000 to 2004 (CDC Wonder)



Prostate Cancer Mortality

Age-adjusted prostate cancer mortality rates,
African Americans and Whites,
Maryland statewide, 2000 to 2004 (CDC Wonder)



Prostate Cancer Mortality

Source: CDC Wonder

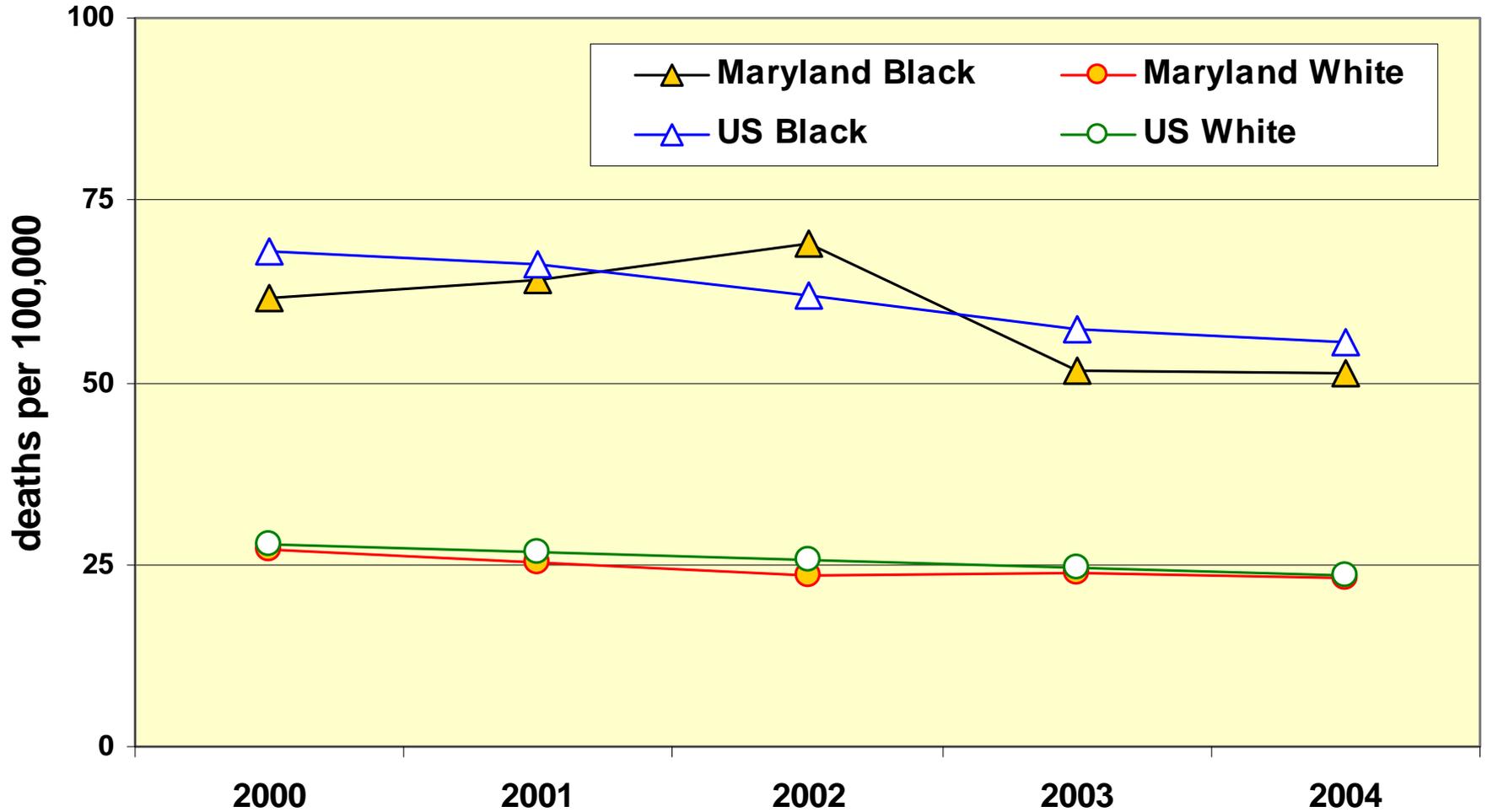
Mortality Rates, Differences, and % Change, By White or Black Race, Maryland 2000 and 2004 (rates are age-adjusted rates per 100,000)

	2000	2004	Percent Change
Black Prostate Ca Mortality	61.4	51.4	-16.3%
White Prostate Ca Mortality	26.9	23.3	-13.4%
Mortality Difference	34.5	28.1	-18.6%

(170 African American deaths is the minimum cell numerator, in 2003)

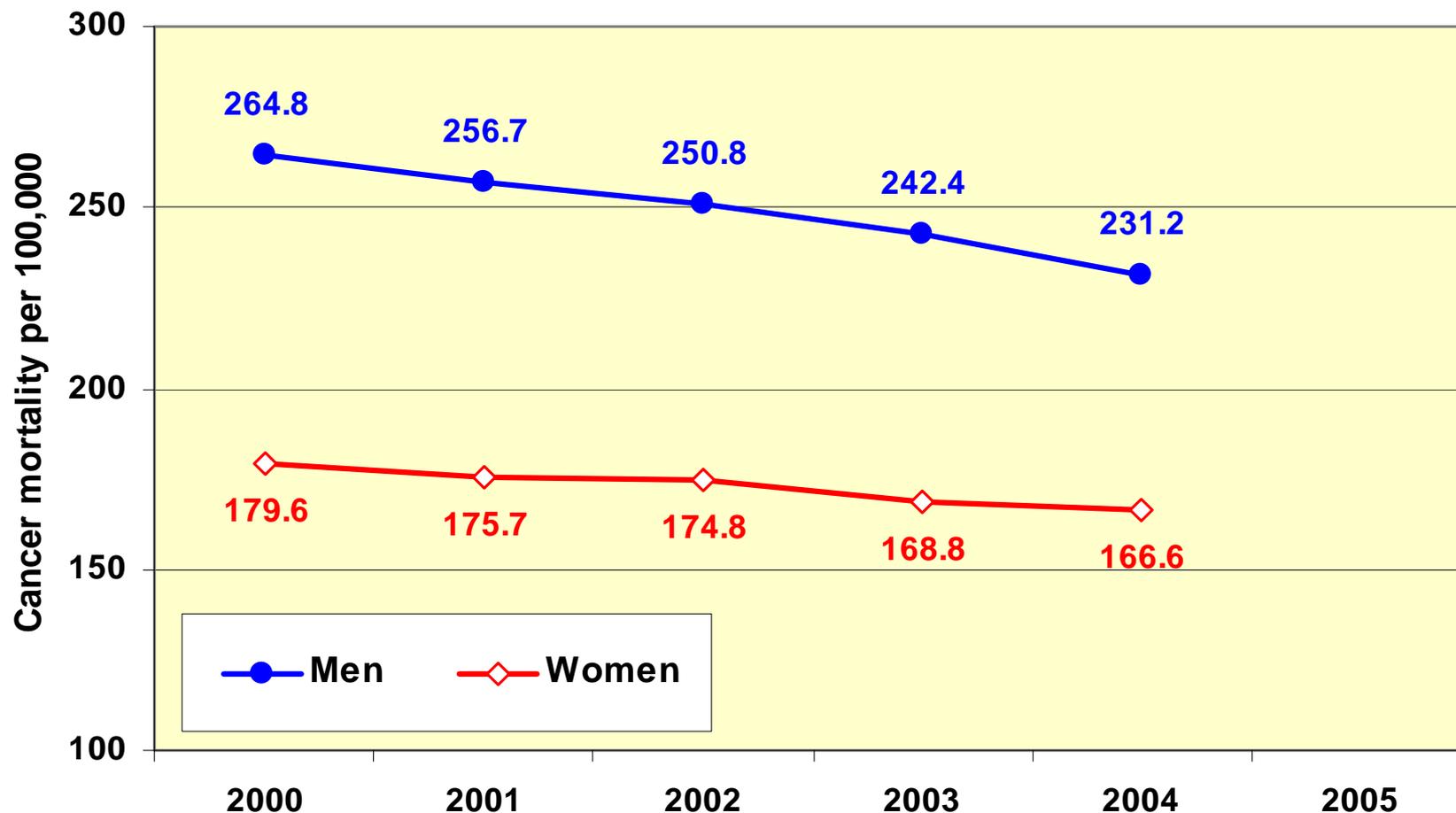
Prostate Cancer Mortality Maryland vs. U.S.

Age-adjusted Prostate Cancer Mortality, Black or White Race, Maryland and United States 2000 to 2004 (CDC Wonder)



Cancer Mortality by Gender

Age-adjusted all-cancer mortality rates, men and women,
Maryland statewide, 2000 to 2004 (CDC Wonder)



Cancer Mortality by Gender

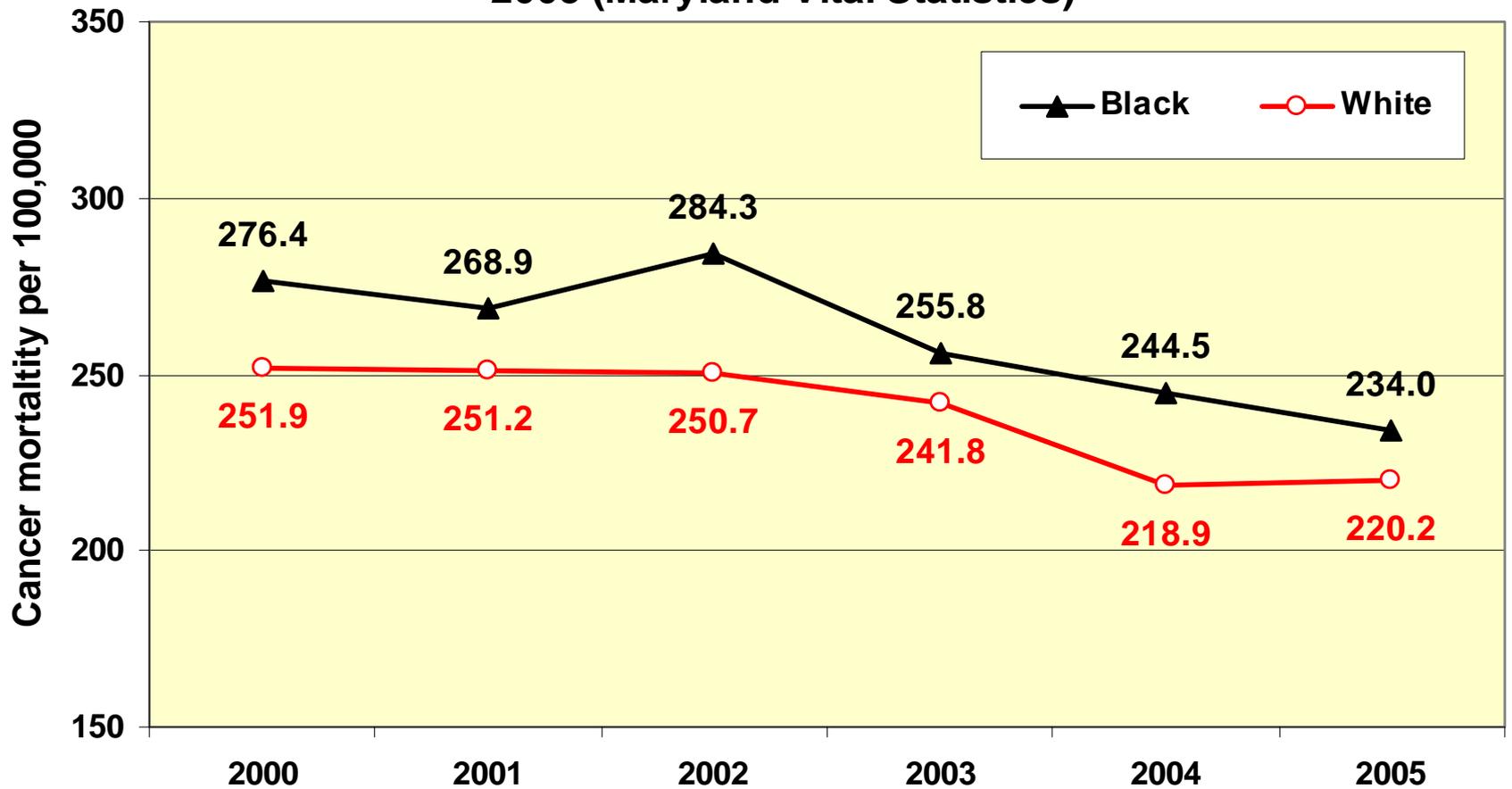
Source: CDC Wonder

Mortality Rates, Differences, and % Change, By White or Black Race, Maryland 2000 and 2004 (rates are age-adjusted rates per 100,000)

	2000	2004	Percent Change
Male Cancer Mortality	264.8	231.2	-12.7%
Female Cancer Mortality	179.6	166.6	-7.2%
Mortality Difference	85.2	64.6	-24.2%

Baltimore City

Age-adjusted all-cancer mortality rates, African Americans and Whites, Baltimore City, 2000 to 2004 (CDC Wonder) and 2005 (Maryland Vital Statistics)



Baltimore City

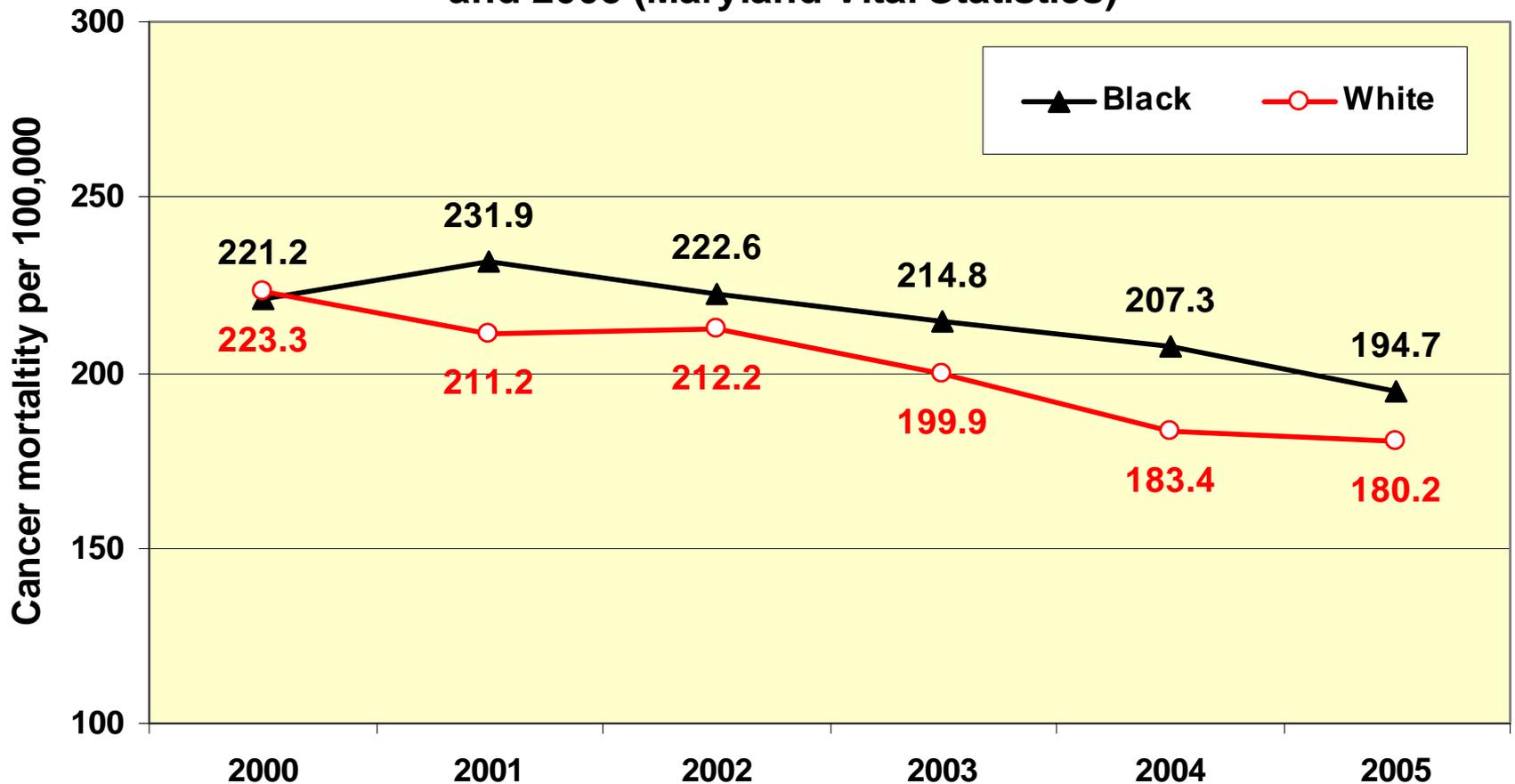
Cancer Mortality Rates, Rate Differences, and Percent Change, By White or Black Race, Baltimore City 2000 and 2005 (rates are age-adjusted rates per 100,000)

	2000	2005	Percent Change
Black Cancer Mortality	276.4	234.0	-15.3%
White Cancer Mortality	251.9	220.2	-12.6%
Mortality Difference	24.5	13.8	-43.7%

CDC Wonder (2000 data) and Maryland Vital Statistics Administration (2005 data)

Prince George's County

Age-adjusted all-cancer mortality rates, African Americans and Whites, Prince George's Co. 2000 to 2004 (CDC Wonder) and 2005 (Maryland Vital Statistics)



Prince George's County

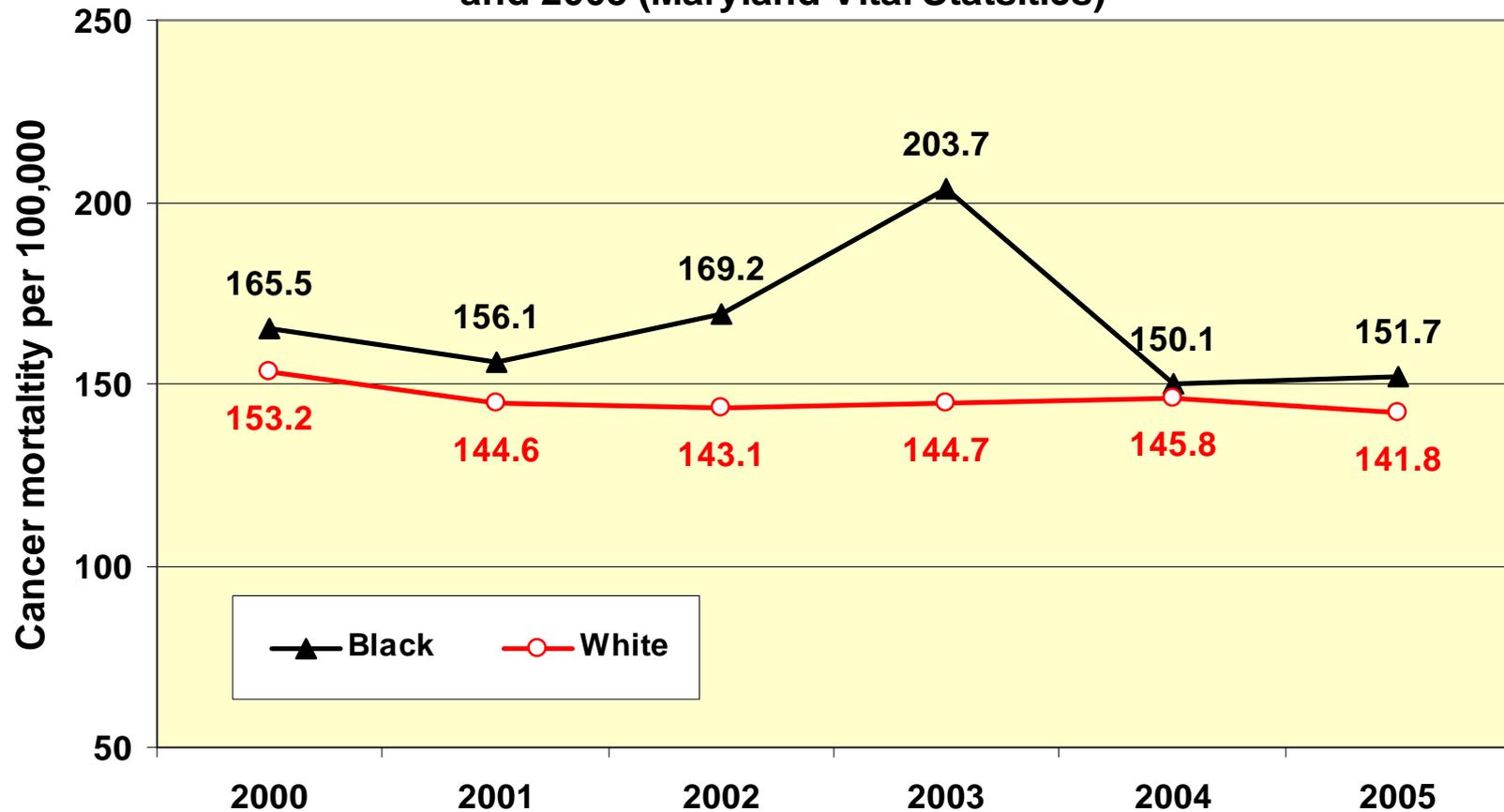
Cancer Mortality Rates, Rate Differences, and Percent Change, By White or Black Race, PG County 2000 and 2005 (rates are age-adjusted rates per 100,000)

	2000	2005	Percent Change
Black Cancer Mortality	221.2	194.7	-12.0%
White Cancer Mortality	223.3	180.2	-19.3%
Mortality Difference	-2.1	14.5	

CDC Wonder (2000 data) and Maryland Vital Statistics Administration (2005 data)

Montgomery County

Age-adjusted all-cancer mortality rates, African Americans and Whites, Montgomery Co. 2000 to 2004 (CDC Wonder) and 2005 (Maryland Vital Statistics)



Montgomery County

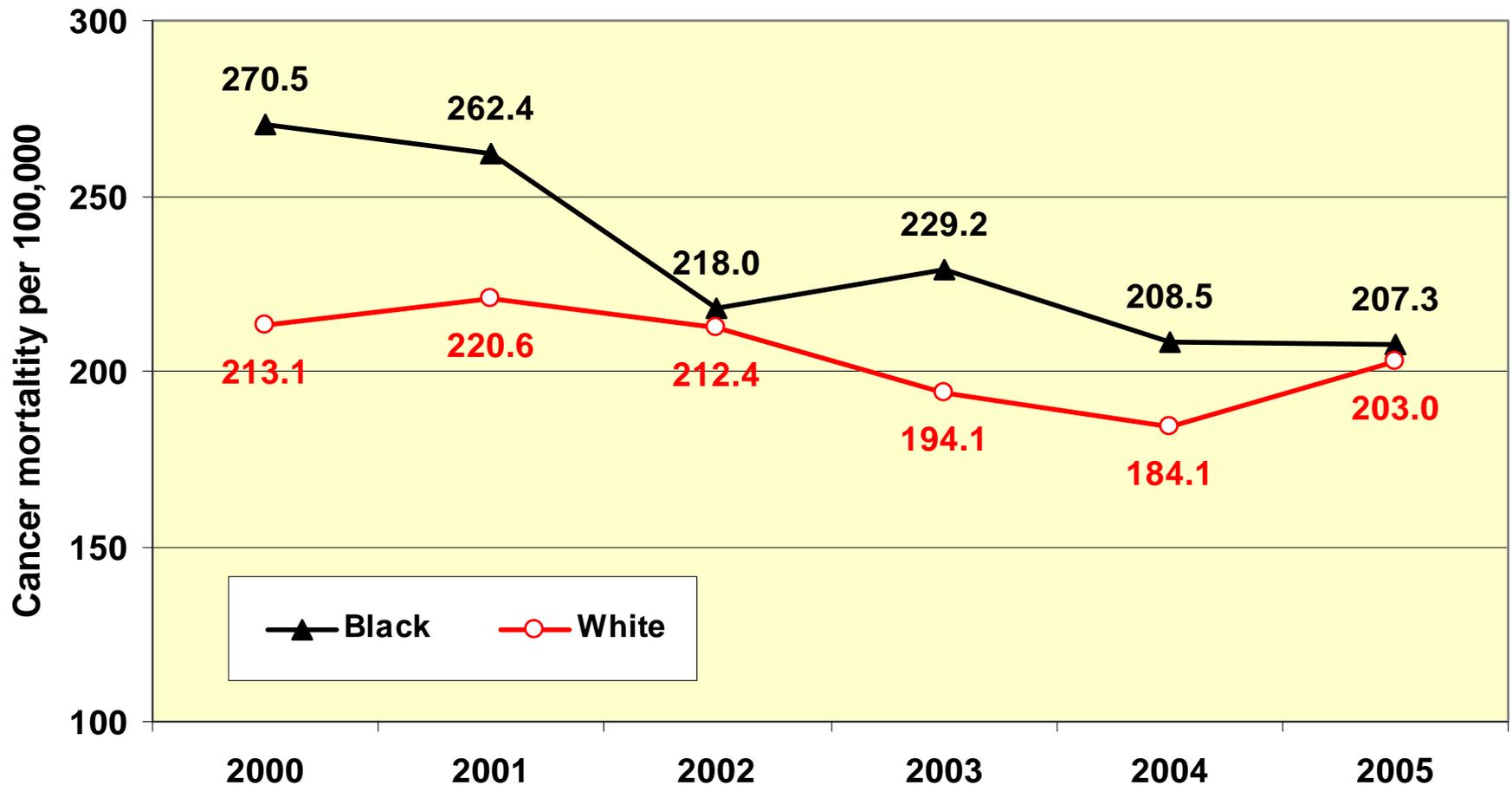
Cancer Mortality Rates, Rate Differences, and Percent Change, By White or Black Race, Montgomery County 2000 and 2005 (rates are age-adjusted rates per 100,000)

	2000	2005	Percent Change
Black Cancer Mortality	165.5	151.7	-8.3%
White Cancer Mortality	153.2	141.8	-7.4%
Mortality Difference	12.3	9.9	-19.5%

CDC Wonder (2000 data) and Maryland Vital Statistics Administration (2005 data)

Baltimore County

Age-adjusted all-cancer mortality rates, African Americans and Whites, Baltimore Co. 2000 to 2005 (CDC Wonder 2000-2004, Maryland Vital Statistics Administration 2005)



Baltimore County

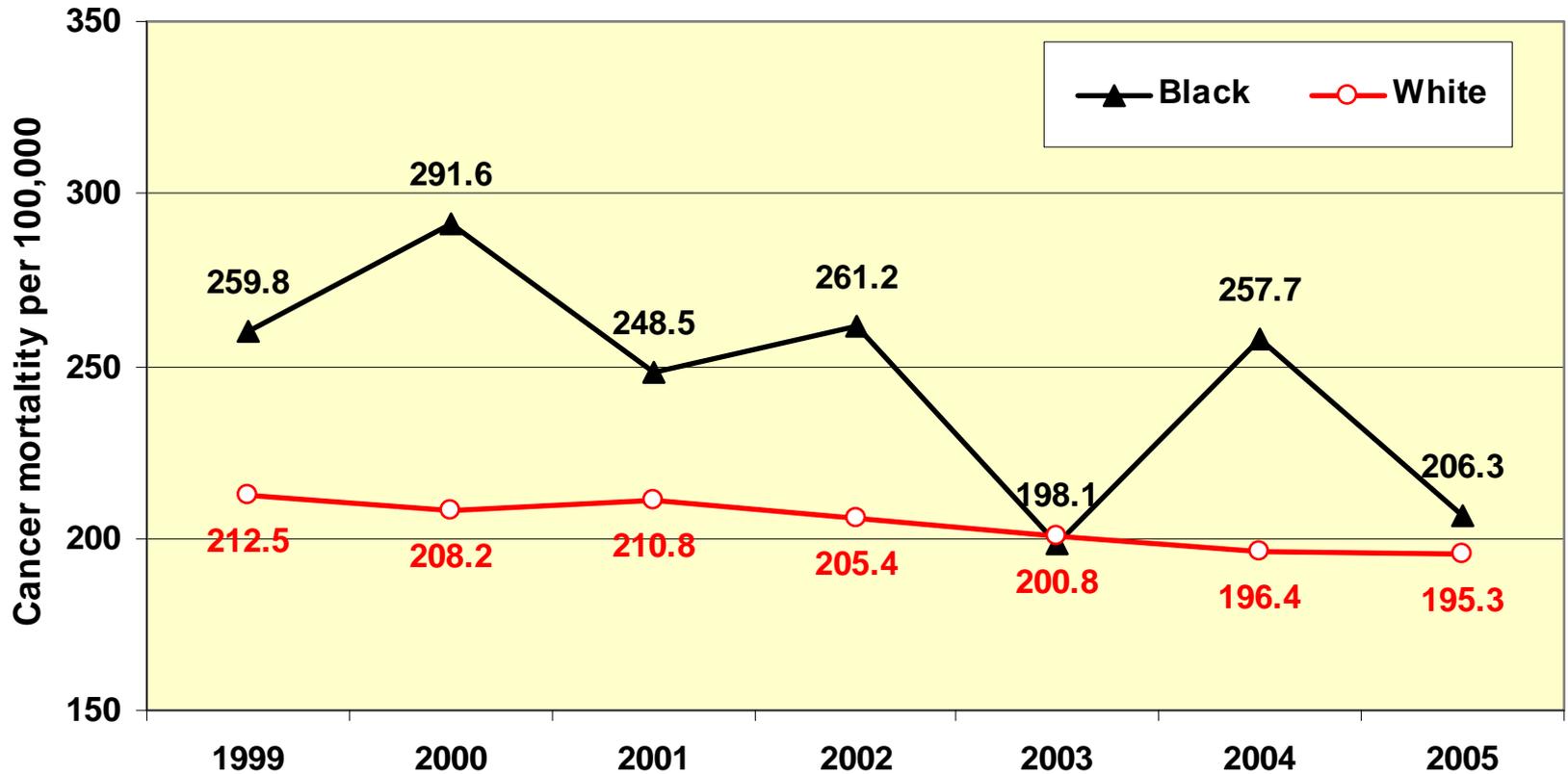
Cancer Mortality Rates, Rate Differences, and Percent Change, By White or Black Race, Baltimore County 2000 and 2005 (rates are age-adjusted rates per 100,000)

	2000	2005	Percent Change
Black Cancer Mortality	270.5	207.3	-23.4%
White Cancer Mortality	213.1	203.0	-4.7%
Mortality Difference	57.4	4.3	-92.5%

CDC Wonder (2000 data) and Maryland Vital Statistics Administration (2005 data)

Anne Arundel County

Age-adjusted all-cancer mortality rates,
African Americans and Whites, Anne Arundel Co,
1999 to 2004 (CDC wonder) and 2005 MVSA



Anne Arundel County

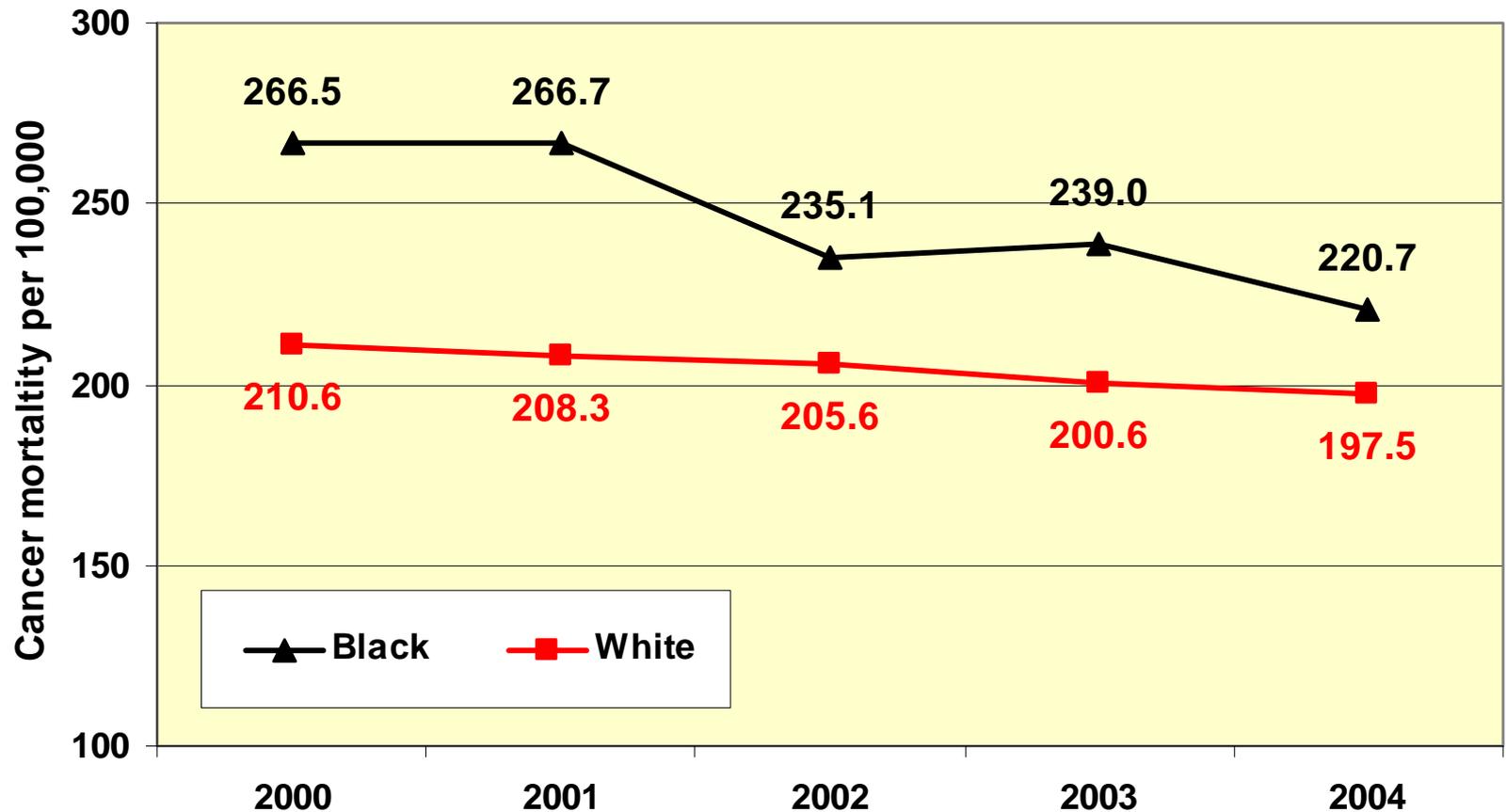
Cancer Mortality Rates, Rate Differences, and Percent Change, By White or Black Race, Anne Arundel County 2000 and 2005 (rates are age-adjusted rates per 100,000)

	2000	2005	Percent Change
Black Cancer Mortality	259.8	206.3	-20.6%
White Cancer Mortality	212.5	195.3	-8.1%
Mortality Difference	47.3	11.0	-76.7%

**CDC Wonder (1999-2004 data) and Maryland Vital Statistics Administration (2005 data)
Rates are the three-year average rate for the time periods indicated**

Anne Arundel County

Age-adjusted all-cancer mortality rates, African Americans and Whites, Anne Arundel County, 2000 to 2004 three-year rolling averages. (CDC Wonder 1999-2004, MVSA 2005)



Anne Arundel County

Cancer Mortality Rates, Rate Differences, and Percent Change, By White or Black Race, Anne Arundel County 1999-2001 to 2003-2005 (rates are age-adjusted rates per 100,000)

	1999-2001	2003-2005	Percent Change
Black Cancer Mortality	266.5	220.7	-17.2%
White Cancer Mortality	210.6	197.5	-6.2%
Mortality Difference	55.9	23.2	-58.5%

**CDC Wonder (1999-2004 data) and Maryland Vital Statistics Administration (2005 data)
Rates are the three-year average rate for the time periods indicated**

Conclusions

- Cancer mortality has declined in Maryland from 2000 to 2005.
- Colo-rectal cancer mortality has fallen by about 20% from 2000 to 2004.
- The cancer mortality disparity between African Americans and Whites has been reduced by half from 2000 to 2005.
- The timing and areas of greatest impact are consistent with the activities of the CRFP

CRFP Contact Information

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Baltimore, MD 21201

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E-mail: healthdisparities@dhmh.state.md.us