Colorectal Cancer in African Americans: An Update

Prepared by the Committee on Minority Affairs and Cultural Diversity, American College of Gastroenterology

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This review is an update to the American College of Gastroenterology (ACG) Committee on Minority Affairs and Cultural Diversity’s paper on colorectal cancer (CRC) in African Americans published in 2005. Over the past 10 years, the incidence and mortality rates of CRC in the United States has steadily declined. However, reductions have been strikingly much slower among African Americans who continue to have the highest rate of mortality and lowest survival when compared with all other racial groups. The reasons for the health disparities are multifactorial and encompass physician and patient barriers. Patient factors that contribute to disparities include poor knowledge of benefits of CRC screening, limited access to health care, insurance status along with fear and anxiety. Physician factors include lack of knowledge of screening guidelines along with disparate recommendations for screening. Earlier screening has been recommended as an effective strategy to decrease observed disparities; currently the ACG and American Society of Gastrointestinal Endoscopists recommend CRC screening in African Americans to begin at age 45. Despite the decline in CRC deaths in all racial and ethnic groups, there still exists a significant burden of CRC in African Americans, thus other strategies including educational outreach for health care providers and patients and the utilization of patient navigation systems emphasizing the importance of screening are necessary. These strategies have been piloted in both local communities and Statewide resulting in notable significant decreases in observed disparities.

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INTRODUCTION

Colorectal cancer (CRC) remains the third most common cause of malignancy-related death in men and women in the United States.1 It is estimated that 134,490 new cases and 49,190 deaths will occur in 2016.1 Among all racial and ethnic groups, African-American men and women continue to have the highest rate of death and shortest survival for CRC.2 Currently, multiple medical societies recommend CRC screening in average risk asymptomatic individuals to begin at age 50.3,4 In 2005, the American College of Gastroenterology (ACG) published new guidelines for the screening of African Americans for CRC to begin at age 45.5 This was based on a systematic literature review on the issues relating specifically to this racial group and the health disparities that continue to exist.

The goals of this update are to further explore the important epidemiology of CRC in African Americans, discuss age-related differences, and to highlight patient as well as physician-related barriers to screening in addition to proposing strategies to diminish those barriers.

Search methods. A medical librarian conducted a comprehensive literature search in the following databases: Biological Abstracts (1946–present), Biosis Citation Index (BCI) (1926–present), the Cumulative Index to Nursing and Allied Health (CINAHL) (1937–present), the Cochrane Library, Embase Classic (Ovid) (1947–present), PubMed/Medline (1946–present), and Web of Science (1900–present). The Grey literature was also searched using the NY Academy of Medicine Grey Literature database, OAIster and Open Grey.

The search strategy was constructed using a combination of Medical Subject Headings (MeSH) as well as additional relevant subject headings from the other databases. Relevant keywords/text words were also included. The primary strategy is provided below and was adapted appropriately when searching the unique databases.

(Blacks or Black Americans OR African Americans OR West Indian American OR Caribbean Americans) AND (Mass screening OR Screening OR prevention) AND (Colon cancer OR colon neoplasms OR Colonic Cancer OR Colonic Neoplasms OR CRC OR colorectal carcinoma OR colon carcinogenesis OR sigmoid carcinoma OR colon adenocarcinoma OR colon carcino genesis).

The following limits were applied: English Language and publication years 2005 to the present.

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Current screening guidelines. The United States Preventative Services Task Force, American Cancer Society, American Gastroenterological Association, and the American Society of Colon and Rectal Surgeons currently recommend CRC screening in asymptomatic and average risk individuals to begin at age 50. A few societies have adopted an earlier screening protocol, namely the ACG and American Society of Gastrointestinal Endoscopists (ASGE), both of whom recommend CRC screening in African Americans to begin at age 45. As a part of their best practice advice, the American College of Physicians has recommended the screening age of 40 years for African Americans. Different screening modalities include annual fecal occult blood tests, fecal DNA testing every 3 years, annual fecal immunochemical testing (FIT), colonoscopy every 10 years, CT colonography every 5 years, and flexible sigmoidoscopy every 5 years.

OUTCOMES AND PRESENTATION

Incidence, mortality, and survival. Incidence and mortality differ significantly among African Americans compared with other races (Figures 1 and 2). With an estimated 17,240 new cases and 7,030 deaths in 2016, CRC still remains the third leading cause of cancer death among African-American men and women. CRC incidence rates were 25% higher and mortality rates were 50% higher in African Americans versus Caucasians between the years 2006–2010. Data from the Surveillance, Epidemiology, and End Results (SEER) Program reported that between 1975 and 2010 the incidence rates in white men and women had declined significantly by an overall average of 40–45% (Figure 3). During the same time period, the incidence for African-American men had increased until 2004, after which a steady decline was noted. For African-American men in particular, the incidence rate of CRC cancer was 20–25% higher than white men. The trend for African-American women for this same time period showed that their incidence rate was 30% higher than white women. As per a recent annual report by the American Cancer Society, incidence rates for CRC has declined to 47.1 and 59.1 per 100,000 in whites and blacks, respectively.

African Americans continue to have the worst survival of any racial group for colon cancer. According to the SEER database, the 5-year relative survival for CRC between 2003 and 2009 was 57.3% for African Americans and 67% for their white counterparts. African-American men had the lowest survival rate for all stages of CRC. As for stage distribution, it was shown between 2003 and 2009 that 24% of African Americans presented with distant metastasis compared with 20% in whites. The likelihood of the diagnosis of an advanced tumor is higher in African Americans, which has been attributed to lower screening rates in minorities, later stage of disease at presentation, and diminished access to health care.

Proximal colonic lesions in African Americans. Although there has been an overall decrease in the incidence of CRC, there has been a noted increase in the diagnosis of right-sided tumors across racial groups. Within this trend it is important to highlight the impact within the African-American community. A 2007 study analyzed 254,469 patients from the SEER database to examine the anatomic subsite distribution of tumors across racial groups. Multivariate regression analysis found that the adjusted odds of a diagnosis of
cancer proximal to the sigmoid colon (odds ratio (OR) 1.37, 95% confidence interval (CI): 1.33–1.42) or splenic flexure (OR 1.09, 95% CI: 1.06–1.13) were significantly higher in African Americans compared with non-Hispanic whites.24 Furthermore, looking specifically at polyp prevalence, a 2013 study evaluating the prevalence of adenomas detected by age, sex, race/ethnicity and location in over 20,000 patients found that proximal adenoma prevalence was higher among blacks than whites (OR = 1.26; CI: 1.04–1.54).25 Whereas both analyses provide evidence for a proximal shift in African Americans, the absolute difference of less than one is notably small. Within the Clinical Outcomes Research Initiative (CORI) database, African Americans older than 60 years of age were found to have more proximal polyps > 9 mm in size compared with their white counterparts with an absolute difference of 1.5%.26 It should be noted, however, that unlike the study previously reported by Corley et al.,25 these data does not include polyptide histology.

Alternatively, a cross-sectional analysis of asymptomatic average risk, African-American and Latino patients found a combined 20% prevalence of right-sided adenomas with a higher percentage of proximal advanced adenomas observed in their Latino participants. The observed difference, however, was not statistically significant (5.9% black vs. 8.9% Latino, P = 0.17).27 On the basis of this analysis, it was concluded that there was a high prevalence of adenomas, advanced adenomas, and proximal adenomas in their African-American and Latino participants with a higher percentage of proximal advanced adenomas observed in their Latino participants. Contrastingly, another study found the prevalence of advanced adenomas to be higher in whites in comparison with blacks (6.8% vs. 5.0%, P = 0.039); however, there was a higher percentage of proximal adenomas in blacks (52% vs. 39%).28 It is worthwhile to note that serrated adenomas have been found to be less frequent in African Americans compared with Caucasians (relative risk 0.65, 95% CI: 0.50–0.85).29 The clinical significance of this finding is important as serrated adenomas are shown to have a role in the diagnosis of interval CRC and its current pathway of colorectal tumorigenesis results in tumors with high microsatellite instability that have been associated with a longer survival.30,31

Overall, the importance of colon cancer location in African Americans is emphasized as proximal colon cancers have been associated with a worse prognosis compared with distal cancers.32 Given the limited data on adenoma prevalence more research is needed to investigate the location of colonic lesions as it may have a significant role in the disparate survival outcomes of this racial group.

Age-related differences. With better-designed healthcare databases over the years, there has been a notable overall shift in the age-related incidence of CRC with an increasing incidence in patients in all racial and ethnic groups under 50 years of age.33,34 Ongoing health disparities within the African-American community have played a pivotal role in earlier cancer screening recommendations for this population. For example, when prostate-specific antigen was used for prostate cancer screening, the United States Preventative Services Task Force had recommended prostate-specific antigen testing in African Americans beginning at the age of 45 vs. 50 years for average risk patients.35 A 2007 analysis comparing the age at diagnosis in African Americans and whites for the 12 most common cancers found that the relative risk of cancer diagnosis before the age of 45 was higher in African Americans (relative risk = 1.26, 95% CI: 1.15–1.37, P < 0.0001).36 A population-based retrospective cohort analysis of the SEER registry found that patients under 50 with CRC were more likely to be African American (14.8% vs. 12%) or American Indian/Alaska Native (10.6% vs. 8.5%), which was statistically significant with a P < 0.001.37 With respect to CRC specifically, there is a paucity of investigative studies involving African Americans under the age of 50 years.

The CORI was developed to investigate gastrointestinal endoscopic outcomes. With an endoscopic database of over one million patients, the group analyzed how race, ethnicity, and sex affected the risk for large polyps, defined as > 9 mm in size. Results showed that black men had a higher prevalence compared with white men at 50–54 years (OR = 1.17, 95% CI: 1.02–1.35), 55–59 years (OR = 1.16, 95% CI: 0.996–1.36), and 60–64 years (OR = 1.38, 95% CI: 1.18–1.61). There were similar findings for black women, where they had a higher prevalence of large polyps at age 50–54 years (OR = 1.23, 95% CI: 1.06–1.47), 55–59 years (OR = 1.51, 95% CI: 1.25–1.82), and 60–64 years (OR = 1.35, 95% CI: 1.09–1.67).37 For participants < 50 years old, no difference was found between African Americans and whites. This may have been secondary to the small sample size within this age range. A recent jointpoint regression analysis evaluated the upward trend of age-adjusted incidence rates by race, this analysis sought to identify at which point (join point) the incidence rates increased significantly by race.38 They identified a jointpoint in the age
range of 40–55 years and found a joinpoint for CRC as a whole at age 43 years for African Americans (95% CI: 42–45) and 47 years for whites (95% CI: 45–49). A 2009 study by Lansdorp-Vogelaar et al. used a MISCAN-Colon microsimulation model investigating three different strategies of screening. The individualization strategy was the one that showed an increase in life-years gained in blacks, namely 14% of total life-years were saved with screening. This strategy showed a decrease in the disparities in incidence and survival when blacks were screened 6 years earlier than whites. Moreover, these findings strongly confirmed and validated the recommendation for earlier CRC screening for African Americans at the age of 45 years.

BARRIERS TO SCREENING

Routine screening. There are various modalities available for CRC screening. It is the responsibility of the physician to present all options to their patient. On the basis of the current body of evidence, colonoscopy is still the preferred CRC prevention test recommended by the ACG. The advantages of colonoscopy include visualization of the entire colon, the ability to obtain a biopsy sample of abnormal mucosa, and the opportunity to remove adenomatous polyps. It should be performed every 10 years in a patient without polyps or significant personal or family history and it is considered the gold standard for the detection and removal of colorectal polyps. The National Polyp study followed over 1,400 patients and demonstrated that colonoscopic polypectomy of adenomatous polyps prevented colon cancer. Analysis of over 88,000 patients for over one million person-years found a lower incidence of CRC in patients who underwent lower endoscopy. For colonoscopy specifically, they found a lower mortality for right and left sided CRC in comparison with those who have never had a lower endoscopy.

There are data to suggest that African Americans have a preference for colonoscopy as a screening choice. A 2008 study evaluated preferences for CRC screening among a racially diverse population and found that African Americans were significantly associated with a preference for colonoscopy. These findings were consistent with a prior study that found race and education were associated with patient preferences on univariate analysis, specifically 70.1% of their African-American patients who had a preference for colonoscopy over stool DNA or occult blood. Although some studies have shown a preference for colonoscopy over fecal testing, a group from San Francisco Community Health Network found that whites were more likely to complete a colonoscopy in comparison with non-whites (OR 3.2; 95% CI: 1.7–6.1). In this study, when offered a choice, African Americans were more likely to choose a stool-based test. This preference for a non-invasive test was also observed in a randomized trial evaluating the effectiveness of FIT versus colonoscopy outreach in an underserved community. Of 5,994 patients that were randomized, 24% were black. When stratified by race, screening participation rates were higher in the FIT group vs. colonoscopy (48.1% vs. 28.7%, P<0.001). Whereas colonoscopy should be used as the primary screening tool for African Americans, given the proximal shift in CRC distribution observed in this population, non-invasive testing should be aggressively utilized to increase rates of screening in this population.

| Table 1 Patient barriers to colorectal cancer screening |
|-------------------------------|
| Lack of knowledge |
| Lack of time |
| Cost of the exam(s) |
| Fear of a cancer diagnosis |
| General lack of interest in screening |
| Low perceived personal risk of colorectal cancer |

Patient barriers. The barriers noted within the African-American community to CRC screening have undoubtedly contributed to the growing health disparities in this population. These barriers are multifactorial and not mutually exclusive (Table 1). Studies have shown that adherence to CRC screening guidelines among African Americans are lower than their white counterparts. Multiple contributing factors such as lack of knowledge, lack of time, cost, fear of a CRC diagnosis, and lack of interest have been indicated. Other factors included lower socioeconomic status, which can result in delayed access to health care along with lack of proper follow up after the diagnosis.

In order to understand the behavioral aspects of CRC screening in African Americans a qualitative study in 2011 evaluated knowledge and attitudes regarding colon cancer screening among African Americans of age 45 years and older. Data from seven focus groups were collected along with additional interviews. The study concluded that lack of knowledge, low perceived risk, and general attitudes about CRC screening may be important targets for interventions.

With the introduction of the patient navigation system into the healthcare environment over several years, there is a growing body of evidence that this process not only can facilitate healthcare access but also improves outcomes. Patient navigation has been advocated and evaluated as a means to increase colonoscopy screening rates among minorities and decrease patient barriers. A patient navigator provides a patient with individualized education and assistance with completing CRC screening. This often includes, but is not limited to, scheduling, explaining, and outlining details for the test, and identifying potential barriers to screening as well as possible ways to overcome them. The use of a patient navigator for CRC screening has been shown to increase screening adherence among African Americans. A randomized controlled trial in 2011 comparing a patient navigation-based intervention to usual care in ethnically diverse low-income patients found that intervention patients were more likely to undergo CRC screening compared with controls (33.6% vs. 20%; P<0.001). In a subgroup analysis the navigator intervention was beneficial to black patients (39.7 vs. 16.7%; P=0.004) and patients with a primary language other than English (39.8% vs. 18.6%; P<0.001). Similar results were found in another randomized control trial conducted in 2009, which used a culturally tailored, language-concordant navigator program. This intervention significantly improved CRC screening compared to those who received usual care (any CRC screening modality completed: 27%
recommendation for screening has been shown to be a colorectal cancer screening for their patients. Physician the role of physicians and their barriers to recommending Physician barriers. There has been a growing interest in which these barriers can be overcome. also can aid in the process of identifying the means through patient navigation not only helps facilitate this discussion but also can aid in the process of identifying the means through which these barriers can be overcome.

Physician barriers. There has been a growing interest in the role of physicians and their barriers to recommending colorectal cancer screening for their patients. Physician recommendation for screening has been shown to be a major factor in patients completing their screening exams. Prior studies have shown that a recommendation from a healthcare provider is a strong predictor of CRC screening. Even with this knowledge, some studies have shown that physician recommendation for CRC screening is suboptimal. Klabunde et al. in 2005 sought to compare barriers with CRC screening as reported by the primary care physician vs. average risk adults. It was reported that both primary care physician and adults cited a lack of patient awareness and physician recommendation as key barriers. In looking at adults of screening age who were not current with testing and who had a doctor visit in the past year, only 10% received a screening recommendation.

With respect to whom physicians are recommending for screening, disparities between blacks and whites have been reported when it came to obtaining a physician’s recommendation. After adjusting for age, blacks were approximately one-third less likely than whites to get a recommendation for CRC screening (OR 0.61, 95% CI: 0.53–0.71). The disparity persisted even after controlling for gender, family income, education level, and number of physician visits per year with an odds ratio of 0.82 (95% CI: 0.68–0.99). The lower the reported income, the less likely a patient would get a recommendation for CRC screening. The higher the education reported, the more likely the patient would get a recommendation for CRC screening by the physician. Of note, insurance status was not a significant predictor of a recommendation in this study.

The physician barriers to CRC screening are multifactorial. Lack of time, patient refusal, confusion about which tests to recommend, as well as lack of knowledge of screening guidelines have been reported in the literature. One group surveyed 801 patients in a rural setting and found that 61% of patients indicated that they did not discuss CRC screening or did not have sufficient to discuss CRC screening with their doctors. Having time to discuss CRC screening with patients was the most powerful predictor of screening adherence. One study reported a lack of knowledge of insurance coverage for screening as a barrier to recommending it while another study cited inadequate physician explanation about CRC. A survey given to Internists, Family Medicine physicians, and Gastroenterologists revealed that across specialties there was a lack of knowledge of screening guidelines for high-risk populations. The study also reported a difference in barriers to screening recommendation based on years in practice. Lack of reimbursement was reported more by physicians practicing more than 5 years whereas lack of evidence to support the screening was reported more by physicians practicing less than 5 years (Figure 4). Having reminder systems in place for physicians as well as a means to keep up-to-date with recent guidelines may help diminish this barrier.

FACTORS INFLUENCING OBSERVED DISPARITIES

Incidence and mortality. There are many factors that influence the disparities shown in incidence and mortality. Disparities were persistent across different socioeconomic strata in a recent retrospective review of the 2000–2011 SEER database evaluating age specific incidences of colorectal cancer in African Americans compared with whites. Lack of access to medical services and poor utilization of health care services were also shown to have an impact. Alternatively, when equal access to healthcare services was available, there were no differences in survival among racial groups as reported in a review of 214 patients treated in the Veterans Affairs Hospital. Lower screening rates, higher rates of obesity, and poorer nutrition were also cited as additional contributing factors. A MISCAN-microsimulation model used in a study by Lansdorp-Vogelaar et al. concluded that 42% of the disparity in incidence and
19% of the disparity in mortality were due to differences in rates of screening. Moreover, a study by Lieberman\textsuperscript{75} found that active cigarette smoking was linked to an increased risk of advanced neoplasia (OR, 2.12; 95%CI, 1.49-3.01) while increased physical activity had a trend toward a reduction in CRC risk, although this did not reach statistical significance. These additional factors that impact disparities in African Americans should be considered as lower levels of physical activity and increased rates of smoking have been noted more in blacks as compared with whites.\textsuperscript{76} How these lifestyle characteristics exactly contribute to the higher incidence in blacks is unknown.

Survival and therapy for colorectal cancer. Different factors may influence the lower survival rates observed in this population. One analysis found that black patients with metastatic colon cancer had lower rates of consultation with medical oncology, surgery and radiation oncology.\textsuperscript{77} This disparity in consultative care may be a factor that adversely influences survival. There have been various studies investigating the health disparities that exist in the therapeutic interventions for African Americans with colorectal cancer.\textsuperscript{22,76,78,79} In comparison with whites, African Americans were shown to have 50–60% decreased odds of receiving surgery for CRC\textsuperscript{80} and a 67% decreased odds of receiving surgery for rectal cancer alone.\textsuperscript{51} Black patients are also less likely to receive adjuvant chemotherapy for resectable colorectal cancer or radiation for rectal cancer.\textsuperscript{80} Similar findings were shown in other studies where African-American patients had a lower likelihood of receiving surgery for stage IV disease, less likely to receive adjuvant chemotherapy, and were treated less frequently with chemotherapy and radiation in comparison with whites.\textsuperscript{78,82–84}

Racial disparities in treatment were shown to persist even after consultation with medical oncologists. In 2005, a group investigated the receipt of chemotherapy in black and white Medicare-insured patients after stage III colon cancer resection. Although both groups were equally likely to consult with a medical oncologist, black patients who had seen an oncologist were less likely than white patients to receive chemotherapy (59.3% vs. 70.4%, \(P < 0.001\)).\textsuperscript{85} Similar results were seen in a study done in 2008 among black and white patients who were diagnosed with resectable stage II or III rectal cancer. The study revealed that after consultation with a medical oncologist, black patients compared with white patients were less likely to receive chemotherapy (54.1% vs. 70.2%, \(P = 0.006\)), less likely to consult with both a medical oncologist and a radiation oncologist (49.2% vs. 58.8%, \(P = 0.03\)), less likely to receive radiation therapy (73.7% vs. 83.4%, \(P = 0.06\)), and less likely to receive both chemotherapy and radiation treatments (60.6% vs. 76.9%, \(P = 0.008\)).\textsuperscript{78} Even though an equal opportunity exists to learn about therapeutic options from a medical oncologist, black patients have been shown not to receive these therapies at equal rates compared with white patients.

In a survey of over 1000 racially and ethnically diverse colon cancer patients, African Americans reported more problems with coordination of care (\(P < 0.001\)), psychosocial care (\(P = 0.03\)), access to cancer care (\(P = 0.03\)), and health information (\(P < 0.001\)) compared with their white counterparts.\textsuperscript{80} More studies are needed to investigate other possible barriers for black patients in receiving medical therapies for colorectal cancer, which ultimately influences survival.

DISCUSSION

CRC screening rates among African Americans has improved since the original ACG publication in 2005. In the National Health Interview Survey from 2000 to 2008 on racial patterns and uptake of CRC screening they reported the rates of utilization of specific screening modalities and adherence to CRC screening guidelines among blacks, Hispanics and non-whites. Black respondents that had received a guideline consistent colorectal screening exam via colonoscopy increased from 6.5% in 2000 to 30.6% in 2008.\textsuperscript{86} An analysis of 2010 data from the Behavioral Risk Factors Surveillance System found up-to-date CRC screening rates of 66.3% (95% CI: 65.9–66.7) among whites and 65.0% (95% CI: 63.8–66.3) among blacks, respectively.\textsuperscript{87} However, given these facts health disparities continue to prevail in this population. This issue has been addressed and corrected on the state level in New York City and Delaware. The Delaware Cancer Advisory Council was established in 2001 with the goal of developing a Statewide cancer control program. This program provided reimbursement and covered 2 years of the cost of care for newly diagnosed CRC for the uninsured. Special programs to reach the African American community were put in place partnering with community organizations. Between 2001 and 2009 they equalized the screening rates between blacks and whites and significantly diminished the gaps in mortality. In 2001, the CRC mortality was 31.2 per 100,000 in blacks and 19.5 per 100,000 in whites in 2001. In 2009 these numbers decreased to 18.0 per 100,000 and 16.9 per 100,000, respectively.\textsuperscript{88} In New York the 2003 formation of the New York Colon Cancer Control Coalition (C5) initiative had a major role in eliminating disparities across racial groups. Members of the C5 coalition included physicians, hospitals, medical societies, health plans, and patients with the goal to reduce the incidence and mortality of CRC in New York City. With funding sources from national and state levels this initiative instituted programs aimed at increasing screening rates and utilized a patient navigator system Citywide. In 2012, screening rates in New York City increased to 65% with equalization of early stage diagnosis; and in 2010 among black and white men and women based on the data from the New York City Department of Health Cancer Registry.\textsuperscript{89} Both of these programs are examples of successful initiatives that utilized multiple resources resulting in a significant decrease in disparities. These initiatives created equal access to screening that is similar to the equal access system within the Veterans Affairs Hospitals. In the Veterans Affairs system, all patients have access to screening and treatment options and there has been no difference in outcomes of CRC between African Americans and whites. A reduction in ethnic disparities and no difference in treatment have been observed in Veterans Affairs colon cancer patients.\textsuperscript{68} A study in 2013 evaluated the association of race and preventative health practices in an integrated community where the patients had equal access to health care. African-American men were
found to have nearly twice the odds of being screened for colon cancer.\textsuperscript{90} Equalizing access to health care for African Americans is a key factor in decreasing the disparity gap.

Equalizing access to health care is only one portion of the solution; educational outreach programs may also have a vital role in decreasing disparities. May et al.\textsuperscript{54} queried a focus group of participants on sources of their health information and elicited suggestions for interventions. Among their recommendations were television and internet resources, celebrity endorsements, health fairs, and culturally sensitive educational materials that highlight the increased risk of CRC in the African-American community.\textsuperscript{54} The Delaware Cancer Consortium and the C5 Coalition both utilized culturally sensitive educational outreach and patient navigation at a community level to achieve their respective goals.

We are in agreement with the recommendation that professional gastroenterological societies should participate in programs aimed at highlighting the issues that exist with regard to CRC in African Americans.\textsuperscript{9} Interventions that seek to increase screening among African Americans have been found to be successful when they target individuals or communities, address known barriers to screening, use multiple methods of message delivery, and are delivered over multiple time points.\textsuperscript{74,76} Implementing earlier screening does have its challenges, while some insurance companies such as AETNA may cover earlier screening,\textsuperscript{91} most insurance companies currently pay for screening colonoscopies starting at age 50 years in the average risk patient. There has been data to suggest that insurance companies have not adopted ACG guidelines, even in states with a large African-American population.\textsuperscript{92} There needs to be more advocacy to influence current health policy as equalizing access to health care and patient education is challenging given the history of disparate screening within this group.

Colorectal cancer remains one of the leading causes of malignancy related deaths in the United States. Current data present a compelling rationale as to why African Americans are a high-risk population in need of earlier screening. African Americans continue to have the highest incidence, highest mortality, and lowest survival among any other racial group. Various studies have shown that African Americans are diagnosed with CRC at an earlier age and present with more advanced stages of cancer. Currently, the ACG and ASGE recommend CRC screening in average risk African Americans at 45 years of age. The MISCAN-Colon microsimulation model discussed found an increase in life-years in blacks and a decrease in the disparities in incidence and survival when an individualization strategy was implemented that screened blacks 6 years earlier than whites, which supports the ACG’s recommendation to begin earlier screening.\textsuperscript{39} Guidelines already exist for early screening of patients with a personal history, genetic predisposition, or family history of CRC, all of whom are considered high risk for the disease. The ACG guidelines serve as a means to recognize and categorize African Americans as a high-risk population. Since the original publication in 2005, we now have multiple studies supporting the ACG’s current recommendation for CRC screening for African Americans at 45 years of age, a recommendation with which we are in agreement.
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