AIDS KNOWLEDGE AND THE EFFECTIVENESS OF AIDS PREVENTION INTERVENTIONS IN MINORITY COMMUNITIES

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Project Officer: Georgia Buggs

Submitted To:

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Reference: Requisition Number 90AF787689
Deliverable Number 1
Draft Of Report To Congress

Dear Ms. Buggs:

I am very pleased to be providing you with 10 copies of a draft report to Congress entitled *AIDS Knowledge And The Effectiveness Of AIDS Prevention Interventions In Minority Communities*. The report represents a synthesis and consolidation of two prior reports on AIDS in minority communities that were prepared by Birch & Davis Associates, Inc., and by Macro Systems, Inc.

We have endeavored to prepare a high quality product in a relatively short amount of time. There will, no doubt, be some need for improvement and refinement. Our team has left this Friday relatively uncommitted so that we may meet with you to discuss any potential changes that you desire. It is imperative that we receive your comments by Friday so that we may achieve our May 10 deadline.

I hope that you are satisfied with our effort thus far and look forward to talking with you soon.

Sincerely,

BIRCH & DAVIS ASSOCIATES, INC.

Stephanie E. Karsten
Principal

Enclosures

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

This document represents the congressionally mandated report requested under Section 251 of the HOPE Act of 1988. The Act requested a study on the following topics:

- The level of knowledge within minority communities concerning acquired immune deficiency syndrome (AIDS), the risks of transmission of the etiologic agent for such syndrome, and the means of reducing such risk
- The effectiveness of Federal, State, and local prevention programs with respect to acquired immune deficiency syndrome in minority communities

The results of the study were to be presented as a report to the Congress no later than 12 months after the date of enactment of the HOPE Act.

1. SEPARATE STUDIES WERE UNDERTAKEN TO ADDRESS EACH OF THE CONGRESSIONAL TOPICS

Given the different focus of the two HOPE study topics and the need for a quick response, each was treated as a separate study.

A careful assessment of Federal and State AIDS initiatives and of the available literature to support the congressional study caused the reformulation of the study purposes by the PHS. The issue of AIDS in minority populations has only come to the forefront in the last three to four years. Most AIDS prevention projects have been funded since Fiscal Year 1987. As a consequence, a number of impediments prevented the attainment of the broader congressional requirements:

- There was limited literature from which to ascertain the knowledge of AIDS in minority communities.
- The newness of minority-targeted AIDS prevention efforts meant that limited data are as yet available from which to base an evaluation of effective Federal, State, and local AIDS prevention efforts.
- State and local cooperative agreements are not required to report and do not yield much data on specific supported projects.
- A short timeframe was available for completion of data collection and analytical activities (only one year from enactment of the HOPE Amendments).

Study objectives were reformulated to reflect these realities. New, more feasible study objectives were created as follows:

- Provide an analysis of minority groups' knowledge of AIDS and HIV infection.
- Provide an analysis of current evaluation plans for AIDS prevention programs for minorities and what we are likely to learn about the effectiveness of such programs as these evaluations are completed.

Two studies were funded in the summer of 1989, each of six months' duration. The study pertinent to AIDS knowledge was undertaken by Birch & Davis Associates, Inc., and the analysis of current evaluation plans was undertaken by the Macro Corporation.

The analysis of AIDS knowledge in minority communities focused on three information sources: (1) the published literature, (2) PHS grants and contracts files, and (3) data extracted from the 1987 and 1988 National Health Interview Survey (NHIS) AIDS Supplements. Since the behavioral science literature rarely treats knowledge in isolation, the study combined knowledge with attitudes, behaviors, and beliefs (KABB).

The analysis of AIDS project evaluation plans relied upon information from PHS grant and contract files. Faced with the daunting task of examining over 850 PHS-funded AIDS projects in nine PHS agencies/divisions, the scope was further refined to include only those programs which met minimum criteria for funding, longevity, prevention priorities, and minority focus. Ninety PHS-funded projects were selected for in-depth examination.

2. THE LIMITED DATA THAT ARE AVAILABLE REVEAL HIGH LEVELS OF AIDS KNOWLEDGE AMONG MINORITY POPULATIONS, BUT THERE ARE RACIAL AND ETHNIC DISPARITIES

The growing problem of AIDS in the minority community has only come to national attention within the last few years. As a consequence, the research base and the range of evaluable AIDS prevention interventions are limited. Further, the lack of standarization in research methodology and in project reporting makes the accumulation and comparison of data from different sources difficult. Thus findings regarding both minority populations' knowledge about AIDS and the ability to evaluate minority-targeted AIDS prevention programs are somewhat tentative.

Review and analysis of all available data sources uncovered only limited information on issues pertinent to KABB. Review of the published literature found only 17 citations that were split between what must be learned to mount effective AIDS-related education campaigns and what minority populations know about AIDS. The eight studies that sought to assess KABB in minority populations were sufficiently unique in terms of survey methods, study populations, and instrumentation to make comparisons difficult. It is clear from the data that there is a high level of awareness of the causes, transmission, and risks of HIV. However, there is considerable confusion about whether AIDS can be contracted through (1) casual modes of transmission, such as kissing or eating food handled by an infected individual, or (2) the medical use of needles, such as during blood donation. The studies suggest that the perception of AIDS risk differs by racial/ethnic identification and that AIDS knowledge does not consistently result in the reduction of high-risk behaviors.

In terms of programmatic data on KABB, only nine PHS programs were found to target their efforts specifically to educating minority populations. Funded projects have emphasized intervention over data collection, thus there was little data reported on KABB. There were manifold reasons for this lack of reporting, including the newness of the grants and the absence of specific Federal reporting requirements.

The NHIS AIDS Supplement proved useful in elaborating upon racial and ethnic differences in AIDS knowledge. Analysis of the NHIS data confirm other research that finds high levels of knowledge about (1) the causes and consequences of AIDS and (2) the main modes of HIV transmission. There was some uncertainty about the physiological effects of AIDS on such organs as the brain and heart, and the significance of low probability modes of AIDS transmission, such as kissing.

In the area of AIDS knowledge, the data suggest that although minority populations' knowledge of major AIDS transmission modes, risk factors, and preventive behaviors is generally high, there are important racial and ethnic differences. Whites generally report the highest knowledge levels, while American Indian/Alaska Natives and Mexican-Mexicanos tend to report the lowest knowledge levels. Other racial/ethnic populations show knowledge deficits

in particular areas. Trend data for 1987 and 1988 indicate that AIDS knowledge is, for the most part, increasing. A potentially anomalous finding of reduced prevention knowledge requires further study.

The 1988 NHIS survey respondents reported low levels of fear of getting AIDS. A small but potentially alarming percentage of respondents (2.2 percent) reported a medium to high chance of actually having the AIDS virus. This percentage was especially high for Blacks (3.5 percent).

Only 64 percent of the NHIS respondents report that they believe Federal public health officials' information on AIDS. There were racial/ethnic differences in levels of belief, with American Indian/Alaska Natives expressing the lowest levels of trust.

3. THE WIDE VARIETY OF PHS-FUNDED AIDS PREVENTION PROJECTS THAT WERE STUDIED ALL PLAN SOME FORM OF EVALUATION

The Centers for Disease Control (CDC) was the major source of funding for 58 out of the 90 minority-targeted AIDS prevention efforts that were chosen for study. The projects were concentrated in geographic areas of greatest need, particularly the areas of urban concentration on the east and west coasts. Blacks and Hispanics were most often targeted for interventions, and most projects served only one or two minority communities.

Services to intravenous drug users (IVDUs) and their sexual partners were emphasized by the study projects. Brochures were the principal mode of information dissemination and may not be the best method of reaching communities that emphasize oral and/or visual communication. Projects also plan extensive use of small groups and street outreach--approaches that are likely to be effective in reaching IVDUs.

The review of grant announcements for specific evaluation requirements revealed few guidelines or conditions for evaluation. Even in the absence of specific guidelines, all of the 63 projects that were selected for detailed examination of their evaluation activities plan some form of evaluation.

The study distinguished between two major evaluation categories as follows:

- **Formative evaluation** focuses on activities associated with ongoing project operations. Evaluation is generally instituted after planning has been completed, but before wide implementation. The central evaluation issue is "what works better," and the objective of formative evaluation is to improve the project and its management.

- **Summative evaluation** considers the long-term effects of project activities. Evaluation is conducted on mature projects and assesses whether there has been any impact on appropriate performance indicators.

Given the relative newness of minority-targeted AIDS projects, most of the planned evaluations are formative. In addition, 81 percent of the projects plan to institute summative evaluation as well. Most of the projects that intend to employ summative evaluation plan some form of pre-test/post-test assessment of AIDS knowledge, attitudes, and behaviors. Many gaps were found in the collection of data that would facilitate summative evaluations, including:

- Only two projects were collecting or monitoring AIDS statistics (biological outcomes)

- Few projects planned to document certain key prevention behaviors (behavioral outcomes)

- Only three projects provide information on IV drug use and sexual abstinence (behavioral outcomes)

- Although 41 projects targeted sharing of IV works as a modifiable high-risk behavior, only 23 projects actually distributed bleach kits for cleaning needles, which may reflect impact of local ordinances against such practices (behavioral outcomes)

It is difficult to determine the prospects for establishing project effectiveness from the examination of evaluation methods alone since grants were often superficial in their description of the evaluation approach. This absence of detail and specificity also makes it difficult to determine what assistance, if any, grantees need or should be given in developing evaluation plans. A subjective assessment of the ability to measure project effectiveness found that two-thirds of the study projects were collecting sufficient information for an assessment of their effectiveness. Thirty projects were expected to be able to document the achievement of their objectives by 1990, and another 12 by 1993.

CBOs, the cornerstone of AIDS prevention programs targeted to minority populations by virtue of their sensitivity to the particular needs of their service populations, are generally oriented towards the provision of services and may not be funded for the acquisition of necessary evaluation expertise. Further, by virtue of the indirect nature of the funding mechanism, there is little information available about the evaluation capabilities of a whole category of AIDS prevention grantees--those supported by cooperative agreements with State and local health agencies.

In spite of the observed limitations, a subjective assessment of the evaluation capabilities of the study projects suggests that a meaningful number, 42 in all, are presently gathering sufficient data to permit evaluation. Of these, at least 30 could conceivably be evaluated within the next year.

4. EXPANDED PHS SUPPORT OF BOTH KABB-RELATED RESEARCH AND EVALUATION ACTIVITIES IS RECOMMENDED

The PHS is a key player in the provision of AIDS prevention initiatives among minority communities. The PHS alone, however, cannot solve problems of the magnitude posed by the present AIDS epidemic. Solutions will arise from a close partnership between the Federal, State, and local governments as well as with private organizations. In this partnership, the PHS can continue to play a lead role by furthering the understanding of the attributes of AIDS knowledge in specific minority populations and in demonstrating AIDS prevention projects that are especially effective in particular populations and settings.

Three recommendations are offered regarding the future role of the PHS with respect to AIDS prevention within the minority community:

- The PHS should use its existing base of funded projects to establish the most effective AIDS prevention strategies in minority populations.

- The PHS should mandate performance monitoring and demonstrate evaluation strategies that can be used to enhance AIDS prevention project performance in minority populations.

- The PHS should support continued efforts to enhance and refine the measurement of AIDS KABB in minority populations to determine and monitor the need for preventive services.

These general recommendations lead to a number of suggested PHS actions. Categorized in terms of program effectiveness and AIDS knowledge, these actions include:

- **Program Effectiveness**
  - Continue funding existing AIDS prevention projects in minority populations.
  - Undertake the systematic evaluation of the full range of supported AIDS prevention strategies.
  - Support the extension of current prevention strategies into new settings where feasible and appropriate.
  - Introduce a required standard method of reporting AIDS prevention project information.
  - Provide technical assistance and more concrete direction for designing and implementing evaluations.
  - Develop AIDS project evaluation prototypes for use by AIDS prevention grantees.
- **AIDS Knowledge**
  - Design and develop a standardized AIDS KABB instrument.
  - Adopt innovative strategies for reaching minority populations that impose barriers due to language, culture, poverty, drug use, or other factors.
  - Support further research on the nature of the relationship between AIDS knowledge and aids-preventive behaviors.

CHAPTER ONE

INTRODUCTION

I. INTRODUCTION

1. THE STUDY RESPONDS TO LEGISLATIVE MANDATE OF THE HEALTH OMNIBUS PROGRAMS EXTENSION (HOPE) ACT OF 1988

Section 251 of the HOPE Act requests the Secretary of Health and Human Services through the Director of the Office of Minority Health to conduct a study to determine:

- The level of knowledge within minority communities concerning acquired immune deficiency syndrome (AIDS), the risks of transmission of the etiologic agent for such syndrome, and the means of reducing such risk.
- The effectiveness of Federal, State, and local prevention programs with respect to AIDS in minority communities.

The results of the study were to be presented as a report to the Congress no later than 12 months after the date of enactment of the HOPE Act. The following represents the mandated report.

The report narrative is presented in an executive summary, three chapters, and four technical appendices. Chapter One explains the purpose of the study, discusses the important public health issues that stimulated the legislative mandate, reviews efforts by the U.S. Public Health Service (PHS) to address the epidemic of AIDS in minority communities, and reviews the research approach to achieving the congressional objectives. Chapter Two presents the major study findings with respect to AIDS knowledge. Chapter Three presents findings pertinent to program effectiveness. Chapter Four assimilates the findings into a series of conclusions and associated recommended actions for the PHS.

2. AIDS IS A SERIOUS PUBLIC HEALTH PROBLEM THAT REPRESENTS A GROWING THREAT TO MINORITY POPULATIONS

AIDS continues to grow as a major health problem both within the United States and abroad. Once felt to be confined to certain high-risk populations, such as male homosexuals and IV drug users, the disease has spread to other population groups. The following discussion considers both the health risks of AIDS in general and the special problems that it poses among minority communities.

(1) AIDS Is A Major Public Health Problem

AIDS is frequently cited as the major public health problem in the U.S. today.[1, 2] AIDS results from infection by the human immunodeficiency virus (HIV) and may remain quiescent for years before a full-blown case of AIDS develops. During this latency period, HIV may be spread to others by an unsuspecting carrier. While the HIV can be detected with sensitive antibody tests and its progression to AIDS can be slowed through drugs, AIDS still remains a fatal disease. Prevention of HIV infection through vaccination is still a long way off.[3] Prevention through education and the modification of behaviors is the best present hope to control this epidemic.

HIV is transmitted from infected persons to noninfected persons through the exchange of semen, blood, and other body fluids. This exchange occurs through intimate sexual contact, intravenous drug use, and transmission of contaminated blood or blood products. Infected mothers can transmit the virus to infants before, during, and after birth.

Several studies have described sexual practices that are most conducive to the spread of the HIV[4, 5, 6]:

- Vaginal or anal intercourse without a condom, especially receptive anal intercourse
- Unprotected oral sex
- Blood contact of any kind

Two specific behaviors spread the HIV through intravenous drug use--frequent drug injection and needle sharing.[7] Needle sharing usually occurs at so-called "shooting galleries," where injection equipment--or "house works"--is kept by a drug dealer who rents it for reuse to customers who wish to inject immediately after purchasing drugs.

By November 1989, the cumulative total of AIDS cases in the United States was nearly 112,000.[8] By the best estimates, an additional one to three million more persons are now infected with HIV, though they are not yet sick.[9] Within another two years, the cumulative number of outright cases since 1981 may near the half million mark.[10] According to the National Commission on Acquired Immune Deficiency Syndrome, the epidemic is reaching crisis proportions among the young, the poor, women, and many minority communities.[11]

(2) AIDS Affects Some Minority Populations Disproportionately

Although the majority of reported AIDS cases occur in Caucasian males (63,026 or 54 percent as of December 1989), some minority populations are affected disproportionately,* according to information from health departments of the 50 States, the District of Columbia, and U.S. territories.[12] The available evidence suggests the following:

- In reported cases of AIDS in children (under age 13 at the time of diagnosis), 77 percent are from minority communities (53 percent Black and 25 percent Hispanic).

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*Both racial and ethnic groups are typically considered to be minority populations. References to racial and ethnic minority populations tend to be inconsistent. For the purpose of consistency in this report, we refer to minority populations as specified by the Office of Federal Statistical Policy and Standards Directive Number 15, which classifies American Indian/Alaska Natives, Asian/Pacific Islanders, and Blacks as minority racial categories and Hispanic as a minority ethnic category. The Hispanic ethnic category includes both Black and White races. We have adopted this approach because the Office of Management and Budget (OMB) provides for this minimum set of reporting categories when race and ethnicity are recorded in Federal data collection efforts or for administrative record keeping. Nonetheless, we sometimes found that study data were not recorded in this fashion; in such cases we replaced the original terminology with that of the OMB classification scheme.

While following this approach to categorization enables us to report study results in a consistent fashion that is in accord with Federal policy, we do wish to go on record as noting that such categorization perpetuates the use of designations that are offensive to some members of racial and ethnic minorities. For example, some persons prefer to be called African Americans (rather than Blacks), and some persons prefer to be called Latinos (rather than Hispanics).

Our references to minority population subgroups can refer to tribal affiliation, national ancestral origin, demographic characteristics (e.g., sex), and other social groupings (e.g., IVDUs, homeless, prisoners).

- Twenty-seven percent of U.S. AIDS patients are Black, although Blacks comprise only 12 percent of the U.S. population.

- Black females make up almost 19 percent of the 32,248 Black AIDS cases, and Black females alone constitute 52 percent of the female AIDS population.

- Thirteen percent of U.S. AIDS patients are Hispanic, although Hispanics comprise only 6 percent of the U.S. population.

- Hispanic females represent 13 percent of the Hispanic AIDS population and 20 percent of the female population with AIDS.

There are differences in the prevalence of transmission modes, both between Whites and minority groups and among minority groups[13, 14]:

- **Sexual Transmission**--In general, minority populations are less likely than Whites to be exposed to HIV through homosexual or bisexual contact, although this remains a major transmission mode for most minority populations. While 77 percent of Whites reported exposure through male homosexual or bisexual contacts, only in Asian/Pacific Islanders (with a reported 74 percent) is this transmission mode of similar frequency. For Blacks (37 percent), Hispanics (41 percent), and American Indian/Alaska Natives (51 percent), homosexual and bisexual male transmission is not as predominant a mode of transmission.

- **Intravenous Drug Use**--Intravenous drug use is a major transmission mode for Black and Hispanic populations. Overall, intravenous drug use is reportedly associated with 39 percent of cases among Blacks and 40 percent of cases among Hispanics, compared with 7 percent for Whites, 4 percent for Asian/Pacific Islanders, and 17 percent for American Indian/Alaska Natives. Among men, Blacks (35 percent) and Hispanics (38 percent) reported intravenous drug use as a more common transmission mode than Whites (6 percent), Asian/Pacific Islanders (2 percent), and American Indian/Alaska Natives (9 percent).[15]

  For Black and Hispanic women and children, intravenous drug use is the predominant mode of transmission either directly through needles, or indirectly through sex with infected drug-using partners or through an infected mother. Seventy-four percent of Black women with AIDS and 80 percent of Hispanic women with AIDS were intravenous drug users (IVDUs) or the sex partners of male IVDUs. Sixty-two percent of Black children with AIDS and 72 percent of Hispanic children with AIDS are the offspring of men and women who report IV drug use as the mode of transmission.

Cultural norms and values sometimes play a role in promoting risky sexual behaviors. For example, the traditional Hispanic culture places responsibility for the use of any form of contraception with the husband or male partner.[16] Among Hispanic women, traditional norms of modesty and sexual inexperience are said to make it difficult for them to ask their male sexual partners to use condoms.[17] Researchers say that Black women often do not insist on the use of a condom because they fear losing their sexual partners.[18] According to these sources, the imbalance of single adult Black males to single adult Black females exacerbates this problem.[19]

Needle sharing reportedly is widespread among minority populations.[20] CDC data for November 1989 implicate needle sharing as the mode of transmission for 43 percent of the cases in Black men, 45 percent of those in Hispanic men, 58 percent of those in Black women, and 53 percent of those in Hispanic women.[21] The same data implicate needle-sharing in 41 percent of White women and only 14 percent of White men. A primary reason

for the high prevalence of needle sharing as a mode of transmission for Blacks and Hispanics is said to be low economic status. Purchasing sterile needles and syringes from the illicit market is more expensive than purchasing them from pharmacists, but pharmacists sometimes refuse to sell to suspected IVDUs.[22] Another reported reason for needle sharing is the intravenous drug use culture's norm that sharing injection equipment is an expression of social bonding, especially between close friends and sexual partners.[23]

(3) Knowledge, Attitudes, Beliefs, And Behaviors Play A Role In AIDS Prevention

Three public health strategies are available for the control of AIDS [24]:

- Eliminate or control the causative agent.
- Strengthen population resistance to the causative agent.
- Prevent transmission of the causative agent to the host.

For AIDS, the first two of these approaches have, thus far, eluded science. Prevention through education and the modification of high-risk behaviors is the only potentially effective mechanism that is presently available to control this deadly disease.

To prevent HIV infection, more must be known about the interplay and dynamics of knowledge, attitudes, beliefs, and behaviors (KABB). Knowledge of AIDS and HIV transmission, prevention, risk reduction, and at-risk populations is critical for the development of AIDS risk reduction and prevention programs.[25] People's perceptions of their personal risk for HIV infection and AIDS may be affected strongly by what they know about treatment, services, and peers or others in the community who have HIV infection or AIDS.[26]

Gathering information on KABB should be an important part of the needs assessment that precedes the implementation of public health education interventions. Indeed, the absence of this information can be an impediment to the design of risk-reduction activities.[27] Personal attitudes and beliefs may represent as significant a barrier to behavior change as health knowledge. Cultural norms and values (such as vocabulary, language, and customs) must be considered in assessing knowledge, attitudes, beliefs, and behaviors and designing effective education campaigns.

3. THE U.S. PUBLIC HEALTH SERVICE LEADS FEDERAL EFFORTS TO CONTROL THE AIDS EPIDEMIC

The U.S. Public Health Service (PHS) is the principal health organization of the Federal Government charged with the control and prevention of disease. As such, it remains in the forefront of initiatives to combat the spread of AIDS through clinical research and disease prevention. In Fiscal Year 1989, the PHS spent over $1.2 billion on AIDS-related activities. For Fiscal Year 1990, this spending is likely to rise to $1.6 billion. The National Institutes of Health (NIH) is the focus for clinical research, receiving 47 percent of the Fiscal Year 1989 HIV budget. The remaining funding support went to the following PHS entities that are involved, to some degree, in disease prevention activities:

- Office of the Assistant Secretary for Health (OASH)
- Centers for Disease Control (CDC)
- Food and Drug Administration (FDA)
- Health Resources And Services Administration (HRSA)
- Indian Health Service (IHS)
- Alcohol, Drug Abuse, And Mental Health Administration (ADAMHA)

AIDS-related grants and cooperative agreement programs are administered in OASH by the National Center for Health Services Research and Health Care Technology Assessment, the Office of Disease Prevention and Health Promotion, the Office of Minority Health, the Office of Population Affairs, the Office of Resource Management, and the President's Council on Physical Fitness and Sports. The National AIDS Program Office (NAPO) serves as the PHS focus in coordinating and integrating efforts to prevent and control AIDS and HIV infection.

The CDC is the lead agency of the PHS responsible for disease prevention. The CDC conducts ongoing surveillance, laboratory and epidemiologic investigations; funds and provides technical assistance on prevention and risk-reduction efforts through State, local, and community organizations; devises and funds efforts to prevent HIV infection and AIDS, provides laboratory training and support services; and supports school health education programs. In Fiscal Year 1989, the CDC spent $382 million on HIV prevention. Approximately $47 million of these funds were specifically targeted to minority populations.

4. PHS EFFORTS TO ADDRESS AIDS IN MINORITY POPULATIONS MUST TACKLE PROBLEMS NOT ENDEMIC TO AIDS ALONE

Problems of ill health and neglect are not new to minority communities and are, in part, a consequence of longstanding inadequacies in disease prevention and health care delivery. The PHS AIDS program has a unique opportunity to build a health-related infrastructure and capacity that can yield benefits that extend beyond the present epidemic.

PHS minority-targeted AIDS prevention initiatives are of relatively recent vintage. Most projects have been funded since 1987 and, thus, tend to be in a formative stage of development. Minority-targeted AIDS programs have a broad mandate to provide innovative approaches to the prevention of HIV infection through the direct involvement of minority communities. For Office of Minority Health grantees, this mandate also subsumes expansion of the range of minority community-based and national organizations involved in HIV education and prevention.

"Local empowerment" has been an important element of AIDS prevention activities. The CDC, for example, works in close cooperation with State and local governments. In terms of its Fiscal Year 1989 budget, the CDC directed $212 million--66 percent of its total HIV extramural funding--to State and local health agencies, while an additional $10 million was devoted to the direct funding of minority organizations and community-based organizations (CBOs). These initiatives were intended to stimulate prevention initiatives on the front lines, from storefront startups to the neighborhood churches, a strong focal point in many minority communities. The assumption was that grassroots organizations within the minority community would be effective vehicles for increasing minority community awareness of AIDS. Once these communities were better educated about AIDS in general, specific risk behaviors could then be targeted.

One hindrance in AIDS-related education in minority populations has been the Government's concern about stigmatizing a group by addressing the high prevalence of AIDS within that group. When, for example, CDC noted and made public a higher prevalence of AIDS among Haitians, media attention led to stigmatization of that group. At the "Prevention and Beyond" conference that was held in the Fall of 1989, Ms. Collette Jacques, founder and executive director for the Support Organization AIDS Prevention (SOAP), noted the sentiment that the Haitian population resented being singled out as a high-risk group, for being Haitian does not denote any specific risk behavior. It is now believed that future education efforts will be better served by focusing on those behaviors that place an individual at risk of contracting AIDS, rather than singling out populations for special concern, PHS efforts to educate ethnic minorities face the additional challenge of existing attitudinal barriers. Public health messages about AIDS are not always believed by racial and ethnic communities. There is a prevailing view in some Black communities, for example, that AIDS is a form of genocide, an attempt

by White society to eliminate the Black race. A study by Thomas, Gilliam, and Iwrey[28] found that more than one-third of a sample of Black college students believed that HIV was produced in a germ warfare laboratory.

AIDS prevention and education activities need to be sensitive to cultural factors and be appropriate to the information transmission patterns prevalent in a community. They must also alleviate the stigmatization associated with race/ethnicity and HIV. These ends are best met when responsibility for program design and delivery remains in community-based organizations.

5. TWO SEPARATE STUDIES WERE FUNDED BY THE PHS TO RESPOND TO THE REQUIREMENTS OF THE HEALTH OMNIBUS PROGRAMS EXTENSION ACT OF 1988

A careful assessment of Federal and State AIDS initiatives and of the available literature to support the congressionally mandated study caused the reformulation of study purposes by the PHS. The issue of AIDS in minority populations has only come to forefront in the last three to four years. Most AIDS prevention projects have been funded since Fiscal Year 1987. As a consequence, a number of impediments prevented the attainment of the broader congressional requirements:

- There was limited literature from which to ascertain knowledge of AIDS in minority communities.
- The newness of minority-targeted AIDS prevention efforts meant that little data are as yet available from which to base an evaluation of effective Federal, State, and local AIDS prevention efforts.
- State and local cooperative agreements are neither able nor required to yield much data on specific federally supported projects.
- A short timeframe (only one year from enactment of the HOPE Amendments) was available for completion of data collection and analytical activities.

Objectives were reformulated to reflect these realities. The new, more feasible study objectives were:

- Provide an analysis of minority groups' knowledge of AIDS and HIV infection.
- Provide an analysis of current evaluation plans for AIDS prevention programs for minorities and what we are likely to learn about the effectiveness of such programs as these evaluations are completed.

Given the different focus of the two HOPE study objectives and the need for a quick response, each was treated as a separate study.

Two studies were funded in the summer of 1989, each of six months' duration. The study pertinent to AIDS knowledge was undertaken by Birch & Davis Associates, Inc., and the analysis of current evaluation plans was undertaken by the Macro Corporation, Inc.

The following discussion briefly describes the conduct of the two studies.

(1) The Study Of AIDS Knowledge Was Based On A Limited Base Of Research Literature And Programmatic Data

In disease prevention, knowledge is often considered to be one of several dimensions that help represent the human response to health intervention. These concepts also include attitudes, behaviors, and beliefs. As a consequence, the present study looked at all four dimensions with respect to AIDS in minority populations.

The study was based on data from three sources. The approach used to review and analyze the data from each source is summarized below:

- **Literature Review**--Publications were selected based on discussions with PHS officials. Searches were conducted on the databases of seven on-line information retrieval services. This process led to the review and analysis of 42 pertinent documents published since 1985.

- **PHS Programs**--Nearly 70 individuals serving within PHS, other Government agencies, and non-Governmental organizations were interviewed in person or by telephone to identify PHS programs that had been funded for the purpose of educating minority populations. This activity resulted in the identification of 13 PHS programs that educate minority populations, nine of which were created explicitly for this purpose.

  Review of documentation on nine programs whose objectives specifically mention educating minority groups was limited to the Federal level because of the short study timeframe. This information was further supplemented in discussions with Federal program officials and grantees. Given the service orientation of most projects and their relative newness, there was little available information on KABB within their service populations.

- **National Health Interview Survey AIDS Supplement (NHIS)**--Data tapes from both the 1987 and 1988 NHIS were examined to establish the level of AIDS knowledge in minority subpopulations. This continuous, cross-sectional household interview survey is conducted by the National Center for Health Statistics of the PHS. Each week a probability sample of the civilian, noninstitutionalized population is interviewed by personnel of the U.S. Bureau of the Census to obtain information on the health and other characteristics of each member of the household.

  Supplemental information on the AIDS-related knowledge and attitudes of persons over 18 years of age has been collected since 1987. Additional questions that cover, among other topics, AIDS testing, risk-group membership, and belief in the AIDS information supplied by Federal public health officials were added in 1988.

  Since the NHIS is intended to reflect the health status of the noninstitutionalized population of the entire United States and is based on a sample of households, the respondent population is liable to underrepresent such hard-to-reach populations as the homeless and IVDUs.

(2) The Analysis Of AIDS Evaluation Plans Was Further Bounded To Emphasize A Minority Focus And A Specific Funding Minimum

In recognition of the limited available data as well as the early stage in the evolution of many minority-targeted AIDS prevention grants, the evaluation study scope was limited to cover only programs of the PHS, by far the greatest source of Federal funds for AIDS

prevention activities (including many with State and local emphasis). Further, faced with the daunting effort of examining over 850 PHS-funded AIDS projects in nine PHS agencies/divisions, the scope was further refined to include only those programs that met the following criteria:

- Funded for Fiscal Years 1987, 1988, or 1989
- Minimum Year One funding of $50,000
- Clear minority focus
- Emphasis on activities to eliminate or reduce AIDS causal factors or to secure early diagnosis and treatment

The Year One funding minimum of $50,000 was the most exclusive of bounding criteria, eliminating all of the 400-plus projects that were funded through State cooperative agreement mechanisms. Thus, while considering a wide range of programs, the results are not statistically representative of all PHS-funded AIDS prevention efforts targeted to minority populations.

Based on these criteria, 90 programs were selected from six PHS agencies/divisions for thorough study. A complete listing of these programs is provided in Appendix A. Even with this level of bounding, the study was still hampered by problems with the availability of information, particularly with respect to program evaluation designs. As a consequence, analyses are general and descriptive. Much of the descriptive information came from grant files maintained by the PHS and from telephone interviews with program personnel.

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CHAPTER TWO

FINDINGS: THE LEVEL OF AIDS KNOWLEDGE, ATTITUDES, BEHAVIORS, AND BELIEFS WITHIN MINORITY COMMUNITIES

II. FINDINGS: THE LEVEL OF AIDS KNOWLEDGE, ATTITUDES, BEHAVIORS, AND BELIEFS WITHIN MINORITY COMMUNITIES

Review and analysis of all available data sources uncovered only limited information on issues pertinent to KABB. It is evident that much remains to be learned and done to advance the state of the art of influencing minority populations' AIDS-related KABB. Analysis of the data suggests the following:

- **The literature on AIDS knowledge in minority populations is sparse and split fairly evenly between what needs to be learned and what is known.** However, several of the studies that focus on what is known are based on special populations and, thus, the findings cannot be extended to a total minority population.

- **PHS programs that target only minority populations have, by and large, emphasized influencing knowledge, rather than its assessment.** Projects with assessment components have not yet produced information that is pertinent to our study topics.

- **The NHIS AIDS Supplement is a valuable data source, representing the only national probability sample that addresses KABB issues in minority populations.** For the purposes of the present study, the only major deficiency is the lack of detailed information on the practice of behaviors that are conducive to AIDS.

The remainder of this chapter presents findings pertinent to the three specific data sources. A distinction is made in this and ensuing discussions between programs and projects. This report considers *programs* to represent discrete PHS-level entities that represent funding sources for *projects* that actually provide services.

1. LITERATURE REPORTS ON STUDY ISSUES ARE SPARSE

The literature review identified a total of 42 citations that covered topics pertinent to KABB. An annotated bibliography of these citations is provided in *Appendix B*. In general, although the literature reports on many efforts since 1981 to educate the public about AIDS, relatively few citations report on educating minority populations about AIDS, and even fewer about minority populations' AIDS-related knowledge.

Only 17 publications were found on educating minority populations about AIDS-related issues. All focused on Black and Hispanic populations; none reported on other ethnic or minority subgroups. The literature suggests that education on AIDS-related issues has not been sufficient for minority populations, especially for hard-to-reach segments, such as intravenous drug users (IVDUs).[1, 2] There is an urgent need for customized AIDS education and prevention projects, i.e., those that are sensitive to cultural values and norms.[3] Black homosexual men, Black and Hispanic bisexual men and their sexual partners, and Black and Hispanic IV drug users are said to be especially important target groups for educational interventions.[4]

Minority populations' knowledge of AIDS was addressed in four published studies and four unpublished papers. Study results are not readily comparable because of differences in survey methods, populations, and instrumentation. Some common trends are, however, noticeable. For example, findings suggest that survey respondents were aware of AIDS and relatively well versed in the major modes of HIV transmission but had imperfect knowledge of casual and

other low-risk transmission modes. The evidence also suggests that adequate knowledge was not consistently reflected in the adoption of low-risk behaviors. To synopsize, the eight studies reported the following:

- In 1989, Marin and Marin[5] reported on a 1988 telephone survey to assess knowledge about AIDS and its transmission in a representative sample of 460 San Francisco Hispanics. Over 90 percent of the respondents knew that HIV can be transmitted through sexual activity and needle sharing. There were misconceptions about casual transmission of HIV, particularly among less acculturated persons; less than two-thirds of the respondents knew that HIV cannot be transmitted by sharing eating utensils, a cough or sneeze, or use of public toilets.

- Giachello, Aguillon, and Probst[6] reported baseline information on knowledge, attitudes, and sexual practices related to AIDS among Chicago Hispanics surveyed in 1988. While most of the 400 respondents to the telephone interview had heard about AIDS, considered AIDS a major health threat, and were aware of the most likely modes of transmission, there was widespread uncertainty regarding AIDS transmission through casual modes or through the medical use of needles. While there was widespread awareness that AIDS is transmitted through sexual intercourse and that condoms can help prevent it, only 19 percent reported using condoms as a means of protection.

- In 1989, Thomas et al.[7] reported a survey of AIDS-related knowledge and high-risk behaviors of 975 predominantly Black college undergraduates during the 1987 to 1988 academic year. In general, the students demonstrated an adequate knowledge of the basic facts about AIDS and transmission of the HIV. Students did experience difficulty in identifying low-probability modes of transmission. In terms of high-risk behaviors, approximately 17 percent had experienced anal intercourse, 6.5 percent reported having used heroin, 32.6 percent reported having multiple sex partners, and 16 percent had been treated for a sexually transmitted disease. Students who engaged in high-risk behaviors demonstrated significantly lower mean AIDS knowledge scores.

- In 1988, DiClemente, Boyer, and Morales[8] described self-reported assessments of knowledge, attitudes, and misconceptions of 261 White, 226 Black, and 141 Hispanic adolescents in a San Francisco school district in 1985. Students were administered a self-reported AIDS Information Survey. White adolescents were more knowledgeable than Blacks or Hispanics regarding the cause, transmission, and prevention of AIDS. Black and Hispanic adolescents showed the highest levels of misconception regarding the casual transmission of AIDS. While Blacks and Hispanics had less knowledge about AIDS, they also demonstrated greater levels of perceived risk regarding contracting AIDS.

- In 1988, Jaffe et al.[9] reported on a 45-item questionnaire on AIDS knowledge and sexual practices that was administered to 148 female Black (46.8 percent) and Hispanic (44.0 percent) adolescents who were present in the waiting room of a health center in May 1987. Levels of knowledge increased with age, with only 30 percent of the respondents aged 13 to 15 years old getting at least 75 percent of the AIDS knowledge questions correct versus 56 percent of the respondents 19 to 21 years old. Most respondents (54.6 percent) reported not having changed their sexual behaviors to reduce the risk of getting AIDS. Condom use during vaginal intercourse was reported only 53.5 percent of the time; during anal intercourse, condom use was reported 25.9 percent of the time.

- During 1987 and 1988, Day et al. of the Polaris Research and Development Firm[10] conducted in-person interviews with 350 and, subsequently, 400 Black adult residents of San Francisco. A block-random household sampling procedure was used. HIV transmission knowledge levels, already high in 1987, increased in 1988. Considerable confusion remained regarding casual modes of transmission and risks related to the medical use of needles. Knowledge about safe and risky sexual behaviors increased significantly, but uncertainty remained in some areas, such as anal intercourse with a condom. Sexual behaviors altered somewhat over time, with slight reductions in the numbers of sexual partners and homosexual/bisexual partners. Sexual partners with venereal disease or with AIDS/ARC actually increased in 1988. Drug use remained at high levels, and the percentage of IVDUs remained unchanged. Although knowledge of AIDS screening tests was high, there was little apparent interest in receiving this test.

- During 1987 and again in 1988, the firm of Fairbank, Bregman, and Maullin[11] conducted personal interviews with approximately 320 Hispanic adult residents of San Francisco regarding AIDS KABB. Using methods similar to those employed by Day et al. (see above), the survey found high levels of knowledge regarding predominant modes of how AIDS can be transmitted and less-than-adequate awareness of low-probability modes of AIDS transmission. Analysis of data over time suggested an increase in AIDS knowledge, reductions in risky sexual behaviors, increasing awareness of AIDS screening tests, and somewhat greater satisfaction with AIDS information. Respondents reported no change in the average numbers of sexual partners and demonstrated continuing reluctance to discuss AIDS with their sexual partners.

- In 1989, Goodman and Cohall[12] reported on the administration of a 29-item questionnaire to 196 students attending a clinic of a New York City public high school. The survey assessed high-risk behaviors and basic understanding of AIDS among the students. Fifty-eight percent of the respondents had engaged in sexual intercourse; 12 percent of these had never used contraception. Of the total group, 39 percent reported behavior changes because of concern with AIDS in the previous six months. While more likely to believe in the effectiveness of condoms in reducing the risk of HIV transmission, sexually active females were less likely to insist on condom use than sexually active males.

2. PHS PROGRAMS THAT TARGET SPECIFIC MINORITY POPULATIONS HAVE NOT YIELDED RELEVANT INFORMATION ABOUT MINORITY KNOWLEDGE

Nine PHS-level AIDS programs were identified that target their efforts specifically to minority populations. These programs, by PHS organizational affiliation, were as follows:

- Centers For Disease Control
  - Direct Funded Cooperative Agreements For Minority CBOs HIV Prevention Program
  - National AIDS Minority Information And Education Program
  - State And Local HIV/AIDS Prevention And Surveillance Program
  - United States Conference Of Mayors Community-Based AIDS Education Program

- Health Resources And Services Administration
  - AIDS Service Demonstration Program
  - Regional AIDS Education And Training Centers Program
- Indian Health Service KABB Survey Program
- Office Of Minority Health
  - Minority AIDS Education/Prevention Grant Program
  - Minority Health Coalition Demonstration Grant

In general, these programs have been funded to provide grants to projects that both influence and assess minority populations' knowledge of AIDS. Information pertinent to study questions about minority groups' knowledge of AIDS was not readily available at the Federal program level. Program personnel suggested that there is so little information on these issues because:

- Projects that have been funded to both influence and assess minority populations' knowledge tend to focus on providing services that influence knowledge. These projects are not designed to generate the type of assessment information that could answer study questions.
- Many projects that were funded to assess knowledge have not reported relevant information on the outcome of their assessments.
  - There is not always a requirement that data on individual projects be reported to the Federal Government.
  - Some projects are not required to report information on the knowledge issues that are posed by this study.
  - Many projects reviewed are so new that assessment has not yet started, or assessment reports are not yet due.
  - Projects with an assessment requirement do not always implement an assessment of their effectiveness. Some grantees reportedly are unable to evaluate their projects because they do not have staff with requisite evaluation research backgrounds or even the funds/time to support such an assessment.

3. THE 1988 NHIS AIDS SUPPLEMENT PROVIDES INFORMATION ON TOPICS OF INTEREST

As noted in Chapter One, the National Health Interview Survey (NHIS) represents a continuous, cross-sectional household interview survey that assesses the health and related characteristics of a probability sample of the entire adult (18 years and older), U.S. civilian, noninstitutionalized population. This section describes the analysis of relevant study issues addressed by the 1988 NHIS AIDS Supplement. Findings consider the demographic characteristics of survey respondents and attributes of their knowledge, attitudes, behaviors, and beliefs (KABB) with respect to AIDS. Changes in respondents and responses that have occurred since the first NHIS AIDS Supplement in 1987 are also examined.

The findings are organized into five topics:

- Demographic characteristics of survey respondents

- Knowledge of AIDS, risk factors, and prevention
- Cross-year comparisons of AIDS knowledge scale scores
- Self-perceived AIDS risk
- Data on AIDS testing, risk-group membership, and belief in AIDS information generated by Federal public health officials

Each of these topics is addressed below.

- **Respondent Demographic Characteristics**--The 1988 NHIS AIDS Supplement generated information on levels of AIDS knowledge, attitudes, and related behaviors for 29,659 respondents, 6,622 of whom represent racial and ethnic minority populations. Comparisons between the sociodemographic characteristics of NHIS respondents and equivalent groups in the U.S. general population suggest that the two groups are more alike than dissimilar. Comparative data on selected sociodemographic characteristics by racial/ethnic identification are provided in Exhibit II-1. Data on the characteristics of the U.S. population were derived from the 1980 Census and 1985 interim estimates. It is not clear whether the observed differences between the sample and Census populations are real or reflect changes in the U.S. population that have occurred since 1980.

  Findings for the key variables of race/ethnicity, age, sex, family income, highest education completed, poverty status, and region of residence are as follows:

  - **Race/Ethnicity**--Approximately 22 percent of the survey respondents were from racial or ethnic minority populations. Of these, Blacks represent nearly 63 percent, Hispanics 26 percent, Asian/Pacific Islanders 8 percent, and American Indian/Alaska Natives 3 percent. An additional 150 respondents either reported multiple racial categories or race unknown. Among Hispanics, Mexican-Americans represented the largest identifiable subpopulation--accounting for 29 percent. Mexican-Mexicanos represented 20 percent, Puerto Ricans 12 percent, and Cubans 8 percent. The remaining 30 percent of Hispanic respondents were either of other Latin American or Spanish heritage.[13]

  - Age--Respondents in the youngest age groups, ages 18 to 34 years, represented roughly half of the respondents for Asian/Pacific Islanders (50 percent) and Hispanics (49 percent). All other racial/ethnic groups reported 40 percent or less representation in the youngest age groups, with Whites at 34 percent, Blacks at 39 percent, and American Indian/Alaska Natives at 40 percent. As noted above, the NHIS does not survey the population under 18 years of age.

  - Sex--Females represented 61 percent of minority respondents compared to 57 percent for Whites. The sex differential was most pronounced for Blacks, where females represented 64 percent. Populations were most evenly split among Asian/Pacific Islanders, where females represented 54 percent.

  - **Highest Education**--Asian/Pacific Islanders were clearly the most educated of respondent groups, with 38 percent reporting at least a college education. The equivalent percentage for Whites was 21 percent, while other ethnic/racial populations hovered around 10 percent in this educational category. Hispanics were the worst-educated respondent

EXHIBIT II-1

SELECTED RESPONDENT CHARACTERISTICS
BY RACE/ETHNICITY

CHARACTERISTIC	RACE/ETHNICITY														
	AMERICAN INDIAN/ALASKA NATIVE			ASIAN/PACIFIC ISLANDER			BLACK[1]			WHITE[1]			HISPANIC[2]		
		PERCENT DISTRIBUTION			PERCENT DISTRIBUTION			PERCENT DISTRIBUTION			PERCENT DISTRIBUTION			PERCENT DISTRIBUTION	
	Number NHIS Sample	NHIS Sample	U.S.[3] Pop.	Number NHIS Sample	NHIS Sample	U.S.[3] Pop.	Number NHIS Sample	NHIS Sample	U.S.[3] Pop.	Number NHIS Sample	NHIS Sample	U.S.[3] Pop.	Number NHIS Sample	NHIS Sample	U.S.[3] Pop.
AGE IN YEARS	214	100.0	100.0	528	100.0	100.0	4,145	100.0	100.0	22,887	100.0	100.0	1,735	100.0	100.0
18-24	30	14.0	32.5[4]	96	18.2	23.3[4]	566	13.7	18.9	2,486	10.9	14.2	299	17.2	19.5
25-34	56	26.2	24.5	166	31.4	29.2	1,044	25.2	27.2	5,218	22.8	23.5	553	31.9	29.2
35-44	35	16.4	16.0	133	25.2	19.1	773	18.6	18.7	4,446	19.4	19.3	390	22.5	20.8
45-54	27	12.6	11.4	57	10.8	12.4	523	12.6	12.5	2,840	12.4	13.3	209	12.0	12.7
55-64	29	13.6	8.1	41	7.8	8.4	530	12.8	10.4	2,800	12.2	12.2	130	7.5	9.3
65-74	24	11.2	4.9	22	4.2	5.0	460	11.1	7.6	2,978	13.0	10.2	101	5.8	5.3
75 Plus	13	6.1	2.6	13	2.5	2.8	249	6.0	4.7	2,119	9.3	7.3	53	3.1	3.2
SEX	214	100.0	100.0	528	100.0	100.0	4,145	100.0	100.0	22,887	100.0	100.0	1,735	100.0	100.0
Male	87	40.7	48.7[5]	243	46.0	43.7[5]	1,488	35.9	47.6	9,830	43.0	49.0	738	42.5	50.0
Female	127	59.3	51.3	285	54.0	56.3	2,657	64.1	52.4	13,057	57.0	51.0	997	57.5	50.0
HIGHEST EDUCATION	214	100.0	100.0	525	100.0	100.0	4,128	100.0	100.0	22,843	100.0	100.0	1,727	100.0	100.0
None	3	1.4	-	9	1.7	-	30	.7	-	34	.1	-	38	2.2	-
1-8 Years	31	14.5	25.0[6]	28	5.3	7.1[6]	625	15.1	18.3[6]	1,942	8.5	12.0[6]	396	22.9	35.2[6]
9-11 Years	40	18.7	19.5	37	7.0	6.6	846	20.5	18.2	2,555	11.2	11.0	274	15.9	13.9
High School Grad	77	36.0	31.3	127	24.2	21.8	1,502	36.4	37.1	8,792	38.5	39.2	544	31.5	29.0
1-3 Yrs. College	38	17.8	16.5	121	23.0	23.2	737	17.9	15.7	4,757	20.8	17.2	289	16.7	13.3
College Grad	18	8.4	7.5	120	22.9	19.4	244	5.9	10.7	2,732	12.0	20.5	104	6.0	8.6
5+ Years College	7	3.3	-	83	15.8	21.8	144	3.5	-	2,031	8.9	-	82	4.7	-
FAMILY INCOME	188	100.0	100.0	468	100.0	100.0	3,489	100.0	100.0	19,907	100.0	100.0	1,466	100.0	100.0
Under 5,000	37	19.7	16.0[7]	46	9.8	7.6	633	18.1	14.0	1,129	5.7	3.5	131	8.9	8.7
5,000 - 6,999	18	9.6	-	19	4.1	-	342	9.8	-	819	4.1	-	95	6.5	-
7,000 - 9,999	16	8.5	20.4[8]	20	4.3	10.5[8]	376	10.8	16.1[8]	1,262	6.3	6.7[8]	136	9.3	14.6[8]
10,000 - 14,999	24	12.8	17.6	53	11.3	11.9	488	14.0	13.8	2,151	10.8	9.1	213	14.5	15.2
15,000 - 19,999	23	12.2	14.5	46	9.8	12.4	448	12.8	-	2,324	11.7	-	202	13.8	-
20,000 - 24,999	24	12.8	11.3	43	9.2	13.0	297	8.5	20.2[9]	2,110	10.6	19.5[9]	140	9.5	22.4[9]
25,000 - 34,999	21	11.2	12.5	78	16.7	20.4	426	12.2	14.7	3,648	18.3	18.6	217	14.8	16.5
35,000 - 49,999	14	7.4	5.6	93	19.9	15.1	320	9.2	12.4	3,443	17.3	20.6	199	13.6	12.5
50,000 Or More	11	5.9	2.3	70	15.0	9.0	159	4.6	8.8	3,021	15.2	22.0	133	9.1	10.2

EXHIBIT II-1

SELECTED RESPONDENT CHARACTERISTICS
BY RACE/ETHNICITY

CHARACTERISTIC	RACE/ETHNICITY														
	AMERICAN INDIAN/ALASKA NATIVE			ASIAN/PACIFIC ISLANDER			BLACK			WHITE			HISPANIC		
		PERCENT DISTRIBUTION			PERCENT DISTRIBUTION			PERCENT DISTRIBUTION			PERCENT DISTRIBUTION			PERCENT DISTRIBUTION	
	Number NHIS Sample	NHIS Sample	U.S. Pop.	Number NHIS Sample	NHIS Sample	U.S. Pop.	Number NHIS Sample	NHIS Sample	U.S. Pop.	Number NHIS Sample	NHIS Sample	U.S. Pop.	Number NHIS Sample	NHIS Sample	U.S. Pop.
EMPLOYMENT STATUS	214	100.0	100.0	528	100.0	100.0	4,145	100.0	100.0	22,887	100.0	100.0	1,735	100.0	100.0
Employed	115	53.7	N.A.	366	69.3	61.6	2,336	56.4	55.5	14,375	62.8	62.3	1,120	64.6	60.6
Unemployed	17	7.9	13.2	13	2.5	4.7	242	5.8	8.3	509	2.2	3.5	59	3.4	5.8
Not Labor Force	82	38.3	N.A.	149	28.2	33.7	1,567	37.8	36.2	8,003	35.0	34.2	556	32.0	33.6
POVERTY THRESHOLD	199	100.0	100.0	500	100.0	100.0	3,660	100.0	100.0	21,265	100.0	100.0	1,563	100.0	100.0
At Or Above	144	72.4	76.3	426	85.2	89.3	2,570	70.2	68.9	19,396	91.2	89.0	1,229	78.6	72.7
Below	55	27.6	23.7	74	14.8	10.7	1,090	29.8	31.1	1,869	8.8	11.0	334	21.4	27.3
REGION	214	100.0	100.0	528	100.0	100.0	4,145	100.0	100.0	22,887	100.0	100.0	1,735	100.0	100.0
Northeast	20	9.3	5.8	106	20.1	16.1	736	17.8	19.0	4,845	21.2	21.5	324	18.7	16.7
Midwest	41	19.2	17.7	63	11.9	11.7	913	22.0	19.2	6,367	27.8	25.1	148	8.5	7.7
South	36	16.8	26.5	93	17.6	13.8	2,162	52.2	52.2	7,153	31.3	32.8	588	33.9	30.1
West	117	54.7	50.0	266	50.4	58.4	334	8.1	9.5	4,522	19.8	20.6	675	38.9	45.5

N.A. Not Available

1 Hispanics Not Included
2 Hispanic Category Includes All Racial Groups
3 See Below For Source
4 Youngest Age Group 15-24 Years
5 Based On Population 15 Years And Older
6 0-8 Years Education
7 Data For 1979
8 $5,000 - $9,999
9 $15,000 - $24,999

Data Sources: U.S. Bureau of The Census, Statistical Abstract of the United States, 1989.
U.S. Bureau of The Census, 1980 Census of Population, Chapter 1E(PC80-2-1E).
U.S. Bureau of The Census, Current Population Reports, Series P-20, No. 416, November, 1987.
U.S. Bureau of The Census, Current Population Reports, Series P-25, No. 995.

population, with 25 percent reporting less than a high school education. Both American Indian/Alaska Natives and Blacks were also high in this educational category, at 16 percent.

- **Family Income**--Whites and Asian/Pacific Islanders reported the highest family incomes. Among Asian/Pacific Islanders, 52 percent reported family incomes of $25,000 or more compared to 51 percent for Whites. Asian/Pacific Islanders also had nearly double the percent of respondents below the poverty level than Whites, probably as a consequence of their greater family size (17 percent had families of five or more compared to 8 percent for Whites). Blacks and American Indian/Alaska Natives fared the worst in terms of both incomes and poverty status. Only around 25 percent of either population had family incomes of $25,000 or more, and both hovered around 30 percent for the below-poverty category.

- **Employment Status**--Asian/Pacific Islanders reported the highest levels of employment, at 69 percent, followed by 65 percent for Hispanics, and 63 percent for Whites. American Indian/Alaska Natives and Blacks demonstrated relatively low employment levels at 54 percent and 56 percent, respectively.

- **Region**--Definite racial/ethnic differences were observed in terms of respondent region of residence. Of all groups, Whites showed the most even distribution across regions. American Indian/Alaska Natives and Asian/Pacific Islanders were most heavily concentrated in the West. Blacks were most heavily concentrated in the South. Hispanics tended to reside in the South and West.

Since a critical portion of this analysis is devoted to changes in KABB between the 1987 and 1988 survey years, it is important to establish that the underlying characteristics of the two populations have not changed appreciably. Equivalent demographic data for the 1987 survey are presented in Appendix C. Observable changes are subtle and show no clear patterns. The differences that do exist are not on a scale that would appear to predict major changes in the pattern of response.

- **Knowledge Of AIDS, Risk Factors, And Prevention**--Three AIDS knowledge scales were developed based on the responses to 31 NHIS AIDS Supplement questionnaire items. The three scales represent areas of AIDS knowledge: (1) general, (2) risk factors, and (3) disease prevention.

Survey questions were grouped according to the three knowledge areas discussed above. Only "positive" responses were displayed, although such a response is not always the correct answer. Positive responses are defined as follows:

- **General Knowledge**--"true" or "probably true"
- **Knowledge Of AIDS Risk**--"very likely" or "somewhat likely"
- **Prevention Knowledge**--"very effective" and "somewhat effective"

Questionnaire responses for each knowledge area by race/ethnicity and Hispanic origin are shown in Exhibits II-2 through II-7. To summarize differences in item responses by racial/ethnic population, each population was rated according to the number of times that it scored either the lowest or highest percentage

"correct" for a particular category of knowledge questions. Findings pertinent to each area are as follows:

- **General Knowledge**--As shown in Exhibit II-2, a very high percentage of correct responses was recorded for all racial/ethnic groups. It is clear from the responses that certain aspects of AIDS knowledge have been better disseminated than others. Facts that appear to have had the broadest dissemination include:

  .. AIDS reduces immune protection against disease.
  .. AIDS is most prevalent in younger populations.
  .. AIDS is an infectious disease caused by a virus.
  .. AIDS is fatal.
  .. AIDS is not always physically apparent.
  .. AIDS can be passed through sex.
  .. Pregnant women can give AIDS to their babies.
  .. There is no vaccine for AIDS.
  .. There is no cure for AIDS.

  Those facts that are less well known also appear to be more subtle. There was uncertainty regarding the neurologic consequences of AIDS and regarding its effects on the heart.

  In terms of racial/ethnic differences in general knowledge, Whites respond correctly with greater frequency than do any of the minority populations. Asian/Pacific Islanders tended to answer incorrectly more than other minority populations, with the lowest or next lowest percent correct in 12 of 14 questions. American Indian/Alaska Natives were next worst, with the lowest or next lowest correct percentage in seven of 14 questions. As we have noted elsewhere, these two racial/ethnic populations are also the recipients of the fewest targeted KABB projects.

  When responses were examined by Hispanic origin (see Exhibit II-3), Mexican-Mexicanos either had the worst or next-to-worst performance in 13 out of the 14 general knowledge questions. Puerto Ricans performed relatively poorly in 8 out of the 14 general knowledge questions. It should be noted that data on level of education of survey respondents suggest that Mexican-Mexicanos are the poorest educated of the survey respondents. Poverty may also be a factor since both Puerto Rican and Mexican-Mexicano respondents reported relatively low family incomes and high percentages below poverty.

- **Risk Factors**--The 1988 NHIS AIDS Supplement included questions on 11 potential risk factors. Only one of these, needle sharing for drug use, represented a serious risk factor. Responses to these questions, by race/ethnicity and Hispanic origin, are presented in Exhibits II-4 and II-5. There was a high level of agreement regarding the seriousness of this risk factor across all racial and ethnic groups. There was, however, less certainty about low-risk modes of AIDS transmission. Roughly half of the survey respondents felt that kissing someone with AIDS with exchange of saliva was at least "somewhat likely" as a mode for AIDS transmission, although the literature suggests that this is an unlikely or low-risk mode. A small but meaningful portion of respondents believe that AIDS can be transmitted through contaminated food, aerosols (e.g., sneezes), and insects.

EXHIBIT II-2

PERCENT RESPONDING "DEFINITELY TRUE" OR "PROBABLY TRUE"
TO SELECTED STATEMENTS ABOUT AIDS
BY RACE/ETHNICITY

GENERAL KNOWLEDGE QUESTIONS	TOTAL		RACE/ETHNICITY									
			AMERICAN INDIAN/ALASKA NATIVE		ASIAN/PACIFIC ISLANDER		BLACK		WHITE		HISPANIC	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
AIDS can reduce body's natural protection against disease	24,814	83.7	164	76.6	405	76.7	2,869	69.2	20,073	87.7	1,303	75.1
AIDS is especially common in older people	607	2.0	11	5.1	27	5.1	172	4.1	325	1.4	72	4.1
AIDS can damage the brain	16,777	56.6	120	56.1	280	53.0	2,479	59.8	12,993	56.8	905	52.2
AIDS usually leads to heart disease	8,860	29.9	76	35.5	143	27.1	1,511	36.5	6,530	28.5	600	34.6
AIDS is an infectious disease caused by a virus	23,617	79.6	165	77.1	401	75.9	3,146	75.9	18,578	81.2	1,327	76.5
Teenagers cannot get AIDS	470	1.6	5	2.3	17	3.2	108	2.6	288	1.3	52	3.0
AIDS leads to death	28,025	94.5	194	90.7	469	88.8	3,862	93.2	21,877	95.6	1,623	93.5
Persons infected with AIDS virus may not have disease AIDS	22,149	74.7	155	72.4	316	59.8	2,686	64.8	17,861	78.0	1,131	65.2
Looking at a person is enough to tell they have AIDS virus	1,684	5.7	16	7.5	54	10.2	329	7.9	1,092	4.8	193	11.1
ANY person with AIDS virus can pass it on through sex	27,363	92.3	188	87.9	465	88.1	3,751	90.5	21,370	93.4	1,589	91.6

EXHIBIT II-2

PERCENT RESPONDING "DEFINITELY TRUE" OR "PROBABLY TRUE"
TO SELECTED STATEMENTS ABOUT AIDS
BY RACE/ETHNICITY

GENERAL KNOWLEDGE QUESTIONS	TOTAL		RACE/ETHNICITY									
			AMERICAN INDIAN/ALASKA NATIVE		ASIAN/PACIFIC ISLANDER		BLACK		WHITE		HISPANIC	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Persons with AIDS can look and feel well and healthy	21,945	74.0	140	65.4	325	61.6	2,724	65.7	17,670	77.2	1,086	62.6
Pregnant women with AIDS virus can give it to their babies	27,359	92.2	189	88.3	458	86.7	3,770	91.0	21,363	93.3	1,579	91.0
There is a publicly available AIDS vaccine	1,124	3.8	21	9.8	47	8.9	291	7.0	655	2.9	110	6.3
There is no cure for AIDS at present	26,782	90.3	178	83.2	439	83.1	3,549	85.6	21,115	92.3	1,501	86.5

EXHIBIT II-3

PERCENT RESPONDING "DEFINITELY TRUE" OR "PROBABLY TRUE"
TO SELECTED STATEMENTS ABOUT AIDS
BY HISPANIC ORIGIN

GENERAL KNOWLEDGE QUESTIONS	TOTAL		HISPANIC ORIGIN									
			PUERTO RICAN		CUBAN		MEXICAN-MEXICANO		MEXICAN-AMERICAN		OTHER	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
AIDS can reduce body's natural protection against disease	1,303	75.1	161	76.7	114	82.6	240	68.6	383	75.2	405	76.7
AIDS is especially common in older people	72	4.1	8	3.8	3	2.2	23	6.6	17	3.3	21	4.0
AIDS can damage the brain	905	52.2	119	56.7	75	54.3	157	44.9	263	51.7	291	55.1
AIDS usually leads to heart disease	600	34.6	81	38.6	48	34.8	129	36.9	178	35.0	164	31.1
AIDS is an infectious disease caused by a virus	1,327	76.5	168	80.0	111	80.4	238	68.0	382	75.0	428	81.1
Teenagers cannot get AIDS	52	3.0	7	3.3	2	1.4	14	4.0	14	2.8	15	2.8
AIDS leads to death	1,623	93.5	193	91.9	129	93.5	317	90.6	480	94.3	504	95.5
Persons infected with AIDS virus may not have disease AIDS	1,131	65.2	140	66.7	103	74.6	186	53.1	341	67.0	361	68.4
Looking at a person is enough to tell they have AIDS virus	193	11.1	33	15.7	12	8.7	47	13.4	53	10.4	48	9.1
ANY person with AIDS virus can pass it on through sex	1,589	91.6	189	90.0	131	94.9	307	87.7	476	93.5	486	92.0
Persons with AIDS can look and feel well and healthy	1,086	62.6	134	63.8	95	68.8	174	49.7	338	66.4	345	65.3

EXHIBIT II-3

PERCENT RESPONDING "DEFINITELY TRUE" OR "PROBABLY TRUE"
TO SELECTED STATEMENTS ABOUT AIDS
BY HISPANIC ORIGIN

GENERAL KNOWLEDGE QUESTIONS	TOTAL		HISPANIC ORIGIN									
			PUERTO RICAN		CUBAN		MEXICAN-MEXICANO		MEXICAN-AMERICAN		OTHER	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Pregnant women with AIDS virus can give it to their babies	1,579	91.0	187	89.0	131	94.9	311	88.9	468	91.9	482	91.3
There is a publicly available AIDS vaccine	110	6.3	17	8.1	5	3.6	24	6.9	41	8.1	23	4.4
There is no cure for AIDS at present	1,501	86.5	174	82.9	120	87.0	291	83.1	457	89.8	459	86.9

EXHIBIT II-4

PERCENT RESPONDING "VERY LIKELY" OR "SOMEWHAT LIKELY" TO LIKELIHOOD OF GETTING AIDS FROM SELECTED TRANSMISSION MODES BY RACE/ETHNICITY

RISK FACTOR QUESTIONS	TOTAL		RACE/ETHNICITY									
			AMERICAN INDIAN/ALASKA NATIVE		ASIAN/PACIFIC ISLANDER		BLACK		WHITE		HISPANIC	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Living near a home or hospital for AIDS patients	1,416	4.8	19	8.9	64	12.1	332	8.0	836	3.7	165	9.5
Working near someone with the AIDS virus	3,479	11.7	36	16.8	96	18.2	598	14.4	2,476	10.8	273	15.7
Eating in a restaurant where the cook has the AIDS virus	7,128	24.0	68	31.8	152	28.8	1,232	29.7	5,216	22.8	460	26.5
Kissing with exchange of saliva, a person with AIDS virus	15,111	50.9	111	51.9	280	53.0	2,263	54.6	11,612	50.7	845	48.7
Shake hands, touch, kiss on cheek person with AIDS virus	2,442	8.2	26	12.1	60	11.4	519	12.5	1,635	7.1	202	11.6
Share plates, forks, or glasses with person with AIDS virus	8,162	27.5	76	35.5	146	27.7	1,373	33.1	6,100	26.7	467	26.9
Using public toilets	5,099	17.2	53	24.8	126	23.9	1,023	24.7	3,502	15.3	395	22.8
Sharing needles for drug use with someone with AIDS virus	28,009	94.4	194	90.7	469	88.8	3,815	92.0	21,936	95.8	1,595	91.9
Being coughed on or sneezed on by someone who has AIDS virus	7,900	26.6	72	33.6	178	33.7	1,310	31.6	5,883	25.7	457	26.3

EXHIBIT II-4

PERCENT RESPONDING "VERY LIKELY" OR "SOMEWHAT LIKELY" TO LIKELIHOOD OF GETTING AIDS FROM SELECTED TRANSMISSION MODES BY RACE/ETHNICITY

RISK FACTOR QUESTIONS	TOTAL		RACE/ETHNICITY									
			AMERICAN INDIAN/ALASKA NATIVE		ASIAN/PACIFIC ISLANDER		BLACK		WHITE		HISPANIC	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Attending school with a child who has the AIDS virus	2,303	7.8	32	15.0	67	12.7	469	11.3	1,568	6.9	167	9.6
Mosquitoes or other insects	6,903	23.3	59	27.6	173	32.8	1,258	30.3	4,872	21.3	541	31.2

EXHIBIT II-5

PERCENT RESPONDING "VERY LIKELY" OR "SOMEWHAT LIKELY" TO LIKELIHOOD OF GETTING AIDS FROM SELECTED TRANSMISSION MODES BY HISPANIC ORIGIN

RISK QUESTIONS	TOTAL		HISPANIC ORIGIN									
			PUERTO RICAN		CUBAN		MEXICAN-MEXICANO		MEXICAN-AMERICAN		OTHER	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Living near a home or hospital for AIDS patients	165	9.5	16	7.6	8	5.8	54	15.4	44	8.6	43	8.1
Working near someone with the AIDS virus	273	15.7	19	9.0	17	12.3	68	19.4	80	15.7	89	16.9
Eating in a restaurant where the cook has the AIDS virus	460	26.5	43	20.5	31	22.5	111	31.7	139	27.3	136	25.8
Kissing with exchange of saliva, a person with AIDS virus	845	48.7	84	40.0	84	60.9	177	50.6	243	47.7	257	48.7
Shake hands, touch, kiss on cheek person with AIDS virus	202	11.6	14	6.7	16	11.6	58	16.6	47	9.2	67	12.7
Share plates, forks, or glasses with person with AIDS virus	467	26.9	40	19.0	45	32.6	105	30.0	127	25.0	150	28.4
Using public toilets	395	22.8	37	17.6	35	25.4	103	29.4	102	20.0	118	22.3
Sharing needles for drug use with someone with AIDS virus	1,595	91.9	193	91.9	128	92.8	319	91.1	471	92.5	484	91.7
Being coughed on or sneezed on by someone who has AIDS virus	457	26.3	43	20.5	39	28.3	109	31.1	128	25.1	138	26.1

EXHIBIT II-5

PERCENT RESPONDING "VERY LIKELY" OR "SOMEWHAT LIKELY" TO LIKELIHOOD OF GETTING AIDS FROM SELECTED TRANSMISSION MODES BY HISPANIC ORIGIN

RISK QUESTIONS	TOTAL		HISPANIC ORIGIN									
			PUERTO RICAN		CUBAN		MEXICAN-MEXICANO		MEXICAN-AMERICAN		OTHER	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Attending school with a child who has the AIDS virus	167	9.6	16	7.6	13	9.4	44	12.6	45	8.8	49	9.3
Mosquitoes or other insects	541	31.2	62	29.5	44	31.9	130	37.1	138	27.1	167	31.6

Whites appeared to be most knowledgeable regarding risk factors, with the highest percentage correct in 10 out of 11 questions. American Indian/Alaska Natives fared the poorest, with the highest or second highest percentage incorrect in 8 of 11 questions.

Among Hispanics, Puerto Ricans appeared to be the most knowledgeable, with the highest percentage of correct responses in 9 out of 11 questions. Mexican-Mexicanos had the worst response, with the highest or second highest percentage incorrect in all 11 questions. Cubans, who performed relatively well in terms of general knowledge, did relatively poorly in terms of risk factors, with the highest or second highest percentage incorrect in 6 out of 11 questions.

- **Preventive Measures**--The NHIS AIDS Supplement considered five potential preventive measures. Only two of these are recognized as helpful in preventing the transmission of AIDS: (1) using a condom and (2) two persons without AIDS having sex only with each other. Pertinent data by race/ethnicity and Hispanic origin are shown in Exhibits II-6 and II-7. There is a high (80 or more percent), albeit incomplete, agreement among respondents regarding the effectiveness of the two recognized preventive measures. However, high percentages of respondents also felt that the use of diaphragms and spermicidal jellies would also be effective AIDS preventives. Utilization of such measures would put these respondents at risk for AIDS.

  Whites achieved the highest percentage correct for three out of the five questions while Hispanics were highest in the other two questions. American Indian/Alaska Natives fared worst, with the highest percentage incorrect in three out of the five questions. Blacks also fared relatively poorly, with the second highest percentage incorrect in three out of the five questions.

  For Hispanics, Cubans performed well, with the highest percentage correct in three out of five questions. Surprisingly, given their relatively poor performance in the other knowledge areas, Mexican-Mexicanos demonstrated the highest percentage correct in the other two questions.

- **Cross-year Comparisons Of AIDS Knowledge Scale Scores**--A summary scale was developed for each of the three knowledge areas discussed above, based on an average of the responses to questions that constituted the scale. A complete list of questions and their scores is provided in Appendix D. For the general knowledge and risk scales, a maximum average score of 2 and a minimum score of -2 is possible. On the prevention scale, a maximum of 2 and a minimum of -1 is possible.

  Mean scale scores for both survey years are arrayed by selected variables in Exhibit II-8. This discussion addresses observed differences between scores on the three knowledge scales for each of following six variables:

  - Race/ethnicity
  - Hispanic Origin
  - Sex
  - Age
  - Educational Attainment
  - Family Income

EXHIBIT II-6

PERCENT RESPONDING "VERY EFFECTIVE" OR "SOMEWHAT EFFECTIVE" TO SELECTED METHODS FOR PREVENTING THE TRANSMISSION OF AIDS BY RACE/ETHNICITY

PREVENTION QUESTIONS	TOTAL		RACE/ETHNICITY									
			AMERICAN INDIAN/ALASKA NATIVE		ASIAN/PACIFIC ISLANDER		BLACK		WHITE		HISPANIC	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Using a diaphragm	4,297	14.5	30	14.0	91	17.2	669	16.1	3,270	14.3	237	13.7
Using a condom	24,001	80.9	154	72.0	385	72.9	2,975	71.8	19,199	83.9	1,288	74.2
Using a spermicidal jelly, foam or cream	4,780	16.1	36	16.8	80	15.2	615	14.8	3,821	16.7	228	13.1
Having a vasectomy	1,189	4.0	20	9.3	28	5.3	237	5.7	819	3.6	85	4.9
Two people w/o AIDS virus having sex only with each other	26,060	87.9	163	76.2	449	85.0	3,337	80.5	20,640	90.2	1,471	84.8

EXHIBIT II-7

PERCENT RESPONDING "VERY EFFECTIVE" OR "SOMEWHAT EFFECTIVE" TO SELECTED METHODS FOR PREVENTING THE TRANSMISSION OF AIDS BY HISPANIC ORIGIN

PREVENTION QUESTIONS	TOTAL		HISPANIC ORIGIN									
			PUERTO RICAN		CUBAN		MEXICAN-MEXICANO		MEXICAN-AMERICAN		OTHER	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Using a diaphragm	237	13.7	34	16.2	15	10.9	38	10.9	75	14.7	75	14.2
Using a condom	1,288	74.2	155	73.8	96	69.6	229	65.4	388	76.2	420	79.5
Using a spermicidal jelly, foam or cream	228	13.1	19	9.0	14	10.1	27	7.7	85	16.7	83	15.7
Having a vasectomy	85	4.9	11	5.2	3	2.2	13	3.7	30	5.9	28	5.3
Two people w/o AIDS virus having sex only with each other	1,471	84.8	168	80.0	127	92.0	292	83.4	423	83.1	461	87.3

EXHIBIT II-8

TRENDS IN AIDS KNOWLEDGE SCALE AVERAGE SCORES
BY SELECTED CHARACTERISTICS: 1987 to 1988

SELECTED CHARACTERISTICS	SURVEY YEAR											
	1987						1988					
	GENERAL KNOWLEDGE		KNOWLEDGE OF RISK		KNOWLEDGE OF PREVENTION		GENERAL KNOWLEDGE		KNOWLEDGE OF RISK		KNOWLEDGE OF PREVENTION	
	No.	Mean Score	No.	Mean Score	No.	Mean Score	No.	Mean Score	No.	Mean Score	No.	Mean Score
RACE/ETHNICITY												
American Indian/Alaska Native	94	1.2	94	.4	94	1.3	214	1.2	214	.5	214	1.0
Asian/Pacific Islander	327	1.2	327	.3	327	1.2	528	1.2	528	.5	528	.9
Black	2,430	1.1	2,430	.2	2,430	1.2	4,145	1.2	4,145	.5	4,145	1.0
White	13,790	1.3	13,790	.6	13,790	1.4	22,887	1.4	22,887	.7	22,887	1.2
Hispanic	995	1.2	995	.4	995	1.4	1,735	1.2	1,735	.6	1,735	1.1
HISPANIC ORIGIN												
Puerto Rican	136	1.2	136	.4	136	1.4	210	1.2	210	.7	210	1.1
Cuban	70	1.3	70	.4	70	1.4	138	1.3	138	.6	138	1.2
Mexican-Mexicano	182	1.0	182	.4	182	1.3	350	1.1	350	.4	350	.9
Mexican-American	315	1.2	315	.4	315	1.4	509	1.2	509	.6	509	1.1
Other	292	1.2	292	.5	292	1.4	528	1.3	528	.6	528	1.1
SEX												
Male	7,307	1.3	7,307	.6	7,307	1.4	12,452	1.4	12,452	.7	12,452	1.2
Female	10,389	1.3	10,389	.5	10,389	1.4	17,207	1.3	17,207	.7	17,207	1.2
AGE												
18-24	2,324	1.3	2,324	.6	2,324	1.4	3,490	1.4	3,490	.8	3,490	1.2
25-34	4,244	1.3	4,244	.6	4,244	1.5	7,077	1.4	7,077	.8	7,077	1.3
35-44	3,461	1.4	3,461	.6	3,461	1.5	5,818	1.5	5,818	.8	5,818	1.4
45-54	2,136	1.3	2,136	.5	2,136	1.4	3,672	1.4	3,672	.7	3,672	1.2
55-64	2,089	1.2	2,089	.5	2,089	1.3	3,542	1.3	3,542	.6	3,542	1.1
65-74	2,004	1.1	2,004	.4	2,004	1.2	3,602	1.2	3,602	.5	3,602	1.0
75 Plus	1,438	1.0	1,438	.3	1,438	1.1	2,458	1.0	2,458	.4	2,458	.7

EXHIBIT II-8

TRENDS IN AIDS KNOWLEDGE SCALE AVERAGE SCORES
BY SELECTED CHARACTERISTICS: 1987 to 1988

SELECTED CHARACTERISTICS	SURVEY YEAR											
	1987						1988					
	GENERAL KNOWLEDGE		KNOWLEDGE OF RISK		KNOWLEDGE OF PREVENTION		GENERAL KNOWLEDGE		KNOWLEDGE OF RISK		KNOWLEDGE OF PREVENTION	
	No.	Mean Score	No.	Mean Score	No.	Mean Score	No.	Mean Score	No.	Mean Score	No.	Mean Score
EDUCATIONAL ATTAINMENT												
None	60	.7	60	.1	60	1.1	115	.6	115	-.1	115	.4
1-8 Years	1,807	.9	1,807	.2	1,807	1.1	3,041	.9	3,041	.3	3,041	.7
9-11 Years	2,236	1.1	2,236	.3	2,236	1.3	3,768	1.2	3,768	.5	3,768	1.0
High School Grad	6,716	1.3	6,716	.5	6,716	1.4	11,084	1.4	11,084	.7	11,084	1.2
1-3 Yrs. College	3,572	1.4	3,572	.7	3,572	1.5	5,969	1.5	5,969	.8	5,969	1.3
College Grad	1,865	1.4	1,865	.8	1,865	1.5	3,232	1.5	3,232	.9	3,232	1.4
5+ Years College	1,384	1.5	1,384	.9	1,384	1.5	2,370	1.6	2,370	1.0	2,370	1.4
FAMILY INCOME												
Under 5,000	1,417	1.1	1,417	.4	1,417	1.3	1,984	1.2	1,984	.5	1,984	.9
5,000 - 6,999	808	1.1	808	.4	808	1.2	1,301	1.1	1,301	.5	1,301	.9
7,000 - 9,999	1,106	1.2	1,106	.4	1,106	1.3	1,818	1.2	1,818	.5	1,818	1.0
10,000 - 14,999	1,851	1.2	1,851	.5	1,851	1.3	2,943	1.3	2,943	.6	2,943	1.1
15,000 - 19,999	1,895	1.3	1,895	.5	1,895	1.4	3,057	1.4	3,057	.7	3,057	1.2
20,000 - 24,999	1,666	1.3	1,666	.6	1,666	1.4	2,619	1.4	2,619	.7	2,619	1.2
25,000 - 34,999	2,767	1.4	2,767	.6	2,767	1.5	4,409	1.4	4,409	.8	4,409	1.3
35,000 - 49,999	2,229	1.4	2,229	.7	2,229	1.5	4,094	1.5	4,094	.8	4,094	1.3
50,000 Or More	1,828	1.4	1,828	.8	1,828	1.5	3,416	1.5	3,416	.9	3,416	1.4

Two-way analysis of variance was also conducted for each variable to distinguish independent effects of the variable and survey year in explaining observed variations in mean scale scores. Results pertinent to each scale are as follows:

- **General Knowledge**--The following were observed with respect to each of the six variables:

  .. **Race/Ethnicity**--Asian/Pacific Islanders and Whites increased their knowledge scores modestly while other populations remained the same.

  .. **Hispanic Origin**--The Mexican-Mexicano and Other Hispanic populations experienced modest increases in mean scale score while the others remained unchanged.

  .. **Sex**--Males' general knowledge scores increased slightly.

  .. **Age**--All age groups but the oldest (75+ years) increased their scores slightly over time.

  .. **Educational Attainment**--Those respondents with no formal education experienced a slight decline while respondents with nine or more years of education experienced a slight increase in general knowledge scores.

  .. **Family Income**--A slight increase was observed in six of the nine income categories, most of which were for incomes of $10,000 or more.

- **Risk Factors**--For this scale the following was observed:

  .. **Race/Ethnicity**--There was a consistent increase in scale scores across all racial and ethnic subpopulations.

  .. **Hispanic Origin**--All but Mexican-Mexicanos increased their scores in 1988.

  .. **Sex**--Both sexes increased their scores.

  .. **Age**--All age groups increased their mean scale scores.

  .. **Educational Attainment**--Only those respondents with no formal education experienced a slight decline. All other groups increased in knowledge.

  .. **Family Income**--There was a consistent increase in scale scores across all nine income categories.

- **Prevention**--Prevention proved to be the exception to a general improvement in knowledge since 1987. A decline in prevention knowledge was observed for all categories of all six sociodemographic variables considered in this analysis.

The observed inconsistency of the trends across knowledge scales deserves further consideration. One would expect that increases in general knowledge and knowledge of risk factors would be accompanied by a similar increase in knowledge of AIDS prevention. In fact, prevention knowledge was observed to decline over the two years.

There was a subtle change in the prevention-related questions between the 1987 and 1988 surveys. In 1987, being celibate was offered as a prevention measure while in 1988 it was seemingly replaced with having a vasectomy. The reason for this change was clear, as can be seen in Exhibit II-9. Nearly all respondents responded correctly regarding the efficacy of celibacy, so there was little purpose in continuing with this question. Replacement of this question with a more difficult question would tend to lower the overall scale score. However, additional inspection of differences in the overall percentage correct for these scale items suggests that the observed decline may not be due solely to changes in the questions. Dramatic declines were also observed in the percentage responding correctly to the use of condoms and to persons having monogamous relationships. These declines were far more dramatic than the increases observed in correct responses regarding the use of diaphragms and spermicides. Further, much more detailed analyses are necessary to establish whether the observed decline in prevention-related knowledge is "true" or related to some yet-to-be-established idiosyncrasy of the data.

- **Self-Perceived AIDS Risk**--Both the 1987 and 1988 versions of the NHIS AIDS Supplement include a question on respondents' chances of getting the AIDS virus. These responses are shown by race/ethnicity and by Hispanic origin in Exhibits II-10 and II-11.

  A higher percentage of respondents in 1988 report that they have no chance of getting the AIDS virus. This percentage grew by at least 10 percent in all racial/ethnic groups. This increased confidence was also noted in Hispanic subpopulations.

  The 1988 survey also ascertained respondent's estimations of their chances of having the AIDS virus. While most respondents (see Exhibit II-12) reported low or no chance of having AIDS (93.7 percent overall), 2.2 percent felt that they had a high or medium chance of having the AIDS virus. These feelings were highest among American Indian/Alaska Natives, where 4 percent responded in the higher-risk categories. However, there were only nine American Indian/Alaska Native respondents in the highest-risk categories, making this finding suspect. For Blacks, where significant numbers were available, 3.5 percent fell in the higher-risk categories.

- **AIDS Testing, Risk-Group Membership, And Belief In AIDS Information Generated By Federal Public Health Officials**--The 1988 NHIS AIDS Supplement included many new questions. Responses to those with special relevance to the study of KABB were analyzed. The results of these analyses are displayed in Exhibit II-13 and discussed below:

  - **Have you had your blood tested for the AIDS virus infection?**--Analysis of this question was hampered by the fact that small numbers of responses in all categories reduced cell frequencies to unreliable levels. For this reason, the National Center for Health Statistics provided a recoded version of the question that also included respondents who reported having donated blood since 1985. (Since 1985, donated blood routinely has been tested for the HIV.)

EXHIBIT II-9

PERCENT RESPONDING CORRECTLY TO QUESTIONS REGARDING THE EFFECTIVENESS OF SELECTED MEASURES IN PREVENTING INFECTION WITH THE AIDS VIRUS, BY SURVEY YEAR

PREVENTION MEASURE	PERCENTAGE CORRECT 1987	1988
Using A Diaphragm	81	85
Using A Condom	93	81
Using A Spermicidal Jelly, Foam, Or Cream	78	84
Having A Vasectomy	N.A.	96
Being Celibate, That Is, Not Having Sex At All	99	N.A.
Two People Who Do Not Have The AIDS Virus Having Sex Only With Each Other	99	88

EXHIBIT II-10

NUMBER AND PERCENT OF RESPONDENTS ASSESSING THEIR CHANCES OF GETTING THE AIDS VIRUS BY RACE/ETHNICITY

RACE/ETHNICITY/ SURVEY YEAR	CHANCES OF GETTING AIDS VIRUS					
	HIGH/MEDIUM		LOW		NONE	
	No.	Percent	No.	Percent	No.	Percent
American Indian/Alaska Native						
1987	4	5.1	19	24.1	56	70.9
1988	2	1.1	35	18.4	153	80.5
Asian/Pacific Islander						
1987	8	2.9	100	36.8	164	60.3
1988	12	2.5	101	21.1	365	76.4
Black						
1987	131	6.0	579	26.7	1,457	67.2
1988	135	3.6	718	18.9	2,943	77.5
White						
1987	573	4.4	4,205	32.2	8,272	63.4
1988	454	2.1	4,778	21.7	16,812	76.3
Hispanic						
1987	50	5.8	245	28.3	572	66.0
1988	63	4.0	255	16.0	1,276	80.1

Birch & Davis Associates, Inc., 1990

EXHIBIT II-11

NUMBER AND PERCENT OF RESPONDENTS ASSESSING THEIR CHANCES OF GETTING THE AIDS VIRUS BY HISPANIC ORIGIN

HISPANIC ORIGIN/ SURVEY YEAR	CHANCES OF GETTING AIDS VIRUS					
	HIGH/MEDIUM		LOW		NONE	
	No.	Percent	No.	Percent	No.	Percent
Puerto Rican						
1987	6	5.2	28	24.3	81	70.4
1988	7	3.8	31	16.9	145	79.2
Cuban						
1987	1	1.5	18	26.5	49	72.1
1988	4	3.1	18	13.7	109	83.2
Mexican-Mexicano						
1987	15	10.7	36	25.7	89	63.6
1988	18	5.8	44	14.1	250	80.1
Mexican-American						
1987	17	5.9	77	26.6	195	67.5
1988	22	4.7	77	16.3	373	79.0
Other						
1987	11	4.3	86	33.7	158	62.0
1988	12	2.4	85	17.1	399	80.4

Birch & Davis Associates, Inc., 1990

EXHIBIT II-12

NUMBER AND PERCENT OF RESPONDENTS ASSESSING THEIR CHANCES OF HAVING THE AIDS VIRUS BY RACE/ETHNICITY

RACE/ETHNICITY	CHANCES OF HAVING AIDS VIRUS							
	HIGH		MEDIUM		LOW		NONE	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
TOTAL	138	.5	503	1.7	4,303	14.5	23,490	79.2
American Indian/Alaska Native	5	2.3	4	1.9	32	15.0	157	73.4
Asian/Pacific Islander	3	.6	9	1.7	69	13.1	403	76.3
Black	40	1.0	103	2.5	565	13.6	3,164	76.3
White	76	.3	350	1.5	3,444	15.0	18,389	80.3
Hispanic	14	.8	37	2.1	193	11.1	1,377	79.4

EXHIBIT II-13

NUMBER AND PERCENT OF AFFIRMATIVE RESPONSES TO SELECTED KABB QUESTIONS BY RACE/ETHNICITY

KABB QUESTIONS	TOTAL		RACE/ETHNICITY									
			AMERICAN INDIAN/ALASKA NATIVE		ASIAN/PACIFIC ISLANDER		BLACK		WHITE		HISPANIC	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Have Had Blood Tested For The AIDS Virus Infection?	4,835	16.3	25	11.7	75	14.2	552	13.3	3,899	17.0	284	16.4
Belong To At Least One Of Six High Risk Groups For AIDS?	767	2.6	7	3.3	6	1.1	141	3.4	567	2.5	46	2.7
Believe Federal Public Health Officials' Information About AIDS?	18,880	63.7	126	58.9	363	68.8	2,552	61.6	14,662	64.1	1,177	67.8
Believe Federal Public Health Officials' Advice On AIDS Prevention?	22,813	76.9	153	71.5	399	75.6	3,048	73.5	17,890	78.2	1,323	76.3

Approximately 16 percent of respondents had their blood tested for AIDS, i.e., they answered affirmatively to the blood testing question or reported having donated blood since 1985. Racial/ethnic differences in having an AIDS blood test were observed, with Whites and Hispanics most likely to have been tested and American Indian/Alaska Natives and Blacks least likely to have been tested.

- **Are any of these statements true for you?--**

  .. You have hemophilia and have received clotting factor concentrates since 1977.

  .. You are a native of Haiti, Central Africa, or East Africa who has entered the United States since 1977.

  .. You are a man who has had sex with another man at some time since 1977, even one time.

  .. You have taken illegal drugs by needle at any time since 1977.

  .. Since 1977, you are or have been the sex partner of a person who would answer "yes" to any of the items above.

  .. You have had sex for money or drugs at any time since 1977.

  Analysis of this question was also hampered by small table cell frequencies. The vast majority of respondents claim to belong to no risk group.

  Blacks report membership in a high-risk group slightly more often than do Whites. Hispanics report levels comparable to Whites. There are too few respondents in the other racial/ethnic populations to make definitive statements.

- **When Federal public health officials give information about AIDS, do you believe what they say or are you doubtful about the information they give?--**Overall, 64 percent of respondents believed Federal public health officials' information on AIDS. Asian/Pacific Islanders were the most trusting (69 percent), and American Indian/Alaska Natives were the least trusting (59 percent). Whites were only slightly more trusting than Blacks (64 percent vs. 62 percent).

- **When they give advice about how to help keep from getting AIDS, do you believe their advice or are you doubtful about what they say?--** The prevention message from Federal public health officials appears to be more credible than does AIDS information. Overall, 77 percent of respondents believe Federal public health officials' advice on AIDs prevention. In this arena, Whites were most trusting (78 percent) and, again, American Indian/Alaska Natives were least trusting (72 percent).

ENDNOTES

1. R. Bakeman, E. McCray, J.R. Lumb, R.E. Jackson, and P.N. Whitley, "The Incidence of AIDS Among Blacks and Hispanics," *Journal of the National Medical Association* 79 (1987): 921-928.

2. S.R. Friedman et al., "The AIDS Epidemic Among Blacks and Hispanics," *The Milbank Quarterly* 65 (1987): 455-499.

3. A.L. Giachello, O. Aguillon, and J. Prohst, "AIDS Knowledge, Attitudes, and Sexual Practices Among Hispanics in Chicago," an unpublished paper, June 1989.

4. B.V. Marin and G. Marin, "Level of Information About HIV Among Hispanics in San Francisco: Effects of Acculturation," an unpublished paper, April 1989.

5. Marin and Marin, op. cit.

6. Giachello, Aguillon, Probst, op. cit.

7. S.B. Thomas, A.G. Gilliam, and C.G. Iwrey, "Knowledge about AIDS and Reported Risk Behaviors Among Black College Students," *Journal of American College Health* 38 (1989): 61-66.

8. R.J. DiClemente, C.B. Boyer, and E.S. Morales, "Minorities and AIDS: Knowledge, Attitudes, and Misconceptions Among Black and Latino Adolescents," *American Journal of Public Health* 78 (1988): 55-57

9. L.R. Jaffe, M. Seehaus, C. Wagner, and B.J. Leadbeater, "Anal Intercourse and Knowledge of Acquired Immunodeficiency Syndrome Among Minority-Group Female Adolescents," *Journal of Pediatrics* 112 (1988): 1005-1007.

10. N.A. Day; A. Houston-Hamilton; D. Taylor; M. Jang; and G. Crowen, *A Report on the First Tracking Survey of AIDS Knowledge, Attitudes, and Behaviors in San Francisco Black Communities, I:(1988-89)*, prepared for the AIDS Surveillance Office, San Francisco Department of Public Health, an unpublished paper.

11. Fairbank, Bregman & Maullin, Inc., *Report on a Tracking Survey of AIDS Knowledge, Attitudes, and Behaviors in San Francisco's Latino Communities*, prepared for the AIDS Surveillance Office, San Francisco Department of Public Health, an unpublished paper February 14, 1989.

12. E. Goodman and A. Cohall, "Acquired Immunodeficiency Syndrome and Adolescents: Knowledge, Attitudes, Beliefs, and Behaviors in New York City Adolescent Minority Populations, *Pediatrics* 84 (1989): 36-42.

13. The Mexican-American category includes 13 respondents who identified themselves as Chicano.

CHAPTER THREE

FINDINGS: EVALUATION POTENTIAL OF MINORITY-TARGETED AIDS PROJECTS

III. FINDINGS: EVALUATION POTENTIAL OF MINORITY-TARGETED AIDS PROJECTS

Assessment of the ability to evaluate the performance of AIDS prevention efforts in minority communities was largely dependent on grant and contract files maintained centrally by the PHS. As an information source, these files were imperfect because of the:

- Relative newness of most grants, the majority of which have been funded since 1987 and have had little time for the implementation of data collection.
- Vague or imprecise evaluation requirements that give grantees considerable latitude in the form, the content, and the reporting of evaluation efforts.
- Incomplete documentation of the evolution of projects from what was initially specified in the grant to the project as actually implemented.

Nevertheless, it was possible to extract considerable data that related to project evaluation. Findings are reported with respect to study projects in four areas: (1) project characteristics, (2) service populations, (3) service delivery, and (4) project evaluation.

1. STUDY PROJECTS ARE DIVERSE

The majority of projects chosen for study, 58 out of 90, were funded by the CDC. Other funding sources were the Office of Minority Health (OMH), with 15 projects; the National Institute on Drug Abuse (NIDA), with 12 projects; and the National Institutes of Mental Health (NIMH), with five projects. The projects were all relatively new, with only two out of 90 funded in Fiscal Year 1987. Projects were most often funded for a 36-month duration and at a level of $50,000 per year.

In terms of geographic dispersion (see Exhibit III-1), of the 53 projects serving single PHS regions or lesser geographic areas, PHS Regions II and IX had the largest number of projects. Region IX had slightly more projects, with 12, than did Region II, with 10 projects. For the most part, in terms of their numbers, projects were distributed proportionately to their AIDS case rate.

CBOs were the most common of funded organizations, representing 37 projects. Most of the CBO grantees had paid staff and received funds in addition to their AIDS prevention grant. Private organizations were also heavily represented, with 31 funded projects. Private organizations were defined by what they were not--CBOs, professional associations, health care organizations, or university research organizations.

2. SERVICE POPULATIONS WERE COMPRISED OF INDIVIDUALS AT THE HIGHEST RISK OF GETTING HIV/AIDS

Most projects served only one (62 projects) or two (19 projects) racial/ethnic populations. Blacks were cited as the primary target population by 51 projects and Hispanics by 50 projects. Other minority populations were much less often targeted, American Indian/Alaska Natives by 13 projects and Asian/Pacific Islanders by 8 projects.

In terms of age cohort, most projects targeted young adults (75 projects), adults (69 projects), and/or adolescents (55 projects). Only 22 projects attempted to reach pre-adolescents (individuals under 13 years of age). Gender, on the other hand, was not often used to distinguish specific interventions.

EXHIBIT III-1

MINORITY-FOCUSED AIDS PREVENTION PROJECTS
IN STUDY SAMPLE BY PUBLIC HEALTH SERVICE (PHS)
REGION COMPARED TO 1989 REPORTED CASES OF AIDS (BY REGION)

(N = 53)[1]

	PHS Region	No. of Projects	Reported 1989 AIDS Cases Rate (Per 100,000 Population)	Rank Order by Number of Projects	Rank Order by 1989 AIDS Cases Rate
I	Connecticut, Maine, Vermont, Massachusetts, New Hampshire, Rhode Island	3	10.7	8	6
II	New Jersey, New York, Puerto Rico, Virgin Islands	10	32.8 [2]	2	1
III	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia	4	10.9	6.5	5
IV	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee	8	13.8	3	3
V	Illinois, Indiana, Michigan, Ohio, Minnesota, Wisconsin	4	6.0	6.5	9
VI	Arkansas, Louisiana, New Mexico, Texas, Oklahoma	6	11.4	4	4
VII	Iowa, Kansas, Missouri, Nebraska	0	5.3	10	10
VIII	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming	1	6.6	9	8
IX	Arizona, California, Guam, Hawaii, Nevada, Trust Territory of Pacific Islands	12	20.5 [2][3]	1	2
X	Alaska, Idaho, Oregon, Washington	5	8.2	5	7

Sources: Macro Systems, Inc., 1990.

(1) Does not include projects serving multiple States or regions.
(2) Rates were calculated for Puerto Rico, Virgin Islands, and Guam using 1988 reported AIDS cases and July 1988 U.S. Census Bureau population estimates.
(3) Trust Territory of the Pacific Islands is not included in the calculations of the AIDS incidence. The sample did not include any projects from this area.

Data on targeting of at-risk populations were available for a subset (63) of study projects. Most of these projects, 56 out of 63, targeted more than one at-risk population. As shown in Exhibit III-2, the four most often targeted at-risk populations were:

- IV drug users
- Sex partners of IVDUs
- Multiple sex partners
- High-risk youth

3. SERVICE DELIVERY EFFORTS FOCUSED ON INTRAVENOUS DRUG USE AND UNSAFE SEX WITH HIGH-RISK INDIVIDUALS

Data on service delivery were reported for 63 projects for which complete data were available. When categorized into four areas of primary intent, most projects emphasized education (see Exhibit III-3). Behavioral change was also rated relatively high. Most projects, in fact, had more than one primary intent.

As shown in Exhibit III-4, four AIDS topics were dealt with most frequently by the projects:

- General information on AIDS causes and consequences (AIDS 101)
- Proper use of condoms
- Cleaning and sharing IV works
- Where to get HIV tests

Abstinence from sex, a frequent message in national AIDS campaigns, was a selected topic in only three projects. Most projects (46 of 63) used three or more information topics in their AIDS prevention efforts.

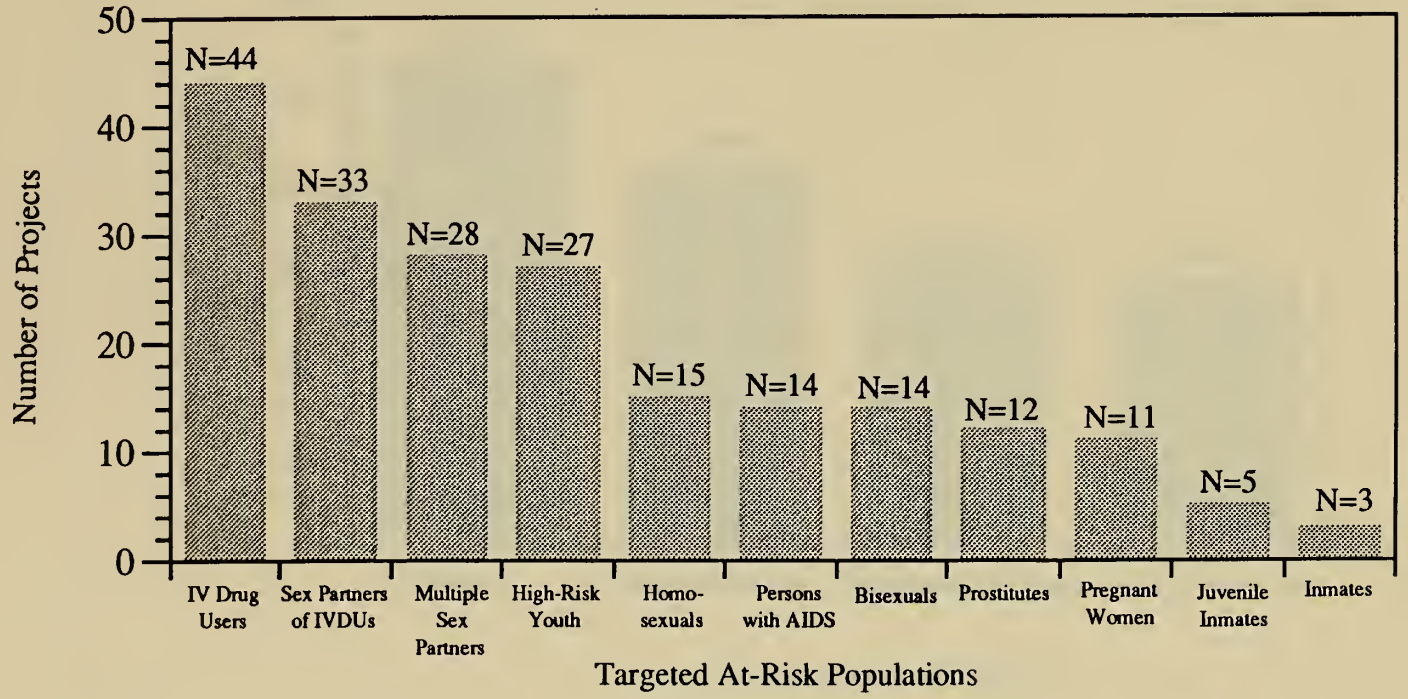
Outreach workers and health professionals were employed with almost equal frequency in delivering AIDS information (41 versus 40 projects). Peer educators were also employed frequently and were cited in 34 projects. The use of outreach workers is particularly appropriate, given the strong emphasis of these projects on IVDUs, an exposure category that is not typically reached by the conventional health care system. In this study, the term health professional is all-inclusive, subsuming counselors, nurses, social workers, and AIDS coordinators.

Projects rely most on brochures and fact sheets to convey the AIDS prevention message (see Exhibit III-5). Half of the 38 projects that noted the use of brochures and fact sheets were planning to develop their own materials. To be effective, brochures must be paired with interactive methods[1] that involve direct and, hopefully, personal contact with the service population. Written materials may not be an effective mode for carrying the AIDS prevention message in communities that are known to prefer oral and visual communications; for example, the effectiveness in the Black community of the pulpit and of television is well known.[2] Further, the large number of projects that are developing their own materials suggests that project coordination needs to be enhanced to limit potentially redundant efforts. In spite of the public controversy over the use of birth control, the distribution of condoms was also a popular AIDS prevention material, used by 29 projects. Use of a formal AIDS curriculum by 28 projects suggests that the field may be maturing. In fact, only seven projects felt the need to develop their own curriculum. Two other popular modalities were the distribution of clean IV needles and/or bleach kits[3] by 23 projects and the presentation of videos/films by 21 projects. Most projects (45 out of 63) anticipate using more than two types of AIDS prevention materials.

EXHIBIT III-2

AIDS PREVENTION PROJECTS BY TARGETED AT-RISK POPULATIONS

N=63 [1]



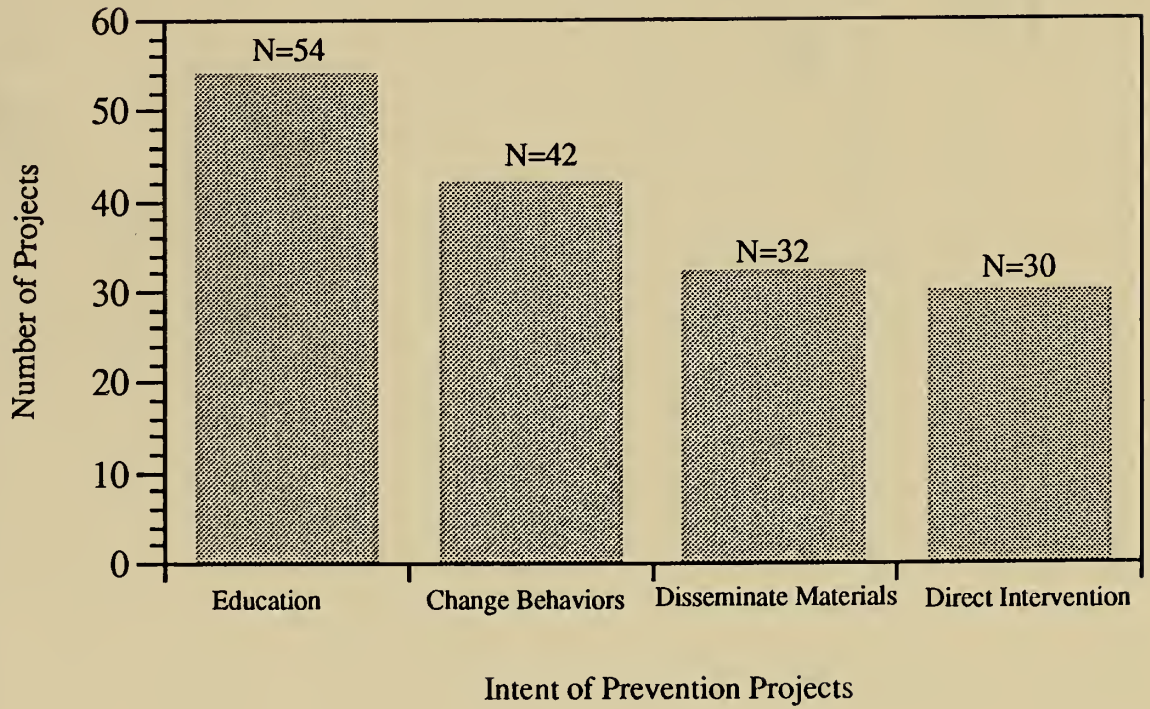
Source: Macro Systems, Inc., 1990.

[1] Most projetcs targeted more than one at-risk population.

EXHIBIT III-3

NUMBER OF PREVENTION PROJECTS BY GUIDING INTENT

N=63 (1)



Source: Macro Systems, Inc., 1990.

(1) Most projects reflected more than one intent.

EXHIBIT III-4

AIDS INFORMATION/INSTRUCTION DELIVERED OR DISSEMINATED BY PREVENTION PROGRAMS

(N = 63)

Type of Information	Frequency*
AIDS 101	61
Proper Use of Condoms	41
Cleaning & Sharing IV Works	35
Where to Get an HIV Test	30
Sex Education	18
Women with AIDS	18
Children and Youth with AIDS	17
General Health Promotion	8
General Drug Education	8
Abstinence from Sex	3
Nutrition Education	2

Source: Macro Systems, Inc., 1990.

* Reviewers were instructed to check all categories of information that applied. Categories are not mutually exclusive.

EXHIBIT III-5

AIDS PREVENTION MATERIALS USED BY AIDS PREVENTION PROGRAMS

(N = 63)[1]

Materials Used	Frequency
Brochures and Fact Sheets	38
Condoms	29
AIDS Curriculum	28
Clean IV Needle and Bleach Kits	23
Videos/Films	21
Public Service Announcements (PSAs)	11
Posters	10
Audio Tapes	3
Buttons	1
Bumper Stickers	0

Source: Macro Systems, Inc., 1990.

[1] Most programs targeted more than one type of material.

As shown in Exhibit III-6, projects tended to employ a wide range of methods to disseminate AIDS materials. Among the most popular methods were:

- Training trainers
- Small groups
- Street outreach

The extensive use of small groups and street outreach to disseminate information reflects the recognition that the AIDS message must be personalized and must be taken to the populations at greatest risk. The long-term viability of projects beyond immediate funding may rest in part on the train-the-trainers and AIDS curriculum efforts that can be exported to other projects and environments.

Of the range of potentially modifiable behaviors, three were most often cited by projects as targets for modification (see Exhibit III-7):

- Sharing IV works
- Unprotected sex with an IVDU
- Unprotected sex with multiple partners

These implicit priorities reflect the needs of minority communities, where IV drug use continues to be an important vector for AIDS and where HIV infection associated with unprotected sex with multiple partners is growing at an alarming rate.

4. WHILE EVALUATION IS PART OF THE STATED INTENT OF MOST PROJECTS, EVALUATION CAPABILITIES VARY WIDELY

Evaluation is incorporated as part of the stated purpose or intent of most PHS-funded projects. However, a review of grant announcements for specific evaluation requirements revealed few guidelines or conditions for evaluation. The notable exception to the generally vague and unspecific approach to evaluation was the NIDA AIDS Community Outreach Demonstration Program. The January 1987 grant announcement clearly states that the purpose of the grant program is "to demonstrate the effectiveness of comprehensive community-based outreach and intervention strategies in reducing the spread of AIDS among HIV drug abusers and their sexual partners." The grant requires both specific programmatic as well as national evaluations and incorporates a standardized data collection instrument that focuses on drug use, needle-use behavior, and sexual practices.

Data on evaluation plans and capabilities were reported for the 63 projects for which complete data were available. The study distinguished between two major evaluation categories as follows:

- **Formative**--Focuses on activities associated with ongoing project operations. Evaluation is generally instituted after planning has been completed, but before wide implementation. The central evaluation issue is "what works better," and the objective of formative evaluation is to improve the project and its management.

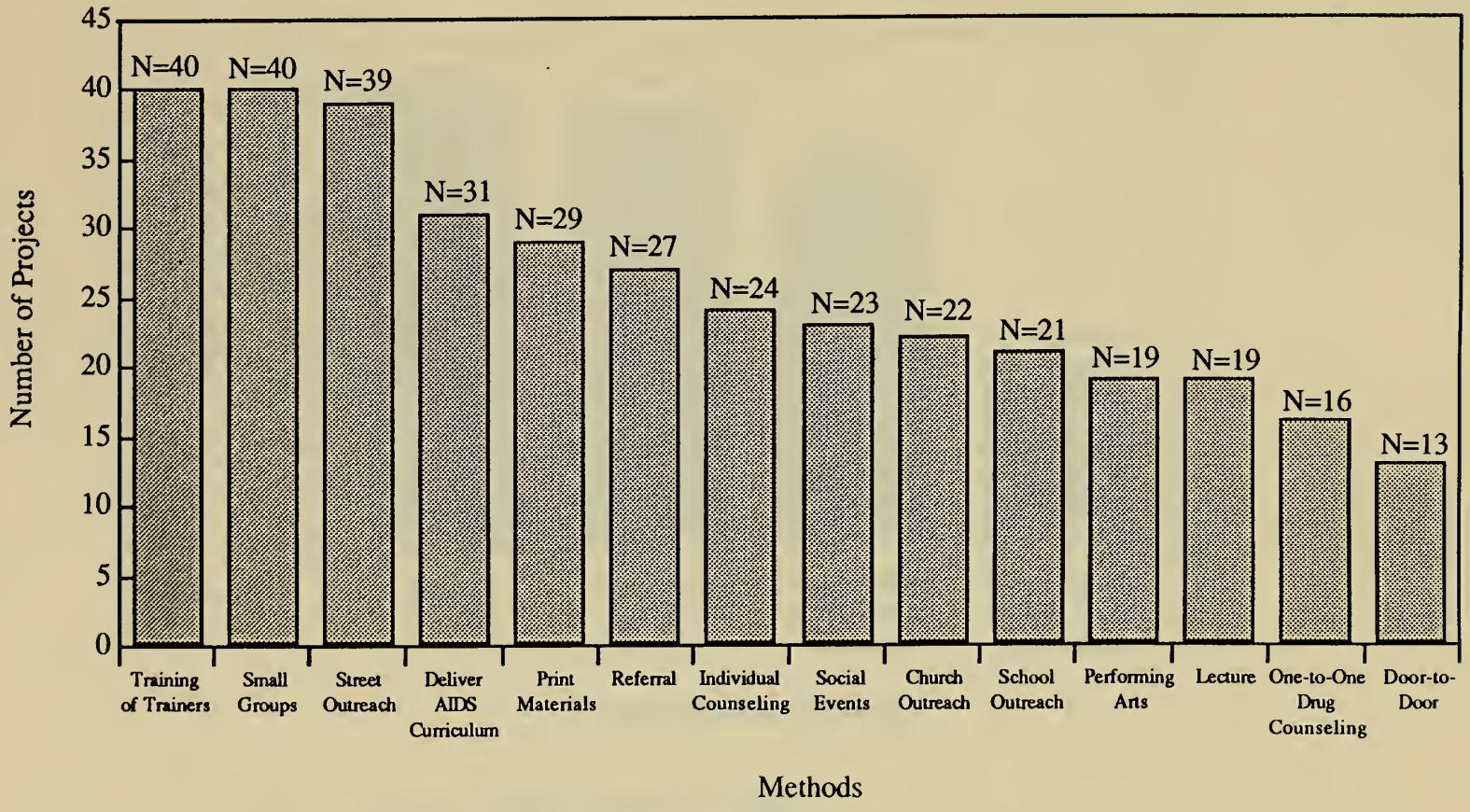
- **Summative**--Considers the long-term effects of project activities. Evaluation is conducted on mature projects, and assesses whether there has been any impact on appropriate performance indicators.

Given the relative newness of minority-targeted AIDS projects, most of the planned evaluations are formative. All projects plan some type of formative evaluation and many (51

EXHIBIT III-6

FREQUENCY OF PREVENTION PROJECT DISSEMINATION OF AIDS MATERIALS BY TYPE OF METHOD

N=63 (1)



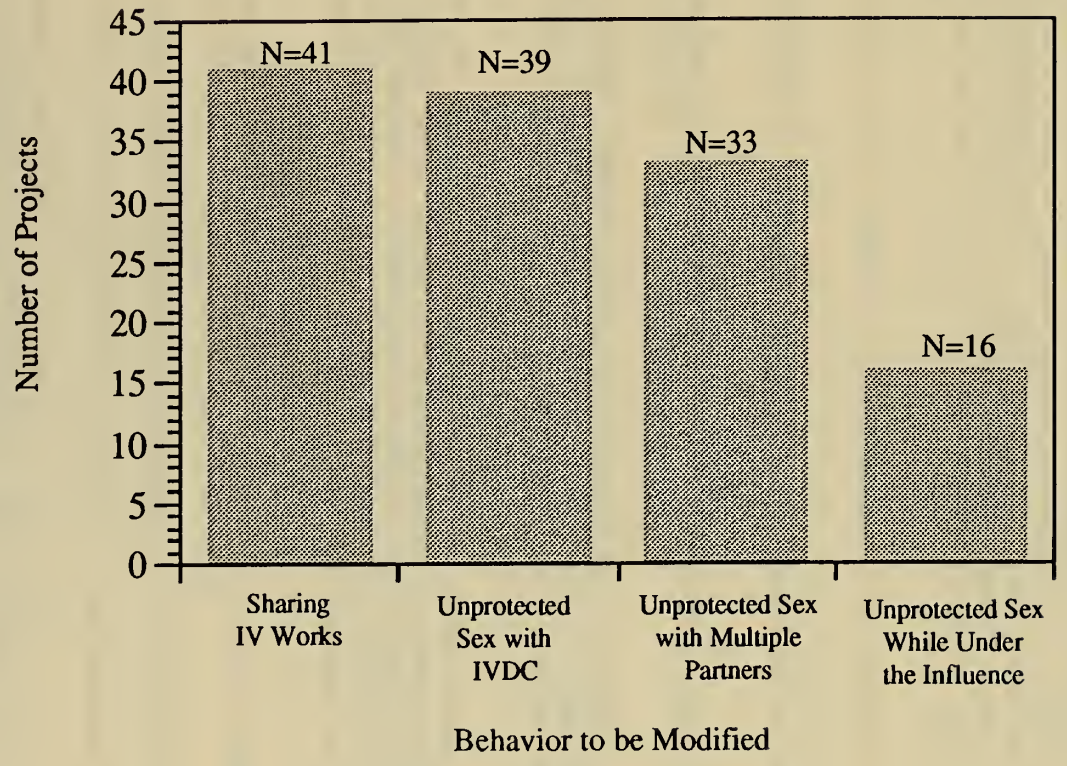
Source: Macro Systems, Inc., 1990.

(1) Most projects targeted more than one dissemination method.

EXHIBIT III-7

TYPES OF RISK BEHAVIORS TO BE MODIFIED BY NUMBER OF AIDS PREVENTION PROJECTS

N=63 (1)



Source: Macro Systems, Inc., 1990.

(1) Most projects targeted more than one risk behavior.

projects) plan to institute summative evaluation as well. The most common formative evaluation approaches include (see Exhibit III-8):

- Monitoring the achievement of project objectives
- Counting participants
- Counting documents distributed
- Baseline assessment of AIDS knowledge and behaviors

While such approaches could help establish a basis for determining whether projects work as planned, there is no explicit reference standard to assess whether a project performs better than some other alternative.

Summative evaluations provide the greatest opportunity for not only determining the relative merits of different AIDS prevention approaches but also providing the means to determine whether these interventions have had an impact. Most of the projects that intend to employ summative evaluation plan some form of pretest/posttest assessment of AIDS knowledge, attitudes, and behaviors (see Exhibit III-9). Many departures were observed from the framework for such evaluations suggested in a National Research Council report, *Evaluating AIDS Prevention Programs*, and shown in Exhibit III-10. Among evaluation gaps noted by the study team were these:

- Only two projects were collecting or monitoring AIDS statistics (biological outcomes).

- Few projects planned to document certain key prevention behaviors (behavioral outcomes).

- Only three projects provide information on IV drug use and sexual abstinence (behavioral outcomes).

- Although 41 projects targeted sharing of IV works as a modifiable high-risk behavior, only 23 projects actually distributed bleach kits for cleaning needles, which may reflect impact of local ordinances against such practices (behavioral outcomes).

It is difficult to determine the prospects for establishing project effectiveness from the examination of evaluation methods alone. Grants are often superficial in their description of the evaluation approach. This absence of detail and specificity also makes it difficult to determine what assistance, if any, grantees need or should be given in developing evaluation plans. A subjective assessment of the ability to measure project effectiveness was made in three areas:

- Whether the project would be collecting information that would document the effectiveness of the intervention in the target population

- Whether the project would document the achievement of its objectives by 1990

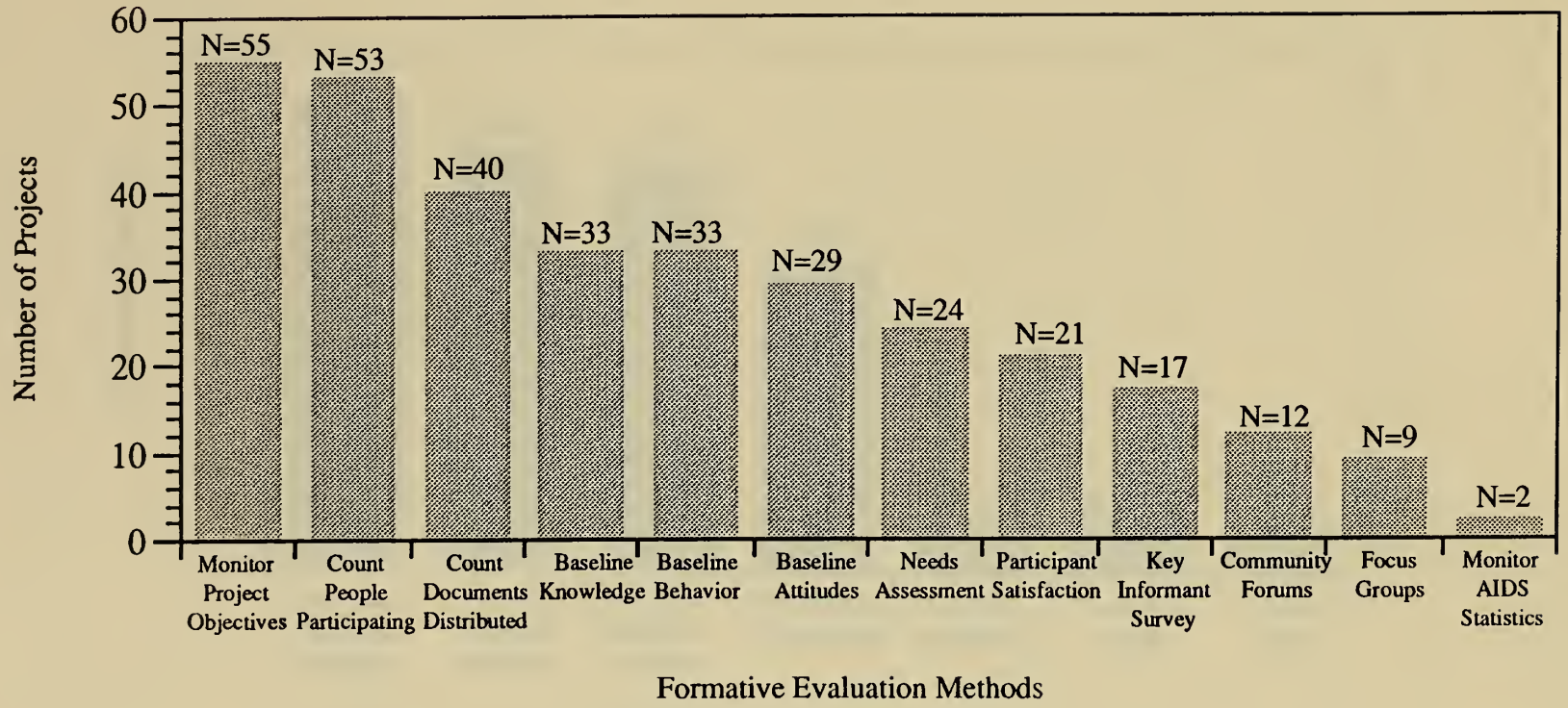
- Whether the project would document the achievement of its objectives by 1993

In terms of the first question, two-thirds (42) of projects were judged to be collecting sufficient information for an assessment of their effectiveness. Thirty projects were expected to be able to document the achievement of their objectives by 1990, and another 12 by 1993.

EXHIBIT III-8

FORMATIVE EVALUATION METHODS USED BY PREVENTION PROJECTS BY TYPE AND NUMBER

N=63

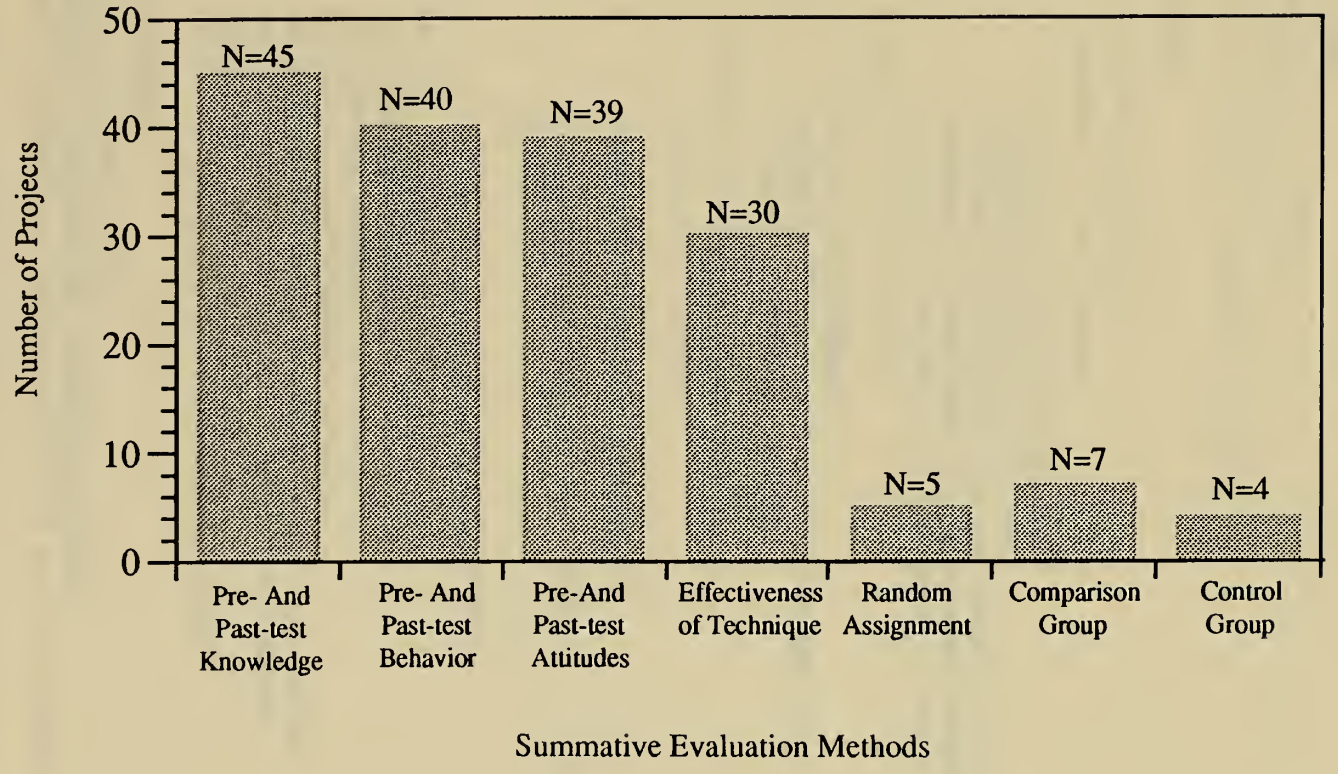


Source: Macro Systems, Inc., 1990.

EXHIBIT III-9

SUMMATIVE EVALUATION METHODS USED BY PREVENTION PROJECTS BY TYPE AND NUMBER

N=63



Source: Macro Systems, Inc., 1990.

EXHIBIT III-10

FRAMEWORK FOR OUTCOME EVALUATION OF AIDS PREVENTION PROGRAMS

I. **Biological Outcomes**

- A. Incidence of HIV Infection
- B. Fertility Rate
- C. Incidence of Sexually Transmitted Diseases

II. **Behavioral Outcomes**

- A. Primary Prevention Behaviors
  - 1. Elimination of risk behaviors
    - a. Abstinence from all sexual contact
    - b. Abstinence from all IV drug use
    - c. Avoidance of unprotected anal and vaginal intercourse
    - d. Avoidance of unsterilized IV drug injection equipment
    - e. Avoidance of pregnancy by HIV-positive women
  - 2. Reduction of risk behaviors
    - a. Practice of monogamy
    - b. Avoidance of anonymous and extradomestic sex
    - c. Avoidance of "shooting galleries"
  - 3. Protective behaviors
    - a. Proper use of condoms
    - b. Proper use of anti-HIV spermicides
    - c. Proper use of bleach for cleaning IV drug paraphernalia
    - d. Participation in needle exchange program
- B. Complementary Prevention Behaviors
  - 1. HIV antibody counseling
  - 2. HIV antibody testing
  - 3. Enrolling in drug treatment programs
  - 4. Determining HIV status of sexual and/or drug partners
  - 5. Providing names of partners to public health agents
  - 6. Using family planning services
  - 7. Personal involvement in HIV prevention program

III. **Psychological Outcomes**

- A. Awareness of AIDS and HIV
- B. Knowledge of AIDS and HIV transmission modes
- C. Decrease stigmatization of persons with AIDS and HIV infection

Source: S.L. Coyle, R.F. Boruch, and C.F. Turner, *Evaluating AIDS Prevention Programs*, Washington, D.C.: National Academy Press, 1989, p. 36

ENDNOTES

1. D.C. DesJarlais, *The Effectiveness of AIDS Educational Programs for Intravenous Drug Users*, Washington, D.C., Office of Technology Assessment, 1988, p. 8-9.

2. V.M. Mays et al. (eds.), *Primary Prevention of AIDS: Psychological Approaches*, Newbury Park, CA: Sage Publications, 1989, p. 271.

3. The data collection form did not distinguish between the distribution of clean needles and the distribution of bleach kits, although the former method has been somewhat more controversial.

CHAPTER FOUR

CONCLUSIONS AND RECOMMENDATIONS

IV. CONCLUSIONS AND RECOMMENDATIONS

This chapter presents conclusions about study questions on (1) the level of AIDS knowledge in minority populations and (2) the evaluability of PHS programs to prevent AIDS in minority populations. Recommendations about the future course of PHS efforts to prevent AIDS in racial and ethnic minority populations are also discussed.

1. THERE ARE GAPS IN BOTH MINORITY KNOWLEDGE OF AIDS AND IN PHS ABILITY TO ASSESS THE OUTCOME OF ITS PREVENTION EFFORTS ON BEHALF OF MINORITY POPULATIONS

Our attempts to determine the answers to study questions reveal that information on AIDS in minority populations is so new that relevant information is sparse. Available data do, however, point to specific knowledge deficiencies in certain populations, and in our ability to assess PHS programs' performance in meeting minority populations' information requirements:

- **PHS minority-targeted AIDS prevention programs are gearing up for evaluation.**
  - All projects reviewed for this study plan some form of evaluation.
  - Thirty of the projects reviewed for this study are gathering sufficient data for conducting an evaluation within the next year.
- **Great variation was noted in the evaluation experience and capabilities of PHS grantees.**
  - Although AIDS prevention projects evidence a broad commitment to evaluation, 21 out of 63 grantees that received close scrutiny in this study have yet to institute data collection mechanisms to make evaluation feasible.
  - CBOs--the cornerstone of AIDS prevention programs targeted to minority populations because of their unique ability to transmit needed information--are neither trained to monitor or evaluate their performance nor adequately funded to hire outside evaluation experts.
  - Little is known about the evaluation resources of a whole class of AIDS prevention grants--cooperative agreements with State and local health agencies.
- **Research on program effectiveness in minority communities is hampered by the lack of methodologic standarization.**
  - AIDS prevention grant announcements are not sufficiently explicit in their evaluation requirements to generate a standard set of useful data.
  - Data on study issues tend not to be comparable.
- **The level of knowledge of AIDS in minority populations appears to be generally high, but there are important deficiencies.**
  - While minority populations' knowledge of major AIDS transmission modes, risk factors, and preventive behaviors is generally high, there is less certainty about low-probability transmission modes.

- Knowledge is not consistently associated with AIDS-aversive behaviors, nor is the nature of this linkage well understood.

- **There are important racial/ethnic differences in the level of AIDS knowledge.**

  - Whites generally report the highest knowledge levels, while American Indian/Alaska Natives and Mexican-Mexicanos tend to report the lowest knowledge levels.

  - Gaps were noted in the level of AIDS knowledge of specific minority population subgroups.

These conclusions lead to recommendations to the PHS in three broad areas:

- Expanded support for evaluation
- Development of evaluation prototypes
- Enhanced understanding of KABB in minority populations

The remaining discussion presents these recommendations in terms of supporting findings and conclusions, related issues that may affect the PHS response, and recommended actions.

2. THE PHS SHOULD USE ITS EXISTING BASE OF FUNDED PROJECTS TO ESTABLISH THE MOST EFFECTIVE AIDS PREVENTION STRATEGIES IN MINORITY POPULATIONS

The essential message of this recommendation is that, although PHS-funded AIDS prevention projects targeted to minority populations are new, sufficient information exists now to begin evaluation, particularly of project activities. Furthermore, now is the time to establish mechanisms that will facilitate wider-reaching outcome-oriented evaluations in the future.

(1) Supporting Findings And Conclusions

The PHS has become a major presence in the support of AIDS prevention and education projects that are targeted to minority populations. The Centers for Disease Control, the principal disease prevention arm of the PHS, spent over $382 million on AIDS/HIV prevention in Fiscal Year 1989. Approximately $47 million of these funds were earmarked for efforts that specifically target HIV/AIDS prevention in minority populations.[1] For the present study, 90 minority-targeted projects were identified that were funded since FY 1987, received year one funding of at least $50,000, and emphasized primary and secondary prevention.

In the current critical period of extraordinary fiscal constraint, project evaluation must be undertaken to make the best use of available resources. Given its presence in AIDS prevention efforts, the PHS has a potentially important role to play in establishing the relative effectiveness of its supported AIDS preventive projects in various settings and populations.

(2) Issues That Affect The PHS Role

The PHS has a major but not solitary role to play in the national battle against HIV/AIDS. The PHS shares its responsibilities in a close partnership with State and local government as well as other public and private organizations. The PHS can be an important contributor to this public/private partnership by drawing from the diversity of its supported prevention efforts to identify those that work best in specific populations and settings.

Initial PHS interventions to prevent HIV/AIDS in minority populations responded to a crisis, and some have not generated enough data for project evaluations. The present study finds

that data are being gathered now that could be used to assess the effectiveness of PHS-supported AIDS prevention projects.

(3) Recommended Actions

In recognition of its leadership role and the feasibility of undertaking evaluation, the PHS should:

- **Continue funding existing AIDS prevention projects in minority populations.** The current reservoir of projects represents the test bed of current AIDS prevention strategies. Many have just begun their third year of funding and are now engaged in full-scale implementation and the collection of performance-related data. They are at a stage now where they can be expected to produce positive effects on their service populations and, thus, be amenable to evaluations of both project activities and outcomes.

- **Undertake the systematic evaluation of the full range of supported AIDS prevention strategies.** Rather than attempt to evaluate all projects, evaluation should be restricted to a sample of projects that are gathering adequate performance data and are typical of particular AIDS prevention approaches, particular service organizations (e.g., CBOs), or that target specific minority populations and risk behaviors. Due to the relative dearth of data collection mechanisms for outcome evaluation, these initial evaluations will have a formative or process orientation.

- **Support extension of current prevention strategies into new settings where feasible and appropriate.** Proven techniques should be applied to minority populations or subpopulations that are at special risk or are presently underserved. For example, only eight of the 90 projects included in the study were targeted to Asian/Pacific Islanders.

- **Support development of new, promising prevention interventions**--Continue development of new approaches that are designed to meet the special needs of racial/ethnic communities, particularly those that are not targeted but contain subpopulations that practice high-risk behaviors.

3. THE PHS SHOULD MANDATE PERFORMANCE MONITORING AND DEMONSTRATE EVALUATION STRATEGIES THAT CAN BE USED TO ENHANCE AIDS PREVENTION PROJECT PERFORMANCE IN MINORITY POPULATIONS

The focus of this recommendation is on what assistance the PHS can provide to facilitate the capacity of projects to conduct their own evaluations.

(1) Supporting Findings And Conclusions

PHS grantees enjoy considerable freedom in the conduct and reporting of their activities. Accountability is typically maintained through quarterly reports and site visits. The study found great variability in performance reporting and in the capability of grantees to demonstrate performance. Only NIDA, in its AIDS Community Outreach Demonstration Project, has attempted to enforce a systematic and standardized reporting process among its grantees. Approximately one-third of study grantees were not gathering information that would document the effectiveness of the intervention in the target population. Also, as noted elsewhere in this report, some grantees and CBOs in particular may not have sufficient evaluation expertise or funding to secure such expertise. Thus some service organizations need help in identifying the types of information that would be useful for evaluation and advice on how to make effective use of this information for enhancing project performance.

(2) Issues That Affect The PHS Role

The PHS has a difficult task ahead to bolster performance reporting and monitoring. The institution of a heavy reporting burden to improve grants management--and, presumably, performance--might act to stifle innovation by moving the emphasis away from the provision of services to data collection. Further, certain funding mechanisms, especially State and local cooperative agreements, introduce intermediaries between the PHS and the grantee. As a consequence, data at the PHS level was found to be so sparse that the present study was unable to examine this category of grantees. Finally, it is not in the spirit of the grants mechanism to impose many controls.

The types of service interventions that are presently under way represent one of the only available weapons against this deadly disease. When they are ineffective in reducing risk behaviors, there may be a cost in lives. Further, this is not an ideal world where infinite funds can be applied. Decisions must be made regarding where resources may be spent most effectively. Thus the issue is not whether data should be collected but how much can be expected without imposing undue burdens on service providers who are already at the limits of their administrative capacity.

(3) Recommended Actions

Four feasible recommended actions are proposed that will function to improve present project monitoring, expand the in-house evaluation capabilities of service providers, and provide appropriate evaluation prototypes for minority populations.

- **Introduce a required standard method of reporting project information.** Implementation of a standardized reporting requirement will facilitate the collection of complete and comparable information for project management at both the project and funding agency level. While a PHS-wide reporting requirement may be impractical, such requirements should be instituted for most important funding mechanisms and service models. Standardized reporting is warranted for CBOs, the largest group of funded agencies to conduct AIDS prevention projects in this study. This recommendation is congruent with a similar recommendation made in the recent NRC report *Evaluating AIDS Prevention Programs.*[2]

- **Provide technical assistance and more concrete direction for designing and implementing evaluations.** A consistent theme throughout these recommendations is that the evaluation capability of CBOs and other service providers needs to be bolstered. Such technical assistance could take the form of evaluation guides, seminars, and the provision of funding to secure evaluation expertise. Such assistance also will be necessary as PHS evaluation requirements grow more rigorous.

- **Develop AIDS project evaluation prototypes.** The PHS should fund efforts to identify the best combinations of methods to assess and monitor project performance in specific minority populations. While there is a broad repertoire of evaluation methods, they need to be tested in different settings and populations. These prototypes should demonstrate approaches that can be used effectively to reach difficult segments of the minority population, specifically IVDUs and their sexual partners. As noted in the NRC report,[3] evaluations should be conducted in populations at low and high AIDS risk. It also cannot be assumed that proven methods for one population, such as male homosexuals, will work with equal effectiveness among, for example, IV drug users. While there may be cross-overs between these populations, there are distinct racial/ethnic differences that can affect evaluation results.

Prototypes can be made available as part of the technical assistance function described in the prior recommended action.

4. THE PHS SHOULD SUPPORT CONTINUED EFFORTS TO ENHANCE AND REFINE THE MEASUREMENT OF AIDS KABB IN MINORITY POPULATIONS TO DETERMINE AND MONITOR THE NEED FOR PREVENTIVE SERVICES

The study identified a series of information gaps and assessment limitations that impede the clearer understanding of AIDS KABB in minority populations. To enhance this understanding, recommendations are proposed in three broad areas of KABB research in minority populations:

- **Generalizability**--A standardized KABB instrument should be designed and validated.

- **Knowledge Of Population Subgroups**--Innovative strategies must be adopted for minority populations that are hard-to-reach by virtue of their language, culture, poverty, drug use, or other factors.

- **Relation Of Knowledge To Behavior**--More research is needed on the nature of the relationship between AIDS knowledge and AIDS-preventive behaviors.

The following sections provide additional information to justify and further specify these general recommendations.

- **A Standardized KABB Instrument Should Be Designed And Validated**--The thrust of this recommendation is generalizability, the ability to extend findings from a specific event to other similar events. In this case, events could be assessments of KABB in various populations.

(1) Supporting Findings And Conclusions

Virtually every study that was examined employed different assessment techniques in terms of:

- Population identification and selection
- Elements of KABB examined
- Data collection methods

These fundamental differences made it difficult to compare across or even within populations. The ability to make comparisons among populations facilitates the:

- Development of a frame of reference for establishing the relative importance of different aspects of KABB in different population groups

- Establishment of KABB time trends

- Strengthening of the results of other studies through replication

- Combination of data to enhance analytical power and efficiency

The first two reasons are important from a project-planning perspective. These kinds of comparisons are necessary to determine where and what types of interventions are most important for particular population subgroups. Trend data provide some notion of how well projects are doing. The final two reasons are more research-oriented. Replication helps to establish the reliability of measures if the results are relatively consistent and stable in similar populations. Replication also enhances the overall validity of KABB measures if predictable

results occur in different populations. The consistency of the methodological approach also permits the integration of the results of multiple studies. This, in turn, permits application of more powerful statistical techniques to the determination of potential intervention effects (meta-analysis).

(2) Issues That Affect Generalizability

Many issues can affect generalizability, including:

- **Lack Of A Sufficient Theoretical Basis**--Each element of KABB is multidimensional. These dimensions are implicit in the instrument design, affecting the types of questions included. Current theory is drawn primarily from the health literature developed for other diseases. These dimensions have not been validated for AIDS KABB in minority populations.

- **Lack Of Sophistication Of The Research Network**--The observed diversity of research on KABB in minority populations should be expected, given that the field has only developed in the last two to three years. The research network may not be sufficiently developed to ensure the appropriate and efficient diffusion of techniques and findings.

- **Difficulties Of Researching Minority Populations**--Research on minority populations, particularly on individuals at highest risk, is complicated by the problems of poverty, illicit drug use, and other contextual factors. These are very difficult to reach populations. Further, issues associated with data collection in high-risk minority populations are a key focus of AIDS-related research efforts in other PHS programs whose KABB-related activities were beyond the scope of this study, particularly those that are sponsored by the National Institute on Drug Abuse (NIDA).

- **Lack Of Research Sophistication**--Community-based organizations (CBOs) have been principal recipients of funding for initiatives that attempt to influence KABB in minority populations. CBOs are ideally suited to function as spokespersons to their communities and as service providers due to their ongoing community presence and awareness of the unique needs and social dynamics of their communities. While their community presence and emotional commitment to high-risk populations are supportive of a greater role in research and evaluation, it is unrealistic to expect such a contribution without additional funding, personnel resources, and training.

- **Insufficient Insight Into Uniqueness Of Minority Populations**--It is important to determine when generalization is appropriate. Minority populations are quite heterogeneous. For example, in the Hispanic community, Cuban-Americans are very different from Mexican-Americans in terms of education, income, and political attitudes. It is not appropriate to assume that an instrument or a research design is appropriate for a general population, such as Asian/Pacific Islanders, without prior testing in discrete subpopulations (e.g., Filipino, Thai).

(3) Recommended Actions

The PHS needs to take the lead in addressing problems of generalizability because these problems are national in scope. Three actions are suggested for the PHS:

- **Establish a comprehensive research tracking system.** The elements of KABB and the interrelationship between these elements is still poorly understood in minority populations. At this point, it is difficult to gauge the sufficiency of

present research efforts to clarify these interrelationships. Although supported in part by Federal funds, these studies are sometimes conducted outside of direct Federal control and reporting requirements. The PHS should support a centralized tracking system that monitors research planned or under way to ensure that research overlap is minimized and that minority issues are being thoroughly explored.

- **Develop a prototype data collection instrument.** The NHIS AIDS Supplement represents a potential model for survey research with respect to AIDS KABB in minority populations. Core questions that can be administered to the broadest populations need to be identified, as do the types of issues that must be considered in developing special-purpose questions for particular subpopulations.

  Question development should also be associated with seminal efforts to develop broadly applicable and technically sound KABB scales. Analysis of the NHIS data suggest that such scales are feasible and would greatly facilitate the interpretation of the data. Further, scales need to extend beyond knowledge to attitudes/beliefs and behaviors.

- **Enhance the continued exchange of information among researchers.** Given the urgency of the growing HIV/AIDS epidemic in minority populations, the PHS should convene a national meeting within the next six to 12 months of researchers active in the field of AIDS KABB in minority populations to discuss research issues and ways to improve and coordinate research activities.

5. INNOVATIVE STRATEGIES MUST BE ADOPTED FOR MINORITY POPULATIONS THAT ARE HARD-TO-REACH BY VIRTUE OF THEIR LANGUAGE, CULTURE, POVERTY, DRUG USE, OR OTHER FACTORS

The term population is used to describe an arbitrarily specified aggregation of elements. In the present inquiry, concern centers on all persons now residing in the United States who identify themselves in any one of the following racial/ethnic categories:

- American Indian/Alaska Native
- Asian/Pacific Islander
- Black
- Hispanic

The definition of subgroups is quite flexible and can refer to tribal affiliation, national ancestral origins, demographic characteristics (e.g., sex), or other social groupings (e.g., IVDUs, homeless, prisoners).

(1) Supporting Findings And Conclusions

The Federal racial/ethnic groupings are too broad a brush for painting an accurate picture of AIDS KABB. The NHIS, the most important, potentially unbiased national source of KABB information, collects additional information on persons of Hispanic origin only. The NHIS is not intended to represent tribal or other ethnic subpopulations. Most of the published data on AIDS KABB in minority populations refer to convenience samples of students and clinic attendees and are, thus, not representative of the parent populations. The published literature also focuses on Blacks and Hispanics--the two largest minority population groups.

Local-level data on AIDS KABB in minority subpopulations are becoming available. The CDC has been funding local studies. Not much data are available yet at the Federal level because

the area of inquiry is too new, research is unpublished, or the studies are funded indirectly (e.g., State grants) and thus outside of CDC or other Federal reporting mechanisms. The Indian Health Service (IHS) is also supporting KABB surveys of Native American populations with CDC support, but these data are judged to be the property of tribes--requiring special approval for their release.

Little is being done in the studied projects to reach subpopulations at the highest risk, especially IVDUs. IVDUs represent a major component of AIDS morbidity and mortality in Blacks and Hispanics. Most survey designs that target minority populations are based on households. Other designs are based on telephone interviews. Neither design is particularly effective in reaching IVDUs, who may not be accessible at a fixed address or own a telephone. Without reaching these groups, such studies present an incomplete picture of AIDS KABB.

It is important to assess AIDS KABB in subpopulations at the highest risk of HIV. Based on what is already known about these groups, they are likely to be poorer and less well-educated than the rest of the population.

(2) Issues That Affect Assessment In Hard-to-Reach Subpopulations

There are a number of barriers to gathering data in some segments of the minority population:

- **Culture**--In HIV/AIDS, sexual behaviors and drug use patterns strongly affect potential health risks. Typically, these issues are among the most taboo-laden for any society. Respondents may be reluctant to discuss such issues with strangers.

- **Language**--It is often difficult to separate languages from their parent cultures. Appropriate language is a necessary if not sufficient condition for eliciting accurate information on high-risk behaviors. Even dialects may affect meaning. In the reviewed literature, the only concession to language was Spanish-language translations of some instruments or the use of Spanish-speaking interviewers.

- **Poverty**--Individuals at the highest risk of HIV tend to be poor. The poor are the least likely segments of any population to be reached through telephone or household surveys, the normative research mechanisms, since they may not own telephones or have a permanent address.

- **Priority**--Interest in the special problems of HIV/AIDS in minority populations is relatively new. AIDS has only heightened the already unacceptable health risks experienced by some segments of the minority population. Before AIDS, IVDUs were already heavily afflicted by hepatitis, other blood-borne diseases, and a wide range of communicable diseases such as tuberculosis.

- **Trust**--Researchers are considered to be outsiders in some minority communities. There is often little evidence of the long-term commitment of researchers or research institutions to the community--researchers get the desired information and disappear.

- **Fear**--There are several forms of fear. The researchers themselves are feared because they may be indistinguishable from plain-clothes police, immigration officers, or even drug dealers. There is also the fear of respondents that confidentiality may not be protected, resulting in ostracism by others in the community.

(3) Recommended Actions

The only real solutions to the problems listed above are well beyond the scope of this study and even the scope of the public health field, for they consist of the reduction of poverty, ignorance, and hopelessness. Short of this, however, four recommendations appear to be feasible in the short term and would lead to the improved ability to measure AIDS KABB in minority populations:

- **Make better use of existing innovative data collection approaches.** Sudman, Cowan, and others[4, 5] have proposed several approaches to sampling from homeless or other difficult populations. For target populations that are concentrated in particular neighborhoods, suggested approaches would focus data collection in these neighborhoods. In populations that are more dispersed, researchers could ask respondents to identify other potential high-risk individuals.

  Innovative approaches exist. These approaches need to be disseminated to other researchers through conferences or publications. The approaches also need to be reworked to emphasize practical application over statistical elegance.

- **Make use of CBOs as the loci for research and data collection.** CBOs are at an advantage because they know about and are known in their communities. They have evidenced the long-term commitment that gives them respect and credibility. Although effective as community change agents, CBOs are often weak in the area of research. The PHS needs to provide the CBOs with the technical assistance required to upgrade their research capabilities.

- **Expand assessment to other minority populations.** Understandably, current research efforts, as well as public health interventions, target communities that have demonstrated the highest risk of AIDS morbidity and mortality. Thus, what funds are available for AIDS KABB assessments are most often targeted to predominantly Black or Hispanic communities. This, however, is a more reactive than proactive approach. More needs to be known as well about AIDS KABB in other minority populations--particularly Asian/Pacific Islander and American Indian/Alaska Native--to facilitate timely interventions. Data on subpopulations are critical for the same reason.

- **Incorporate cultural factors in assessment designs.** Cultural factors have a strong bearing on how research in minority populations should be done, such as who does the interviewing, what questions are asked, and how the questions are asked. The PHS needs to fund additional anthropological and behavioral research on cultural factors that may affect ability to elicit accurate information on AIDS KABB in particular populations.

6. MORE RESEARCH IS NEEDED ON THE NATURE OF THE RELATIONSHIP BETWEEN AIDS KNOWLEDGE AND AIDS-PREVENTIVE BEHAVIORS

Although it is known that knowledge and attitudes can affect behavior, what is not known is what types of knowledge and what modes of its delivery are most effective in influencing attitudes and potentially producing behavioral change. The association between knowledge, attitudes, and behavior is not an issue that is associated just with minority populations or even with AIDS research. The interrelationship between the elements of KABB has long been of interest to health researchers concerned with many diseases. There are several prevailing models of these interrelationships, including the Theory of Reasoned Action, the Health Belief Model, Social Learning Theory, and the Theory of Social Behavior.[6] As part of the

concluding remarks to an August 1989 American Cancer Society conference on Human Behavior and Cancer Risk Reduction, a speaker noted that:

> Behavioral risk reduction associated with cancer risk reduction is in its infancy, and much of the work to be done is associated with the procedure of identifying and describing variables for study.

Cancer has been a major national health priority for decades. If knowledge of behavioral factors in cancer risk reduction is limited, it is not surprising that the understanding of such factors in AIDS is more constrained.

Because determining the prevalence of HIV or AIDS in any population requires laboratory testing and because continuing difficulties have been experienced in obtaining this information on a national basis, analysts must be creative in estimating project impacts. Behavioral outcomes have become the only useful measures of the success of disease-prevention projects.

(1) Supporting Findings And Conclusions

As noted above, several models have been espoused that predict associations between knowledge, attitudes/beliefs, and health-conducive behaviors. While there is evidence to support such an association, this association is imperfectly understood. For example, an extensive national health education campaign has made most Americans aware of the health risks associated with cigarette smoking. Although levels of smoking have declined, smoking continues to be a major health problem.

(2) Issues That Affect How Well Knowledge Interventions Can Be Linked To AIDS Prevention and Control

Five factors were found that have impeded progress in this area of inquiry:

- **Insufficient Time For Exploratory Research**--Research on HIV/AIDS in minority populations has only had a few years to mature. The efforts to date have been largely exploratory, establishing a theoretical basis for the interrelationships between KABB variables.

- **Intervention Stressed Over Assessment**--KABB is strongly affected by local conditions, so studies preferably should be done by local researchers. Because CBOs have projects in place in minority communities, they are logically the best candidates to conduct assessment efforts. To date, however, CBOs have focused on service delivery. Local projects are just getting sufficiently mature for assessment, but the capabilities of CBOs to conduct assessments are generally weak.

- **Difficulties Associated With Conducting Research**--Many problems impede the conduct of any research in high-risk segments of the minority population. Further, experimental designs are both more difficult and more costly to mount than simple exploratory efforts. True experiments also pose ethical problems, such as withholding of treatment from control groups.

- **Performance Data Are Not Routinely Collected, Monitored, Or Evaluated**--For project managers, the issue of linkages between knowledge, attitudes/beliefs, and behavior is primarily evaluative. Education represents the intervention, while the adoption of health-conducive behaviors represents the outcome. The study suggests that the evaluative component of PHS projects purporting to influence and assess the level of AIDS knowledge in minority populations is typically

weak. Grantees are responsible for conducting their own evaluations, but there is neither much in the way of technical support for evaluation nor accountability for how it is done. Data deficiencies exist in all areas of project activity.

- **Difficulties In Measuring Behavioral Change**--The behaviors of greatest interest in studies of AIDS KABB (i.e., those related to sexuality and drug use) are precisely those that are the most difficult to assess. Given the intensely personal aspects of these behaviors, researchers must rely primarily on self-reports and self-monitoring. To measure change requires an accurate description of behaviors at two points in time. Respondents have a host of motives that may make them less than accurate in describing these behaviors, including:

  - Denial of potentially destructive behaviors
  - Embarrassment or reluctance to discuss personal matters
  - Fear of identification
  - Desire to please the interviewer

(3) Recommended Actions

To address these problems, four proposed actions will expand the base of current research and enhance the capabilities of service providers to conduct research. These actions are:

- **Support further exploratory research.** In tandem with the development of systems to track research activities, the PHS needs to continue its funding commitment to exploratory research on the attributes of AIDS KABB in minority populations. Support entails validation of completed studies by extending them to new populations, exploration of innovative data collection strategies, and expansion of the range of different minority populations for which the dynamics of KABB are understood.

- **Develop appropriate assessment designs.** The PHS should fund efforts to identify the best combinations of methods to assess and monitor the behavioral risks of minority populations. An excellent point of departure for such efforts is the recently completed National Research Council report entitled *Evaluating AIDS Prevention Programs.*[7] This report supports the use of experimental designs that incorporate random selection and control groups. Such methods may, however, prove to be impractical due to their inherent difficulties and costs. Other designs that are quasiexperimental or nonexperimental should also be explored.

- **Bolster the assessment capabilities of CBOs and other service providers.** A consistent theme throughout the recommendations is that the PHS should enhance the research and evaluation capabilities of CBOs. Their closeness to the community and commitment to the service population make CBOs a potentially effective agent for eliciting behavioral information.

- **Establish a project monitoring system at the CBO level**--The PHS should mandate program or performance monitoring systems that continuously generate data on grantee activities. These data include the types of services provided, the number and characteristics of service recipients, and the resources used to provide the services. For KABB-related evaluation, the program monitoring system should describe the process of knowledge dissemination, thereby quantifying the intervention effect. These data can be supplemented by periodic behavioral surveys that measure intervention effects in the CBO's service population.

ENDNOTES

1. U.S. Centers for Disease Control, "Preventing HIV Infection and AIDS in Racial and Ethnic Minorities," paper presented at the National Conference on the Prevention of HIV Infection and AIDS Among Racial and Ethnic Minorities in the United States, Washington, D.C., August, 1988.

2. S.L. Coyle, et al., op. cit.

3. S.L. Coyle, et al., op. cit., p. 26.

4. S. Sudman, M.G. Sirken, and C.D. Cowan, "Sampling Rare and Elusive Populations," *Science* 240 (May 20, 1988): 991-996.

5. C.D. Cowan, W.R. Breakey, and P.J. Fischer, *The Methodology of Counting the Homeless* (unpublished paper).

6. J.S. Raymond and D.W. Wood, "Social Context Phenomena Influencing Developmental Aspects of Health Behavior." In C.C. Cummings and J.D. Floyd (eds.), *Human Behavior and Cancer Risk Reduction: Overview and Report of a Conference on Unmet Research Needs*, Atlanta, GA: American Cancer Society, November 1989, p. 22.

7. S.L. Coyle and R.F. Boruch (eds.), "Evaluating AIDS Prevention Programs," *National Academy of Sciences, 1989.*

APPENDIX A

LIST OF FUNDED AIDS PREVENTION PROGRAMS TARGETED TO MINORITY POPULATIONS

# FUNDED AIDS PREVENTION PROGRAMS TARGETED TO MINORITY POPULATION INCLUDED IN STUDY SAMPLE
N=90

Centers for Disease Control
Center for Prevention Services (CPS)

Action for Boston Community Development, Inc.	Boston, MA
Aspira of Puerto Rico	San Juan, PR
Belafonte Tacolcy Center, Inc.	Miami, FL
Bronx Perinatal Consortium	New York, NY
California Prostitutes Education Project	San Francisco, CA
Caribbean Women's Health Association	Brooklyn, NY
Congreso de Latinos Unidos, Inc.	Philadelphia, PA
CURA--Community United for the Rehabilitation of the Addicted	Newark, NJ
Dallas Urban League, Inc.	Dallas, TX
Family Life Institute of Counseling, Education & Research	Ft. Lauderdale, FL
Haitian American Community Center, Inc.	West Palm Beach, FL
Health Education & Enrichment Resources for United Services & Support, Inc. (HEER US)	New Orleans, LA
Health Outreach Project, Inc.	Atlanta, GA
Hispanic Multi-Purpose Services Center	Passaic County, NJ
Kenilworth/Parkside Resident Management Corporation	Washington, DC
Institute for Advanced Study of Black Family Life & Culture	Oakland, CA
La Nueva Raza Institute, Inc.	Long Island, NY
Orange County Center for Health	Aneheim, CA
Over the Hill, Inc.	Houston, TX
Minority AIDS Coalition	Denver, CO
Mission Area Health Associates	San Francisco, CA
Neighborhood Service Organization	Detroit, MI
People of Color Against AIDS Network	Seattle, WA
People Who Care Youth Center	Los Angeles, CA
Puertorriquenos Asociados for Community Organization	Jersey City, NJ
South Indian Health Council	San Diego, CA
That Blessed Hope Evangelistic Association	Tampa, FL
Westside Association for Community Action	Chicago, IL

National AIDS Information & Education Program (NAIEP)

Alaska Native Health Board, Inc.	Anchorage, AK
American Indian Health Care Association	St. Paul, MN
Association of Asian/Pacific Community Health Organizations	Oakland, CA
BEBASHI--Blacks Educating Blacks About Sexual Health Issues	Philadelphia, PA
Center for Health Policy Development, Inc.	San Antonio, TX
COSSMHO--National Association of Hispanic Health	Washington, DC
El Centro Human Services Corporation	Los Angeles, CA
HealthWatch Information & Promotion Services	Brooklyn, NY
Hispanic Designers, Inc.	Washington, DC
Hispanic Health Alliance	Chicago, IL
Howard University Department of Medicine	Washington, DC
Jackson State University National Alumni Association	Jackson, MS
Logan Heights Family Health Center	San Diego, CA
Multi-City IVDU/AIDS Outreach Training Program	Brooklyn, NY
National Association for Equal Opportunity in Higher Education (NAFED)	Washington, DC
National Association of Black & White Men Together	Washington, DC
National Council of La Raza	Washington, DC
National Medical Association Inc., Comprehensive Health Center	San Diego, CA
National Native American AIDS Prevention Center (NNAAPC)	Oakland, CA
National Organization of Black County Officials, Inc.	Washington, DC
National Urban League, Inc.	New York, NY
Proceed, Inc.	Elizabeth, NJ
Servicios de la Raza	Denver, CO
Southern Christian Leadership Conference W.O.M.E.N.	Atlanta, GA
Support Organization for AIDS Prevention, Inc. (SOAP)	Los Angeles, CA
United Migrant Opportunity Services, Inc.	Milwaukee, WI
Washington State Migrant Council (WSMC)	Sunnyside, WA

Division of Adolescent & School Health (DASH)

The National Coalition of Hispanic Health and Human Services Organization (COSSMHO)	Washington, DC
National Education Association/Health Information Network Minority AIDS Education and Training Program	Atlanta, GA
National Organization of Black County Officials (NOBCO)	Washington, DC

Office of the Assistant Secretary for Health, Office of Minority Health (OMH)

Association for the Advancement of Mexican Americans	Houston, TX
Association of Asian/Pacific Community Health Organizations	Oakland, CA
Central Maine Indian Association	Bangor, ME
Community Action Commission	Goleta, CA
East Los Angeles Rape Hotline	Los Angeles, CA
Haitian Centers Council	Brooklyn, NY
Human Resources Development Institute	Chicago, IL
Indian Health Board of Minneapolis	Minneapolis, MN
Latino Mental Health Task Force	Detroit, MI
Memphis Regional Sickle Cell Council Inc.	Memphis, TN
National Conference of Black Mayors, Inc.	Atlanta, GA
National Minority AIDS Council	Washington, DC
Outreach, Inc.	Atlanta, GA
Puerto Rican Congress of New Jersey	Trenton, NJ
Yukon Kuskokwim Health Corporation	Bethel, AK

Alcohol, Drug Abuse & Mental Health Administration

National Institute on Drug Abuse (NIDA)

AIDS Comprehensive Community Outreach	Chicago, IL
AIDS Outreach to Emergency Rooms & Detoxification Units	Detroit, MI
Community AIDS Prevention Outreach Demonstration	New York, NY
Community Outreach Project on AIDS in Southern Arizona	Tucson, AZ
C.O.P.E. Project	Hartford, CT
Desire Narcotic Rehabilitation Center, Inc.	New Orleans, LA
Horizontes--Indigenous Leader Outreach	Washington, DC
Oregon State Health Division	Portland, OR
Prevention of HIV & Related Disease Among IVDUs	Miami, FL
Project H.E.R.O.	Baltimore, MD
Puerto Rico AIDS Project	Hato Rey, PR
W.A.R.N. Project	Los Angeles, CA

National Institute of Mental Health (NIMH)

AIDS Risk Reduction Among Black Gay & Bisexual Men	Los Angeles, CA
AIDS Risk Reduction Among Black Gay Men	San Francisco, CA
HIV Immunologic & Psychosocial Factors in Black Men	Los Angeles, CA
Psychosocial Focused Minority Adolescent AIDS Prevention	Houston, TX
San Francisco Center for AIDS Prevention Studies	San Francisco, CA

APPENDIX B

ANNOTATED BIBLIOGRAPHY

APPENDIX B(1)

ANNOTATED BIBLIOGRAPHY

This literature review examined published efforts to influence or assess knowledge, attitudes, behaviors, and beliefs (KABB) in minority communities. The review attempts to characterize the current state of knowledge in this important area. A wide range of materials fell within the purview of this review, including syntheses of existing literature, program descriptions, and evaluation and research studies.

In the ensuing narrative, we describe the procedures we followed to complete the literature review, and we provide a brief overview of common themes and gaps in the area of AIDS education targeted at minority populations. The annotated bibliography follows this narrative and is divided into these sections:

- General background information on AIDS
- Background information on AIDS in minority populations
- General AIDS KABB studies
- AIDS KABB studies in minority populations

We planned an exhaustive search of the literature to learn about aspects of KABB that are (1) broadly relevant to a wide range of populations and (2) relevant to minority populations. We began our literature review with online searches of the following databases:

- ERIC
- MEDLINE
- AIDSLINE
- HEALTH
- SOCIAL SCIENCES
- NTIS
- DISSERTATION ABSTRACTS

To best reflect the full range of minority and KABB concerns of our study, the searches used the following parameters:

- Health and KABB
- AIDS/HIV and KABB
- AIDS/HIV and KABB and minority populations (e.g., Black, Hispanic, Asian, American Indian)

The online database search produced 14 relevant citations. After obtaining copies of these articles, we also reviewed their reference lists and contacted experts in the field to identify additional citations. Based on this additional review, 12 more documents were obtained.

As a further step, we investigated those journals that seemed most appropriate to our study objectives or had the greatest numbers of citations. Since there is usually a two- to three-month lag period between the appearance of an article and the availability of a reference citation, we looked at the two or three most recent issues of the monthly publications to identify further articles. Recent issues of the following journals were reviewed:

- *AIDS Record*
- *American Journal of Public Health*

- *American Journal of Psychiatry*
- *American Psychology*
- *Health Education Quarterly*
- *Hospital Community Psychiatry*
- *Issues in Science and Technology*
- *Journal of AIDS*
- *Journal of American College Health*
- *Journal of American Medical Association*
- *Journal of Behavioral Medicine*
- *Journal of Consulting and Clinical Psychology*
- *Journal of Health and Social Behavior*
- *Journal of National Medical Association*
- *Journal of Pediatrics*
- *Journal of School Health*
- *Journal of Youth and Adolescence*
- *New England Journal of Medicine*
- *Pediatrics*
- *Psychological Report*
- *Public Health Reports*
- *Science*
- *Social Psychology and Behavioral Medicine*
- *Social Science and Medicine*

In selecting articles for this bibliography, we have included some materials that do not deal directly with KABB in minorities. We believe that these materials have merit because they address unique aspects of AIDS in minority communities, establish a useful framework for addressing KABB issues, or explore methodological issues that may have influence on AIDS KABB research.

We obtained a total of 37 articles as a result of the search process described above. In addition, the Office of Minority Health provided us with reports on two unpublished federally funded studies. Three other relevant reports were garnered through our various contacts in the field. Overall, we reviewed 42 pertinent publications and included them in the annotated bibliography.

FINAL ANNOTATED BIBLIOGRAPHY

1. GENERAL BACKGROUND INFORMATION ON AIDS

AUTHOR(S):	Becker, M.H., and Joseph, J.G.
TITLE:	AIDS and Behavioral Change to Reduce Risk: A Review
SOURCE:	*American Journal of Public Health*, 1988, Vol. 78: 394-410
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this review is to describe behavioral changes in response to the threat of AIDS.
METHODOLOGY:	Published reports on behavioral risk reduction and knowledge/ attitudes regarding AIDS were reviewed. The review is restricted to papers published by mid-1987.
FINDINGS:	Behavioral change is less common among heterosexual adolescents, young adult populations, and urban minorities. Studies of AIDS-related knowledge and attitudes also reveal that AIDS knowledge is less among the same groups cited above. There is little actual evidence that an individual's knowledge and attitude toward AIDS significantly shape his or her behavior. There is still too little information about the behavioral and human responses to AIDS.
RECOMMENDATIONS:	The researchers recommend more investigations in the behavioral and biomedical fields.

AUTHOR(S):	Fineberg, H.V.
TITLE:	Education to Prevent AIDS: Prospects and Obstacles
SOURCE:	*Science*, 1988, Vol. 239: 592-596
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this article is to review some of the key obstacles that prevent behavior change in HIV transmission.
METHODOLOGY:	The author reviewed some of his own observations as a public health educator.
FINDINGS:	Five major obstacles to behavior change for prevention of HIV transmission relate to biological issues, conflicting educational messages to prevent AIDS, and the fact that long-term protection of an individual from infection requires extreme changes in risk-taking behavior. These obstacles are that: (1) sexual practices and drug use are biologically based, socially complex behaviors; (2) there is disagreement about the propriety of AIDS educational prevention messages; (3) the degree of risk to the majority of Americans is currently a matter of debate; (4) responsible officials are conveying ambivalent feelings to the public about AIDS, both reassuring and alarming; and (5) long-term protection of an individual from infection requires extreme changes in risk-taking behaviors. Educational efforts, such as community outreach, distribution of literature, telephone hotlines, and peer discussion and support groups, have raised awareness and knowledge about AIDS. These efforts have led to substantial changes in behavior of some homosexual and bisexual men, especially in San Francisco and New York, yet behavior changes to reduce the risk of HIV have been less widely adopted among other groups such as IVDUs.
RECOMMENDATIONS:	Culturally specific intervention programs are needed for minority populations where the prevalence of AIDS is more than double that for Whites. Accurate information needs to be communicated to everyone at risk. Also, individuals at risk may require continued reinforcement to practice safe sexual behavior.

AUTHOR(S):	Friedman, S.R.; Des Jarlais, D.C.; and Sotheran, J.C.
TITLE:	AIDS Health Education for Intravenous Drug Users
SOURCE:	*Health Education Quarterly*, 1986, Vol. 4: 383-393
SPONSORING ORGANIZATION:	National Institute on Drug Abuse
PURPOSE:	This study reviews some characteristics of AIDS as a disease and of the social organization of IV drug use that affects AIDS prevention efforts.
METHODOLOGY:	The authors reviewed other studies related to their topic and conducted interviews with 59 patients in a Manhattan methadone maintenance program. The purpose of the interview was to determine the patients' level of knowledge about AIDS and whether knowledge led to protective behavior changes.
FINDINGS:	The patients interviewed had a good knowledge of AIDS transmission and could name at least one of the symptoms of AIDS. However, the respondents did not always make protective behavior changes. Even though IVDUs are knowledgeable about AIDS, changing their behavior and maintaining safe practices is difficult.
RECOMMENDATIONS:	IV drug users should receive more information about the risk of sharing needles, the need to clean them, as well as HIV antibody testing and its limitations. Organizations associated with IVDU subcultures should carry out educational messages, preferably conveyed face-to-face with IVDUs.

AUTHOR(S):	Gerbert, B., and Maquire, B.
TITLE:	Public Acceptance of the Surgeon General's Brochure on AIDS
SOURCE:	*Public Health Reports*, 1989, Vol. 104: 130-133
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this study is to determine the level of public acceptance of the Surgeon General's brochure "Understanding AIDS."
METHODOLOGY:	A total of 2,000 adults were telephoned through random digit dialing. The survey included seven questions that asked respondents whether or not they had seen the brochure, how much of it they had read, if they had taken the accompanying quiz, if they had discussed the brochure with others, whether it was offensive, if it was a good use of government money, and whether they were glad to have received it. A response rate of 75 percent was achieved.
FINDINGS:	Fifty-nine percent of respondents remembered receiving the brochure; 68 percent of this group had read most of it, and 20 percent read half of it or less. Most of those who received the brochure responded positively to it; 84 percent were glad to have received it. Blacks and young people were less likely to remember receiving the brochure than were Whites and retired persons.
RECOMMENDATIONS:	The public health community can assume that the mailing met with approval and that other public health brochures disseminated by the Public Health Office would be well received.

AUTHOR(S):	Murphy, D.L.
TITLE:	Heterosexual Contacts of Intravenous Drug Abusers: Implications for the Next Spread of the AIDS Epidemic
SOURCE:	*AIDS and Substance Abuse*, 1988, New York: Haworth Press, 89-98
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this chapter is to report on sexual behavior patterns and practices of 93 intravenous drug users.
METHODOLOGY:	A representative sample of 93 randomly selected clients enrolled in four Addiction Research and Treatment Corporation Methadone Maintenance Clinics in 1986 were interviewed. The sample size consisted of 58 percent male, 42 percent female, 54 percent Black, 35 percent Hispanic, and 11 percent White with a mean age of 35. The interview focused on drug use and sexual behavior practices of participants between 1977 and 1985.
FINDINGS:	Ninety-five percent of the participants reported heterosexual contacts between 1977 and 1985. Females were more likely (61 percent) than males (25 percent) to have had a single sex partner. Male IVDUs in comparison with female IVDUs reported more sexual contacts with non-IVDUs than IVDUs. Also, 22 percent of the sample reported ever sharing needles; among those who shared, the percentage of sexual contacts who were non-IVDUs was greater for males (78 percent) than females (22 percent). Therefore, IVDUs may play a significant role in exposing the HIV virus to the general non-IVDU community.
RECOMMENDATIONS:	It is important to target not only IVDUs, with regard to health educational interventions, but also, sexually active non-IVDUs, especially females, in communities where intravenous drug abuse is prevalent.

AUTHOR(S):	Pindus, N.; Davis-King, F.; Oliver, T.; Duggar, B.; and Ray, S.
TITLE:	A Compendium of Federal AIDS Related Activities, July 29, 1988
SOURCE:	Professional Management Associates, Inc., and La Jolla Management Corporation
SPONSORING ORGANIZATION:	Office of the Assistant Secretary for Health, Assistant Secretary for Planning and Evaluation, Department of Health and Human Services
PURPOSE:	The purpose of the Compendium is to provide information on how each Federal agency is responding to AIDS, as well as specific activities underway, resources committed, and population groups served.
METHODOLOGY:	A mailing was sent to all representatives on the AIDS Federal Coordinating Committee and to representatives of other Federal agencies. A telephone follow-up was made to agencies that had not responded.
FINDINGS:	Fourteen agencies of the Department of Health and Human Services (DHHS) have AIDS-related activities, and 12 non-DHHS agencies that have such programs were discussed. In 1988, 16 of the AIDS programs targeted minorities as well as other groups. The minority-targeted projects include the following activities: cooperative agreements with States to support community-based initiatives to prevent AIDS education among minorities at risk of HIV infection; financial and technical assistance to national and regional minority organizations; the establishment of outreach services to minority IVDUs; the training of health care providers to educate minority clients; and the development of health-risk reduction activities targeting minority communities.
RECOMMENDATIONS:	N/A

AUTHOR(S):	Quackenbush, M.
TITLE:	"Prevention" - Book Chapter
SOURCE:	*Working With AIDS: A Resource Guide For Mental Health*, 1987, San Francisco, CA: University of California
SPONSORING ORGANIZATION:	University of California at San Francisco
PURPOSE:	The purpose of this chapter is to describe safe-sex practices and low-risk sex practices to be used to reduce the risks of HIV infection. It also discusses the dangers of unsafe sex practices, IVDU, and needle sharing in contracting AIDS.
METHODOLOGY:	The author reviewed published reports on sexual and IVDU behaviors among adolescents and adults.
FINDINGS:	Certain sexual and IVDU behaviors, such as unprotected anal intercourse, provide a potential avenue for the transmission of AIDS.
RECOMMENDATIONS:	Teenagers and adults should avoid all unsafe sexual and drug-use behavior most conducive to HIV infection.

AUTHOR(S):	Smith, D.E.
TITLE:	Chemical Dependency and AIDS
SOURCE:	*Acquired Immune Deficiency Syndrome and Clinical Dependency*
SPONSORING ORGANIZATION:	U.S. Department of Health and Human Services, Public Health Service, National Institute on Alcohol Abuse and Alcoholism
PURPOSE:	The purpose of this report is to examine the lifestyles and behaviors of IV drug abusers related to HIV infection.
METHODOLOGY:	N/A
FINDINGS:	The lifestyles of IV drug abusers has not changed significantly since the beginning of the AIDS epidemic. These people are at high risk of contracting AIDS.
RECOMMENDATIONS:	Intravenous drug abusers can reduce their risk of HIV infection by changing to a healthier social and sexual lifestyle.

AUTHOR(S):	United States General Accounting Office
TITLE:	AIDS Forecasting: Undercount of Cases and Lack of Key Data Weaken Existing Estimates
SOURCE:	United States General Accounting Office, June 1989
SPONSORING ORGANIZATION:	United States General Accounting Office
PURPOSE:	The purpose of this report is to undertake a methodological review of the forecasting models, assess data underlying these models, and identify the most realistic range for the size of the future epidemic.
METHODOLOGY:	GAO identified 13 national forecasts of the cumulative number of AIDS cases through the end of 1991. GAO assessed the models on four criteria: (1) comprehensiveness, (2) soundness of the empirical base, (3) reasonableness of assumptions, and (4) adequacy of the corrections for data biases.
FINDINGS:	GAO found that due to biases in the data, forecasts understate the extent of the epidemic. A realistic range of forecasts would be 300,000 to 480,000 cases, compared to a range of 120,000 to 400,000 case estimates from the 13 models through the end of 1991.
RECOMMENDATIONS:	N/A

AUTHOR(S):	United States General Accounting Office
TITLE:	AIDS Education: Reaching Populations at Higher Risk
SOURCE:	Report to the Chairman, Committee on Governmental Affairs, U.S. Senate, September 1988
SPONSORING ORGANIZATION:	United States General Accounting Office
PURPOSE:	The purpose of this report is to assess the ways in which education might help to prevent AIDS among three high-risk populations: intravenous drug users, minority communities, and youth.
METHODOLOGY:	Site visits were made to five cities with high incidence of AIDS cases: New York, San Francisco, Los Angeles, Houston, and Washington, D.C. The city- or county-level persons responsible for coordinating local AIDS education campaigns were interviewed. A literature review was also performed.
FINDINGS:	GAO formed a seven-step model of effective health education. The seven steps are as follows: (1) define a target group, (2) identify characteristics that place the group at risk, (3) select the media to reach the group, (4) determine information to be covered, (5) develop risk-reduction skills, (6) provide motivator for risk reduction, and (7) specify the desired outcome for the messages.
RECOMMENDATIONS:	The above seven steps should be applied to AIDS education in order to make it effective.

2. BACKGROUND INFORMATION ON AIDS IN MINORITY POPULATIONS

AUTHOR(S): Bakeman, R.; McCray, E.; Lumb, J.R.; Jackson, R.E.; and Whitley, P.N.

TITLE: The Incidence of AIDS Among Blacks and Hispanics

SOURCE: *Journal of the National Medical Association*, 1987, Vol. 79: 921-927.

SPONSORING ORGANIZATION: N/A

PURPOSE: The purpose of this article is to describe differences in the epidemiology of AIDS among Whites and minorities, possible factors underlying these differences, and implications for targeting prevention programs in minority communities.

METHODOLOGY: Information from the latest version (1987) of the AIDS Public Information Data Set from the Centers for Disease Control were reviewed. This data set includes information on race, age, sex, transmission group, and other variables for the 33,720 cases of AIDS reported to CDC as of April 6, 1987.

FINDINGS: The cumulative incidence of the number of AIDS cases reported to CDC since 1981 for Black and for Hispanic men is approximately 2.5 times the rate for White men. The White-to-minority disparity is greater for women. The cumulative incidence of AIDS cases reported to CDC since 1981 for Black and Hispanic women are 12.2 and 8.5 times more, respectively, than for White women. In terms of regional variations, for non-IV cases the highest rates are for Blacks and Hispanic men living in large cities in the Northeast; for Whites it is in the West. For IVDUs, the same pattern exists. The major factors accounting for the differences between Whites and minorities are IV needle sharing and sexual behavior, and the relative urbanization of minorities that reflects the higher incidence/prevalence of AIDS in urban areas.

RECOMMENDATIONS: There is an urgent need for effective AIDS prevention programs designed especially for minorities. The focus of these programs should be risk behaviors, with equal emphasis on sexual behavior and IV needle sharing.

AUTHOR(S):	Centers for Disease Control (CDC)
TITLE:	Distribution of AIDS Cases, by Racial/Ethnic Group and Exposure Category, United States, June 1, 1981 to July 4, 1988
SOURCE:	*JAMA*, January 13, 1989, Vol. 261: 201-205
SPONSORING ORGANIZATION:	AIDS Program, Center for Infectious Diseases, Centers for Disease Control
PURPOSE:	The purpose of this study is to examine the association between AIDS and racial/ethnic groups.
METHODOLOGY:	CDC analyzed AIDS case reports received from 50 State health departments and the District of Columbia. There were 66,464 cases of AIDS reported to CDC between June 1, 1981, and July 4, 1988.
FINDINGS:	AIDS patients are disproportionately Black (26 percent) and Hispanic (13 percent) compared with the proportions of Blacks (12 percent) and Hispanics (6 percent) in the United States. The rate of AIDS among heterosexual male IVDUs, or men whose female sex partners were IVDUs, is 34 percent for Black men, 35 percent for Hispanic men, compared with 5 percent, 2 percent, and 10 percent for White, Asian, and American Indian men, respectively. Among women with AIDS, for IVDUs or women whose male sex partners were IVDUs the rate is 74 percent for Black women and 80 percent for Hispanic women.
RECOMMENDATIONS:	Black and Hispanic IVDUs and their sex partners should be targeted for HIV prevention education programs.

AUTHOR(S):	Communication Technologies and Research and Decisions Corporation
TITLE:	*Reaching Ethnic Communities in the Fight Against AIDS: Summary of Major Findings From Focus Groups With Leaders From Minority Communities*, 1986.
SOURCE:	Communication Technologies and Research and Decisions Corporation, San Francisco, CA.
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The objectives of this study were to (1) ascertain levels of AIDS awareness, information, and concern; (2) explore the prevalence of risk behaviors; and (3) determine attitudes toward messages and communication channels.
METHODOLOGY:	Twenty-eight minority community leaders among San Francisco's Black, Asian, and Latino communities participated in interviews lasting approximately three hours.
FINDINGS:	There was a low level of awareness and information among minority communities. Also, minority communities have a low level of media coverage and a high level of AIDS denial, especially concerning heterosexual risk. Large numbers of Black homosexual men do identify with the homosexual community and are deeply closeted.
RECOMMENDATIONS:	Participants agreed that risk-reduction materials need to be simplified for their communities, and information that is too sexually explicit should be avoided.

AUTHOR(S):	COSSMHO
TITLE:	*A Guide for Hispanic Leadership*
SOURCE:	The AIDS Project for Hispanic Leadership, COSSMHO, Washington, D.C.
SPONSORING ORGANIZATION:	The American Foundation for AIDS Research (AMFAR)
PURPOSE:	This booklet was prepared for Hispanic leaders and communities to inform and serve as a tool to expand their advocacy efforts to prevent HIV infection and AIDS. The booklet offers basic facts about HIV transmission, an AIDS I.Q. test, and a section on issues, needs, and priorities in the areas of education, services, policy, and research.
METHODOLOGY:	N/A
FINDINGS:	N/A
RECOMMENDATIONS:	COSSMHO recommends that Hispanic leaders educate their colleagues, assess issues at the local level, develop community response to AIDS, inform the city or county health department director about the needs of their community, and inform State and Federal legislators and health officials about unmet needs in the community.

AUTHOR(S):	Dawson, D. and Hardy, A.M.
TITLE:	AIDS Knowledge and Attitudes of Hispanic Americans: Provisional Data From the 1988 National Health Interview Survey
SOURCE:	*NCHS Advance Data*, 1989, No. 166, 41-63.
SPONSORING ORGANIZATION:	Centers for Disease Control, Public Health Service, U.S. Department of Health and Human Services
PURPOSE:	The purpose of this report is to describe various aspects of AIDS-related knowledge, attitudes, and behaviors for Hispanic adults 18 years of age and over.
METHODOLOGY:	This study examined AIDS knowledge, attitudes, and behavior data collected in the National Health Interview Survey of Hispanic adults.
FINDINGS:	The highest level of AIDS knowledge occurred among the young and well educated. Hispanic adults felt there was no chance of their becoming infected with HIV, and 13 percent assessed their chance of infection as low. In the non-Hispanic population, the overall perception of risk was similar, except that 21 percent more felt that their chance of becoming infected was low.
RECOMMENDATIONS:	N/A

AUTHOR(S):	Friedman, S.R.; Sotheran, J.L.; Abdul-Quader, H.; Primm, B.J.; Des Jarlais, D.C.; Kleinman, P.; Mange, C.; Goldsmith, D.; El-Sadr, W.; and Maslancky, R.
TITLE:	The AIDS Epidemic Among Black and Hispanics
SOURCE:	*The Milbank Quarterly*, 1987, Vol. 65: 455-499
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this article is to examine racial dimensions of AIDS and to provoke research, debate, and action.
METHODOLOGY:	This study reviewed a sample (307) of patients in detoxification and methadone treatment between 1984 and 1986. In addition, the study examined Centers for Disease Control's National Surveillance Data to gather demographic information on the incidence of AIDS among children, minority groups, and IVDUs. Also, other studies were analyzed to obtain data on survival rates after AIDS diagnosis, and the social meaning of race for persons with AIDS.
FINDINGS:	Data gathered from other studies reveal that Blacks and Hispanics with AIDS survive for a shorter period than do Whites even when initial diagnosis, date of diagnosis, risk group, and sex are controlled. The authors stress that a significant percentage of AIDS cases have occurred among minority populations, especially among IVDUs, women, and children.
RECOMMENDATIONS:	The authors recommend developing more education programs targeted at minority groups, strengthening and increasing the medical care available to minority populations and encouraging minority community outreach and support groups.

AUTHOR(S):	Hopkins, D.R., M.D.
TITLE:	AIDS in Minority Populations in the United States
SOURCE:	*Public Health Reports,* 1987, Vol. 102: 677-681
SPONSORING ORGANIZATION:	Centers for Disease Control
PURPOSE:	The purpose of this article is to address some issues pertaining to AIDS infection among minority populations.
METHODOLOGY:	Statistics from the Centers for Disease Control's AIDS Program were tabulated to obtain demographic information on AIDS cases. In addition, a review of the literature was performed.
FINDINGS:	Approximately 75 percent of all women and children with AIDS are Black or Hispanic. Intravenous drug use is the major reason for the higher prevalence of HIV infection among Blacks and Hispanics, followed by unsafe sexual practices. Among children with AIDS, 60.8 percent of Black patients and 75.7 percent of Hispanics were born to mothers who themselves had, or whose sexual partner had, a history of IV drug abuse.
RECOMMENDATIONS:	Five major recommendations were offered by the author: (1) recognize that AIDS is a deadly virus, that IV drug use and sexual promiscuity play a major role in spreading it; (2) modify the interventions being used in the White community with minority communities but with different channels of communication based on science, not sentiment; (3) urge people at risk to be voluntarily tested; (4) promote cooperation between various Federal and private agencies; and (5) realize that this is also an international problem.

AUTHOR(S):	Houston-Hamilton, A.
TITLE:	AIDS and Ethnic Communities
SOURCE:	In *Working With AIDS: A Resource Guide for Mental Health Professionals*, 1987, AIDS Health Project, University of California at San Francisco, 137-156
SPONSORING ORGANIZATION:	University of California at San Francisco
PURPOSE:	This paper provides an overview of the incidence of AIDS in Black, Hispanic, and other ethnic populations. It discusses prevention strategies in the Black community and outlines counseling approaches for addressing psychosocial issues.
METHODOLOGY:	Published reports and preliminary studies on the prevalence of AIDS among minority populations were reviewed.
FINDINGS:	The majority of AIDS cases among IV drug users involve Blacks and Hispanics. The problem of increasing number of cases in minority populations is compounded by the lack of prevention programs for Blacks, Hispanics, Asians, and American Indians.
RECOMMENDATIONS:	Prevention efforts for minority populations should be directed to the community at large as well as to specific groups.

AUTHOR(S):	Jang, M.; Moore, M.; Forst, M.; Houston-Hamilton; Vivona, S.; Garcia, A.; Breed, L.; Crowe, G.; and Whelehan, P.
TITLE:	Second Year Evaluation of California's AIDS Community Education Program
SOURCE:	URSA Institute, an unpublished report prepared for the Office of AIDS, California Department of Health Services, July 1988
SPONSORING ORGANIZATION:	California State Office of AIDS
PURPOSE:	The purpose of this report is to evaluate the State Office of AIDS Evaluation and Prevention efforts during the 1987-88 fiscal year, the second year of the community education program.
METHODOLOGY:	More than 100 staff from 65 selected AIDS education and prevention agencies were interviewed in person.
FINDINGS:	The agencies targeted minority populations, homosexual/bisexual men, IVDUs, general public, hemophiliacs and those receiving blood transfusions, and health care workers. The programs met their measurable objectives for most target populations. However, a large percentage of program staff do not view program evaluation as a high priority. Programs do not assess attitude and behavior changes following the intervention.
RECOMMENDATIONS:	Specific recommendations were provided on the programs targeted at specific groups. In general, the authors recommend that more effort should be expended in developing and using assessment tools that evaluate knowledge, attitudes, beliefs, and behavior of various population groups. Also, program staff should be trained and encouraged to perform program evaluation and to assess behavior changes in clients after program intervention. There are specific recommendations for each of the minority group programs examined.

AUTHOR(S):	Jue, S.
TITLE:	Identifying and Meeting the Needs of the Minority Person With AIDS (unpublished paper)
SOURCE:	AIDS Project, Los Angeles
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this article is to provide information on the cultural values of the Black, Asian, and Hispanic populations and to show how such values influence behavior related to AIDS.
METHODOLOGY:	The author performed a literature review regarding cultural norms and values of the Black, Asian, and Hispanic groups, in addition to conducting interviews with minority AIDS clients and their families, minority gay volunteers, minority health and social service professionals, minority communities, AIDS programs, and drug treatment programs.
FINDINGS:	The author describes specific cultural norms for the Black, Hispanic, and Asian populations that should be considered in providing counseling and social work to clients with AIDS.
RECOMMENDATIONS:	Issues of trust, confidentiality, counseling approach, non-verbal behavior, and language barriers must be considered to provide effective therapy to minority clients with AIDS.

AUTHOR(S):	Mays, V.E., and Cochran, S.D.
TITLE:	Acquired Immunodeficiency Syndrome and Black Americans: Special Psychosocial Issues
SOURCE:	*Public Health Reports*, 1987, Vol. 102: 224-232
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this article is to describe three areas of concern among the Black population: differences from Whites in patterns of transmission, cultural factors that may affect health education efforts, and ethical issues in the provision of medical care to Black persons with AIDS.
METHODOLOGY:	The authors reviewed surveillance data published by Centers for Disease Control related to AIDS transmission, as well as numerous research articles pertaining to the topic.
FINDINGS:	Black homosexual and bisexual men account for 46.3 percent of all cases in Blacks, and heterosexual IV drug users account for 35.4 percent. Blacks who develop AIDS are more likely to be IV drug users, and the majority have lower incomes and less education than Whites with AIDS. The Black gay community asserts that the methods of educational outreach and intervention used by the White gay community have been ineffective in reaching Black gay and bisexual men.
RECOMMENDATIONS:	Further research should be conducted in the role that the Black family, community, and cultural values play in inhibition or facilitation of the transmission of HIV; epidemiologic studies that include large numbers of Black gay and bisexual men, IVDUs, and heterosexuals at high risk; and the most effective methods for delivery of clinical services and prevention efforts consistent with cultural and sexual preferences that exist among high-risk Black populations.

AUTHOR(S):	Mays, V.M., and Cochran, S.D.
TITLE:	Issues in the Perception of AIDS Risk and Risk Reduction Activities by Black and Hispanic/Latino Women
SOURCE:	*American Psychologist*, 1988, Vol 11: 949-957.
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this article is to examine patterns of AIDS infection in Black and Hispanic women and factors associated with risk perception and behavior change.
METHODOLOGY:	The authors reviewed (1) published studies to examine the rate of HIV infection among Black and Hispanic women and their perception of AIDS risk and (2) studies that examined cultural and social values that play a role in drug and sexually related behaviors relating to HIV infection.
FINDINGS:	Women from minority populations who may be at high risk for acquiring HIV infection do not seem to perceive AIDS as a personal risk. Certain drug use and sexual behaviors relate to cultural norms, and risk reduction messages that do not incorporate them are not successful with women from minority populations.
RECOMMENDATIONS:	Public health officials need to interpret the risk of AIDS to women in a manner that is understandable, relevant, and effective. Psychologists, and other researchers, need to focus on understanding the development of personal perceptions of risk, especially in the area of health threats and behavior change.

AUTHOR(S):	Peterson, J.L. and Marin, G.
TITLE:	Issues in the Prevention of AIDS Among Black and Hispanic Men
SOURCE:	*American Psychologist*, 1988, Vol 11: 871-877.
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this article is to address behavioral and attitudinal issues relating to Black and Hispanic homosexual or bisexual men and IV drug users.
METHODOLOGY:	The researchers reviewed published material on sexual and IVDU behavior conducive to HIV infection among Black and Hispanic men.
FINDINGS:	There is a high incidence of AIDS among Black and Hispanic men. There are limited data on AIDS risk behaviors among minority communities and on successful community intervention for minority populations.
RECOMMENDATIONS:	The researchers suggested that (1) information must be provided in a culturally appropriate manner, (2) cultural values, norms, expectations, and attitudes of the target group need to be integrated into the messages and the format of interventions, and (3) additional research is needed to address the issues involved in developing culturally sensitive prevention programs.

AUTHOR(S):	Rogers, M.F., and Williams, W.W.
TITLE:	AIDS in Blacks and Hispanics: Implications for Prevention
SOURCE:	*Issues in Science and Technology*, Spring 1987: 89-94.
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this article is to provide information on AIDS transmission among Black and Hispanic populations and strategies for AIDS prevention among these populations.
METHODOLOGY:	A literature review on AIDS transmission within minority populations was conducted.
FINDINGS:	A large number of IVDUs with AIDS are Black or Hispanic; IVDU plays an important role in the transmission of AIDS among the heterosexual Black and Hispanic community. Among Black and Hispanic women with AIDS, one-third have acquired HIV infection through heterosexual contact.
RECOMMENDATIONS:	Community-based prevention programs are needed to change behaviors that increase risk of disease transmission, including programs that modify sexual practices and drug abuse behavior. Minority-targeted programs should be sensitive to the cultural and language needs of the minority populations. To prevent AIDS and slow the epidemic, public awareness of AIDS as a minority health issue has to be increased.

AUTHOR(S):	Schilling, R.F.; Schinke, S.P.; Nichols, S.E.; Zayas, L.H.; Miller, S.O.; Orlandi, M.A.; and Botwin, G.J.
TITLE:	Developing Strategies for AIDS Prevention Research With Black and Hispanic Drug Users
SOURCE:	*Public Health Reports*, 1989, Vol. 104: 2-11
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this article is to describe the nature and extent of AIDS among Black and Hispanic IVDUs, discuss cultural aspects of behavior related to HIV transmission, as well as prevention issues and suggestions for further studies.
METHODOLOGY:	A literature review on HIV transmission and sociocultural factors that affect it, as well as interventions designed for Black and Hispanic IVDUs, was performed.
FINDINGS:	Among persons with AIDS, 26 percent are Black and 14 percent are Hispanic; among Blacks and Hispanics with AIDS, 37 percent are heterosexual IVDUs, compared with 6 percent of the White population with AIDS. There are certain ethnic/racial, social, and cultural issues that are related to HIV transmission among Blacks and Hispanics. For example, religion plays an important role in the lives of Blacks and Hispanics. Therefore, such information should be incorporated in planning and conducting research in prevention of HIV transmission among these minority populations. In addition, Black and Hispanic IVDUs have their own social and ritual aspects of drug use. Understanding the cultural and social aspects of drug use among Black and Hispanic populations could be helpful in both drug prevention and effective AIDS education.
RECOMMENDATIONS:	Effective interventions for Black and Hispanic IVDUs should incorporate an understanding of their social aspects of drug use. Also, sociocultural factors, such as the concept of machismo in the Hispanic culture, and sexual and gender role attitudes of Black Americans have to be incorporated in intervention strategies. Studies are needed that describe drug use and sexual behavior among ethnic minority populations and establish efficient culturally specific AIDS prevention strategies in drug treatment and community centers.

AUTHOR(S):	Selik, R.M., and Castro, K.G.
TITLE:	Birthplace and the Risk of AIDS among Hispanics in the United States
SOURCE:	*American Journal of Public Health*, 1989, Vol. 79, 836-839.
SPONSORING ORGANIZATION:	AIDS Program, Center for Infectious Diseases, Centers for Disease Control.
PURPOSE:	The purpose of this article is to investigate the variation in the risk of AIDS among Hispanics in the United States by country of birth.
METHODOLOGY:	The researchers analyzed AIDS cases reported to CDC between June 1, 1981, and December 12, 1988, in the United States. They classified persons with AIDS according to their race/ethnicity and country or territory of birth.
FINDINGS:	There was a high proportion of cases in heterosexual IVDUs found among Hispanics. There is a large percentage of persons of Puerto Rican ethnicity that are heterosexual IVDUs with AIDS (57.6 percent). The higher cumulative incidence in persons of Puerto Rican ethnicity is possibly due to a higher prevalence of IVDU or sharing of needles and syringes, independent of geographic region.
RECOMMENDATIONS:	Resources for preventing AIDS in Hispanics are needed most with persons of Puerto Rican ethnicity, especially for AIDS related to IVDU.

AUTHOR(S):	Smith, E.A., and Udry, J.R.
TITLE:	Coital and Noncoital Sexual Behaviors of White and Black Adolescents
SOURCE:	*American Journal of Public Health*, 1985, Vol. 75: 1200-1203.
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this research is to understand the sequence of sexual behaviors among young adolescents.
METHODOLOGY:	Junior and senior high school students in a large southern State were administered a survey in 1980. The survey consisted of questions on the adolescent's attitudes and behaviors regarding sexual intercourse and noncoital sexual behaviors.
FINDINGS:	In the area of general heterosexual behavior, White and Black adolescents apparently use a different set of sexual behavior norms. For Whites, these expectations follow a more predictable pattern that involves necking and petting and more precoital behaviors than among Black adolescents. White adolescents engage in a longer sequence of noncoital petting behaviors than Black adolescents.
RECOMMENDATIONS:	Sexual and contraceptive counseling of adolescents needs to be sensitive to cultural and ethnic differences in sexual patterns.

AUTHOR(S):	U.S. Public Health Service
TITLE:	Minority Issues in AIDS
SOURCE:	*Journal of the U.S. Public Health Service: Public Health Reports*, 1988, Vol. 103.
SPONSORING ORGANIZATION:	U.S. Public Health Service
PURPOSE:	The purpose of this article is to describe the initiatives of the Public Health Service (PHS) to prevent the spread of HIV infection in racial and ethnic populations based on a meeting of officials in Charlottesville, Virginia.
METHODOLOGY:	Based on a meeting of PHS officials in Charlottesville, a series of issues, goals, and objectives were identified.
FINDINGS:	Ten priority issues were identified. Eight have to do with categories of intervention, one addresses the importance of effective evaluation, and another highlights the need for behavioral research. Each priority issue is discussed along with its goals and objectives.
RECOMMENDATIONS:	In general, interventions must be designed that are "community specific" and targeted to the needs of the individuals at risk as identified by their race, ethnicity, drug use, sexual orientation, and socioeconomic states. Also interventions must be evaluated for effectiveness.

AUTHOR(S):	Williams, L.S.
TITLE:	AIDS Risk Reduction: A Community Health Education Intervention for Minority High Risk Group Members
SOURCE:	*Health Education Quarterly*, 1986, Vol. 13: 407-421
SPONSORING ORGANIZATION:	Detroit Health Department
PURPOSE:	The purpose of this article is to describe the barriers encountered in communicating with hard-to-reach populations, specifically IVDUs, Black and other minority groups, and useful strategies to overcome those barriers based on the Detroit Health Department's health education program.
METHODOLOGY:	After performing a literature review and examining available information on Detroit's minority homosexual/bisexual and the IVDU populations, in 1984 the researcher interviewed 98 clients enrolled in four methadone maintenance programs concerning their beliefs, attitudes, and practices regarding AIDS. Sixty-two Black homosexuals were interviewed in 1985 with a survey similar to the one used with the IVDUs.
FINDINGS:	Overall, the IVDUs are knowledgeable about who is at risk for AIDS and modes of HIV transmission. The majority of IVDUs agree that drug abuse treatment centers should provide clients with AIDS information. Black homosexuals are generally uninformed about who is at risk for AIDS. Among this group, there is also poor understanding about how the virus is actually transmitted.
RECOMMENDATIONS:	More targeted programs and educational efforts are needed for the minority populations, especially Black homosexual men.

GENERAL AIDS KABB STUDIES

AUTHOR(S):	DesJarlais, D.C. and Friedman, S.R.
TITLE:	The Psychology of Preventing AIDS Among Intravenous Drug Users.
SOURCE:	*American Psychologist*, 1988, 865-870
SPONSORING ORGANIZATION:	N/A
PURPOSE:	This article reviews studies of AIDS risk reduction among IV drug users that have been conducted through early 1988.
METHODOLOGY:	This study examined five other studies that collected data from methadone maintenance patients on IVDU knowledge of AIDS and any changes in their behavior as a result of this knowledge.
FINDINGS:	More than half of the IV drug users who participated in the studies report behavior changes to reduce the risk of AIDS.
RECOMMENDATIONS:	IV drug users need to have a better knowledge of AIDS and its methods of transmission. Also, increased availability of various means for behavior change is necessary for IV drug users.

AUTHOR(S):	Ginzburg, H.M.; French, J.; Jackson, J., Hartsock, P.; MacDonald, M.; and Weiss, S.H.
TITLE:	Health Education and Knowledge Assessment of HTLV-III Disease Among Intravenous Drug Users.
SOURCE:	*Health Education Quarterly*, 1986, Vol. 13: 373-382
SPONSORING ORGANIZATION:	New Jersey State Department of Health, National Institute of Drug Abuse, National Cancer Institute
PURPOSE:	This article aims at determining effective intervention methods to decrease the rate of HTLV-III.
METHODOLOGY:	In 1984, more than 100 drug abusers from 10 drug treatment centers in New Jersey were surveyed to determine if there were correlations between the prevalence of AIDS in a community and the knowledge of AIDS among IVDUs in that community. One year later, a similar study was conducted with 577 clients entering drug treatment programs.
FINDINGS:	The results show that the amount of knowledge about AIDS is not statistically different among the drug users surveyed. The majority of the participants were men (57 percent), 58 percent were White, 34 percent were Black, and 8 percent were Hispanic. The level of knowledge about AIDS, in general, is good. The results of the second study reveal that there is a continued awareness of AIDS in the drug-using community.
RECOMMENDATIONS:	The authors emphasize the need for more comprehensive educational program for IVDUs, as well as their friends and families. Behavioral studies are needed to assess what an individual does with the newly acquired knowledge.

AUTHOR(S):	Kelly, J.A.; St. Laurence, J.S.; Hood, H.V.; and Brasfield, T.L.
TITLE:	Behavioral Intervention to Reduce AIDS Risk Activities
SOURCE:	*Journal of Consulting and Clinical Psychology*, 1989, Vol 57: 60-67.
SPONSORING ORGANIZATION:	National Institute of Mental Health
PURPOSE:	The purpose of this study is to evaluate the impact of a community-based AIDS risk reduction program on behavior change among homosexual men.
METHODOLOGY:	One hundred and four homosexual men completed a set of self-report, behavior, and self-monitoring surveys. Subjects consisted of 87 percent White men and 13 percent Black or Hispanic men. Participants completed behavior self-monitoring forms for a one-month period that assessed the level of their involvement in high-risk sexual practices (defined as unprotected anal or oral intercourse to orgasm and oral/anal contact). The subjects were queried about AIDS knowledge and then randomly divided into two groups; one participated in risk education self-management skill and sexual assertive training, and the other constituted a waiting-list control group. Eight months later, subjects were reassessed to determine change associated with participation in the intervention.
FINDINGS:	The intervention classes were effective in reducing the high risk behavior of the participants. There was a decrease in the practice of unprotected anal intercourse.
RECOMMENDATIONS:	The role of behavior change intervention for preventing AIDS in this study has a clear potential impact, yet additional controlled studies are needed to examine the role of behavior change intervention.

AUTHOR(S):	Price, J.H.; Desmond, S.; and Kukulka, G.
TITLE:	High School Students' Perceptions and Misperceptions of AIDS
SOURCE:	*Journal of School Health,* 1985, Vol. 55: 107-109
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this study is to identify the sources and quality of information on AIDS received by secondary public school students.
METHODOLOGY:	A questionnaire was sent to a convenience sample of 118 males and 132 females. The background variables measured age, sex, grade in school, and whether or not they had ever taken a sex education course and/or a health education course.
FINDINGS:	Out of the 19 knowledge questions, only three were answered correctly by 75 percent of the students. Males were more knowledgeable about AIDS than females. The majority of students were not worried about getting AIDS. The majority of sources for AIDS information were TV, newspapers, magazines, and the radio.
RECOMMENDATIONS:	Schools need to provide more accurate information on current health topics. It is necessary for teachers to be provided with accurate and comprehensive sources of information on AIDS.

AUTHOR(S):	Strunin, L., and Hingson, R.
TITLE:	Acquired Immunodeficiency Syndrome and Adolescents: Knowledge, Beliefs, Attitudes, and Behaviors.
SOURCE:	*Pediatrics*, 1986, Vol. 76: 825-828.
SPONSORING ORGANIZATION:	National Institute on Alcohol and Alcohol Abuse, and Biomedical Research Support Grant
PURPOSE:	The purpose of this study is to assess whether the adolescent population was lacking information about AIDS.
METHODOLOGY:	A random sample of 963 teenagers in Massachusetts was selected and a telephone questionnaire concerning AIDS transmission and their own behaviors was conducted. The data collection began in August of 1986 and was completed two months later.
FINDINGS:	Eighty-six percent (829) of the teenagers agreed to participate in the phone survey. Of the respondents, 70 percent said they were sexually active, but only 15 percent had changed their sexual behavior due to concern about contracting AIDS. The majority of respondents knew a relationship exists between AIDS and blood, and other body fluids, but knowledge of the mode of transmission was limited.
RECOMMENDATIONS:	School intervention programs are recommended to educate the adolescent population about AIDS transmission and to counter the misinformation and confusion about AIDS. Additional surveys of adolescents in schools and health care settings should be conducted in order to identify areas of misunderstandings.

AIDS KABB STUDIES IN MINORITY POPULATIONS

AUTHOR(S):	Day, N.A.; Houston-Hamilton, A.; Taylor, D.; Jang, M.; and Crowe, G.
TITLE:	A Report on the First Tracking Survey of AIDS Knowledge, Attitudes, and Behaviors in San Francisco Black Communities
SOURCE:	Polaris Research and Development, 1988 to 1989, Vol. I. Conducted for the AIDS Surveillance Office, San Francisco Department of Public Health.
SPONSORING ORGANIZATION:	San Francisco Department of Public Health
PURPOSE:	The purpose of this survey is to obtain comparative data useful in developing effective AIDS prevention programming for San Francisco's Black communities. It is the second in a series designed to research the AIDS-related knowledge, attitudes, beliefs, and behaviors in the target population.
METHODOLOGY:	This survey, conducted in the Fall and Winter of 1988 to 1989, consisted of in-person interviews with 350 Black adult residents in San Francisco. A block-random household sampling procedure was used to select Black populations of 50 percent or more from the 1980 Census.
FINDINGS:	In general, respondents know that HIV is transmitted through sexual contact, needle sharing, and from mother to child. However, 1987 study respondents and those from this study, expressed confusion about casual transmission. Knowledge about safe and risky behaviors increased significantly between 1987 and 1988. Sexual partners with venereal disease or with AIDS/ARC actually increased in 1988. Drug use remained at high levels, and the percentage of IVDUs remained unchanged.
RECOMMENDATIONS:	Prevention efforts need to be more carefully targeted at both populations at high risk by virtue of their behavior and those not at risk. The populations not at risk have to be supported to maintain safe behaviors. For those at risk, efforts need to focus on personalized risk assessment, skill building in risk reduction, and the development of new community norms, such as condom use and needle sharing.

AUTHOR(S):	DiClemente, R.J.; Boyer, L.B.; and Morales, E.S.
TITLE:	Minorities and AIDS: Knowledge, Attitudes, and Misconceptions Among Black and Latino Adolescents.
SOURCE:	*Public Health Briefs*, 1988, Vol. 78: 55-57.
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this study is to ascertain Black and Latino adolescents' knowledge, attitudes and misconceptions about the cause and transmission of AIDS.
METHODOLOGY:	Adolescents attending San Francisco high schools in May 1985 were surveyed regarding their knowledge, attitudes, and beliefs, with respect to AIDS. The self-report questionnaire was completed by 628 participants (261 White, 226 Black, and 141 Latino) in Family Life Education classes. White, Black, and Hispanic students of both sexes participated in this study.
FINDINGS:	The results reveal that White adolescents are more knowledgeable about the transmission and prevention of AIDS than Blacks or Hispanics. Black and Hispanic adolescents showed the highest levels of misconception regarding the casual transmission of AIDS. The findings suggest that adolescents, especially Black and Latino adolescents, may be at a greater risk of HIV infection.
RECOMMENDATIONS:	The prevalence of misconceptions about the threat of casual contagion of AIDS among Black and Latino adolescents suggests the need for preventive AIDS education not only to decrease high-risk behaviors, but to reduce unnecessary feelings of anxiety regarding susceptibility.

AUTHOR(S):	Fairman, Bregman, and Maullin, Inc.
TITLE:	Report on a Tracking Survey of AIDS Knowledge, Attitudes and Behaviors in San Francisco's Latino Communities, Draft
SOURCE:	An unpublished report prepared for the San Francisco Health Department, AIDS Office, February 1989
SPONSORING ORGANIZATION:	San Francisco Health Department, AIDS Office
PURPOSE:	The purpose of this study is to assess AIDS KAB among the Latino population in San Francisco
METHODOLOGY:	During 1987 and 1988, 320 Hispanic adult residents of San Francisco were personally interviewed regarding AIDS KAB. A block-random household sampling procedure was used to select the Latino population.
FINDINGS:	The survey found high levels of knowledge regarding modes of AIDS transmission and less than adequate awareness of how AIDS cannot be transmitted. Respondents reported no change in the average numbers of sexual partners, and revealed continuing reluctance to discuss AIDS with their sexual partners. Analysis of data over time suggests an increase in AIDS knowledge and a reduction in risky sexual behaviors.
RECOMMENDATIONS:	The researchers recommend the establishment of an advisory board comprised of Latino health care providers and community group representatives to assist in the development of appropriate materials. More extensive programs should be made continually available to the health centers, clinics, and other institutions serving the Latino community.

AUTHOR(S):	Giachello, A.L.; Aguillon, D., and Prohst, J.
TITLE:	AIDS Knowledge, Attitudes and Sexual Practices Among Hispanics in Chicago, an unpublished paper, June 1989.
SOURCE:	N/A
SPONSORING ORGANIZATION:	Illinois Department of Public Health
PURPOSE:	The purpose of this study is to obtain baseline information on Hispanic knowledge and attitudes about AIDS transmission, sexual practices, and prevention of HIV infection.
METHODOLOGY:	Trained bilingual interviewers conducted four hundred random telephone interviews in 1988. The questionnaire, developed by the authors, gathered information about knowledge of AIDS, sources of knowledge, attitudes about AIDS, sexual behavior, and basic demographic data.
FINDINGS:	Sixty percent of the respondents were female. Forty-three percent of the sample population reported nine to 12 years of education, and Spanish was the preferred language of respondents (69 percent). Most Hispanics in Chicago have heard about AIDS and believe that this disease is serious. Most respondents were aware of the likely modes of AIDS transmission, but were weak on transmission through casual modes. Three-fourths of Hispanics believe that AIDS affects mostly homosexuals; those with eight years of education or less are significantly more likely to agree with this statement than those with 13 or more years of education. Forty-six percent of the sample had low or very low levels of AIDS knowledge. The majority of Hispanics (71 percent) reported no change in sexual behavior due to fear of AIDS.
RECOMMENDATIONS:	Education about transmission and specific aspects of AIDS is needed. Programs that emphasize translation of AIDS knowledge into action are also needed.

AUTHOR(S):	Goodman, E., and Cohall, A.
TITLE:	Acquired Immunodeficiency Syndrome and Adolescents: Knowledge, Attitudes, Beliefs, and Behaviors in New York City Adolescents Minority Populations
SOURCE:	*Pediatrics*, 1989, Vol. 84: 36-42
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this study is to assess high-risk behaviors and basic understanding of AIDS by a group of New York adolescents, including understanding of its transmission and ways to protect themselves from being infected.
METHODOLOGY:	In 1988, a 29-item self-report questionnaire was administered to 196 students attending a clinic of a New York City public high school.
FINDINGS:	Fifty-eight percent of the adolescents had engaged in sexual intercourse; 12 percent had never used contraception. Knowledge of HIV transmission was generally good, but misconceptions do prevail. Of the total group, 39 percent reported behavior changes because of concern with AIDS in the previous six months. More Black adolescents than Hispanic adolescents instituted behavior changes, such as condom use and sexual abstinence. However, of Black female adolescents, 71 percent were sexually active, compared to 30 percent of Hispanic female adolescents; 73 percent of the sexually active female adolescents did not insist on condom use.
RECOMMENDATIONS:	The authors recommend that innovative educational and motivational strategies, especially targeted at female adolescents, need to be used with this age group.

AUTHOR(S):	Jaffe, L.R.; Seehaus, M.; Wagner, C.; and Leadbeater, B.J.
TITLE:	Anal Intercourse and Knowledge of Acquired Immunodeficiency Syndrome Among Minority-Group Female Adolescents
SOURCE:	*The Journal of Pediatrics*, 1988, Vol. 112: 1005-1007.
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this study is to investigate the sexual behaviors, including anal intercourse, of inner-city heterosexual adolescent girls that may place them at high risk for HIV infection.
METHODOLOGY:	A self-administered questionnaire of 45 items was developed and administered at the adolescent health center over a two-week period in May 1987. The questionnaire was completed by 148 female adolescents between 13 and 21 years of age. Ninety percent of the subjects were either Hispanic (44 percent) or Black (46.8 percent).
FINDINGS:	Twenty-five percent of the participants acknowledged having had both anal and vaginal intercourse. Accurate knowledge about AIDS increased with age. Most adolescents (54.6 percent) reported they had not changed their sexual activity to avoid contracting AIDS. Condom use during vaginal intercourse was reported only 53.3 percent of the time; during oral intercourse, condom use was reported 25.9 percent of the time.
RECOMMENDATIONS:	Effective adolescent AIDS prevention programs should include objectives for changing adolescent behaviors that may be normative in their social network, including anal intercourse and reluctance to use condoms.

AUTHOR(S):	Marin, B.V. and Marin, G.
TITLE:	Level of Information About HIV Among Hispanics in San Francisco: Effects of Acculturation, an unpublished paper, April 1989.
SOURCE:	N/A
SPONSORING ORGANIZATION:	National Institute on Drug Abuse
PURPOSE:	The purpose of this study is to identify factors associated with knowledge about HIV in the Hispanic community.
METHODOLOGY:	A telephone interview was conducted with 460 Hispanics living in San Francisco in 1988. A random digit dialing was used to select telephone numbers. Seventy-four percent of the respondents answered the questions in Spanish. The questionnaire was developed using the AIDS Supplement to the National Health Interview Survey (1988 version). It included 15 questions about AIDS in general and 12 about HIV transmission possibilities.
FINDINGS:	The majority of the respondents (7,670) reported being born outside of the United States. While Hispanics correctly identified actual modes of transmission of HIV, two-thirds of the respondents had misconceptions regarding casual transmission of HIV. Hispanics with a higher level of education were significantly more knowledgeable about AIDS and HIV transmission. Also, Hispanics who are less acculturated to the United States reported a greater belief in casual transmission, even when education was held constant.
RECOMMENDATIONS:	AIDS educational campaigns targeting Hispanics, should target the messages to less acculturated Hispanics as well as less educated individuals.

AUTHOR(S):	Thomas, S.B.; Gilliam, A.G.; and Iwrey, C.G.
TITLE:	Knowledge About AIDS and Reported Risk Behaviors Among Black College Students
SOURCE:	*Journal of American College Health*, 1989, Vol. 38: 61-66
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this study is to determine the extent of the knowledge and misinformation about AIDS among a predominantly Black population of college students.
METHODOLOGY:	This study surveyed 975 undergraduates attending a large East Coast University during the Spring Semester of the 1987/88 academic year. Students were administered a paper-and-pencil questionnaire composed of demographic items, 25 knowledge questions, 25 attitude questions, and 10 behavior questions. A convenience sample of predominantly Black students (94 percent) participated.
FINDINGS:	Selected questions on how HIV is <u>not</u> transmitted was problematic for students. T-test results demonstrated that students engaging in high-risk behaviors had lower knowledge about HIV transmission than those who avoided certain behaviors; high-risk behaviors were defined as engaging in anal intercourse, heroin use, having multiple sex partners, and having been treated for a sexually transmitted disease.
RECOMMENDATIONS:	Results of the study support the need to increase efforts to deliver AIDS information targeted to those engaged in high-risk behaviors. Special health education programs need to focus on risk behaviors (e.g., unprotected sexual intercourse) instead of risk groups (e.g., homosexual/bisexual males). Also, baseline studies are needed to compare educational methods to gain a better understanding of the barriers to AIDS education within selected Black populations.

AUTHOR(S):	Wallack, J.J.
TITLE:	Anxiety Among Health Care Professionals
SOURCE:	*Hospital and Community Psychiatry*, 1989, Vol. 40: 507-510
SPONSORING ORGANIZATION:	N/A
PURPOSE:	The purpose of this study is to examine AIDS anxiety, fear of contagion, and attitudes toward homosexuality of nurses and house staff physicians at Beth Israel Medical Center in New York City.
METHODOLOGY:	A self-administered questionnaire developed by the author was distributed to 155 house staff and between 300 and 325 nurses. The questionnaire had 79 attitudinal statements regarding AIDS anxiety, fear of contagion, and attitudes toward providing care to homosexuals. The survey also gathered such demographic information as race, religion and marital status. The overall response rate was 51 percent.
FINDINGS:	Respondents from minority groups were significantly less trusting of experts' reassurances of their safety of contracting AIDS from patients. Fifty-three percent of all respondents indicated that they sometimes avoid performing procedures with AIDS patients due to fear of contagion. This was true of 78 percent of Asian nurses, 67 percent of Hispanic nurses, 46 percent of Black nurses, and 39 percent of White nurses.
RECOMMENDATIONS:	The author recommends that AIDS training and educational programs for health care professional should consider their cultural backgrounds and psychosocial needs.

APPENDIX C

NATIONAL HEALTH INTERVIEW SURVEY
AIDS SUPPLEMENT
SELECTED RESPONDENT CHARACTERISTICS
1987

APPENDIX C-1

SELECTED RESPONDENT CHARACTERISTICS
BY RACE/ETHNICITY

CHARACTERISTIC	TOTAL		RACE/ETHNICITY									
			AMERICAN INDIAN/ALASKA NATIVE		ASIAN/PACIFIC ISLANDER		BLACK		WHITE		HISPANIC	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
AGE IN YEARS	17,636	100.0	94	100.0	327	100.0	2,430	100.0	13,790	100.0	995	100.0
18-24	2,314	13.1	9	9.6	75	22.9	376	15.5	1,643	11.9	211	21.2
25-34	4,228	24.0	21	22.3	92	28.1	664	27.3	3,147	22.8	304	30.6
35-44	3,449	19.6	17	18.1	70	21.4	456	18.8	2,704	19.6	202	20.3
45-54	2,129	12.1	21	22.3	45	13.8	303	12.5	1,647	11.9	113	11.4
55-64	2,085	11.8	12	12.8	25	7.6	255	10.5	1,711	12.4	82	8.2
65-74	1,999	11.3	8	8.5	16	4.9	244	10.0	1,678	12.2	53	5.3
75 Plus	1,432	8.1	6	6.4	4	1.2	132	5.4	1,260	9.1	30	3.0
SEX	17,636	100.0	94	100.0	327	100.0	2,430	100.0	13,790	100.0	995	100.0
Male	7,293	41.4	37	39.4	139	42.5	848	34.9	5,862	42.5	407	40.9
Female	10,343	58.6	57	60.6	188	57.5	1,582	65.1	7,928	57.5	588	59.1
HIGHEST EDUCATION	17,585	100.0	94	100.0	326	100.0	2,418	100.0	13,759	100.0	988	100.0
None	59	.3	3	3.2	6	1.8	17	.7	14	.1	19	1.9
1-8 Years	1,801	10.2	15	16.0	30	9.2	352	14.6	1,203	8.7	201	20.3
9-11 Years	2,228	12.7	22	23.4	23	7.1	508	21.0	1,512	11.0	163	16.5
High School Grad	6,703	38.1	36	38.3	66	20.2	918	38.0	5,362	39.0	321	32.5
1-3 Years College	3,556	20.2	12	12.8	92	28.2	418	17.3	2,855	20.8	179	18.1
College Grad	1,860	10.6	4	4.3	59	18.1	126	5.2	1,611	11.7	60	6.1
5+ Years College	1,378	7.8	2	2.1	50	15.3	79	3.3	1,202	8.7	45	4.6
FAMILY INCOME	15,521	100.0	88	100.0	290	100.0	2,094	100.0	12,177	100.0	872	100.0
Under 5,000	1,412	9.1	14	15.9	37	12.8	445	21.3	830	6.8	86	9.9
5,000 - 6,999	806	5.2	6	6.8	19	6.6	187	8.9	527	4.3	67	7.7
7,000 - 9,999	1,104	7.1	4	4.5	18	6.2	243	11.6	750	6.2	89	10.2
10,000 - 14,999	1,844	11.9	15	17.0	38	13.1	280	13.4	1,403	11.5	108	12.4
15,000 - 19,999	1,889	12.2	12	13.6	21	7.2	268	12.8	1,461	12.0	127	14.6
20,000 - 24,999	1,661	10.7	5	5.7	23	7.9	185	8.8	1,345	11.0	103	11.8
25,000 - 34,999	2,759	17.8	23	26.1	51	17.6	240	11.5	2,321	19.1	124	14.2
35,000 - 49,999	2,221	14.3	5	5.7	48	16.6	168	8.0	1,891	15.5	109	12.5
50,000 Or More	1,825	11.8	4	4.5	35	12.1	78	3.7	1,649	13.5	59	6.8

SELECTED RESPONDENT CHARACTERISTICS
BY RACE/ETHNICITY

CHARACTERISTIC	TOTAL		RACE/ETHNICITY									
			AMERICAN INDIAN/ALASKA NATIVE		ASIAN/PACIFIC ISLANDER		BLACK		WHITE		HISPANIC	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
EMPLOYMENT STATUS	17,636	100.0	94	100.0	327	100.0	2,430	100.0	13,790	100.0	995	100.0
Employed	10,768	61.1	45	47.9	213	65.1	1,352	55.6	8,543	62.0	615	61.8
Unemployed	580	3.3	7	7.4	10	3.1	151	6.2	349	2.5	63	6.3
Not Labor Force	6,288	35.7	42	44.7	104	31.8	927	38.1	4,898	35.5	317	31.9
POVERTY THRESHOLD	16,331	100.0	88	100.0	311	100.0	2,168	100.0	12,849	100.0	915	100.0
At Or Above	14,029	85.9	68	77.3	243	78.1	1,438	66.3	11,571	90.1	709	77.5
Below	2,302	14.1	20	22.7	68	21.9	730	33.7	1,278	9.9	206	22.5
REGION	17,636	100.0	94	100.0	327	100.0	2,430	100.0	13,790	100.0	995	100.0
Northeast	3,585	20.3	7	7.4	45	13.8	462	19.0	2,891	21.0	180	18.1
Midwest	4,542	25.8	15	16.0	42	12.8	524	21.6	3,856	28.0	105	10.6
South	5,927	33.6	19	20.2	55	16.8	1,263	52.0	4,268	30.9	322	32.4
West	3,582	20.3	53	56.4	185	56.6	181	7.4	2,775	20.1	388	39.0

APPENDIX D

SCALE SCORING SCHEME
THREE AIDS KNOWLEDGE SCALES FROM THE 1988 NATIONAL HEALTH INTERVIEW SURVEY AIDS SUPPLEMENT

APPENDIX D-1
SCORES ASSIGNED FOR QUESTION RESPONSES
BY KNOWLEDGE AREA

	SCORE				
GENERAL KNOWLEDGE	Definitely True	Probably True	Probably False	Definitely False	Don't Know
AIDS Can Reduce The Body's Natural Protection Against Disease	2	1	-1	-2	0
AIDS Is Especially Common In Older People	-2	-1	1	2	0
AIDS Can Damage The Brain	2	1	-1	-2	0
AIDS Usually Leads To Heart Disease	-2	-1	1	2	0
AIDS Is An Infectious Disease Caused By A Virus	2	1	-1	-2	0
Teenagers Cannot Get AIDS	-2	-1	1	2	0
AIDS Leads To Death	2	1	-1	-2	0
A Person Can Be Infected With The AIDS Virus And Not Have The Disease AIDS	2	1	-1	-2	0
Looking At A Person Is Enough To Tell If He Or She Has The AIDS Virus	-2	-1	1	2	0
ANY Person With The AIDS Virus Can Pass It On To Someone Else Through Sexual Intercourse	2	1	-1	-2	0

APPENDIX D-1
SCORES ASSIGNED FOR QUESTION RESPONSES
BY KNOWLEDGE AREA

GENERAL KNOWLEDGE	SCORE				
	Definitely True	Probably True	Probably False	Definitely False	Don't Know
A Person Who Has The AIDS Virus Can Look And Feel Well And Healthy	2	1	-1	-2	0
A Pregnant Woman Who Has The AIDS Virus Can Give The AIDS Virus To Her Baby	2	1	-1	-2	0
There Is A Vaccine Available To The Public That Protects A Person From Getting The AIDS Virus	-2	-1	1	2	0
There Is No Cure For AIDS At Present	2	1	-1	-2	0

RISK FACTORS	SCORE					
	Very Likely	Somewhat Likely	Somewhat Unlikely	Very Unlikely	Definitely Not Possible	Don't Know
How Likely Do You Think It Is That A Person Will Get AIDS Or The AIDS Virus Infection From ...						
Living Near A Home Or Hospital For AIDS Patients	-2	-1	0	1	2	0
Working Near Someone With The AIDS Virus	-2	-1	0	1	2	0
Eating In A Restaurant Where The Cook Has The AIDS Virus	-2	-1	1	2	1	0
Kissing, With Exchange Of Saliva, A Person Who Has The AIDS Virus	-2	-1	1	2	1	0
Shaking Hands, Touching, Or Kissing On The Cheek Someone Who Has The AIDS Virus	-2	-1	0	1	2	0
Sharing Plates, Forks, Or Glasses With Someone Who Has The AIDS Virus	-2	-1	0	1	2	0
Using Public Toilets	-2	-1	0	1	2	0
Sharing Needles For Drug Use With Someone Who Has The AIDS Virus	2	1	0	-1	-2	0

RISK FACTORS	SCORE					
	Very Likely	Somewhat Likely	Somewhat Unlikely	Very Unlikely	Definitely Not Possible	Don't Know
How Likely Do You Think It Is That A Person Will Get AIDS Or The AIDS Virus Infection From ...						
Being Coughed On Or Sneezed On By Someone Who Has The AIDS Virus	-2	-1	0	1	2	0
Attending School With A Child Who Has The AIDS Virus	-2	-1	0	1	2	0
Mosquitoes Or Other Insects	-2	-1	0	1	2	0

PREVENTION	SCORE				
	Very Effective	Somewhat Effective	Not At All Effective	Don't Know How Effective	Don't Know Method
How Effective Are The Following In Preventing Infection With The AIDS Virus?					
Using A Diaphragm	-1	-1	2	0	0
Using A Condom	2	1	-1	0	0
Using A Spermicidal Jelly, Foam Or Cream	-1	-1	2	0	0
Having A Vasectomy	-1	-1	2	0	0
Two People Who Do Not Have The AIDS Virus Having Sex Only With					