Enhancing the Effectiveness of HIV/AIDS Prevention Programs Targeted to Unique Population Groups in Thailand: Lessons Learned from Applying Concepts of Diffusion of Innovation and Social Marketing

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Diffusion of innovations theory and social marketing theory have been criticized for their limited applicability in influencing unique population groups (e.g., female commercial sex workers (CSWs) working in low-class brothels). This study investigated the applicability of these two theoretical frameworks in outreach efforts directed to unique populations at high risk for HIV/AIDS in Bangkok, Thailand. Further, this study examined Thai cultural characteristics that influence communication about HIV/AIDS prevention. The results suggest that certain concepts and strategies drawn from the two frameworks were used more or less by effective outreach programs, providing several policy-relevant lessons. Cultural constraints, such as the lack of visibility of the disease and traditional sexual practices, influenced communication about HIV/AIDS prevention.

"We are facing an epidemic. To research and utilize concepts that cannot be used is a crime."

Ellen Goldstein, HIV/AIDS prevention officer, East Lansing, Michigan, April 8, 1995)

HIV/AIDS represents a leading public health problem of this age. The Joint United Nations Committee on HIV/AIDS (UNAIDS) estimates that there were 27.9 million HIV cases worldwide by mid-1996 (UNAIDS, 1997). As no vaccine or cure for HIV/AIDS will be available in the immediate future, prevention is the key to halting the spread of HIV infection through the implementation of education and communication programs aimed at changing high-risk behavior.

In Thailand, HIV has been detected in every province. The epidemic is spreading most rapidly among low-income populations, especially poor, unmarried teenage mothers (Bhatiasevi, 1995; AIDSCAP, 1994c). The main mode of transmission of HIV in Thailand is through heterosexual contact. Thai Department of Health statistics indicated that there were more than 800,000 HIV positive people in

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Thailand out of 62 million in 1996 (Mithavayani, 1996). In Thailand, deaths due to AIDS will lead to a negative population growth by 2010. The purpose of the present study is to investigate the relative effectiveness of outreach strategies employed by community-based HIV/AIDS prevention programs in Bangkok, Thailand, that target unique populations at high risk for HIV/AIDS.

Unique Populations

Unique populations are often found at the forefront of audiences to be targeted for HIV prevention messages. Unique populations at high risk for HIV/AIDS include minority ethnic groups, commercial sex workers, transvestites, and intravenous drug users (IVDUs). *Population uniqueness* is the degree to which an audience of relatively similar individuals is different from the larger social system of which it is a part (Dearing et al., 1995). An example of a unique population group at risk for HIV/AIDS in Thailand includes young Burmese women who work as CSWs in low-class brothels. Unique populations consist of a set of extremely homophilous (or similar) individuals who are interconnected in order to cope with the ostracism and criticism they perceive from the larger society about their values and beliefs. Unique populations have often been found to act as powerful agents for, or against, change by choosing to amplify or attenuate communication messages (Bracht, 1990; Renn, 1981) and are, hence, particularly important to study and understand.

Members of unique populations often do not trust authority figures that HIV/AIDS outreach organizations often utilize to reach a specific target audience. They often mistrust the information they receive (Meyer, 1993). Members of unique populations often are more selective when choosing whether or not to adopt information disseminated from outside the unique population of which they are members and only choose those innovations that are most consistent with their own values, past experiences, and needs (Dearing, Meyer, & Rogers, 1994; Dearing et al., 1995; Meyer, 1993).

Unique populations primarily bond through closely knit interpersonal relationships. These populations often pay more attention to specialty media, interpersonal peer networks, one-on-one counseling, or other highly targeted information dissemination. Further, unique populations often do not consider traditional role models to be credible sources (Dearing, 1993, pp. 19–20). In unique populations, members may shun opportunities to act as opinion leaders or change agents for outside organizations, since they may risk losing status within their own population by doing so (Dearing et al., 1995). Unique populations may not have access to, or be users of, various media and services offered by HIV/AIDS prevention programs. They may not have access to public service announcements on TV or radio, HIV/AIDS hotlines, or to programs that are run in conjunction with schools, government agencies, or other institutions (Casey, 1995).

The unique characteristics of subpopulations imply that certain specific communication strategies must be used to reach these populations. In the United States, for instance, HIV/AIDS prevention programs are increasingly aimed at members of such unique populations as IVDUs, CSWs, and homosexuals (Dearing et al., 1995; Rogers, 1995).

Conceptual Framework and Overview of Study

Theories of communication and social change are useful to the extent that they are able to lead to the solution of social problems (Brown, 1989; Rice & Atkin, 1989).

Both diffusion of innovations (Rogers, 1995) and social marketing theories (Roberto & Kotler, 1989) have often been applied to designing public health outreach efforts in developing countries (Dearing, Meyer, & Rogers, 1994). However, both diffusion theory and social marketing theory have come under criticism for not being adequately adaptive to communication processes in highly distinctive cultures and subcultures (Dearing, 1993; Lefebvre & Flora, 1988).

Hence, the unique characteristics of subgroups have implications for choosing information dissemination models to reach these groups with public health messages. Since neither diffusion of innovations theory nor social marketing theory are conceptualized for specific applications to unique populations, it may be unrealistic to expect that the traits of these theories will adequately fit unique populations (Dearing, Meyer, & Rogers, 1994; Dearing et al., 1996). Some concepts of these theories may be more or less relevant in the design of public health initiatives directed at unique populations.

The present research tested the applicability of the diffusion of innovations and social marketing frameworks in designing and targeting HIV/AIDS prevention programs to more effectively reach unique populations. We sought answer to the following question: To what extent do the concepts of diffusion of innovations and social marketing adequately describe, explain, and predict the effectiveness of HIV/AIDS outreach programs among unique populations in Thailand? Additionally, we sought to understand the extent to which Thai sociocultural factors influenced the effectiveness of HIV/AIDS outreach programs aimed at unique populations.

The Diffusion of Innovations and Social Marketing Frameworks

Our research project in Bangkok investigated the extent to which relatively more and less effective HIV/AIDS prevention programs used specific concepts from the diffusion of innovations and social marketing perspectives in reaching culturally unique populations. Here, we explain the two theoretical frameworks and their main concepts.

Diffusion of Innovations Concepts

Diffusion is the process by which an innovation is communicated through certain channels over time among members of a social system (Rogers, 1995, p. 35). The diffusion of innovation model emphasizes the role of social networks among potential adopters (Dearing, 1993) and it incorporates certain common concepts that are intended to maximize the model's ability to describe, explain, and predict the behavior of a particular group. The six main concepts of diffusion we focused on were communication channels, the innovation-decision process, homophily, innovation attributes, adopter categories, and opinion leadership. Each of these concepts have emerged as salient to the design of public health programs (Dearing et al., 1996; Rogers & Singhal, 1996); thus let us briefly define each one.

Communication channels are the means by which a message is transmitted from one person to another. Interpersonal channels can involve face-to-face or electronically facilitated interaction (e.g., telephone, computer-mediated interaction). Mass media channels typically involve print, radio, television, or film-based transmission. The channel most appropriate to disseminate information about an innovation will vary depending on the innovation and the characteristics of the target population to be reached.

When messages concerning a specific innovation are transmitted from a source to a target member, the *innovation-decision process* is initiated (Rogers, 1995). This process refers to a sequence of decision points through which a target member passes. The sequence starts with knowledge or awareness of a potential innovation. The target member is then persuaded by information from a source and forms a favorable or unfavorable attitude toward the innovation. The next step is the decision to adopt or reject the innovation. If an adoption decision is made, the target member implements the innovation. Finally, confirmation occurs when the individual seeks reinforcement for the innovation decision that he or she has made.

Homophily refers to the extent to which two or more people perceive that they are similar to one another along certain attributes. When a target member focuses on the degree to which he or she is similar to a source, he or she may focus on such characteristics as age, gender, health, intelligence, education, personal beliefs, and/or socioeconomic status. Perceived homophily can be an important part of the innovation-decision process because more effective communication occurs when individuals are homophilous (Rogers, 1995).

Five perceptual *attributes* are relevant to the innovation-decision process: (a) relative advantage; (b) compatibility, (c) complexity, (d) trialability, and (e) observability. *Relative advantage* refers to the economic and noneconomic benefits a target member associates with an innovation. *Compatibility* is concerned with the degree to which the innovation is perceived as consistent with the values, past experiences, and needs of the target member. *Complexity* refers to the degree to which an innovation is perceived as being difficult to understand and use. *Trialability* refers to the degree to which the innovation can be experimented with before adoption, and *observability* is the degree to which the results of an innovation can be observed by target members.

Adopter categories describe the degree to which an adopter is relatively early or late in adopting new ideas relative to other members in a social system. Innovators are individuals who actively seek out new ideas or products and are among the first to adopt them. They are followed, respectively, by early adopters, early majority, late majority, and laggards.

The final salient concept of the diffusion framework is *opinion leadership*. Opinion leaders are people within a given social system who are able to influence other individuals' attitudes or behaviors in a desired way with relative frequency (Rogers, 1995). When an innovation is diffused throughout a social system, opinion leaders can play a key role in stimulating innovation adoption decisions.

Social Marketing Concepts

Social marketing strategies are deployed in social change campaigns around the world, and have become one of the most widely used strategies in health communication campaigns (Rogers, 1996, p. 19; Meyer & Dearing, 1996, p. 44). *Social marketing theory* is derived from for-profit marketing principles and strategies involving the design, implementation, and management of programs aimed at increasing the acceptability of socially desirable ideas among targeted adopters (Kotler & Roberto, 1989; Kotler & Zaltman, 1971; Fine, 1981). Although social marketing, as Kotler and Zaltman (1971) argue, does not guarantee that the social objectives will be achieved or that the cost of such marketing strategies will be acceptable, it offers a useful framework for effective social planning at a time when social issues have become more relevant and critical. The five key concepts of social marketing that we focused on were preprogram data gathering (formative evaluation), audience seg-

mentation, resource management, program development, and evaluation. Each of these concepts has emerged as important in the design and implementation of public health campaigns (Lefebvre & Flora, 1988).

Preprogram data gathering is the investigation of issues and factors that may impact a program, prior to designing the program. Data are gathered about forces external or internal to the social change campaign that impinges on its ability to successfully influence its target adopters. These factors include the political context, demographics, economics, physical setting, sociocultural factors, etc. (Dearing, 1993).

Audience segmentation is the identification of one or more homogeneous subaudiences from a population. Messages may be targeted to specific groups with program messages designed to achieve specific goals. HIV/AIDS prevention programs often use segments determined by demographic, situational, and behavioral risk factors (Lefebvre & Flora, 1988).

Resource management is the process of controlling a program's personnel, materials, and overhead. The focus of resource management is primarily human resources, such as employees and volunteers, and to a lesser extent materials and overhead. Staffing and training needs are central to resource management (Dearing, 1993).

Program development is the design of a social product that is typically accomplished by considering the "marketing mix." The core of designing and implementing marketing plans consists of the blending of four distinct elements, known as the four Ps and consist of (a) *product*, the "offer" made to target adopters through services or persuasive messages; and (b) *price*, the cost of the product, including financial as well as emotional, physical, and psychological cost. The main challenge of a social marketer is to reduce barriers or costs of participation and to create incentives that will further engage people in health and behavior change; (c) *place* is the means by which the social product is delivered to the target adopters, including such considerations as distribution outlets, inventory, and transport. Place decisions are often based on such considerations as the level of quality of services or coverage one wishes to supply and are usually facilitated by in-depth channel analysis prior to implementation; (d) *promotion* is the means by which the social product is promoted to the target adopters. Choosing the type of media to use, personal contact, and attention to creating an environment designed to produce specific cognitive and/or emotional effects on the target-group are specific ways by which promotion goals can be met.

Evaluation is the systematic analysis of a program's effects in order to make a judgment about a program. Formative, process, and outcome are three types of evaluation. *Formative evaluation* is the analysis of one or more components of the program during design but prior to implementation. *Process evaluation* is the analysis of the extent to which the means of attaining program goals are being followed. *Outcome evaluation* is the analysis of how a program achieved its objectives (Lefebvre & Flora, 1988; Dearing, 1993).

Research and Data-Collection Procedures

Bangkok is home to a flourishing commercial sex industry, employing an estimated 200,000 CSWs. Many unique populations at high risk for HIV/AIDS exist in Bangkok. These populations include poor, teenage girls from Isan (an impoverished area in Northeast Thailand) who live in one of Bangkok's slums where intravenous

drug use is high and who work in the low-end commercial sex industry where HIV infection rates are high; young, male motorcycle taxi drivers of low socioeconomic status (most of whom live in particular geographical locations such as the Klong Toey slum), often intravenous drug users, who are known to frequently visit low-end commercial sex establishments where HIV infections are particularly high (Bennett, A., 1995). Several governmental and nongovernmental organizations in Bangkok promote HIV/AIDS prevention. Many of these prevention organizations are small, with perhaps only five employees, and target a unique population. So Bangkok represented a representative research site for conducting this study.[1]

The present authors spent a semester at Bangkok University during spring 1995 and thus had an institutional base for conducting this research. The researchers were assisted by two Thai students at Bangkok University who were enrolled in Bangkok University's Ph.D. program in communication.

HIV/AIDS in Thailand

In the mid-1980s, Thailand appeared to be facing an epidemic similar to that which occurred in the United States a few years previously when the first AIDS cases were identified among gay men and their sexual partners (Phanaphak, Locharemkul, Panmuong, & Wilde, 1985; Wangroonsarb et al., 1985). During these early years, low levels of HIV infection were detected among CSWs in Bangkok and in the port city of Pattaya. Economic pressures created by the need for tourism dollars, as well as the relatively low number of AIDS cases, slowed the initial response of the Thai government in combating HIV/AIDS (Sittitrai, Phanaphak, Barry, & Brown, 1992; Thailand Ministry of Public Health, 1990). In late 1987, a dramatic rise in seroprevalence was observed among a group of IVDUs in Bangkok (Havanon, Bennett, & Knodel, 1992).

In the late 1980s, the number of individuals who tested positive for HIV grew rapidly (Sittitrai, Phanaphak, & Rody, 1994). By 1990, the demographics of the epidemic had changed in Thailand. The nationwide percentage of AIDS infections among IVDUs and homosexual males had either dropped or stabilized, while the rate of HIV infection among heterosexual female CSWs had risen to an alarming 16% (Brown & Xenos, 1994; Wangroonsarb et al., 1985). The percentage of HIV positive cases nationwide for heterosexual males also grew steeply. The Thai epidemic now included sexually active heterosexual males, many of whom frequented female CSWs (Brown & Xenos, 1994; Limanonda, 1993; Havanon, Bennett & Knodel, 1992, 1993).

The most dangerous wave of HIV transmission occurring in the mid-1990s was among the sexual partners of infected Thai men. The disease reached epidemic proportions among the heterosexual population, and despite efforts to control the continuing spread of HIV/AIDS, the rate of infection was rising steeply (UNAIDS, 1997; AIDSCAP, 1994a, 1994b; Sittitrai & Brown, 1994; Celentano et al., 1993; Pramualratana & Podhista, 1994; Puthikanon, 1990; Rojanapithayakorn & Poonpitat, 1991).

Sociocultural factors contribute to the rapid spread of HIV/AIDS in Thailand (Van Landingham & Grandjean, 1994) as follows.

1. *Religious values and beliefs.* Thai sexual behavior relative to HIV/AIDS occurs in a context of a prevalent fatalistic world view. Fatalism leads people to believe

[1] A total of 84 organizations were identified that conducted HIV/AIDS outreach activities.

that HIV infection is predetermined by supernatural forces, rather than resulting from a failure to use safe-sex practices (Ford & Koetswawang, 1991; Fordham, 1993; Mulder, 1990; Klausner, 1993). For example, the Thai belief in *Sieng-Duang* (accept fate) highlights the role of divine intervention in people's lives, making them believe that the risk of getting HIV/AIDS is beyond their immediate control (Ford & Koetswawang, 1991).

2. *Polygamy and commercial sex.* Acceptance of promiscuity has long been intrinsic to the Thai way of life (Kanato & Rujkorakarn, 1994; Klausner, 1993). Extramarital affairs are frowned upon for women but not for men (Ford & Koetswawang, 1991; Klausner, 1993). Although Thai society now is legally monogamous, men of all socioeconomic classes keep mistresses, know as *mia nois* (minor wives) (Klausner, 1993). Keeping *mia nois* is adjunct to newly acquired status, power, and prestige (Komin, 1990). Thai boys are socialized from a young age to value the experience gained from *pai len sao*, the visiting and courting of girls. Most young men experience their first sexual intercourse by visiting brothels (Kanato & Rujkorakarn, 1994; Nopeskorn, Sweat, Kaensling, & Teppa, 1993; Stier, 1993; Bennett, A., 1995; Sittitrai & Brown, 1994). Young men view their interactions with commercial sex workers as a peer-related leisure behavior, one which releases pent up energy. *Kreng jai* is a difficult peer influence to discern, because individuals are often unaware of the degree to which their behaviors are affected by that of their friends (Van Landingham & Grandjean, 1994). If an individual were asked to go to a brothel, encouraged by a friend, he might go because he wished to accommodate the friend (*kreng jai*).

3. *High migration.* Many rural migrant workers, both male and female, come to work in Bangkok's factories, businesses, and commercial sex establishments. Male migrant workers, employed in factories or as day-wage laborers, often visit female CSWs. Such migrant workers, who are at high-risk for HIV/AIDS, lack a community social structure. Many migrant subpopulations feel that they are not part of any community and often do not even trust each other.

Despite these sociocultural obstacles, the Thai government responded to the AIDS epidemic with far more alacrity than any other country in the Asian region, and the Thai governmental budget for HIV/AIDS prevention on a per capita basis is higher than most other developed and developing countries in the world (Bennett, A., 1995). However, it is still not clear whether communication efforts to prevent and control HIV/AIDS in Thailand are reaching unique populations at high risk.

Data-Collection Steps[2]

The various data-collection instruments that we utilized were translated in Thai, pretested, and revised several times prior to their use. For instance, it was important to take the initial version of each questionnaire through several pretests in order to adequately format the questions to reflect the less "direct" Thai way of asking questions. All survey data gathering was conducted in Thai.

Several problems were encountered by the researchers and two Thai research assistants. Initially, it was difficult to obtain a dedicated telephone line to contact

[2] The design and measures used in this study were based on an earlier study in San Francisco by Professors James W. Dearing at Michigan State University and Everett M. Rogers at the University of New Mexico (Dearing et al. 1996).

TABLE 1 Steps In Data Collection

Step	N	Description
1	84 Organizations ↓ 28 Organizations	A determination of the population of community-based HIV/AIDS outreach programs in Bangkok. 84 organizations were identified in Bangkok that conducted HIV/AIDS outreach activities. Of these, 55 HIV/AIDS outreach programs (run by 28 organizations) met the criteria for inclusion in the study.
2	55 programs	Program uniqueness was computed for the 55 qualifying HIV/AIDS outreach programs.
3	10 programs	Program effectiveness was computed for the 10 unique community-based HIV/AIDS outreach programs in Bangkok, with a determination of the most and least effective among these 10.
4	10 programs	Interviews were conducted with the program managers of the 10 unique outreach programs. These interviews focused on programmatic strategies.
5	10 programs	Content analysis of the above interviews was conducted. These analyses identified concepts of diffusion of innovations and social marketing theories.
6	2 programs	In-depth case studies were conducted on the programs identified as most and least effective in step 3.

the organizations of study from the Bangkok University research site (which has only eight telephone lines for its 15,000 students). We purchased telephone cards that could be used from telephones that had a direct line (circumventing the central switchboard of the university), and borrowed tables, chairs, and other equipment to record data in a hallway next to the public telephone located outside. No complete records of the HIV/AIDS prevention organizations in Bangkok were available, and the partial records that existed were often inaccurate and outdated. Time-consuming traffic jams delayed movement from one organization of study to another. Only one field visit could be planned per day, due to the notorious Bangkok traffic.

Data-collection activities in the present investigation were conducted in a sequence of six steps. (See Table 1.)

1. *Determination of the population of community-based HIV*/AIDS outreach programs in Bangkok. A list of all HIV/AIDS outreach programs in Bangkok was compiled from various organizations and individuals who were active in HIV/AIDS prevention. These organizations were then contacted by telephone to determine the extent to which their programs targeted culturally unique populations. For inclusion in the present study, an organization had to (1) provide a direct HIV/AIDS outreach service to the Bangkok population, (2) engage in HIV prevention education, and (3) have been operating for more than one year. Twenty-eight organizations operating 55 HIV/AIDS prevention programs met these criteria.
2. *Measuring the uniqueness of HIV*/AIDS prevention programs. A uniqueness score was computed for each of the 55 HIV/AIDS programs by asking program managers whether or not they targeted their audiences on the basis of 14 factors (many of these factors represent high-risk for HIV/AIDS): (1) gender, (2) age, (3) education, (4) ethnicity/region, (5) homelessness, (6) socioeconomic status, (7) citizenship, (8) language, (9) hemophilia, (10) IV drug use, (11) non-IV drug use, (12) commercial sex work, (13) sexual orientation, and (14) other. The more of these 14 risk factors associated with HIV/AIDS that a program used in its targeting, the more the program possessed high uniqueness. *Risk* was operationalized as "the dangers of the targeted individuals of contracting HIV/AIDS" (Dearing, 1993). Ten HIV/AIDS programs that possessed more than four uniqueness/targeting indicators (i.e., the relatively more unique programs) were selected for further study. The 10 most unique HIV/AIDS programs were identified on the basis of the 14 indicators.
3. *Determining program effectiveness. Program effectiveness* is defined as the degree to which a program is able to fulfill is objectives. Program effectiveness for the 10 unique HIV/AIDS programs was determined on the basis of 15 indicators (Table 2). Our study in Bangkok assessed only the process effectiveness of each program. Process effectiveness in our study evaluated the activities that an organization engages in to achieve its impact and outcome goals. As HIV/AIDS prevention programs in Bangkok have different impacts and outcome goals (i.e., some distributed condoms while others provided brochures to create positive attitudes toward using condoms), we utilized 15 indicators of process effectiveness including length of program operation, number of paid staff, average frequency of contact with clients, average duration of contact with clients, and others. A list of these process effectiveness indicators and their accompanying rationale for inclusion is provided in Table 2. Based on these 15 indicators, a composite effec-

as most and least effective in step 3.

Table 2 Process-Oriented Effectiveness Measures for HIV/AIDS Programs and Their Rationale for Inclusion

1. The length of operation. *Program staff often learns what does and does not work in communicating their messages through trial and error (and subsequent correction). Hence, programs that had been in operation longer were considered more effective.*
2. Number of collaborating organization in conducting HIV/AIDS outreach. *The more programs of collaboration, the more effective a program was considered to be.*
3. How the individual program manager rated the success of the program. *The greater the perceived success of a program, the more likely that the program was effective.*
4. Program manager's perception of the effectiveness of their HIV/AIDS program relative to other programs run by the organization. *The more positive a rating of one's program relative to others, the more effective a program was considered to be.*
5. Program manager's perception of the effectiveness of their HIV/AIDS program relative to other similar HIV/AIDS prevention programs operated by other organizations. *The more positive a rating of one's program relative to others, the more effective a program was considered to be.*
6. The experience of the field staff (in the area of health education) for the HIV/AIDS program. *Since there is job mobility among program staff, and because experienced staff can hasten the rate of learning, for a unique program, it was reasonable to assume that programs with a higher average number of years of experience in AIDS education and prevention per paid staff member were the more effective ones.*
7. The total funding level for the current year. *Since funding sources seldom give money to organizations without some indication that the receiving organization is reaching their target audience, programs that received more funding for the current year were considered likely to be more effective.*
8. The total number of city, state, or federal programs funding sources for the HIV/AIDS program during the last year. *Governmental agencies are usually more discriminating and require more indication of goal achievement than nongovernmental sources or funds. Programs that were funded by a greater number of governmental agencies were therefore considered to be more effective.*
9. The total number of funding sources for the HIV/AIDS program from all sources during the last year. *Community-based programs with more funding sources were likely to be more effective since these programs often rely on contributions from individuals, nonprofit organizations, and the like within their own community. Programs with a large number of funding sources were therefore considered to be more effective.*
10. Total percentage increase in the funding level for the HIV/AIDS program during the last year. *Decisionmakers who are increasing their level of support of a particular program are likely to preceive that program as being especailly successful or promising. Hence, programs with greater increases in funding the last fiscal year were considered to be more effective.*
11. The average length of interaction between the outreach worker of the HIV/AIDS program and clients in the field. *The longer the interaction time, the more effective the program was considered to be.*
12. The number of paid staff members who worked on the HIV/AIDS program during the last year. *The more workers employed by a program, the more effective that program was considered to be.*
13. The average number of contacts between the outreach workers of the HIV/AIDS program and the clients in the past year. *The more staff–client interactions, the more effective that program was considered to be.*
14. The average number of anecdotal "success stories" heard by the program manager about the impact of the HIV/AIDS program in the past year. *The higher the number of success stories, the more effective a program was considered to be.*
15. The average number of service hours per month for the HIV/AIDS program during the past year. *A common indicator of community service often required by governmental agencies of community-based organizations in the extent of communication between program staff and target audience members. Hence, programs that were engaging in a greater number of service hours were considered likely to be more effective.*

Source: Dearing (1993).

tiveness score was calculated which enabled a comparison between different programs. Thus more effective programs received higher scores than less effective programs.

4. *Interviews about program strategies.* Personal interviews were conducted with program managers of the 10 unique programs. Two- or three-person research

teams then interviewed the program representative in charge of the daily operations of each of the 10 programs. Eight of the 10 interviews were conducted in Thai. The interviews ascertained the administrator's perceptions of whether or not the programs were perceived as being effective in disseminating information to their target audience members and whether their programmatic strategies included the explicit or implicit use of the main concepts from diffusion of innovations and social marketing. During the interviews, program administrators were prompted for specific responses and were allowed to freely discuss responses concerning program origination, design and redesign, implementation, and confirmation strategies.

5. *Content analysis of program managers' interviews.* The 10 interviews were translated, transcribed, and content analyzed to identify whether diffusion of innovations or social marketing concepts implicitly or explicitly were related to the effectiveness of programs targeted to unique populations. *Content analysis* is the quantification of the manifest or latent meaning in communication (Holsti, 1969). The 10 transcribed interviews from the 10 unique HIV/AIDS programs were content analyzed by two blinded and two nonblinded coders. Combined intercoder reliability was high (alpha = .93). Each identified criterion was categorized according to whether or not it implicitly reflected aspects of the diffusion of innovations or social marketing theories and, if so, the concept which was reflected was identified.
6. *Case studies of the most and least effective programs.* An in-depth case study of the most effective and least effective program was conducted to enable a contextual interpretation of this study's quantitative findings. The case study data were derived from (1) personal interviews with program managers of the most and least effective program of study, (2) in-depth analyses of organizational and program documents, (3) accompanying outreach workers in their contacts with clients, and (4) personal interviews with clients of the two selected HIV/AIDS outreach programs.

Results

Targeting or a Lack Thereof?

The 55 outreach programs involved in HIV/AIDS prevention in Bangkok did little targeting to unique populations. The mean uniqueness score across all HIV/AIDS programs in Bangkok (N = 55) was only 1.6, which means that these programs utilized fewer than 2 audience characteristics in targeting outreach efforts. Program managers of 20 HIV/AIDS programs in Bangkok reported that they did not use *any* specific audience characteristic to target their outreach efforts. Instead they utilized a "blanket" approach in reaching a general population. Eleven HIV/AIDS outreach programs targeted their audiences using only one distinct risk factor for HIV/AIDS. Rather than targeting specific audience segments and using targeting strategies that would signify "depth," a larger number of programs utilized targeting strategies that were designed to reach a relatively undifferentiated audience, signifying "width." As Mr. Manop, an HIV/AIDS program manager in Bangkok, noted, "It is harder to reach people in unique groups. Very few organizations work in the slum. The slum dwellers are the laborers of Bangkok. No one wants to deal with the slum." This lack of focus on targeting by most HIV/AIDS programs in Bangkok was note-

worthy, given the several unique populations that reside in Bangkok which are at high risk for HIV/AIDS. The programs identified as unique in this investigation (N = 10) employed an average of 4.7 audience characteristics or high-risk factors in their targeting strategies. Most of these programs targeted their efforts on the basis of age, gender, occupation, and location.

Diffusion Concepts Utilized by All Uniquely Targeted Programs

Which concepts of diffusion of innovations theory were utilized by all the uniquely targeted HIV/AIDS programs in Bangkok? Two concepts of diffusion of innovations were utilized consistently by all uniquely targeted HIV/AIDS programs: communication channels and innovation attributes.

Communication Channels

How to gain "access" to unique populations at high risk for HIV/AIDS and how to utilize the most appropriate means of disseminating messages to them via interpersonal and mass media channels of communication were considered important by all 10 unique programs in Bangkok. Communication channels were mentioned 172 times by our respondents ($\bar{X}$ = 17.2 per program).

While mass media strategies were often utilized as initial information-spreading sources, interpersonal channels of communication were more effective in opening lines of communication and building trust between the outreach workers and the target audience. As program manager Mr. Carl said,

> Participation in our program gives them [the commercial sex workers] an opportunity to talk to someone about their life. While working in the commercial sex industry, they often have to lead a semi-secret life, living in a situation where they really never let people know who they are and what they do. So I think that the chance of talking to someone who is going to be non-judgmental, a situation where they can express their fears and worries, and hopes and dreams with someone [who] is not going to judge them. I think they like just having people treat them like human beings rather than goods for purchase.

Interpersonal channels were also used to communicate the importance of more significant behavior changes (often communicated on a one-to-one basis). As one program manager, Ms. Bonsoom, put it,

> First, we start our outreach efforts with information that takes place in a large group. In these groups we show slides and videos about AIDS to inform them about the dangers. Next, we visit them in their homes. We think this is very important because we can provide them with more detailed information about AIDS. We often find that they do not understand clearly in these large groups, but do so during our house visits.

Responses from various program managers suggested that with unique populations the use of mass media channels alone is not enough to affect behavioral change. To obtain access to these populations and then to persuade them was per-

ceived as a gradual process in which interpersonal communication channels were viewed as being central. As one program manager, Mr. Manop, argued,

> In our work we cannot always deal with problems through media channels. The number of HIV cases are so large that we have to reconsider the tools that we use. We need to become more familiar with their [the clients] thoughts, and their basic culture. To do that we have to go to the slum and try to change their attitudes.

In sum, interpersonal channels were viewed as being especially appropriate to change behavior given the "sensitive" nature of most HIV/AIDS topics.

Attributes of Innovations

All of the uniquely targeted HIV/AIDS programs were sensitive about how the client audiences perceived the innovation. Attributes of innovations were mentioned 42 times by our respondents ($\bar{X} = 4.2$ for each program). Some programs paid more emphasis to the clients' perceptions of the HIV/AIDS program than others; also, certain innovation attributes were emphasized more than others.

A value was put on the actual presentation of the innovation (the HIV/AIDS prevention program). It was perceived positively by the clients. Economic advantages of participation were especially emphasized: it did not cost the clients to be involved in the program; rather, incentives were provided. As one program manager, Mr. Carl, explained, "Participation and services are provided free of charge. We give them a gift for participating."

The idea of providing immediate economic or status-conferring rewards to clients to elicit their participation in program activities was common. One program directed toward male motorcycle taxi drivers gave the drivers a colorful vest, which served as a symbol of their participation in the program. As program manager, Somsak, explained, "We give them vests [with logos promoting the program] after they have completed the AIDS awareness workshops. These vests are very popular." Many motorcycle drivers expressed "how good they felt" about donning these vests as they carried passengers back and forth in Bangkok. The vests often helped spur interpersonal discussion about HIV/AIDS between motorcycle taxi drivers and their passengers.

Several program managers highlighted the importance of being sensitive to the lifestyles and values of their clients. Many tried to make their programs as "compatible" as possible with the day-to-day life of the clients. As Ms. Nitaya, program manager of the HIV/AIDS program directed at slum housewives, explained, "Our program adjusts to the needs of our clients. We must adapt the program to make them, the slum dwellers, feel that this is their problem. We have to find ways to make them realize that this is close to them, their own kids, husbands and so on."

The program directed to motorcycle taxi drivers also tried to integrate its activities with the lifestyles of the motorcycle taxi drivers: "We have found that food stalls where the motorcycle taxi drivers meet to be a good place to pass out HIV/AIDS prevention materials."

In sum, effective utilization of available communication channels and an understanding of certain innovation attributes (such as relative advantage and compatibility) were viewed as important by all uniquely targeted HIV/AIDS programs.

Social Marketing Concepts Utilized by All Uniquely Targeted Programs

Which concepts of social marketing theory were utilized by all the uniquely targeted HIV/AIDS programs in Bangkok? Three concepts of social marketing were utilized consistently by all uniquely targeted HIV/AIDS programs: resource management, audience segmentation, and program development.

Resource Management

Resource management, the process of controlling a program's personnel, materials, and overhead, was utilized by all HIV/AIDS outreach programs that targeted their efforts toward unique populations. Resource management was mentioned 177 times by our respondents ($x = 17.7$ per program). References to the concept of resource management were primarily focused on issues dealing with human resources, such as the training of employees and volunteers. Reactions such as that of Vikrom, a program manager, was typical across organizations: "We set certain criteria for our volunteers. They should be better in reading and writing than a sixth-grader," to which program manager Supoj added, "I am mostly interested in the ability of the staff. A diploma is not that important to me, but rather to see whether or not that person can work." The need to coordinate and influence the way outreach workers conducted their work also seemed to be an important element of resource management frequently emphasized by program managers. As one program manager, Manop, put it, "We tell our employees what activities to conduct. We tell them about the concepts we want portrayed and help them coordinate the various activities they involve themselves in."

One explanation of the frequent emphasis on resource management among program managers might be the relatively strict social hierarchy that commonly exists in a Thai organization. However, that reason alone does not shed light on the importance which this aspect of social marketing was given by program managers when implementing their programming efforts. A number of responses indicated that programmatic strategies are influenced by resource management issues for all programs directed at unique client populations. Given the importance this element of social marketing was given, it should be an important consideration in the design of outreach efforts directed toward unique populations that are at high risk for HIV/AIDS in Thailand.

Audience Segmentation

Relative to most other HIV/AIDS programs in Bangkok, the identification of one or more homogeneous subaudience(s) from a heterogeneous population was considered important by all 10 programs that targeted their efforts toward unique populations. Audience segmentation was mentioned 94 times by our respondents ($\bar{X} = 9.4$ times per program). This approach, commonly used by commercial and social marketers, is called audience segmentation. *Audience segmentation* is the identification of one or more homogeneous subaudiences in a population. An example of audience segmentation was presented by an HIV/AIDS program manager in Bangkok: "We try to reach those individuals who are at the highest risk for HIV, such as young female commercial sex workers, who are intravenous drug-users and who are homeless."

Audience segmentation strategies become especially important when efforts for HIV/AIDS prevention are directed unevenly within the Thai population. HIV/AIDS education is mandatory in Thai schools, but this information does not always reach

populations believed to be at high risk for HIV/AIDS. Instead, these high-risk populations are often looked down upon and ostracized by other segments of society.

Program managers of the 10 unique HIV/AIDS programs in Bangkok were cognizant of the importance of audience segmentation in their programs. As one program manager, Mrs. Saithong, said "Our target group are children and youth only. Hence, most of the material we use are developed specifically for them. We do not use it (the material) for any other groups." Another program manager, Mr. Carl, noted, "We break our focus down into different categories of commercial sex establishments—massage parlors, tea houses, cocktail lounges, bars, pubs, brothels, Karaoke bars, rice shops, and ice cream parlors. We then decide on the type of health service to be provided." Finally, program manager Mr. Supoi said, "With a specific focus, the program has a greater potential to reach the poor and to give the poor a greater chance to change their high-risk behavior. The rich [privileged] already have such knowledge [about HIV/AIDS]."

The use of audience segmentation by unique programs suggested that it is important for program administrators to segment the audience to gain a more detailed understanding of the unique characteristics. Knowledge of the target audiences' sociodemographic characteristics, such as culturally determined attitudes, values, and behavior patterns can help program managers to more carefully segment the target audience and, hence, increase the likelihood of more adequately serving the population at risk.

Program Development

Program development is the design of a social product that is typically accomplished by considering the marketing mix of (1) product, (2) price, (3) place, and (4) promotion. The results of the content analysis suggested that the use of the "marketing mix" was considered important by all 10 unique programs. Program development was mentioned 136 times by our respondents ($\bar{X} = 13.6$ per program). Although some programs seemed to utilize elements of the marketing mix more than others, the relative frequency in the use of such strategies suggested that these elements were generally considered important. For instance, the value that was put on the actual presentation of the product and it being perceived positively by the clients was noteworthy. Participation in all programs was provided free of charge, and the given services were often adapted to circumvent any intangible costs that the program might have for the clients. As program manager Mr. Carl explained, "We conduct our research and outreach efforts around the hours of the commercial sex establishments." It is also clear that the sensitive nature of the HIV/AIDS topic and the stigma placed upon high-risk groups have potential consequences for promotional efforts. As program manager Nitaya explained, "Promote a program that deals with prostitution? No, we cannot do that. We just go into the field to work." Hence, effective promotion often had to be specifically tailored to the cultural norms that stigmatize commercial sex work by not subjecting the program or the population to the negative perceptions of the public.

Concepts of Diffusion Utilized by the More Effective Programs

Three concepts of diffusion of innovations theory were utilized to a greater extent by the more effective uniquely targeted programs compared with the less effective ones: (1) homophily, (2) opinion leadership, and (3) the innovation-decision process.

Homophily

The nature of targeting unique populations at high risk for HIV/AIDS in Thailand requires program managers to carefully consider the distrust of outsiders on the part of the unique population groups. Evoking a sense of safety, trust, and respect when conducting outreach efforts was viewed as being highly important by program managers of uniquely targeted programs that were ranked as being *most* effective. *Homophily*, the degree to which two or more individuals who interact are similar in certain attributes (Rogers, 1995), was mentioned 26 times by our respondents ($\bar{X} = 2.6$ per program). Homophily between outreach workers and clients was seen as being especially important. The positioning of unique groups in relation to society often triggers fears of being stigmatized, increasing the importance of finding homophilous outreach workers who are perceived as "insiders," not "outsiders."

This focus on homophily between outreach workers and clients is especially critical when targeting unique populations at high risk for HIV/AIDS in Thailand given the many illegal or semilegal professions in which these populations operate. Motorcycle taxi drivers, for instance, have a semilegal status in Thailand. The police must be bribed for them to be able to work. The various motorcycle taxi drivers *wins* (motorcycle taxi driver groups) are often run by the *Maelow* (a local mafia), and interactions between outreach workers and clients are closely monitored. Commercial sex work is also illegal in Thailand, and access to CSWs is tightly controlled by brothel managers. If adequate trust is not built, these populations may be extremely difficult to access.

Carefully selecting a homophilous and trustworthy outreach worker is critical. As program manager Boonsom said,

> We have to select someone [outreach workers] that can go well with the motorcycle drivers and other target groups. The first thing we tell our outreach workers is that they have to get close to their target group and develop a good relationship with them. Some people might think that we are some kind of spy or the police. So we have to show our sincerity, and they will start to open up and listen to us.

Similar characteristics between clients and outreach workers enhanced the perceptions by clients that these outreach workers considered the problems of the slum dwellers as their own. Program manager Nitaya, who lives in the same Klong Toey slum area where her HIV/AIDS program is based and who herself is highly homophilous with the slum housewives at whom her program is directed, explained, "They have to feel comfortable with us before we can talk about AIDS." More specifically, program manager Mr. Supoj explained, "We change our language from an official one to a more easily understood language." Finally, Mr. Manop said, "The way we approach them must convey respect towards the slum dwellers. We must pay respect to them as if they were our relatives. We must make them feel that we are their friends, and empathize with their situation."

In Thailand, many members of high-risk populations find themselves in a position where they have to prioritize problems perceived to be more immediate than that of dying from AIDS. The perceived risk of contracting AIDS may therefore become less of a concern. It is, therefore, important that messages communicated by outreach workers to clients are grounded in the cultural reality in which many members of unique populations find themselves. It is important that the outreach workers are empathic with their clients. CSWs can make more than 20 times the

money in the sex industry than in alternative jobs. It is important that outreach workers understand their targeted populations' behavioral choices, prior to persuading them to give up or modify their lifestyles (even if it involves adopting condoms in order to protect themselves from HIV/AIDS). As two program managers explained,

> You cannot look at commercial sex workers just as commercial sex workers. You have to remember to look at them as people. They are commercial sex workers only during the time that they work. Outside they are wives, mothers, girlfriends, children. They are people with hopes and dreams. It is their profession that makes them different.
>
> We usually send former commercial sex workers to talk to these clients, since they have a greater deal of trust with each other, and since the current commercial sex workers perceived them as more able to understand their situation and their needs.

While homophily between the outreach worker and clients was deemed as being important by the more effective programs, a certain degree of heterophily between the outreach worker and clients was also considered important. This heterophily was viewed as being important in terms of the outreach worker being more knowledgeable and/or expert than the client in the area of HIV/AIDS prevention. As Vikrom, a program manager, said, "We set certain criteria for our volunteers. They should be better in reading and writing than a sixth grader," to which program manager Supoj added, "I am mostly interested in the ability of the staff." In sum, issues of safety, trust, respect, and empathic understanding were important considerations for more effective HIV/AIDS outreach programs that utilized the diffusion concept of homophily to a greater extent than programs ranked as less effective.

Opinion Leadership

The use of the concept of opinion leadership by *more* effective programs that targeted unique populations suggested that the status of opinion leaders in unique populations takes on increased significance given the populations' distinction from society at large. Opinion leadership was mentioned 15 times by our respondents ($\bar{X}$ = 1.5 per program). *Opinion leaders* are people who are respected for their knowledge and reputation on some topic and are members of the social system in which they exert their influence informally (Rogers, 1995). As reflected in the comments of program manager, Mr. Manop, more effective HIV/AIDS outreach programs in Bangkok consciously identified opinion leaders to enhance the efficiency of their outreach efforts: "In the community there are both formal and informal leaders who form their own committees in each slum. We always ask for their cooperation. These people usually have special skills in spreading information through word-of-mouth." At a later point in his commentary, Mr. Manop noted, "When we have conducted training for about two months, we look for the individuals who are more enthusiastic about the program. We then seek to train these individuals in even more depth. Later on we utilize these people to train their peers." A second program manager, Ms. Nitaya, explained how she identifies potential opinion leaders: "She seems to be the spokesperson for the group . . . . Everyone respects her for taking care of her peers."

The *most* effective, highly targeted program of the study identified influential housewives in one of Bangkok's larger slums to effectively diffuse messages about

HIV/AIDS to their immediate community. As their program manager, Ms. Nitaya, explained, "During activities they [the influential housewives] participate a lot. . . . They ask for material to distribute to other slum dwellers and inform other people in the community about our program. If we ask them to bring 30 housewives to our meetings, they will bring 30."

The HIV/AIDS program directed toward housewives in Bangkok's Klong Toey slums is effective because "respected" and "influential" housewives in the community have become involved in the programmatic efforts. Interviews with them showed that the housewives knew most of the people in their immediate community and that they had gained pride in themselves as a result of their involvement in the program: "We feel that the community and other housewives have come to respect us more after our involvement in the program," says Waew, an opinion leader among the slum housewives. Given the additional respect that they have achieved from their involvement in the program, several housewives now feel that they yield more influence and respect over their peers than they previously did.

The least effective, highly targeted HIV/AIDS program toward motorcycle taxi drivers in Bangkok, on the other hand, had many problems identifying opinion leaders who could function as liaisons between the outreach workers and their clients. As program manager Somsak explained: "Motorcycle taxi drivers are very busy. We only spend five minutes with them before they are forced to leave. So we don't seek out specific individuals to spread information." By neither targeting opinion leaders nor actively seeking them to influence other members of the group, effectiveness of this HIV/AIDS outreach program directed to motorcycle taxi drivers is limited.

The Innovation-Decision Process

The *innovation-decision process* is the conscious evaluation of the over-time sequence through which an audience member must pass from becoming aware about the message to being persuaded, to adopting, to implementing, to confirming. These stages are more closely monitored by the *more* effective uniquely targeted programs than it is by the less effective programs. The innovation-decision process was mentioned 46 times by our respondents ($\bar{X} = 4.6$ per program). These programs make a careful determination of where a certain client is in the innovation-decision process and try to provide an appropriate intervention to help them adopt a particular HIV/AIDS prevention and control behavior. As one program manager said, "They know who we are when we go into the [sex] massage parlors. And some of them know everything about AIDS. For them we give more of a reinforcing and social support message."

More effective programs conduct baseline evaluations of where the target audience members are located on the innovation-decision continuum. As program manager Mr. Manop illustrated, "We conduct a pretest to establish level of knowledge. Then, for the first two months we work on establishing a good relationship with the slum dwellers. When we get to know the majority of the people in our target group, we use broad-media strategies, such as slides or plays, slowly building up their knowledge before going more in depth." More effective programs also implement follow-up procedures to see whether or not behavior changes have occurred among their clients. As Mr. Vikrom and Mr. Pia, two program managers, said, "We conduct assessments of our target group every week. One-to-one consultation is very important to change their behavior. Some people gave up drug injections because they knew we could help them . . . . We conduct follow-up checks to

monitor their behaviors." At a later point in his commentary, Mr. Vikrom said, "We have 'post tests' to assess how well they remember what has been taught to them and whether and how they have changed."

Program managers of more effective programs also monitor explicit client reactions to their messages in order to gauge where their clients are in their innovation-decision process. Vikrom and Pia monitor feedback from their clients during training sessions: "People who are afraid will not participate . . . while those who have knowledge will actively participate." Monitoring attitude change is relatively easier than monitoring behavior changes, according to Vikrom and Pia: "But even to see this [attitude change], makes us think our program works."

Other program managers, emphasized the importance of knowing where an audience is in the innovation-decision process. Program manager Bonsoom said she does not send an outreach worker to the field until she has determined where the audience stands vis-à-vis HIV/AIDS prevention. As she explained, "After we have provided them with knowledge, we can, by talking to them, find out if they have changed their behavior. In the past, they never used to say that they used condoms. Now they know how to use condoms and they use them."

While implementing outreach efforts, the less effective programs did not consciously consider where their clients were in the innovation-decision process. As a program manager of the least effective HIV/AIDS program, Somsak said, "We only teach them; we can not change them." He added, "Most of our program material remains the same since we think there is little difference among the motorcycle taxi drivers."

Sociocultural Influences on Outreach Efforts

Based on our interviews with program managers and on focus group discussions with clients of highly targeted programs, we identified several sociocultural factors that influence the effectiveness of HIV/AIDS prevention targeted to unique populations in Bangkok.

1. *The Thai Sociocultural Environment.* Many cultural constraints limit access to clients or hinder acceptance of safe-sex behaviors by unique populations in Bangkok. Thailand's economy is in transition, and Bangkok has attracted a horde of transient workers. Program managers reveal that these migrant workers often are difficult to reach with HIV/AIDS outreach efforts. Further, clients cannot adequately utilize the outreach services that are provided to them. CSWs, for instance, who commonly work at commercial sex establishments for a short period of time (an average of seven months), are difficult to reach due to the fact that no stable "community" exists among the CSWs. The transient nature of many unique populations also makes it difficult for outreach agencies to evaluate the impact of their preventive communication efforts with a population over time. It is difficult to tailor-make change messages according to the needs of these clients.
2. *Environmental Constraints.* Many of the highly transient populations at high risk for HIV/AIDS in Thailand are tightly controlled by the environments and establishments in which they work. The local mafia (*Maelow*), for instance, often controls the movements and interactions of CSWs with outreach workers. As program manager Nitaya explained, "If we try to take the commercial sex workers out of the brothel, the *Maelow* do not support us. They don't want them to learn about the world outside. They are afraid that they might transfer to

different brothels." Construction site supervisors and *win* managers (motorcycle taxi driver leaders) fail to see the value of HIV/AIDS prevention for their workers.

3. *Lack of Visibility of HIV/AIDS.* Few Thais who are HIV positive have visible symptoms of AIDS. This lack of "visibility" is an obstacle to HIV/AIDS prevention efforts. As program manager Ms. Bonsoom explained, "We understood that women often could run into trouble because they had to convince their husbands to use condoms since the husbands still would not believe that AIDS existed."
4. *Economic Factors.* In Thailand many unique populations find themselves in a position where they have to prioritize their current needs (such as hunger and lack of housing) in relation to the fear of dying from HIV/AIDS. Interviews with program managers, outreach workers, and clients revealed that earning an adequate income, avoiding starvation, and the like are pressing everyday concerns for many members of unique populations. CSWs make over 20 times more in the sex industry than in other professional jobs. It is understandable why CSWs, especially those from poor economic backgrounds, choose commercial sex work. They fulfill immediate economical needs and secure their future. Daily problems are perceived as more proximate than the risk of contracting HIV/AIDS. Effective outreach efforts must be grounded in the cultural reality facing members of unique populations.
5. *Local Policy Initiatives.* Thailand is a country in the midst of major social restructuring. Thai policymaking often has been implemented in a top-down fashion, with policy implementation often ignored at the local level. Worksite managers, construction site supervisors, motorcycle taxi leaders, etc., often fail to see the relevance of AIDS prevention for their workers, who often are transitory. High mobility contributes to a lack of trust among members of these populations. Needed are HIV/AIDS prevention policies and programs that seek to bind people together at the local level, so that preventive communication has a greater chance of success. The three HIV prevention programs, rated "least" effective in the present study, targeted highly mobile populations (CSWs and motorcycle taxi drivers).

Conclusions

The present study examined the applicability of certain main concepts of diffusion of innovations theory and social marketing theory in targeting messages to unique populations at high risk for HIV/AIDS in Thailand. The unique prevention programs in Bangkok used the concepts of audience segmentation, a variety of communication channels, resource management, and program development strategies in the operation of their prevention programs. Three additional concepts of diffusion—homophily, opinion leadership, and the innovation-decision process—were used to a greater degree by the more effective prevention programs. These findings are especially interesting given that all the program managers who were interviewed indicated that they had not formally received any training in either the diffusion of innovations or social marketing frameworks.

Implications for Policymakers and Practitioners

Our findings hold important implications for policymakers and practitioners who seek to prevent and control HIV/AIDS among unique populations. Here we outline these policy recommendations.

1. HIV/AIDS programs directed toward unique populations need to be targeted specifically to these audiences. Generally targeted outreach programs have little impact on unique populations at high risk for HIV/AIDS. In creating outreach programs for unique populations, program managers must carefully take into account their age, gender, socioeconomic statuses, high-risk behaviors, and other sociodemographic characteristics. They should learn more about the communication channels—mass, group, and interpersonal—that these unique populations use on a day-to-day basis. They should learn more about whom these unique populations trust, respect, and listen to. This information (obtained from the conduct of needs assessment research) must be utilized in designing more effective HIV/AIDS outreach programs.
2. HIV/AIDS program managers and outreach workers could benefit from formalized training in some aspects of the diffusion of innovations and social marketing framework. We found that the diffusion concepts of homophily, opinion leadership, and innovation-decision process were used to a greater degree by more effective programs. What implications do these diffusion of innovations and certain social marketing concepts hold for policymakers and HIV/AIDS program managers?
   (a) Program managers must ensure that the outreach workers who are recruited to work with unique populations are highly *homophilous* with the client audience. They should understand the social and cultural norms of the client audience. Program managers must seriously investigate the possibility of selecting outreach workers from the client audience. By selecting individuals from the client audience, and then by giving them some training in HIV/AIDS prevention, it is possible to boost the acceptability and effectiveness of an outreach worker. For instance, our study showed that former CSWs are perceived to have greater emphatic understanding of their former peers than outreach workers from a different background. The emphasis on homophily stresses the importance of consciously emphasizing cultural sensitivity and personal characteristics when selecting outreach workers. Program managers and other practitioners must ensure that, apart from recruiting homophilous outreach workers, they should also educate them about how they can use their homophily attributes effectively to reduce the spread of HIV/AIDS.
   (b) Program managers must ensure that they have the trust, confidence, and support of the *opinion leaders* in the unique population that is being targeted for HIV/AIDS prevention. The first task is to identify opinion leaders in a client audience. This task can be accomplished quite effectively by participant observation and/or asking some key informants in the client audience about whom they respect, trust, and usually approach for advice. It is then important to effectively integrate the inputs of opinion leaders to design, conduct, validate, and reinforce the program outreach efforts. When a respected member of a community talks, people listen. So programs directed toward unique populations must especially identify, cultivate, and utilize opinion leaders in a given client audience to boost the effectiveness of the outreach program. The effective use of opinion leaders within a unique population by outside outreach workers can serve to bridge the gap that often exists between outreach workers and the members of an often isolated and suspicious population and, hence, enhance the efficiency of outreach efforts.
   (c) Program managers should utilize the concept of *innovation-decision process* not only in initial program design but also as a feedback mechanism. It is

important to assess at what stage of the innovation-decision process an individual at high risk for HIV/AIDS is at in order to devise a communication strategy. For example, interpersonal channels of outreach may be far more effective at the persuasion/adoption stage of the innovation-decision process than mass outreach channels. Once let into a population, attention to the innovation-decision process can guide program managers in further steps of program development in that influential members (opinion leaders) provide information about population characteristics, indicate group responses to programmatic activities, and act as influential liaisons in information diffusion.

HIV/AIDS prevention programs should be designed to be socioculturally compatible with the values of the intended audience members. Program managers of effective HIV/AIDS outreach programs in Bangkok highlighted the importance of being sensitive to the lifestyles and values of their clients. The more targeted the program, the greater the likelihood that it would be effective. In Thailand, more attention should be given to the specific characteristics of the Thai cultural context that often limit access to clients, environmental constraints that govern many unique populations at high-risk for HIV/AIDS, fatalism, and other cultural factors that influence sexual behavior, lack of visibility of the epidemic, and the relative low importance of HIV/AIDS prevention in relation to other problems perceived as more proximate by the target audience. The lack of community structure and the transitory nature of many high-risk populations are also problematic for many prevention programs. M. Bennett (1995) suggested that research methodologies that enable the researcher to have a "feeling" for the perspective that the receivers set for themselves will be most effective and ethically sound. Information dissemination strategies that are framed and implemented by an "empathic" program manager/researcher may be essential to change behaviors of unique populations at high risk for HIV/AIDS. Given the many cultural and traditional practices that guide sexual behavior in different cultures, culturally sensitive information dissemination approaches may prove particularly important. Such approaches will create a more respectful climate for communication with unique populations and will offer a better potential for adopting effective HIV/AIDS prevention methods.

HIV/AIDS is one of the most pressing public health problems in the world today. This study explored how certain main concepts of diffusion of innovations theory and social marketing theory explain the relative effectiveness of outreach efforts that are directed at unique populations at risk of contracting HIV/AIDS. Theories of communication and social change are useful to the extent that they can contribute to improving the quality of peoples' lives. Certain concepts from the diffusion of innovations and social marketing can contribute to more effective preventive health programs that are directed at unique population groups.

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