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Report to the Chairman, Committee on Governmental Affairs, U.S. Senate

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AIDS EDUCATION

Reaching Populations at Higher Risk

GAO/PEMD-88-35

GAO
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Program Evaluation and Methodology Division

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September 16, 1988

The Honorable John Glenn
Chairman, Committee on Governmental Affairs
United States Senate

Dear Mr. Chairman:

This report responds to your June 28, 1988, letter asking the General Accounting Office to determine what lessons learned from previous public-health research might be applied to AIDS education.

To organize the applicable lessons, GAO derived a health-education model that covers the selection of media most likely to reach populations at risk, the provision of skills for reducing risk, and other components. We used this model as a framework for describing some of the AIDS education campaigns currently underway. Because these campaigns have only recently begun, it was not possible to evaluate their overall effects or the relative importance of campaign components.

There are two recommendations in the report. The first, directed to the Secretary of the Department of Health and Human Services (HHS), calls for the collection of data by which the relative effectiveness of campaign components can be assessed. The second, directed to the Congress, suggests that, if AIDS legislation now pending is passed, such legislation should require HHS to report on its progress in assessing the effectiveness of various campaign components.

As we agreed with your office, unless you publicly announce the contents of this report earlier, we plan no further distribution of it until 15 days from the date of the report. At that time, we will send copies to those who are interested and will make copies available to others upon request.

Sincerely,

Eleanor Chelimsky
Director

Executive Summary

Purpose

Acquired immunodeficiency syndrome (AIDS) is both infectious and, at present, incurable. But, it is transmitted only through blood-to-blood or sexual contact, or from mother to child. Thus, most people can avoid AIDS by controlling their own behavior. Efforts are now under way to disseminate the facts on AIDS and promote behaviors that reduce risk. At the request of the chairman of the Senate Committee on Governmental Affairs, GAO has assessed the ways in which education might help to prevent AIDS among three populations at relatively high risk: intravenous drug users, minority communities, and youth. This report focuses on two questions.

1. What lessons regarding the design of effective health education can be learned from previous public-health research?

2. How can these lessons be applied to the education of populations at relatively high risk for AIDS?

Background

The AIDS risk is greater for populations with a higher incidence of behaviors transmitting human immunodeficiency virus (HIV). Further, AIDS education, like any other public-health or marketing effort, must be designed first to gain access to a population and then to promote acceptance of the message.

GAO reviewed studies of the effects of health education on people's knowledge and behavior regarding, for example, drug use, smoking, and sexually transmitted diseases, as well as AIDS. GAO also interviewed experts in public health, mass communication, and marketing to discuss the implications of previous research for education to prevent AIDS.

To learn about current AIDS campaigns, GAO interviewed AIDS coordinators in five U.S. cities with the highest current incidence of AIDS cases. GAO also asked experts to nominate AIDS campaigns that target drug users, minority communities, or youth, and that, in the experts' opinions, are well designed and likely to be effective. GAO visited 12 of these "exemplary campaigns" to review each one's rationale and operation.

Results in Brief

The lessons that GAO derived from previous research form a seven-step model of health education. The steps are: specifying the target group, identifying characteristics placing the group at risk, selecting the media likely to reach that group, determining the information to be covered,

developing risk-reduction skills, providing motivators for risk reduction, and specifying the intended outcomes of the message.

Field investigations indicated that this model can be applied to AIDS education. Across campaigns, there was evidence of considerable attention devoted to all seven steps. No attempt could be made in this study to evaluate campaign effects, both because of the short period of time during which campaigns have been in operation and because of Committee time constraints. However, for the sake of future evaluation, it is important to note that most campaigns have not collected the sort of data by which their effects might be assessed.

GAO's Analysis

Health Education Model

Previous public-health research indicates that health education may be more effective if it follows at least seven steps.

First, defining a target group more precisely may make it easier to deliver a message that will be understood and acted on because it tells people precisely what they need to know, in their own language, through sources they trust and respect. (See pages 20 to 21.)

Second, health threats can be due directly to risk behavior but also to group members' background capabilities, attitudes, or health-relevant knowledge and practices. (See pages 21 to 22.)

Third, media selection is governed by two considerations: which media provide best access to the target group, and which media afford the best use of available resources? Mass media alone may be less effective in promoting behavior change than personal contact or a combination of mass media and personal contact. (See pages 22 to 23.)

Fourth, a message must be clear but must also communicate in language that the intended audience is comfortable with. Information on outcome efficacy may be especially important. Campaigns that describe specific risk-reduction steps may be more successful if they also indicate how effective those steps can be. (See pages 23 to 26.)

Fifth is the development of skills for reducing risk. Rehearsing such skills may be critical in helping people to develop a sense of personal

efficacy—a confidence in their ability to carry out the recommended behaviors. (See pages 26 to 28.)

The sixth step is the provision of motivators for risk reduction. Fear is one motivator, and fear-arousing messages may be more effective if they generate moderate (not high) levels of fear, focus on short-term personalized consequences, and provide specific recommendations for how to reduce risk. Motivators can also be tangible, such as vouchers for getting into drug treatment programs. (See pages 28 to 29.)

Finally, health messages can promote cognitive outcomes, such as health-relevant knowledge, as well as behavioral outcomes, such as risk reduction and maintenance of behavior changes. But, messages meant to promote some behaviors may not be optimal for promoting others. For example, promoting the maintenance of risk-reduction behaviors over the long term may be more difficult than, and conceptually distinct from, promoting initial change. (See pages 29 to 30.)

AIDS Education Campaigns

Evidence from the five cities and from exemplary campaigns indicates that these steps can be applied to AIDS education. GAO found campaigns tailored for well-defined populations, such as adolescents in Bedford-Stuyvesant and drug users who are part of one friendship network. There are also campaigns designed to address specific risk characteristics, such as the group's existing health practices, and to achieve outcomes appropriate to specific target-group needs. (See pages 32 to 59.)

Campaigns have developed mass-media materials, such as culturally relevant videos and brochures. They also use personalized forms of communication, including educational skits, intermediaries with particular access to the population, persons diagnosed with AIDS, target-group peers, and an AIDS hotline. (See pages 33 to 38.)

To make messages more understandable or appealing to the target group, campaigns incorporate group values, family symbolism, idiomatic expressions appropriate to the group, and humor. (See pages 38 to 51.)

To teach practical risk-reduction skills, some campaigns distribute materials that illustrate how to put on a condom or clean drug-use paraphernalia. Campaigns also distribute condoms and demonstrate risk-reduction procedures. To teach interpersonal skills, some campaigns arrange for clients to role-play pressure and resistance. Other campaigns train clients in self-management. (See pages 51 to 53.)

To promote risk reduction, campaigns cite motivators such as short-term symptoms. Others identify long-term consequences and then immediately cite specific skills for risk reduction. Campaign motivators include social approval contingent on risk reduction and attempts to make safer-sex practices seem more appealing. (See pages 54 to 59.)

Most exemplary campaigns had not systematically collected the data by which their outcomes could be measured and by which the importance of each step in the model might be assessed. Accordingly, pending future research and evaluation, it is not possible to determine which steps might be more critical for various target groups or outcomes and what additional steps might contribute to success. The model is therefore iterative and subject to further refinement. (See page 60.)

That refinement can proceed more quickly if planners systematically consider the relevance of these and other message components as campaign strategies are developed and resources allocated. GAO has devised a set of policy-relevant questions to which planners may wish to refer. (See pages 63 to 68.)

Recommendation to the Secretary of Health and Human Services

GAO recommends that plans for evaluating the department's AIDS education efforts ensure the collection of data by which the relative effectiveness of different components can be assessed. (See pages 60 to 61.)

Recommendation to the Congress

Pending legislation stipulates that the outcome of AIDS campaigns funded by the Department of Health and Human Services be evaluated and reported to departmental officials or to the Congress. GAO recommends that, if the Congress passes legislation on this issue, such legislation require that these reports describe progress in assessing the relative effectiveness of different components in AIDS education. These components should include, but need not be limited to: alternatives for defining the target group and handling its risk characteristics; the media employed; the information, skills, and motivators provided; and the outcomes intended under each campaign. (See page 61.)

Agency Comments

Because GAO did not evaluate federal policy or practice, official comments on the draft report were not requested. However, the views of responsible officials were sought during the course of the work and are incorporated where appropriate.

Contents

Figures

Abbreviations

AIDS	Acquired immunodeficiency syndrome
CDC	Centers for Disease Control
GAO	General Accounting Office
HHS	Department of Health and Human Services
HIV	Human immunodeficiency virus
IV	Intravenous
OTA	Office of Technology Assessment

Introduction

Acquired immunodeficiency syndrome (AIDS) is both infectious and, at present, incurable. However, it is transmitted only through blood-to-blood or sexual contact, or from mother to child. Thus, most people can avoid AIDS by controlling their own behavior. Health officials have specified in considerable detail the sorts of behavior to be avoided and the means to do so, and efforts are now underway to communicate this message to the public.

At the request of the Chairman of the Senate Committee on Governmental Affairs, this report focuses on two questions:

1. What lessons regarding the design of effective health education can be learned from previous public-health research?

2. How can these lessons be applied to the education of populations at relatively high risk for AIDS?

Need for Targeted AIDS Education

The causative agent for AIDS is the human immunodeficiency virus (HIV). Education to prevent AIDS has therefore covered three objectives.

- Persons who test negative for HIV antibodies or whose test status is unknown are encouraged to avoid exposure to HIV.
- Persons who already know they are antibody-positive are encouraged to adopt and maintain behaviors that prevent their spreading HIV to others.
- Persons who know they are antibody-positive are also encouraged to avoid repeated HIV exposure.

The behavioral implication of all three objectives is the same: people must abstain from, or at least minimize, any sort of sexual or blood-to-blood contact known to transmit the virus.

However, some people, such as intravenous drug users, are at greater risk for AIDS than the public in general, so the need to reach them is especially urgent. In addition, AIDS education, like any other public-health or marketing effort, faces difficult challenges—first of access (gaining people's attention) and then of acceptance (getting them to believe and act on the message).

Tables 1.1 to 1.3 cite characteristics that may operate as sources of AIDS risk for the three populations covered in this report: intravenous drug users, minority communities, and adolescents. Some contribute directly

to virus transmission, while others may create risk indirectly by affecting access to the population or its acceptance of AIDS messages. Drawn from previous research on AIDS, other public-health issues, and mass communications, these characteristics serve to illustrate the variety of reasons for targeting AIDS messages to each population.

According to the Centers for Disease Control (CDC), as of April 1988, 25 percent of U.S. adults with AIDS had a history of intravenous drug use, including users also reporting some homosexual activity. Further spread of the disease among drug users is most likely where rates of HIV infection are relatively high. For example, about 15 percent of San Francisco's drug users have tested positive for antibodies to the virus. In parts of New York and New Jersey, rates reportedly exceed 60 percent. Indirect sources of risk may also be at work. For instance, among drug users already susceptible to a variety of serious illnesses, the additional threat of AIDS may not seem uniquely compelling. (See table 1.1.)

Table 1.1: Possible AIDS-Risk Characteristics of Intravenous Drug Users[a]

Categories of risk, population access, and message acceptance	Characteristics of risk, population access, and message acceptance
Related to risk	Drug use in group settings
	Sharing drug paraphernalia
	Residence in areas with higher rates of HIV infection and AIDS
Related to access or acceptance	Distrust of public institutions
	Low levels of education
	High mobility
	Disinterest in treatment for drug addiction
	More reliance on audio-visual than on print media
	Low concern for health risks

[a]These characteristics have been cited by public-health experts as relevant to AIDS education for intravenous drug users. GAO has not independently evaluated the relevance of these characteristics, and some characteristics may be more relevant to some users than to others. They are listed here as possibilities to be considered in designing AIDS education messages.

CDC's April 1988 data also indicate that in the United States 41 percent of all persons with AIDS are minority. Twenty-six percent are blacks, 14 percent Hispanics, and 1 percent Asians. Rates of HIV infection among 1985-86 military recruits were also higher for minorities—0.88 per 1,000 for non-Hispanic whites, 1.07 for Hispanics, and 3.89 for blacks (Burke et al., 1987).

Other sources of AIDS risk are implicit in factors that can affect access to a minority population or its acceptance of public-health messages. In some minority communities, information moves both through mainstream mass media and through more localized sources, such as non-English-language radio and newspapers. Neglect of these more localized sources can reduce access to the population. Another possible source of AIDS risk for minorities, notably for some Asians and Hispanics, is the influence of cultural traditions according to which the open discussion of sexual matters is considered rude and unacceptable. (See table 1.2.)

Table 1.2: Possible AIDS-Risk Characteristics of Minorities[a]

Categories of risk, population access, and message acceptance	Characteristics of risk, population access, and message acceptance
Related to risk	High rate of unprotected sex
	Higher rates of HIV infection and AIDS
Related to access or acceptance	Length of time in the United States
	Language variability (such as regional dialects and idioms)
	Higher salience of minority identity than of sexual identity
	Use of minority-community mass media
	Low experience with or access to health care
	Greater use of television as a mass-media information source
	Greater reliance on minority-community agencies and friendship networks as personal information sources
	Norms limiting the discussion of sex or drug use
	Social and psychological importance of child bearing

[a]These characteristics have been cited by public-health experts as relevant to AIDS education for racial and ethnic minorities. GAO has not independently evaluated the relevance of these characteristics, and some characteristics may be more relevant to some groups or individuals than to others. They are listed here as possibilities to be considered in designing AIDS education messages.

Finally, persons between 13 and 19 years old account for only about 0.4 percent of AIDS cases reported as of April 1988. But persons between ages 20 and 29 account for over 20 percent, and presumably many were infected as teenagers. In addition, rates of sexually transmitted disease are relatively high among young people who are sexually active, even in the 10 to 14 age bracket. Among possible indirect sources of risk for

adolescents are their tendency to feel invulnerable to danger, to downplay risks of many kinds, and to learn more through direct experience than through surrogate advice. (See table 1.3.)

Table 1.3: Possible AIDS-Risk Characteristics of Adolescents

Categories of risk, population access, and message acceptance	Characteristics of risk, population access, and message acceptance
Related to risk	High rate of unprotected sex
	Use of needles for ear piercing, tattooing, and steroid injection
	Exchange of "survival sex" for food, money, or shelter
Related to access or acceptance	Low knowledge of contraception
	Use of peers as reference group for information and behavioral norms
	Unsettled sexual self-concept
	Concrete thinking; short-term orientation
	Denial of danger
	Interest in experimentation and risk- taking
	Alienation from family and public institutions
	Low sense of personal efficacy

[a]These characteristics have been cited by public-health experts as relevant to AIDS education for youth. GAO has not independently evaluated the relevance of these characteristics, and some characteristics may be more relevant to some individuals than to others. They are listed here as possibilities to be considered in designing AIDS education messages.

There is, of course, much diversity across and within groups. The challenge for public-health education is to consider the possible relevance of characteristics such as these, much as market research has learned to do, and to find the most productive routes of access and acceptance for people in each group. For example, though young people may resist advice from adults, AIDS education may still be effective if it is relayed through other young people. Where mainstream news sources do not reach fully into a minority community, AIDS education may nevertheless work quite well if it taps more specialized mass media or personal networks of communication, or both.

Objectives, Scope, and Methodology

We assessed the ways in which educational messages might help to prevent the spread of AIDS among intravenous drug users, minorities, and adolescents. The Committee's original request letter from the committee,, dated February 16, 1988, asked GAO to prepare testimony on its findings. We presented that testimony on June 8, 1988. (See GAO/T-PEMD-88-8.) A subsequent letter from the Committee, dated June 28, 1988, asked GAO to elaborate its testimony in a formal report. Both letters appear in appendix I.

Objectives

Study objectives were to answer two questions.

1. What lessons regarding the design of effective health education can be learned from previous public-health research?

2. How can these lessons be applied to the education of populations at relatively high risk for AIDS?

Scope

To answer the first question, we reviewed an extensive body of research concerning the effects of health education on people's knowledge, attitudes, and risk behavior. The range of health issues we covered include

- drug use,
- smoking,
- cardiovascular disease,
- nutrition,
- seat-belt use,
- diagnostic self-examinations (such as those to detect breast cancer),
- sexually transmitted diseases, and
- teenage pregnancy.

Of course, we also examined the limited and very recent research on education to prevent AIDS.

To answer the second question, we reasoned that the cities hardest hit by AIDS were more likely to have mounted AIDS education campaigns for specific population segments and to have had the longest experience with such campaigns. Data collection in those cities therefore seemed the best and most efficient use of study resources. As of February 1988, the five U.S. cities reporting the highest number of AIDS cases were New York, San Francisco, Los Angeles, Houston, and Washington, D.C.

Methodology

Model of Health Education

Model Development. The first step in this study was to develop a model by which we could organize the results of prior public-health research. In so doing, we attempted to meet three requirements:

- The model should conform as much as possible to existing models of public-health education and mass communication.
- It should be general enough to incorporate experience from a diversity of previous public-health and marketing campaigns.
- It nevertheless should be specific enough to produce findings clearly useful in designing AIDS education.

We examined relevant theoretical models from, and interviewed a large number of experts in, fields such as public health, mass communication, and marketing. (The experts—practitioners, academic researchers, and others—are listed in appendix II.) This investigation uncovered several models adaptable to our purpose.

In two models of mass communication (see McGuire 1981, 1985; and Roberts and Maccoby, 1985), public information campaigns are broken down into

- target characteristics;
- the message, including media and content; and
- intended outcomes, such as attitude or behavior change.

Both models appear in the authoritative Handbook of Social Psychology (Lindzey and Aronson, 1985).

Public-health educators have applied such models expressly to AIDS, elaborating the relevance of target, message, and intended outcomes for AIDS prevention among gay men or the general public. Some reviewers have focused on message variables, notably on the information, behavioral skills, and motivators necessary for AIDS risk reduction. (See Coates et al., 1987; Joseph, 1987; McKusick et al., 1985a.)

Health psychology models focus on the message and target characteristics that can affect health-related behavior, such as willingness to conduct diagnostic self-examinations or to reduce one's health risk through

dietary changes. The health-belief model (see Cummings et al., 1980) covers essentially these predictors:

- target's perceptions of self (locus of control, self-esteem, and so on);
- the illness (such as illness severity and the efficacy of risk-reduction efforts); and
- related norms (regarding, for example, sex, health protection, and service agencies).

Also cited in health psychology are models that highlight one's behavioral intentions and the opportunity to observe and practice health-enhancing skills. With little reformulation, these factors can be subsumed under the more comprehensive health-belief model.

By drawing conceptual linkages across these existing models, GAO devised a single, generic model of public-health education. That model begins with three factors from mass communication—target, message, and outcome. To accommodate health-belief research, the model then separates target into (1) specification of the target group and (2) identification of characteristics placing the group at risk. Following McGuire, it also separates the message into (1) media for delivering the message and (2) content of the message itself. Finally, in accord with health-belief research and AIDS-related work by Joseph and Coates, et al., the model splits message content into information, skills, and motivators. The result is a seven-step approach to health education that covers the target group, the group's risk characteristics, media, information, skills, motivators, and intended outcomes. Chapter 2 explains each of these steps.

Studies of Public-Health Campaigns. Through computerized bibliographical searches, we collected empirical studies on the previously cited public-health issues. Given our time constraints, we relied mainly on literature reviews, but we also sought original research reports if they appeared seminal, widely cited, or otherwise of special interest. Off-line searches and expert interviews identified some additional, very recent, not yet published work, which we also examined whenever possible. The output from this step was a comprehensive set of the factors considered important to the success of public-health education, as indicated by results from actual campaigns or inferential analyses of such campaigns.

Next, we embedded these findings in the model. The purpose of this step was twofold. First, it enabled us to organize this large, complex set of factors into a clear and manageable framework for discussion. Second, it

afforded an opportunity for us to elaborate the model, if necessary, using the most recent empirical research, some of which dealt specifically with AIDS.

Model Evaluation. We asked several experts to review our model for completeness and relevance to AIDS education. Their responses were quite favorable overall, and the model's final version took into account their suggestions for clarifying or elaborating particular factors.

Moreover, after we completed our conceptual and field work, the Office of Technology Assessment (OTA) published its own findings on AIDS education (Office of Technology Assessment, 1988). Their report does not offer an explicit model for AIDS education but does list eleven elements that OTA found "relevant to the changes that are needed to check HIV transmission and to reduce anxiety and discrimination." All of those elements fit easily within GAO's model. (See table 1.4.) We believe this congruence provides useful confirmation of our work.

Table 1.4: AIDS Education Elements Cited by GAO and OTA

GAO steps	OTA elements
Specification of the target group	[Not covered]
Identification of characteristics placing the group at risk	Group beliefs and values[a]
Selection of media likely to reach the group	Message source[a]
Determination of factual information to be included	Perceived risk of illness, efficacy of risk reduction
Provision of skills for risk reduction	Social and mechanical skills, barriers to risk reduction, personal risk-reduction efficacy
Provision of motivators for risk reduction	Encouragement for risk reduction, social approval, use of opinion leaders, pairing fear with risk-reduction recommendations
Specification of intended outcomes	Relation between attitudes and behaviors

[a]One of OTA's elements—credibility—covers group beliefs and values as well as message source.

Usefulness of the Model. It is important to recognize the model's advantages and limitations. One advantage is its generic conceptualization. Experts disagree on whether lessons learned from experience with other public-health issues are applicable to AIDS. For example, antismoking campaigns, like AIDS campaigns, are designed to change a behavior whose worst consequences are quite remote for many people—unlikely and far in the future. Lessons from antismoking experience might therefore seem applicable to AIDS. But the stigma attached to AIDS risk behaviors may be quite different—in kind, prevalence, and degree—from the

stigma attached to smoking. Similar problems arise at the level of individual findings. For example, some antismoking studies suggest that fear is a powerful motivator for behavior change. Others indicate that fear is counterproductive; highlighting the negative consequences of smoking may trigger denial rather than abstinence in many people. Still other research finds this relationship to be contingent on a host of additional factors, such as self-esteem and the perceived likelihood that quitting will reduce risk. Our model does not represent any attempt to resolve such issues. Instead, the model is generic—it incorporates any factor found to have predictive value in other public-health campaigns, without positing any special relevance for one campaign or finding over another.

A second advantage is that the model can serve as an organizing framework for researchers, practitioners, and agencies that fund AIDS campaigns. Researchers can use it to guide the development of study questions, the design of data collection procedures, and the orderly analysis of findings. Practitioners can use it to guide campaign planning and reviews and to clarify the theoretical importance of research findings from other campaigns. Finally, staff at public-health agencies may find the model quite useful in establishing and reviewing proposal evaluation criteria, preparing requests for proposals, designing technical assistance, and evaluating funded campaigns.

The model has two important limitations. First, we did not attempt to evaluate the quality of the studies we reviewed. This decision was due partly to time constraints. More importantly, the available research on public-health education is far from definitive. It therefore seemed inadvisable to disregard any factor thought to affect education on AIDS or other health issues, even if the evidence for it appears weak, mixed, or debatable. We decided instead to be inclusive, incorporating into our model any such factor. Accordingly, while it systematically covers the factors now thought relevant to public-health education, we consider the model iterative and subject to refinement.

Second, the model covers only message design. It does not handle broader issues in program design, such as techniques for conducting a baseline needs assessment, client involvement in decision-making, or methods of program evaluation and program revision. Nor does it cover important contextual matters, such as the nature of public opinion on health threats, the degree to which funding agencies attempt to regulate program activities, or the degree to which local, state, and federal leaders support the goals of health education.

AIDS Education for At-Risk Populations

To determine how the model might be applied in AIDS education, we conducted field research on some current AIDS education campaigns. First, in the five U.S. cities hardest hit by AIDS, we interviewed the city- or county-level persons responsible for coordinating local AIDS education campaigns. Second, in the three hardest-hit cities, we completed more detailed interviews with representatives of 12 additional campaigns.

The first set of interviews, conducted during March and April 1988, covered campaigns targeted to specific populations and funded at least partly by or through local government. Topics included

- target group—primarily intravenous drug users, minority communities, or youth;
- the message delivered—for example, the information or skills provided; and
- the outcomes intended for each campaign.

We conducted more detailed interviews at 12 campaigns in three cities—New York, San Francisco, and Los Angeles. This part of our data collection was confined to three cities so that we would not spread study resources too thinly. We identified these campaigns by asking AIDS education experts to nominate campaigns that

- are currently operating in one of the three cities;
- are targeted to drug users, minority communities, or youth; and that
- seem well-designed and likely to be effective with the target population.

In most cases, campaigns are funded at least partly through public sources. Several of the nominated campaigns receive city or county funds and are therefore also elements of the local government's AIDS education effort.

During the site visits, which occurred during April 1988, we reviewed each campaign's rationale and operation, focusing on the design of its educational messages. Topics included

- target group,
- the characteristics thought to place that group at risk for AIDS,
- the media used to deliver the message,
- message content, and
- the intended outcomes.

Throughout this report, we refer to the 12 campaigns as "exemplary" campaigns. In most cases, data by which to evaluate campaign outcomes had not been systematically collected and analyzed, and this study was not designed to gather such data independently. The term "exemplary" therefore describes a campaign which, in the opinion of one or more experts, is well-designed and effective.

Organization of the Report

In chapter 2, we present our generic model for designing health education messages. In chapter 3, we assess the feasibility of the model with examples from ongoing AIDS education campaigns. These include campaigns run by local governments and those nominated as exemplary. Chapter 4 translates each step in the model into a detailed set of questions relevant to designing and reviewing AIDS education campaigns. We believe the questions can be useful to researchers, educational practitioners, and agencies funding AIDS campaigns.

There are two appendixes. The first contains both request letters from the chairman of the Senate Committee on Governmental Affairs. The second provides a list of experts whom we interviewed and whose research we reviewed.

Finally, we provide a partial bibliography drawn from the literature on educational messages concerning AIDS and other public-health issues.

A Model for Health Education

In this chapter, we address our first objective: to determine what lessons regarding the design of effective health education can be learned from previous public-health research. The framework we used to organize the results of previous research is a generic, seven-step model. The research does not indicate which of these steps might be more critical in AIDS education or whether additional steps should be included. Therefore, we do not consider the model prescriptive. Applying it to the design of actual campaigns may require adjustments based on future research and a careful consideration of campaign resources and target-group characteristics.

Steps in the Model

Health education may be more effective if it follows at least seven steps. As listed in table 2.1, these steps are

- specifying the target group,
- deciding which characteristics place the group at risk,
- selecting media likely to reach the group,
- determining the facts to be included in the message,
- providing the skills for preventing or changing risk behavior when necessary,
- citing motivators for preventing or changing risk behavior when necessary, and
- specifying intended outcomes.

Table 2.1: Summary of Seven-Step Model for Health Education

Step	Options to consider
Specification of the target group	Race or ethnicity, community or neighborhood, age bracket, informal communication network
Identification of characteristics placing the group at risk	
Characteristics	Risk behaviors, capabilities, attitudes, health practices, awareness of the health problem
Purposes	Changing characteristic, sidestepping characteristic, accommodating within-group differences
Selection of media likely to reach the group	Mass media, personal media, media variety
Determination of factual information to be included	Risk level, risk reduction methods, efficacy of risk reduction, modes of transmission and nontransmission, medical and biological and epidemiological information, testing and counseling, peer pressure, civil rights issues, history of epidemics, available resources
Provision of skills for risk reduction	Practical skills, verbal and nonverbal interpersonal skills
Provision of motivators for risk reduction	Negative motivators, tangible and symbolic positive motivators
Specification of intended outcomes	
Cognitive	Awareness of the problem, knowledge, attitudes
Behavioral	Risk prevention, risk reduction or elimination, maintenance of risk reduction

Target Group

The first step is a careful specification of the group to be targeted. Is the plan to disseminate a broad message for all adolescents in the United States, or a more particular message for teen runaways; to reach all minority adults in New York City, or mainly those whose risk for experimentation with illegal drugs is high? The more precisely the target is defined, the more effective an educational campaign may be. Greater specificity may make it easier to develop and deliver a message that tells people what they need to know, in their own language, through sources they respect.

Among the best-known campaigns to improve public health are the Stanford cardiovascular-disease projects of the 1970s and 1980s. These projects used newspaper articles, brochures, and other mass media to publicize the effort and communicate basic health information to the community at large. But, for persons at high risk for cardiovascular problems, planners wanted to offer more detailed information on risk

factors and ways to reduce risk. Accordingly, professional health counselors visited a sample of high-risk persons in their homes to provide further guidance in risk reduction.

Risk Characteristics

The second step is to decide which characteristics place the group at risk. One possibility is a high incidence of behavior by which the human immunodeficiency virus (HIV) can be transmitted. Drug users may share their paraphernalia, for example, and thereby spread the virus through contaminated blood left in the needle or syringe after use. Runaway adolescents may engage in "survival sex" for food, money, or a place to sleep.

Another possibility is that certain background capabilities make it easier or more difficult for people to understand public-health messages. The use of English-language media may not be optimal for people less familiar or less comfortable with English. Many people who read and speak English quite well may nonetheless prefer, and be more receptive to, information conveyed to them in their native tongue. Similarly, print materials that appear quite dense or clinical may not be effective when the educational level of many target-group members is low.

Research also suggests a need to consider attitudes and health practices that may affect group members' receptivity to public-health education. For example, relatively few adolescents are well-informed on techniques for contraception, and some immigrants to this country and users of illegal drugs actively avoid information sources connected with the government. Further, in some minority communities, the AIDS threat is still met with considerable ignorance or denial. Even among minority men who regularly have sex with other men, a message targeted expressly to "gay men" or "homosexuals" may not be effective if their racial or ethnic identity is more salient to them than their sexual preference.

Finally, even for groups in which the health threat is widely recognized, members' breadth of relevant knowledge—concerning, for example, modes of transmission and techniques of risk reduction—must still be taken into account.

Once the risk characteristics have been specified for a target group, there is yet another decision to make at this step: how should each characteristic be handled? One option is a message designed to change the characteristic. If, for example, a minority group seems widely unaware of, or reluctant to discuss, drug use or homosexual behavior among its

members, an AIDS education message might not get through unless some attempt is first made to raise the community's awareness of people in the group who are engaged in those activities.

Another option is a message that carefully sidesteps the characteristic that makes a target group hard to reach. In minority communities, as just noted, racial or ethnic identity may be more salient than sexual preference; consequently, many men in those communities may not see the relevance of messages targeted to categories such as "gay men" or "homosexuals." They may, on the other hand, quite readily perceive the relevance of messages that do not cite such risk categories but instead cite risk behaviors—sex with multiple partners, unprotected anal intercourse, and so on.

A third option is to vary the content of a message to accommodate differences between or within groups. For instance, one characteristic that affects receptivity to health education, and thereby affects risk, is the individual's sense of personal efficacy. According to much previous research, a message that explains the steps one can take to protect one's health is more effective with people who believe they can manage their own lives effectively than with people who believe their lives are more subject to chance or other external influences. For high-efficacy groups, an AIDS message might therefore describe several risk-reduction alternatives and encourage people to decide independently what steps to take—what sort of condom to use, perhaps, or what strategies one might adopt in discussing safer sex with one's partner. For low-efficacy groups, however, it may be more appropriate simply to cite experts' recommendations and encourage compliance. (If the group cannot be characterized as high- or low-efficacy overall, planners may choose to develop different messages for high- and low-efficacy individuals within the group.)

Relevant characteristics may be more prevalent or more critical in some groups than in others. The essential step is to consider very carefully which group characteristics—risk behaviors, capabilities, attitudes, health practices, or health-threat awareness—constitute the basis for concern, and then to weigh their implications for group members' receptivity to a message concerning that threat.

Media

A third step in health education is the specification of media that are likely to reach the target group. Mass media include radio and television, as well as newspapers, brochures, bus posters, and billboards. Personal

media include, for example, community leaders, celebrities, health experts, actors, classroom teachers, and trained peers.

According to some public-health research, patterns of media use can differ across groups. For example, blacks and Hispanics may use television as an information source more than other groups do, and radio seems especially effective for reaching adolescents. On the other hand, regardless of the target group, mass media alone appear less effective in promoting behavior change than face-to-face contact or some combination of mass media and personal media.

Previous research also suggests the importance of using a variety of media. If a brochure is distributed, people can more easily absorb the details of the message and refer repeatedly to parts of it they might not otherwise remember. On the other hand, a message aired on television or radio may reach people who do not realize they are at risk and who, for that reason, might never pick up the brochure. Personal media can also make a unique contribution to health education. Face-to-face contacts seem more effective in promoting behavior change and provide an opportunity to modulate the message, depending on the listener's apparent needs and reactions. Furthermore, the use of several personal media—community leaders, peers, teachers, and health experts, for example—may contribute to an overall climate of issue importance, as each source reinforces the others.

Prior research also suggests media-use strategies that can be effective when campaign resources are very limited. It may be advantageous, for example, to broadcast a message several times over a few days or weeks in a concentrated burst, rather than to broadcast the same number of airings over a longer period of time, spaced farther apart. Similarly, if resources allow no more than a few mass-media announcements or personal contacts, the optimal strategy may be to deliver the complete message once or twice, very intensely, and then follow up with short "booster" messages.

In summary, the decision regarding which media to use is affected by two considerations: which media provide best access to the target group, and which combination of mass or personal media, or both, will afford the best use of available resources?

Factual Information

The fourth step is a decision concerning the factual information to be included in the message. For intravenous drug users, it is probably

important to cite modes of virus transmission and, for users interested in treatment, to describe the available options. For young children, on the other hand, it may be appropriate to emphasize modes of nontransmission so that unfounded fears are dispelled. Older children can benefit from a lesson on various types of illness and the effects of AIDS on the human body, whereas the same lesson might leave intravenous drug users unimpressed.

Health educators have published various lists of topics to be covered in AIDS messages. While we do not endorse any particular list, some examples will serve to illustrate the range of information considered important.

Drawing from their work on risk reduction among gay men, researchers at the University of California, San Francisco, have inferred the importance of three items (see Coates et al., 1987a):

- the degree to which one is actually at risk for AIDS,
- guidelines for risk reduction, and
- the degree to which following those guidelines will reduce one's risk.

The American College Health Association has recommended that AIDS education cover, in part, four items concerning modes of transmission and nontransmission. Table 2.2 cites those items in their entirety. Summarized, they are

- guidelines for safer sex,
- the danger of sharing needles,
- the danger of donating blood or other body organs or tissues if one is HIV-positive or engaged in risk behaviors, and
- nontransmission of the virus through casual contact.

Table 2.2: AIDS Transmission Information Recommended by the American College Health Association

Summary	Text
Safer sex	Among people who choose to be sexually active, the consistent and conscientious use of condoms and spermicides containing nonoxynol-9 greatly reduces the chance of transmission of HIV through sexual intercourse.
Sharing needles	The sharing of needles used in the injection of illicit drugs is an efficient way to transmit HIV. It is possible that needles used to inject steroids may transmit HIV as well.
Medical donations	Persons with documented HIV infection, and those with behavioral risk factors for HIV infection, should not donate blood, plasma, sperm, or other body organs or tissues.
Casual contact	People with HIV infection pose no risk of transmitting the virus to others through casual interpersonal contact.

Source: AIDS Record (April 8, 1988), p. 17

The Center for Population Studies has prepared a detailed set of topics to be considered when developing an AIDS curriculum for young people (Haffner, 1987). The topics include

- AIDS epidemiology,
- myths about AIDS,
- modes of sexual transmission and nontransmission,
- transmission through needles,
- AIDS and pregnancy,
- testing and counseling for HIV infection,
- the biology of AIDS,
- medical aspects of AIDS,
- the effects of peer pressure,
- civil rights issues regarding AIDS,
- the history of epidemics, and
- community AIDS resources.

Some educators have recommended providing not just information but also the skills and social support for risk reduction. We cover these topics under steps five and six below.

Whatever facts are considered appropriate for a target group, they must be presented in a way that is readily understandable. Health education will not be effective unless people receive and grasp the message. As one expert put it, educating young people on AIDS without clearly discussing sex is like "trying to teach kids about baseball without mentioning the ball and glove." And, the problem is not merely with young people. Reportedly, adults too have misunderstood clinical terms and euphemisms like "bodily fluids," thinking the expression includes sweat and

saliva. Because those fluids have not been found to transmit the virus, this sort of ambiguity may undermine campaign success.

There is more to this point than simple clarity. While some people may benefit from graphic language, others may be put off. For them, a graphic message may not be readily understandable because it is too distracting. Accordingly, it seems important that messages be clear, but they also must be communicated in language that the intended audience is comfortable with, however graphic or subtle that language may have to be.

Use of the group's own language may make the message more attractive, and for that reason people may be more likely to pay attention. Mass media materials used in health education often employ symbols and slang that are expected to appeal to a specific group—youthful faces on the cover of a brochure for children, for example, or a radio spot for black teenagers in a rap music format. To promote comprehension of its AIDS message, the Red Cross has prepared a Spanish-language brochure that cites not one but three words for prophylactic. Among some Hispanics, the recognizable term is condon or preservativo. But for others, the term ule is appropriate, while preservativo is something used to make fruit preserves.

Finally, prior research suggests that one specific piece of information is especially critical. When people are told how to reduce health risks, the message may be more effective if it also covers outcome efficacy, that is, if it tells people how effective the recommended measures are likely to be. This seems especially true for people who do not feel in substantial control of their lives or have not had much experience with health care—traits relevant to some drug users, minority persons, and adolescents.

Skills

A fifth step in health education is the provision of the actual skills for preventing or changing risk behavior—appropriate whenever the target group is already engaged in risk behaviors or is soon likely to be. Two categories of skills are relevant here, one practical and the other interpersonal.

Because many people do not consider complete abstinence from sex or drug use to be a realistic alternative, an AIDS message may be more effective if it identifies practical skills by which the risk of AIDS can be reduced or eliminated. Two such practical skill areas are

- skills for expressing one's sexuality with little or no risk of exposure to the virus (for example, knowing how to put on and take off a condom), and
- skills for cleaning drug-use paraphernalia.

The other set of skills is interpersonal—how to resist pressure to have sex, especially unprotected sex, or to use illegal drugs. These skills are relevant both for persons who decide to abstain from sex or intravenous drug use and for persons who choose not to abstain but wish to reduce or eliminate the AIDS-risk associated with those behaviors.

Interpersonal skills can be nonverbal as well as verbal. Effective verbal negotiation of safer sex or drug use ordinarily means discussing one's concerns, acknowledging the other's objections, and agreeing on a mutually acceptable solution. (See Kelly et al., 1988.) But according to some health educators, verbal negotiation may not always be appropriate or productive, notably among people whose cultural and educational backgrounds have not prepared them for this form of self-assertion. Hence, nonverbal skills, such as the casual introduction of a condom without actual discussion, may also be important.

There is more to this step than merely identifying or describing skills. Research suggests that without demonstration and actual practice, people are unlikely to develop risk-reduction skills or to employ them correctly and consistently. People may need to see first-hand that each skill is feasible and to understand precisely how it is practiced. They may also benefit from monitoring their own performance until they become adept and comfortable with each skill. Since the relevant behaviors are quite private, practice will generally occur outside the educational setting. (Interpersonal skills, such as resisting peer pressure or negotiating the use of safer-sex practices, can be rehearsed with health educators or other surrogate partners. But, further practice with one's real partner may also be important.) Subsequent discussion can serve to uncover any problems, identify possible solutions, and reinforce continued effort.

According to previous public-health research, it is vital that people develop a sense of personal efficacy, that is, confidence in their own ability to carry out the recommended risk-reducing behavior. This finding runs in tandem with another, cited previously, concerning outcome efficacy. In combination, these findings suggest that effective health education promotes both a belief that adopting new skills will reduce one's risk (that is, a strong sense of outcome efficacy) and a belief that

one can perform those skills successfully (that is, a strong sense of personal efficacy). This latter outcome may be more likely if people can observe and repeatedly practice the skills, both practical and interpersonal. Finally, as noted above, efficacy seems especially crucial for people whose self-confidence or related experience is limited.

Motivators

A sixth step in health education is the provision of persuasive motivators for risk reduction—again, appropriate whenever the target group is already engaged in risk behaviors or might soon be. Motivators can be either negative or positive.

With respect to AIDS, the degenerative and fatal nature of the illness might seem an effective negative motivator. However, AIDS and its consequences are quite remote for many people—unlikely and far in the future. Moreover, some research suggests that the motivating effect of fear is quite limited in some populations. The prospect of serious illness and death may trigger short-term changes but may not be a factor in sustaining longer-term risk reduction. If fear of such consequences is extremely high, it may actually be counterproductive, rendering AIDS too frightening for some people to think about at all.

Prior research suggests an effective alternative—positive motivators. Some motivators are symbolic, such as social approval for risk reduction and "eroticized" safer sex. The power of social opinion may be invoked by showing clients that group norms regarding the behaviors that transmit AIDS—casual, unprotected sex, for example—no longer support those behaviors or were never as supportive as clients might have thought. Another positive motivator is a public commitment to reducing one's risk or a behavioral contract signed by both the client and a health educator.

"Eroticizing" is an effort to make safer-sex practices seem more attractive so that people can more easily substitute safer sex (condom use, for example) for the riskier sex (such as intercourse without a condom) to which they may be more accustomed. One possibility is to train clients to experiment with various safer-sex practices and to adopt those they find most appealing.

Positive motivators can be tangible as well, such as vouchers for getting into drug treatment programs and prizes for scoring well on AIDS knowledge tests. Needle-exchange programs are underway in the United States and elsewhere on the assumption that the availability of clean

needles will not only reduce the spread of AIDS among drug users but also make them more receptive to risk-reduction counseling and drug treatment.

Intended Outcomes

The final step in health education is specification of the intended outcomes, and these can be divided into two domains, cognitive and behavioral. Cognitive outcomes include

- heightened awareness of the seriousness of the health threat or its relevance to oneself,
- improved knowledge of relevant facts in biology, epidemiology, and other domains, and
- more favorable attitudes toward persons at high risk or persons who have acquired the illness.

Behavioral outcomes include

- risk prevention,
- risk reduction or elimination, and
- maintenance of risk-reducing changes in behavior.

Sometimes, as with young children, the appropriate outcome may simply be more knowledge about the health threat. Further details might only raise confusion and alarm, and efforts to prevent risk behaviors might be premature. When educating older children and adults, multiple outcomes, covering both cognition and behavior, may be desirable. However, if the target group is extremely uninformed, it may be necessary to begin by addressing cognitive outcomes before turning to behavioral ones. And, if time or resources are quite limited, focusing on achievable cognitive outcomes could make more sense than trying to change behavior.

Within the domain of behavioral outcomes, some further specification is advisable, in part because message elements meant to promote some behaviors may not be optimal for others. Risk prevention is, of course, the behavioral outcome appropriate for people not currently engaged in AIDS risk behavior. But, for those who are so engaged, the emphasis will be on risk reduction or elimination. And, for people who have already changed their behavior, the crucial outcome is maintenance of that change. As prior experience with antidrug education suggests, messages designed to prevent first experimentation may not be effective among people who are already frequent users. Moreover, the maintenance of

risk-reduction behaviors over the long term appears to be more difficult than, and conceptually distinct from, initial change. For example, with respect to AIDS, maintenance of safer-sex practices may require that people come to view safer sex not as an externally imposed restriction but as a part of the life style they prefer.

Another reason for carefully specifying behavioral outcomes is that target groups may be involved in more than one risk behavior. AIDS messages targeted to intravenous drug users are incomplete if they cover only the possibility of virus exposure during drug injection. Though users have reported cleaning their paraphernalia much more frequently, fewer have reported the adoption of safer-sex practices with their primary partners. Thus, many who are HIV-positive and have eliminated the AIDS risk due to drug use may still be transmitting the virus. Attention to multiple behavioral outcomes is also important, of course, when the target group includes adolescents who are not regular drug users but who may be experimenting with both drugs and sex.

Finally, depending on the target group, message elements meant to achieve one outcome may actually undermine the effect of elements meant to achieve another. For example, some drug users may respond favorably to a call for the elimination of needle sharing, while others (notably those in jurisdictions where the unauthorized possession of hypodermic equipment is cause for arrest) may find that element of the message entirely unrealistic. If so, other elements describing proper procedures for cleaning one's equipment may go unheeded. Similarly, a message touting treatment or abstinence will reportedly be rejected by many users who might otherwise be quite receptive to information on how to reduce the risk of continued drug use.

In short, the effectiveness of a health education message depends partly on the careful specification of outcomes. An effort designed to achieve multiple outcomes may not be appropriate for all target groups and may spread available resources too thinly. And, messages that are optimal for one outcome may be less than optimal for others, perhaps even counterproductive.

Need for Evaluation

The public-health campaigns we reviewed have not been 100 percent successful. Many people still smoke, still have elevated cholesterol levels, and so on, in part because health behavior is contingent on many factors, some of which are still poorly understood or beyond the scope

of any single campaign. Research on AIDS education is particularly inconclusive to date because the disease is so new. There has not been much time to establish research plans, to measure campaign effects, and to compare findings across campaigns with different purposes, strategies, and target populations.

For these reasons, we do not consider the model prescriptive. It is, instead, subject to change based on evaluations of future public-health campaigns, especially those to prevent AIDS, and on various circumstances (such as resource limits or target-group needs) that might affect campaign design and outcomes. In the interim, to support the design of AIDS campaigns, we have translated the model into a set of policy-relevant questions to be considered in campaign design and review. These questions appear in chapter 4.

AIDS Education Campaigns

We visited AIDS coordinators in five U.S. cities and interviewed representatives of 12 exemplary AIDS campaigns. These sources explained their campaigns' rationales and operations, focusing on the design of AIDS prevention messages. In this chapter, we use this information to determine how our health education model can be applied to AIDS (the study's second objective). Our findings indicate that the model is fully applicable to AIDS education. Across campaigns, we found evidence of attention to all seven steps. Findings also indicate, however, that outcome data are not available for most of the campaigns we visited, in part because campaigns are still early in their development. Accordingly, it is not now possible to determine which steps in the model are more critical and what additional steps might be required for success.

Exemplary Campaigns

AIDS education campaigns take many forms and pursue different goals. Some campaigns are conducting street outreach to intravenous drug users, while others hold AIDS seminars at community clinics, professional meetings, or private homes. Some have designed materials especially for their target groups—for example, a video presenting AIDS facts in a soap opera format, and a comic book promoting safer-sex practices. Some campaigns attempt to change their clients' behavior, while others focus on disseminating information. Table 3.1 lists the 12 exemplary campaigns and their target groups.

Table 3.1: Exemplary Campaigns and Target Groups

	Target groups		
Campaign and city	**Minority groups**	**Intravenous drug users**	**Youth**
AIDS Foundation, San Francisco	X	X	X
Association for Drug Abuse Prevention and Treatment, New York		X	
Bayview-Hunter's Point Foundation, San Francisco	X	X	
East Los Angeles Rape Hotline, Los Angeles	X		X
El Centro Human Services Corporation, Los Angeles	X	X	X
Health Watch, New York	X		X
Latino AIDS Project, San Francisco	X	X	X
MidCity Consortium to Combat AIDS, San Francisco		X	X
Minority AIDS Project, Los Angeles	X	X	X
Project Return, New York		X	
Stepping Stone, Los Angeles			X
The Wedge, San Francisco			X

Message Design

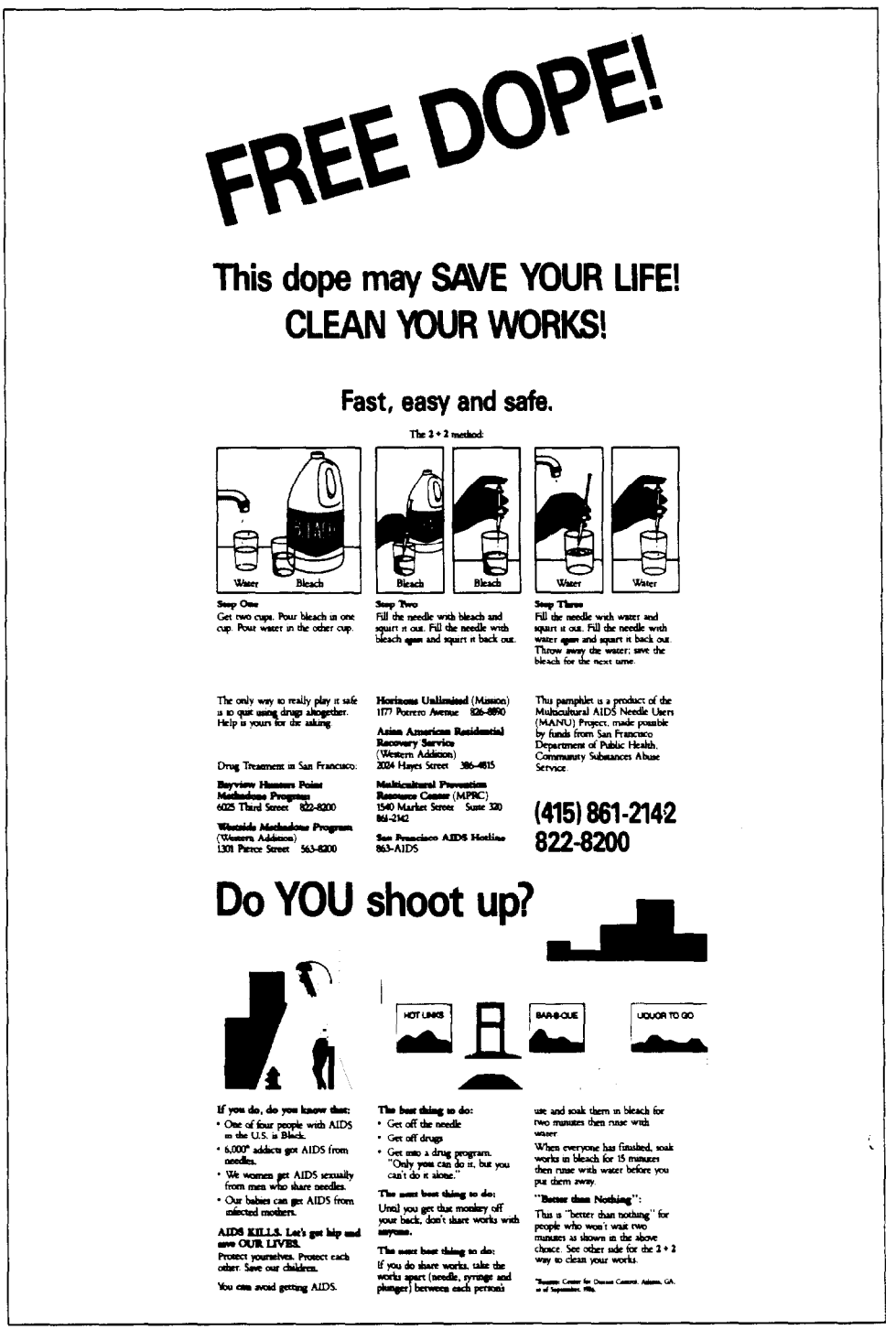
For efficiency in presentation, we will focus on the message itself. That is, findings first appear on the selection of AIDS education media (step 3 in the model). We then focus on the provision of factual information, skills, and motivators (steps 4 to 6). Where relevant, we add findings on target groups, their risk characteristics, and campaigns' intended outcomes (steps 1, 2, and 7). In this way, we cover the model in its entirety but avoid needless repetition.

Media

Mass Media

Print Materials. Several campaigns have produced their own brochures, in each case for the same reason: brochures already available seemed too clinical, dense, vague, or colorless to be readily understandable in their communities. One brochure for drug users, entitled "Free Dope," illustrates how to use bleach and water to "clean your works—fast, easy and safe." (See figure 3.1.) Another provides essential information only—covering modes of transmission and ways to reduce risk; the material is purposely not so dense as to put off low-skill readers. (See figure 3.2.) A similar strategy is to put the bare essentials in headings or photo captions so that people unlikely to read every word will nonetheless get the gist of the message.

Figure 3.1: "Free Dope"



Source: Bayview-Hunter's Point Foundation, "Free Dope," San Francisco, n.d.

Figure 3.2: "Usted y Su Familia"

Source: Minority AIDS Project, "Usted y Su Familia," Los Angeles, 1987.

Video Materials. One campaign has produced a videotape or telenovela called Ojos Que No Ven ("Eyes That Fail To See"), for AIDS education among Spanish-speaking audiences. As the story develops, a woman named Doña Rosa copes compassionately with a co-worker who has AIDS and with her own gay son, and she becomes a knowledgeable AIDS educator in her community. The purported advantage of a telenovela, with its soap-opera plot, is that it offers AIDS information in a format considered quite popular among Hispanics.

Personal Media

Educational Skits. One personal medium is an AIDS education skit. The cast often includes amateurs from the local community, who are recruited in hopes of maximizing community interest and good spirit. Among Hispanics, the use of skits to address important issues of the day—community teatro—is a centuries-old tradition. Thus, this medium may be particularly effective for AIDS education in that population. One Los Angeles campaign for Hispanics offers skits with dialogue in both Spanish and English, shifting back and forth every sentence or two so that everyone in the audience can readily understand. Actors are also trained to serve as AIDS educators so that, after the performance, it is the cast—not outside professionals—who field questions from the audience.

Intermediaries. Intermediaries are another personal medium used in AIDS campaigns. Intermediaries can be, for example, religious and political leaders, business persons, and leaders of friendship networks. One campaign conducts seminars for minority business and professional organizations, not just to educate the memberships but also to encourage members to educate their own clients, in turn, by displaying posters, handing out brochures, and so on. The relative efficiency of such an approach is self-evident, and since business people and professionals are often among a community's most respected members, an AIDS prevention message may be more credible coming from them. For similar reasons, another campaign has assembled a large advisory panel, including parents, local politicians, health-care providers, and leaders of religious, educational, and social-service organizations. The panel reviews campaign policy and operations, of course, but will also participate substantially in the distribution of brochures developed by the campaign.

Another strategy for involving intermediaries has been adopted by a campaign to reach Hispanics. Through group seminars and one-to-one outreach, the campaign educates medical technicians, paraprofessionals, and folk healers—the health providers considered most accessible to

many people in that Hispanic community. This effort is one example of campaigns designed to address characteristics placing a group at risk (step 2 in the model). In this case, the campaign tries to accommodate rather than change the group's health-care practices.

Several drug-user outreach campaigns leave supplies of bleach, condoms, and other items with welfare-hotel managers, liquor-store clerks, and even proprietors of drug "shooting galleries" so that users will have ready access to those supplies when needed. Such efforts are another example of campaigns designed to address a relevant risk characteristic—the presumed low level of health concern among intravenous drug users.

Other personal-outreach campaigns try to tap informal friendship networks. One holds AIDS socials—invitation-only parties in private homes at which a professional educator offers AIDS facts, free condoms, and safer-sex guidelines. AIDS socials have reportedly become quite popular because the home is a familiar, unthreatening setting and the audience is usually small. As a result, people may feel more free to ask sensitive questions.

Another example of tapping informal networks is a street-outreach campaign in New York City. Campaign staff fear that their efforts will miss drug users who do not spend much time "on the corner" and may also miss many of the users' spouses or sexual partners, most of whom reportedly are not drug users. The campaign's solution is to tap the recovering addicts in its drug treatment center. Clients of the center are actively encouraged to contact and refer friends who still use drugs or who have sex with drug users. All referrals, even the most tentative, are to be followed up diligently in hopes of breaking into that hidden network of at-risk people who are not otherwise accessible.

Persons With AIDS. In some campaigns, the outreach staff includes people who have AIDS. For obvious reasons, people with AIDS are a credible source regarding the consequences of infection. Their participation may be especially valuable in campaigns designed both to provide information and to increase the perceived seriousness of the disease and compassion for those who have it. Because of the stigma often attached to AIDS, some campaigns have adopted the policy that AIDS-diagnosed staff should not discuss their medical status with clients until some rapport has already been established. For example, in a four-unit AIDS curriculum for school-age youth, a class discussion of the social and psychological consequences of AIDS, led by someone with the disease, is scheduled

as unit three. Campaign designers believe that students might not be receptive to this unit unless their pre-existing fears and misconceptions are first dispelled. At that point, a frank and personalized discussion of AIDS can, it is hoped, break through the presumption of invulnerability so often found among adolescents. Employing people with AIDS, then, is yet another example of a strategy meant to address a characteristic that places the target group at risk (step 2).

Peers. Another personal medium for AIDS education is the peer who speaks in the target group's own idiom, knows the local community history, and is able to modulate the message, depending on a client's needs and reactions. Many AIDS education campaigns for drug users employ former users to conduct street outreach. Representatives of these same campaigns also told us, however, that outreach can be effective even if not conducted by former users. Health educators or community residents who have no drug-use history are reportedly quite credible as message bearers, provided they know the language, norms, and history of the population they serve.

The effectiveness of peers may be enhanced if they are somewhat, but not greatly, higher in status than members of the target group. With former drug users, higher status may accrue from their having overcome drug dependency, and the personal media employed in antidrug campaigns for young people are often student leaders or youngsters slightly older than those targeted. The New York City schools use an AIDS education video whose on-camera narrator is Rae Dawn Chong, a well-known young actress. The use of community amateurs as actors in AIDS education skits may afford this same advantage.

AIDS Hotlines. Finally, there is the community-based hotline, which combines the efficiency of a mass medium with the ability to modulate the message and to select an idiom suitable to the caller. Hotlines also preserve a caller's anonymity. While some people can freely discuss AIDS risks and fears face-to-face, others cannot, and hotlines offer immediate answers without requiring self-disclosure. In one hotline, Spanish-language operators have a list of alternative expressions for safer and unsafe sex practices so that they can respond properly to various Hispanic nationalities in the area.

Factual Information

In chapter 2, we cited the sorts of information to be considered when designing AIDS education messages. Here we describe the strategies by which campaigns try to make their messages more understandable or appealing to the target group.

Group Values and Culture

Many campaigns invoke target-group values and culture to help promote their message. One example is the AIDS community forum at which expert speakers are not the only agenda item. The forum also includes AIDS education skits and gospel music. Similarly, a campaign for drug users begins its AIDS seminars by showing a popular film. AIDS facts are offered during intermission, with an opportunity for further questions after the second half. The movie reportedly attracts spouses, sexual partners, and friends, affording an opportunity to educate them as well.

Group values and culture can also be highlighted through the symbolic significance of message content. A black-community brochure cites as one cause for AIDS the "chain of ignorance." (See figure 3.3.) Another notes that "AIDS is an equal opportunity disease." (See figure 3.4.) A third brochure observes that "our black brothers and sisters need our concern and support" and is printed in red, black, and green—colors known to many people in the community as "black liberation colors." (See figure 3.5.) All three brochures feature facial drawings of minority-group members.

Figure 3.3: "Break the Chain of Ignorance"

BREAK THE CHAIN OF IGNORANCE

M.A.P.A.

Multicultural Alliance for the Prevention of AIDS

YES. We are an AIDS education and prevention program.

Our focus is the ethnic and racial minority community.

We are dedicated to stopping the spread of AIDS among:

- — Persons who share needles when shooting up.
- — Persons having unprotected sex.
- — And others who may be at risk for AIDS.

If we do not make changes in our drug use and sexual behaviors, by 1991 more than 100,000 people of color will have contracted AIDS.

FACTS

AIDS is a virus. In the U.S., it has claimed the lives of more than 5,000 men, women, and children in the Black, Hispanic, and Asian communities.

In 1985, 5 minorities died of AIDS each day.

This painful disease does not care if you are:

- — Male
- — Female
- — Gay or Straight
- — Old or Young
- — Doing drugs

Who can get AIDS?

YOU CAN get AIDS by having unprotected sex and by sharing needles when shooting up.

M.A.P.A. OFFERS

AIDS prevention workshops for:

- — IV drug users
- — All persons at risk - gay, straight, and bisexuals

We want to halt the wave of this epidemic in our community.

FACT

At this time, there is no cure for AIDS

— **IGNORANCE CAN KILL**

Education and prevention is our defense

- — You can help break the chains of ignorance.
- — Our services are **FREE!!!**

Now is the time, tomorrow may be too late!!

CALL NOW

822-7500

This Call May Save A Life!

Source: Bayview-Hunter's Point Foundation, "Break the Chain of Ignorance," San Francisco, n.d.

Figure 3.4: "People of Color"

41% of ALL cases of AIDS are People of Color

DID YOU KNOW THAT...

- **59%** of all the **CHILDREN** with AIDS are **BLACK CHILDREN.**
- **21%** of all the **CHILDREN** with AIDS are **LATINO CHILDREN.**
- 1% **ASIAN** or other.

- **52%** of **ALL WOMEN** with AIDS are **BLACK WOMEN.**
- **25%** of **ALL WOMEN** with AIDS are **LATINA WOMEN.**

- **BLACK PEOPLE** are **11.7%** of the U.S. population, yet **25%** of the **AIDS cases.**
- **LATINO PEOPLE** are **6.4%** of the U.S. population, yet **14%** of the **AIDS cases.**
- Of the men being inducted into the Armed Services, **BLACK MEN are testing positive 4 to 1 over whites.**

AIDS IS NOT!!

1. A WHITE Disease
2. A GAY Disease
3. A MALE Disease

AIDS IS

1. FOUND IN WOMEN
2. FOUND IN CHILDREN
3. FOUND IN STRAIGHTS

WOMEN

If a woman is infected with theAIDS virus she can pass it to her unborn child. Think carefully if you plan on having a baby. It is possible that the AIDS virus may also be transmitted through breast milk.

AIDS IS AN EQUAL OPPORTUNITY DISEASE!!!

WHAT IS AIDS?

AIDS is a disease which attacks the body's abillty to fight off some illnesses. It is caused by a virus (germ) spread by sexual contact or sharing needles when shooting drugs. Half of the people who have AIDS have died. There is no cure for AIDS. **PREVENTION IS THE ONLY WAY TO STOP THIS DISEASE.**

People can be infected with the AIDS virus and **LOOK HEALTHY.** However, they can pass the virus on to another without either person knowing it. It is difficult to know who is infected; we urge **EVERYONE** to take the simple precautions listed below to protect yourself always.

DO'S

Limit Sex to ONE Partner

USE RUBBERS

Social Kissing - on lips only

Take Good Care of Your Body

A. Plenty of rest
B. Good nutrition
C. Exercise
D. Reduce Stress or worry
E. Reduce Alcohol intake

DON'TS

No Exchange of Body Fluids (urine, semen (cum), blood)

No Oral, Rectal or Vaginal Sex (without rubbers)

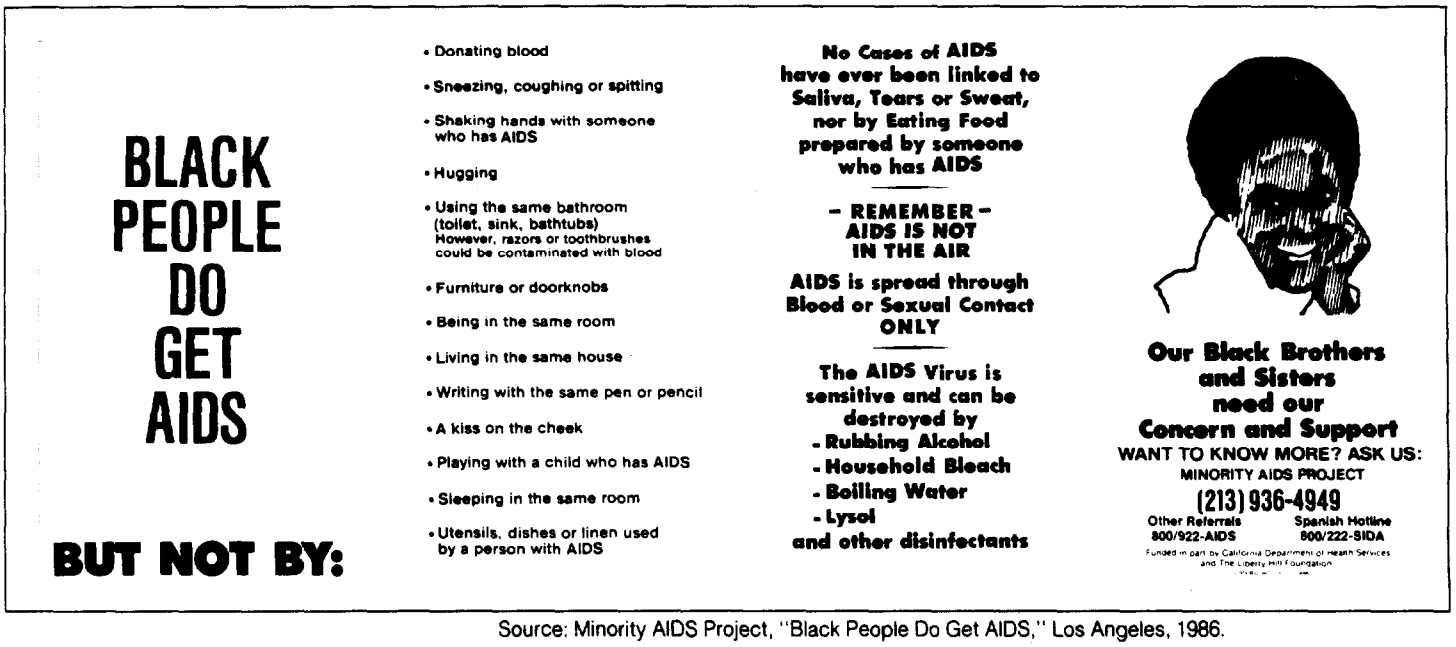
No Drugs, but if you do, DON'T SHARE NEEDLES

No Sex without Rubbers

Don't Take Chances

Source: Minority AIDS Project, "People of Color," Los Angeles, 1986.

Figure 3.5: "Black People Do Get AIDS"

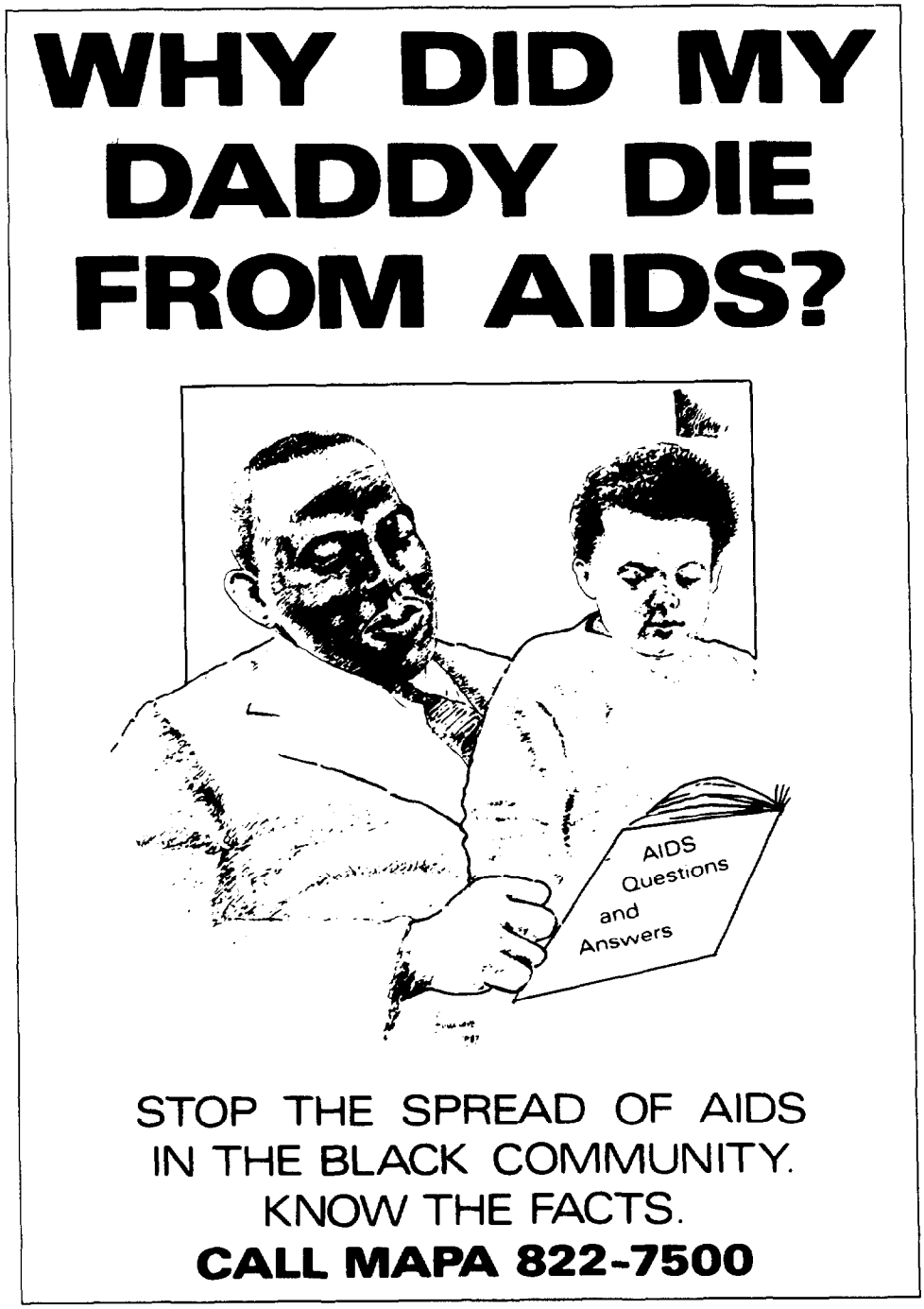


Source: Minority AIDS Project, "Black People Do Get AIDS," Los Angeles, 1986.

Family Symbols

Trying to break through the misconception that AIDS is a disease only of white gay men, minority campaigns often invoke symbols of family. Heterosexual families of color appear in several posters and brochures. (See figures 3.2, 3.6, 3.7, and 3.8.)

Figure 3.6: "Why Did My Daddy Die From AIDS?"



Source: Bayview-Hunter's Point Foundation, "Why Did My Daddy Die From AIDS?", San Francisco, n.d.

Figure 3.7: "Straight Talk About Sex and AIDS"

What is AIDS?

AIDS stands for Acquired Immune Deficiency Syndrome. A virus called HIV causes AIDS.

A person with AIDS gets sick with many illnesses. Some of the diseases can be fatal. There is no cure for AIDS. A milder form of AIDS is called AIDS Related Complex (ARC).

AIDS has killed people mostly from these groups:

- Men and women who use needle drugs
- People who got blood products which had the AIDS virus
- Gay and bisexual men
- People who had sex with any of these people
- Children born to parents in these groups

How does AIDS spread?

Blood or semen carry the AIDS virus. Fluid from the vagina also carries the AIDS virus. The blood, semen or vaginal fluid must go directly from an infected person into another person.

Sharing needles during drug use also spreads the virus.

A pregnant woman can pass the virus to her newborn child.

Source: San Francisco AIDS Foundation, "Straight Talk About Sex and AIDS," San Francisco, 1987.

You can't get AIDS from:

- Kisses: Kisses on the skin are safe. The AIDS virus can be in saliva (spit). BUT we don't know of any people who got AIDS by mouth-to-mouth kissing.
- Touching: You can't get AIDS by touching or being near someone with AIDS.
- Eating: You can't get AIDS by eating with a person who has AIDS.
- Sneezes, clothing or bedding.

How can I know if I have the AIDS virus?

You can take a test that shows if you have been infected with the virus. Some people who have the virus will get sick. Talk to a doctor, nurse or health center to find out about the test.

How can I protect myself and my partner?

You can't tell if someone has the virus by how they look. Here is some advice for safer sex.

Vaginal or Anal Sex

- Always use a condom (rubber). Or use a condom and a spermicide.
- Spermicides kill the AIDS virus. Spermicides also kill sperm.
- Don't use Vaseline, vegetable oil or mineral oil with condoms. They make condoms break more easily.
- Follow the directions on the condom package.
- Be sure the condom does not break.
- Don't use the condom more than once.

For Oral Sex:

- Don't let semen from an infected man enter your mouth.
- Fluid from the vagina of an infected woman can carry the virus. Blood in menstrual fluid can carry the virus. Oral sex with an infected woman is most risky during her period (menstruation).

Figure 3.8: "Drogas y Sida"

Source: Latino AIDS Project, "Drogas y Sida," San Francisco, n.d.

Even when minority homosexuals are to be targeted, a familial context may be appropriate. In Ojos Que No Ven (the telenovela), Doña Rosa's son, who is gay, lives at home with his mother and sister, and the possibility of his becoming infected is handled as an issue of concern to the entire family. Because a message targeted expressly to "gay men" or "homosexuals" might not get through, some campaigns deliberately avoid such labels. In its AIDS seminars, one campaign refers simply to "men who have sex with other men." Another has created a brochure addressed to "people of color." (See figure 3.4.) To encourage people to pick up the brochure, there is no mention of either sexuality or AIDS on the cover. Finally, in one educational skit for an Hispanic community, the conversation among teens is dotted with sentences such as: "We're talking about protecting your sister, brother, your family...." One character, whose brother has died of AIDS, says: "Before this happened to my family"—not to her brother but to the family—"I never knew that by having sex you could get AIDS."

In chapter 2, we cited three ways in which a target group's risk characteristics can be handled (step 2 in the model). Using the family as a symbol is an example of one option—designing a message to correct the misconception that AIDS affects only white gay men. Avoiding labels such as "gay men" illustrates another option—sidestepping the misconception and focusing instead on risk behaviors.

Graphic Language and Idioms

Hoping to make their message as clear as possible, some campaigns have adopted graphic language or group-specific idioms. Campaign representatives told us that many people in the communities served simply will not understand terms like semen, feces, or condom. Moreover, because they are not routinely and widely used in those communities, such terms may seem off-putting even among people who do understand them. For these reasons, one campaign deliberately avoids terms such as semen and urine, substituting idiomatic expressions that are considered more appropriate for the intended audience.

Similarly, AIDS skits for adolescents employ a great deal of current teenage idiom. As scripted, one actor complains that his friends have "capped on" (criticized) him for seeking AIDS information, but another actor advises him to "chill out" (relax) because "I'm not ready to die." An AIDS brochure for Bedford-Stuyvesant teens offers "the real deal about AIDS" and describes symptoms that "can really mess you up."

Even when graphic language seems appropriate, some individuals in a target group may be offended or confused by such language, and AIDS education campaigns have found ways to accommodate those individuals. One campaign has developed tandem brochures. The first, meant for adolescents, covers sex and drug use only briefly and encourages the reader to consult a parent or some other trusted adult. The second brochure, meant for parents and other adults, provides more information regarding risk behaviors and the proper methods of risk reduction, such as condom use. A campaign offering AIDS seminars for Hispanics defers the topic of condom use until the skits and subsequent discussion are concluded, so that people who do not wish to hear about condoms may otherwise fully participate. A related strategy is to offer separate discussion groups for men and women. Each case is an example of the third option for handling a target group's risk characteristics (step 2 in the model). The message is varied to accommodate different levels of willingness within the group to engage in frank and public discussions of sexual matters.

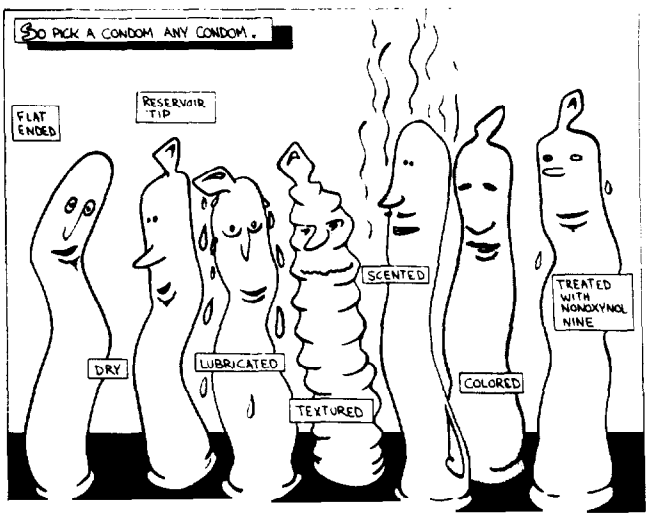
Humor

Finally, there is the device of humor, which may lessen the discomfort associated with subjects like sexuality and death. A San Francisco bus poster reads in part, "You won't get AIDS from this bus or from bathrooms, giving blood, shaking hands, parakeets, old sneakers, microwaves or spring cleaning." (See figure 3.9.) Other print materials include a brochure with dancing condoms, and "The Works," a comic book featuring talkative cartoon viruses. (See figures 3.6 and 3.10.) The comic book is meant for drug users with limited reading abilities—another example of trying to address a risk characteristic not by changing it but by sidestepping it. There is also San Francisco's Bleachman campaign that uses comics, billboards, and personal appearances by Bleachman—a seven-feet-tall superhero whose head looks rather like a gallon jug of bleach. (See figure 3.11.)

Figure 3.9: Bus Poster

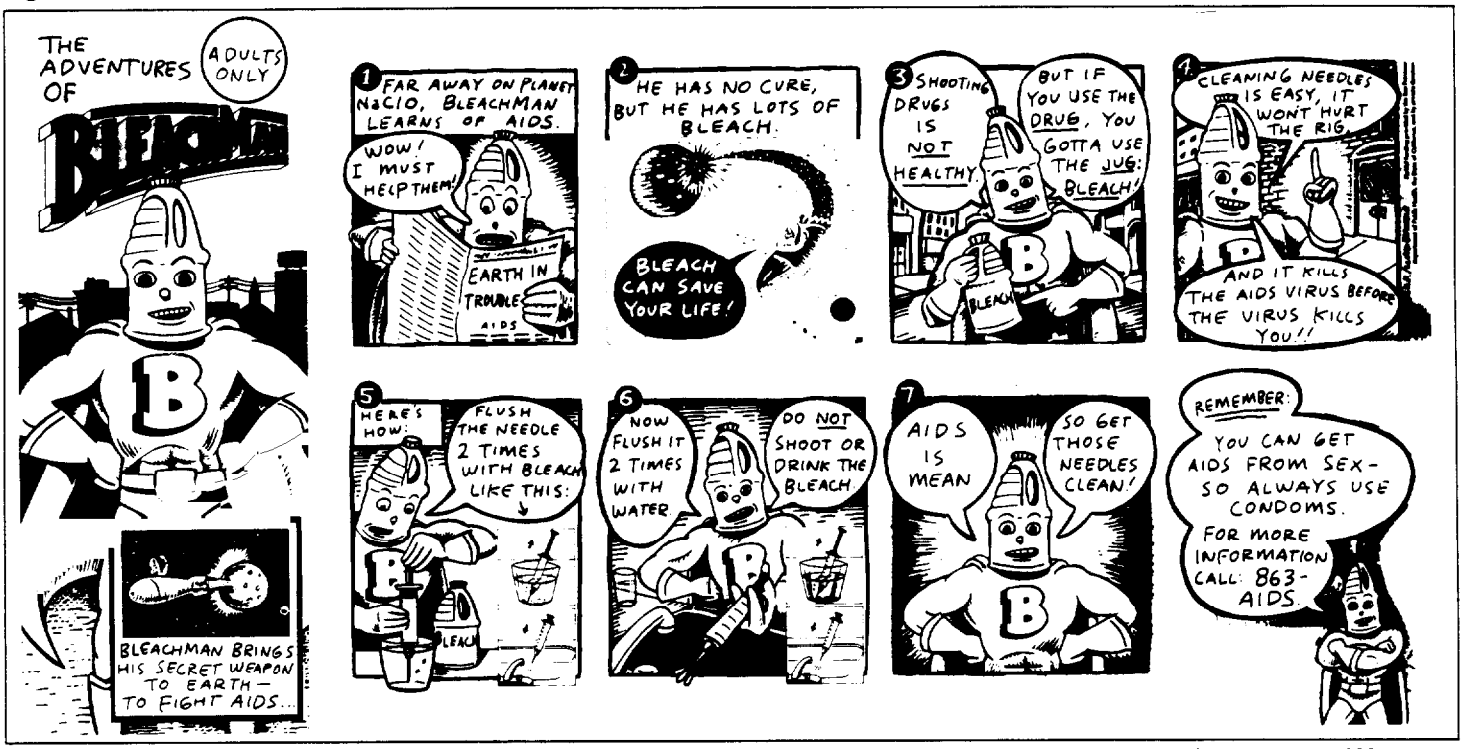
Source: San Francisco AIDS Foundation, Bus Poster, San Francisco, n.d.

Figure 3.10: Two Pages From "The Works"



Source: San Francisco AIDS Foundation, Two Pages From "The Works," San Francisco, 1987.

Figure 3.11: "The Adventures of Bleachman"



Source: San Francisco AIDS Foundation, "The Adventures of Bleachman," San Francisco, 1988.

Outcome Efficacy

Chapter 2 emphasized the importance of enhancing perceptions of outcome efficacy, that is, raising confidence that the steps recommended for risk reduction really can be effective. Several campaigns emphasize this point in the information provided to clients. For example, one brochure reads, "Remember! Condoms are not 100 percent perfect. But if you use them properly... they are very effective." Another brochure, entitled "Free Dope" (see figure 3.1), says: "The best thing to do is get off the needle.... The next best thing ... [is] don't share your works with anyone.... You can avoid getting AIDS."

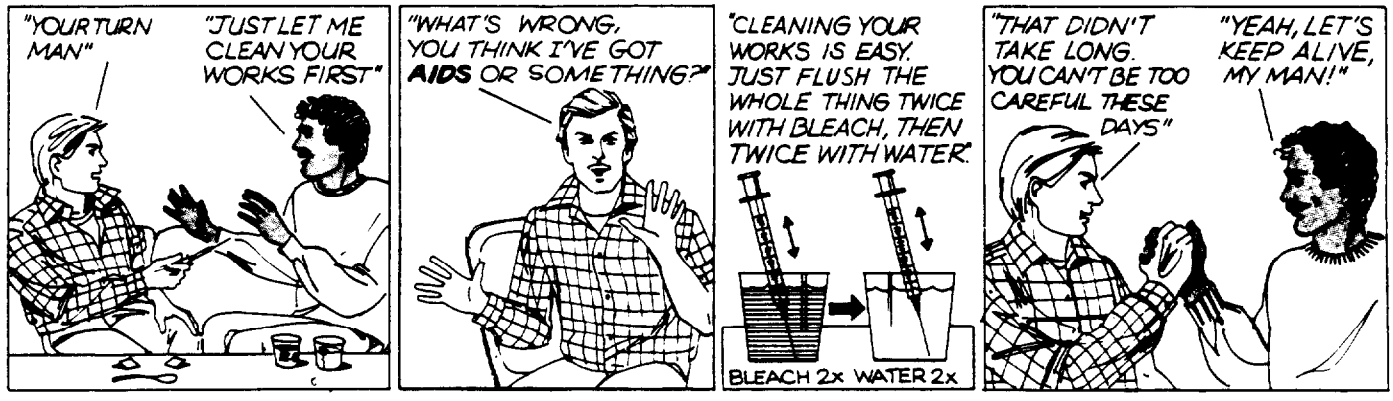
Skills

When members of the target population are, or might soon be, engaged in behaviors that can transmit the virus, AIDS education may be more effective if it covers practical and interpersonal skills for risk reduction.

Practical Skills

Some campaigns distribute brochures or cards that illustrate the proper procedures for putting on a condom or cleaning drug-use paraphernalia. (See figures 3.11 and 3.12.) Campaigns also distribute free condoms and demonstrate risk-reduction procedures for clients who otherwise might not understand them. Among the cities we visited, San Francisco and New York have funded efforts to show drug users how to clean their paraphernalia, and the Los Angeles city schools reportedly teach senior-high students how to put on condoms. The adoption of such skills is not the only intended outcome for these campaigns. Abstinence from drug use and (when the target group is adolescents) from sex is also recommended. But, these are cases in which intended outcomes have quite deliberately been matched to the target population (step 7 in the model). Representatives of drug-user outreach campaigns, for example, indicated that many users will reject abstinence as the solution to their risk for AIDS.

Figure 3.12: Instructions for Cleaning Works



Source: MidCity Consortium to Combat AIDS, Instructions for Cleaning Works, San Francisco, n.d.

Interpersonal Skills

AIDS education campaigns also cover interpersonal skills—how to resist the pressure to have sex, especially unprotected sex, or to use illegal drugs. School districts in Houston, Los Angeles, and New York teach these skills as part of their health education curricula. A shelter for homeless youth conducts "fishbowl" exercises in which two teenagers role-play pressure and resistance in front of a larger group. Afterwards, their peers comment on the tactics each player used, and the instructor

suggests tactics that might be more effective. Another campaign distributes a packet called "Use Condom Sense," with condom-wearing instructions, a sample condom, and a section on "how to talk to your partner." This section contains ten arguments against condoms and ten constructive answers. For example,

[Argument] "Condoms are ... fake, a turn-off." [Answer] "Please, let's try to work this out. An infection isn't so great either."

Outreach workers sometimes sit with a client—in a nearby park, for instance—and together they practice these arguments and answers. The intention, of course, is to promote a stronger sense of personal efficacy—to help the client become more self-assured and more familiar with the concepts.

Another sort of interpersonal skill is self-management. Some campaigns encourage clients to recognize and avoid interpersonal situations conducive to risk-taking. When recommending sexual abstinence until marriage, a brochure for Bedford-Stuyvesant teenagers offers this advice.

- Learn to be firm. When you say no, mean it!
- Choose friends who think like you do.
- Form your own crew [group of friends] if necessary.

For the same purpose, outreach workers in other campaigns stress the importance of agreeing on condom use or other safer-sex practices before sex is initiated.

Finally, one campaign deliberately introduces erroneous information regarding risk behaviors, then corrects it, so that clients can more easily recognize and resist that information if they hear it later. In an AIDS skit for Hispanic adults, one character who injects illegal drugs says that infection is not possible because her friend "rinses out the needle every time one of us uses it." A third character strongly advises against any use of drugs but also warns her that rinsing with water is not effective. "The needle is still dirty with other people's blood."

Motivators

Negative Motivators

As noted in chapter 2, prior research suggests that health behavior may not be affected by remote consequences, even very severe ones. An alternative is to emphasize AIDS' more immediate consequences. One brochure, designed by and for teenagers in the Bedford-Stuyvesant section of Brooklyn, cites the short-term symptoms of AIDS—such as "hair loss," "mental problems," and "ugly skin rashes and sores"—that are likely to create serious problems in a teenager's social life. This brochure also well illustrates the value of carefully specifying the target group (step 1 in the model). At early planning meetings, it became clear that Bedford-Stuyvesant youngsters considered sexual abstinence an appropriate outcome if the message avoided moralism and emphasized instead the teenager's right to make his or her own choices regarding sex.

Another alternative, meant to dispel the illusion that AIDS affects only white gay men, is to cite the alarming statistics on AIDS among minorities. (See figure 3.4.) There is evidence from other public-health interventions, however, that abstract statistics on the incidence of a health problem may not motivate risk reduction as effectively as knowledge of a particular person who suffers from it. For that reason, some campaigns emphasize the fact that people nearby—neighbors, friends, or schoolmates—have already contracted AIDS and died. The same purpose may be served when the staff providing AIDS education face-to-face includes persons who have AIDS.

Because a high fear level may induce clients to deny the seriousness of a health risk or its relevance to themselves, a campaign to educate drug users in New York neighborhoods deliberately does not cite the incidence of AIDS in those neighborhoods. (The HIV infection rate among New York City's intravenous drug users is reported to be at least 60%.) Instead, the campaign focuses on the skills by which risk can be effectively reduced.

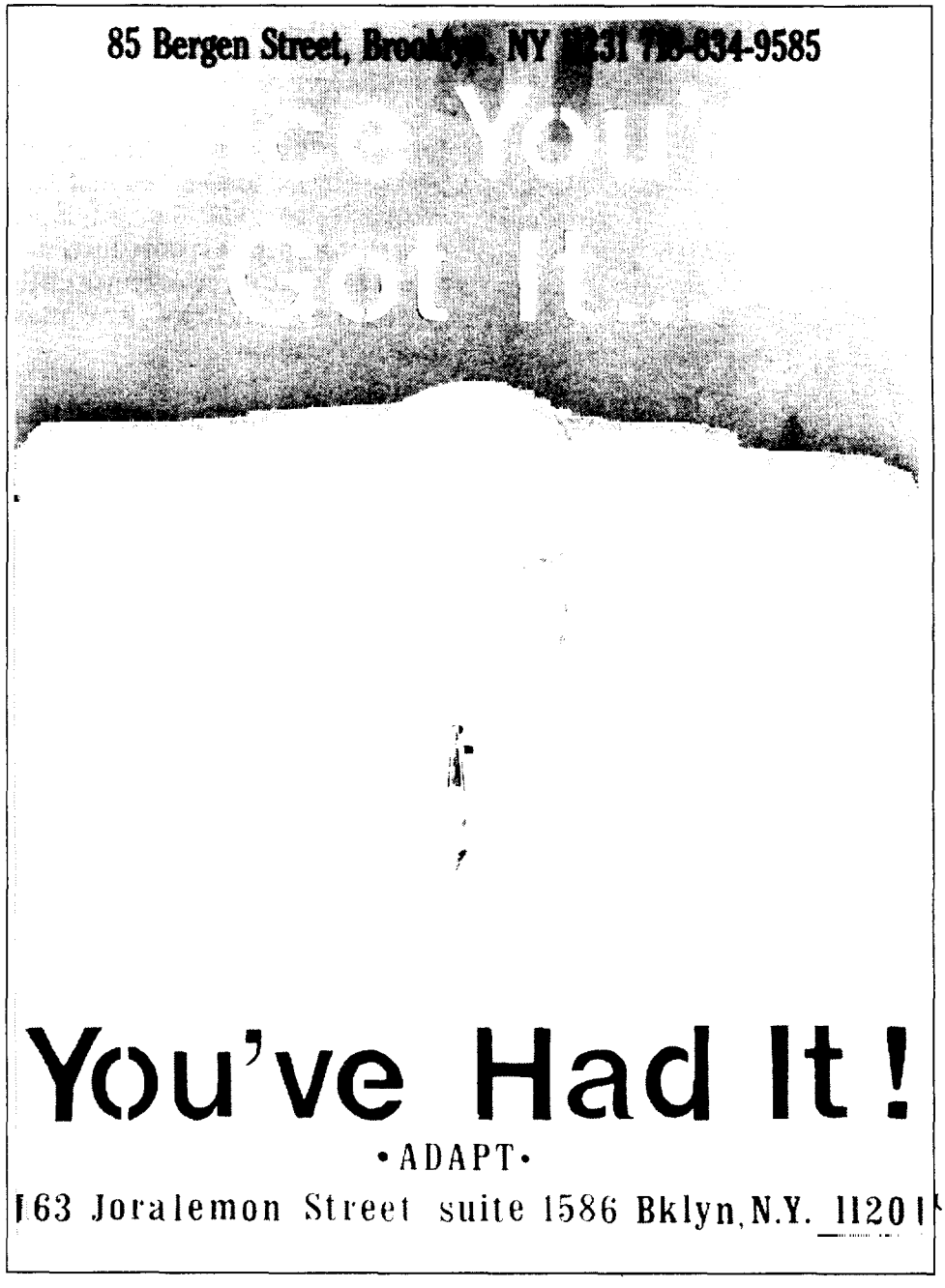
A high fear level may not be counterproductive among less vulnerable populations if it is immediately paired with skills for risk reduction. One character in an AIDS skit observes graphically, "this illness eats up your insides and then you're gonna dry up slowly.... Before you die, [AIDS] makes sure you remember you had a choice" [emphasis in original]. In a skit designed for teen audiences, someone says, "AIDS is so scary 'cause any one of us could get it." But, her friend corrects her. "No, you're

wrong.... If you take care of yourself, you wouldn't have to worry about AIDS killing you." Immediately thereafter, another character offers steps for effective risk reduction—condom use or abstinence.

It is important to note that such messages do more than raise the prospect of severe consequences if AIDS risks are not reduced. They also emphasize personal choice in handling those risks, and they assure clients that effective risk-reduction is possible. In other words, the messages attempt to enhance clients' perceptions of personal efficacy and outcome efficacy—perceptions considered critical to effective health education.

Another strategy for invoking fear as a motivator is the use of death-related imagery. Figure 3.13 is a poster meant for display in the "shooting galleries" where people buy and inject drugs, using rented paraphernalia. The open grave in this poster makes the point in no uncertain terms. It may not be effective, however, because a high level of fear is aroused without also citing ways to reduce risk. Another poster notes in its text that people "die" of AIDS. (See figure 3.7.) According to a campaign representative, death images were not used in the belief that fear is productive only at a more moderate level.

Figure 3.13: "Once You've Got It, You've Had It"



Source: Association for Drug Abuse Prevention and Treatment, "Once You've Got It, You've Had It," New York, n.d.

This matter is further complicated by cultural differences. In Mexico, skulls and skeletal figures are familiar images in toys, candies, and folk-

art objects, notably on the Dia De Los Difuntos (Day of the Dead). One AIDS poster meant for Hispanics therefore employs graphic death imagery. (See figure 3.8.) The poster evokes familiar cultural symbols—El Diablo and the skeleton—in hopes of enhancing the salience of the message for Hispanics.

In summary, many campaigns use fear as a negative motivator. Previous research suggests that a fear-arousal message may be more effective if it

- generates a moderate but not high level of fear,
- focuses on short-term consequences or describes AIDS' long-term consequences in a personalized way, and
- provides specific recommendations for how to reduce risk.

Positive Motivators

Vouchers for drug treatment are one tangible motivator. When New Jersey began distributing vouchers for free heroin detoxification, most vouchers were promptly redeemed. Los Angeles reported a voucher distribution effort as well, but redemption rates were not available at the time of our data collection.

None of our exemplary campaigns is distributing treatment vouchers. However, outreach workers in one campaign are promising expedited entry into drug treatment—generally within a day or two. Because the sponsoring agency's membership includes professionals affiliated with many of the area's drug treatment facilities, outreach workers are reportedly able to identify the treatment slots as needed.

Another tangible motivator is a sweepstakes. Brochures can include a detachable AIDS questionnaire by which readers verify what they have learned. The questionnaire is then submitted as a sweepstakes entry. To strengthen the motivating effect, readers can be told that entries are eligible only if each question is answered correctly. Sweepstakes winners in one campaign were awarded cash and condoms.

Long-term behavior change may be more likely if the rewards are somehow more deeply felt and lasting than condoms or a television set. Accordingly, many campaigns try to motivate risk reduction through symbolic rewards believed to be particularly important to campaign clients.

One example of a more deeply felt and lasting reward is social approval. Drug-user outreach campaigns attempt to set up a personal bond

between worker and client so that over time a client becomes more reluctant to engage in risk behaviors that would anger or disappoint the worker. Hoping to strengthen such bonds, one campaign offers services that extend well beyond AIDS information and free condoms. Outreach workers continue to conduct education on the street but also try to facilitate clients' access to health-care and other agencies, with the expectation that these extra efforts will pay off in clients' willingness to follow risk-reduction recommendations. This strategy may be more likely to succeed the more narrowly the catchment area is defined, of course, and the more often workers visit their clients. In other words, the strategy requires careful specification of the target group (step 1 in the model).

Another way to harness social approval in AIDS education is to promote concern and risk-reduction norms among the target population. In one drug-outreach campaign, workers identify drug users who seem respected by other users in the area and try to enlist them as opinion leaders promoting risk reduction. In Ojos Que No Ven, the central character, Doña Rosa, serves as a model for the viewing audience. A well-known and respected figure in her community, she is uninformed when first confronted by AIDS. But while visiting a co-worker hospitalized with AIDS, she is supportive and compassionate. They speak candidly about his illness, and though others may be afraid to touch him, Doña Rosa clearly is not. Later, she seeks further information about AIDS and encourages her neighbors to overcome their own reluctance to confront the possible risks.

The context in which AIDS education is framed can also serve as a positive motivator. Some campaigns tout risk reduction as a means of protecting one's family and community, not merely oneself. This sort of framing may work especially well with people who might otherwise resist acknowledging the danger of AIDS in their communities. As an example, given the cultural significance of machismo and familismo for many Hispanics, an emphasis on family protection may amplify the perceived relevance of AIDS education in Hispanic communities. The Spanish-language brochure in figure 3.2, depicting a four-person family on the cover, represents one attempt to achieve this amplification. Similarly, campaigns targeting blacks have developed print materials that emphasize community protection. (See, for example, figure 3.5.)

Another framing strategy is to conduct AIDS education as part of a broader campaign. One campaign representative told us that "if I announce a seminar on AIDS, no one will show up." So, that campaign

and others offer seminars on sexually transmitted diseases, family planning, health, and personal communication skills, during which the topic of AIDS is also covered. Providing a broader context for AIDS education—including it in courses on health or family life, for example—may be particularly important with adolescents, who otherwise might not acknowledge the possible risk of AIDS in their own lives.

Eroticizing safer-sex behaviors may also help to motivate risk reduction. Programs describe various types and colors of condoms so that clients may settle on one they find particularly appealing or discover that variety itself is appealing. To encourage experimentation, one program offers a safer-sex kit that includes not one but three types of condoms. That campaign also conducts seminars in which the adult audience is encouraged to become more comfortable with condoms by actually handling them. In each case, the goal is that condom use should become routine and should work as a positive motivator for safer sex.

The New York schools reportedly will provide, for teachers' optional use, an AIDS lesson that encourages students to "slow down." According to the school board's AIDS coordinator, "kids nowadays do not progress gradually from kissing to petting and then, possibly, to intercourse. They go quickly to intercourse." Lessons on safer-sex practices are designed to render "those intermediate steps" more attractive and more satisfying.

The benefits of motivators like social approval, contextual framing, or eroticized safer sex are, of course, intangible, and the cost of engaging in risk behavior—the eventual onset of AIDS—is payable only in the remote and uncertain future. For this reason, AIDS educators may need to devise motivators with effects that occur closer in time to the AIDS-relevant behavior. One possibility is to train clients in techniques of immediate self-reinforcement. None of our campaigns has done so, but research conducted elsewhere suggests that such techniques might be effective (Kelly et al., 1988). During a series of twelve weekly group sessions, gay men were taught to generate and practice self-reinforcing statements such as "I will feel much better tomorrow if I don't do anything risky tonight" and "I am proud that I didn't do anything high in risk this week." The sessions also provided facts on AIDS transmission, interpersonal skills for risk-reduction, and social approval from other group members. A comparison of experimental and control (waiting list) subjects revealed significant risk-behavior reductions among those trained.

Need for Evaluation

Given that most campaigns have not collected and analyzed the sort of data by which their effects might be measured, and given also this study's time constraints, we made no attempt to evaluate the effects of any campaign. Several campaigns offering AIDS seminars distribute a pre- and post-test questionnaire. But, because their primary purpose is education, not evaluation, they do not require clients to take the pre-test, and the post-test serves mainly as a device by which clients can grade their own learning. Moreover, campaign representatives told us that they do not have the resources for coding, data entry, and analysis. So, even when pre- and post-test data are collected, most campaigns do not use them to assess outcomes in any formal way.

Two campaigns, both funded by the National Institute on Drug Abuse, have earmarked resources specifically for collecting and analyzing outcome data. The self-reported behavior of drug users who were reached by one San Francisco campaign shows a significant increase in the proper cleaning of drug-use paraphernalia among campaign clients, and the city-wide rate of HIV infection has reportedly leveled off at 15 percent (Watters, 1987). Another campaign, just underway in New York, plans to collect extensive data on AIDS knowledge, self-reported behavior, and blood samples, all at six-month intervals for three years.

Until campaigns routinely collect such data, it will not be possible to answer several key questions regarding the effectiveness of AIDS education.

- In what ways are the 12 exemplary campaigns typical or not typical of campaigns conducted elsewhere?
- Which message components are more critical for various target populations?
- Which message components are more critical for various intended outcomes?
- How do resource constraints affect the design of AIDS education campaigns?

Recommendation to the Secretary of Health and Human Services

AIDS education is likely to be more effective if campaign planners consider the results of prior research and evaluation. It is on this premise that we have developed and offer the seven-step model for AIDS message design. Field research indicates that the model can be applied in AIDS campaigns, but it remains subject to refinement based on further research and evaluation.

AIDS campaigns must therefore build in and carry out comprehensive plans for evaluating message components as well as overall success. We recommend to the secretary of Health and Human Services that

- plans for evaluating the department's AIDS education efforts ensure the collection of data by which the relative effectiveness of different components can be assessed.

Because of the expected variation in campaign purposes and resources, data from individual campaigns may cover different sets of message components. Thus, it will be necessary to coordinate message design and data collection across campaigns so that the findings will, when merged, cover the widest possible range of components. This recommendation is also applicable to other federal agencies funding AIDS education.

Recommendation to the Congress

Some legislation now pending in the Congress stipulates that the outcome of AIDS campaigns funded by the Department of Health and Human Services be evaluated and that the results be reported to departmental officials or to the Congress itself (or both). But, at present no pending legislation requires that reports specify the relative importance of various message components. We therefore recommend that, if the Congress passes legislation on this issue, such legislation

- require that these reports describe progress in assessing the relative effectiveness of different components in AIDS education.

These components should include, but need not be limited to, alternatives for defining the target group and handling its risk characteristics; the media employed; the information, skills, and motivators provided; and the outcomes intended under each campaign.

Finally, AIDS campaigns, federally funded or not, may benefit from using this model as a partial guide for designing, revising, and evaluating their operations. Chapter 4 translates the seven-step model into policy-relevant questions that may be useful in accomplishing these tasks.

Questions to Consider in Message Design

Introduction

In this chapter, we translate our seven-step model into questions directly relevant to designing and reviewing AIDS education campaigns. We believe that staff at federal and nonfederal agencies may find the questions useful when preparing requests for proposals, evaluating proposals, designing technical assistance for funded campaigns, or evaluating campaign outcomes. Public-health researchers might also use these questions to guide the development of study objectives, the design of data collection procedures, and the orderly analysis of findings. Finally, practitioners may find the questions particularly helpful for planning and evaluating their own campaigns.

Of course, AIDS campaigns have different target groups, purposes, and resource constraints. Some steps in our model may therefore seem absolutely crucial in one campaign but not so crucial, or not affordable, in another. Further, devising and implementing an evaluation plan based on the model may require diverting or hiring staff with evaluation expertise. But, we believe that planners should, at a minimum, give the questions in this chapter careful scrutiny during campaign design and review. Even if it is not feasible to collect definitive information on all questions or to cover all seven steps, planners will be better off if they use the model to assess what they know and do not know, and to decide which steps are appropriate for their campaigns.

Handling Group Diversity

There is, of course, diversity in any group. Some group members, but not all, may be involved in risk behaviors. Some read newspapers regularly, others get the daily news from television, and still others may ignore news available from any mass medium and attend only to information they get by word of mouth. Nevertheless, an optimal AIDS education message requires careful attention to group patterns relevant to access (that is, gaining group members' attention) and acceptance (that is, getting them to believe and act on the message).

It may be possible to estimate group patterns with some precision. For example, community surveys can indicate the percentage of group members who are engaged in various risk behaviors or who know how AIDS is transmitted. Even without such data, campaign planners may be able to estimate group patterns in more approximate terms—a rough percentage, perhaps, or a most-many-few rating for the group as a whole.

Finally, prevalence is one factor to consider when deciding how to handle group patterns. If all or most group members are engaged in a particular risk behavior, for instance, a single message may be appropriate for

the entire group. If the group is more evenly split, it may be preferable to devise dual messages. As an example, personal efficacy may affect people's response to risk-reduction recommendations. People who are confident of their ability to follow such recommendations may respond favorably to the provision of various alternatives, while people who are not so confident may find the alternatives intimidating. If many members of the target group seem high on this characteristic, while many others seem low, an AIDS education video might, first, indicate several alternatives for reducing risk and, second, suggest compliance with a single alternative for people who do not wish to make their decision independently.

Questions to Consider

Target Group

What is the target group? Can it be specified in accordance with distinctions meaningful to target-group members—distinctions such as race or ethnicity, language, dialect, neighborhood, age bracket, and drug-user friendship network?

Risk Characteristics

1. How many members of the target group are, or may be, engaged in behaviors that transmit the virus? Which behaviors? Are those behaviors due to personal preference, habit, lack of knowledge, lack of financial or other resources, or constraints such as laws or law-enforcement policies regarding the possession of hypodermic equipment?

2. What background capabilities—such as education, language preference, or reading level—might affect the campaign's access to target-group members or members' acceptance of the message?

3. How can group members be characterized on self-esteem, sense of personal efficacy, or other self-attitudes that might affect access to target-group members or members' acceptance of the message?

4. Do group members who engage in homosexual activity consider themselves gay, bisexual, or heterosexual? Is it more appropriate to identify persons at risk on the basis of behavior rather than sexual-preference categories?

5. What opinions do members have about homosexuality, drug use, sexual activity outside marriage, or related social issues? Are group members willing to discuss these issues candidly or publicly? How do group members react to people who are HIV-positive or who have AIDS?

6. Do group members doubt the efficacy of risk-reduction measures?

7. How strong is the motivation among group members to take or to avoid health risks?

8. What health practices might affect the campaign's access to target-group members or members' acceptance of the message? From what sources, professional or nonprofessional, do group members seek health advice? What sorts of contraception, if any, are known of, preferred, or considered acceptable? Are group members engaged in needle-use activities other than drug injection, such as tattooing, ear piercing, and steroid or vitamin injection?

9. What AIDS information or misinformation does the group already have?

10. How can each relevant characteristic be handled? Is it more appropriate to change the characteristic or to sidestep it? Is a single message appropriate for all group members, or would multiple messages be more suitable?

Media

1. Which sources of AIDS education—including government, schools, health-care institutions, community agencies, and religious organizations—are most credible with group members?

2. Which broadcast media—including ethnic radio and television stations—do group members rely on for news and other public information?

3. Which mass-media formats—such as music videos, community theater, telenovelas, cartoons, and documentaries—are popular among group members?

4. Which print media—including magazines, city-wide daily newspapers, and community weeklies—do group members rely on for news and other public information?

5. Which print formats—such as brochures, comic books, and photo novelas—are popular among group members?

6. Which personal media—including parents, peers, club or treatment-facility members, health-care providers, teachers and counselors, celebrities, and community leaders—are available and respected by group members?

7. Are people who have AIDS interested in becoming involved as paid or volunteer health educators?

8. Can peers be identified who are slightly, but not greatly, higher in status compared to other members of the target group?

9. What informal communication networks—based, for example, on neighborhood, school, occupation, hobby, or other community activity—exist among the target group?

10. At what public locations—such as laundromats, diners, residential hotels, clinics, and recreation centers—do group members congregate? Can AIDS materials be left at those locations?

11. If appropriate, can agendas for AIDS-education seminars be arranged so that people who do not wish to discuss some topics—such as contraception or certain sexual practices—may withdraw without missing other important topics? If appropriate, can audiences be segregated by gender for discussions of more sensitive topics? Can the seminar be conducted by two or more leaders, allowing at least one to maintain group discussion while another handles questions privately?

12. At what locations—such as private homes, halfway houses, churches, and synagogues—can invitation-only meetings be held for persons who might prefer not to discuss AIDS issues publicly?

13. Would a local AIDS hotline meet needs not adequately served by the national hotline or others already in existence? Do group members need or prefer to discuss AIDS issues in languages or dialects not available on existing hotlines? Do group members believe that the information available through existing hotlines is too generic or remote to be relevant to them?

14. Given campaign resources and the group's media-use patterns, how can mass and personal media be combined to deliver the message?

15. What strategies—such as bursting (a concentrated series of messages, not evenly spaced) and boosters (brief messages to follow a more detailed initial message)—are feasible for delivering repeated mass-media messages?

Factual Information

1. Given the group's age, educational level, risk behaviors, and other factors, what information—such as modes of transmission and non-transmission, epidemiology, and medical and biological background—is appropriate?

2. What degree of specificity regarding risk behaviors, procedures for reducing risk, and the efficacy of those procedures is appropriate for the group?

3. What descriptive terms, symbols, slang, art and music styles, and forms of humor are credible and readily understandable among group members?

4. What sorts of AIDS resources—such as HIV testing and counseling, possible treatments, support groups, and educational materials—should the group be aware of?

Skills

1. Are group members engaging in, or likely to engage in, risk behaviors that can be changed by providing practical or interpersonal skills?

2. What products or services—such as condoms, bleach, or test results regarding sexually transmitted diseases—should be provided?

3. What practical skills should be taught? Do drug users need to know both how to clean their paraphernalia and how to engage in safer sex?

4. What interpersonal skills—such as decision-making, resisting peer pressure, negotiating for safer sex, countering misinformation, and self-management—should be taught?

5. Do group members require verbal interpersonal skills, nonverbal ones, or both?

6. How can people be afforded an opportunity to develop personal efficacy, that is, to practice risk-reduction skills and to get feedback on their performance?

Motivators

1. Are group members engaging in, or likely to engage in, risk behaviors that can be changed by providing positive or negative motivators for risk reduction?

2. What short- or long-term consequences of AIDS are likely to motivate risk reduction among group members?

3. How can group members be made aware of the degree to which they, their communities, and their families are vulnerable to AIDS? Are group-specific statistics available on HIV infection or AIDS deaths? Are some group members who have AIDS willing to get involved in the campaign? Are case histories available describing group members who have contracted AIDS?

4. To what degree can fear of negative consequences be aroused—through text or imagery—without triggering denial among group members?

5. How can a fear-arousal message be designed so that fear is paired immediately with information on risk reduction?

6. What other negative motivators—such as punishment for not keeping an appointment to review one's HIV test results or for not passing a drug test—might be effective with the target group?

7. What tangible positive motivators—such as drug-treatment vouchers, needle exchange programs, tokens, contest prizes, school grades, and clinic or jail privileges—are available and likely to be effective among group members?

8. What sources of social approval—outreach workers, family, or other target-group members—are likely to motivate risk reduction? Can opportunities be arranged for people to make public commitments or sign behavioral contracts for reducing their AIDS risk?

9. What existing target-group norms relevant to AIDS can be invoked as positive motivators for risk reduction? Are group members already aware of those norms, or should the message bring them to light?

10. Will some sort of contextual framing—such as general health, family planning, communication skills, or sex education—help to motivate risk reduction among group members?

11. Will self-reinforcement training help to motivate risk reduction among group members?

12. Will efforts to eroticize safer sex—such as providing opportunities for people to experiment with various types of condoms—help to motivate risk reduction among group members?

Intended Outcomes

1. What cognitive outcomes—such as more AIDS awareness, more knowledge, and more favorable attitudes toward people with AIDS—are appropriate for the target group?

2. What behavioral outcomes—such as risk prevention, risk reduction, risk elimination, or maintenance of behavior change—are appropriate for the target group?

3. How many group members can be expected to respond favorably, and how many unfavorably, to advice that stresses risk elimination (abstinence from sex or drug use, or entry into drug treatment)?

4. Is there a possibility that multiple intended outcomes might work at cross-purposes? For example, will advice against sharing needles seem unrealistic to many drug users and thus interfere with their acceptance of accompanying advice on cleaning needles?

5. Should outcomes be pursued in some sequence? For example, do group members need to become more aware of the relevance of AIDS to themselves before they will pay attention to risk-reduction recommendations?

Congressional Request Letters

United States Senate
COMMITTEE ON
GOVERNMENTAL AFFAIRS
WASHINGTON, DC 20510-6250

February 16, 1988

The Honorable Charles Bowsher
Comptroller General of the United States
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Bowsher:

As you know, the AIDS epidemic is among the foremost threats to public health in the United States. There are, of course, many aspects to examination of this issue, including health care quality, financing and the development of research as well as prevention and education.

One aspect of prevention of particular interest to this Committee is the potential for effective communication and outreach to extremely hard-to-reach groups, who also present high public health risks to themselves and others. The Committee is interested in having GAO, through its Program Evaluation and Methodology Division, examine closely how the hard-to-reach groups could effectively be made aware of the facts of AIDS and motivated to seek further information and to modify, if need be, their own behavior to reduce risk of infection.

The inquiry should look at such hard-to-reach groups as minorities, youth, drug users, and very low income persons. The study should examine:

-what already is being done to inform and educate these groups about AIDS prevention,

- what does and does not work in communicating the risk of contacting AIDS with these groups, and

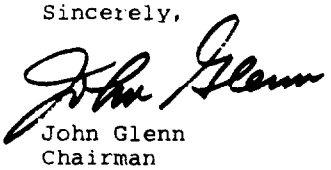
- what lessons might be learned from case studies of related public health education efforts, such as work on control of drug abuse, teen-age pregnancy, smoking, and venereal disease.

The Honorable Charles Bowsher
February 16, 1988
Page Two

We request that GAO be prepared to present testimony on its findings during the week of June 6th. We recognize that this is a complex task in a relatively short time, but we have had some preliminary discussions with GAO staff and expect that forthcoming meetings will produce priorities allowing for timely completion of the task.

Your assistance in this matter will be most appreciated by the Committee.

Sincerely,



John Glenn
Chairman

JG/lpl

United States Senate
COMMITTEE ON
GOVERNMENTAL AFFAIRS
WASHINGTON, DC 20510-6250

June 28, 1988

The Honorable Charles Bowsher
Comptroller General of the United States
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Bowsher:

The Committee on Governmental Affairs would like to thank Eleanor Chelimsky and Michael Zimmerman for participating in our hearing on "The Effectiveness of AIDS Education." Both witnesses contributed to the success of the hearing with their prepared testimony and during the question and answer period.

As evidenced by the hearing, an issue of continuing interest to this Committee is the potential effectiveness of education to prevent the spread of AIDS among groups at particular risk of infection, such as intravenous drug users, members of minority communities, and adolescents. More specifically, we need to know what educational strategies might be most effective in providing the facts on AIDS, reducing misinformation, and promoting behaviors that prevent or reduce the risk of infection.

In her testimony before the Committee, Ms. Chelimsky described a seven-step approach to AIDS education -- an approach that GAO derived from research on preventive efforts regarding AIDS and several other public-health problems. Since AIDS-education programs should be more likely to work when designed in accord with the seven-step approach, both the Congress and community based organizations need to understand the basic principles and illustrative examples as fully as possible. Therefore, a formal report on this approach would be most helpful to the Committee. The report should:

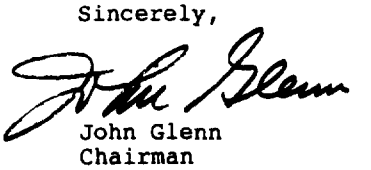
-- more fully explain the critical steps in AIDS education, and

-- provide further examples of ways in which the twelve exemplary AIDS-education programs studied by GAO have carried out those steps.

The Honorable Charles Bowsher
June 28, 1988
Page 2

We request that GAO provide the report on or before September 30, 1988. Your assistance in this matter will be most appreciated by the Committee. Please direct any questions about this request to Lorraine Lewis or Andrea Fastenberg of my staff (202/224-4751).

Sincerely,



John Glenn
Chairman

JHG/aef

Expert Sources[1]

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Ronald Bucknam
Department of Education
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Thomas J. Coates
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[1]Sources listed include those whom we contacted or whose published work we reviewed. Some are in fields such as drug-use intervention, health- and sex-education, minority health care, marketing, and mass communications. Others represent AIDS-education projects, funding agencies, and advocacy groups.

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