



AIDS SURVEY METHODOLOGY WITH BLACK AMERICANS

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Abstract—Unique substantive and methodological issues are involved in conducting survey research on sexual and HIV risk related behaviors among Americans of African descent. Problem conceptualization, sampling, design of instruments, mode of data collection, interviewer/respondent characteristics, community resistance, and data analysis and interpretation are discussed. The lack of survey research on sensitive health issues is noted. Possible methods for addressing these issues are drawn from the experiences of the authors in conducting national research on the general and at risk Black community populations. It is concluded that attention to these issues can substantially improve the quality of research on AIDS related behaviors in Black communities. Finally, it is suggested that behavioral theories and sophisticated methodological and analytic approaches, sensitive to the special cultural dimensions of racial/ethnic life in the United States, would contribute substantially to the scientific armamentarium needed to successfully meet the challenge of the AIDS epidemic.

Key words—survey methodology, Acquired Immunodeficiency Syndrome, African Americans, sexual behavior

INTRODUCTION

Americans of African descent in the United States are disproportionately at higher risk for contracting Human Immunodeficiency Virus (HIV) than their nonminority counterparts [1-6]. The estimated cumulative incidence of AIDS cases per 100,000 persons is 83.8 for Blacks as compared to 26.3 for Whites [1]. These differences are probably due, in part, to differences in patterns of behavior between Blacks and Whites. Because of the nature of the risks of exposure to the HIV virus, social behavior is a prime target of concern to researchers.

One efficient method for assessing social behaviors in large populations is through survey research techniques [7]. However, in conducting this research, we must be sensitive to at least two possibilities. First, social and economic circumstances may contribute to greater risk for exposure to the HIV virus, independent of ethnic/racial status. Second, cultural patterns, independent of socioeconomic status and racial/ethnic status *per se*, may independently contribute to greater exposure and lowered efficacy of interventions designed to reduce HIV risk.

Unfortunately, sensitive data on normative development and behavior among Black populations in particular, and ethnic minorities in general, are scarce. Possible contributory racial/ethnic differences in immunologic, social, and psychological functioning have gone relatively unexplored [8]. Specifically, little prior research exists regarding the influence of racial/ethnic factors in the collection of sensitive

sexual and biological data [9-11]. Adding to the complexity of the problem, immigration, both legal and illegal, higher birth rates among racial/ethnic populations, and continuing patterns of geographical discrimination will also contribute for several decades to the growth of culturally and linguistically diverse racial/ethnic populations who are relatively isolated from the mainstream culture and institutions of the United States. Complex interactions of all these factors and their effects on sexual, drug and other risk behaviors related to HIV infection must be understood if we are to mount effective intervention and treatment strategies in diverse racial/ethnic populations [12].

This article examines the issues involved in the use of survey methodology for the assessment of sexual beliefs and practices related to the risk of HIV infection in Black Americans. We will briefly probe these methodological issues starting from the rationale of the role of ethnicity/race in the conceptualization of sexual behavior of Black Americans through the interpretation of the data collected. Our aim is to illustrate the complex ways in which ethnic/racial status may affect every aspect of the survey method and to discuss approaches used by other researchers and the authors in conducting national surveys in African American populations, particularly the National Survey of Black Americans [7, 13] and the Black Community AIDS Research and Education (Black CARE) Project [14-15]†.

CONCEPTUALIZING THE NATURE OF THE RESEARCH PROBLEM

There is a critical need for normative data related to the immunologic and physical functioning, virology and social behaviors of racial/ethnic minorities and how these may differ from, or be similar to, the

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†Throughout this paper we will use the terms Black and African American interchangeably. Both refer to Americans who share a common ancestral descent from people historically indigenous to Sub-Saharan Africa.

general population. For example, scientific evidence supports ethnic differences in drug dosage and drug responses [16]. Yet little research has focused on documenting baseline immunologic functioning in Blacks, possibly slowing the progress of drug and vaccine development [8]. Particularly important is research that is racially/ethnically sensitive and accurate in establishing basic information on the following: (1) sexual beliefs, attitudes, behaviors, and knowledge; (2) immunologic status in both hetero- and homosexually oriented subgroups; (3) the role of the environment, economy and social status variables such as poverty, emotional and tangible supports, sex-ratio imbalance, and un/underemployment in HIV risk and health related behaviors.

A consensus is developing that racial/ethnic populations in the United States constitute true cultural groups. Thus, their attitudes, beliefs and behaviors cannot be conceptualized as 'quantitatively' different from those in the dominant culture, nor merely the result of socioeconomic status differences [13]. The growth of linguistically different groups provides an ever present example of this heterogeneity and cultural distinctiveness. However, older more established racial/ethnic groups, where remnants of a distinctly different language is not readily evidenced, such as African Americans, also constitute a culturally distinct and ethnically diverse population [13]. Language alone is not the only marker of difference. Other factors, such as a shared history, specific spiritual and religious orientations and the existence of different cognitive schemas, used in coping in a society that treats Black Americans as oppressed minorities, are also culturally distinguishable features.

One negative example of the very different environmental and social context of racial/ethnic life in this country is the fact that approximately 60% of the prison inmates in the United States are ethnic/racial minority, far beyond their proportions in the general population. It has been suggested that these institutions may be prime environments for IV drug use and high risk sexual contact. Similarly, poor neighborhoods in deteriorated sections of the nation's inner cities also form a context for sexual and drug behaviors that is every bit as constrained as any prison. The fact that these environments have permeable behavioral boundaries, both sexual and drug-related, underscores the need for more research on the culture of these prisons and the expression of sexual behaviors and drug use. The nature of family and social patterns may also directly and indirectly contribute to higher risk behaviors.

The use of typical epidemiological and surveillance approaches without modifying, for example, language or the appropriate cultural context in which to frame the question, will yield data that are of less value in the prevention of risky behaviors [7, 9, 17]. Prevention, when it requires volitional behavior change by individuals, also involves people thinking about their behavior, making sense of their options, managing social obligations, and making decisions about future behaviors [18]. Data assessment procedures that are not sensitive to the cultural, class and gender dynamics that influence behavior may not provide much usable information.

Unfortunately the job of understanding the roles these factors may play cannot begin with the interpretation of the results. Instead, it must guide all aspects of our attempts to gather data. How and what we ask in our questions will shape the facts we receive. Who we ask and how we decide in what category respondents fit (e.g. homosexual, gay, bisexual, heterosexual, Black) will influence our results and may slant the theories we select to assist in making sense of the data. The perceived sponsorship of our field efforts, no matter to what extent indigenous interviewers are employed, can affect response rates, what respondents may choose to answer, and the veracity of their responses.

As an example, many of us would agree that to a varying degree sexual behavior is influenced by cultural, community and family values and norms. Yet, in many of the large surveys conducted by the federal government, little attention is spent in defining the inclusion-exclusion parameters for the ethnic category of Black. Respondents are often asked to indicate their race from the given categories of White, Black (not Hispanic), Hispanic and Asian. Therefore respondents whose cultural heritage may be that of a Southern Black American, a West Indian, a Haitian, or an African are all classified as Black. However, in a study of sexual behavior, one may be more interested in the cultural/ethnic influences that helped to shape sexual attitudes, behaviors and norms, not an individual's skin color. In all likelihood individuals in each of these groups reach maturity with differing sets of values and inculcated prescriptions regarding initiation of sexual behavior, partner selection, attitudes toward different sexual practices, pregnancy or the use of contraceptives such as condoms. Each of these groups differ in the routes by which they seek and use formal and informal health care, and the types of spiritual or cultural influences that determine their beliefs and attitudes about illness and health [19]. Often researchers appear to overlook the fact that behaviors are social and subject to the influences of social norms and meanings. It is important that sexual behavior survey questions, particularly in cross-sectional studies, attempt to capture the social, historical, cultural and ethnic contexts in which these behaviors occur [11, 20]. The use of assumed universal survey instruments that lack an appropriate social context may not only lead to misguided interpretations, but may also disturb and anger ethnic minority respondents; thus, negatively influencing the community's receptivity to future research by both ethnic and nonethnic minority individuals [18].

DESIGNING RACE/ETHNIC SENSITIVE RESEARCH

In order for research on Black Americans to be meaningful there must be a subset of variables employed that are expected to yield an appropriate degree of explanatory power. A researcher's chosen variables are selected from an infinite universe of possible observations. How those observations are weighted relative to others in the overall conceptualization of the study determines to a great extent the information that will emerge [20]. In most circumstances the conceptualization and methodology of

studies are determined largely by researchers' academic disciplines, by experience with prior surveys and by the social biography of the investigator [20]. Most frequently none of these determining factors and social characteristics include substantial familiarity with the life circumstances of Black Americans.

Decisions of what variables to examine and how they interrelate are frequently framed by assumptions that may not reflect the experience of Black Americans. In formulating or applying theoretical principles to guide the design of the study, it is important to determine the relevance of these theories to the actual experiences of the respondents to be surveyed.

One way to develop this knowledge base is through the use of field methods, pretests, focus groups or ethnographic studies prior to the final development of the survey instrument. These methods may serve as useful ways to generate theoretical clues [7, 21] to identify significant variables, to sensitize the researcher to the parameters of behavior under study, the nature of the community, language, norms and values of the respondents [13, 21-24]. Information from such sources is crucial to insure the integrity of the racial/ethnic/cultural gender differences in the data analysis and data interpretation stages of research.

For example, defining specific sexual practices to the respondent presents a challenging set of problems. Some respondents may have little knowledge of the technical or medical terms for such sexual practices as vaginal intercourse, digital insertion, fellatio or cunnilingus. For instance, poor urban Black and Hispanic women participating in a cancer screening study were questioned about vaginal intercourse. Several denied having participated in vaginal intercourse though many were known to have given birth to children.

Some respondents may lack the reading skills necessary to respond to items using technical terms. Most surveys handle this by including the slang or street terms in parentheses after the technical term. The respondent then reads the item or listens to the list read by the interviewer until the term they are most familiar with is named and they answer. In some of the pretests conducted in the Black CARE Project, the Black gay and bisexual male respondents who participated stated the use of the above technique was one way they could ascertain if non-Blacks designed the study because terms most familiar to them appeared later in the sequence of items. The men also found it insulting to have the slang or street terms in parentheses, connoting a lesser status to their symbolic and often creative language about sexual practices. In the Black CARE survey, parentheses are not used and in several instances the technical or medical jargon terminology of sexual practices may appear last in the list of phrases. For some of our questions where terminology was ascertained in the pretest phase, we begin with the term that was recognized or suggested most often by our respondents and then list others in descending popularity. Again, the technical terms appear last in the list. One result of this procedure is identification of the behavior by the participant occurs earlier in the question, striking a familiar chord that helps the respondent to remember particular situations con-

nected with that type of act while the question is fresh in his mind.

It is our opinion that the quality of recall is better and more accurate in relation to the specific act under study. Clearly defining the underlying concept to be measured, in this instance sexual practices of Black gay and bisexual men, then developing an appropriate face valid item is a formidable task. The use of symbolic language helps to distinguish among the variety of sexual behaviors. Mechanic [20] suggests when respondents are asked questions relevant to long periods of their lives that they need to have salient life markers in order to locate particular events in time. It has been suggested that in assessing at-risk sexual behaviors, sexual histories should date as far back as a decade [11]. It is well known that techniques that increase accuracy of recall also increase reliability and decrease error rates.

Defining the population and sampling

The universe from which the sample of Black participants is to be drawn is extremely important and may not correspond exactly with the population to which we may attribute the results [25, 26]. It is important in reporting results that the extent of confidence in generalizing from the sample generated by the sampling frame be included. As an example, assessing sexual behavior of African Americans for the purpose of predicting HIV related risk using a noninstitutionalized household sample may underestimate the prevalence of sex related HIV risk behaviors. Segments of the Black population that may be important in the assessment of prevalence include the homeless, transients, those in shelters, Board and Care facilities, prisons, jails and detention centers. Unfortunately, Blacks outnumber all other racial/ethnic groups in institutional facilities, as well as among the homeless. The context of many of the above promote unstable and more frequent relationships, sex for survival purposes, partners who lack knowledge of their HIV status, or drug users who for the sake of costs or availability of drug paraphernalia share injection works, all of which increase the possibility of encountering the HIV virus. Thus, defining the universe of the study as a household survey may exclude important segments of the Black population. In national surveys how are appropriate subgroups identified within the Black population? This has been less of an issue in other types of surveys where investigators have been interested in drawing, for example, a low socioeconomic group, a group of pregnant mothers, or college educated Blacks. These are all parameters on which either census data, or some other source, provides some rudimentary guidance to draw upon. But when we attempt to define subgroups, for example, of Black gay or bisexual men, given the lack of clearly defined boundaries of this group, we are faced with a complex sampling problem. First, the cultural schemata that we have of what homosexuality and bisexuality are, derives from our knowledge and experiences with White males. It is an article of faith that these social constructions translate without modification to Black gay and bisexual men [14].

Care must be exercised in obtaining samples that the inclusion-exclusion criteria are reflective of the

targeted populations to be sampled. One major reason why current definitions of male homosexual identification work is that there is a strong correlation between them and HIV-related behaviors. But for non-Whites, the presence or absence of male homosexual identification may not share as much variance with HIV risk behaviors as is apparently the case with Whites. Carrier [27] provides an excellent description of how the norms and dimensions of homosexuality/bisexuality among Mexican American men differ from those among American White gay and bisexual men. In the Mexican culture, identification as a bisexual or homosexual male may depend to a great extent on whether the individual is an active or receptive partner during anal intercourse; the receptive person being more likely to be designated homosexual.

A further problem in defining the nature of the population to be studied is the lack of previous research on the prevalence of sexual behavior between men in general and among Black men in particular. While we most often rely on the Census data to design our sampling frames, the only equivalent database would be Kinsey's statistic that approximately 10% of the American population is homosexual. Using this as a baseline presents problems. We have little evidence that homosexuality is distributed the same in the Black population as it is in the general one (even assuming the appropriateness of the 10% estimate). On the contrary there is evidence that suggests a greater pressure toward bisexual behavior in the Black community due to the Black community's negative response to homosexuality [14, 15]. Thus Black gay men may be more bisexual in their actual behaviors than White gay men [28]. This underscores the fact that self-identification (i.e. gay, homosexual or bisexual) must be viewed as conceptually and empirically distinct from the actual behaviors [11, 14]. For example, there may be greater exposure among ethnic/racial minorities to situations in which sex between men occurs (such as in prison settings) but in which these men retain their identification as heterosexual.

Assessing community populations

Advertisements or strategies that rely on predominantly gay networks may result only in including those Black men whose primary allegiance and social networks are in the predominantly White gay community. Yet some have estimated that this group, often referred to as gay Black men, is actually very small in comparison to Black men for whom ethnic identity is primary [29]. Reaching Black gay or bisexual men may require strategies consistent with sampling Black men, in general, as the participants we are desiring to locate may be embedded in many of the same networks as heterosexual Black men. As an example, Black CARE has a cohort study of Black gay, bisexual and heterosexual men we are following. Upon initial reading of the sampling strategies of the study, reviewers were concerned that there was a problem in using traditional strategies for recruiting Blacks to reach the bisexual men. Without adequate knowledge of the social networks of this population, it would not be apparent that by targeting women who are often the confidants

of both gay and bisexual men that this group could be reached.

Enhancing response rates

Survey response rates are a problem in any population-based community survey. Over the years response rates in national surveys have shown a steady decline [30]. Many reasons have been given for this decrement, including fear of crime, greater social isolation in large inner cities, and a rise in for-profit solicitations. Research on racial/ethnic minorities suggests the same type of decline over the years [7]. Studies on sensitive issues such as sexual beliefs and practices may serve to reduce cooperation even further among racial and ethnic group populations. It is our belief that this problem has to be addressed directly through sensitive designs, meaningful instruments, appropriate interviewers, assurances of confidentiality, and conveyance of a belief that cooperation will be of benefit to the larger community. There are no hard and fast rules regarding how to increase response rates. Our experience in conducting national studies [13] suggests that success can be obtained through the utilization of as many of the approaches listed here as possible. To be effective in utilizing these approaches, one must be knowledgeable and sensitive to racial/ethnic culture.

Designing study instruments

Language and comprehension is a set of the most obvious concerns in conducting research on culturally distinct groups [7]. It is an area, however, that has been overlooked in research on more indigenous racial/ethnic groups, like Blacks [7]. Often we think language issues are addressed by sampling some group of Blacks in a particular locale in order to pilot instruments. However, our national studies [7, 14-15] found that terms used to refer to sexual practices are influenced also by class and geographic locale. In the Black CARE study, a Southern and a West Coast city were initially proposed as instrument pilot sites. After observing the effects of geographic locale and socioeconomic status the sites were expanded and a series of focus groups throughout the United States in high and low prevalence areas as well as in urban areas of varying sizes were selected.

By pretesting in this manner, several terms were elicited for a particular sexual act, thereby not limiting terminology to the regions of the investigators. For example, when assessing for the occurrence of self-masturbation, some researchers might pose the question somewhat like this: "Have you ever masturbated yourself?" Some go further and use a common slang term for the practice, with some variation in the order of terms or manner of presentation, such as "Have you ever jerked off" However, pretesting in the Black CARE Project suggested that 'jerked off' may not be as common a slang term among Black gay men as it is among White gay men. Therefore, when asking men to check which activities they had ever done with another man, the stem to the question of self-masturbation was constructed as follows: "jacking off, choking the chicken, beating your meat, solo masturbating, masturbating yourself with another man present." In short, the respondents were presented as many slang terms for the practice as had

been solicited from the focus groups in the hopes that one of these, at least, would ring familiar.

Many language problems can also be addressed in an interview through the sensitivity and quality of training of the interviewers. The utilization of interviewers trained and experienced in asking explicit sexual and drug taking behaviors may be a requisite. Utilization of ethnically sensitive instruments and appropriate interviewers may serve to increase response and cooperation rates.

This same flexibility is not available in other modes of survey data collection. For example, wording and terminology can be much more problematic in self-administered questionnaires. Both illiteracy as well as lack of familiarity with terminology in its written form can lead to unacceptable errors in responding and high noncompletion rates. As alluded to above, many of these problems can be addressed through thoughtful questionnaire designs and extensive pretesting of survey instruments.

Generally, research in the health area has neglected race/ethnicity as possible confounding factors in the sensitivity of health related surveys. Thus, little is known about how these cultural factors may interact with the sensitivity of the topic to lower response rates and interview quality.

Characteristics of interviewers/respondents

Very little research has addressed the effects of interviewer/respondent characteristics on accuracy of responding in the health area [31]. This has been of long standing concern, however, in social and political surveys [13]. The general conclusion is that race of interviewer has its effects primarily on race-relevant topics [7, 13, 31]. Darrow, *et al.* [32], conducted one of the few studies on sexual behavior and concluded that sex of interviewer and place of interview had little impact on responding. However, given the sensitive nature of AIDS-related research, we surmise that race, ethnicity, class, age, and sex are all important dimensions in research on Black populations.

As an example, in the Black CARE Project's men's cohort study participants are asked to choose who they would like to interview them. They are given a choice of another Black gay man, a Black heterosexual woman, or a White gay male. The rationale for these choices actually evolved out of a human subject concern, given the intimate nature of our AIDS questionnaire. For those Black gay men active in community affairs or who frequent certain social settings, interviews conducted solely by other Black gay men expose them to the risk of interacting with their interviewers on subsequent occasions.

Heterosexual women who have no contact with the gay community were used in hopes of increasing participant's feelings of confidentiality. Some men did not wish to risk revealing details of their lives to other Blacks and therefore were offered a gay White interviewer; in the future gay Latino male interviewers will also be available.

Data analysis and interpretation

In studying sexual behavior among African Americans, cultural influences, sex role norms,

resource availability and interpersonal context are important mediating factors in interpreting data [9]. In assessing behaviors interests extend beyond the counting of discrete behavioral units, even assuming that the definitions of these units are not subtly culture-bound. Although behavior may be equivalent, psychological precursors of those behaviors or available resources may differ. Both of these affect our ability as researchers to predict or modify the risk-related activities of individuals or to generalize findings beyond the group targeted for study [9].

While the importance of the context of sexual behaviors is frequently recognized, this concern is often overlooked in the data analysis phase, particularly with quantitative data. In analysis of qualitative data, the specific context in which behaviors occur is often foreground and the explicit focus of study [20]. In survey methodology some data reduction techniques or statistical methodologies, however, function to isolate behaviors from their specific historical, social, cultural, ethnic and gender contexts [20, 33]. Problems with this approach have been thoroughly debated in the life events research area [34-41]. Measurement techniques that divorce an event from the specific context of the respondent's life fail to capture the contribution of social factors to both the occurrence of the behavior as well as the respondent's subjective evaluation of the behavior. For example, current research efforts are focused on exploring the link between alcohol usage and high risk behavior. Sampling from an inpatient detoxification setting and assessing sexual behavior and alcohol use in the previous few days may artificially underestimate both behaviors and obscure their relationship. This research design flaw is obvious. Other similar problems may not be, particularly when shaped by unexplored differences in cultural backgrounds among participants.

These issues become even more important in statistical model-based work. The less informed the researcher of the cultural, historical, racial/ethnic and gender relationships of the population under study, the greater the likelihood of model mis-specification. In building a model in which variables are representative of social structures and processes, the researcher must correctly specify the structural and dynamic relations between variables [42]. This is driven by application of theory. Model building and model testing at this level require not just an intimate working knowledge of the structure of the data, but some experience and working knowledge of the interdependence of variables as indicators of social processes. Some survey researchers turn this critical component of data analyses over to graduate students, programmers and others whose mathematical and computer decision making skills are often of the finest caliber, but who are sorely lacking in theoretical or practical knowledge of social processes in Black populations. These are not merely statistical issues, but rather an inter-relationship among statistical modeling and social psychological theory [20]. Shared variance should not be the blind, driving force for the inclusion of variables in a set of equations [42].

SENSITIVITY TO COMMUNITY AND INDIVIDUAL RIGHTS AND RESPONSIBILITIES

Community resistance

One source of error often overlooked in surveys on Blacks conducted by non-Black researchers is that of intentional misreporting either as a function of exaggeration or concealment. For some researchers it is felt that when indigenous interviewers are used or a Black is hired as the project director or field supervisor that the accuracy of responses is then insured. The impact of the nature of the organization conducting the survey [26] and the relationships between the interviewers and interviewees may be underestimated.

Community resistance is often not considered sufficiently in conducting survey research, particularly in racial/ethnic communities. We noted earlier declining community cooperation rates and the methods that can be used to address them [7]. This issue permeates the research at all levels from access to the desired sample, bias introduced by research assistants, and responses from subjects. One major mistake made by researchers is to underestimate the inter-relationship among the household and other people in Black communities. These connections can serve as effective informal communication networks and as a source of mobilization against perceived intrusion from outside. Given the cluster sampling approaches used in most national and community surveys, this network can serve as a powerful factor contributing to mass defection.

Community reaction can be used in a positive sense to improve survey research. Locating and eliciting the cooperation of community leaders, appropriate advertising (e.g. barber shops, community centers and community meetings), indigenous interviewers, and problem telephone hotlines are all methods that can address these difficulties [7]. The best methods, however, begin at the design stages of the survey. The involvement of Black investigators, sensitively designed and meaningful protocols and presurvey community intervention can all serve to lessen problems of community resistance.

Ethical issues

The protection of research participants in the face of current and possible future discrimination of identified HIV positive individuals raises a host of ethical dilemmas. While these issues affect any cultural and/or racial group, it is particularly a problem for a group that is easily physically identified, more frequently dependent on public facilities for their individual and family welfare, and who historically have suffered both informal and government-sanctioned discrimination. Community dwelling Blacks are well aware of the biases that exist against seropositive individuals and their own vulnerability to extreme measures in an oppressive society. This can lead to understandable community resistance and become a barrier to the development of knowledge that may lead to effective community interventions and programs.

As noted by others [43, 44], one of the central questions involved in gaining control of the AIDS epidemic is how not to discriminate against specific

special groups or infringe on individual freedoms. Based upon this general notion, the following are offered as specific research and policy recommendations to minimize risks to identified individuals and to the larger Black community.

First, numbers of racial/ethnic group members should be increased in epidemiological, social-scientific, educational and social-intervention studies. Racial/ethnic group members should be treated with the same safeguards and respect afforded nonhighly identifiable racial/ethnic minority participants. In some instances, extra precautions to safeguard ethnic minority respondents may be necessary when study participation is solicited through public health facilities that routinely collect data for state or federal agencies. Some researchers have argued for cross-sectional, anonymous, unlinked testing without consent as the preferred method to yield valid incidence rates of seropositives in the population. Special care will have to be taken with regard to racial/ethnic minorities. Because of their smaller numbers, what appears to be fairly innocuous information (e.g. socioeconomic status, area of the country, occupation, religious orientation, etc.) may yield an identification, even in the absence of name and address documentation.

Second, longitudinal research demands continual access to name and address linked data. Extraordinary measures may have to be taken to guarantee the confidentiality of participants. Elaborate computer programs with interlocking lists and matching protocols may be needed, with access to unlocking features maintained by individuals or organizations with special immunity (community perceived and real) from government control. As with anonymous cross-section studies, special care will have to be taken with racial/ethnic individuals because less identifying information, apart from name or address is needed for identification than for non racial/ethnic minority individuals.

SUMMARY: RESEARCH AND POLICY IMPLICATIONS

Studies that do not adequately consider race/ethnicity, culture and gender are fatally flawed in their inception. Considerable available research indicates the importance of gender, race/ethnicity, socioeconomic status and culturally related beliefs and behaviors in social behavior [7, 9, 13]. Research that lacks these critical components cannot make significant contributions to our scientific or policy agenda. In addition, sexual behavior must be studied in its social context in order to better understand the actions and practices of Black Americans.

In order to develop survey items that include contextual information, a variety of methodological procedures should precede the actual conduct of the survey. Some of these include small scale ethnographic studies, focus groups, and pilot testing (not just of the content but the mode), and community participation and advice integrated into the design. It is critical that researchers not trained in ethnic methodology or knowledge of the scientific literature on the particular population under study develop an understanding of cultural and ethnic/racial differences in at least social processes and language use.

In sampling from national and local communities, appropriate populations must be identified. Greater attention should be given to the isolation of behaviorally defined populations as well as the traditional focus based upon sexual orientation or demographic membership. While the concern has been on the difficulty in identifying private behaviors, attention to the public behavioral correlates of these more private behaviors may be illuminating. Obviously this approach can raise a number of ethical issues that must be addressed. However, it can work if we have adequate theory and tests of that theory that define inter-relationships among appropriate behavioral expressions.

Sampling procedures should maximize probability methods and allow greater coverage of identified populations, both demographically and behaviorally. These procedures must provide adequate probability samples of racial/ethnic minority populations as well (i.e. come as close to the ideal of giving each member of the target population a nonzero and known probability of inclusion).

Preliminary focus should be on multiple, local sampling methods rather than large-scale national designs. Further experimentation with novel screening techniques (e.g. WASP, mixed mode) may improve the coverage of hard-to-reach populations [13, 31]. Statistics that allow imputation methods that produce statistical adjustments for noncoverage and nonresponse should also be used.

Survey instruments must be appropriately designed in terms of concepts, language, reading and comprehension level for African American and other racial/ethnic populations. Question-ordering of sensitive material is essential and the most effective ordering in eliciting accurate responses may differ among racial/ethnic groups and nonethnic minority individuals. Increased sensitivity is needed to the social aspects of the survey research setting. Studies are badly needed on the elicitation of sensitive information in cross ethnic/race, cross sex, cross sexual orientation, cross indigenous vs nonindigenous community interviewers, preferred settings for interviews, (e.g. influence of interviewing in bars, outside of bathhouses, using churches), follow-up techniques, and methods to protect confidentiality of subjects when indigenous interviewers from the respondents neighborhood are used.

Attention needs to be paid to the role of data collection modality (face to face, telephone, questionnaire, or mixed methods) in obtaining accurate reports. Certain modes of data collection may be more appropriate for some race/ethnic groups than others.

Data analysis and interpretation need to be better informed by cross-national approaches to research [31]. Back translation procedures and constructive method equivalence approaches have long been applied in cross-cultural research. Their consideration, modification and use in surveys of sexual behavior and AIDS-related risk behaviors in Black communities could be invaluable [7].

We need to recognize that there has been empirical and theoretical work conducted on Black Americans and other ethnic minorities that incorporates many of the issues covered in this manuscript. Researchers can no longer act as if this empirical knowledge and

individuals with expertise are not available. Use of existing published information and available resources and expertise should be employed to enhance and not slow the scientific advancements in survey approaches to HIV-related risk behaviors among Black Americans.

In conclusion, research on Black Americans that is sensitive to the community's problems and needs, innovative in methodology, and develops new theories for accurate empirical knowledge is in its infancy [7, 45]. The study of HIV infection and AIDS-related behaviors among Black Americans is not an exception. Yet, as this article has attempted to describe, a great deal is known. There is no reasonable excuse for not employing the modifications to traditional survey research approaches that have been shown to be effective in racial/ethnic populations.

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