

BLACK NEWSPAPERS AS A TOOL FOR CANCER EDUCATION IN AFRICAN AMERICAN COMMUNITIES

Background. Despite the long history, wide reach and unique influence of Black newspapers in many African American communities, no national studies have examined how these newspapers cover health and cancer issues, or reader perceptions of their coverage.

Design and Participants. A two-year national sample of Black newspapers ($n=24$) and community-matched general audience newspapers ($n=12$) was reviewed, and 8,690 health and cancer stories were identified and content analyzed. A survey of 783 Black newspaper readers in the same 24 communities assessed reading frequency and perceptions of reporting for both types of newspapers, as well as readers' health concerns and cancer screening behaviors.

Results. As a proportion of total health coverage, Black newspapers published more cancer stories than general audience newspapers, and their stories were more likely to contain localized information, address disparities, focus on prevention, include calls to action for readers and refer readers to cancer information resources (all $P<.001$). Black newspaper readers identified cancer as the health issue that concerned them most, yet rated it the fourth most important health problem affecting African Americans.

Conclusions. Black newspapers hold promise for helping to eliminate cancer disparities by increasing cancer awareness, prevention, and screening among African Americans. (*Ethn Dis.* 2008;18:488–495)

Key Words: Black Newspaper, African Americans, Cancer Disparities, News

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INTRODUCTION

Cancer is the second leading cause of death among African Americans, accounting for 21.5% of all deaths.¹ Although racial disparities have decreased from 1997–2007, African Americans continue to suffer from cancer at a higher rate relative to other groups.¹ This paper examines how Black newspapers report cancer information and how readers of these newspapers perceive the coverage. Our study's aims were to: 1) summarize what is known about Black newspapers' influence and reach; 2) describe and compare the amount and nature of cancer coverage in Black and general audience newspapers from 24 US cities; and 3) describe and compare perceptions of cancer coverage in both types of newspapers and health concerns in a sample of Black newspaper readers from the same 24 cities.

Social significance, reach and use of Black newspapers

Black newspapers were originally established to enhance the quality of life of American Blacks by providing a mechanism for public dialogue within Black communities, a counterpoint to negative representations of Blacks, and an outlet for stories of unique interest or concern to Black communities.^{2,3} As stated in an editorial in the 1827 opening issue of *Freedom's Journal*, the nation's first Black newspaper: "We wish to plead our own cause. Too long have others spoken for us."⁴ Black newspapers still serve certain functions that general audience newspapers do not, including addressing health and other issues that are especially important and relevant to African Americans and

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local Black communities.^{5–7} Because Black newspapers are especially attentive and responsive to local issues,⁸ they are often viewed as a voice of the local Black community^{9,10} and accorded the same status as other social institutions like schools and churches.^{11,12}

Although Black newspapers cannot match the reach of general audience newspapers, they serve a large proportion of the US Black population. The National Newspaper Publishers Association (the "Black Press of America") and others report there are over 200 Black weekly newspapers across the United States, with a combined circulation of 6 to 15 million readers.^{13,14} From 1965–2000, such community newspapers saw a threefold increase in circulation—a direct contrast to the stagnation of daily newspapers' circulation^{15,16} as verified by recent data from the Audit Bureau of Circulations¹⁷ and other studies.^{18,19} A 2005 survey of media use among ethnic American adults found that Black newspapers reach at least 25% of all African Americans.²⁰ Because most Black newspapers are free and widely accessible in Black communities, they are often passed on to be reread by others,²¹ suggesting that reach may be higher than circulation numbers indicate. In an age of increasing use of the Internet for news and declining readership of traditional newspapers, the success of

community papers has been attributed to their ability to target selected audiences, focus on local news, and provide different kinds of information than found in general audience daily newspapers.^{16,19,22}

Studies of health and cancer coverage in Black and general audience media

Empirical studies of health and cancer coverage in Black media have been relatively rare. Many African Americans perceive that general audience media present an unbalanced portrayal of their racial group. Studies of news coverage provide empirical support for this belief.^{23–25} Studies have also shown that Black media sources are trusted, valued, and preferred by African Americans.^{20,26}

A 2002 study examined HIV/AIDS coverage in five African American newspapers from 1991 to 1996.²⁷ Of the 201 stories that framed HIV/AIDS as a health issue, one-third (33%) contained mobilizing information, 50% discussed any type of prevention. Hoffman-Goetz et al (1997) tracked the number and type of cancer-related stories in three Black magazines – *Ebony*, *Essence*, and *Jet* – from 1987–1994. In 596 total issues, only 84 stories focused on cancer (13% of health articles).²⁸ In a study of 25 ethnic minority newspapers in Canada published in 2000, a total of 27 cancer articles were printed.²⁹ Of these, only 3 articles were published in Black/Caribbean newspapers from 1,549 total pages searched. In a study of 565 cancer stories from a sample of 283 English-language newspapers in the Ethnic NewsWatch database, cancer stories in ethnic newspapers were written at lower literacy levels and were more likely to discuss cancer prevention, awareness, and education compared to stories in general audience newspapers.³⁰

Theoretical basis for media effects through newspapers

News media are an important part of the information environment. By

deciding what issues to report on and how those issues will be presented to the public, the press influences what people think about and how they think about it.^{31–33} According to agenda setting theory, if cancer prevention and control issues were consistently and prominently covered in the news media, those exposed to the coverage would be more likely to perceive cancer prevention and control as an important issue.³⁴ When cancer-related issues are perceived by the public as important, we would generally expect greater individual, community, and political support for cancer prevention and control activities,³⁵ potentially reducing cancer disparities.

In summary, a relatively limited research literature suggests news coverage in general audience media is perceived by many African Americans as racially biased and not adequately addressing health issues important to African Americans. In contrast, Black newspapers reach large numbers of African Americans with coverage that is community- and race-specific. Despite the apparent promise of Black newspapers as a channel for cancer information to reduce disparities, surprisingly little is known about their actual coverage of health and cancer issues, and about their readers' knowledge, awareness and perceived importance of cancer. This study helps fill these gaps by reporting findings from the first national study of cancer coverage in Black newspapers.

METHODS

Sample of Black newspapers

All health and cancer-related stories published in 24 Black weekly newspapers and 12 community-matched general audience daily newspapers for two full years (Jan. 2004–Dec. 2005) were identified and content analyzed. We selected for inclusion in the study 24 communities with weekly Black news-

papers and randomly selected 12 of the same communities to include their largest circulation *general audience* newspapers. Details of the sampling frames have been previously reported.³⁶ Analyses were conducted with SPSS v.13.0.³⁷

Identifying Health and Cancer Stories

Each Black newspaper issue ($N=2,190$) was read in its entirety to identify health- and cancer-related stories. *Health-related* stories were those pertaining to health promotion, wellness, disease prevention, well-being, lifestyle, and any mental, physical or spiritual aspects of health. *Cancer-related* stories contained within the headline or first 2 paragraphs cancer key words (eg, cancer, tumor, lump). Inter-coder reliability for story identification was high (mean kappa=0.87).

For general audience newspapers, we used a “constructed week” sampling approach in order to minimize the costs (ie, time, personnel) of analyzing daily newspapers.³⁸ Using this method, sample dates are stratified by day of the week to account for systematic variation. Each month, a constructed week was selected for each of the 12 general audience newspapers. Each newspaper issue comprising the constructed week was read for health and cancer stories using the definitions above.

Coding Health and Cancer Stories

Cancer-related stories were coded for journalistic and public health variables; non-cancer health-related stories were coded for journalistic variables only. Inter-coder reliability measured as intraclass correlation coefficient (ICC) or kappa follows each variable.

Journalistic Variables. Total area was measured by summing the square inches of text in a story, not including headlines or graphics (ICC=0.89). Location of the story was classified as above or below the fold (kappa=0.90).

Visual elements (yes/no) included photographs or other graphics (ICC=0.62). Local angle (yes/no) was defined as information specific to the newspaper's local audience ($\kappa=0.83$).

Public Health Variables. Disparity information in a story (yes/no) required reporting differences in the incidence, prevalence, mortality, or burden of diseases ($\kappa=0.93$). Mobilization (yes/no) was measured separately for individuals ("personal mobilization"; $\kappa=0.72$) and the community ("community mobilization"; $\kappa=0.56$) and identified explicit recommendations to improve one's own health or that of the community, respectively. Prevention focus was measured as the highest level of prevention (highest: primary, lowest: tertiary) discussed in the story ($\kappa=0.62$). Cancer site was defined as the primary cancer location ($\kappa=0.88$). Referral to resources (yes/no) included detailed contact information for obtaining cancer-related resources ($\kappa=0.89$).

Reader Survey

The primary objective of the reader survey was to better understand Black newspaper readers' use and perceptions of Black and general audience newspapers as well as their knowledge, attitudes, beliefs and behaviors related to cancer. The survey was conducted from September 2005 through April 2006, in the same 24 communities whose Black newspapers were selected for the study. We obtained sets of random telephone numbers from census tracts with >60% African American population, stratified into lower, middle, and higher median income. Eligible respondents were those 21 years of age or older, living at the location of the dialed number, having read the local Black newspaper at least once in the past four weeks, and self-identifying as African American.

Of 39,016 individuals reached, 5,301 (13.6%) did not meet inclusion

criteria (1,085 ineligible due to not reading the local Black newspaper; 546 were < 21 years old; 2,470 did not identify as African American; 1,200 were not household members). Of the remaining eligible individuals, 1,585 (4.7%) initially agreed to participate and provided contact information for another phone call to complete the survey. Of these, a total of 783 (49.4% of all eligible contacts) completed the reader survey and received a \$15 gift card or check.

Measures

The 20-minute survey included the following items:

Use of Newspapers. Use of both Black and general audience newspapers was measured by the number of times per month the respondent read the local Black/general audience newspaper.

Perceptions of Reporting in Black Newspapers. In four separate items, respondents indicated how strongly they agreed or disagreed (5-point scale) with statements about the reporting and influence of the local Black newspaper.

Comparisons of Black and General Audience Newspaper Coverage. Respondents indicated how strongly they agreed or disagreed (5-point scale) with the fairness and balance of the reporting in the local Black newspaper/general audience newspaper and the coverage of certain issues and events in both types of newspapers. We also used items from the National Cancer Institute's Health Information National Trends Survey (HINTS).³⁹ In separate items, respondents were asked how much they would trust (4-point scale: a lot to a little) information about cancer from six different sources.

Health Concerns. Respondents were asked about their health concern for Blacks generally, and themselves, per-

sonally. First they were asked to indicate which three health problems – from a list that included HIV/STDs, high blood pressure, heart disease, stroke, violence, cancer, and diabetes – they felt most affected Blacks. Respondents were then asked an open-ended question about what health issue had concerned them the most in the last 12 months.

Cancer Screening Behaviours. Based on respondents' age and sex and in accord with US Preventive Services Task Force guidelines,⁴⁰ respondents were asked if they had ever had specific screening tests and if so, when (in months) they last had the test. For each screening type, interviewers first presented respondents with a lay description of the test followed by specific questions (eg, *A sigmoidoscopy is an exam of the lower colon and the rectum using a thin, lighted tube called a sigmoidoscope. Have you ever had a sigmoidoscopy?*)

Cancer History. Respondents were asked in a single item if they or any of their brothers, sisters, parents, children, or other close family members ever had cancer.

Demographics. Respondents' age, years of education, household income, employment and marital status were recorded.

RESULTS

Content Analysis

A total of 2,190 weekly Black newspaper issues and 4,364 daily general audience newspaper issues were reviewed. Of these, 1,391 Black newspaper issues (63.5%) and 1,302 general audience newspaper issues (29.8%) contained at least one health story. Black newspapers contained a total of 4,158 health stories, and general audience newspapers contained 4,352 health

Of these health stories, 14.4% of those in Black newspapers were cancer-related (n=598), compared to 10.4% of stories (n=472) in general audience newspapers (P<.001).

stories, or an average of 1.9 and 1.0 health stories per issue, respectively. Of these health stories, 14.4% of those in Black newspapers were cancer-related (n=598), compared to 10.4% of stories (n=472) in general audience newspapers (P<.001).

Journalistic Variables

Cancer stories in Black newspapers were significantly larger than those in general audience newspapers and more likely to have a local angle. There were no differences by newspaper type in story location or presence of a visual. Table 1 summarizes cancer coverage by type of newspaper.

Public Health Variables

Cancer stories in Black newspapers were more likely than those in general audience newspapers to include information on racial disparities, personal mobilization and community mobilization. They were also more likely to address prevention in general, secondary prevention (ie, screening and early detection) specifically, and to refer readers to topic-related resources. Breast and prostate cancers were the leading cancer sites covered in both types of newspapers, although prostate cancer accounted for a larger proportion of all cancer stories in Black newspapers.

Reader Survey

Respondent Characteristics

Respondents were mostly women (76%), completed high school (86%),

and averaged 50 years old (SD=15 years). Because the sampling frame was stratified by household income, this variable is normally distributed. Most respondents were either currently employed (46%) or retired (23%). Using guidelines for cancer screening and respondents' self-reported time of last screening, 86% of women ages 40 and older (n=436) were up-to-date on use of mammography; 89% of all women (n=595) were up-to-date on Pap testing; and of all respondents >50 years of age and older (n=398), 51% were up-to-date on fecal occult blood testing, and 45% were up-to-date on use of sigmoidoscopy. A majority of respondents (72%) had personal or family history of cancer.

Use of Black and General Audience Newspapers

Table 2 describes survey respondents' use and perceptions of Black and general audience newspapers as well as their health concerns. On average, respondents reported reading the local Black newspaper 2.7 times per month (out of 4–5 weekly issues per month), and the local daily general audience newspaper 14.5 times per month (out of 30–31 daily issues per month). Frequency of reading Black newspapers did not vary significantly by sex, age, education, or income. In contrast, frequency of reading general audience newspapers increased with higher levels of education (P=.001) and income (P=.01), and was positively correlated with age (P=.001).

Perceptions of Black and General Audience Newspaper Coverage

At least 84% of respondents strongly agreed or agreed that the local Black newspaper: 1) has a lot of influence in the Black community; 2) shows how national news affects the local community; 3) does a good job reporting on local issues; and 4) is fair and balanced in its reporting. Many respondents also strongly agreed or agreed that the local

Black newspaper does a good job reporting on issues relevant to the Black community and covers issues and events not covered in the general audience newspaper, (93% and 92%, respectively). After doctors or other healthcare professionals, Black newspapers were the most frequently cited media source respondents reported turning to for health or medical information.

Health Concerns

The health problems most likely to be listed by respondents as among the "top three" health problems affecting African Americans were high blood pressure (chosen by 65% of respondents), diabetes (61%), HIV/STDs (56%), cancer (39%), and heart disease (31%). When stratified by respondent age in decades (ie, <30, 30–39, ..., ≥70 years), HIV/STDs was the most commonly identified health problem affecting African Americans by those <60 years, whereas high blood pressure is the top problem for those ≥60 years. Respondents who have had a personal/family history of cancer identified the same health problems in the same order and roughly the same proportions: high blood pressure (66% of respondents), diabetes (60%), HIV/STDs (53%), cancer (43%), and heart disease (29%).

When asked an open-ended question for the health issue that had concerned the respondent the most in the last 12 months, cancer was named most frequently (32%), followed by diabetes (15%), high blood pressure (10%), HIV/STDs (9%), and heart disease (8%). For all age categories, cancer was the health issue that concerned respondents most, followed by HIV/STDs for those <50 years, and diabetes for those ≥50 years. Respondents who have had a personal/family history of cancer named the same health issues in the same order and roughly the same proportions: cancer (36%), diabetes (14%), high blood pressure (9%), HIV/STDs (9%), and heart disease (7%).

Table 1. Characteristics of cancer stories in Black and general population newspapers

	Black newspapers (n=598 stories)	General population newspapers (n=472 stories)	P
<i>Journalistic variables</i>			
Average size in square inches	28.6	24.4	<.001
Percent with local angle	36.3	25.5	.001
Percent with a visual	43.1	43.0	.965
Percent above fold	74.9	74.1	.772
<i>Public health variables</i>			
Percent with disparity information	29.8	10.4	<.001
Percent with personal mobilization	42.4	15.0	<.001
Percent with community mobilization	16.4	4.9	<.001
Percent with any prevention focus	79.7	69.7	<.001
Percent with primary prevention focus	30.0	25.4	.096
Percent with secondary prevention focus	36.3	20.3	<.001
Percent with referral to resources	42.5	23.3	<.001
<i>Percent with primary cancer site</i>			
Breast	31.3	22.5	<.001
Prostate	19.2	9.1	<.001
Colon and rectum	7.5	6.4	<.001
Leukemia	3.5	1.7	<.001
Lung and bronchus	1.7	7.6	<.001
Uterus	1.5	1.1	<.001
Ovary	1.0	2.5	<.001

DISCUSSION

Exploring underutilized channels for cancer communication is necessary to help eliminate cancer disparities. Research using these channels can help inform future health communications and have implications for cancer-related policies. This national-level study of health and cancer coverage in Black newspapers expands the limited existing literature with three main findings. First, Black newspapers publish proportionately more stories about cancer than general audience newspapers, and this coverage contains more desirable attributes for public health advocates, such as being locally relevant and containing mobilization information, referrals to resources, and prevention information. Findings from both the content analysis and reader survey also support claims that Black newspapers are community-focused. Black newspapers are also a trusted source of cancer information, trusted more than general audience newspapers or other

media sources. Black and general audience newspapers both appear to serve important functions in Black communities. The unique aspects of Black newspapers – including covering issues and events specific for their local African American readership – might lend themselves to covering cancer or other health topics in a similar, community-focused way.

Second, respondents to the reader survey thought that health issues other than cancer were more serious for Blacks, yet cancer was the most important health issue for them personally. This discrepancy is interesting given that cancer is the second leading cause of death among Blacks in the United States¹ – and that incidence and mortality rates for a wide range of cancers are higher among African Americans than any other racial or ethnic group.^{1,39} Given that certain diseases are more likely to affect younger or older adults, the age of the survey sample (mean=50 years) might explain part of these findings. For example,

HIV/AIDS, a leading cause of death for African Americans in their 20s and 30s, was rated lower as a personal health concern than as a problem affecting Blacks. However, this would not explain why diabetes and high blood pressure were rated lower as personal health concerns than as population threats. A follow-up analysis that controlled for frequency of reading Black and general audience newspapers, age, education, and personal or family history of cancer did not change these results. Though not asked in the current study, future research may explore how personal or family history of these specific health issues (other than cancer) could help explain these discrepancies.

Third, the study found that frequency of reading general audience newspapers varied by education, income, and age, but was constant for readers of Black newspapers. To the extent that socioeconomic status is an indicator of disparity, general audience newspapers are read less by the most disadvantaged African Americans. This finding highlights and supports one unique feature of Black newspapers – that their use is more universal and not limited to members of the population with higher levels of education or income. As a result, use of the Black newspaper as a channel for cancer communication should reach a broader cross section of African Americans than would general audience newspapers.

Although cancer coverage in Black newspapers is more likely to have a local angle, disparity information, personal mobilization, any prevention focus, and referral to resources than general audience newspapers, these attributes are still found in less than half of all cancer stories. Both Black and general audience newspapers still have room to improve on their current quality of cancer coverage.

Limitations

Three limitations of the study must be recognized. First, although the

Table 2. Respondents' newspaper use, perceptions of coverage and health concerns (N=783)

<i>Newspaper use</i>	
Average times/month (SD) has read the local (weekly) Black newspaper	2.7 (3.2)
Average times/month (SD) has read the local (daily) general population newspaper	14.5(12.2)
<i>Perceptions of Black newspapers</i>	
The local Black newspaper has a lot of influence in the Black community.*	85.7%
The local Black newspaper shows how national news affects my community.*	84.0%
The local Black newspaper does a good job reporting local issues.*	90.4%
The local Black newspaper does a good job reporting on issues relevant to Black community.*	92.9%
<i>Comparing Black and general population newspapers</i>	
The local Black newspaper is fair and balanced in its reporting.*	84.3%
The general population newspaper is fair and balanced in its reporting.*	53.4%
In the Black newspaper I can read about issues and events not covered in the general population newspaper.*	91.8%
How much would you trust the information about cancer from:†	
A doctor or other health care professional	71.4%
Black newspapers	51.2%
The Internet	46.7%
Television	37.5%
Magazines	36.0%
General population newspapers	33.1%
Family or friends	24.4%
The radio	21.7%
<i>Health concerns</i>	
Top health problems affecting Blacks‡	
High blood pressure	65.1%
Diabetes	61.2%
HIV/STDs	55.6%
Cancer	39.0%
Heart disease	31.2%
Violence	25.0%
Stroke	21.6%
Health issue of most concern to you in last 12 months (n=731)	
Cancer	31.7%
Diabetes	14.6%
High blood pressure	9.6%
AIDS/HIV/STDs	9.3%
Heart disease, heart attacks	8.3%
Other topics	26.4%

* Percent "strongly agree" or "agree."

† Percent stating "a lot."

‡ Because respondents could mention any three health problems, percentages do not total 100%.

study reports on a national sample of Black newspapers, it was not intended to be a nationally representative sample. Findings may not be generalizable to other weekly Black newspapers, or to daily or monthly Black newspapers in the United States.

Second, respondents in the reader survey were those who had read the local Black newspaper in our study at least once in the past month. This selection bias may have resulted in a sample of Black newspaper readers who are different than others who read the

local Black newspaper on a more sporadic basis and may have inflated estimates of reading frequency, though it is not clear whether or how it might affect observed differences between use and perceptions of Black vs general audience newspapers. However, if the purpose of media intervention is to target those who regularly read Black newspapers, these results are particularly relevant.

Third, a few of the content analysis variables had relatively low (ie, <0.75) inter-coder reliability. In some of these

cases, because these characteristics are more likely to be "absent" from articles in Black and/or general audience newspapers and thus more difficult to assess reliability for their identification, the calculated kappa yields a more conservative estimate of reliability. For example, reliability for personal mobilization in terms of percent agreement is relatively higher (87%) than kappa (.72); a similar difference for community mobilization is also found (75% vs .56). For these reasons, results from these variables with lower reliability

should be viewed with caution until replicated in other studies of cancer coverage in Black weekly newspapers.

Application of findings

Findings from the study suggest Black newspapers may be an important channel for delivering cancer information to African American populations. African Americans continue to bear a disproportionate burden of cancer, with the highest mortality rate of any racial or ethnic group for most major cancers.¹ As such, new approaches are required to help eliminate these disparities. Data from this study provide good reason to think that the Black press could play a role as a media channel for cancer communication.

ACKNOWLEDGMENTS

This study was supported by the National Cancer Institute's Centers of Excellence in Cancer Communication Research program (CA-P50-95815).

The authors thank Stephanie McClure, Anthony Hurst, and I-Huei Cheng for assistance with literature reviews that led to this paper; Jon Stemmler and research assistants for coding newspapers; and to the HCRL Call Center for conducting the reader survey.

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- Design concept of study:* Caburnay, Kreuter, Cameron, Luke, Cohen, McDaniels, Wohlberg, Atkins
- Acquisition of data:* Cameron, McDaniels, Wohlberg, Atkins

- Data analysis and interpretation:* Caburnay, Kreuter, Cameron, Luke, Cohen
- Manuscript draft:* Caburnay, Kreuter, Cohen
- Statistical expertise:* Luke, Cohen
- Acquisition of funding:* Kreuter, Cameron
- Administrative, technical, or material assistance:* Caburnay, Kreuter, Cameron, Cohen, Wohlberg, Atkins, McDaniels
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