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"An Overview of the Proposed National Health and Sex Behavior Survey"

WORKSHOP PAPER

for

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Monitoring the AIDS Epidemic in the United States: A Network Approach*

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ABSTRACT

Using a method derived from social network methodology, indirect estimates of the relative incidence of homicides and AIDS cases in population subgroups and geographic regions are obtained that are independent of the official reporting systems. Randomly selected respondents in a well defined population are asked to scan their acquaintance networks to identify all members of the network who possess a particular characteristic such as having AIDS or being a victim of a homicide. Using data from the 1988 General Social Survey (GSS), estimates of the sex, race, age, and regional breakdowns for homicides in the last year and for people with AIDS were calculated and compared with official statistics. The GSS estimates for the distribution of homicide victims replicate the official statistics quite well; but the GSS estimates of the racial and regional distribution of AIDS cases differ from the official statistics. The GSS data estimate a larger proportion of whites with AIDS and a more even distribution across the four major regions of the United States than the official statistics. Possible reasons why white middle class people with AIDS and AIDS cases in the Midwest may be undercounted in the official statistics are discussed. The systematic inclusion of network items in large, periodic national surveys would complement the monitoring of the disease through the current surveillance system.

Monitoring the spread of AIDS throughout the United States population has posed a special challenge to public health officials interested in bringing it under control. Almost from the onset of the epidemic in the early 1980s, it has been recognized that the incidence of AIDS was highly selective in its geographic and social distribution, both in this country and abroad. The challenge has been to figure out what the highly selective appearance of the disease meant for helping us understand its etiology and mechanisms of spread. Even after the HIV virus was conclusively identified in 1984 as the major culprit, great debates have persisted over the significance of the disease's highly selective appearance in various geographic sites and among certain population subgroups at high risk. What became especially important was the growing recognition that the patterning of the disease's incidence was socially organized in very different ways in the United States, Latin America, Africa, Europe, and Asia (Mann et al., 1988). Identifying the central role a handful of mechanisms play in transmitting the disease - most notably, certain methods of sexual intercourse, IV drug use, and blood transfusions, has forced attention on the ways these mechanisms are embedded in more broadly organized social processes such as mate selection and social intimacy.

In the United States, a key method for monitoring the spread of the disease has been the collation of reports of AIDS cases from local and state departments of public health by the Centers for Disease Control in Atlanta (see Curran et al., 1988). This data-gathering method has itself been subject to a bewildering variety of socially based distortions arising out of the controversial nature of the disease with respect both to its biological nature and to its socially stigmatizing meanings (Institute of

Medicine, 1986). There is reason to suspect the operation of a broad gamut of political, social, and personal incentives, at all levels of the monitoring system, local, state, and federal, to underreport AIDS cases. The recent controversies over the national and local estimates of HIV infection in the general population illustrate the point (e.g., see Lambert, 1988). The highly decentralized nature of the CDC reporting system makes it vulnerable to systematic distortions and overt manipulations by interested parties at various levels of the loosely articulated reporting hierarchy (cf. Harris, 1987; Shilts, 1987; Laumann and Knoke, 1987). To deal with some of these questions, the CDC has now developed a "family of surveys" in an attempt to monitor the levels and trends of HIV infection, a necessary task which would provide surveillance of earlier stages in the HIV disease process (cf. Dondero et al., 1988; DHHS, PHS, CDC, 1988). Such HIV infection surveillance would not replace the need to devise several independent methods for monitoring the social epidemiology of AIDS cases in order to assess the strengths and weaknesses of particular estimates and projections.

Here we report our effort to devise an independent estimate of the relative incidence of AIDS across various population subgroups and geographic locations. Its rationale rests on the social network perspective that has been developing over the past several decades as it can be applied to randomly sampled population surveys (cf. Laumann, 1966, 1973, 1979; Mitchell, 1969; Fischer et al., 1977; Fischer, 1982; Berkowtiz, 1982; Burt, 1980; Burt and Minor, 1983; Wellman, 1988). The core of the strategy is to ask an individual with a known probability of selection from a well defined population to scan his/her primary acquaintance network, defined to include all the persons he/she personally knows on the bases of ties of kinship, friendship, neighborhood, work, and more casual and incidental acquaintance, in order to identify all those who possess a particular characteristic, such as a health condition like

AIDS or being a victim of a homicide. For most people the size of such a network is fairly large (on the order of 2,000 to 6,000 persons, cf. Boissevain, 1974; Pool and Kochen, 1978; Freeman and Thompson, 1987; Barnard, Johnsen, and Killworth, 1988), but clearly finite. Unfortunately, it also is bounded imprecisely at the margins because of variations in social and personal definitions of who is included in various social relationships (cf. Laumann, 1973; Laumann, Marsden, and Prensky, 1983). Fully recognizing that different population subgroups may differ in the average sizes of their personal acquaintance networks, Bernard, Johnsen, and Killworth (1988) have recently proposed measurement efforts to determine the size of such networks for purposes of estimating hard-to-count populations (see also Sudman and Kalton's (1986) discussion of multiplicity sampling; Sirken, 1970; Frank, 1978; Sudman et al., 1988). Assuming for the moment that the lower bound estimate of 2,000 persons is the average network size in the population of adult respondents in the United States, a sample of 1,500 persons would report on about 3 million individuals (including multiple reports on the same persons). It is this extraordinarily expansive character of network sampling that accounts for its power and effectiveness in studying rare population events. While much additional attention needs to be given to measurement issues in order to achieve greater precision in population estimates, we shall see that much can be accomplished without actually knowing these numbers in detail.

There are many factors that are likely to affect selectively the ability of an individual to "know" certain facts about members of his primary network. For instance, the closer the social tie, the more information ego (the respondent) is likely to know about alter. In addition, socially stigmatizing information, such as whether one has AIDS, is likely to be a closely guarded secret so that more casual social acquaintances are unlikely to "be willingly let in" on the information. On the other hand, there is a countervailing process: network members are known to spend

much time in talking about other members of the network, thus providing multiple sources of information to ego about a particular person's health or social status and behavior. To be sure, some personal networks are very densely organized (in the sense that members are directly tied to one another rather than solely through ego), while other networks are very loosely articulated (i.e., have a low density of ties) so that information flows from multiple sources about a particular alter are greatly impeded. The basic point here is that personal networks vary greatly in size, social composition, levels of intimacy of mutual access, and density (cf. Laumann, 1973; Fischer et al., 1977; Fischer, 1982; Wellman, 1988). All of these network features are likely to affect the flow and extent of information about network members in a systematic fashion. As a first approximation, however, we shall make the assumption that, on the average, these differences in network structure across individuals are not systematically organized by the social characteristics that are of special interest to us.

Data Base

In its 1988 annual General Social Survey (GSS), a face-to-face survey of a nationwide sample of Americans, NORC asked the respondent a set of questions about his/her acquaintance with someone, living or dead, who came down with the disease called AIDS (see also Michael, Laumann, Gagnon, and Smith (1988)). We inquired about how many such persons the respondent knew, if he/she knew at least one; and for the one he/she knew best, we asked about the nature of the personal tie (lover, kin, co-worker, neighbor, patient, etc.) and the age, sex, and race or Hispanic origin of the person with the disease. We asked an identical set of questions concerning the respondent's acquaintance with the victim(s) of a (willful) homicide within the last twelve months. The intention here was to provide a triangulation on the problem by

examining the accuracy of estimates of rare population events that have been carefully enumerated and extensively studied for a long time and that are presumably subject to less systematic distortion in official reporting than is likely to be the case for AIDS. The incidence of willful homicides per year - also a socially constructed set of events - is comparable to the prevalence of AIDS in terms of its relative rarity in the population at large as well as in its demographic incidence with respect to over-representation of males of relatively younger ages drawn from minority or black racial statuses.

If we are successful in reproducing the essential features of the annual homicide incidence from our sample reports, subject to variability in estimates due to the relatively small size of the GSS sample, we are then in a better position to take seriously the estimates we can make with respect to the prevalence of AIDS. Getting a substantially larger sample with which to work would then be justified in order to obtain a more socially differentiated picture of the AIDS epidemic than is possible with the limited social data presently collected by CDC.

Supported by the National Science Foundation, the GSS is a national area probability sample of about 1,500 households; it has been conducted annually nearly every year since 1972, and is widely used in research in the social sciences.[1] Respondents are randomly selected adults age 18 and over, one from each household. In the 1988 survey, conducted between February 14 and April 28, 1988, for a total of 1,481 completed cases, the household response rate was 77.3%, well within the usual range of response rates obtained for the 15 annual surveys to date. The GSS data

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[1]The General Social Survey is directed by principal investigators James A. Davis and Tom W. Smith and conducted by NORC. The survey is funded by the National Science Foundation; the 1988 questions pertaining to sexual behavior and acquaintance with AIDS and homicide victims were funded by NORC. The 1988 GSS is available from the Roper Center for Public Opinion Research, P. O. Box 440, Storrs, Connecticut 06268 (203/486-4440).

compare quite closely with decennial census data and CPS data on the demographic and economic characteristics of the U. S. population (Smith and Fujimoto, 1986).

Insert Table 1 about here.

Before looking at the results of the comparison of the GSS data and the official statistics on homicide and AIDS, we turn to a brief comparison of the characteristics of the GSS sample and the population of the United States as described in the most recent census. Table 1 presents both the marginal distributions of the 1980 census and the GSS sample as well as the detailed breakdown by three major variables: regions, whether or not persons are found within an SMSA, and race. These variables were chosen because they are known to be related to both homicide and AIDS rates. The census data are for adults (18 and older) living in households since that is the sample frame from which the GSS is drawn. The realized GSS sample matches the census quite well on the three basic variables. This is not surprising since the GSS sample as drawn is stratified on region and urbanization, however we are looking at the final GSS sample as actually interviewed and that could differ because of variable non-participation rates. In terms of race, the GSS has an oversample of blacks compared to the 1980 census, 13 versus 10 percent. This may reflect changes in the racial distribution of the United States since 1980 as well as some variation in the GSS sample. In terms of the questions we are addressing in this paper, as will be seen below, the possible "oversample" of blacks is in a conservative direction with respect to our findings.

The second part of Table 1 is a more detailed comparison. Overall, the discrepancies between the final GSS sample and the census are not great although they are much larger than the overall differences. The measure of urbanization, within

versus outside an SMSA, matches quite well. The biggest difference is for the Midwest and it is only three percent; 74% of the GSS sample is within an SMSA whereas the census figure is 71%. Within region and type of place there are discrepancies, some of which appear quite large. For example, the GSS within SMSA group in the Northeast is 23% black whereas the census only counted 10%. The GSS also has a larger proportion of blacks in SMSAs in the Midwest (16% versus 11%). On the other hand the GSS interviewed fewer blacks in the South. Again, these differences, while larger than the overall differences and probably due to a combination of factors, are in a conservative direction vis-a-vis our results.

The Results

Table 2 presents homicide data from official statistical sources and GSS 1988.

Insert Table 2 about here.

Unfortunately, there are substantial delays in the publication of the Uniform Crime Report (UCR), prepared by the Federal Bureau of Investigation from local police department and state reporting programs that voluntarily pass on homicide (and other crime) data, and the Vital Statistics of the United States, compiled by the National Center for Health Statistics from reports of coroners and medical examiners, who forward death certificates to the Center's Division of Vital Statistics. We thus had to use the latest year, 1986 or 1985, for which data were published; and this means there is a two to three year discrepancy in the reference year to the GSS 1988 report that refers primarily to the respondents' experiences in 1987. Happily the percentages we are interested in comparing are remarkably stable over time. Despite

the somewhat different definitions of homicide used by the two reporting organizations and substantial differences in the constituent organizations doing the reporting (police departments versus coroner offices), the two sets of official data are quite consistent.[2]

Slightly over ten percent of the GSS sample claimed to know one or more homicide victims within the last twelve months, resulting in 255 characterizations of victims. It is these respondents' descriptions of the victims that we use to estimate the relative incidence by sex, race, age and geographic location.[3] With respect to the last attribute, we assigned the victim to the respondent's geographic location. In the case of sex and region we get good approximations to the official statistics. Not only does the GSS estimate a comparable over-representation of males as victims of homicide but it reproduces the well-known over-representation of homicide victims in the South and under-representation in the East (in particular, New England). Where GSS estimates appear to go somewhat awry (assuming the official statistics are correct) is in regard to race. The GSS underestimates the proportion black (37 versus 44 or 42).

Table 3 presents the comparison between the CDC official statistics on the

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[2]There is an extensive literature debating the validity and accuracy of the official statistics on homicide and other criminal behavior, although most researchers agree that homicide is the most reliably reported of the FBI's index of seven serious crimes (cf. Sutherland and Cressey, 1978; Nettler, 1978; Gove et al., 1985).

[3]One hundred and fifty-six respondents know one or more victims of homicide in the last twelve months (59 of these know two or more). These 156 respondents were then asked to describe the victim whom they knew best. Since we are trying to characterize all the victims of homicide (and, below, people with AIDS) known to respondents and not just the first victim mentioned, we report the total numbers of victims known in certain categories. In light of the very high correspondence between race and ethnicity of the first victim and the respondent (e.g., 95% of white respondents mentioned a white victim and 98 percent of black respondents mentioned a black victim), we assigned the respondent's race and ethnicity to the second and higher-order victims. We thought it was less reasonable to infer the age and sex of multiple victims from the respondent's attributes.

Insert Table 3 about here.

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cumulative total of AIDS cases since the onset of the epidemic in 1980 and the estimates derived from the GSS 1988 sample respondents. Again, as in the case of respondents knowing murder victims, about 10 percent of the sample claimed to know one or more persons with AIDS. The GSS 1988 survey nicely reproduces the exceptionally strong bias in male cases of the disease, and the age distribution also seems reasonably well reproduced by the GSS. But it is in the two other comparisons with respect to race and region that there are sharp departures that raise some serious questions about the monitoring of the prevalence of AIDS cases. First, with respect to race, the GSS suggests that the white proportion is substantially higher than that projected from the CDC reports. Even when we adjust the count by assigning multiple victims reported to the race of the respondent as we did in the homicide case, the estimates are not closer to the CDC estimate. In fact, they are less close.[4]

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[4]There are a number of surveys that have asked whether respondents know someone with AIDS. One such study was a random digit dial telephone survey done in Chicago from April to July of 1987 (see Ostrow et al., 1988). Respondents were asked: "have you personally ever known anyone diagnosed as having AIDS or as being infected with the AIDS virus?" Those who answered "yes" were asked if they knew one person or more than one person, but not how many people they knew. We can compare the results from this survey to the official reports on AIDS cases collected by the Chicago Department of Health. The result is strikingly similar to the national comparison even though the data are much less detailed. Since respondents were not asked to describe the characteristics of the people they knew with AIDS as they were in the GSS, we have been forced to infer their race from the respondents' race (see footnote 3). People who said they knew more than one person with AIDS were counted as knowing two people. The results are displayed below. The race tabulation shows the same pattern as we found before; the survey data indicate a higher percentage of white cases than the official statistics (approximately 68% vs. 58%) and a lower percentage of black cases (18% vs. 33% in the official statistics).

Race	CDC Weekly Report June 30, 1987 Percent	Chicago Phone Weighted Percent	Chicago Phone Percent

Table 4 presents a comparison of several indicators of the socio-economic status

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Insert Table 4 about here.

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of the respondents and the likelihood of their knowing a homicide victim or a person with AIDS. There are strongly contrasting trends in the data. In the case of knowing homicide victims, all three socio-economic indicators suggest that lower status respondents are more likely to know a victim than higher status respondents are - a result consistent with what we know about homicide victimization generally (cf. Wolfgang, 1958; Braucht et al., 1980; Nettler, 1982). A reversal of the relationship is observed with respect to knowing persons with AIDS: higher status respondents are more likely to know persons with AIDS than are lower status respondents. In fact, for respondents with a postgraduate education (N = 123), 22.8% know a person with AIDS while only 6.5 percent report that they know a murder victim.[5]

How could we explain the apparent undercount of white middle class people with

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White	58	68	67
Black	33	18	18
Hispanic	9	8	9
Other	1	7	6
Total	100	100	100
N	(762)	(137)	(89)

[5]Of course, the indicators of socioeconomic status, occupational prestige, subjective class identification, and educational attainment, are moderately intercorrelated (pairwise gamma, .47, .52, and .37, respectively); it is thus no surprise that the patterns are consistent across indicators. It is nevertheless the case that each indicator taps a distinctive aspect of a person's social standing that affords a somewhat different view of the social mechanisms that might be implicated in an individual's being acquainted with a homicide victim or a person with AIDS. Note in particular how sharply the pattern is defined by levels of educational attainment, which is regarded as the best proxy indicator of style of life differences in the population (Hodge, 1970).

AIDS by the CDC, if this is indeed the more valid characterization of the social epidemiology of the disease? We would point to the fact that the CDC data rely on two reporting pathways differentiated by race and class. Middle class white persons with AIDS are often diagnosed by private physicians (who are then expected to report these cases to the local health department), while poorer people are more often diagnosed in their contacts with public health agencies (hospitals, prenatal clinics, STD clinics, prisons). These lower status groups are thus likely to be under a stronger monitoring or surveillance regime that is likely to register the incidence of socially disapproved diseases, regardless of the patients' preferences in the matter. Given the highly stigmatizing nature of a disease like AIDS, it is not at all surprising that its victims, when they have the financial wherewithal to do so - and persons of higher socio-economic status do - avoid the public health system and turn to the private health care system that can give them, among other things, the privacy and discreet handling of the affliction that they seek. The result is that the CDC monitoring system may seriously underestimate the extent of the disease in the upper reaches of the socio-economic status ladder.

Finally, we can turn to the question of whether there has been systematic geographic undercounting of AIDS cases. Referring again to Table 3, we observe in the CDC figures on the regional distribution of AIDS that it is a "coastal phenomenon" with the East and West coasts having elevated proportions (when compared to their population bases, see Table 1) and the Midwest having a noticeably low percentage. The GSS 1988 data suggest, however, a quite different geographic distribution in which the Midwest has almost its proportionate share of cases and the East has substantially less proportionately than the CDC figures imply. (Recall how well our procedure reproduced the geographic distribution of homicide victims.)

Much has been made of the role of the homosexual communities, notably in San

Francisco and along the West Coast and in New York City, in the initial spread of the disease. The gay communities on each coast are communities of migrants fed from all parts of the country. One might then argue that the low proportions in the Midwest arose because its high-risk population had moved to either coast in order to find a more congenial social environment. Their friends and acquaintances left back home (in the Midwest, for example) might report them as part of their networks - thus the higher reportage by the GSS respondents in the Midwest that they knew persons with AIDS. While we cannot directly test this hypothesis, we can see in Table 5 that Midwestern respondents do not differ

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Insert Table 5 about here.

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appreciably from the other three regions in their descriptions of the nature of their social ties with persons with AIDS. Indeed, more than half of the reported AIDS cases in the Midwest are friends, co-workers, or neighbors of the respondents - all relationships that are very likely to be geographically localized around the reporting respondent.

One suspects the more plausible explanation is to look for systematic underreporting. It is puzzling how a major metropolitan center like Chicago, the traffic hub of the nation with the full portfolio of urban problems, including those associated with drugs, should be so far out of line with the other major metropolitan areas in its AIDS case load. At the present time the Chicago metropolitan area accounts for 31 percent of the Midwest's modest case count. It is clearly the major factor in setting the AIDS case level for the region. Detroit, sixth in metropolitan size, is not included in the top twenty SMSA's in AIDS cases; and Michigan, the eighth most populous state, has somewhat fewer cases (643) than Colorado (661), which has

only 36 percent of Michigan's population. Colorado is, however, one of the handful of states with a mandatory requirement to report AIDS cases. The point here is that variations in local reporting requirements and procedures and general responsiveness of the health care system to the disease may produce a highly misleading picture of the national dimensions of the epidemic.

Concluding Remarks

Assuming, for purposes of discussion, that the findings from the GSS survey correctly delineate the relative social and geographic distribution of AIDS cases, we would conclude that the data provided to the CDC currently underestimate by a substantial margin the prevalence of AIDS in the white population of higher socioeconomic status, overstate the relative prevalence of the disease in the black population (though it is still disproportionate to their numbers in the population), underestimate the prevalence of the disease in the Midwest and overstate it for the East. There are a number of possible substantive explanations for these results. With respect to social and regional distribution, we might speculate that the threshold for the identification and reporting of the disease by the official surveillance system is relatively high when it is rare in the population and much lower when the disease is more prevalent. In the latter case, medical alertness to the disease and simple bureaucratic routines for reporting it are likely to be in place. When the disease is rare, medical personnel and local health departments do not expect to encounter the disease and are reluctant to identify local individuals with it because of its stigmatizing character. This would also support the underreporting of white cases. If one adds the possibility of a more pervasive political reluctance to report large numbers of cases from certain metropolitan areas for fear of their adverse impact on their attractiveness as convention and tourist

centers, it is not difficult to imagine the variety of organizational devices that could be designed to slow down or make difficult or unlikely the classification of AIDS cases as such. The elevated proportion of white cases suggests the possibility that there may be hidden heterosexual or bisexual transmission among populations outside the major urban centers where the disease is currently believed to be concentrated.

Clearly there are a number of methodological issues that impose qualifications on the GSS findings. First is simply the matter of sample size. In further studies of this kind, we should seek samples of sufficient size to permit close inspection of the distribution of cases across geographic regions and to facilitate multivariate analysis. Secondly, we need to know more details about the attributes of persons identified with AIDS. For instance, we could have avoided the need for inferring the geographic location of the person with AIDS if we had simply asked about their current geographic location. In addition, we need to ask respondents whether they know other persons who are members of groups in which there is a high prevalence of AIDS (e.g., gay men, bisexual men, IV drug users, and hemophiliacs). Finally we need more methodologically oriented network studies that would permit us to estimate the size of personal acquaintance networks, knowledge of particular attributes of alters, effects of network density on accuracy of report, and so forth.

To maximize the utility of this approach, we suggest that network items be routinely included in large-scale national periodic surveys as well as in more intermittent studies of local populations. In the former case, such a design would yield data over time that would complement the monitoring of the disease based on the health care system. Moreover, it might help us to identify more quickly changes in the incidence of the disease in particular population subgroups. Local studies offer the opportunity to link network-based data to a more detailed assessment of the local

surveillance system. More generally, we contend that without an accurate view of the social epidemiology of the disease, public health measures are likely to be misdirected in audience, geography, and timing.

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Table 1: Comparison of Breakdown of Household Population 18 and Older from 1980 Census and 1988 General Social Survey Sample by Region, Inside vs. Outside SMSA and Race. (Total N from Census is 157,316,105; from GSS is 1,481)

Marginal Distributions

Region	Census	GSS
Northeast	22%	20%
Midwest	26%	27%
South	33%	34%
West	19%	19%

SMSA	Census	GSS
Inside	75%	76%
Outside	25%	24%

Race	Census	GSS
White	85%	83%
Black	10%	13%
Other	5%	4%

Within Category Comparison

Northeast

	Within an SMSA		Outside an SMSA	
	Census	GSS	Census	GSS
White	86%	75%	98%	98%
Black	10%	23%	1%	0%
Other	4%	2%	1%	2%
N	29,726,921	248	5,085,837	41
	85%	86%	15%	14%

Midwest

	Within an SMSA		Outside an SMSA	
	Census	GSS	Census	GSS
White	87%	81%	98%	100%
Black	11%	16%	0%	0%
Other	2%	4%	1%	0%
N	28,820,233	303	11,690,270	104
	71%	74%	29%	26%

South

	Within an SMSA		Outside an SMSA	
	Census	GSS	Census	GSS
White	80%	87%	82%	77%
Black	17%	11%	16%	13%
Other	3%	2%	2%	10%
N	34,939,243	340	16,964,150	164
	67%	67%	33%	33%

West

	Within an SMSA		Outside an SMSA	
	Census	GSS	Census	GSS
White	82%	86%	89%	75%
Black	6%	9%	1%	0%
Other	13%	4%	11%	25%
N	25,012,568	229	5,076,883	52
	83%	81%	17%	19%

1980 Census Data from Table 57: Household and Family Characteristics by Race by Race and Spanish Origin for Regions. From 1980 Census of Population, General Population Characteristics, Part 1, United State Summary. US Department of Commerce, May 1983, Pp. 96-111.

Table 5. Respondent's relationship to closest AIDS victim by region of interview: Percent distributions

Type of Social Relationship to Victim	Geographic Region				
	Northeast	Midwest	South	West	Total
Kin	*10*	*3*	*7*	*0*	*5*
Friend	*27*	*32*	*21*	*33*	*29*
Co-worker/neighbor	*31*	*23*	*17*	*18*	*22*
Acquaintance	*33*	*43*	*55*	*50*	*45*
	101	*101*	*100*	*101*	*101*
N	*30*	*31*	*29*	*40*	*130*

Table 4: The likelihoods of knowing a homicide or an AIDS victim and the respondent's socio-economic status

Indicators of Socio-economic Status	Percentage knowing a homicide victim	Percentage knowing an AIDS victim
Occupational Prestige		
Low	*12*	*7*
High	*8*	*13*
Subjective Class Identification		
Working Class	*15*	*8*
Middle Class	*6*	*11*
Educational Attainment		
Some High School	*12*	*4*[1]
High School Graduate	*10*	*6*
Some College or More	*10*	*15*

[1]This distribution receives independent confirmation from data collected by the National Center for Health Statistics in their National Health Interview Survey supplement on AIDS knowledge and attitudes in June 1988 N = 4,048 (Dawson 1988). The educational distribution for people who personally knew "anyone with AIDS or the AIDS virus" was 4% with less than 12 years, 6% with 12 years, and 16% with more than 12 years of education. (The corresponding figures for May 1988 were 6%, 7%, and 14%; N = 3,205).

"How old (is/was) that person? (Is/Was) (he/she) 10 years or under, 11-20, 21-40, or 41 years or older?
"What (is/was) that person's race? (Is/Was) it black, white, hispanic, or other?"

2. The CDC categories are White, not Hispanic; Black, not Hispanic; Hispanic; and Other/Unknown (Other includes Asian/Pacific Islander and American Indian/Alaskan Native).

3. The "weighted" data for the GSS 1988 were calculated from a crosstabulation of the total number of people with AIDS known to respondent, the race/ethnicity of the closest victim, respondent's race, and whether respondent is Hispanic or not (primary national origin of Mexican, Puerto Rican, or other Spanish). For respondents who knew more than one person, those beyond the one closest to the respondent (whose race/ethnicity was identified by the respondent) were assigned to the respondent's racial/ethnic category.

4. Age distribution for data from CDC is actually: Less than 13, 13-19, 20-39, and 40 and above.

5. Region data comes from the CDC report of May 16, 1988. The Other category which accounts for about 2% of the total cases is made up of Puerto Rico, the Virgin Islands, Guam, and the Trust Territory.

Table 3: AIDS Data from Official Statistics & GSS 1988

	CDC Weekly Report March 7, 1988		GSS 1988 weighted		GSS 1988[1]	
	N	% Dist'n	N	% Dist'n	N	% Dist'n
Sex						
Male	50,647	92			126	95
Female	4,520	8			5	4
Unknown	0	0			2	2
Total	55,167	100			133	100
Race[2]						
White	32,999	60	169[3]	72	93	70
Black	14,089	26	43	18	24	18
Hispanic	7,575	14	14	6	11	8
Other	504	1	9	4	3	2
Unknown	0	0			2	2
Total	55,167	100	235	100	133	100
Age[4]						
10 or less	886	2			0	0
11-20	234	0			5	4
21-40	36,990	67			96	72
41 or older	17,075	31			30	23
Unknown	0	0			2	2
Total	55,167	100			133	100
Region[5]						
East	23,947	39	44	18	30	23
Midwest	4,868	8	47	19	31	23
South	15,782	26	58	24	39	29
West	16,575	27	93	38	33	25
Total	61,172	100	242	100	133	100
Other	1,028					
Total	62,200					

1. Information on sex, race, ethnic origin, and age in the GSS 1988 is based on the characteristics of the person with AIDS closest to the respondent. Region is based on region where <u>respondent</u> is currently living. The actual questions used are as follows:
"How many people have you known personally, either living or dead, who came down with the disease called AIDS?
[If one or more,] "Think about the person you have known best, living or dead, who came down with AIDS. Please tell me the letter of the category on the card which best describes your realtionship to that person.
"We would like to know a few other things about that person. Is that person currently living, or has that person died?
"(Is/Was) that person male or female?

additional victims beyond the one closest to the respondent (whose race/ethnicity was identified by the respondent) were assigned to the respondent's racial category.

3. Information on sex, race, ethnic origin, and age in from the GSS 1988 is based on the characteristics of the closest murder victim known to the respondent. Race and ethnic origin for the GSS data come from a single variable with 4 categories: black, white, Hispanic, or other. Region is based on region where respondent is currently living. The actual questions used are as follows:
"Within the past 12 months, how many people have you personally known that were victims of homicide?
[If one or more,] "Think about the person you knew best who was a victim of homicide. Please tell me the letter of the category on the card which best describes your realtionship to that person.
"We would like to know a few other things about that person. Was that person male or female?
"How old was that person? Was (he/she) 10 years or under, 11-20, 21-40, or 41 years or older?
"What was that person's race? Was it black, white, hispanic, or other?"

4. Since both the UCR and Vital Statistics code race and ethnic origin separately, we reassigned homicide victims identified as Hispanic in the GSS to one of the three racial categories by looking at both how the victim was identified, respondent's race, and respondent's national origin (coded into Hispanic -- Mexican, Puerto Rican, and other Spanish -- vs. other). Thus, the white category includes 81 victims identified as white, and 18 who were identified as Hispanic. (Eleven of the 18 Hispanic victims were identified by white respondents, 7 were identified by respondents whose race was "other".)

5. The "weighted" data on ethnic origin are derived from a crosstabulation of the number of homicide victims, the race of the closest victim, respondent's race, and whether or not respondent was of Hispanic origin. As above, all additional victims beyond the one closest to the respondent were assigned to the respondent's ethnicity. This method may be conservative given the way GSS collects information on race and national origin.

   Race in the GSS is assigned by the interviewer from their own observation. If they are not sure they ask the respondent, record the response verbatim, and code it. This produces a relatively large "other" category that is quite heterogeneous. According to the General Social Surveys, 1972-1987 Cumulative Codebook, some of the more frequent responses in the other category are: American Indian, Asian, Chinese, Filipino, Hispanic, Japanese, Mexican, Oriental, Puerto Rican (Davis & Smith, 1987:47).

6. Age distribution for data from UCR is actually: Less than 10, 10-19, 20-39, and 40 and above.

7. This total, 20,613, is different than the number in the sex, race, ethnic origin, and age breakdowns. It is considered the correct total number. The more specific information is only available on a smaller number of cases.

Table 2: Homicide Data from Official Statistics & GSS 1988

	UCR 1986		Vital Stats 1985[1]		GSS 1988[2] weighted		GSS 1988[3] unweighted	
	N	% Dist'n	N	% Dist'n	N	% Dist'n	N	% Dist'n
Sex								
Male	14,455	75	15,066	76			121	78
Female	4,774	25	4,827	24			31	20
Unknown	28	0		0			4	3
Total	19,257	100	19,893	100			156	100
Race								
White	10,199	53	11,163	56	149	58	99[4]	63
Black	8,509	44	8,282	42	95	37	48	31
Other	452	2	448	2	11	4	7	4
Unknown	97	1		0			2	1
Total	19,257	100	19,893	100	255	100	156	100
Ethnic Origin								
Hispanic	2,841	15			27[5]	11	18	12
Non-Hisp	12,868	67			228	89	136	87
Unknown	3,548	18					2	1
Total	19,257	100			255	100	156	100
Age[6]								
10 or less	768	4	715	4			2	1
11-20	1,716	9	1,852	9			26	17
21-40	11,169	58	11,466	58			90	58
41 or older	5,150	27	5,797	29			35	22
Unknown	454	2	63	0			3	2
Total	19,257	100	19,893	100			156	100
Region								
East	3,412	17	3,128	16	41	16	25	16
Midwest	3,941	19	3,873	19	70	28	41	26
South	8,760	42	8,778	44	79	31	64	41
West	4,500	22	4,202	21	65	26	26	17
Total	20,613[7]	100	19,981	100	255	100	156	100

Official statistics are Uniform Crime Reports (UCR) 1986 and Vital Statistics 1985. GSS 1988 is the 1988 General Social Survey (GSS).

1. The data in column 2 from the Vital Statistics is for "Homicide & legal intervention" for the United States 1985.

2. The "weighted" data for the GSS 1988 were calculated from a crosstabulation of the total number of victims of homicide known to respondent, the race of the closest victim, and respondent's race. For respondents who knew more than one victim, the