Disparity in Colorectal Cancer Mortality Between African Americans and the General Population in Massachusetts

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Colorectal Cancer (CRC)

- Colorectal Cancer is uncontrolled cell growth in the colon and or rectum caused by an acquired genetic mutation.
- Stage 1: Within colon wall
- Stage 2: Has spread to adjacent muscle layer
- Stage 3: Has spread beyond colon wall
- Stage 4: Metastasis
- Most commonly appears in individuals aged 50 and above
What is a health disparity?

- “A population is a health disparity population if there is a significant disparity in the overall rate of disease incidence, prevalence, morbidity, mortality or survival rates in the population as compared to the health status of the general population”

_Minority Health and Health Disparities Research and Education Act_
The Disparity: Mortality

CRC Mortality Rate per 100,000 in Massachusetts, 2010
(age adjusted)

Males
- General Population: 19.4
- Blacks: 22.6

Females
- General Population: 13.8
- Blacks: 16.4

Massachusetts Department of Health
Incidence

No Significant Disparity

Incidence rate per 100,000 in Massachusetts, 2010

Massachusetts Department of Health
Screening Methods

- Sigmoidoscopy
- Colonoscopy
- Fecal Occult Blood Test
Screening Rates

Ever had a proctoscopic exam, ages 50 and over (Massachusetts, 2010)

- Whites: 73.5%
- Blacks: 71.9%

Follow up colonoscopy rates (U.S., 2010)

- Whites: 72.4%
- Blacks: 62.6%

Massachusetts Department of Health
National Cancer Institute
Mortality Rate By Stage

Percent reduction in mortality by stage and race from 1985 to 2008

Localized: Stage I and II
Regional: Stage III
Distant: Stage IV

Disparity in distant stage mortality reduction accounts for 60% of overall disparity in mortality

Journal of Clinical Oncology
Stage at Diagnosis

Percent of Incidences Diagnosed at Each Stage (U.S, 1996-2006)

- Localized: Whites 40%, Blacks 35%
- Regional: Whites 37%, Blacks 35%
- Distant: Whites 19%, Blacks 24%
- Unstaged: Whites 5%, Blacks 6%

American Cancer Society
Screening knowledge, perceptions, and behaviors

- Slightly under half of respondents had received screening
- Perceived barriers: screening may be painful, afraid to find out something is wrong, do not know how to schedule screening, afraid because I don't know what will be done in test
- Barriers negatively correlated with secondary and post-secondary education
5-Year Survival Rates

- Blacks have higher mortality within each stage.
- Disparity can be explained by fact that blacks are less likely to receive recommended treatments.

American Cancer Society

5-Year Survival Rate by Race and Stage (U.S., 1999-2006)

- Localized: Whites 91%, Blacks 86%
- Regional: Whites 70%, Blacks 63%
- Distant: Whites 12%, Blacks 8%
What is Being Done?

- CDC’s Colorectal Cancer Control Program (CRCCP)
- Provides funding for colorectal cancer screening to low income men and women aged 50-64 years
- In effect in 25 states and 4 tribes, including Massachusetts
- Analysis is currently being done to determine effectiveness
Conclusion

- Disparity in mortality is influenced by knowledge and perceptions
- Two main aspects: screening and treatment behaviors
- Mortality disparity can be reduced by educating low-income blacks about screening and treatment for CRC
References