

The Study of Sexual Behavior in Relation to the Transmission of Human Immunodeficiency Virus

Caveats and Recommendations

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ABSTRACT: *To create the behavior-change programs essential for limiting the acquired immune deficiency syndrome (AIDS) epidemic, we must obtain a precise understanding of the sexual behavior, knowledge, and attitudes of our nation's various ethnic, racial, social, age, regional, and sexual orientation groups. Such information is necessary for developing the precisely targeted educational programs that currently are our most effective means of reducing risk behaviors and halting the spread of the disease in the United States. These behavioral data are also crucial to biomedical investigations, making possible the identification of appropriate subjects for programs ranging from the testing of vaccines to the evaluation of the threat to pregnant women and their offspring. In this article, we summarize data on sexual behaviors associated with the transmission of the AIDS virus (i.e., human immunodeficiency virus [HIV]) and discuss selected issues relevant to the conduct of research on human sexuality.*

Perhaps partially as a result of Americans' restrictive view of sexuality (Ford & Beach, 1951), there appears to be a pervasive public sentiment that behaviors related to sexually transmitted diseases in general, and to acquired immune deficiency syndrome (AIDS) in particular, represent newly emerging patterns of sexuality. Yet even the most cursory examination of the archaeological and ethnographic record reveals art, artifacts, literature, and ephemera that reflect the ubiquitous, panhistoric, and omnicultural nature of those behaviors implicated in the transmission of human immunodeficiency virus (HIV; Reinisch, Sanders, & Ziemba-Davis, *in press-a*). Obtaining reliable and valid data on human sexual behavior is an especially difficult and complex task in American society where, notwithstanding the so-called sexual revolution, sexuality is still regarded as intimate, private, often embarrassing, perhaps socially disapproved, and even illicit or illegal. Because of the sensitive nature of issues related to sexuality, studies of human sexual behavior, like research on drug abuse and criminal activity, require special techniques, clinical skills, and extensive experience.

Faced with the absence of a truly representative national study of human sexual behavior, the National Academy of Sciences, Institute of Medicine relied principally on data reported by Alfred C. Kinsey and his col-

leagues (Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin, & Gebhard, 1953) for its 1986 report on the AIDS crisis (Nichols, 1986). Although hindsight has illuminated some of its limitations, Kinsey's prodigious work provides an unparalleled primer for the conduct of contemporary studies of American sexual behavior, including techniques for the construction of samples that may confidently be regarded as representative of our ethnically, socially, and culturally diverse society. In this paper, we summarize a selection of the existing data on sexual behaviors associated with AIDS risk and discuss issues relevant to conducting research on human sexuality.

Data on Sexual Behaviors Relevant to AIDS

Accurate data on sexual behavior and the attitudes related to these behaviors are essential to the development of behavior change programs vital to stemming the tide of the AIDS epidemic. We would be much closer to behavioral control of this epidemic had there previously been a scientifically designed, face-to-face interview study of representative samples of the various strata of the U.S. population. As it is, all of the currently available data on human sexual behavior are characterized by serious limitations such as small sample size, biased samples, insufficient data on subcultural groups, and incomplete or ambiguous information. These problems are primarily owing to a general lack of both public and private research support for scientific investigations of human sexual behavior.

Despite these limitations, we have drawn from 16¹

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¹ Sixteen studies and commercial surveys were selected: (a) Athanasiou, Shaver, and Tavris (1970); (b) Bell, Turner, and Rosen (1975); (c)

of the most thoughtfully designed scientific investigations and the largest, most comprehensive commercial studies published between 1948 and 1988 to derive estimates of the prevalence of AIDS risk-related behaviors for White, middle-class, relatively well-educated, primarily urban Americans between 20 and 45 years of age. No information will be presented with regard to the behavior of other ethnic, racial, social, age, and regional groups in the United States, for which even fewer data are available.

There is significant variation among the cited studies in the methodologies, scientific expertise, size of samples, and sampling techniques used. Although commercial magazine surveys typically are not the most scientifically sound studies, they were included in our review because they constitute a major, albeit limited, source of information in the absence of more well-designed studies. Because many of the largest studies are the commercial surveys conducted by women's magazines on convenient samples of readers, there is considerably more information on women than men.

All of the estimates are conservative. They represent weighted means derived by multiplying the results from each of the relevant studies by the sample size, summing across studies, and dividing this sum by the total number of subjects across all studies. The topics we will address include (a) extramarital sexual interactions, (b) anal intercourse, (c) sex with prostitutes, (d) sexual interactions across nominally distinct sexual orientation groups, and (e) sexual contact during visits to cities with a high prevalence of HIV.

Extramarital Sexual Interactions

Extramarital sexual interactions are relevant to the AIDS epidemic because of the importance of multiple partners in predicting level of risk, at least among men, and the potential danger of infection to a monogamous partner. Based on six data sets, we estimate that 37% (range = 26–50%) of husbands have had at least one additional sexual partner during marriage. In a study of men over 50 years old, 23% of the respondents said that they had had an extramarital sexual interaction *since* the age of 50 (Brecher, 1984). The estimate for wives' extramarital sexual relations, based on nine studies, is 29% (range = 20–54%).

1988 Kinsey Institute reanalysis of data from Bell and Weinberg (1978); (d) Blumstein and Schwartz (1983); (e) Bolling (1977); (f) Brecher (1984); (g) Kinsey data tabulated by Gebhard and Johnson (1979); (h) Hunt (1974); (i) McWhirter and Mattison (1984); (j) Pietropinto and Simenauer (1977); (k) Rubenstein and Tavris (1987); (l) Saghir and Robbins (1973); (m) Tavris and Sadd (1975); (n) Wolfe (1981); (o) Wyatt, Peters, and Guthrie (1988); and (p) Yablonsky (1979). The estimates in this article included the studies as follows: extramarital behavior of husbands—studies a, d, g, h, j, and p; extramarital behavior of wives—studies a, b, d, g, h, k, m, n, and o; men performing heterosexual anal intercourse—studies c, g, and h; women engaging in anal intercourse—studies c, e, g, h, k, m, and o; sex with female prostitutes—studies c, f, g, and h; sex with male prostitutes—studies c, g, and l; heterosexual intercourse for gay men—studies a, c, and i; number of homosexual men who have been married—studies c, g, i, and l. A more detailed review of these data sets is provided in Reinisch, Sanders, and Ziembala-Davis (in press-a).

Anal Intercourse

Anal intercourse, a high-risk activity for the transmission of HIV, is assumed to be ubiquitous in the gay male community and rare in the heterosexual population (Voeller, 1983), even though few studies have directly addressed the prevalence of either homosexual or heterosexual anal intercourse (Bolling & Voeller, 1987). Data regarding the number of gay men who have engaged in anal intercourse range from 59% based on the Kinsey data set (Gebhard & Johnson, 1979) to 95% in a sample of gay men in the San Francisco Bay area (Bell & Weinberg, 1978). On the basis of the three studies that queried presumably heterosexual men about this behavior, we estimate that 18% (range = 8–30%) had engaged in heterosexual anal intercourse. Using the seven studies that asked if women had ever participated, we estimate that 39% (range = 20–43%) have had at least one experience. Interestingly, one commercial survey (Wolfe, 1981) and one clinical study (Bolling, 1977) reported that 13% and 9%, respectively, of White female respondents *regularly* participated in anal intercourse. The fact that more women than men were estimated to have ever participated in anal intercourse suggests that the estimate for men, which was derived from much less abundant data than that for women, should be adjusted upward.

Sex With Prostitutes

Although male-to-female transmission of HIV appears to be more common than the reverse, sex with prostitutes has been suggested as an avenue for the transmission of HIV into the general heterosexual population. Data from four studies that reported whether male subjects had ever had sex with a female prostitute revealed that 33% (range = 30–45%) had done so. In a study of older men (Brecher, 1984), 7% had had at least one sexual interaction with a prostitute since the age of 50. Data from three studies regarding sex with male prostitutes by gay men indicate that 25% have paid for sex with another man at least once.

Interactions Across Nominally Distinct Sexual Orientation Groups

There has been much concern about the spread of HIV from so-called "high-risk groups" (e.g., intravenous [IV] drug abusers and gay men) to the population at large. However, it is behavior, not group membership, that puts people at risk for AIDS. Comprehensive determinations of the types and levels of sexual interaction occurring across all segments of our society are required to assist epidemiologists in making accurate predictions about the spread of HIV (Anderson & Johnson, in press). Unfortunately, in many studies, once subjects have identified themselves as heterosexual or homosexual, it is typically assumed that this label accurately predicts the sex of their partners. However, the few studies that asked about sexual behavior with both men and women, regardless of the respondent's sexual orientation label, revealed a significant amount of cross-orientation partner choice (i.e., "heterosexuals" with same-sex partners and "homosexuals"

uals" with opposite-sex partners). Three of the studies under consideration in this article asked self-identified gay men whether they had ever engaged in heterosexual intercourse: The proportion who had done so ranged from 62% to 79%. Additionally, data from four investigations revealed that 15% to 26% of self-identified gay men had been married. Kinsey et al. (1948) found that 70% of White homosexual men had had sex with a married man, and 20% of these had had sex with six or more married men. Moreover, in the two instances in which male subjects, regardless of sexual orientation, were asked whether they had ever had sex with another male, 37% reported at least one postpubertal homosexual experience (Athansios, Shaver, & Tavris, 1970; Kinsey data tabulated by Gebhard & Johnson, 1979). Although no studies have been conducted to estimate the frequency of "heterosexual" men's interactions with male prostitutes, anecdotal reports suggest that these types of interactions are not uncommon.

A recent study (Reinisch, Sanders, & Ziembka-Davis, in press-b) of 262 self-labeled lesbian women provides data on the inaccuracy of sexual orientation labels for predicting actual behavior among women. Consistent with the findings of Bell and Weinberg (1978), who reported that 81% of lesbian women had engaged in heterosexual intercourse at least once, 74% of the lesbian women in our sample reported having had sex with a man at least once since age 18, and 45% had done so since 1980. Furthermore, of those women who had always labeled themselves lesbians, 43% reported having had sex with a man since age 18, and 21% had done so since 1980. One third of all the lesbian women who had had sex with men since 1980 reported that at least one of their male partners had had sex with another man. Consistent with the findings of Padian et al. (1987), women with behaviorally bisexual male partners were significantly more likely to have experienced anal intercourse than were women who believed that their male partners were exclusively heterosexual. Additionally, 20% of the lesbian women in our sample and 35% of those in Bell and Weinberg's (1978) study had been married at least once. These data collectively suggest that, for both men and women, there are substantial levels of sexual interaction across ostensibly impermeable boundaries of sexual orientation.

Sexual Contact During Visits to Cities With High HIV Prevalence

The 10 cities identified by the Centers for Disease Control (CDC) as having the highest numbers of reported AIDS cases (as of August 1, 1987) are New York; Newark, NJ; San Francisco; Los Angeles; Houston; Washington, DC; Miami; Chicago; Philadelphia; and Dallas. In our study of 262 lesbian women who resided in 34 states, 29% reported that since 1980 they had had sex with a resident of one of these high HIV-prevalence cities during a visit (Reinisch et al., in press-b). In 34% of these cases, the sexual contact had been with a man, and for one half of these, it was with a new sexual partner.

Critical Issues in Surveying American Sexual Behavior

The data considered here make it clear that current information, largely based on limited, biased sampling and often employing instruments either insensitive to the interpersonal issues involved or distorted by unfounded prejudgments, cannot provide the foundation on which to develop truly effective methods for behaviorally controlling the AIDS epidemic. Data must be gathered from all segments of our population in sufficiently large numbers to be representative and must be based on scientifically sound methodologies and techniques designed and adapted to fit each specific target population. Essential to the accurate identification of at-risk individuals as well as to the development and implementation of effective behavior-change programs are (a) a precise understanding of sexual behavior in the various ethnic, racial, social, age, regional, and sexual orientation groups that constitute our society and (b) an appreciation of the methods necessary for acquiring valid data. These and related issues that should be carefully considered in the design and conduct of all investigations of American sexual behavior are addressed in the following sections.

Sampling

The vast majority of research on human sexual behavior has used nonprobability sampling procedures in which data are obtained from specific groups such as college students, gay organizations, clinic patients, or specific residential communities. The generalizability of findings based on data collected in this manner is limited by the degree to which the sample is representative of the target population as a whole (e.g., gays, students). Furthermore, these techniques are inadequate for developing valid epidemiological estimates of sexual behavior related to AIDS risk for other groups and for the U.S. population at large.

On the other hand, random sampling is often not feasible given the expense involved and the highly personal nature of sexual behavior. Additionally, as discussed later, the people who agree to participate in studies of sexual behavior may have different behavioral patterns than more reticent individuals, thereby potentially introducing another type of bias. Securing 100% of individuals in any particular group (e.g., college fraternities or sororities, service organizations) and obtaining data from diverse groups provides a means for enhancing the accuracy and generalizability of data in the absence of a strictly randomized sample (Kinsey et al., 1948; Kinsey et al., 1953). The fact that some Kinsey respondents had initially refused to participate for periods of two to three years highlights the importance of having sufficient time and money to use a "multiple appeal design" to secure as close to 100% participation as possible. When large sample sizes are obtained using these strategies, confidence in the generalizability of data can be enhanced.

A sample is referred to as a probability sample and regarded as representative when all members of the population have an equal chance of being selected. When

probability or random sampling techniques alone are used, however, the diversity within ethnic minority groups is often underestimated because the actual number of subjects from these groups is usually small (Wyatt, in press). "Oversampling" of ethnic minorities, that is, obtaining larger samples of these groups than would be required by simple probability or random sampling procedures, can compensate for this deficiency, provided that the demographic composition of the "oversampled" group is representative of that minority group in the general population (Wyatt, in press). In an effort to capture the diversity of human sexual behavior in our society, Kinsey and his colleagues (Kinsey et al., 1948; Kinsey et al., 1953) emphasized the importance of employing stratified sampling techniques that provide samples similar in size regardless of the relative size of the target group in the population as a whole. Utilizing a multistage stratified probability sample, Wyatt, Peters, and Guthrie (1988a, 1988b) applied even more stringent procedures in their investigation of women's sexual socialization and experience in Los Angeles County, CA. Stratified probability sampling involves categorizing the population by specific demographic characteristics such as age, religion, and race and then employing simple random sampling techniques for the selection of subjects within a stratum (Wyatt & Peters, 1986). Given the pluralistic nature of American society, only these types of techniques, extensive demographic information, and large samples will permit scientists to draw valid conclusions about each of the various segments in our society.

Subject Recruitment

People may hesitate to volunteer for studies of sexual behavior and AIDS risk for a variety of reasons: concern about interviewer reactions, loss of social prestige, or legal prosecution; denial (perhaps even to themselves) of their sexual experiences; desire to avoid painful memories; a lack of sexual experience; or the belief that the specific topic under investigation is personally irrelevant. In spite of these obstacles, reluctant men and women must be convinced of the value of their contribution if scientifically accurate epidemiological data are to be obtained. Various strategies can be employed to this end. First, the title and description of the study used in all aspects of subject recruitment should be as broad as possible (e.g., Wyatt & Peters, 1986) so as not to frighten, intimidate, alienate, or inadvertently exclude any subject. For example, describing a study as "an examination of sexual behavior patterns" is preferable to describing it as "an examination of AIDS-risk factors," as the latter may discourage people who do not consider themselves to be at risk for AIDS. Second, subjects must be convinced that the investigator holds no biased opinions regarding any of the sexual activities in which they have or have not engaged and must be assured that their data will be held in absolute confidence. Finally, investigators may appeal to altruism, group loyalty, and social or moral obligation in order to recruit study participants (Gebhard, 1972; Kinsey et al., 1948).

Selection of Methodology

As it is not generally feasible to directly observe sexual behavior in humans, topics in sex research are most reasonably addressed by using either questionnaire or interview research methods. When time and money are available, interviews are preferable for a number of reasons. Questionnaire studies tend to be biased in favor of relatively more educated subjects (Jensen, Witcher, & Upton, 1987) and may be contaminated by individual differences in the interpretation of questions (J. Money, personal communication, June 3, 1988; see Money, in preparation). Interviewers, on the other hand, can (a) observe their subjects and monitor reactions; (b) tailor questions to the individual by skipping those that do not apply and using the most effective vocabulary; (c) readily probe for clarification of inconsistent data; (d) utilize individually based anchor points (e.g., before or after marriage or graduation) to enhance recall; and (e) "give permission" to subjects to reveal personal information by normalizing it through the use of the parable technique (i.e., telling a story that may be relevant; Money, 1984, 1986; Money & Ehrhardt, 1972) or the data-sharing technique (i.e., providing the subject with research-based information that shows that the behavior in question is not uncommon). An additional advantage of using interviewers for data collection is that they can immediately respond to any distress precipitated by a detailed sexual history inquiry.

It is imperative that behavioral scientists (especially those trained in research on human sexual behavior) be consulted in the design and conduct of any biomedical study that involves selecting or questioning human subjects about sexual behavior. Similarly, psychologists should incorporate the multidisciplinary perspectives of anthropologists, sociologists, demographers, and epidemiologists in the design and conduct of studies that focus on human sexual behavior. The quality of these investigations will be further immeasurably enhanced by input from people of both sexes and various ages, sexual orientations, ethnic, religious, educational, and professional backgrounds who are members of the groups to be studied.

Selection of Interviewers

Sensitivity and a genuine absence of personal bias (non-judgmentalism) are invaluable attributes when it comes to the extremely delicate matter of securing sexual histories. Indeed, "a minute change of facial expression . . . or any of a dozen and one other involuntary reactions" (Kinsey et al., 1948, p. 42) can inadvertently betray an interviewer's discomfort. The problems encountered when opinion interviewers were used to collect sexual histories as part of a survey conducted by the National Opinion Research Center (NORC) for The Kinsey Institute in 1970 (Klassen, Williams, & Levitt, in press) highlight the importance of utilizing interviewers who are highly trained, experienced, and skilled in sex research (Reinisch, 1988). After 300 pilot interviews, it was discovered that the NORC field interviewers (who were in-

experienced in collecting sexual histories) were at best uncomfortable with, and at worst opposed to, asking the sexual behavior questions. Consequently, a self-administered questionnaire was used to collect the data on sexual behavior. This unexpected revision in the protocol resulted in missing data rates as high as 47% on some questions and a loss of information that might otherwise have been of inestimable value in our current fight against AIDS. Furthermore, given that talking about sex can be sexually arousing, experienced interviewers will be better able to maintain the appropriate professional climate during the interview than would less experienced personnel. Thus, in order to capitalize on the advantages of interviews while avoiding the pitfalls of interviewer miscommunications, extensive interviewer training and experience in dealing with sexual matters is required. We recommend that all interviewing be conducted by individuals who have had a career involving the direct face-to-face collection of data on specific sexual behaviors or extensive clinical experience in this area. We also believe that interviewers should be matched as closely as possible to the sex, age, and racial background of their subjects.

Presentation of Questions

Questioning should begin with the least sensitive issues (e.g., demographic information and sexual topics for which the subject is least responsible, such as sex education) and move gradually to more explicit questions on sexual behavior; this enhances interviewer rapport with the subject prior to the introduction of potentially ego-threatening or sensitive issues (Gebhard & Johnson, 1979; Kinsey et al., 1948; Wyatt et al., 1988a, 1988b). It may also be helpful to provide subjects with a list of the topics to be covered during the interview, thereby assuring them that all questions are part of the standard protocol (J. Money, personal communication, June 3, 1988; see Money, in preparation). Although each survey must be considered individually, it is our belief that, in light of the importance of accurate behavioral data during the AIDS crisis, behavioral questions should be asked prior to those on knowledge and attitudes. It is important, however, to identify factors, such as knowledge and attitudes, that serve to maintain behavior, including the context and meaning of various sexual behaviors in the individual's life (Mays & Cochran, in press).

The prolonged period that may elapse between infection with HIV and awareness of seropositivity (e.g., see "Time Interval," 1987; Medley, Anderson, Cox, & Billard, 1987) requires that behavioral investigations cover sexual histories dating back to at least 1980, a year that marks the accelerated spread of HIV in the United States. These histories should be behaviorally specific and complete, covering all sexual activities that may serve as modes of transmission as well as the directionality of behaviors that may be either performed or received. It is only by asking explicit and detailed questions, avoiding euphemisms, and employing subculturally relevant terminology, vernacular, and, when necessary, visual aids, that the investigator can place confidence in the data obtained

(Mays & Cochran, 1987, in press). For example, anal intercourse between men in the Mestizo culture of northwestern Mexico is an accepted part of male sexuality (Carrier, 1985). In this culture, however, only the receptive male partner is considered "homosexual." Thus, if the insertive partner were asked if he had ever engaged in "homosexual" activity, it is likely that he would say no. Direct questioning of whether the subject has ever inserted his penis into another man's anus avoids these ambiguities of language.

Because sexual orientation labels may not be accurate predictors of behavioral patterns, all individuals, regardless of how they label themselves, must be asked about sexual activities with both men and women. In addition, we recommend that several specific areas of sexual behavior be addressed. First, the number of male and female partners and the precise nature and incidence of specific sexual behaviors with each partner should be ascertained. Second, subjects should be asked about their partners' sexual, medical, and drug abuse histories as well as how they know this information. Finally, as indicated by the data presented earlier on sex during visits to cities with high HIV prevalence, it may be important to ascertain the relation among American mobility, sexual behavior, and AIDS risk.

Use of Recall Data

Behavioral researchers studying AIDS must strive for accurate information about actual behavioral histories. Important differences between what actually occurred and what the respondent *thinks* occurred are reflected in two sources of error in retrospective reporting: deliberately falsified accounts and unintentional faulty recall (Spanier, 1976). Falsified accounts can be minimized by building rapport with the respondent and designing thorough data collection instruments that contain cross-checks for internal consistency. In our culture, sexual experiences are among the most salient experiences in an individual's life, and thus sex research is often spared some of the problems related to faulty recall.

Kinsey et al. (1948) were among the first researchers to give serious consideration to the problems of retrospective reporting on sexual behavior. As with other memories, they found that recent sexual events were more readily recalled than more distant experiences and that incidence data were more accurate than frequency data (Kinsey et al., 1948). Kinsey et al. (1948) outlined a number of strategies for enhancing the accuracy of data: putting the subject at ease, assuring privacy, establishing rapport, sequencing topics, recognizing the subject's mental status, recording responses *during* the interview, covering topics systematically, pursuing supplementary information, standardizing the point of the question, adapting the form of the question, avoiding bias, using direct questions, placing the burden of denial on the subject, asking about each topic separately, encouraging spontaneity through the rapid presentation of questions, cross-checking for accuracy, clarifying inconsistent responses, encouraging an honest contribution, limiting the

time of an interview session to prevent fatigue and scheduling additional appointments if needed, avoiding the use of names, avoiding irrelevant discussion of controversial social issues, and focusing on overt activities rather than attitudes. Many of the limitations inherent in research that depends on recall data to assess the development of sexual behavior and attitudes can be overcome by using these techniques or by using a longitudinal design in which recent data are collected during at least two different points in time.

Sponsoring Institutions for Investigations of Sexual Behavior

Because there is significant public sentiment that government agencies cannot be trusted with personal and potentially incriminating data (Martin, 1977; Trend, 1980), we believe that studies of sexual behavior are best conducted by universities or private institutes. For example, because sodomy is illegal in 24 states and in the District of Columbia (Freiberg, 1986), individuals may fear legal prosecution if they reveal having engaged in this activity to a representative of a government agency. The reluctance to divulge potentially incriminating information is amply illustrated by the discrepancy between two reports of risk factors associated with HIV seropositivity among military personnel. The first investigation, conducted at Walter Reed Army Medical Center, reported that 37% of seropositive male soldiers acquired HIV through sexual activity with female prostitutes (Redfield et al., 1985). However, when civilian researchers in a second evaluation studied 20 HIV-seropositive soldiers demographically similar to those at Walter Reed, the risk factors "were virtually the inverse of those obtained by military interviewers" (Potterat, Phillips, & Muth, 1987, p. 1727). Consistent with CDC findings, 70% had had homosexual contacts and 15% had abused IV drugs—two behaviors that violated military rules. Twelve of the 20 admitted these classic risk factors to the civilian physicians but told military physicians that sexual contact with female prostitutes was their source of infection.

Conclusions

Representative data on the sexual behavior of all Americans will be relevant not only to the AIDS crisis but also to other national sex-related health problems, such as the growing incidence of chlamydia and other sexually transmitted diseases and the costly multigenerational impact of epidemic teenage pregnancy. Assisting Americans in changing behaviors that put them at risk for AIDS cannot be accomplished by a simple mandate or public exhortation. Scientists, clinicians, and educators can, however, develop techniques for helping individuals manage the sexual component of their lives with care and thoughtful self-control. To achieve this goal, we must launch research and educational programs specifically focused on each portion of the U.S. population, despite their varying norms and values. This formidable task requires that scientists be allowed to ask appropriate questions and pursue sensitive topics without struggling against crippling ob-

structions imposed by those who may be well-meaning but are poorly informed. Failure to employ the language and symbols used by each of our society's ethnic, racial, social, age, regional, and sexual orientation groups will result in erroneous information and handicap effective intervention. Use of the vernacular (instead of sanitized, often incomprehensible words), explicit language, and visual aids is essential for meaningful communication with these diverse subgroups. This approach is vital to the research on sex behavior needed to develop the educational and behavior-change programs for slowing the spread of this devastating epidemic. Although untargeted portions of the population should be protected from materials they might find offensive, blanket prohibition of the use of materials appropriate to particular subgroups is simply poor science and will yield data inadequate for shaping public health policy. We can ill afford to base national policy on impoverished data given the growing magnitude of the AIDS epidemic.

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