



Published in final edited form as:

Health Educ Res. 2014 December ; 29(6): 993–1004. doi:10.1093/her/cyu003.

Promoting sexual health equity in the United States: implications from exploratory research with African-American adults

Allison L. Friedman^{1,*}, Jennifer Uhrig², Jon Poehlman², Monica Scales², Matthew Hogben¹

¹Division of STD Prevention, Centers for Disease Control & Prevention (CDC), Atlanta, GA 30333, USA

²Health Communication Program, Research Triangle Institute (RTI) International, Research Triangle Park, NC 27709, USA.

Abstract

In an effort to inform communication efforts to promote sexual health equity in the United States, the Centers for Disease Control and Prevention sought to explore African-Americans' perceptions of the sexually transmitted disease (STD) problem in their communities, reactions to racially comparative STD data and opinions about dissemination of such information. Semi-structured triads and individual interviews were conducted with African-American adults ($N = 158$) in the Southeastern and Midwestern United States. Most participants believed that STDs are a problem in their communities but were unaware of the extent to which STDs disproportionately affect African Americans. Once informed about racial differences in STD rates, participants commonly reacted with shock, fear and despair; a minority raised questions about the information's source and credibility. Most felt it was critical to get the information out to African-American communities as a 'wake-up call' to motivate change, though some raised concerns about its dissemination. Findings suggest that information about racial differences in STD rates must be strategically crafted and delivered through targeted channels to be acceptable to African Americans. So as not to further harm communities burdened by other social/health inequities, alternative (strength-based) approaches should be considered for motivating positive change.

Introduction

In the United States, African Americans bear a heavier burden of reported sexually transmitted diseases (STDs) than any other racial group, including Whites, Hispanics, Asians/Pacific Islanders and American Indians/Alaska Natives [1]. African Americans account for nearly half of all reported HIV, chlamydia and syphilis cases [2, 3] and 70% of reported gonorrhea cases [2], though they make up <13% of the US population [4]. Racial differences in STD rates vary by age, sex and geographic location [2, 3]. Although behavioral factors such as age of sexual initiation, number of sex partners and number of

*Correspondence to: A. L. Friedman. alf8@cdc.gov.

Conflict of interest statement

None declared.

concurrent relationships play a role [5–8], these racial differences persist after controlling for individual-level risk behaviors [9]. STD rates are also driven by a myriad of underlying social and structural determinants, including poverty, education, health literacy, stigma, gender imbalances and incarceration rates (among other factors). These factors may not only limit access to appropriate and quality STD/HIV testing, treatment and care; but they can influence an individual's sexual network (exposing low-risk individuals to high-risk partners) and constrain behavioral choices or ability to negotiate safer sex [10–12]. High community prevalence of STDs and sexual network patterns may put African Americans at risk for STDs even when their behaviors are normative [13, 14], meaning that individuals who have traditionally been viewed as 'low risk' may be at high risk for STDs (including HIV).

The complex nature of these disparities demands multi-level interventions to promote sexual health at the individual, community and policy levels [10, 15]. Experts have called for media campaigns to inform sexually active African Americans of the high STD prevalence across behavior groups; minimize STD-associated stigma and promote prevention and testing [9]. Many experts have advocated for raising awareness of 'health disparities' as 'a necessary first step'—to prompt individual behavior change and mobilize communities to push for needed policy and program changes [16–23]. In its 'National Stakeholder Strategy for Achieving Health Equity', the Department of Health and Human Services [19] recommends using best practices in marketing and communication to develop strategies to raise awareness of health disparities and promote actions needed to eliminate these disparities, particularly among affected racial/ethnic groups.

Yet communicating about health disparities may be challenging, particularly for vulnerable populations with limited health literacy or numeracy skills and for a stigmatizing health issue such as STDs [17, 24]. Some experts have cautioned against the dissemination of racially comparative STD data, arguing that it may increase public blame for those most affected and foster hopelessness, powerlessness and distress among vulnerable populations [17, 25–31]. A recent study by Nicholson *et al.* [32] examining messaging effects on African-American intentions to screen for colon cancer found that racially comparative data ('disparity messaging') elicited negative reactions and was associated with a lower desire to screen, leading researchers to conclude that such messaging 'may undermine prevention and control efforts among African Americans' (p. 2951).

This raises important concerns for the promotion of sexual health equity, if our efforts begin with educating vulnerable populations about STD disparities. HIV has become the most featured issue in news-media coverage of health disparities [33], and more than half (54%) of African Americans are now aware of HIV/AIDS disparities between African Americans and Whites [16]. Yet individual or community reactions to this increased awareness remain largely unexplored. No research has assessed awareness of racial disparities for other, more prevalent but less fatal STDs; and little is known about how African Americans receive or respond to racially comparative information about STD rates.

Our study sought to fill these research gaps by exploring sexually active African-Americans' perceptions of the STD burden in their communities, reactions to racially comparative STD

data and opinions about dissemination of such information through individual- and small-group discussions in four high-STD-incidence communities. This research was exploratory in nature, guided by a health communication framework [34] to gain an in-depth understanding of audiences' STD-related knowledge, perceptions and beliefs and to explore potential communication strategies for addressing the problem in affected communities. It was part of a broader study, intended to inform the planning of a communication effort to promote sexual health equity in the United States.

Methods

Thirty-two triads and 64 individual interviews were conducted with sexually active, heterosexual African-American adults, ages 18–45 years, in two urban and two rural high-STD-incidence communities of the Southeastern and Midwestern United States. High-incidence communities were identified based on an analysis of gonorrhea case data from CDC's National Notifiable Disease Surveillance System; STD rates in selected communities ranged from 238.3 to 678.2 per 100000 [35]. These geographic areas were selected because the South has the greatest number of reported STD/HIV cases among African Americans, while reported STD rates for African Americans are as high or higher in the Midwest and Northeast [36].

Recruitment was quota-based and began 4 weeks ahead of planned interviews. Urban participants were recruited by phone through professional recruitment firms. Rural participants were initially recruited through online and print advertisements by community-based organizations. However, recruitment in rural areas proved to be challenging, particularly for individuals with a high-school education or less, so efforts were supplemented by street outreach, snowball sampling and outbound calling by professional recruitment firms. Participants were eligible to participate if they spoke English and reported being African American, heterosexual, aged 18–45 and sexually active in the past 6 months. Individuals who did not meet these criteria, who had participated in health research in the past 6 months or who worked (themselves or immediate family) in marketing/advertising/health were excluded from participation. Individuals were assigned to triads or interviews based on participant availability.

Triads were segmented by age (18–29 years, 30–45 years) and gender. Discussions lasted 1.5 hours for triads and 1 hour for individual interviews. They were held in market research facilities for the two urban sites, and at community-based organizations for the two rural sites. A semi-structured discussion guide was developed using a health communication framework [34] to explore two domains: (i) perceptions of the STD burden on African-American communities and (ii) STD communication issues, including reactions to racially comparative STD data and suggestions for motivating change in African-American communities through a hypothetical campaign. Figure 1 highlights specific research questions from the interview guide. These domains were a subset of research domains covered as part of a broader exploratory research study. Prior to the study, the guide was piloted with eight participants and revised for literacy and comprehension.

Each triad and interview was conducted by a trained interviewer, matched to participant race and sex and trained in ethnographic research methods to elicit rich, in-depth responses from participants. Interviewers let discussions flow organically, adjusting the order and amount of time spent on each question depending on the direction and nature of the participants' responses. This meant that not all questions were covered in each interview or triad. Plain-language information from CDC, which compared reported STD rates among African American, White and Hispanic populations in the United States (Figure 1), was presented to participants in hard copy and read aloud by interviewers, prior to discussing reactions. All discussions were audiotaped, transcribed and observed by at least one note taker and project staff. At the end of each discussion, participants were provided with plain-language STD information from CDC and compensated for their time.

The analysis was informed by two theoretical approaches: grounded theory [37, 38], which involves identifying themes, categories and terms used by participants; and schema analysis [39, 40], which involves identifying metaphors and symbols that people use to share ideas and concepts. Schema analysis, while similar methodologically to grounded theory, treats talk as a window on how people interpret and reason about experiences, with particular interest in the shared aspects of cognition. In schema analysis, the analyst often looks for the metaphors and symbols that people use to share ideas and concepts.

A team of three analysts coded the transcripts using QSR's NVivo8 software, applying codes that were developed based on a review of notes and identified themes that corresponded to the questions in the guide. For some questions, the range of participants' responses was narrowly defined by the nature of the question (e.g. 'How common do you think STDs are in the African American community? Do you believe the provided STD information?'), making it possible to separately code and analyze response to a single question. However, for other questions, where the range of responses was more open (e.g. 'What do you think should be done with this information?'), we took a more inductive approach to analysis, with general codes applied to responses throughout the data set.

Two interviews and one triad were initially coded by all three analysts, who then compared the coding and resolved any discrepancies before they continued coding the remaining interviews. The list of codes were then further refined as needed. In analyzing the data, analysts also searched for patterns of responses by demographic segments of age, gender, urban/rural and education.

This research was approved by CDC and RTI Institutional Review Boards. Safeguards were put in place to protect the rights of participants throughout the research process. Personal participant information was only collected as part of the screening process; it was not shared with RTI/CDC staff or other research participants and was destroyed after completion of the study. Notification of participant rights and informed consent was obtained at the time of triad/interview sessions. Only a first name was used as an identifier in recording the triad/interview conversations. Audiotapes were destroyed at the end of the study.

Results

The sample comprised 158 participants, split evenly by gender, age (18–29 years, 30–45 years) and education [high-school diploma or less (<HS); more than a high-school diploma (>HS)] segments (Table 1). Most (79.8%) participants were currently single. Almost half (47%) reported full-time employment and household incomes <\$20000. Most had health insurance (65%) and had been tested for STDs at least once (85%). Roughly 30% reported having ever been in jail or prison.

Results are reported below by key research question. Unless differences are specifically noted, no differences emerged by gender, age, urban/rural or education segments.

Perceptions of STDs in African-American communities

How common do you think STDs are in the African-American community?—

Most respondents assumed STDs were common, having heard about higher STD/HIV rates among African Americans on the news (television) and in class (younger segments). They generally used the terms ‘STDs’ and ‘HIV’ synonymously, though they frequently referred to HIV when they discussed hearing this information. Some commented that ‘black people have all the problems’ or ‘are highest in everything’. Men were more likely to note that African Americans are too heterogeneous a group to make generalizations of this nature; some suggested that socioeconomic status may have more to do with STD rates than race.

I think they are really common because a lot of minors in the Black community are sexually active and they are not really educated on how you can become infected or what precautions it takes to protect yourself ... That is, blacks in general and minors are sexually active, and blacks in general aren’t educated.—Female, 18–29 years, Urban, HS

How common? ... it depends on what section of the black community you’re talking about. People always look at us as ... as a monolithic people. We’re different, so [laughter] it depends on what section of the black community you’re talking about ... it may not be as common [in higher income neighborhoods], maybe because of some things there like socialism or classism.—Male, 30–45 years, Urban, >HS

Are certain groups in the African-American population at higher risk for

STDs?—Participants frequently discussed youth, particularly *dropouts* and those with low parental supervision, as well as *low-income* and *uneducated* people, as being at higher risk for STDs. Many perceived youth to be ‘promiscuous’, uneducated about sexual health and how to protect themselves, present-oriented and lacking health care. Other high-risk groups identified were gay/bisexual men (in one urban site) and people who exchange sex for money, use drugs and have many partners.

These young girls be sleeping with old men trying to get some change. Trying to get a little money.—Female, 18–29 years, Rural, >HS

I think the younger generation and the poverty community because they have no direction, a lot of them, have no plan. They’re raising themselves... Because they,

they not getting the guidance that's needed to make them go in a positive direction about it. And drugs.—Male, 30–45 years, Urban, >HS

Homosexual men having sex. Down low. Yeah, they down-low people ... brothers and going home sleeping with their woman—Female, 18–29 years, Rural, >HS

Reactions to racially comparative STD data

What are your first thoughts after hearing this information?—Participants commonly expressed sadness, surprise, fear and despair as initial reactions. Many questioned why African Americans always carry the heaviest burden of diseases.

That is really scary if we have more than everybody.—Female, 18–29 years, Urban, HS

Why is it always the blacks, everything has to be bad for the African Americans when it comes to disease, when it comes to health overall, when it comes to living in the community, when it comes to anything. Why does it always have to be African Americans that the risk of everything is so high?—Female, 30–45 years, Rural, >HS

It's embarrassing to the Black community, the African-Americans. It's like, like we a whole different breed or something... Why is everything falling on us like that? Is it just us just being stupid because of the culture we're living in, or is it something that the government doing?—Male, 30–45 years, Urban, HS

Do you believe this information?—Most participants believed the information, recalling news they had heard or seen in school or the media. A minority of participants were confused, skeptical or suspicious of the information, unsure of how such data could be obtained or how rates could be so disparate, given that everyone (across races) has sex.

I think that no matter where people goes and what city they're ... they stay in, it's a 50/50 chance, it's a 50/50 chance that they can get it from White, Hispanic or Mexican or Black. There's a 50/50 chance that they could get [an] STD.—Male, 18–29 years, Rural, HS

People, we people. [laughter] What's different? What's different? [laughter] There ain't no different. Everybody still be doing the same thing. You know what I'm saying, they might do, they might be on different, another different level, but everybody do the same thing.—Male, 30–45 years, Rural, HS

Among those skeptical of the information, some questioned the objectivity of data sources and sampling methods, suspecting that rates were derived from public clinics and therefore over-reported African-American cases and under-reported those of other racial/ethnic groups. Some also suggested that the government inflates or fabricates rates to encourage people to get tested; and others expressed disbelief that STD rates are as low as those reported for other racial groups.

For years we have been the highest in this-and-that. It makes me feel disappointed and angry and maybe questionable. Where are you taking the survey from? Is it the

local health clinic or doctors or where is the information coming from?—Male, 30–45 years, Urban, >HS

It's been said that African Americans, I mean, the STD rates, AIDS and all of that stuff is high but I think when it comes to the White or Hispanic or whatever, maybe some people just don't tell it, you know, when you're rich, a lot of things can be hidden.—Female, 30–45 years, Rural, HS

You get sick and tired of—somebody White come up with this. That's the way I feel. This is crazy. Nasty as some Hispanics are, at least in the same ballpark as the Blacks. I just don't buy it.—Male, 30–45 years, Rural, HS

A few participants alluded to America's history of racism and invoked government conspiracies against African Americans as possible causes of the disparate rates and (apparently) biased reporting.

How do they get that? I don't understand that. I don't know. And again, like I said, so much history has been taken away, even throughout history, so much ... our history has been taken out of the textbooks and, I don't know.—Female, 30–45 years, Rural, >HS

They [the government] say they give you opportunities. You got opportunity to go to college and all that but at the same time they put the poison on the street to bring you down again like they can't raise you up.—Male, 30–45 years, Rural, >HS

Suggestions for improving the information or addressing questions/concerns included providing a transparent and verifiable source of the information, such as a publicly accessible website with links to the data; a description of data collection methods, such as geographic areas and clinic/provider types reporting to CDC; an explanation of how rates are derived and breakdowns of STD rates among African American by age, income and education. To address suspected reporting biases, participants also wanted more information about reported populations, such as whether immigrants and individuals with private insurance (presumed to be omitted) were included. Finally, to make the information more relevant, some participants suggested using more current data; presenting the data in numbers (STD cases), as well as rates; and adding STD rates for other racial/ethnic minority groups.

Is it important to get this information out?—Despite some skepticism about the data, all participants felt it was important to raise African Americans' awareness of the problem, noting that STDs are not currently a high-priority issue. A majority suggested that young people and those at greatest risk should be the primary targets of this information, though several thought the information should be shared with the entire community, given that everyone is at risk.

I think young people and people who are at higher risk for STDs based on whatever numbers or statistics show.—Female, 18–29 years, Urban, >HS

I think that a lot of times we as a people deal with 'Well, I don't need to be bothered by that. My man is faithful or my woman is faithful' ... they think it doesn't affect them, but it does.—Female, 30–45 years, Urban, >HS

They [African Americans] need to know that they can be part of this percentage if they don't protect themselves and do the things to avoid getting any of these diseases.—Male, 18–29 years, Urban, HS

What should be done with this information?—Most thought this information would offer a 'harsh reality check' to prompt behavior change in African-American communities, particularly among youth and those at greatest risk. Many felt it would be critical to accompany the data with STD prevention, testing and treatment information to enable individuals to protect themselves. Some suggested using graphic pictures of STD symptoms to 'scare' people into getting tested. A few suggested using positive framing or messages to empower individuals and communities. Some felt that a combination of scary and positive messages would be most effective.

I would say to show it to them from more of a positive light because ... when you scare people with the information, that's what, what causes a lot of the negative like ... the stereotypes towards people that have already gotten it or that people that have gotten it are scared to do anything about it or find out about it. That's what makes them scared to find out.—Male, 18–29 years, Rural, >HS

When asked how they would feel about the dissemination of this information in non-African-American communities, most participants questioned the rationale of doing this. Many reacted negatively, saying it would offend, embarrass or insult them. They explained that it could stigmatize African Americans and make other races view them in a derogatory way, perpetuating racism and discrimination.

I would think it is useless because blacks would not see it and people who are seeing it—[it] is not really giving them their statistics but it is talking about black people. So it would not help blacks if it is not where they can access it.—Female, 18–29 years, Urban, HS

They probably think: stay away from African Americans.—Male, 18–34 years, Rural, >HS

It would make people look at African Americans as if they are bad people and look down on us. They will say don't have sex with black people and look at us as if we all have a disease because these numbers are so high.—Female, 30–45 years, Urban, HS

In contrast, some participants, particularly in rural areas, thought it would be good to get the information out to all communities so that everyone can be informed and protect themselves, given how common inter-racial dating has become. A few participants also thought the information could prompt conversations about the problem between different communities.

STDs to me don't have a color. It doesn't have a race so everybody should be knowledgeable about it.—Female, 30–45 years, Rural, >HS

What type of information would be most effective in reaching African Americans and motivating change?—When asked for ideas for a hypothetical media campaign, many suggested using creative methods to deliver messages and create attitudinal

and behavioral change, such as through music and entertainment, celebrities and personal testimonies of relatable people who have been affected by STDs; rather than traditional health education methods. Involving community groups at the local level was also deemed important. Finally, a few suggested a multi-level approach with information from national, state and local agencies across a variety of sectors.

Discussion

This was the first qualitative study of its kind to assess perceptions of the STD problem and reactions to racially comparative STD data among African Americans in high-STD incidence communities. Although many participants reported having heard of higher STD/HIV rates among African Americans, most were unaware of the ‘extent’ of racial STD/HIV disparities until presented with CDC’s data. Most attributed the disparities to individual behavior, as well as age, education and poverty. The general perception that STDs primarily affect ‘high-risk’ groups in African-American communities (e.g. youth, people with many partners, poor and uneducated people) suggests the need to reframe current beliefs about STD risk and susceptibility, rebranding STDs as a community issue that is relevant to all risk groups [9, 18]. Below, we discuss themes extracted from participant reactions to racially comparative STD data and implications for health communication strategies aimed at promoting sexual health equity.

Participant reactions to racially comparative STD data suggest that the information may cause alarm, calling attention to the STD epidemic among African-American audiences. Although some participants were confused by, or suspicious of the data, almost all felt it was critical to get this information out to African-American communities as a prompt or ‘wake-up call’ to motivate individual change. This did not differ by gender, age, urban/rural or educational segments. Most thought the information should target ‘high risk’ groups; they offered specific suggestions for making it more acceptable. At a minimum, results indicate that the information should be strategically messaged to be more credible, palatable and relevant to African-American audiences. The source and data-collection methods should be made transparent and messages should be delivered by trusted sources within the community. Statistics should be supported by explanations of the underlying social determinants that may constrain sexual networks, individual choices and access to care [29, 31] to help audiences understand that racial differences in STD rates are not simply a function of individual behavior. This should be accompanied by concrete individual-, community- and systems-level solutions for addressing STD disparities to empower individuals and communities for change, rather than fostering a sense of helplessness, as observed by participants in this and other research [29, 30].

However, several themes that emerged from participant reactions suggest the need to reconsider how and whether we communicate racial differences in STD rates, if our goal is to reframe the STD problem (to be relevant to all African Americans) and promote adaptive individual responses. First, strong feelings of government/medical distrust and suspected racism regarding STD/HIV-prevention efforts, also documented elsewhere [41, 42], were voiced by a minority of participants. Several participants also suspected that the government manipulates or fabricates the data to promote behavior change. This begs the question of

whether government-collected statistics offer a productive strategy for engaging African-American populations, or whether other information or messaging, developed and delivered within African-American communities, would be better received and acted upon for the promotion of sexual health equity. Evidence suggests that general audiences, and particularly vulnerable populations with lower levels of education and health literacy, have difficulty understanding or estimating personal risk based on numerical information [24]. No systematic analyses have evaluated the effectiveness of STD risk communication messages to identify optimal formats for influencing perceptions of STD risk and susceptibility [24, 43].

Second, experts have warned that people may become defensive and question information that threatens their self-concept or referent group [32, 44]. Current results suggest that information about racially comparative STD data could contribute to stigmatization both between and within groups—prompting audiences to pit one demographic or minority group against another, rather than mobilizing individuals to action. Some participants turned their focus to other racial/ethnic groups, suspicious that data were omitted or incomplete. They wanted to see the STD rates of other minority groups, whom they expected would fare worse; and statistical breakdowns within the African-American population, under assumptions that high rates are driven by key subgroups. Certainly, it may be important to acknowledge heterogeneity within the African-American population and to accompany STD statistics with reassurance or ‘good news’, rather than simply emphasizing African Americans’ comparative failure [32]. But comparisons to worse-off populations may deflect attention away from the problem at hand. And an emphasis on highest-risk African-American subgroups could stigmatize those most vulnerable; lower perceived risk or promote complacency among the ‘less’ at-risk groups; and undermine efforts to promote STDs as a community problem that is relevant to all sexually active persons [44–47].

By the same token, most participants (with exception of a few rural respondents) expressed deep concerns about non-African-American communities receiving this information, fearing the perpetuation of stigma, stereotypes and discrimination against them. Other research has cautioned against the broad dissemination of health or social statistics presented in a racial disparities frame, which, even when communicated by well-intentioned public-health advocates, may reinforce existing stereotypes of ‘separateness’ and distance minority concerns from those of the majority [25, 26, 48].

Third, we must ask ourselves whether audience reactions of fear, distress and despair are ethical or effective prompts for stimulating individual or social change, particularly among vulnerable populations [27, 46]. Research indicates that fear messages may be effective when individuals have high self-efficacy and are equipped to act on the information; they are least effective when individuals have low self-efficacy and limited access to resources [46, 49]. Information that engenders fear or distress may actually increase health inequities by encouraging maladaptive responses among those most vulnerable, including reactions of anger, defensiveness, denial of personal relevance, message rejection and fatalism [44, 46], as observed in this study. Experts have speculated that repeated exposure to health disparities information (which emphasizes a group’s relative have-nots) may lead to ‘active avoidance, devaluation or rejection of the information’ by disproportionately impacted populations [32].

Moreover, threatening information may alienate audiences from the message source [46], which could further undermine trust of government or public health agencies by affected communities.

Participant calls for non-traditional methods of health education reflect a shift away from this. Whereas some participants recommended the dissemination of information highlighting racial differences in STD rates, along with the use of fear tactics to ‘scare people’ into changing behavior, these results should be interpreted with caution for two reasons. First, participants may have been biased by the type of information they were already presented with in this study. Second, repeated use of fear appeals in real-world STD-prevention messaging may have conditioned participants to expect a fear-based approach [46]. Fear appeals are commonly reported to be highly motivating in research settings, though they may be less effective in real-world settings [46, 50]. History suggests that traditional STD-prevention efforts that have relied on fear-based messaging have stigmatized STDs and those affected by them, promoting silence, fear and ignorance [47].

It is perhaps time to shift toward a strength-based approach that builds on individual and community resilience, particularly for marginalized communities [51]. Information emphasizing progress and appeals based on positive emotions (e.g. love, hope, empathy, empowerment, positive role models) may be equally or more effective in prompting desired attitudinal, behavioral and social changes and counteracting the negative effects of medical distrust among disproportionately affected populations [32, 44, 46]. In so doing, they may foster positive relationships between public-health agencies and affected communities [46]. This would reflect the shift that is already underway in the field of public health, from a disease/disparities focus, toward a health-promotion/equity focus.

This research was exploratory and directional in nature, intended to guide the development of communication efforts promoting sexual health equity among vulnerable populations. Assessments focused on audience perceptions of the STD problem and reactions to statistics comparing STD rates among three major racial/ethnic groups of the United States. It was limited to heterosexual adults, who agreed to participate in health research, from select US communities with high rates of incarceration, STDs and STD-testing history (although it is possible that STD-testing history was over-reported). As such, participants may differ from the general population of African Americans in their STD-related views and reactions to STD information or government statistics. Moreover, the small sample size may have limited our ability to detect demographic subgroup differences. Other potentially important variables were not analyzed (e.g. history of incarceration or STD-testing history) or assessed (e.g. health literacy, medical mistrust) here. Despite these limitations, this research advances the field by identifying potentially effective, appropriate and acceptable information and messaging approaches for reaching African-American audiences to help guide communication efforts to promote sexual health equity.

Future research could test messages that frame or explain these statistics; assess the relative effectiveness of STD rates framed in absolute, positive and disparities frames and measure the impact on audience STD-related risk perceptions or behaviors. STD data could also be compared to alternative information and messaging approaches that build on positive

emotions or community strengths. Message-testing research should investigate potentially relevant audience characteristics that could influence receptivity (e.g. health literacy, medical mistrust), and include vulnerable subpopulations (youth, gay/bisexual men), as well as potential unintended audiences (other racial or ethnic groups). Messages that minimize stigma, promote STDs as a relevant community issue for African Americans, and empower audiences to act should be piloted and evaluated in African-American communities.

Acknowledgements

The authors would like to thank those who have contributed to this research, including Ann Forsythe, Justin Smith, Shelly Harris, Hilda Sheppard and Susan Robinson.

Funding

Centers for Disease Control and Prevention (contract number 200-2007-20016/0004).

References

1. CDC. STD Rates by Race or Ethnicity. Available at: www.cdc.gov/std/health-disparities/race.htm. Accessed: 12 February 2014.
2. CDC. Sexually Transmitted Diseases Surveillance, 2011. Atlanta, GA: U.S. Department of Health and Human Services, 2012.
3. CDC. Estimated HIV Incidence among Adults and Adolescents in the United States, 2007–2010. HIV Surveillance Supplemental Report 2012.
4. U.S. Census Bureau. 2010 Census Data. Available at: www.census.gov/2010census/data/. Accessed: 12 February 2014.
5. Adimora AA, Schoenbach VJ, Martinson FE et al. Concurrent partnerships among rural African Americans with recently reported heterosexually transmitted HIV infection. *J Acquir Immune Defic Syndr* 2003; 34: 423–9. [PubMed: 14615661]
6. Adimora AA, Schoenbach VJ, Martinson FE et al. Concurrent sexual partnerships among African Americans in the rural south. *Ann Epidemiol* 2004; 14: 155–60. [PubMed: 15036217]
7. CDC. Trends in HIV-related risk behaviors among high school students—United States, 1991–2011. *MMWR Morb Mortal Wkly Rep* 2012; 61: 556–60. [PubMed: 22832937]
8. Smith DK, Gwinn M, Selik RM et al. HIV/AIDS among African Americans: progress or progression? *AIDS* 2000; 14: 1237–48. [PubMed: 10894289]
9. Hallfors DD, Iritani BJ, Miller WC et al. Sexual and drug behavior patterns and HIV/STD racial disparities: the need for new directions. *Am J Public Health* 2007; 97: 125–32. [PubMed: 17138921]
10. Aral SO, Adimora AA, Fenton KA. Understanding and responding to disparities in HIV and other sexually transmitted infections in African Americans. *Lancet* 2008; 372: 337–40. [PubMed: 18657713]
11. Fortenberry JD, McFarlane MM, Hennessy M et al. Relation of health literacy to gonorrhoea related care. *Sex Transm Inf* 2001; 77: 206–11.
12. Osborn CY, Paasche-Orlow MK, Davis TC et al. Health literacy: an overlooked factor in understanding HIV health disparities. *Am J Prev Med* 2007; 33: 374–8. [PubMed: 17950402]
13. Adimora AA, Schoenbach VJ. Social context, sexual networks, and racial disparities in rates of sexually transmitted infections. *J Infect Dis* 2005; 191: S115–22. [PubMed: 15627221]
14. Laumann EO, Youm Y. Racial/ethnic group differences in the prevalence of sexually transmitted diseases in the United States: a network explanation. *Sex Transm Dis* 1999; 26: 250–61. [PubMed: 10333277]
15. Barrow R, Newman L, Douglas J. Taking positive steps to address STD disparities for African-American communities. *Sex Transm Dis* 2008; 35: S1–3.

16. Benz JK, Espinosa O, Welsh V et al. Awareness of racial and ethnic health disparities has improved only modestly over a decade. *Health Aff (Millwood)* 2011; 30: 1860–7. [PubMed: 21976327]
17. Booske BC, Robert SA, Rohan AMK. Awareness of racial and socioeconomic health disparities in the United States: the National Opinion Survey on Health and Health Disparities, 2008–2009. *Prev Chronic Dis* 2011; 8: A73. [PubMed: 21672397]
18. CDC. STD/STI Framing Conversation Report. Prepared by LTG Associates, Inc., 2010 Available at: www.cdc.gov/std/health-disparities/Framing_Report.pdf. Accessed: 12 February 2014.
19. Department of Health and Human Services (DHHS), Office of Minority Health. National Stakeholder Strategy for Achieving Health Equity. Rockville, MD: DHHS, 2011 Available at: www.minorityhealth.hhs.gov/npa/templates/content.aspx?lvl=1&lvlid=33&ID=286. Accessed: 12 February 2014.
20. Salmon CT, Post LA, Christensen RE. Mobilizing Public Will for Social Change. Prepared for the Communications Consortium Media Center. Lansing, MI: Michigan State University, 2003 Available at: <http://www.ncdsv.org/images/MobilizingPublicWillSocialChange.pdf>. Accessed: 12 February 2014.
21. Tarlov AR. Public policy frameworks for improving population health. *Ann NY Acad Sci* 1999; 896: 281–93. [PubMed: 10681904]
22. Taylor-Clark KA, Mebane FE, Steelfisher GK et al. News of disparity: content analysis of news coverage of African American healthcare inequalities in the USA, 1994–2004. *Soc Sci Med* 2007; 65: 405–17. [PubMed: 17482736]
23. Van Ryn M, Fu SS. Paved with good intentions: do public health and human service providers contribute to racial/ethnic disparities in health? *Am J Public Health* 2003; 93: 248–55. [PubMed: 12554578]
24. Reyna VF, Nelson WL, Han PK et al. How numeracy influences risk comprehension and medical decision making. *Psychol Bull* 2009; 135: 943–73. [PubMed: 19883143]
25. Aubrun A, Emanatian M, Grady J (Cultural Logic, LLC). Six Harmful Patterns in Newspaper Presentations of Race. Washington DC: Frameworks Institute, 2005.
26. Aubrun A, Grady J (Cultural Logic, LLC). Thinking About Race: Findings from Cognitive Elicitations. Washington DC: Frameworks Institute, 2004.
27. Barrington D. The Pathogenic Effects of Media Framing on Health Disparities. *Health and Society News* 2007; 3: 4–5.
28. Gollust SE, Lantz PM, Ubel PA. The polarizing effect of news media messages about the social determinants of health. *Am J Public Health* 2009; 99: 2160–7. [PubMed: 19833981]
29. Niederdeppe J, Bu QL, Borah P et al. Message design strategies to raise public awareness of social determinants of health and population health disparities. *Milbank Q* 2008; 86: 481–513. [PubMed: 18798887]
30. Robert Wood Johnson Foundation (RWJ). A New Way to Talk About the Social Determinants of Health. New York, NY: RWJ, 2010 Available at: www.rwjf.org/vulnerablepopulations/product.jsp?id=66428. Accessed: 12 February 2014.
31. Jones CP. Invited commentary: “race,” racism, and the practice of epidemiology. *Am J Epidemiol* 2001; 154: 299–304. [PubMed: 11495851]
32. Nicholson RA, Kreuter MW, Lapka C et al. Unintended effects of emphasizing disparities in cancer communication to African Americans. *Cancer Epidemiol Biomarkers Prev* 2008; 17: 2946–53. [PubMed: 18990735]
33. Kim AE, Kumanyika S, Shive D et al. Coverage and framing of racial and ethnic health disparities in U.S. newspapers, 1996–2005. *Am J Public Health* 2010; 100(Suppl. 1): S224–31. [PubMed: 20147676]
34. National Cancer Institute (NCI). Making Health Communication Programs Work 1989 Available at: www.cancer.gov/cancertopics/cancerlibrary/pinkbook/. Accessed: 12 February 2014.
35. CDC. National Notifiable Disease Surveillance System, 2006 www.cdc.gov/nchhstp/atlas/. Accessed: 20 March 2008.
36. Farley TA. Sexually transmitted diseases in the Southeastern United States: location, race, and social context. *Sex Transm Dis* 2006; 33: S58–64. [PubMed: 16432486]

37. Glaser B, Strauss A. The Discovery of Grounded Theory. Hawthorne, NY: Aldine Publishing Company, 1967.
38. Strauss A, Corbin J. Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory. 2nd edn Sage: Thousand Oaks, CA, 1998.
39. Quinn N. Finding Culture in Talk. New York: Palgrave MacMillan, 2005.
40. Ryan GW, Bernard HR. Data management and analysis methods. In: Denzin NK, Lincoln YS (eds). Handbook of Qualitative Research, 2nd edn, Thousand Oaks: Sage, 2000, 769–802.
41. Kaiser Family Foundation. Race, Ethnicity, and Medical Care: A Survey of Public Perceptions and Experiences. Menlo Park, CA: Kaiser Family Foundation, 1999.
42. Valentine JA. Impact of attitudes and beliefs regarding African American sexual behavior on STD prevention and control in African-American communities: unintended consequences. Sex Transm Dis 2008; 35(Suppl. 12): S23–9. [PubMed: 18923333]
43. Mevissen FE, Meertens RM, Ruiter RA et al. HIV/STI risk communication: the effects of scenario-based risk information and frequency-based risk information on perceived susceptibility to chlamydia and HIV. J Health Psychol 2009; 14: 78–87. [PubMed: 19129340]
44. Yzer MC, Southwell BG, Stephenson MT. Chapter 11: introducing fear as a public communication campaign strategy. In: Rice RE, Atkin CK(eds). Public Communication Campaigns. 4th edn Thousand Oaks, CA: Sage Publications, Inc., 2013, 163–76.
45. Bigman-Galimore C. Social Comparison Framing: Examining the Effects of Racial Health Disparities Risk Information. Dissertation available from ProQuest, 2011 Paper AAI3500230.
46. Hastings G, Stead M. Fear appeals in social marketing: strategic and ethical reasons for concern. Psychol Marketing 2004; 21: 961–96.
47. Hood J, Friedman AL. Unveiling the hidden epidemic: a review of stigma associated with sexually transmissible infections. Sexual Health 2011; 8: 159–70. [PubMed: 21592429]
48. O’Neil M. Invisible Structures of Opportunity: How Media Depictions of Race Trivialize Issues of Diversity and Disparity Washington, DC: Frameworks Institute, 2009 Available at: www.frameworksinstitute.org/assets/files/PDF_race/cognitive_media_analysis_race.pdf. Accessed: 12 February 2014.
49. Witte KA. A meta-analysis of fear appeals: implications for effective public health campaigns. Health Educ Behav 2000; 27: 591–615. [PubMed: 11009129]
50. DeJong W, Wallack L. A critical perspective on the drug czar’s antidrug media campaign. J Health Commun 1999; 4: 155–60. [PubMed: 10977283]
51. Herrick AL, Lim SH, Wei C et al. Resilience as an untapped resource in behavioral intervention design for gay men. AIDS Behav 2011; 15(Suppl. 1): 25–9.

Excerpts from interview guide

DOMAIN I: Perceptions of STDs in the African American Community

1. How common do you think STDs are in the [Black or African American] community?
2. Are certain groups within the African American population at higher risk for STDs than others?

DOMAIN II: STD Communication in the African American Community

I would now like to read/share with you some information from the Centers for Disease Control and Prevention (or the CDC) about STDs and then get your thoughts.

{Read and distribute the following information for participant reaction}ⁱ

Public health reports show that African Americans are disproportionately affected by STDs in the US. Although Blacks make up only 12% of the US population, they account for 70% of gonorrhea cases and nearly half of chlamydia and syphilis cases.

In 2007:

- African Americans had 19 times the reported gonorrhea rates of whites, and almost ten times the reported rates of Hispanics.
- African Americans had more than 8 times the reported chlamydia rates of whites, and about 3 times the reported rates of Hispanics.
- African Americans had 7 times the reported syphilis rates of whites, and 3 times the reported rates of Hispanics.

Also:

- African Americans have 3 times the herpes and hepatitis B rates than whites, and 8 times the reported HIV rates than whites.

3. What are your first thoughts after hearing this information?
4. Do you believe this information? Why or why not?
5. Is it important to get this information out? If so, why and to whom?
6. What do you think should be done with this information?
7. Imagine the State Health department or a similar organization wanted to develop a media campaign addressing STDs among African Americans, what type of information about STDs do you think African American should hear to motivate change?

Fig. 1.

Research questions and CDC information presented to participants

ⁱ*Note:* At the time of this research, 2007 was the most current year for which data was available..

Table I.**Participant characteristics**

	<i>N</i> (%)
Gender	
Male	79 (50.0)
Female	79 (50.0)
Age (mean = 31)	
18–29 years old	80 (50.9)
30–45 years old	77 (49.1)
Marital status	
Single	126 (79.8)
Married	29 (18.3)
Divorced/widowed	3 (1.9)
Ever been tested for a STD	
Yes	134 (85.4)
No	23 (14.6)
Last STD test	
<6 months ago	64 (47.8)
7–11 months ago	27 (20.1)
1–2 years ago	27 (20.1)
3–5 years ago	14 (10.5)
>5 years ago	2 (1.5)
Primary care doctor	
Yes	96 (62.3)
No	58 (37.7)
Health insurance	
Yes	102 (65.0)
No	55 (35.0)
Household income	
<\$20000	73 (47.1)
\$20000–\$39999	46 (29.7)
\$40000–\$59999	21 (13.5)
>\$60000	15 (9.7)
Education	
High-school diploma, GED or less	79 (50.0)
Some college/technical, not graduate	42 (26.6)
College graduate or higher	37 (22.4)
Current employment situation	
Working full time	66 (47.1)
Working part time	14 (10.0)
Unemployed or laid off	45 (32.1)
Full time/part time student	15 (10.7)

	<i>N</i> (%)
Not able to work because of disability/illness	3 (2.1)
Ever been in jail or prison	
Yes	46 (29.7)
No	109 (70.3)

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript