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CONTRACT NO: DAMD17-88-C-8097

TITLE: EVALUATION OF THE U.S. ARMY'S AIDS EDUCATION PROGRAM

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REPORT DATE: March 25, 1992

TYPE OF REPORT: Final Report

PREPARED FOR: U.S. ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND
Fort Detrick, Frederick, Maryland 21702-5012

DISTRIBUTION STATEMENT: Approved for public release;
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SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION: Unclassified	1b. RESTRICTIVE MARKINGS
2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION/AVAILABILITY OF REPORT: Approved for public release, distribution unlimited
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE	
4. PERFORMING ORGANIZATION REPORT NUMBER(S)	5. MONITORING ORGANIZATION REPORT NUMBER(S)
6a. NAME OF PERFORMING ORGANIZATION: University of California, San Francisco; 6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION
6c. ADDRESS (City, State, and ZIP Code): University of California, San Francisco, Office of Research Affairs, San Francisco, CA 94143-0962	7b. ADDRESS (City, State, and ZIP Code)
8a. NAME OF FUNDING/SPONSORING ORGANIZATION: U.S. Army Medical Research & Development Command; 8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER: Contract No. DAMD17-88-C-8097
8c. ADDRESS (City, State, and ZIP Code): Fort Detrick, Frederick, Maryland 21702-5012	10. SOURCE OF FUNDING NUMBERS

PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.
63105A	3M2-63105DH29	AD	WUDA315694

11. TITLE (Include Security Classification)
EVALUATION OF THE U.S. ARMY'S AIDS EDUCATION PROGRAM

12. PERSONAL AUTHOR(S)
Margaret A. Chesney, PhD; Jonelle M. Taylor, BA; Donald B. Chambers, PhD

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
Final Report	FROM 88/9/26 TO 92/3/25	92/3/25	33

16. SUPPLEMENTARY NOTATION

17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	
06	03		AIDS, HIV, Evaluation, Health Education, Behavior
06	13		RAI, U.S. Army Program, Volunteers

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

The purpose of this project was to evaluate the effect of the U.S. Army's education program on attitudes and knowledge about AIDS and behaviors related to risk of exposure to HIV. Subjects consisted of 503 male and female light infantry troops at Fort Ord, California. A questionnaire was designed to assess the subjects' level of knowledge, attitudes, and behaviors relevant to HIV infection at various points in the project. The following two approaches to HIV education were evaluated: the U.S. Army's standard AIDS briefing including a video and a brief didactic presentation, and a behaviorally-oriented HIV briefing consisting of a didactic presentation with subject participation and demonstrations. Prior to the briefings, the level of general knowledge about AIDS, including behaviors that convey the highest risk for HIV transmission, was very high. Despite this knowledge, subjects reported engaging in considerable high-risk sexual behavior. Those who reported behavioral intentions to practice safer sex or use condoms were not necessarily more knowledgable about AIDS but reported other positive intentions consistent with their being (over)

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT: ☐ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS	21. ABSTRACT SECURITY CLASSIFICATION: Unclassified
22a. NAME OF RESPONSIBLE INDIVIDUAL: Virginia Miller	22b. TELEPHONE (Include Area Code): 301-619-7325; 22c. OFFICE SYMBOL: SGRD-RMI-S

DD Form 1473, JUN 86 Previous editions are obsolete. SECURITY CLASSIFICATION OF THIS PAGE

19. ABSTRACT (continued)
"change agents," including sharing information about risk-reduction with friends. Immediately following the briefings, both approaches resulted in marked increases in knowledge, attitudes, and behavioral intentions. The largest increases were seen in intentions to practice safer sex and to discuss safer sex with others. While few differences between the standard and behavioral briefing approaches were observed, the behavioral briefing resulted in significantly greater changes in self-efficacy and personal intention to use condoms, one of the primary outcomes of the study. Six- and 12-month follow-up assessments examined maintenance of change. The significant increases in knowledge, attitudes, and behavioral intentions resulting from the briefings were, in most cases, lost by the 12-month follow-up. Intentions to practice safer sex and the measure of self-efficacy and personal intentions to use condoms were maintained at 6 months, but not at 12 months. Implications for AIDS education are discussed, including placing an emphasis on training participants to be "change agents" with actual practice in teaching others risk-reducing behaviors, using behavioral briefing approaches whenever possible, and providing AIDS education activities more often than annually to maintain change and provide participants with opportunities to problem-solve difficulties encountered when implementing risk-reduction strategies.

DAMD17-88-C-8097

FOREWORD

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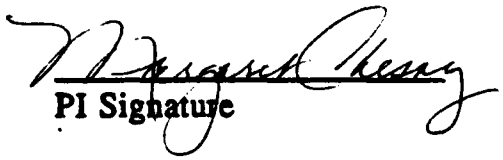

PI Signature

March 25, 1992

Date

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Purpose of the Research

The project "Evaluation of the U.S. Army's AIDS Education Program" (Contract Number DAMD17-88-8097) was approved and funded on 26 September 1988. The purpose of the project was to evaluate the effect of the U.S. Army's education program on military personnel's attitudes and knowledge about the acquired immune deficiency syndrome (AIDS) and behaviors related to risk of exposure to the human immunodeficiency virus (HIV). Using a sample of male and female light infantry troops at Fort Ord, California, the project was designed to achieve the following six technical objectives:

1. To determine the level of knowledge and attitudes about AIDS and HIV infection among soldiers. As part of this objective, the degree to which individual characteristics, such as marital status, education, and previous AIDS education, are related to baseline levels of knowledge and attitudes was evaluated.

2. To develop a Health and AIDS Information Questionnaire to assess attitudes and knowledge about AIDS and behaviors related to risk of exposure to HIV. This questionnaire was specifically designed to evaluate the effect of participation in the U.S. Army's AIDS education program.

3. To evaluate the extent to which the U.S. Army's standard AIDS education program enhances knowledge and attitudes about AIDS and changes behaviors related to HIV transmission. Soldiers were given the Health and AIDS Information Questionnaire prior to and after they participated in the standard AIDS education program.

4. To design and evaluate the efficacy of a behaviorally-oriented HIV briefing in changing attitudes and knowledge about AIDS and behaviors related to the transmission of HIV. Soldiers received either a standard briefing or a briefing incorporating behavioral principles. Changes in attitudes, knowledge, and behavioral intentions resulting from the two briefings were compared to evaluate the benefits of the behavioral briefing.

5. To identify individual characteristics of soldiers that are related to changes in attitudes and knowledge following participation in the AIDS education program. The power of variables assessed prior to the program to predict changes in knowledge and attitudes were examined. The interaction of individual characteristics and the type of briefing were also examined.

6. To determine the extent to which changes in knowledge and attitudes about AIDS and behaviors related to HIV transmission are maintained over time. Half of the soldiers were administered the Health and AIDS Information Questionnaire at six months and the entire sample completed the questionnaire at twelve months after the program to evaluate retention of changes in attitudes and knowledge over time.

Introduction

Nature of the Problem

When this study was proposed in November of 1987, 43,533 cases of AIDS in the United States had been reported to the Centers for Disease Control (CDC) [1], and researchers were estimating that another 1 to 1.5 million Americans had been infected with HIV [2].

U.S. AIDS cases reported through February 1992 have reached a total of 213,641 cases, with the percentage of those cases attributable to heterosexual contact increased to 6% and continuing to grow [3]. Researchers still estimate that there are currently about 1 million persons in the United States infected with HIV, with a minimum of 40,000 new infections occurring each year in adults and adolescents [4]. Recent analyses point to the continued rapid transmission of HIV: while the first 100,000 cases of AIDS in the United States were reported during an 8-year period, the second 100,000 cases were reported during the next 2 years [5], and trends suggest that AIDS incidence among nondrug-using heterosexual men and women in the U.S. will more than double by 1995 [6].

Worldwide, AIDS is pandemic, with the World Health Organization reporting AIDS cases from 163 countries and estimating at least 10 million adults infected with HIV; projections of numbers of AIDS cases developing during the 1990s throughout the world are truly staggering: a 10-fold increase in adult AIDS cases (to 10 million) and children with AIDS (to 5 million) [7].

Military Significance

Within the military, recent data on the direct measurement of HIV incident cases, based on test results reported by the U.S. Army's routine antibody-screening programs, suggest that hundreds of soldiers have been and will continue to become infected with HIV each year, and that HIV seroconversions among active duty soldiers have been detected at nearly every location that conducts screening worldwide [8; 9].

As stated in our proposal for this project, the significance of this study to the military rests primarily on two points: (1) the serious consequences of HIV infection and disease in the military and (2) the importance of having maximally effective education efforts to combat the transmission of HIV among armed forces personnel.

HIV infection and disease are of major concern to the military because of their potentially enormous toll on personnel, health care costs, and preparedness. The preventable loss of skilled personnel and the medical expenses involved in their treatment constitute significant losses to the military. More importantly, HIV-infected individuals could infect others if they were to give blood transfusions directly to another soldier, as is the case in combat situations Thus, HIV-infected persons are not deployable and the additional tracking, health care expense, and limitations on duty assignments for HIV-infected personnel present significant logistical concerns for the military.

Since October 1985, the periodic and routine testing for HIV antibody in the active duty military population has provided direct measurement of the incidence of infection with HIV. During the first four years of the testing program, this incidence was approximately 0.39 per 1000 person-years [9] . The incidence of HIV seroconversion in the Army declined overall for many demographic groups during the first 4 years analyzed; however, seroconversion risk nearly doubled for black young adults (male and female) during this period, and overall seroconversion rates were significantly associated with non-white race/ethnicity, younger age (25 through 34 years), male gender and being unmarried. The testing of civilian applicants for military service provides further data regarding the HIV epidemic that are relevant to the military population. Specifically, HIV seroprevalence among military applicants during the 4-year period from October 1985 through September 1989 was 1.31 per 1000, with infection incidence rates highest among

black males (1.40 per 1000 per year) and lowest among white females (0.03 per 1000 per year) [10]. These rates are the subject of concern because they probably underestimate incidence in the population since military recruitment discourages the enlistment of persons with many of the standard behavioral risk factors for HIV.

At present, the most hopeful strategy for preventing HIV transmission and AIDS is health education directed toward changing high-risk behaviors and maintenance of behavior change [11]. Accordingly, in the "Report of a Conference of Walter Reed Army Medical Center Physicians and Scientists: Retrovirus Research Program Five-Year Plan," military researchers have assigned the highest priority to a focus on devising and evaluating strategies and interventions to prevent new HIV infections [12]. A specific objective detailed in the report calls for the development of new methods to prevent HIV infections, and field-testing the efficacy of those methods through "studies to prevent the occurrence of new infections (that will) target specific education and behavior modification efforts to subgroups of the general military and associated populations" (p. 20).

Recent AIDS Education and Behavior Change

The efficacy of a health education intervention such as the U.S. Army's AIDS education program depends on its ability to influence attitudes about personal vulnerability, to impart information about specific risk-reducing behaviors, to teach effective plans of action, and to convince individuals that they will be able to perform risk-reducing behaviors and that doing so will reduce their risk of HIV infection [13; 14; 15].

While the obvious focus of health education is on imparting knowledge as a prerequisite for behavior change, information is necessary but often insufficient to effect behavior change and maintenance [16; 17; 18]. In addition, individual characteristics of program recipients such as other health and safety habits, demographic attributes, perceptions of social norms, and perceived costs and benefits of changing behavior may all be predictors or correlates of change in knowledge, attitudes, and behavior following AIDS education. Relapse prevention and retention or maintenance of knowledge about behaviors related to reduced risk of HIV infection may also be related to characteristics of the individual, and such information is important in the design of maximally effective health education programs [19].

Based on previous AIDS education research, this project was therefore designed to determine the individual characteristics of military personnel that are related to changes that result from the U.S. Army's AIDS education program, and to assess changes in and retention of the soldiers' awareness of specific behaviors related to risk and risk-reduction, attitudes about risk, ability to identify the best plans of action to reduce risk of HIV infection, and belief that they will be able to perform these behaviors.

Deficit of Evaluation Data from AIDS Intervention Studies

Evaluation is an essential element of effective education. A number of important scientific and peer reviews [20; 21; 22; 23] have provided evaluation recommendations for HIV educational programs for reducing the risk of HIV transmission. The NAS/NRC Committee on AIDS Research and the Behavioral, Social, and Statistical Sciences states that "...the time has come to make a commitment to the rational design of intervention strategies and to careful evaluation of the effectiveness of those strategies through controlled experiments that use carefully defined populations. Knowledge must be gained from current intervention programs to improve future efforts. Evaluation is the process that will enable us to learn from experience" (p. 316). The evaluation component of this project will:

(1) Identify the U.S. Army's AIDS education program's strengths and weaknesses.

(2) Evaluate the relative effectiveness of the behaviorally-oriented briefing compared with the standard briefing.

(3) Identify characteristics of individuals for whom the program is not producing attitude changes or effective knowledge about risk reduction.

(4) Generate recommendations for the design of future AIDS education programs to promote and maintain behaviors that minimize risk of HIV infection and, by doing so, help prevent AIDS.

In light of the concern for the deficit of research in the HIV education evaluation arena, this project is in a position to deliver critical data on the efficacy of AIDS education strategies to various soldier populations and to provide practical guidance for the direction of future military AIDS education efforts.

Methods

This research project consisted of a program evaluation using a pretest-posttest comparison group design, and included four phases:

Phase I: Planning and Questionnaire Development

Information relevant to the design and target of HIV education within the U.S. Army was gathered, and a Health and AIDS Information Questionnaire (HAIQ) to be used in future project phases was developed. The process began with reviewing the literature on AIDS educational assessments. Based on this literature, behavioral objectives were identified and key variables defined (i.e., knowledge, attitudes, individual characteristics, and potential predictor variables) for inclusion in the HIV education and the HAIQ. The draft questionnaire was reviewed by professionals involved in AIDS research and education in both the Epidemiology and the Behavioral Medicine Programs at the Center for AIDS Prevention Studies at the University of California, and submitted repeatedly to WRAIR staff for their review. The responses to HAIQ draft submissions were consistently positive and favorable. The HAIQ was also submitted to the Fort Ord Army Education Center and approved for comprehension at the appropriate reading level for general infantry.

Pilot testing of the draft questionnaire was carried out at the Center for AIDS Prevention Studies, and with soldiers being treated for a sexually transmitted disease (STD) at the Fort Ord Troop Medical Clinic. This pilot testing was undertaken to ascertain whether the HAIQ would elicit responses from individuals known to be engaging in behaviors that put them at risk for HIV infection and that specifically reflected their risk behaviors. Revisions to the HAIQ resulting from the pilot testing and debriefing of voluntary STD clinic patients were incorporated as needed. In addition, a control assessment was conducted with a group of 103 soldiers. The questionnaire was administered to this same group of soldiers on two occasions, one week apart, to serve as an index of the effect of repeated measurement, i.e., indicating the extent to which completing the questionnaire itself leads to changes in knowledge and attitudes.

The HAIQ was submitted for final review to the Soldier Support Center, and was approved and assigned Survey Control Number ATNC-AO-90-37 on 13 March 1990. The four separate versions of the HAIQ are attached (see Appendix A), and include the baseline pretest

assessment, the baseline posttest assessment, the 6-month assessment and the 12-month assessment.

Phase II: Evaluation of Education Programs

Protocol development for the standard and a behaviorally-oriented HIV briefing consisted of the following activities:

(a) Observing briefings at Fort Ord being given by the HIV staff.

(b) Reviewing literature.

(c) Consulting with HIV education experts in the San Francisco Bay Area in the Department of Public Health, CAPS, and the West Oakland Health Center.

(d) Requesting information from the U.S. Army Headquarters Training and Doctrine Command on maximally effective training procedures.

(e) Clarifying the status of "standard" HIV education in the U.S. Army to be used as the comparison against which the behaviorally-oriented briefing would be tested.

Because the status of the U.S. Army "standard" HIV briefing changed since the time the project was funded, a brief survey of approximately 1/3 of Army fort installations was conducted and HIV Program Administrators were questioned in order to update information on the current standard HIV education briefing throughout the U.S. Army. It was concluded that a screening of the video "AIDS: Can I Get It?" followed by a question and answer session with a didactic presentation covering the points outlined in Army Regulation 600-110 Appendix B was representative of Army-wide HIV education programs, and thus would constitute the study's standard HIV educational briefing for the purposes of this project.

Implementation and evaluation of the standard and behavioral HIV education programs was carried out with 503 active duty Army soldiers during their regular inprocessing routine upon arrival at Fort Ord between 8 August and 4 October 1990. Subjects were a varied group: they processed in from posts throughout the United States and overseas, and consisted of all ranks, both enlisted and commissioned; job assignments for the individual soldiers were diverse, and participants were assigned to a broad scope of units and companies throughout the base; their length of service ranged from new recruit to those ready to retire from active duty; and both male and female, single and married individuals participated in the study. A more detailed description of project participants follows in the Results section.

At baseline, the subjects were assigned to one of two briefing groups, based on the week they inprocessed, with briefing groups alternating weekly. The standard briefing group format consisted of a videotape followed by a didactic lecture and a brief question-and-answer period, while the behavioral briefing group members received an interactive HIV educational briefing requiring subject participation and demonstrations. A narrative script, lesson plan and videotaped presentation of the behaviorally-oriented HIV educational briefing accompany this final report as contract deliverables. The groups ranged in size from 20 to 43 participants (mean sizes were 29 for the standard group, and 33 for the behavioral group), with an average participation rate of 94%, i.e., very few of the soldiers invited to participate in the research project refused to sign a consent form and complete questionnaires. The setting for all briefing groups was consistent for the initial intervention: a classroom arrangement of desks aligned in rows, with the health educator standing at the front of the classroom. All subjects completed the appropriate form of the Health and AIDS Information Questionnaire prior to and following their briefings to gather sociodemographic data, and to assess knowledge and attitudes about AIDS and behavioral intentions related to risk of HIV infection.

Phase III: Follow-up Assessments

Retention of knowledge and attitude change about AIDS and behaviors related to risk of HIV transmission was assessed at 6- and 12-month follow-up intervals with appropriate versions of the Health and AIDS Information Questionnaire. Six-month assessments were completed by 186 (72.7%) of the 256 subjects randomly selected for follow-up. The majority of the 70 inaccessible participants were unavailable for assessment at that time due to Persian Gulf deployment or related duties and training activities.

Twelve-month assessments were also affected by uncontrollable factors: a significant number of soldiers were unavailable in the targeted time frame for a variety of reasons such as continued Operation Desert Storm deployment, the impending closure of Ft. Ord, and the "downsizing" occurring throughout the Army in general. Of the 503 original study participants, 329 subjects (65.4%) were successfully tracked, contacted, and completed the 12-month follow-up questionnaire. The remaining 174 subjects could not be contacted (31.2%) or refused (3.4%) to participate in the 12-month follow-up, resulting in a 34.6% attrition rate for the final wave of data collection. A summary of reasons for study attrition is as follows:

12-Month Data Collection

	n	(%)
Completed questionnaires	329	65.4
End of term of service	78	15.5
Transfer to Fort Hunter Liggett	22	4.4
Permanent change of station	21	4.2
Temporary duty off base	17	3.4
Refused	17	3.4
Deployed to Middle East	7	1.4
Chaptered out of service	6	1.2
Retired from active duty	2	0.4
Medically retired from active duty	2	0.4
Unable to locate	2	0.4
TOTAL	**503**	**100.1**

(Does not equal 100% due to rounding)

These figures indicate that the vast majority of inaccessible study participants (157 subjects, or 31.2%) were unavailable for follow-up assessment because they were no longer at Fort Ord. Only 17, or 3.4%, of the subjects refused to complete a 12-month questionnaire when contacted.

Assessment at the 6- and 12-month follow-up intervals was conducted primarily at individual company units on base. Because many participants were not available at convenient times for group assessment, or company units contained only small numbers of study participants, the health educator administered follow-up assessments on a one-to-one basis or in much smaller group settings (most groups were no larger than 4 participants) than at the baseline intervention. No additional information was given to participants at the follow-up intervals; only questionnaires were completed at these times.

Phase IV: Data Analysis and Report

Data analysis was performed with a focus on identifying program variables such as the briefing format, as well as individual characteristics, that are correlated with attitude change, knowledge acquisition and retention, and changes in intentions to reduce risky behaviors. This final report discusses implications of the research and presents recommendations for the design and implementation of health education efforts directed toward reducing the transmission of HIV and preventing AIDS among U.S. Army personnel.

Results

The results of the evaluation study are summarized in four sections, based primarily upon the major technical objectives of the research project as stated at the beginning of the report:

Section 1 provides a detailed description of the entire sample and comparison of the study's two HIV briefing groups, standard and behavioral, at baseline prior to briefing (i.e., pretest). A summary of the data reduction methods used in the development of the "Health and AIDS Information Questionnaire" (HAIQ) summary scales and sexual behavior risk index is also provided.

Section 2 summarizes the multiple regression analyses conducted to identify individual subject characteristics which predicted baseline levels of attitudes, beliefs, and knowledge about AIDS, and behaviors related to risk of exposure to HIV.

Section 3 summarizes the repeated measures analyses investigating change (pretest-posttest) and stability of change over time (pretest, posttest, 6 months, 12 months) in attitudes and beliefs, knowledge, behavioral intentions, and sexual risk behaviors, both between and within HIV briefing groups. In addition, changes in the two briefing groups are compared to the responses observed in a control assessment sample that completed the HAIQ on two occasions without an intervening HIV briefing, the point of which was to assess the impact of measurement alone (i.e., simply completing the questionnaire). Comparisons of subjects within the 6- and 12-month follow-up assessments with the remaining subjects at baseline are also provided as an analysis of changes in the study sample due to attrition.

Finally, **Section 4** summarizes the multiple regression analyses conducted to identify individual subject characteristics that are related to changes (pretest-posttest) in behavioral intentions following participation in the U.S. Army's AIDS education program.

All statistical analyses were performed using either SAS (Statistical Analysis System) or SPSS (Statistical Package for the Social Sciences).

Section 1: Description of the Sample and Comparison of the Behavioral and Standard HIV Briefing Groups at Baseline

The first wave of data collection for the HIV educational briefing evaluation study was completed October 4, 1990. A total of 601 potential subjects were invited to participate in the study during the nine-week period from August 8 through October 4, 1990. Thirty-six potential subjects declined to participate and 565 subjects were enrolled in the study, resulting in a 94% participation rate. Group sizes during the fifth week of recruitment, which included the Labor Day holiday, were too variant for meaningful comparisons, so these subjects were not included in the study. Adjusted figures for non-inclusion of these individuals resulted in 535 potential subjects, with 32 refusals and 503 actual participants, again resulting in a 94% participation rate.

The random assignment of groups to one of the two HIV briefings resulted in 247 subjects assigned to the standard group and 256 subjects assigned to the behavioral group. Detailed summaries of baseline data collection and consent rates are included in Appendix B.1.

Unless otherwise indicated, univariate statistical tests for investigating the comparability of the two HIV briefing groups at baseline included t-tests for normally distributed continuous

variables, Mann-Whitney tests for ordered quantitative (e.g., Likert scales) or skewed continuous variables, and chi-square tests for unordered qualitative (i.e., categorical) variables.

Demographic Characteristics and Prior AIDS Education

Basic demographic and service-related statistics at baseline are presented in Table 1 and Figures 1 through 4. The entire sample included 441 males (88%) and 62 females (12%). The average age was 27 years (range 17 to 48). The largest reported ethnic groups included 55% White, 29% Black, and 9% Latino/Hispanic. The average number of years of education completed was 13 (range 9 to 17); 4% of the sample reported having less than a 12th-grade education, 53% completed high school, 31% had some college education, and 10% graduated from college. With regard to marital status, 53% of the subjects were married, 39% had never married, and 9% were either separated or divorced. The median length of service was 4 years (mean 6.5, range .1 to 28.5). With regard to military rank, 88% of the subjects were enlisted personnel, 9% were commissioned officers, and 2% were warrant officers. Most participants (83%) reported having had at least one AIDS class before the current HIV briefing.

There were no statistically significant differences at baseline between the two HIV briefing groups for any of these variables (all $p>.05$).

Health Risk Behaviors

Health risk behaviors at baseline are summarized in Table 2. Virtually all subjects (95%) rated their overall health as good or excellent. Two-thirds of all subjects either never smoked or had quit, and one-third currently smoked. Seat belt use was relatively high with 85% reporting "usually" or "always" using seat belts. Previous studies [24; 25; 26] have reported that not using seat belts is associated with risk-taking behavior. Given the U.S. Army's strict rules and constant reminders about seat belt use, particularly on base, it was noteworthy that 15% of soldiers reported using seat belts only "sometimes" or "rarely."

At baseline there were statistically significant between-group differences for two health risk behaviors. Although most subjects in both briefing groups reported little to moderate use of alcohol on a daily basis, consumption was slightly higher in the behavioral group than in the standard group (Mann-Whitney test, $p=.02$). Similarly, although most subjects reported they rarely or never drive after drinking, the percent reporting driving after drinking was slightly higher in the behavioral group than in the standard group (Mann-Whitney test, $p=.007$).

History of Sexual Activity and Risk Behaviors

History of sexual activity and risk behaviors at baseline are summarized in Table 3. Nearly all subjects (93%) reported using a condom at least once during sex. Twenty percent had been diagnosed with a sexually transmitted disease (STD), and most of these only once (63%) or twice (28%). The proportions for married and single (never married, separated, or divorced) subjects were nearly identical.

The sample included significant numbers of individuals who reported engaging in high-risk sexual behaviors during the past year. Two in five (42%) subjects reported having had multiple (2 or more) sex partners during the past year. There was one statistically significant between-group difference: 67% of the behavioral group traveled outside the U.S. during the past year, as compared to 76% of the standard group (chi-square test, $p=.04$). Nearly half (45%) of these travelers had sex with a new partner when outside the U.S. Thirty-nine (8%) subjects

stated they had paid someone for sex in the past year, with a range of 1 to 12 partners. Of the 279 (56%) subjects who reported having sex with a new partner in the past year, only 21% always used a condom and 39% stated they never carried condoms when going out, 41% carried them some or most of the time, and only 20% always carried them.

When married and single soldiers were compared, the incidence of high-risk sexual behaviors was generally much lower in married subjects, as would be expected, but it was still present. For example, of the married soldiers who reported living with their spouses, 16% also reported having multiple sex partners during the past year, 14% had sex with a new partner while traveling outside the U.S., and 5% paid someone for sex. For the married subjects who reported having sex with a new partner, only 18% always used a condom and 50% reported never carrying condoms when going out, 35% carried them some or most of the time, and only 16% always carried them. It appears that attitudes about condom use, as shown by reported behaviors, is very similar for married and single subjects who are engaging in high-risk sexual behaviors.

An index of sexual risk behavior was created by summing five items, recoded as follows into dichotomous categories:

Number of partners:	None/one (0), 2 or more (1)
Sex when traveling:	No travel or no sex (0), yes (1)
Paid someone for sex:	No (0), yes (1)
Use condoms with new partners:	No new partners or always (0), never/some/most of time (1)
Carry condoms when go out:	0/1 partners or always (0), 2+ partners and never/some/most of time (1)

Three other items (ever used a condom during sex, ever diagnosed with an STD, times diagnosed with an STD) were initially considered for inclusion in the summary measure, but were dropped based upon the results of the factor analyses and internal consistency reliability analyses. Details of the data reduction methods are provided in a later subsection of the Results. A summary of the final factor analysis is presented in Appendix B.2.

Coefficient alpha for the five-item "Sexual Behavior Risk Index" (SBRI) was .80. Descriptive statistics for the two HIV briefing groups at baseline are presented in Table 3. Although 45% of the entire sample scored zero, indicating the absence of sexual risk behavior, over one-third (36%) reported that they had engaged in 3 or more potentially risky sexual behaviors during the past year. At baseline the SBRI scores for the two HIV briefing groups were not significantly different (Mann-Whitney test, p=.25).

As would be expected, scores for married subjects were significantly less than those for single subjects (Mann-Whitney test, p=.001). Fifty-three percent of married soldiers scored zero, while only 16% of single soldiers indicated the absence of sexual risk behavior; on the other hand, 16% and 60%, respectively, of married and single subjects reported engaging in 3 or more potentially risky sexual behaviors during the past year. For all subjects who reported having sex with a new partner in the past year, whether single or married, only 5% indicated they engaged in no potentially risky sexual behaviors, while 65% reported engaging in 3 or more.

Perceptions of Personal Vulnerability to AIDS

Several items in the HAIQ addressed, both directly and indirectly, subjects' perceptions of their personal vulnerability to HIV and AIDS. Results at baseline are presented in Table 4; there were no statistically significant differences between the two HIV briefing groups for any of these variables (all p>.05). Most subjects did not personally know anyone who is HIV+ (82% no) or who

has AIDS (87% no). Nonetheless, 61% of the sample disagreed with the general statement, "I don't think AIDS will ever affect my own life," and nearly half (47%) expressed that they were at least somewhat worried or concerned that they will get AIDS. Nearly all subjects (88%) realized that, if infected with HIV, their bodies would not be able to fight off the AIDS virus.

The responses of married and single subjects were not different on this set of variables, with one exception; as would be expected, married soldiers were much less worried about getting AIDS (Mann-Whitney test, p=.001). It is noteworthy, however, that 36% of married soldiers (vs. 58% of single soldiers) still reported that they were somewhat or very concerned that they will get AIDS.

As noted previously, most subjects reported having had at least one AIDS class before the current HIV briefing. It is encouraging that 80% of the soldiers also indicated that they had *not* heard more than they would like about AIDS. Given that the U.S. Army program calls for annual HIV briefings, concerns that personnel are not interested in hearing more about HIV should be allayed.

Data Reduction Methods for the HAIQ Summary Scales

The HAIQ included six groups of questions, for a total of 63 items, which assessed attitudes, beliefs, and knowledge about AIDS, and behaviors related to risk of exposure to HIV. Data reduction methods were used to create ten summary scales based on a total of 50 of these items. Where necessary, items were reflected so that all items within scales were in the same direction, that is, a "higher" score is "better" or "more" of the construct being measured. Initial item selection for scales was based upon item content and inter-item association (Pearson product-moment correlations). Factor analysis (maximum likelihood with promax orthogonal and oblique rotations) was used to establish construct validity and dimensionality of the scales. Internal consistency reliability of the scales was assessed with coefficient alpha.

Items were added and deleted to the summary scales using an iterative developmental procedure based upon the results of the factor analyses and internal consistency reliability analyses, as well as consideration of the content matter of the individual items. The number of extracted factors retained and rotated was based upon a combination of Kaiser's rule of considering only eigenvalues greater than one and Cattell's scree test. With a few exceptions, individual items were retained using two criteria: (1) the item factor loading was equal to or greater than .30, a modest cutoff point indicating that the item contributed (i.e., related) to the factor extracted, and (2) coefficient alpha was not reduced by inclusion of the item in the summary scale.

The actual scale scores were created by averaging, rather than summing, the items, with the requirement that at least 80% of items be non-missing within each scale. By keeping the scale scores on the same 4-point metric as the original items, ease of interpretation is increased and direct comparisons across scales are possible.

A detailed written description of the scale development, slightly modified from the summary in the 13th Quarterly Report, is included in Appendix B.3. Summaries of the final factor analysis results are presented in Appendices B.4 through B.9. Final coefficient alphas, descriptive statistics, and correlations among the scale scores at baseline are presented in Appendix B.10, as well as in Table 7. The next two subsections of the Results provide a comparison of the two HIV briefing groups at baseline for the ten summary scales.

Attitudes, Beliefs, and Knowledge about AIDS

Means and standard deviations at baseline for the five scales assessing attitudes, beliefs, and knowledge about AIDS are presented in Table 5 for the two briefing groups and in Figure 5 for the entire sample. The items included in each scale are also presented in Table 5. There were no statistically significant differences at baseline between the two HIV briefing groups on any of these five summary scales (t-test p-values ranged from .26 to .80).

General attitudes and beliefs about AIDS (AB1) were relatively positive at baseline, with scores for both briefing groups averaging nearly 3 on the 4-point scale. Normative attitudes related to condom use (AB2) were less positive, with average responses in both groups falling at the midpoint (2.5) of the scale. Although subjects indicated that AIDS has made people more careful about who they have sex with, using condoms does not appear to be the group norm. This may partially be due to inaccurate knowledge at baseline about condoms' efficacy in reducing risk of HIV transmission; for example, 61% of the entire sample thought that it was somewhat or very likely that one could contract HIV from having sex with a person who is HIV+, even when using a condom. The lack of accurate information also extended to details about condom use, with 23% of the subjects believing that lambskin condoms work better than latex condoms in preventing HIV transmission, and 54% not knowing that oil-based lubricants can cause condoms to break.

Both groups had high scores on the two scales measuring general knowledge about AIDS (GK) and specific knowledge about high-risk transmission activities (TK2), indicating that most subjects knew the "correct" answers to the items making up these scales. These high scores yielded a compact, truncated distribution for both scales, often referred to as a "ceiling effect." Such distributions and the associated lack of variation in the scale scores limits the extent to which the variables can be expected to relate to other measures or outcomes. Analyses involving these two scales, therefore, must be interpreted carefully. Finally, both briefing groups had lower means and larger standard deviations on the scale assessing specific knowledge about low-risk transmission activities (TK1), indicating that misconceptions about HIV transmission, particularly through "casual" contact, still exist.

Prevention and Safer-Sex Behaviors

Means and standard deviations at baseline for the five scales assessing prevention and safer-sex behaviors related to risk of exposure to HIV are presented in Table 6 for the two briefing groups and in Figure 6 for the entire sample. The items included in each scale are also presented in Table 6. There were no statistically significant differences at baseline between the two HIV briefing groups on any of these five summary scales (t-test p-values ranged from .40 to .87).

Mean responses in both briefing groups fell slightly above the midpoint (2.5) for each of the five behavior scales, indicating a degree of ambivalence among the subjects at baseline for engaging in risk-reduction behaviors. With the exception of the scale assessing safer-sex information sharing (BI2), there were no ceiling effects in the behavior scales; standard deviations from .50 to .73 demonstrated a wide range of responses within both groups. The distribution of BI2, however, was bimodal with some ceiling effect. Although the overall sample mean was 2.80, the relatively large standard deviation of 0.95 was indicative of the fact that 25% of the subjects had a "perfect" scale score of 4.0, with no room for improvement. This is not surprising, given that BI2 is comprised of only three items. It is also possible that "information sharing" (i.e., "I'll tell my friends ...") is the easiest of the high-risk behaviors assessed in the questionnaire to "always" agree with. As with GK and TK2, results (or the lack thereof) involving BI2 must be interpreted carefully.

By combining all 17 questionnaire items specifically related to condom use, 12 items, comprising two scales of 9 and 3 items each, were ultimately selected. As summarized in Appendix B.3, the first factor contained 9 items that formed a scale assessing personal condom use (CU1). Because 5 of the items are included in PB1 (prevention self-efficacy) and another 3 items are in BI1 (safer-sex intentions), CU1 is highly correlated with both of these "behavior" scales, as shown in Table 7 (.79 with PB1, .81 with BI1). All analyses involving CU1, PB1, and BI1, therefore, should be interpreted accordingly. The second factor contained the same 3 items as AB2, normative attitudes related to condom use.

Correlations Among the HAIQ Summary Scales and Sexual Behavior Risk Index

At baseline, as shown in Table 7, general attitudes and beliefs about AIDS (AB1) were moderately related to general knowledge about AIDS (GK, r=.26) and specific knowledge about low-risk transmission activities (TK1, r=.36). In addition, general knowledge (GK) and specific transmission knowledge about high-risk activities (TK2) were also moderately related (r=.33), which is not surprising given that most subjects knew the correct answers to these items, as reported previously.

Although normative attitudes about condom use (AB2) were unrelated to the other attitude and knowledge scales, they were moderately related to personal condom use behaviors (CU1, r=.27) and the highly similar safer-sex intentions scale (BI1, r=.23). Otherwise, at baseline, attitudes/beliefs and knowledge about AIDS were generally unrelated to behaviors. On the other hand, all five of the prevention and safer-sex behavior scales (PB1, PB2, BI1, BI2, CU1) were moderately to strongly interrelated.

The summary index of sexual risk behavior (SBRI) was unrelated to attitudes, beliefs, and knowledge about AIDS at baseline (all correlations were near zero). The summary index did, however, demonstrate small to moderate negative correlations with the safer-sex intentions scale (BI1, r=-.31) and the related personal condom use scale (CU1, r=-.23). In other words, subjects who reported engaging in more potentially high-risk sexual behaviors also reported they were less likely to adopt safer-sex behaviors to reduce their risk of HIV infection.

Comparison of Married and Single Subjects on the HAIQ Summary Scales

Approximately half (53%) of the sample at baseline was married and the other half (47%) was single (never married, separated, or divorced). Although questionnaire items were written so that all subjects could indicate what they would do given certain scenarios that avoided the issue of marriage, there was still concern that there might be important differences between married and single subjects in attitudes, beliefs, and knowledge about AIDS, and behaviors related to risk of exposure to HIV, which might in turn influence subsequent analyses.

Comparisons of the ten HAIQ summary scale scores indicated that baseline responses for married and single subjects were nearly identical for nine of the scales. There was one statistically significant group difference on the safer-sex negotiations scale (PB2), with married subjects (mean score 2.74) indicating they were (or would be) more willing than single subjects (mean score 2.55) to discuss past and current sexual behaviors with new partners (t-test, p=.001). Although the responses of married and single soldiers appeared to be generally comparable at baseline, an indicator variable representing marital status (married/single) was used in all multiple regression analyses predicting baseline levels and change in attitudes, beliefs, knowledge, and behavioral intentions.

Summary of the Comparison of HIV Briefing Groups at Baseline

The examination of baseline homogeneity of the two HIV briefing groups on a large number of variables indicated that the groups were essentially equivalent prior to the educational briefings, providing evidence that the randomization procedure used for assigning subjects to briefing groups was successful. The three statistically significant group differences (alcohol use, driving and drinking, travel outside the U.S. during the past year) found at baseline were relatively small. Given the large number (approximately 40) of statistical comparisons performed on baseline variables, several significant tests at $p=.05$ would have been expected by chance alone. It is also important to note that there were no group differences at baseline in the ten summary scales assessing attitudes, beliefs, and knowledge about AIDS, and behaviors related to risk of exposure to HIV. All subsequent statistical analyses at baseline (pretest), therefore, were based upon the entire sample.

Section 2:
Prediction of Baseline Levels of Attitudes, Beliefs, Knowledge, and Behavioral Intentions

A series of multiple regression analyses were conducted to identify individual subject characteristics which predicted baseline levels of attitudes, beliefs, and knowledge about AIDS, and behaviors related to risk of exposure to HIV. The dependent measures were the ten HAIQ summary scales. Independent variables included demographics, health risk behaviors, sexual risk behaviors, perceptions of personal vulnerability to AIDS, and previous AIDS classes. The five attitudes, beliefs, and knowledge scales were used as independent variables when predicting AB1, AB2, GK, TK1, and TK2. In addition to these five scales, four of the prevention and safer-sex behavior scales were used as independent variables when predicting PB1, PB2, BI1, and BI2. Because CU1 (personal condom use) includes some of the items from PB1 and BI1, resulting in high correlations among these three scales, only PB2 and BI2 (safer-sex negotiations and information sharing, respectively) were included in the set of behavior variables used for predicting CU1. The sets of variables, which were described in Section 1 of the Results, are summarized in Table 8, including the recodings used in the multiple regression analyses.

Variable selection was performed using a combination of hierarchical (theory-based, researcher-determined) and stepwise (exploratory, data-determined) multiple regression analysis [27; 28; 29]. Sets (blocks) of variables (e.g., demographics) were entered into the analysis in a predetermined, hierarchical order, whereas variables *within* sets (e.g., age, education, gender) were allowed to enter in a stepwise fashion according to the amount of variance each explained in the dependent variable. The order of inclusion for the sets of variables was based upon several criteria, including their substantive role in the study and knowledge about their importance as predictors in prior research (e.g., the AIDS Risk Reduction Model) [14]. In general, simpler, less controllable, fixed variables (e.g., demographics) were entered before predictors that were less well-defined, more complex, and/or possibly open to intervention (e.g., attitudes and beliefs about AIDS).

The five sets or blocks of variables d in predicting attitudes, beliefs, and knowledge about AIDS, listed in their order of entry, included:

Block 1:	Demographics
Block 2:	Health Risk Behaviors
Block 3:	Sexual Risk Behaviors
Block 4:	Perceptions of Personal Vulnerability to AIDS / Previous AIDS Classes
Block 5:	Attitudes & Beliefs / Knowledge About AIDS Summary Scales

One additional set of variables was used in predicting behaviors related to risk of exposure to HIV:

Block 6: Prevention and Safer-Sex Behavior Summary Scales

To reduce the overall risk of committing one or more Type I errors because of the large number of independent variables potentially entering each multiple regression equation, the probability of F-to-enter at each step was set at 1% (.01), rather than the more traditional (and less conservative) 5% (.05). The risk of committing a Type II error was not unreasonably increased, however, because of the statistical power provided by the large sample size (N=407) used in each of the analyses.

Results of the multiple regression analyses for the ten HAIQ summary scales are summarized in Tables 9 through 18, including the variables entered at each step (within blocks), step change statistics, and total equation statistics. To assist in the interpretation of the results, a graphical presentation is provided for the five analyses involving the prevention and safer-sex behavior scales. All results are based on the 407 subjects with complete data on all dependent and independent variables.

Attitudes, Beliefs, and Knowledge about AIDS

A small amount (4%) of the score variation in general attitudes and beliefs about AIDS (AB1) was explained by two of the demographic variables, gender and length of military service; the signs of the beta weights indicated that the scores of female subjects and those who had been enlisted longer were slightly higher (more positive). None of the health or sexual risk behavior variables entered as predictors; this finding held true for four of the five attitudes, beliefs, and knowledge scales. Slightly more than 10% of the variance in AB1 was explained by two of the variables assessing perceptions of personal vulnerability; subjects who incorrectly thought they could fight off the AIDS virus if infected ("fight") had lower scores, whereas those who were more concerned about getting AIDS ("worry") had higher scores. Finally, subjects with more knowledge about AIDS, both in general (GK) and specifically related to low-risk transmission activities (TK1), had more positive attitudes and beliefs; TK1 predicted 10.5% of the variance in AB1, and GK predicted an additional 2%. Total R^2 for the six variables was .27 (i.e., 27% explained variance).

Virtually none of the variation in scores for condom use norms (AB2) was explained by any of the variables investigated. Only a single sexual risk behavior variable explained 2% of the variation, with individuals previously diagnosed with an STD ("hxstd") having slightly lower scores, indicating that they did not believe their peers used condoms.

As noted earlier, general knowledge about AIDS (GK) and specific knowledge about high-risk transmission activities (TK2) were moderately related, and this association held in the multiple regression analyses, with each variable predicting approximately 9% of the variation in the other. "Fight" explained a small amount (2-3%) of the variance in each variable; again, subjects who incorrectly thought they could fight off the AIDS virus had lower knowledge scores. In addition, more positive general attitudes and beliefs about AIDS (AB1) also predicted slightly higher general knowledge (4%). The few predictors and relatively small amounts of explained variance for GK (total R^2 .16) and TK2 (total R^2 .11) are not surprising, given the ceiling effects and concomitant lack of variation in these two scales as described previously.

A total of 7% of the score variation in knowledge about low-risk transmission activities (TK1) was explained by ethnicity and education, with black subjects and those with less education having slightly lower TK1 scores. Perceptions of personal vulnerability ("fight" and "worry") predicted an additional 6% of the variance, and general attitudes and beliefs (AB1) predicted another 11.5%. Total R^2 for the five variables was .25.

In summary, the separate bivariate associations observed between AB1 and TK1 and between GK and TK2 explained the most variation (approximately 10%) in these two pairs of variables. In addition, perceptions of personal vulnerability to AIDS, as defined by "fight" and "worry," explained small to moderate amounts of the variation in these four measures of attitudes, beliefs, and knowledge about AIDS. Although several of the demographic variables predicted small amounts of variance when entered first into the equations, there was no consistent pattern. With one small exception, none of the health or sexual risk behavior variables predicted baseline levels of attitudes, beliefs, and knowledge about AIDS.

Prevention and Safer-Sex Behaviors

Because of the similar patterns in the results for the five analyses involving the prevention and safer-sex behavior scales, an overall summary of the findings is provided. Individual results are shown in Tables 14 through 18. Total R^2 for the five analyses ranged from .29 for safer-sex negotiations (PB2) to .51 for safer-sex intentions (BI1).

When entered first, several of the demographic variables explained small to moderate amounts of the variation in the behavior scales. Gender explained 2% to 9% of the variance in four of the scales, with the higher scores of females indicating they were somewhat more likely to engage in risk-reduction behaviors. Ethnicity was a significant predictor (4-5% explained variation) in two of the scales (PB2 and BI2), with the higher scores of black subjects suggesting that they were more willing to discuss past and current sexual behaviors with new partners, as well as talk with friends about safer-sex practices. Age also predicted a small amount of variation (2%) in BI2, with the higher scores of older soldiers indicating they were slightly more willing to talk with friends about safer-sex. Finally, marital status predicted a small amount of variation (2%) in PB2, after controlling for ethnicity; this finding is in agreement with the previously reported significant group difference suggesting that married subjects were (or would be) slightly more willing than single subjects to discuss past and current sexual behaviors with new partners

In general, health and sexual risk behaviors were significant predictors of safer-sex intentions (BI1) and the highly related personal condom use scale (CU1), but not of any of the other behavior scales at baseline. Not surprisingly, subjects who reported they were more likely to engage in risky health behaviors (e.g., drinking and driving) and/or potentially high-risk sexual behaviors (SBRI) were less likely to adopt safer-sex behaviors (e.g., condom use) to reduce their risk of HIV infection. On the other hand, concern about getting AIDS ("worry"), normative attitudes about condom use (AB2), and general knowledge about AIDS (GK) were predictors of more positive attitudes in most of the behavior scales, with the largest amount of variance explained by this set of variables in personal condom use (15%).

The strongest predictors of behaviors, however, were other behaviors. In the analyses using safer-sex intentions (BI1) as a predictor of other behaviors (i.e., PB1, PB2, and BI2), 14% to 20% of the variance in the dependent measure was explained by this one variable alone. Similarly, in the analyses predicting safer-sex intentions (BI1) and the highly related personal condom use scale (CU1), the other behavior scales explained between 21% and 28% of the variance. Specifically, subjects' report of their intentions to discuss safer sex with friends explained 16% of the variance in their intentions to use condoms; similarly, subjects' report of

their willingness to negotiate safer-sex practices with new partners explained an additional 5% of the variance in their condom use intentions. This indicates that behaviors associated with safer sex are stronger predictors of personal risk behaviors than are attitudes and beliefs or perceptions of personal vulnerability to AIDS. Implications of this finding for intervention are reviewed in the Discussion.

Section 3:
Analysis of Change over Time in Attitudes, Beliefs, Knowledge, Behavioral Intentions, and Sexual Risk Behaviors

A series of repeated measures analyses were conducted to investigate change from before to after the HIV briefing (pretest-posttest) and stability of change over time (pretest, posttest, 6 months, 12 months) in attitudes and beliefs, knowledge, behavioral intentions, and sexual risk behaviors, both between and within HIV briefing groups.

The pretest-posttest analyses addressed the evaluation question: Does the U.S. Army's standard AIDS education program enhance attitudes and knowledge about AIDS and change behaviors related to HIV transmission? By incorporating the additional 6- and 12-month data into the analyses, a second evaluation question was addressed: Are changes (if any) in attitudes and knowledge about AIDS and behaviors related to HIV transmission maintained over time? Finally, by comparing the responses of subjects in the standard and behavioral briefings, a third evaluation question was addressed: Is a behaviorally oriented education program more effective than a standard program in changing attitudes and knowledge about AIDS and behaviors related to HIV transmission?

The 13th Quarterly Report presented the results involving the HAIQ summary scales for the pretest-posttest (entire sample, N=503) and pre-post-6 month analyses (follow-up sample, N=186). Tabled results for these analyses are contained in Appendices B.12 and B.13, respectively. Because the findings are very similar to those involving the 12-month follow-up sample, only the results for the pre-post-12 month analyses (N=328) are presented in this report. Any differences in results from the other two sets of analyses, both statistically and substantively, are presented and discussed.

The tests for change and stability of change in the ten HAIQ summary scales over time, both between and within briefing groups, were performed using repeated measures multivariate analysis of variance (MANOVA). The results are presented in Tables 19 through 28 (with a condensed summary in Appendix B.14). To assist in the interpretation of the findings, descriptive statistics and a graphical presentation of group means at each time point are also provided (including the no-briefing, "control assessment" discussed below).

The "time" effect is the overall test of change, ignoring briefing group. The "time-by-group" interaction effect is the overall test for the equality of change in the two briefing groups. Because the "time" and "time-by-group" effects involve three assessment points (i.e., 2 degrees of freedom (DF)), each overall effect was further divided into 2 single-DF contrasts to locate the source of the effect (if any). The first contrast was between pretest and posttest; the second contrast was between pretest and 12 months. To control the risk of committing a Type I error at the same level as the overall effect ($p<.05$), each contrast was evaluated at $p<.025$ (.05/2).

Because at baseline there was one statistically significant group difference between married and single subjects on the safer-sex negotiations scale (PB2), preliminary repeated measures analyses included marital status as a potential factor in the investigations of change and stability of change over time in the ten summary scales. Only two of the many between- and

within-subjects tests involving time, briefing type, and marital status demonstrated statistical significance.

First, the previously reported group difference in the safer-sex negotiations scale (PB2) between married and single subjects remained significant over time for (p=.02). The size of the difference at baseline, however, decreased at posttest and 12 months in both briefing groups (i.e., there was a significant interaction between time and marital status {p=.04}, but *not* between briefing type and marital status {p=.45} or time, briefing type, and marital status {p=.48}). Second, a significant three-way interaction between time, briefing type, and marital status was found in the general attitudes and beliefs scale (AB1, p=.02). Post-hoc contrasts indicated that the significant finding was due to a slightly larger baseline difference in married versus single subjects' scores in the behavioral briefing group that disappeared in both briefing groups at posttest and 12 months. Otherwise, there were no significant overall effects due to marital status (p=.85), the interaction of briefing type and marital status (p=.45), and the interaction of time and marital status (p=.54) in AB1.

Given the few statistically significant results involving marital status, and the fact that only one involved a small interaction with briefing type, it was decided that summary scale scores of married and single subjects were very similar, both within briefing groups and across time, and that marital status did not need to be considered as a factor in the final set of repeated measures analyses. By simplifying the analyses to focus on the primary evaluation questions of change and stability of change over time between and within the two HIV briefing groups, both statistical power and interpretability of findings were increased.

Attitudes, Beliefs, and Knowledge about AIDS

Both briefing groups showed a statistically significant increase in scores on low-risk transmission activities (TK1) at posttest and 12 months, demonstrating that change occurred between pretest and posttest and was maintained over time. The increase in TK1 scores indicated that at pretest subjects had misconceptions about the extent to which HIV is transmitted by low-risk activities, often called "casual contact" (e.g., shaking hands with or touching someone who has AIDS), and that the briefings resulted in significant increases in this transmission knowledge. The pretest-posttest gain in each group was nearly 1/2 of the baseline standard deviation in TK1, which translated into a medium effect size [29]. The pretest-posttest comparisons involving the entire sample (N=503) did find a significant time-by-group interaction effect with this scale, which further indicated that the behavioral briefing resulted in a greater increase in knowledge than the standard briefing. The actual difference between the two groups' effects, however, was small.

A statistically significant score increase for both briefing groups at posttest was also observed for general attitudes and beliefs (AB1). The difference was maintained at 12 months. The increases in AB1 were smaller than those observed for TK1; the statistical significance was most likely due to the statistical power provided by the large sample sizes.

No significant score changes were observed in general knowledge (GK) or high-risk transmission activities (TK2). The failure to observe changes with HIV briefing in these two scales reflects ceiling effects due to the high pretest scores. A significant pretest-posttest interaction was observed for GK. This was due to a small increase in GK scores for the behavioral briefing group and a concurrent small decrease in GK scores for the standard briefing group; both changes were very small and neither was significant by itself. There were no time-by-group interactions in any of the other four scales for the pre-post-6 month or pre-post-12 month analyses, indicating that change (or lack thereof) in attitudes, beliefs, and knowledge was the same in both briefing groups.

Although there was no pretest-posttest change in condom use norms (AB2), there was a statistically significant increase in both groups' scores at 6 and 12 months. This may have been due to a secular trend of changing condom use norms in the military and in society at large.

Prevention and Safer-Sex Behaviors

All five of the prevention and safer-sex behavior scales demonstrated statistically significant score increases in both briefing groups from pretest to posttest. The largest increases were shown in the two behavioral intentions scales, safer-sex intentions (BI1) and safer-sex information sharing (BI2). Two of the scales (BI1 and the highly related CU1, personal condom use) also showed statistically significant score increases from pretest to 6 months, but the increase was lost by 12 months. Only safer-sex negotiations (PB2) demonstrated increases that remained significantly above pretest scores at both 6 and 12 months, though the increases were modest. These findings suggest that behavioral changes reported shortly after the HIV briefings were generally lost over time without additional intervention.

Only personal condom use (CU1) demonstrated a statistically significant time-by-group pretest-posttest interaction effect, indicating that the reported change in behavior was greater for the behavioral briefing group. This group difference, however, was lost by 6 and 12 months. The pretest-posttest comparisons involving the entire sample (N=503) also found a significant time-by-group interaction effect with safer-sex intentions and information sharing (BI1 and BI2, respectively). In the 12-month follow-up sample of 328 subjects, these two single-degree-of-freedom interaction contrasts were significant at $p<.05$ (see Tables 26 and 27), but not at the pre-selected Bonferroni alpha of $p<.025$ for testing contrasts. The trend reflected larger increases by the behavioral briefing group on both behavioral intention scales. Once again, however, this group difference was lost by 6 and 12 months without additional intervention.

Control Assessment (No HIV Educational Briefing)

The study design could not include a no-treatment control group for ethical reasons. Data were collected, however, to establish the extent to which completing the questionnaire (i.e., measurement alone) might increase AIDS awareness and lead to changes in attitudes, beliefs, knowledge, and behavioral intentions. These data provided a useful no-treatment comparison group for the pretest-posttest changes.

The HAIQ was administered to the same group of 103 soldiers on two separate occasions, April 16 and April 23, 1990, to assess the impact of measurement alone, with no intervening briefing. This group was randomly selected from a list of units of soldiers due for their annual mandatory HIV briefing at Fort Ord; they were not included in the sample of soldiers invited to participate in the AIDS education evaluation. The group was assembled in a Fort Ord classroom solely for the purpose of administering the pretest version of the HAIQ. One week later the group again assembled, completed the posttest version of the HAIQ, and then received their mandatory HIV briefing from the health educator. This two-stage administration of the HAIQ was known as the "control assessment."

Comparison of the pre- and posttest scores on the ten HAIQ summary scales indicated there were no statistically significant changes on nine of the summary scales (matched-pair t-test p-values ranged from .26 to .94). A slight drop in scores from pretest (mean 2.91) to posttest (mean 2.82) on TK1 indicated that the control assessment subjects displayed more misinformation about low-risk sexual transmission activities after one week (m-p t-test, $p=.04$). It is possible that items on the questionnaire increased their concerns or confusion about the

transmission of AIDS through casual contact, which in turn lowered their scores. Otherwise, it appears that completing the questionnaire alone, in the absence of any specific educational briefing on HIV disease, does not increase AIDS awareness nor lead to changes in attitudes, beliefs, and knowledge, or behaviors related to risk of exposure to HIV. It is likely, therefore, that the score increases, particularly from pretest to posttest, that were reported in the previous sections could be attributed to the HIV educational briefings.

To establish comparability of the control assessment group (N=103) with the entire baseline sample (N=503), statistical tests were conducted on 35 variables, including demographics, health risk behaviors, history of sexual activity and risk behaviors, perceptions of personal vulnerability to AIDS, previous AIDS classes, and the 10 HAIQ summary scales. The results indicated that the two groups of soldiers were nearly identical at baseline. The three statistically significant ($p<.05$) group differences were: controls were slightly less likely to have ever used a condom during sex (87% vs. 93%), less likely to have had sex when traveling in the past year (15% vs. 32%), and knew slightly less about high-risk sexual transmission activities (TK2, mean 3.69 vs. 3.80). These differences were small and may have been due to chance given the large number of statistical tests performed at $p=.05$.

Sexual Risk Behaviors

A related set of analyses were conducted to investigate change in sexual risk behaviors for those 279 (56%) subjects at baseline who reported having sex with one or more new partners in the prior year. At the 6-month follow-up assessment, 43% of these soldiers reported no new sex partners in the past 6 months; this figure increased to 51% at 12 months. These changes were also reflected in the responses of the total samples at each time point: while 44% of all subjects at baseline reported no new sex partners in the past year, this increased to 62% at both 6 and 12 months (i.e., a 41% increase from baseline).

For those individuals still engaging in sex with new partners at 6 and/or at 12 months, there was a significant reduction in their overall sexual behavior risk index (SBRI, Wilcoxon matched-pair test, $p<.001$), primarily due to fewer different sex partners ($p<.001$). The percent of these subjects engaging in 3 or more potentially risky behaviors dropped from 65% at baseline to 28% at 6 months and 37% at 12 months. These changes were also reflected in the responses of the total samples at each time point: while 36% of all subjects at baseline reported engaging in 3 or more risky sexual behaviors in the past year, this decreased to 10% at 6 months and 12% at 12 months. In addition, the percent of subjects who reported they paid someone for sex dropped from 8% at baseline to 1% at both 6 and 12 months.

For those individuals still engaging in sex with new partners at 6 months, there was no change from baseline in reported frequency of condom use or of carrying condoms when going out. By 12 months, however, there was approximately a 50% increase from baseline in the percent of soldiers who reported "always" using condoms (increase from 21% to 31%) and "always" carrying condoms (increase from 20% to 32%). Similar results for condom use and carrying condoms were also found with those subjects who had not engaged in sex with new partners at baseline, but reported doing so by the 6- or 12-month assessments.

Comparisons of the behavioral and standard HIV briefing groups for each of these variables at each assessment point revealed no statistically significant differences (all $p>.05$). The responses for both briefing groups, therefore, were combined for all the analyses reported in this section.

Attrition Analysis: Comparison of 6- and 12-Month Follow-up Samples with Remaining Subjects at Baseline

One-half of the soldiers (N=256) were randomly selected from the entire sample (within each of the 16 original subject groups) for participation in the 6-month follow-up assessment. The entire sample of 503 subjects was contacted 12 months after the HIV briefings for a follow-up assessment. As previously reported in the Methods section, attrition rates for the two assessments were, respectively, 27% and 35%. Reasons for non-participation were also provided and discussed.

To establish comparability of the 6-month (N=186) and 12-month (N=328) follow-up assessment groups with the remaining subjects at baseline who did *not* participate in the 6-month (N=317) or 12-month (N=175) assessments, statistical tests were conducted on the same 35 variables described above for the no-briefing, control assessment group. Three statistically significant differences were found with the 6-month assessment group, and five differences for the 12-month group.

The three significant ($p<.05$) group differences indicated that the 6-month assessment group was: less likely to smoke now (28% vs. 37%), less likely to have had more than one STD (4% vs. 9%), and less worried or concerned about getting AIDS (41% vs. 50%). The five significant ($p<.05$) group differences indicated that the 12-month assessment group was: more likely to be male (91% vs. 82%), more likely to drink moderately or heavily (48% vs. 30%), more likely to have had two or more different sex partners in the past year (46% vs. 35%), more likely to have not always used a condom with new sex partners (48% vs. 38%), and less knowledgeable about high-risk sexual transmission activities (TK2, mean 3.77 vs. 3.86).

Although attrition rates in the 6-month and 12-month follow-up assessments were the same for both briefing groups (chi-square tests, $p=.50$ and $p=.46$, respectively), comparisons were made to see if the subjects remaining in the follow-up briefing groups had been similar at baseline, that is, to see whether or not attrition had differentially affected the original make-up of the briefing groups. Using the same 35 variables, only one statistically significant baseline difference was found between the behavioral and standard groups within the 6-month assessment subjects, and three briefing group differences were found for the 12-month subjects.

The one significant ($p<.05$) difference at baseline for the 6-month assessment subjects indicated that the percent reporting driving after drinking was slightly higher in the behavioral group than in the standard group. The three significant ($p<.05$) differences at baseline for the 12-month assessment subjects indicated that the behavioral group was: more likely to have not always used a condom with new sex partners (54% vs. 41%), more likely to drink moderately or heavily (53% vs. 42%), and more likely to report driving after drinking.

In general, these differences were not numerous and were relatively small, particularly for the 6-month follow-up sample, and, as noted previously, possibly could have been due to chance given the large number of statistical tests performed at $p=.05$. It was felt that these sets of comparisons indicated that the two follow-up assessment groups were similar to the other soldiers at baseline, that attrition had not differentially affected the two briefing groups, and that the statistical findings involving the two follow-up samples could be generalized to the original cohort of 503 subjects.

Section 4:
Prediction of Pretest-Posttest Change in Behavioral Intentions

A series of exploratory multiple regression analyses, similar to those reported in Section 2, were conducted to examine the relationships among changes in behavioral intentions following participation in the U.S. Army's AIDS education program. The analyses focussed on change from pretest (baseline) to posttest (after HIV briefing) because observed increases in scores, as discussed in Section 3, were largest between these two assessment points.

The dependent measures were the pretest-posttest change scores for the five HAIQ prevention and safer-sex behavior scales, with change calculated as posttest score minus pretest score. Independent variables included demographics, health risk behaviors, sexual risk behaviors, perceptions of personal vulnerability to AIDS, and previous AIDS classes. Change scores for the five attitudes, beliefs, and knowledge scales were used as independent variables when predicting change in the behavior scales. Change scores for four of the prevention and safer-sex behavior scales were used as independent variables when predicting change in PB1, PB2, BI1, and BI2. Because CU1 (personal condom use) includes some of the items from PB1 and BI1, only change in PB2 and BI2 (safer-sex negotiations and information sharing, respectively) were included in the set of behavior variables used for predicting change in CU1. The sets of variables were previously described in Section 1 of the Results and summarized in Table 8.

The variable selection procedure was essentially the same as that described in Section 2, again using a combination of hierarchical and stepwise multiple regression. There were several important differences, however. First, to control for subject differences at baseline, as well as for the lack of demonstrated change due to ceiling effects for subjects with high pretest and posttest scores, the pretest score was entered by itself on the first step in each analysis. Second, in a similar manner, the sets of baseline scores were entered before the sets of change scores for the HAIQ summary scales. Third, to assess the impact of HIV briefing *after* controlling for other predictor variables, an indicator variable representing type of briefing (standard/behavioral) was entered by itself on the last step of each analysis.

In summary, the sets of variables used in predicting pretest-posttest change in attitudes, beliefs, and knowledge about AIDS, listed in their order of entry, included:

Block 1:	Baseline (Pretest) Summary Scale Score
Block 2:	Demographics
Block 3:	Health Risk Behaviors
Block 4:	Sexual Risk Behaviors
Block 5:	Perceptions of Personal Vulnerability to AIDS / Previous AIDS Classes
Block 6:	Attitudes, Beliefs, and Knowledge Baseline Scores
Block 7:	Attitudes, Beliefs, and Knowledge Change Scores
Block 8:	Prevention and Safer-Sex Behavior Baseline Scores
Block 9:	Prevention and Safer-Sex Behavior Change Scores
Block 10:	HIV Briefing Type

Once again, to reduce the overall risk of committing one or more Type I errors because of the large number of independent variables potentially entering each multiple regression equation, the probability of F-to-enter at each step was set at 1% (.01). The results, summarized in Tables 29 through 33, are based on the 407 subjects with complete data on all dependent and independent variables.

Baseline scores were moderately strong predictors of change in the five prevention and safer-sex behavior scales, explaining between 10% and 19% of the score variance. As expected, the negative beta weights indicated that higher pretest scores were related to smaller change scores, and vice versa. None of the baseline demographics, health risk behaviors, or sexual risk behaviors predicted change in behavioral intentions. In addition, only one of the perceptions of personal vulnerability variables (i.e., personally knowing someone with AIDS) predicted a small amount (1.6%) of the variance in change in safer-sex negotiations (PB2).

Two of the baseline scores for attitudes, beliefs, and knowledge predicted small amounts of variation in change in behavioral intentions. General knowledge about AIDS (GK) explained 3% of the variance in change in safer-sex negotiations (PB2), and specific knowledge about high-risk transmission activities (TK2) explained 3% of the variance in change in safer-sex intentions (BI1). Positive change in general attitudes and beliefs about AIDS (AB1) predicted a small (2%) amount of the positive change in safer-sex information sharing (BI2).

A more consistent (though small) predictor of positive change in behavioral intentions, however, was positive change in general knowledge (GK), which explained between 2% and 4% of the variance in four of the behavior scales (PB2, BI1, BI2, and CU1). This is an interesting finding, given the previously reported ceiling effects and concomitant lack of variation in GK at baseline. It appears that individuals with lower GK baseline scores were more able to increase their general knowledge about AIDS (as would be expected), and that the increase was related to positive change in behavioral intentions.

Baseline scores for either safer-sex intentions (BI1) or information sharing (BI2) were also small predictors of positive change in each of the five behavior scales, explaining between 2% and 4% of the variance. Similar to the findings at baseline, the strongest predictors of change in behavioral intentions were changes in other behaviors. For example, increases in prevention self-efficacy (PB1) were predicted by positive changes in safer-sex negotiations (PB2, 7%) and intentions (BI1, 3%). Increases in the safer-sex intentions scale (BI1) and the highly related personal condom use scale (CU1) were predicted by positive changes in safer-sex information sharing (BI2, 12% and 11%, respectively) and willingness to negotiate (PB2, 6% and 7%, respectively). This provides further support for the findings at baseline indicating that behaviors (and now change) associated with safer sex are stronger predictors of personal risk behaviors (and change) than are attitudes and beliefs or perceptions of personal vulnerability to AIDS. Implications of this finding for intervention are reviewed in the Discussion.

Finally, after controlling for all other predictors, type of HIV briefing was still a significant predictor of pretest-posttest change in personal condom use scores (CU1, $p=.001$), but not for any of the other behavioral intention scales. This same effect was also found as a significant time-by-group interaction in the repeated measures analyses reported in Section 3: the change in reported behavior was greater for the behavioral briefing group, though the effect was small (2% explained variance).

Discussion

This project evaluated the U.S. Army's education program on military personnel's attitudes and knowledge about AIDS and behavioral intentions related to risk of exposure to the AIDS virus or HIV. Using a sample of male and female light infantry troops at Fort Ord, California, the project compared two approaches to AIDS education. One of these was designed to be representative of the Army-wide HIV education program which included the screening of the video "AIDS: Can I Get It?", and the other was an interactive HIV educational briefing requiring subject participation and demonstrations. The former was referred to as the standard briefing group and the latter was referred to as the behavioral briefing group.

Initial Levels of Knowledge, Attitudes, and Behavior

An important aspect of the evaluation was to determine the level of AIDS-related knowledge, attitudes, and risk behaviors in the sample of light infantry troops prior to briefing. The administration of the Health and AIDS Information Questionnaire (HAIQ) prior to the AIDS briefing indicated that the general knowledge about AIDS, including the meaning of testing negative for HIV and the fact that one can be HIV+ and look healthy, was quite high. Similarly, the sample was knowledgeable about the behaviors that convey the highest risk for HIV transmission, such as sharing needles for drug use or having unprotected sex with an HIV+ individual. The sample also indicated a high level of positive attitudes about AIDS in general. Responses from the sample indicated informed attitudes regarding such issues as willingness to visit a friend or work with a person who has AIDS. These findings of high levels of general knowledge and positive attitudes suggest that those designing AIDS education programs for samples similar to the one studied in this evaluation should place an emphasis on areas other than conveying general AIDS information. It is important to note that 83% of the sample had previous AIDS education. This figure is likely to increase in the future with the on-going education in the military and the increased adoption of AIDS education in public schools. Not only are samples knowledgeable, but repetitive instruction will result in less time devoted to issues where attention is needed.

This project indicated that there are important areas of AIDS-related knowledge and risk behaviors where education is needed. In contrast to the knowledge about behaviors that convey the highest risk for HIV transmission, the sample was either not informed or misinformed about HIV transmission with lower-risk activities, or those considered to carry no risk, such as shaking hands with, or being coughed on by someone who has AIDS. This finding suggests that AIDS education programs for samples such as the one studied here should emphasize conveying information about the extent of HIV transmission from low-risk as well as activities that carry no risk, including those often described as "casual contact."

Prior to the briefing, the sample reported engaging in considerable high-risk sexual behavior. Over 40% reported having had multiple sex partners in the previous year, including 16% of those in the sample who indicated that they were married and living with their spouses. The level of risk behavior within married individuals suggests that AIDS educators should not assume that being married is associated with being in a lower risk group. This point is underscored by the report of seroconversions in the U.S. Army population serially tested from 1985 to 1987, which showed that the risk of HIV infection was comparable among married and unmarried soldiers, especially in the older age cohorts [8]. Using the index of sexual risk developed for this study, which covered such variables as number of partners, condom use, and paying for sex, over one-third of the sample reported 3 or more potentially high-risk behaviors. Over 50% of the sample reported having sex with a new partner in the previous year, and only one-fifth of these individuals reported always using condoms when having sex with new partners. This observed level of risk behavior occurring in the presence of high levels of knowledge about transmission risk calls into question the educational theories which argue that knowledge and attitudes are important determinants of risk-related behavior (for discussion see Chesney, 1990) [30]. Moreover, these findings serve to amplify the fact that prevention of risk behavior "extends beyond imparting information to affecting individuals through influencing social norms and developing personal risk avoidance skills" (p. 118) [31].

There is evidence that the practice of safer sex, and particularly the use of condoms, is significantly influenced by social norms [32; 33]. Unlike the positive attitudes about AIDS, the sample in this study did not have positive attitudes toward condom use. In addition, subjects were asked about their perceptions of social norms regarding condom use. Their responses indicated that they do not perceive a social norm supportive of condoms. Consistent with the literature, the observed lack of a clear social norm regarding condom use was accompanied by lower scores on the personal condom use scale, which measures self-efficacy and personal intentions to use condoms.

The primary indicators of current and future risk behavior in this project were measures of behavioral intentions to practice safer sex and to use condoms. The leading correlates of these "outcomes" were not knowledge and attitudes but were behavioral variables, such as intentions to negotiate with partners or to share information about condoms with friends. These findings suggest that the education may be more effective in leading to risk reduction if it focuses on training participants to become "change agents" for the purpose of telling others about HIV risk and risk reduction strategies, including negotiating for safer sex. Such training would be most effective if it involved participants actually practicing the role of change agent. This could be effectively accomplished by using a peer as a co-instructor for AIDS education or by incorporating a peer education component in AIDS education. Innovative controlled studies of community-level interventions provide impressive support for the efficacy of using peer leaders in AIDS risk reduction [34]. Other research has demonstrated that having participants actively work to persuade others to adopt low-risk activities is one of the most effective ways to achieve attitude and behavior change in the participants who are acting as "change agents" [35]. Such an approach would also be likely to contribute to the development of positive social norms.

Individuals who reported engaging in other risk behaviors, such as not wearing seat belts or driving after drinking, were also likely to report higher-risk sexual behaviors and lower intentions to practice safer sex or use condoms. Others have observed an association between alcohol and unsafe sex, suggesting that alcohol disinhibits safer sex practices, particularly when alcohol is used during sexual encounters [36]. It has also been suggested that heavy alcohol use is a marker for individuals who engage in higher-risk behavior generally [37], and who may perceive themselves as less vulnerable [38]. Consistent with this perspective, others have found that drinking status is associated with cigarette smoking status, drug use, and drinking and driving, and inversely associated with frequency of seat belt use [24]. The findings in this project appear to support the concept that there are individuals who engage in a range of higher-risk behaviors, including unsafe sex. First, lower intentions to practice safer sex or to use condoms was associated with two health-risk behaviors: driving after drinking and not using seat belts. Second, the associations observed were between current reports of seat belt use or driving after drinking, and intentions regarding unsafe sex, which involve projecting future activity. These associations between other health behaviors and higher-risk sexual behavior have implications for AIDS education. Specifically, AIDS education should be integrated into Health Risk Appraisal education programs, as well as any programs focusing on individuals who are cited for driving after drinking or failing to use a seat belt.

The Effect of Briefings on Change

The two types of briefings resulted in marked increases in knowledge, attitudes, and behavioral intentions from the pretest to the posttest, which was administered immediately following the briefing. Some of these increases are particularly noteworthy. As noted in the previous section, prior to the briefings, the sample was either not informed or misinformed about HIV transmission risk with lower-risk activities, including those often considered as "casual contact." Participating in either of the briefings led to significant increases in this domain of transmission knowledge. Although all of the prevention behavior and behavioral intention scales showed significant increases with the briefings, the largest increases were seen in intentions to engage in safer sex and to discuss safer sex with others. These improvements are important because they comprise critical elements in personal risk-avoidance strategies such as intentions to use condoms.

As noted previously, the primary indicators of current and future risk behavior in this project were behavioral intentions to practice safer sex and to use condoms. Prior to the briefing, the leading correlates of these "outcomes" were behavioral variables, such as intentions to negotiate with partners or to share information about condoms with friends. An important question addressed by the project was whether changes in these correlates would also be associated with changes in the safer sex "outcomes." The results not only indicate that this is the case, but suggest a model in which changes in intentions to negotiate with partners or to share information about condoms with friends lead to changes in self-efficacy to engage in personal risk reduction. Changes in prevention self-efficacy, in turn, are associated with the intention to engage in safer-

sex practices. The analyses support a similar model for changes in intentions regarding personal condom use, that is, a model in which changes in intentions to negotiate with partners or to share information about condoms with friends are associated with changes in personal intentions to use condoms. Knowledge plays a modest role in these models, at the beginning, in so far as general knowledge is a prerequisite for information-sharing and negotiating with partners.

More changes were observed in the measures of behavioral intentions and prevention behaviors than in the measures of knowledge and attitudes. This difference between the two types of measures reflected the fact that the sample studied was well-informed about general AIDS knowledge and about behaviors that convey the highest risk of HIV transmission. As such, the scales measuring changes in these areas of knowledge could not register increased knowledge following the briefing. One of the attitude scales was designed to assess the participants' perceptions of social norms regarding condom use. This scale also failed to show a change immediately following the briefing. This would be expected since perceived social norms reflect the participant's view of prevailing social behavior, which is not likely to change in a single, one-time briefing.

The 6- and 12-month follow-up assessments were included to examine the extent to which changes were maintained over time and to provide information as to the frequency with which AIDS briefings should be conducted. Unfortunately, most of the significant increases in knowledge, attitudes, and behavioral intentions resulting from the briefings were lost in the 6 and 12 months following the briefings. Several of the changes were maintained, however. These included the increase in knowledge about HIV transmission with lower-risk activities and intentions to negotiate with partners for safer sex. The two primary "outcomes" (i.e., intentions to practice safer sex and personal intentions to use condoms) maintained their improvements at 6 months but the increases were lost by 12 months. One particularly encouraging change was observed in the measure of social norms regarding condom use. Although no immediate changes were observed in this scale at the time of the briefing, significant increases in perceived social norms supporting the use of condoms were reported at both 6 and 12 months, perhaps reflecting a prevailing change in social norms consistent with the use of condoms. As noted above, such changes can be particularly important in providing a social environment supportive of individual risk-avoidance strategies.

The failure to maintain changes over the 6- and 12-month intervals following the briefings has implications for the frequency of AIDS educational activities. Considering that the target of these educational efforts are long-standing personal preferences, pleasurable and private behaviors, it may be presumptuous to assume that lasting change could be achieved in brief 90-minute sessions, once every one or two years. In other educational efforts, considerable time is spent to train individuals to make changes in far less pleasurable and private behaviors. Programs to modify other health behaviors and habits are often extended over time, offering participants opportunities to practice engaging in newly acquired behaviors, and returning to obtain further instructions and problem-solve difficulties that were encountered. It is likely that lasting changes in the sexual practices needed in order to reduce the risk of HIV transmission will, at a minimum, require additional brief training sessions to provide participants with opportunities to acquire feedback, reinforcement, and the problem-solving necessary to develop personalized risk avoidance skills. Given the importance of behavioral variables such as intentions to negotiate with partners or to share information about condoms with friends, any more frequent educational activities should consider incorporating peer education components with a focus on training participants to become risk-reduction "change agents."

The results are notably encouraging with regard to changes in high-risk behaviors. The briefings were particularly successful in reducing the prevalence of high-risk activities. Specifically, prior to the briefings, 279 or 56% of the sample reported having had sex with a new partner in the previous year. Of these, only 21% reported always using condoms when having sex with a new partner. By 12 months, there had been a 32% reduction in the number of individuals who had sex with a new partner, and among those that did, there was a 50% increase in the number reporting always using condoms. Similarly, prior to briefing, among those who were having sex with new partners, only 20% reported always carrying condoms. By 12 months after the briefing, of those

who reporting having sex with new partners, there was a 50% increase among those who reported always carrying condoms. The index of sexual risk developed for this study, which covered such variables as number of partners, condom use, and paying for sex, showed that over 36% of the sample reported 3 or more potentially high-risk behaviors prior to the briefing. By 12 months, only 12% of the sample reported this level of high-risk behaviors. In addition, the percent of subjects who reported they paid someone for sex dropped from 8% at baseline to 1% at both 6 and 12 months. These results indicate that the briefings were effective in contributing to change and the maintenance of change in self-reported high-risk behavior over a 12-month period.

The Relative Efficacy of Behavioral and Standard Briefings

In general, there were few differences between the standard and behavioral briefings in their effect on changes in knowledge, attitudes, behavioral intentions, and practice of high risk behaviors. This is consistent with a recently reported review of the literature comparing video with other methods of education [39]. It is important to note one exception to this overall pattern of little differences between the groups, an exception that involved one of the primary "outcomes" of the project: those who participated in the behavioral briefing group showed significantly greater changes in the personal condom use scale than those who were given the standard briefing. In addition, the increases in knowledge regarding HIV transmission with lower-risk behaviors were also significantly higher in the behavioral than the standard briefing group. In no case was the standard briefing group superior to the behavioral briefing group. In fact, where there were trends toward significant differences between the two groups, as was the case with behavioral intentions to practice safer sex and to share information about HIV with friends, the increases were larger in the behavioral briefing group. These findings have implications for choosing between the standard and behavioral approaches to HIV briefings. Specifically, while there are few differences between the two strategies, the fact that the behavioral briefing group showed greater increases in personal condom use and trends toward greater increases in the other risk-reducing behavioral intentions, and the fact that the standard briefing group failed to show any evidence of superiority, suggests that, where possible, behavioral briefing approaches should be considered.

These findings are further supported by the participants' feedback about the HIV briefings. At the 12-month assessment, subjects were asked to comment of the research project and on the Army's AIDS briefings. As shown in Figures 7 and 8, nearly all soldiers (86%) preferred a briefing with both a video and a presentation by a medical person, and a majority (66%) felt the briefings should be conducted twice a year.

Limitations of the Current Study

Certain limitations should be kept in mind when interpreting the findings from this project. Specifically, it was carried out at one installation -- Fort Ord, California -- and involved only light infantry. The findings may not generalize to other installations or other individuals. Between the time of evaluation of the education programs with the pretest, briefings, posttest, and the follow-up assessments, the United States was engaged in the war in the Persian Gulf. There is no way to evaluate the effect that this conflict, given the travel it involved and the stresses that it created, had on the failure to see greater maintenance of the changes that were observed immediately following the briefing. The assessment of knowledge, attitudes, and behaviors in this project is based on self-report, rather than direct behavioral observation or incidence of seroconversion. Such measures were beyond the scope of this project. However, recent studies do provide reassurance that some degree of confidence can be placed in the reliability and validity of self-reported sexual behaviors [40; 41].

Summary of Implications and Recommendations

The results of this project, discussed in the foregoing section, lead to the following implications and recommendations regarding AIDS education in the U.S. Army:

1. AIDS education programs for samples similar to that studied in this evaluation should limit the time devoted to teaching general HIV-related information, educating groups about the highest-risk behaviors, and attempting to engender positive attitudes about AIDS. In groups where the existing level of general knowledge is already high, re-educating participants reduces the time that can be devoted to developing personal risk-avoidance skills.

2. To the extent that AIDS education programs do address knowledge and attitudes, the emphasis should be on conveying information about the risk of HIV transmission for lower-risk behaviors and those considered to carry no risk, such as casual contact.

3. Continued high-risk behavior can be expected even if populations are knowledgeable and have informed attitudes about AIDS. Educational efforts need to focus on factors associated with changes in behavioral intentions.

4. Educational programs should target changing the prevailing social norms regarding risk reduction, particularly the use of condoms. Personal intentions to use condoms are significantly influenced by the prevailing social norms concerning condom use.

5. Educational programs should concentrate on training participants to become "change agents" who would be able to tell their friends about AIDS and HIV-disease. This training should include actual rehearsal of teaching others about risk-reducing behaviors, including negotiating for safer sex.

6. Individuals should participate in AIDS education activities regardless of marital status, given the evidence that some married individuals continue to engage in high-risk activities. The educational approach that involves training individuals to be "change agents" and emphasizes teaching others to practice safe sex may be a particularly effective way of making AIDS education personally relevant to all participants, including those who are married.

7. Consideration should be given to involving peer leaders in AIDS education. These individuals would serve as role models for "change agents" and would escalate the likelihood of changing social norms to support risk reduction.

8. AIDS education should be integrated into broader health education programs including those involving Health Risk Appraisal, given the evidence suggesting that individuals who do not practice general good health behaviors may also be less likely to practice behaviors that reduce their risk of exposure to HIV.

9. Behavioral briefings should be implemented whenever possible, given the evidence that this type of briefing was associated with increased self-efficacy and personal intentions to use condoms.

10. AIDS education programs should not be limited to single sessions on a yearly or bi-yearly schedule. Additional brief training sessions are needed in order to provide participants with opportunities to acquire feedback and reinforcement, and to problem-solve difficulties encountered when they attempted to implement personalized risk-avoidance skills. These educational activities could also incorporate peer education components with a focus on training participants to assist others in risk-reduction problem-solving.

11. Further educational programs should be designed to test the model suggested by the results of this project. Specifically, this model proposes that changes in intentions to negotiate with partners or to share information about condoms with friends lead to changes in self-efficacy to engage in personal risk reduction. Changes in prevention self-efficacy, in turn, lead to changes in personal intentions to engage in safer-sex practices.

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Tables

Table 1: Demographic Characteristics and Prior AIDS Education at Baseline

	Behavioral Group (N=251-256)*	Standard Group (N=245-247)*	Entire Sample (N=496-503)*
Age (yrs)			
Mean (SD)	26.8 (6.1)	27.7 (6.7)	27.2 (6.4)
Range	17 - 48	18 - 48	17 - 48
Education (yrs)			
Mean (SD)	13.1 (1.6)	12.9 (1.5)	13.0 (1.5)
Range	9 - 17	10 - 17	9 - 17
< 12	3%	4%	4%
HS grad	51	55	53
Some college	33	28	31
College grad	10	11	10
> 16	3	1	2
Gender			
Male	86%	90%	88%
Female	14	10	12
Ethnicity			
Asian	2%	2%	2%
Black	30	30	29
Latino/Hispanic	10	7	9
Native American	2	1	1
White	54	57	55
Other	2	4	3
Marital status			
Never married	42%	36%	39%
Separated	1	4	3
Divorced	5	6	6
Widowed	0	0	0
Married	52	53	53

* Sample size (N) varies slightly across variables because of missing data.

NOTE: No statistically significant differences between briefing groups (all $p > .05$).

Table 1: (continued)

	Behavioral Group (N=251-256)*	Standard Group (N=245-247)*	Entire Sample (N=496-503)*
Length of service (yrs)			
Mean (SD)	6.2 (5.8)	6.8 (6.3)	6.5 (6.1)
Median	4	4	4
Range	.1 - 24.8	.3 - 28.5	.1 - 28.5
Grade			
Enlisted	86%	89%	88%
Warrant Officer	2	3	2
Officer	11	7	9
Previous AIDS classes			
No	15%	19%	17%
Yes	85	81	83

* Sample size (N) varies slightly across variables because of missing data.

NOTE: No statistically significant differences between briefing groups (all $p > .05$).

Table 2: Health Risk Behaviors at Baseline

	Behavioral Group (N=256)*	Standard Group (N=243-247)*	Entire Sample (N=499-503)*
Rating of overall health			
Poor	0%	0%	0%
Fair	5	6	5
Good	60	55	57
Excellent	36	39	37
Cigarette smoking history			
Smoker now	33%	35%	34%
Used to smoke	16	18	17
Never smoked	52	48	50
Alcohol use (ounces/day) **			
Mean (SD)	.45 (.80)	.40 (.61)	.43 (.71)
Median	.23	.14	.21
Range	0 - 10.34	0 - 3.57	0 - 10.34
None (0)	25%	39%	32%
Light (>0-.32)	29	24	26
Moderate (.32-.96)	34	27	31
Heavy (>.96)	12	9	11
Driving and drinking **			
Always	0%	0%	0%
Usually	<1	1	1
Sometimes	9	4	6
Rarely	29	22	26
Never	62	73	67
Seat belt use			
Never	0%	1%	1%
Rarely	6	7	6
Sometimes	11	6	8
Usually	21	26	23
Always	63	61	62

* Sample size (N) varies slightly across variables because of missing data.

** Statistically significant difference between briefing groups (Mann-Whitney test, $p<.05$).

Table 3: History of Sexual Activity and Risk Behaviors at Baseline

	Behavioral Group (N=253-256)*	Standard Group (N=243-247)*	Entire Sample (N=496-503)*
Sexual Behavior Risk Index (SBRI -- sum of 5 recoded (0/1) items)			
Mean (SD)	1.65 (1.69)	1.51 (1.69)	1.58 (1.69)
0	41%	49%	45%
1	14	7	11
2	7	9	8
3	20	15	17
4	13	17	15
5	5	2	4
Ever used a condom during sex?			
No	7%	7%	7%
Yes	93	93	93
Ever been diagnosed with STD?			
No	79%	81%	80%
Yes	21	19	20 (N=98)
IF YES (total N=98): Times diagnosed with STD			
1	67%	60%	63%
2	24	32	28
3 or more	10	9	9
Number of different sex partners in past year			
None	4%	6%	5%
One	52	55	53
2-4	30	25	27
5-9	11	9	10
10-15	2	2	2
More than 15	2	2	2

* Sample size (N) varies slightly across variables because of missing data.

NOTE: No statistically significant differences between briefing groups (all $p>.05$).

Table 3: (continued)

	Behavioral Group (N=253-256)*	Standard Group (N=243-247)*	Entire Sample (N=496-503)*
Travel outside U.S. during past year? **			
No	33%	24%	29%
Yes	67	76	71 (N=353)
IF YES (total N=353): Sex with new partner when outside U.S.?			
No	55%	56%	55%
Yes	45	44	45
Paid someone for sex in past year?			
No	91%	93%	92%
Yes	9	7	8 (N=38)
IF YES (total N=38): Number of partners paid for sex.			
1	23%	44%	32%
2	27	13	21
3	14	31	21
4	9	0	5
5 or more	27	13	21
How often use condom with new sex partner in past year?			
No new partners	39%	49%	44%
IF new partners (total N=279)			
Never	28%	29%	29%
Some of the time	27	28	28
Most of the time	24	22	23
Always	21	20	21
How often carry condoms when go out?			
IF new partners (total N=279)			
Never	37%	42%	39%
Some of the time	31	23	27
Most of the time	12	15	13
Always	20	20	20

* Sample size (N) varies slightly across variables because of missing data.

** Statistically significant difference between briefing groups (Chi-square test, $p<.05$).

Table 4: Perceptions of Personal Vulnerability to AIDS at Baseline

	Behavioral Group (N=253-255)*	Standard Group (N=242-247)*	Entire Sample (N=495-502)*
Have you personally known anyone HIV+?			
No	82%	83%	82%
Yes	18	17	18
Have you personally known anyone with AIDS?			
No	86%	87%	87%
Yes	14	13	13
How worried or concerned are you that you will get AIDS?			
Not at all worried	14%	15%	15%
Not too worried	41	36	39
Somewhat worried	33	35	34
Very worried	12	13	13
I have already heard more than I want to hear about AIDS.			
Strongly disagree	29%	35%	32%
Disagree	52	43	47
Agree	14	15	14
Strongly agree	5	7	6
I don't think AIDS will ever affect my own life.			
Strongly disagree	14%	20%	17%
Disagree	46	41	44
Agree	32	34	33
Strongly agree	8	5	6
If infected, my body would be able to fight off the AIDS virus.			
Strongly disagree	51%	53%	52%
Disagree	37	34	36
Agree	10	11	11
Strongly agree	2	2	2

* Sample size (N) varies slightly across variables because of missing data.

NOTE: No statistically significant differences between briefing groups (all $p > .05$).

Table 5: HAIQ Summary Scales for Attitudes, Beliefs, and Knowledge about AIDS at Baseline

			Behavioral Group			Standard Group		
			N	Mean	SD	N	Mean	SD
AB1	General Attitudes and Beliefs		255	2.94	0.47	245	2.96	0.48
Items	NEWS	News reports on AIDS cannot be trusted. *						
	QUARAN	People infected with AIDS virus should be quarantined. *						
	INFO	I've already heard more than I want about AIDS. *						
	VISIT	If a friend had AIDS I would still visit.						
	DESERVE	People with AIDS deserve the disease. *						
	AFFECT	I don't think AIDS will ever affect my own life. *						
	BIWORK	I would work with a person who is HIV+.						
AB2	Condom Use Norms		249	2.54	0.59	237	2.52	0.57
Items	SNORM1	Most of my friends who have sex with different partners use condoms.						
	SNORM2	A lot of people my age use condoms.						
	SNORM3	Most of my friends think that condoms are too much of a hassle to use. *						
GK	General Knowledge		256	3.49	0.35	247	3.52	0.35
Items	FUTURE	Once told not have AIDS virus, no need to worry about catching in future. *						
	TESTNEG	If test negative for HIV antibody, not have to be concerned with safer sex. *						
	REDUCE	Reducing number of sexual partners will reduce risk for getting AIDS virus.						
	NEEDLE1	Sharing needles for drug use with friends can put at risk ...						
	NEEDLE2	Sharing needles for drug use with strangers can put at risk ...						
	LKGOOD	You can be infected with the AIDS virus and look healthy.						
	FTRANS	Women can *not* pass the AIDS virus to male sex partners. *						
	ORALSEX	You can get the AIDS virus from oral sex.						
	MORTAL	If you have AIDS, chances you will die from it are very high.						
	ONETIME	It is possible to catch the AIDS virus from having unsafe sex even one time.						
TK1	Transmission Knowledge: Low Risk Activities		256	2.88	0.55	245	2.86	0.59
Items	TRANS1	Receiving a blood transfusion in the U.S. *						
	TRANS2	Donating or giving blood in the U.S.*						
	TRANS3	Eating in a restaurant where the cook has AIDS. *						
	TRANS4	Shaking hands with or touching someone who has AIDS. *						
	TRANS6	Being coughed or sneezed on by someone who has AIDS. *						
	TRANS7	Mosquitos or other insects. *						
	TRANS8	Kissing a person who has AIDS with exchange of saliva. *						
TK2	Transmission Knowledge: High Risk Activities		255	3.81	0.44	246	3.79	0.48
Items	TRANS5	Sharing needles for drug use with someone who has the AIDS virus.						
	TRANS10	Having sex with a person who has the AIDS virus, *not* using a condom.						
	TRANS11	A pregnant woman who has the AIDS virus can give it to her baby.						

* Item reversed before being added to summary scale.

NOTE 1: Individual items and summary scale scores ranged from 1 to 4; higher scores are "better."
NOTE 2: No statistically significant differences between briefing groups (all $p > .05$).

Table 6: HAIQ Summary Scales for Prevention and Safer-Sex Behaviors at Baseline

			Behavioral Group			Standard Group		
			N	Mean	SD	N	Mean	SD
PB1	Prevention Self-Efficacy		253	2.59	0.50	242	2.56	0.51
Items	FJCOND1	Sex with a condom doesn't feel as good to a man. *						
	FJLIMIT	If I were single, it would be hard to limit the number of sexual partners. *						
	FJAWK1	Having to stop sex to put on a condom takes the fun out of sex. *						
	NOCNDM	If sex partner does not want to use condoms, there is little I can do about it. *						
	FJCOND2	Sex with a condom doesn't feel as good to a woman. *						
	FJNOSEX	If I were single, it would be hard to just stop having sex. *						
	FJSAFE	In the heat of passion with a new sex partner, hard to stop to use a condom. *						
PB2	Safer-Sex Negotiations		253	2.64	0.61	241	2.65	0.62
Items	DISCUSS	Before sex with a new partner, I would discuss AIDS protection with them. *						
	FJNREL	It would be hard to ask a new sex partner about their past sexual behaviors. *						
	FJKNOW	I don't know how to bring up subject of past sexual behaviors with new ... *						
BI1	Safer-Sex Intentions		253	2.67	0.74	242	2.68	0.73
Items	BIFREQ	Before sex with new partner, I'd ask about number of previous sex partners.						
	BIUSE	Before sex with new partner, I'd ask how they feel about using condoms.						
	BINEW1	I'd use a condom with a new sex partner I really liked.						
	BINEW2	I'd use a condom with a new sex partner I liked but who isn't that special.						
	BICHG	If I found I was practicing unsafe sex, I would change to safer sex.						
	BIDRUGS	Before sex with new partner, I'd ask about their use of drugs.						
	BIDRUNK	If I'm too drunk or high to have safer sex, I won't have sex at all.						
BI2	Safer-Sex Information Sharing		253	2.76	0.98	244	2.83	0.92
Items	BILEARN	I'll tell my friends to learn more about AIDS.						
	BISAFE	I'll tell my friends to practice safer sex.						
	BICARRY	I'll tell my friends to carry condoms.						
CU1	Personal Condom Use (contains condom-related items from PB1, BI1, and BI2)		253	2.68	0.58	244	2.67	0.55
Items	FJCOND1	Sex with a condom doesn't feel as good to a man. *						
	FJAWK1	Having to stop sex to put on a condom takes the fun out of sex. *						
	NOCNDM	If sex partner does not want to use condoms, there is little I can do about it. *						
	FJCOND2	Sex with a condom doesn't feel as good to a woman. *						
	FJSAFE	In the heat of passion with a new sex partner, hard to stop to use a condom. *						
	BIUSE	Before sex with new partner, I'd ask how they feel about using condoms.						
	BINEW1	I'd use a condom with a new sex partner I really liked.						
	BINEW2	I'd use a condom with a new sex partner I liked but who isn't that special.						
	BICARRY	I'll tell my friends to carry condoms.						

* Item reversed before being added to summary scale.

NOTE 1: Individual items and summary scale scores ranged from 1 to 4; higher scores are "better."
NOTE 2: No statistically significant differences between briefing groups (all $p > .05$).

Table 7: Coefficient Alphas, Descriptive Statistics, and Correlations Among the HAIQ Summary Scales and Sexual Behavior Risk Index at Baseline

	Attitudes, Beliefs, and Knowledge					Prevention and Safer-Sex Behaviors					
	AB1	AB2	GK	TK1	TK2	PB1	PB2	BI1	BI2	CU1	SBRI
Alpha	.66	.71	.73	.76	.60	.76	.68	.82	.87	.80	.80
# Items	7	3	10	7	3	7	3	7	3	9	5
N	500	486	503	501	501	495	494	495	497	497	500
Mean	2.94	2.53	3.51	2.87	3.80	2.58	2.65	2.68	2.80	2.68	1.58
SD	0.48	0.58	0.35	0.57	0.45	0.51	0.61	0.73	0.95	0.57	1.69

	AB1	AB2	GK	TK1	TK2	PB1	PB2	BI1	BI2	CU1	SBRI
AB1	100										
AB2	-3	100									
GK	*26	-3	100								
TK1	*36	2	14	100							
TK2	6	0	*33	2	100						
PB1	*21	18	8	8	2	100					
PB2	6	9	6	-12	4	*32	100				
BI1	13	*23	14	0	11	*51	*48	100			
BI2	16	13	15	-13	7	*28	*33	*50	100		
CU1	*21	*27	*20	6	10	*79	*39	*81	*53	100	
SBRI	2	-3	-3	-8	-6	-15	-15	*-31	-13	*-23	100

NOTE: Pearson product-moment correlations are based on 479 observations with complete data. Printed values are multiplied by 100 and rounded to nearest integer. Absolute values >= .20 have been flagged by an * ($p<.0001$).

Scales:
- AB1 General Attitudes and Beliefs
- AB2 Condom Use Norms
- GK General Knowledge
- TK1 Transmission Knowledge: Low Risk Activities
- TK2 Transmission Knowledge: High Risk Activities

- PB1 Prevention Self-Efficacy
- PB2 Safer-Sex Negotiations
- BI1 Safer-Sex Intentions
- BI2 Safer-Sex Information Sharing
- CU1 Personal Condom Use

- SBRI Sexual Behavior Risk Index (range 0-5, higher score is "worse" or "more risk")

Table 8: Sets of Variables Used in the Multiple Regression Analyses Involving the HAIQ Scale Scores

Attitudes & Beliefs / Knowledge About AIDS Summary Scales (range 1-4, higher score is "better")

AB1	General Attitudes and Beliefs
AB2	Condom Use Norms
GK	General Knowledge
TK1	Transmission Knowledge: Low Risk Activities
TK2	Transmission Knowledge: High Risk Activities

Prevention and Safer-Sex Behavior Summary Scales (range 1-4, higher score is "better")

PB1	Prevention Self-Efficacy
PB2	Safer-Sex Negotiations
BI1	Safer-Sex Intentions
BI2	Safer-Sex Information Sharing
CU1	Personal Condom Use

Demographics

AGE	Age (range 17-48)
EDUC	Highest year of school completed (range 9-17)
GENDER	Gender (0=female, 1=male)
ETHNIC	Ethnicity (0=non-black, 1=black)
MARITL	Marital status (0=married and live w/ spouse, 1=not married or live w/o spouse)
SERVIC	Number years since enlistment (range 0-29)

Health Risk Behaviors (higher score is "worse" or "more risk")

SMOKE	Smoking history (0=never smoked, 1=used to smoke but not now, 2=smoker now)
DRINK	Alcohol use (0=none [0 oz/day], 1=light [>0-.32 oz/day], 2=moderate [.32-.96 oz/day], 3=heavy [>.96 oz/day])
DRIVE	Driving and drinking (0=never, 1=rarely, 2=sometimes/usually/always)
BELTS	Seat belt use (0=always, 1=usually, 2=sometimes/rarely/never)

Sexual Risk Behaviors (higher score is "worse" or "more risk")

SBRI	Sexual Behavior Risk Index (range 0-5)
HXSTD	Ever diagnosed with STD? (0=no, 1=yes)
FRQSTD	Number of STDs (0=none/one, 1=two or more)

Perceptions of Personal Vulnerability to AIDS

KNOHIV	Have you known anyone HIV+? (0=no, 1=yes)
KNOPWA	Have you known anyone with AIDS? (0=no, 1=yes)
WORRY	How worried or concerned that you will get AIDS? (1=not at all, 4=very)
FIGHT	My body would be able to fight off AIDS virus. (1=strongly disagree, 4=strongly agree)

Previous AIDS Classes

AIDSED	Previous AIDS classes? (0=no, 1=yes)

HIV Briefing Type

BRIEF	HIV briefing type (0=standard, 1=behavioral)

Table 9: Summary of Multiple Regression Analysis Predicting "General Attitudes and Beliefs" (AB1) at Baseline (N=407)

		Step Change			Total Equation		
Step	Variable	R^2 Step	Stand. Beta	P	R^2 Total	Adj. R^2 Total	P
Block 1: Demographics (stepwise entry)							
1	GENDER	.020	-.142	.004	.020	.018	.004
2	SERVIC	.020	.144	.004	.040	.035	.000
Block 2: Health Risk Behaviors (stepwise entry)							
	NONE						
Block 3: Sexual Risk Behaviors (stepwise entry)							
	NONE						
Block 4: Personal Vulnerability / Previous AIDS Classes (stepwise entry)							
3	FIGHT	.076	-.276	.000	.116	.110	.000
4	WORRY	.027	.166	.000	.143	.135	.000
Block 5: Attitudes & Beliefs / Knowledge (stepwise entry)							
5	TK1	.105	.337	.000	.248	.239	.000
6	GK	.020	.146	.000	.268	.257	.000

NOTE: To reduce risk of committing Type I errors, probability of F-to-enter at each step set at $p<.01$.

Table 10: Summary of Multiple Regression Analysis Predicting "Condom Use Norms" (AB2) at Baseline (N=407)

		Step Change			Total Equation		
Step	Variable	R^2 Step	Stand. Beta	P	R^2 Total	Adj. R^2 Total	P
Block 1: Demographics (stepwise entry)							
	NONE						
Block 2: Health Risk Behaviors (stepwise entry)							
	NONE						
Block 3: Sexual Risk Behaviors (stepwise entry)							
1	HXSTD	.019	-.139	.005	.019	.017	.005
Block 4: Personal Vulnerability / Previous AIDS Classes (stepwise entry)							
	NONE						
Block 5: Attitudes & Beliefs / Knowledge (stepwise entry)							
	NONE						

NOTE: To reduce risk of committing Type I errors, probability of F-to-enter at each step set at $p<.01$.

Table 11: Summary of Multiple Regression Analysis Predicting "General Knowledge" (GK) at Baseline (N=407)

Step	Variable	Step Change R^2 Step	Stand. Beta	P	Total Equation R^2 Total	Adj. R^2 Total	P
Block 1: Demographics (stepwise entry)							
	NONE						
Block 2: Health Risk Behaviors (stepwise entry)							
	NONE						
Block 3: Sexual Risk Behaviors (stepwise entry)							
	NONE						
Block 4: Personal Vulnerability / Previous AIDS Classes (stepwise entry)							
1	FIGHT	.033	-.182	.000	.033	.031	.000
Block 5: Attitudes & Beliefs / Knowledge (stepwise entry)							
2	TK2	.092	.307	.000	.125	.121	.000
3	AB1	.039	.205	.000	.164	.158	.000

NOTE: To reduce risk of committing Type I errors, probability of F-to-enter at each step set at $p<.01$.

Table 12: Summary of Multiple Regression Analysis Predicting "Transmission Knowledge: Low Risk Activities" (TK1) at Baseline (N=407)

Step	Variable	Step Change R^2 Step	Stand. Beta	P	Total Equation R^2 Total	Adj. R^2 Total	P
Block 1: Demographics (stepwise entry)							
1	ETHNIC	.054	-.233	.000	.054	.052	.000
2	EDUC	.021	.144	.003	.075	.070	.000
Block 2: Health Risk Behaviors (stepwise entry)							
	NONE						
Block 3: Sexual Risk Behaviors (stepwise entry)							
	NONE						
Block 4: Personal Vulnerability / Previous AIDS Classes (stepwise entry)							
3	FIGHT	.043	-.207	.000	.117	.111	.000
4	WORRY	.021	-.147	.002	.138	.130	.000
Block 5: Attitudes & Beliefs / Knowledge (stepwise entry)							
5	AB1	.115	.364	.000	.253	.244	.000

NOTE: To reduce risk of committing Type I errors, probability of F-to-enter at each step set at $p<.01$.

Table 13: Summary of Multiple Regression Analysis Predicting "Transmission Knowledge: High Risk Activities" (TK2) at Baseline (N=407)

		Step Change			Total Equation		
Step	Variable	R^2 Step	Stand. Beta	P	R^2 Total	Adj. R^2 Total	P
Block 1: Demographics (stepwise entry)							
	NONE						
Block 2: Health Risk Behaviors (stepwise entry)							
	NONE						
Block 3: Sexual Risk Behaviors (stepwise entry)							
	NONE						
Block 4: Personal Vulnerability / Previous AIDS Classes (stepwise entry)							
1	FIGHT	.019	-.138	.005	.019	.017	.005
Block 5: Attitudes & Beliefs / Knowledge (stepwise entry)							
2	GK	.094	.311	.000	.113	.108	.000

NOTE: To reduce risk of committing Type I errors, probability of F-to-enter at each step set at $p<.01$.

Table 14: Summary of Multiple Regression Analysis Predicting "Prevention Self-Efficacy" (PB1) at Baseline (N=407)

Step	Variable	Step Change R^2 Step	Stand. Beta	P	Total Equation R^2 Total	Adj. R^2 Total	P
Block 1: Demographics (stepwise entry)							
1	GENDER	.088	-.297	.000	.088	.086	.000
Block 2: Health Risk Behaviors (stepwise entry)							
2	DRIVE	.022	-.150	.002	.110	.106	.000
Block 3: Sexual Risk Behaviors (stepwise entry)							
	NONE						
Block 4: Personal Vulnerability / Previous AIDS Classes (stepwise entry)							
	NONE						
Block 5: Attitudes & Beliefs / Knowledge (stepwise entry)							
3	AB1	.039	.200	.000	.150	.143	.000
4	AB2	.033	.184	.000	.183	.175	.000
Block 6: Prevention and Safer-Sex Behaviors (stepwise entry)							
5	BI1	.151	.417	.000	.334	.336	.000

NOTE: To reduce risk of committing Type I errors, probability of F-to-enter at each step set at $p<.01$.

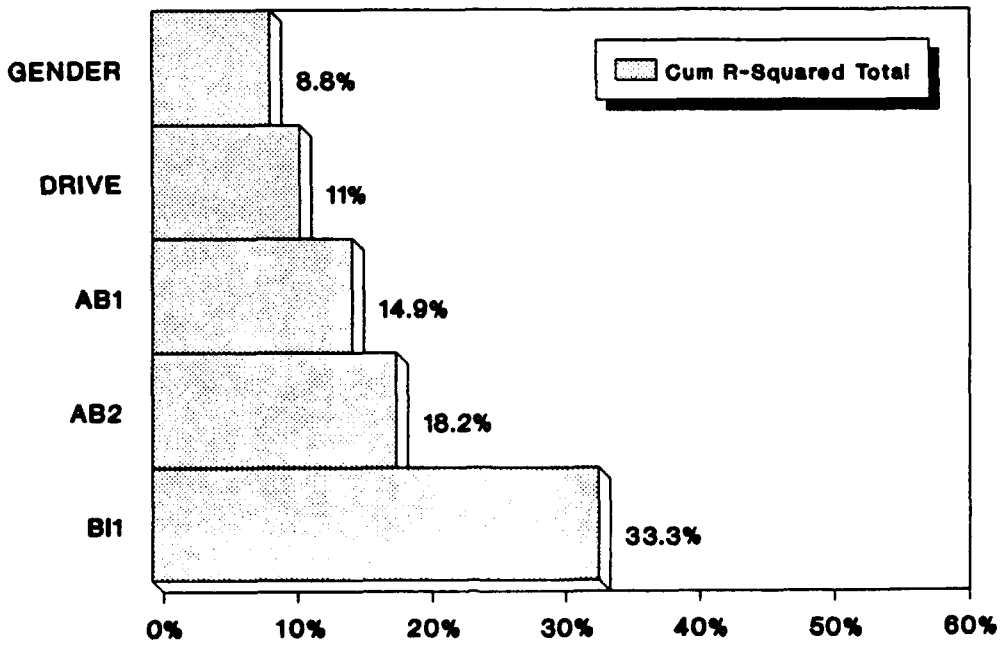


Table 15: Summary of Multiple Regression Analysis Predicting "Safer-Sex Negotiations" (PB2) at Baseline (N=407)

		Step Change			Total Equation		
Step	Variable	R^2 Step	Stand. Beta	P	R^2 Total	Adj. R^2 Total	P
Block 1: Demographics (stepwise entry)							
1	ETHNIC	.052	.228	.000	.052	.050	.000
2	MARITL	.018	-.134	.005	.070	.066	.000
3	GENDER	.017	-.136	.006	.088	.081	.000
Block 2: Health Risk Behaviors (stepwise entry)							
	NONE						
Block 3: Sexual Risk Behaviors (stepwise entry)							
	NONE						
Block 4: Personal Vulnerability / Previous AIDS Classes (stepwise entry)							
	NONE						
Block 5: Attitudes & Beliefs / Knowledge (stepwise entry)							
	NONE						
Block 6: Prevention and Safer-Sex Behaviors (stepwise entry)							
4	BI1	.200	.457	.000	.288	.280	.000

NOTE: To reduce risk of committing Type I errors, probability of F-to-enter at each step set at p<.01.

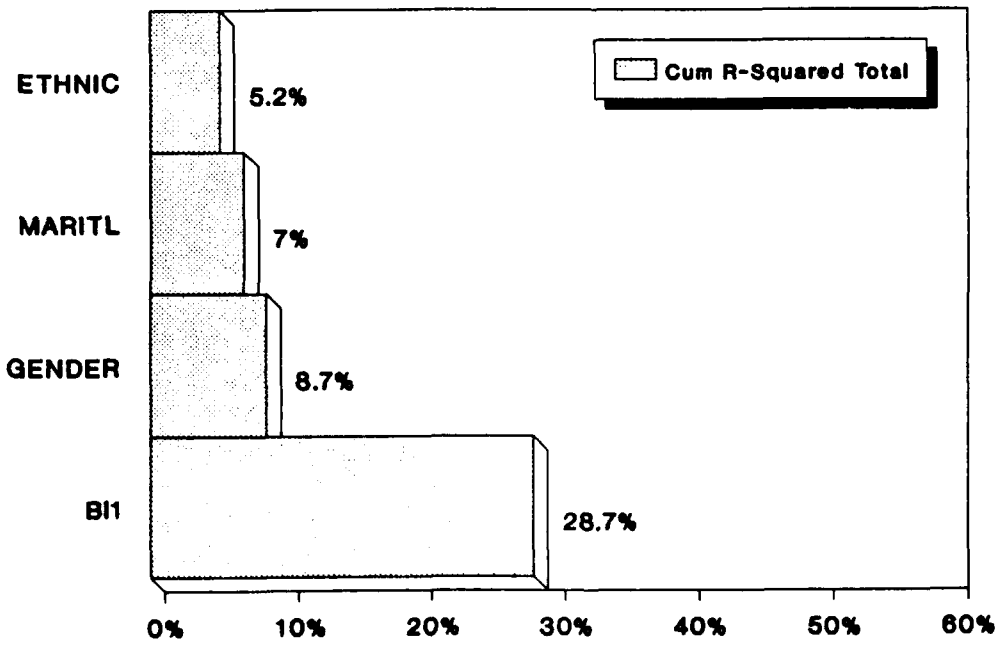


Table 16: Summary of Multiple Regression Analysis Predicting "Safer-Sex Intentions" (BI1) at Baseline (N=407)

		Step Change			Total Equation		
Step	Variable	R^2 Step	Stand. Beta	P	R^2 Total	Adj. R^2 Total	P
Block 1: Demographics (stepwise entry)							
1	GENDER	.027	-.164	.001	.027	.024	.001
Block 2: Health Risk Behaviors (stepwise entry)							
2	DRIVE	.042	-.205	.000	.069	.064	.000
3	BELTS	.017	-.134	.006	.086	.079	.000
Block 3: Sexual Risk Behaviors (stepwise entry)							
4	SBRI	.056	-.241	.000	.141	.133	.000
Block 4: Personal Vulnerability / Previous AIDS Classes (stepwise entry)							
5	WORRY	.036	.198	.000	.177	.167	.000
Block 5: Attitudes & Beliefs / Knowledge (stepwise entry)							
6	AB2	.036	.191	.000	.213	.201	.000
7	GK	.015	.125	.006	.228	.214	.000
Block 6: Prevention and Safer-Sex Behaviors (stepwise entry)							
8	PB2	.160	.413	.000	.388	.376	.000
9	PB1	.069	.303	.000	.458	.445	.000
10	BI2	.054	.266	.000	.511	.499	.000

NOTE: To reduce risk of committing Type I errors, probability of F-to-enter at each step set at $p<.01$.

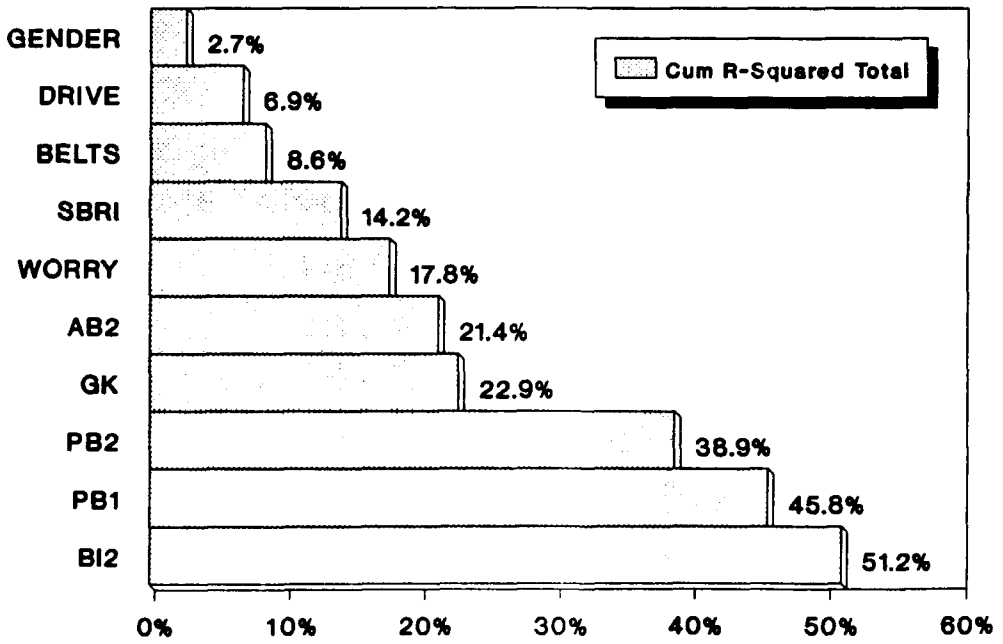


Table 17: Summary of Multiple Regression Analysis Predicting "Safer-Sex Information Sharing" (BI2) at Baseline (N=407)

		Step Change			Total Equation		
Step	Variable	R^2 Step	Stand. Beta	P	R^2 Total	Adj. R^2 Total	P
Block 1: Demographics (stepwise entry)							
1	ETHNIC	.044	.210	.000	.044	.042	.000
2	AGE	.024	.154	.002	.067	.063	.000
Block 2: Health Risk Behaviors (stepwise entry)							
3	DRINK	.030	-.173	.000	.097	.091	.000
Block 3: Sexual Risk Behaviors (stepwise entry)							
	NONE						
Block 4: Personal Vulnerability / Previous AIDS Classes (stepwise entry)							
4	WORRY	.068	.263	.000	.166	.157	.000
Block 5: Attitudes & Beliefs / Knowledge (stepwise entry)							
5	AB2	.021	.146	.001	.187	.176	.000
6	GK	.022	.152	.001	.209	.197	.000
Block 6: Prevention and Safer-Sex Behaviors (stepwise entry)							
7	BI1	.141	.409	.000	.350	.339	.000

NOTE: To reduce risk of committing Type I errors, probability of F-to-enter at each step set at $p<.01$.

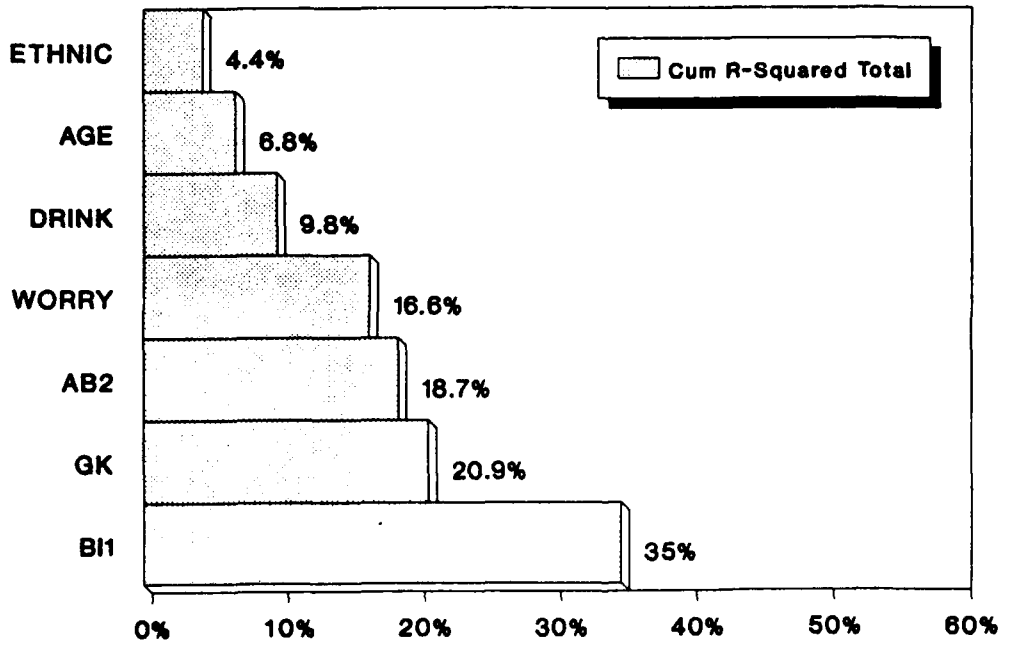


Table 18: Summary of Multiple Regression Analysis Predicting "Personal Condom Use" (CU1) at Baseline (N=407)

Step	Variable	Step Change R^2 Step	Stand. Beta	P	Total Equation R^2 Total	Adj. R^2 Total	P
Block 1: Demographics (stepwise entry)							
1	GENDER	.036	-.190	.000	.036	.034	.000
Block 2: Health Risk Behaviors (stepwise entry)							
2	DRIVE	.039	-.197	.000	.075	.070	.000
Block 3: Sexual Risk Behaviors (stepwise entry)							
3	SBRI	.031	-.178	.000	.105	.099	.000
Block 4: Personal Vulnerability / Previous AIDS Classes (stepwise entry)							
4	WORRY	.042	.214	.000	.148	.139	.000
5	FIGHT	.016	-.127	.006	.164	.153	.000
Block 5: Attitudes & Beliefs / Knowledge (stepwise entry)							
6	AB2	.063	.255	.000	.227	.215	.000
7	GK	.029	.175	.000	.255	.242	.000
Block 6: Prevention and Safer-Sex Behaviors (stepwise entry)							
8	BI2	.160	.436	.000	.416	.404	.000
9	PB2	.053	.250	.000	.469	.457	.000

NOTE: To reduce risk of committing Type I errors, probability of F-to-enter at each step set at $p<.01$.

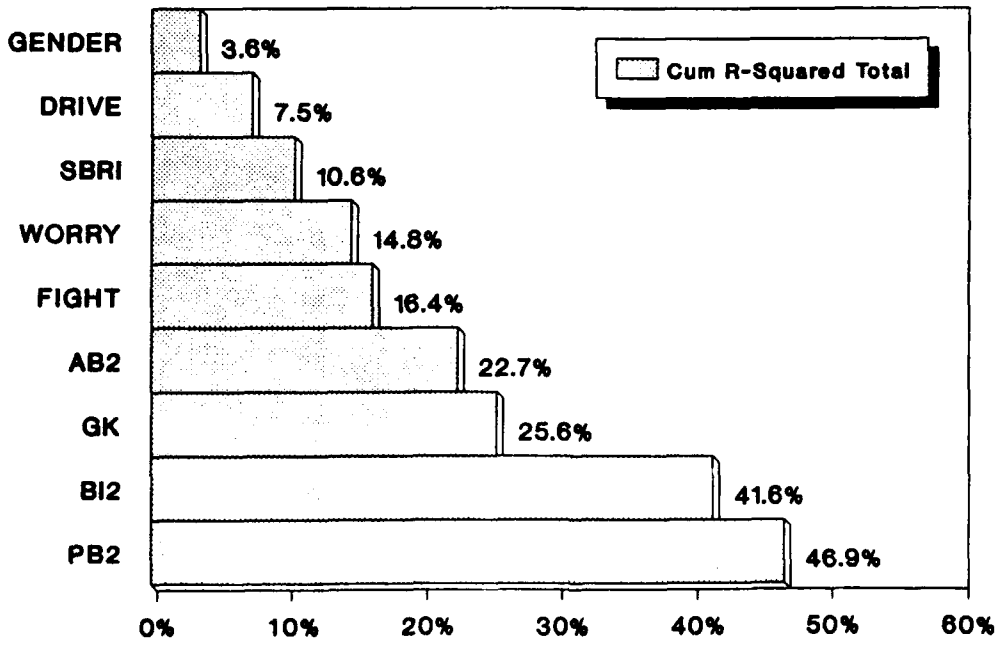


Table 19: Summary of Repeated Measures Analysis for Pretest-Posttest-12 Month Change in "General Attitudes and Beliefs" (AB1) for Follow-up Sample (N=328)

MANOVA Results		
Effect	DF	P-value
TIME	2	.000 *
Pretest-Posttest	1	.000 **
Pretest-12 Months	1	.002 **
TIME * GROUP	2	.163
Pre-Post * Group	1	.062
Pre-12 Months * Group	1	.283

* Statistically significant overall effect ($p<.05$) ** Statistically significant 1-DF contrast ($p<.025$ [.05/2])

NOTE: MANOVA results for each effect include numerator degrees of freedom (DF) and p-value for Wilk's lambda and associated multivariate F statistic.

Descriptive Statistics							
		Pretest		Posttest		12 Months	
Briefing Group	N	Mean	SD	Mean	SD	Mean	SD
Behavioral	160	2.94	0.47	2.97	0.44	2.98	0.48
Standard	162	2.95	0.48	3.04	0.47	3.03	0.44

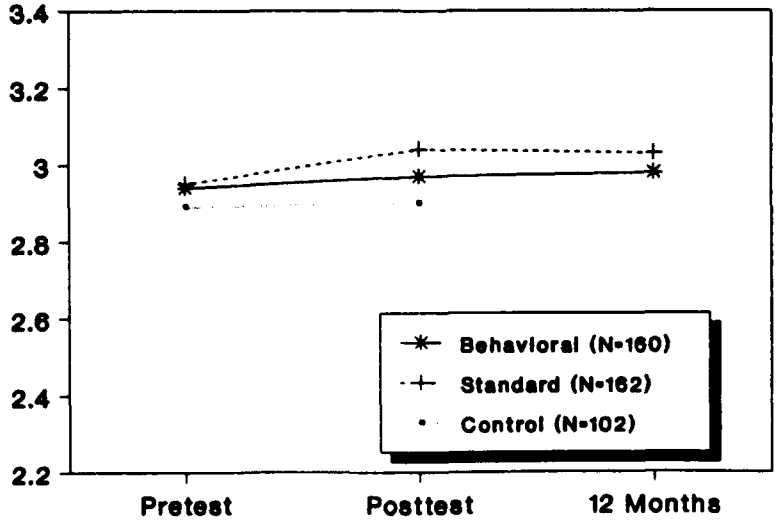


Table 20: Summary of Repeated Measures Analysis for Pretest-Posttest-12 Month Change in "Condom Use Norms" (AB2) for Follow-up Sample (N=328)

MANOVA Results		
Effect	DF	P-value
TIME	2	.000 *
Pretest-Posttest	1	.074
Pretest-12 Months	1	.000 **
TIME * GROUP	2	.830
Pre-Post * Group	1	.578
Pre-12 Months * Group	1	.663

* Statistically significant overall effect ($p<.05$) ** Statistically significant 1-DF contrast ($p<.025$ [.05/2])

NOTE: MANOVA results for each effect include numerator degrees of freedom (DF) and p-value for Wilk's lambda and associated multivariate F statistic.

Descriptive Statistics							
		Pretest		Posttest		12 Months	
Briefing Group	N	Mean	SD	Mean	SD	Mean	SD
Behavioral	154	2.52	0.59	2.47	0.56	2.67	0.58
Standard	153	2.49	0.60	2.47	0.56	2.68	0.57

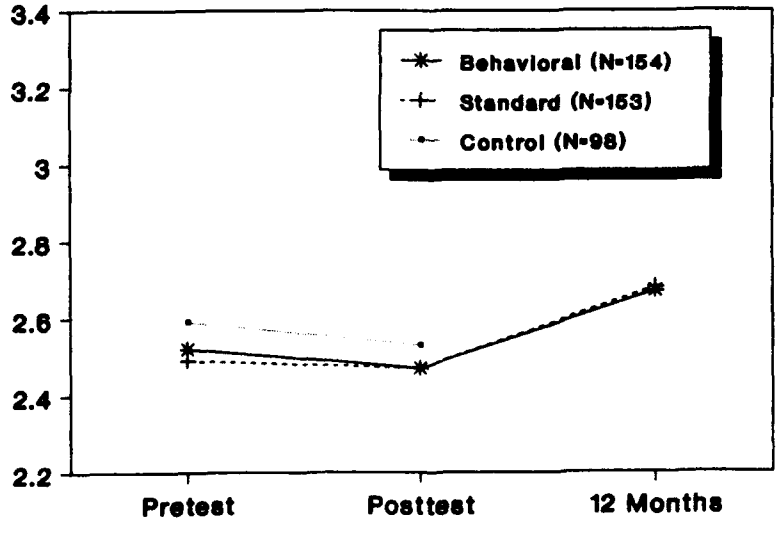


Table 21: Summary of Repeated Measures Analysis for Pretest-Posttest-12 Month Change in "General Knowledge" (GK) for Follow-up Sample (N=328)

MANOVA Results		
Effect	DF	P-value
TIME	2	.909
Pretest-Posttest	1	.807
Pretest-12 Months	1	.668
TIME * GROUP	2	.022 *
Pre-Post * Group	1	.008 **
Pre-12 Months * Group	1	.075

* Statistically significant overall effect ($p<.05$) ** Statistically significant 1-DF contrast ($p<.025$ [.05/2])

NOTE: MANOVA results for each effect include numerator degrees of freedom (DF) and p-value for Wilk's lambda and associated multivariate F statistic.

Descriptive Statistics							
		Pretest		Posttest		12 Months	
Briefing Group	N	Mean	SD	Mean	SD	Mean	SD
Behavioral	161	3.47	0.35	3.52	0.38	3.52	0.42
Standard	164	3.54	0.36	3.49	0.42	3.50	0.43

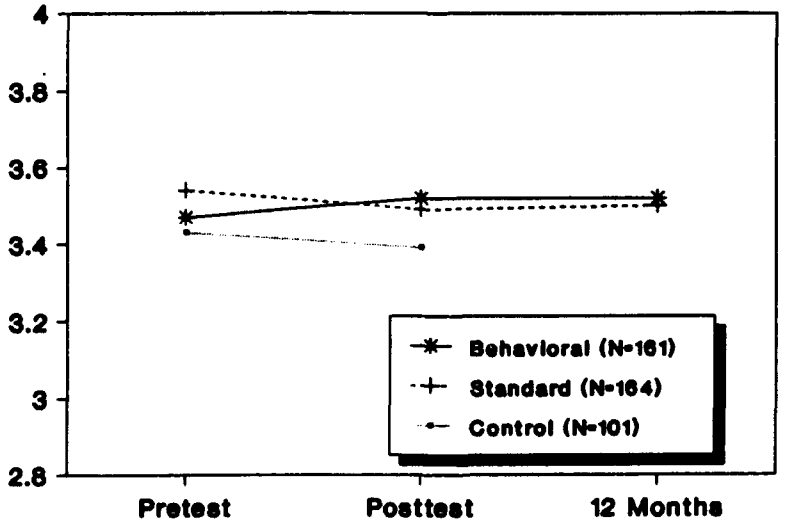


Table 22: Summary of Repeated Measures Analysis for Pretest-Posttest-12 Month Change in "Transmission Knowledge: Low Risk Activities" (TK1) for Follow-up Sample (N=328)

MANOVA Results		
Effect	DF	P-value
TIME	2	.000 *
Pretest-Posttest	1	.000 **
Pretest-12 Months	1	.000 **
TIME * GROUP	2	.157
Pre-Post * Group	1	.081
Pre-12 Months * Group	1	.959

* Statistically significant overall effect ($p<.05$) ** Statistically significant 1-DF contrast ($p<.025$ [.05/2])

NOTE: MANOVA results for each effect include numerator degrees of freedom (DF) and p-value for Wilk's lambda and associated multivariate F statistic.

Descriptive Statistics							
		Pretest		Posttest		12 Months	
Briefing Group	N	Mean	SD	Mean	SD	Mean	SD
Behavioral	159	2.86	0.57	3.19	0.52	3.00	0.51
Standard	162	2.88	0.58	3.12	0.48	3.01	0.54

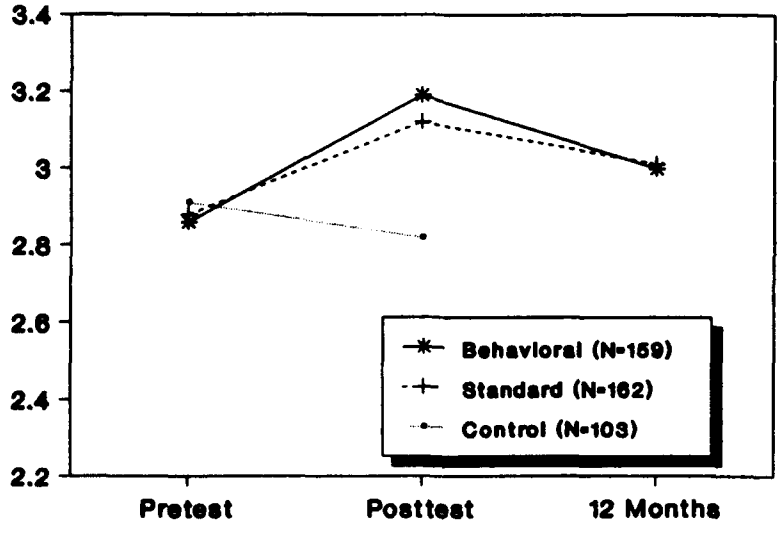


Table 23: Summary of Repeated Measures Analysis for Pretest-Posttest-12 Month Change in "Transmission Knowledge: High Risk Activities" (TK2) for Follow-up Sample (N=328)

MANOVA Results		
Effect	DF	P-value
TIME	2	.644
Pretest-Posttest	1	.349
Pretest-12 Months	1	.730
TIME * GROUP	2	.433
Pre-Post * Group	1	.702
Pre-12 Months * Group	1	.340

* Statistically significant overall effect ($p<.05$) ** Statistically significant 1-DF contrast ($p<.025$ [.05/2])

NOTE: MANOVA results for each effect include numerator degrees of freedom (DF) and p-value for Wilk's lambda and associated multivariate F statistic.

Descriptive Statistics							
		Pretest		Posttest		12 Months	
Briefing Group	N	Mean	SD	Mean	SD	Mean	SD
Behavioral	158	3.76	0.51	3.75	0.47	3.71	0.55
Standard	161	3.77	0.52	3.73	0.56	3.79	0.52

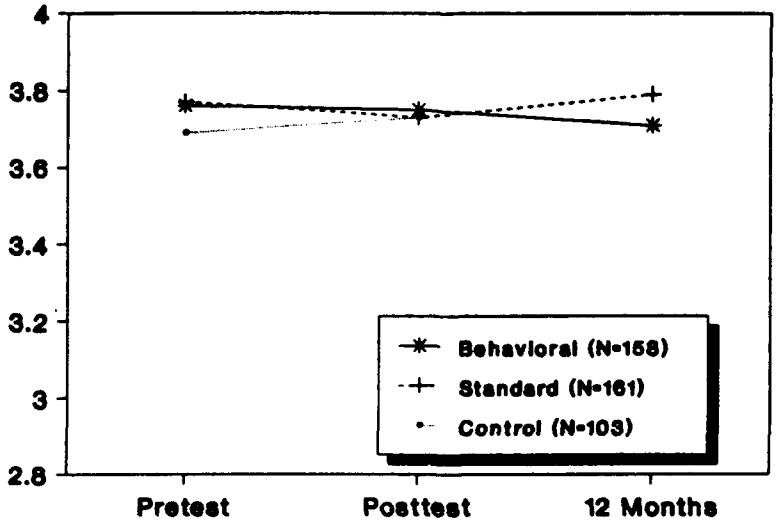


Table 24: Summary of Repeated Measures Analysis for Pretest-Posttest-12 Month Change in "Prevention Self-Efficacy" (PB1) for Follow-up Sample (N=328)

MANOVA Results		
Effect	DF	P-value
TIME	2	.000 *
Pretest-Posttest	1	.000 **
Pretest-12 Months	1	.381
TIME * GROUP	2	.711
Pre-Post * Group	1	.637
Pre-12 Months * Group	1	.618

* Statistically significant overall effect ($p<.05$) ** Statistically significant 1-DF contrast ($p<.025$ [.05/2])

NOTE: MANOVA results for each effect include numerator degrees of freedom (DF) and p-value for Wilk's lambda and associated multivariate F statistic.

Descriptive Statistics							
		Pretest		Posttest		12 Months	
Briefing Group	N	Mean	SD	Mean	SD	Mean	SD
Behavioral	154	2.58	0.49	2.66	0.50	2.54	0.51
Standard	155	2.57	0.50	2.64	0.51	2.56	0.53

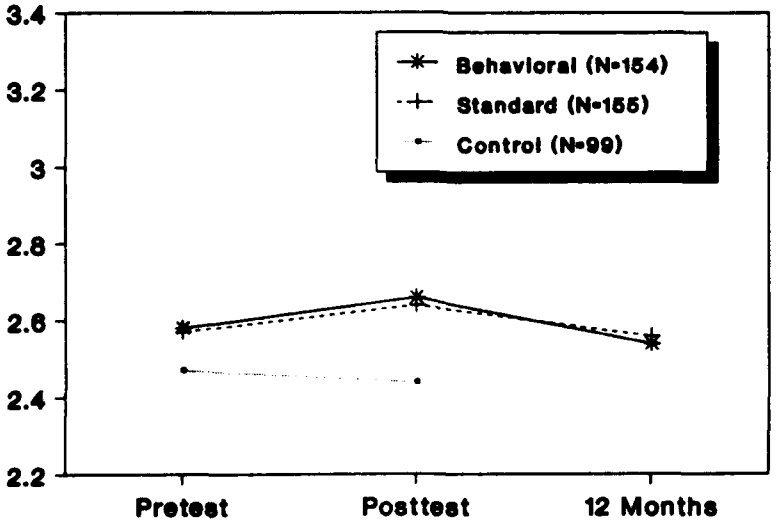


Table 25: Summary of Repeated Measures Analysis for Pretest-Posttest-12 Month Change in "Safer-Sex Negotiations" (PB2) for Follow-up Sample (N=328)

MANOVA Results		
Effect	DF	P-value
TIME	2	.000 *
Pretest-Posttest	1	.000 **
Pretest-12 Months	1	.002 **
TIME * GROUP	2	.542
Pre-Post * Group	1	.404
Pre-12 Months * Group	1	.316

* Statistically significant overall effect ($p<.05$) ** Statistically significant 1-DF contrast ($p<.025$ [.05/2])

NOTE: MANOVA results for each effect include numerator degrees of freedom (DF) and p-value for Wilk's lambda and associated multivariate F statistic.

Descriptive Statistics							
		Pretest		Posttest		12 Months	
Briefing Group	N	Mean	SD	Mean	SD	Mean	SD
Behavioral	153	2.62	0.61	2.77	0.60	2.76	0.60
Standard	158	2.63	0.61	2.73	0.53	2.70	0.55

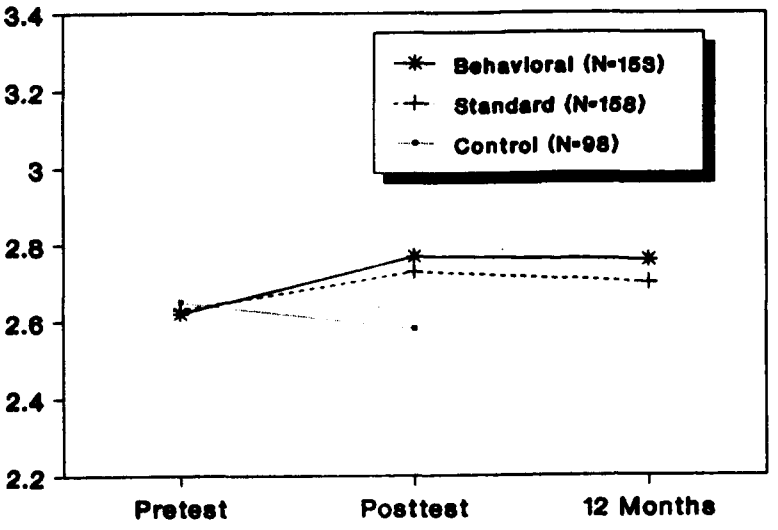


Table 26: Summary of Repeated Measures Analysis for Pretest-Posttest-12 Month Change in "Safer-Sex Intentions" (BI1) for Follow-up Sample (N=328)

MANOVA Results		
Effect	DF	P-value
TIME	2	.000 *
Pretest-Posttest	1	.000 **
Pretest-12 Months	1	.026
TIME * GROUP	2	.140
Pre-Post * Group	1	.047
Pre-12 Months * Group	1	.518

* Statistically significant overall effect ($p<.05$) ** Statistically significant 1-DF contrast ($p<.025$ [.05/2])

NOTE: MANOVA results for each effect include numerator degrees of freedom (DF) and p-value for Wilk's lambda and associated multivariate F statistic.

Descriptive Statistics							
		Pretest		Posttest		12 Months	
Briefing Group	N	Mean	SD	Mean	SD	Mean	SD
Behavioral	151	2.58	0.74	2.84	0.73	2.70	0.77
Standard	155	2.70	0.74	2.86	0.74	2.77	0.70

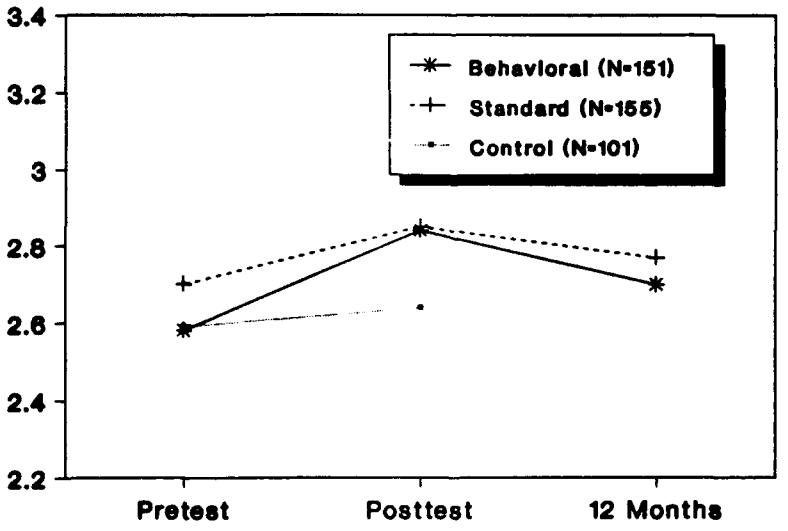


Table 27: Summary of Repeated Measures Analysis for Pretest-Posttest-12 Month Change in "Safer-Sex Information Sharing" (BI2) for Follow-up Sample (N=328)

MANOVA Results		
Effect	DF	P-value
TIME	2	.000 *
Pretest-Posttest	1	.000 **
Pretest-12 Months	1	.812
TIME * GROUP	2	.113
Pre-Post * Group	1	.039
Pre-12 Months * Group	1	.782

* Statistically significant overall effect ($p<.05$) ** Statistically significant 1-DF contrast ($p<.025$ [.05/2])

NOTE: MANOVA results for each effect include numerator degrees of freedom (DF) and p-value for Wilk's lambda and associated multivariate F statistic.

Descriptive Statistics							
		Pretest		Posttest		12 Months	
Briefing Group	N	Mean	SD	Mean	SD	Mean	SD
Behavioral	152	2.68	0.94	3.00	0.86	2.70	0.93
Standard	157	2.87	0.91	3.04	0.90	2.86	1.01

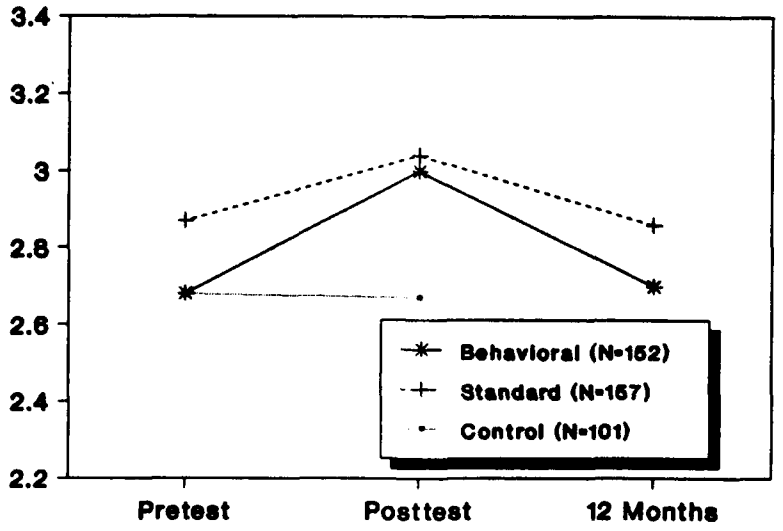


Table 28: Summary of Repeated Measures Analysis for Pretest-Posttest-12 Month Change in "Personal Condom Use" (CU1) for Follow-up Sample (N=328)

MANOVA Results		
Effect	DF	P-value
TIME	2	.000 *
Pretest-Posttest	1	.000 **
Pretest-12 Months	1	.041
TIME * GROUP	2	.019 *
Pre-Post * Group	1	.007 **
Pre-12 Months * Group	1	.768

* Statistically significant overall effect ($p<.05$) ** Statistically significant 1-DF contrast ($p<.025$ [.05/2])

NOTE: MANOVA results for each effect include numerator degrees of freedom (DF) and p-value for Wilk's lambda and associated multivariate F statistic.

Descriptive Statistics							
		Pretest		Posttest		12 Months	
Briefing Group	N	Mean	SD	Mean	SD	Mean	SD
Behavioral	153	2.62	0.58	2.81	0.55	2.70	0.55
Standard	157	2.69	0.53	2.78	0.54	2.74	0.59

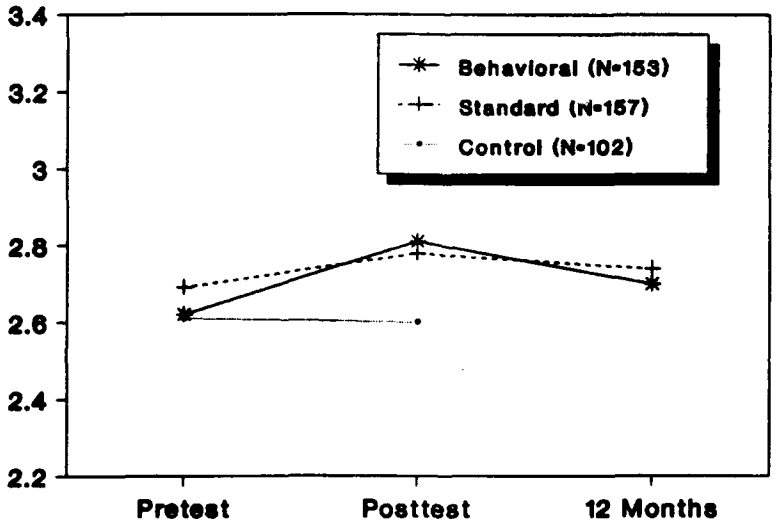


Table 29: Summary of Multiple Regression Analysis Predicting Pretest-Posttest Change in "Prevention Self-Efficacy" (PB1) (N=407)

Step	Variable	Step Change R^2 Step	Stand. Beta	P	Total Equation R^2 Total	Adj. R^2 Total	P
Block 1: Baseline (Pretest) Summary Scale Score (forced entry)							
1	PB1	.115	-.339	.000	.115	.113	.000
Block 2: Demographics (stepwise entry) Block 3: Health Risk Behaviors (stepwise entry) Block 4: Sexual Risk Behaviors (stepwise entry)							
	NONE						
Block 5: Personal Vulnerability / Previous AIDS Classes (stepwise entry)							
	NONE						
Attitudes & Beliefs / Knowledge About AIDS (stepwise entry) Block 6: Baseline Score Block 7: Pretest-Posttest Change Score *							
	NONE						
Prevention and Safer-Sex Behaviors (stepwise entry) Block 8: Baseline Score Block 9: Pretest-Posttest Change Score *							
2	BI2 Baseline	.019	.145	.003	.134	.123	.000
3	PB2 Change	.066	.257	.000	.200	.194	.000
4	BI1 Change	.028	.177	.000	.227	.220	.000
Block 10: HIV Briefing Group (forced entry)							
5	BRIEF	.002	.039	.383	.229	.219	.000

* Change score calculated as posttest score minus pretest score.

NOTE: To reduce risk of committing Type I errors, probability of F-to-enter at each step set at $p<.01$.

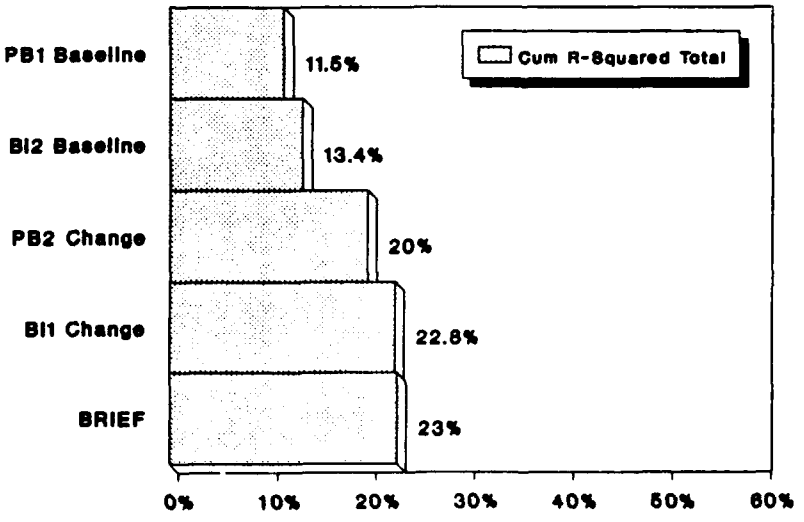


Table 30: Summary of Multiple Regression Analysis Predicting Pretest-Posttest Change in "Safer-Sex Negotiations" (PB2) (N=407)

Step	Variable	Step Change R^2 Step	Stand. Beta	P	Total Equation R^2 Total	Adj. R^2 Total	P
Block 1: Baseline (Pretest) Summary Scale Score (forced entry)							
1	PB2	.186	-.431	.000	.186	.184	.000
Block 2: Demographics (stepwise entry) Block 3: Health Risk Behaviors (stepwise entry) Block 4: Sexual Risk Behaviors (stepwise entry)							
	NONE						
Block 5: Personal Vulnerability / Previous AIDS Classes (stepwise entry)							
2	KNOPWA	.016	.125	.005	.201	.197	.000
Attitudes & Beliefs / Knowledge About AIDS (stepwise entry) Block 6: Baseline Score Block 7: Pretest-Posttest Change Score *							
3	GK Baseline	.032	.181	.000	.233	.228	.000
4	GK Change	.042	.218	.000	.275	.268	.000
Prevention and Safer-Sex Behaviors (stepwise entry) Block 8: Baseline Score Block 9: Pretest-Posttest Change Score *							
5	BI1 Baseline	.035	.220	.000	.310	.302	.000
6	BI1 Change	.073	.296	.000	.384	.374	.000
7	PB1 Change	.031	.184	.000	.414	.404	.000
Block 10: HIV Briefing Group (forced entry)							
8	BRIEF	.001	.026	.507	.415	.403	.000

* Change score calculated as posttest score minus pretest score.

NOTE: To reduce risk of committing Type I errors, probability of F-to-enter at each step set at $p<.01$.

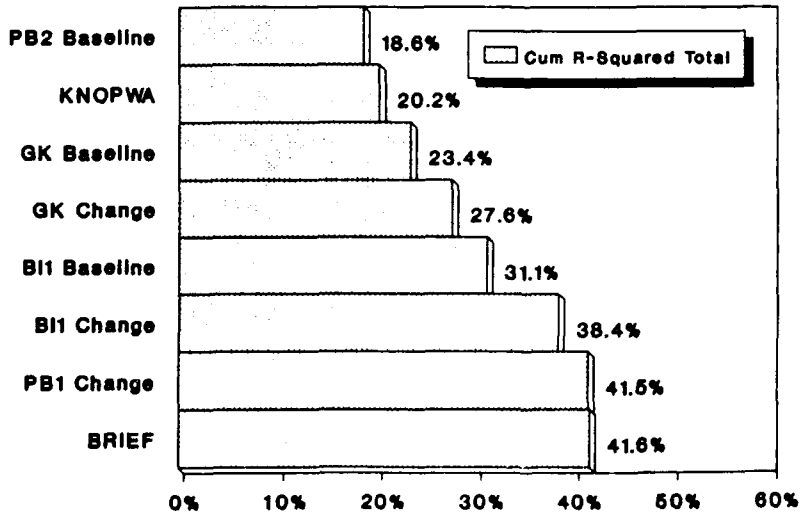


Table 31: Summary of Multiple Regression Analysis Predicting Pretest-Posttest Change in "Safer-Sex Intentions" (BI1) (N=407)

Step	Variable	Step Change R^2 Step	Stand. Beta	P	Total Equation R^2 Total	Adj. R^2 Total	P
Block 1: Baseline (Pretest) Summary Scale Score (forced entry)							
1	BI1	.096	-.310	.000	.096	.094	.000
Block 2: Demographics (stepwise entry) Block 3: Health Risk Behaviors (stepwise entry) Block 4: Sexual Risk Behaviors (stepwise entry)							
	NONE						
Block 5: Personal Vulnerability / Previous AIDS Classes (stepwise entry)							
	NONE						
Attitudes & Beliefs / Knowledge About AIDS (stepwise entry) Block 6: Baseline Score Block 7: Pretest-Posttest Change Score *							
2	TK2 Baseline	.027	.164	.001	.123	.119	.000
3	GK Change	.021	.144	.002	.143	.137	.000
Prevention and Safer-Sex Behaviors (stepwise entry) Block 8: Baseline Score Block 9: Pretest-Posttest Change Score *							
4	BI2 Baseline	.027	.190	.000	.170	.162	.000
5	BI2 Change	.118	.389	.000	.288	.279	.000
6	PB2 Change	.055	.241	.000	.343	.333	.000
7	PB1 Change	.020	.147	.001	.362	.351	.000
Block 10: HIV Briefing Group (forced entry)							
8	BRIEF	.006	.079	.049	.369	.356	.000

* Change score calculated as posttest score minus pretest score.

NOTE: To reduce risk of committing Type I errors, probability of F-to-enter at each step set at $p<.01$.

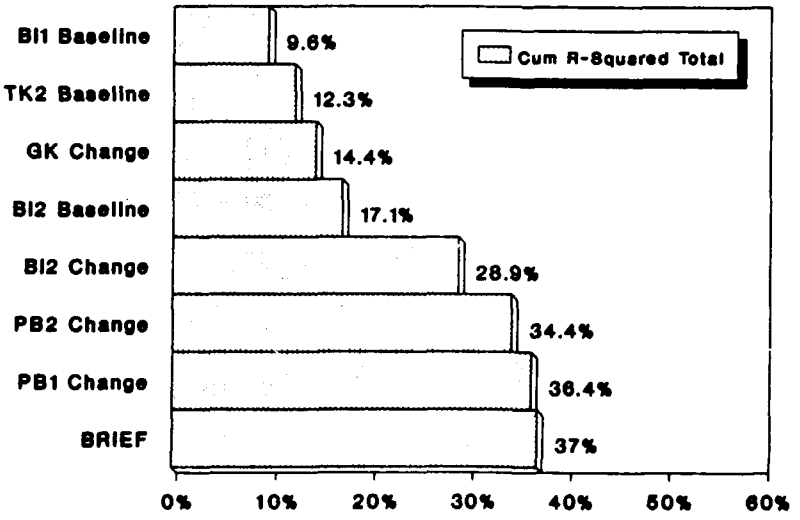


Table 32: Summary of Multiple Regression Analysis Predicting Pretest-Posttest Change in "Safer-Sex Information Sharing" (BI2) (N=407)

Step	Variable	Step Change R^2 Step	Stand. Beta	P	Total Equation R^2 Total	Adj. R^2 Total	P
Block 1: Baseline (Pretest) Summary Scale Score (forced entry)							
1	BI2	.161	-.401	.000	.161	.159	.000
Block 2: Demographics (stepwise entry) Block 3: Health Risk Behaviors (stepwise entry) Block 4: Sexual Risk Behaviors (stepwise entry)							
	NONE						
Block 5: Personal Vulnerability / Previous AIDS Classes (stepwise entry)							
	NONE						
Attitudes & Beliefs / Knowledge About AIDS (stepwise entry) Block 6: Baseline Score Block 7: Pretest-Posttest Change Score *							
2	GK Change	.039	.199	.000	.200	.196	.000
3	AB1 Change	.016	.125	.005	.216	.210	.000
Prevention and Safer-Sex Behaviors (stepwise entry) Block 8: Baseline Score Block 9: Pretest-Posttest Change Score *							
4	BI1 Baseline	.023	.178	.000	.239	.232	.000
5	BI1 Change	.101	.346	.000	.340	.331	.000
Block 10: HIV Briefing Group (forced entry)							
6	BRIEF	.000	.018	.663	.340	.330	.000

* Change score calculated as posttest score minus pretest score.

NOTE: To reduce risk of committing Type I errors, probability of F-to-enter at each step set at $p<.01$.

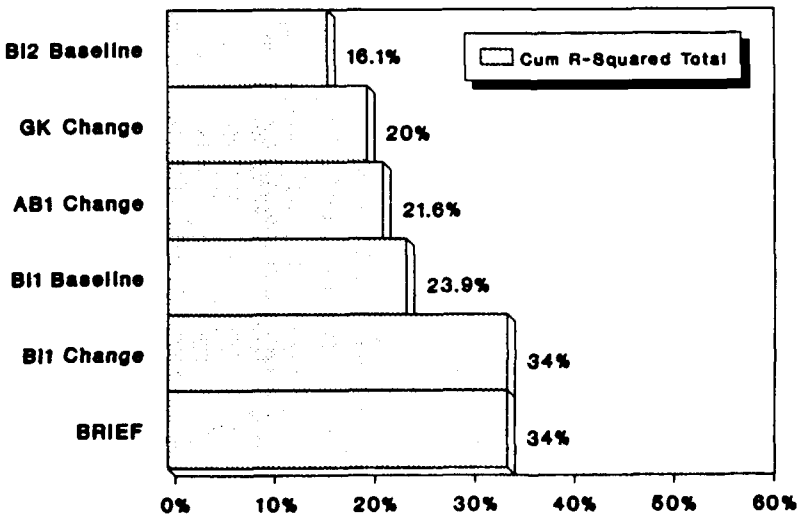
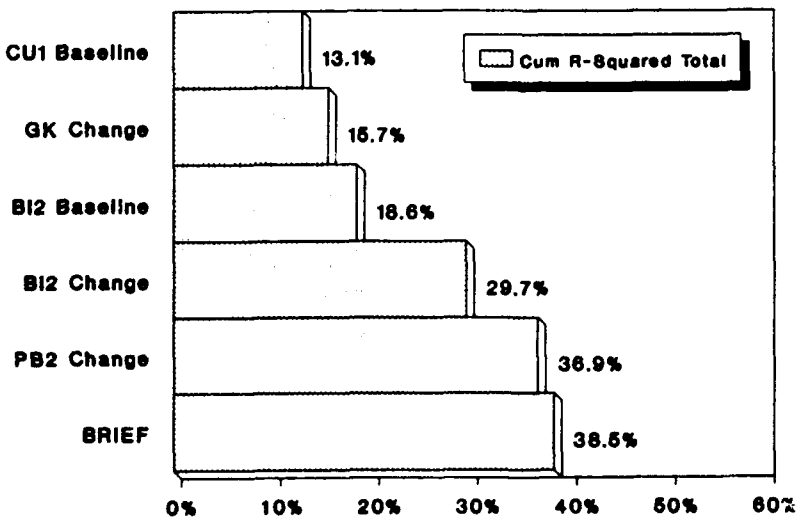


Table 33: Summary of Multiple Regression Analysis Predicting Pretest-Posttest Change in "Personal Condom Use" (CU1) (N=407)

Step	Variable	Step Change R^2 Step	Stand. Beta	P	Total Equation R^2 Total	Adj. R^2 Total	P
Block 1: Baseline (Pretest) Summary Scale Score (forced entry)							
1	CU1	.131	-.361	.000	.131	.129	.000
Block 2: Demographics (stepwise entry) Block 3: Health Risk Behaviors (stepwise entry) Block 4: Sexual Risk Behaviors (stepwise entry)							
	NONE						
Block 5: Personal Vulnerability / Previous AIDS Classes (stepwise entry)							
	NONE						
Attitudes & Beliefs / Knowledge About AIDS (stepwise entry) Block 6: Baseline Score Block 7: Pretest-Posttest Change Score *							
2	GK Change	.026	.160	.001	.156	.152	.000
Prevention and Safer-Sex Behaviors (stepwise entry) Block 8: Baseline Score Block 9: Pretest-Posttest Change Score *							
3	BI2 Baseline	.029	.204	.000	.185	.179	.000
4	BI2 Change	.111	.375	.000	.296	.289	.000
5	PB2 Change	.072	.275	.000	.368	.360	.000
Block 10: HIV Briefing Group (forced entry)							
6	BRIEF	.016	.128	.001	.384	.375	.000

* Change score calculated as posttest score minus pretest score.

NOTE: To reduce risk of committing Type I errors, probability of F-to-enter at each step set at $p<.01$.



Figures

Figure 1
Education
(N=498)

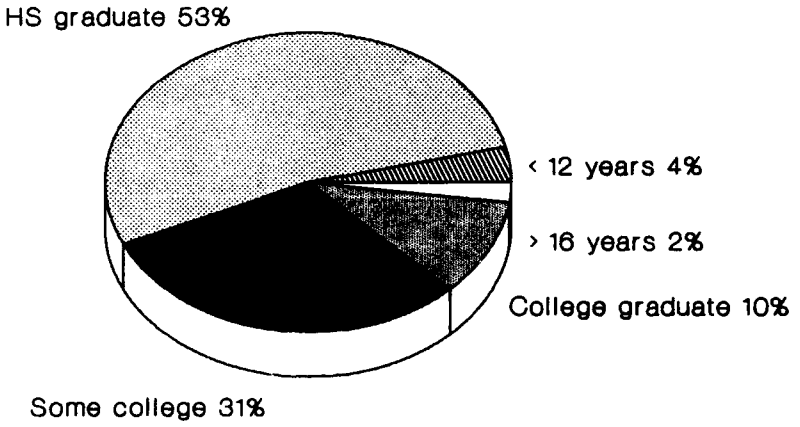


Figure 2
Gender
(N=503)

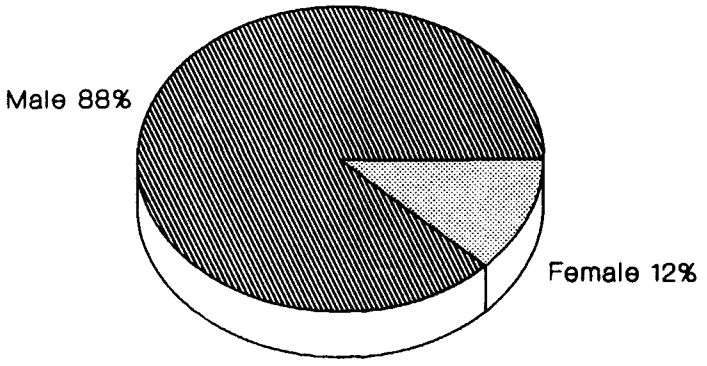


Figure 3
Ethnicity
(N=496)

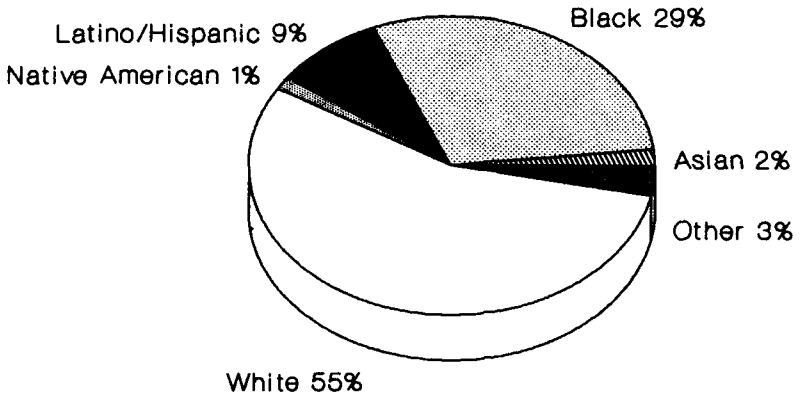


Figure 4
Marital Status
(N=497)

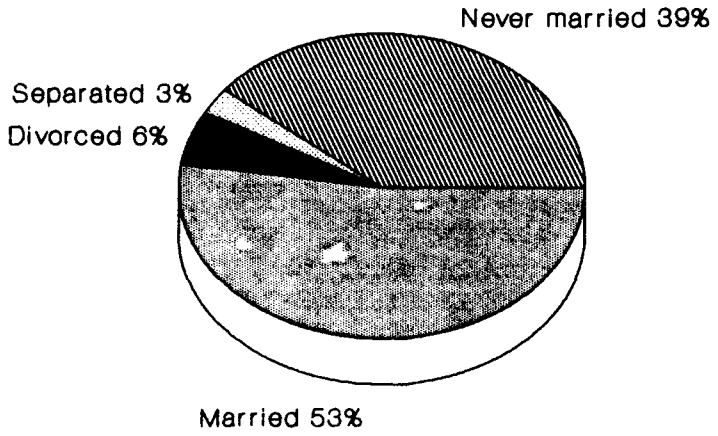
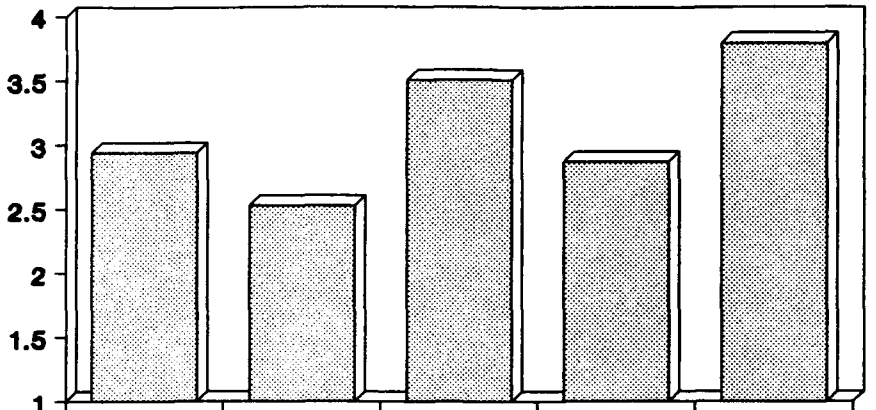
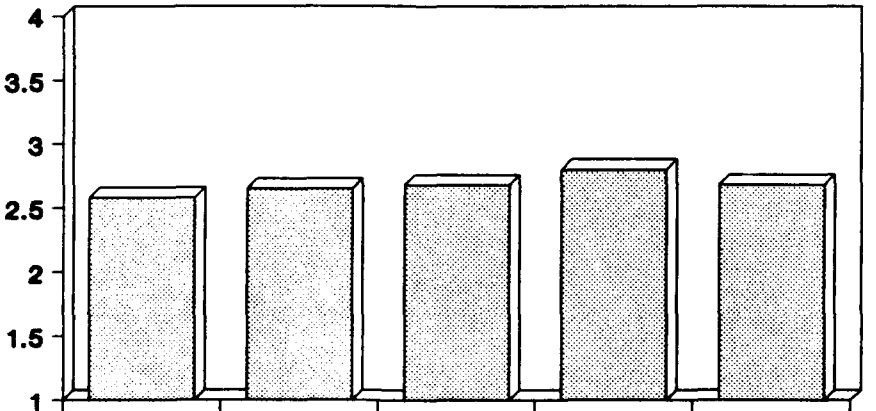


Figure 5: HAIQ Summary Scales
Attitudes, Beliefs, and Knowledge
for Entire Sample at Baseline



	AB1	AB2	GK	TK1	TK2
N	500	486	503	501	501
Mean	2.94	2.53	3.51	2.87	3.8
SD	0.48	0.58	0.35	0.57	0.45

Figure 6: HAIQ Summary Scales
Prevention and Safer-Sex Behaviors
for Entire Sample at Baseline



	PB1	PB2	BI1	BI2	CU1
N	495	494	495	497	497
Mean	2.58	2.65	2.68	2.8	2.68
SD	0.51	0.61	0.73	0.95	0.57

Figure 7
Type of AIDS Briefing Preferred
(N=322)

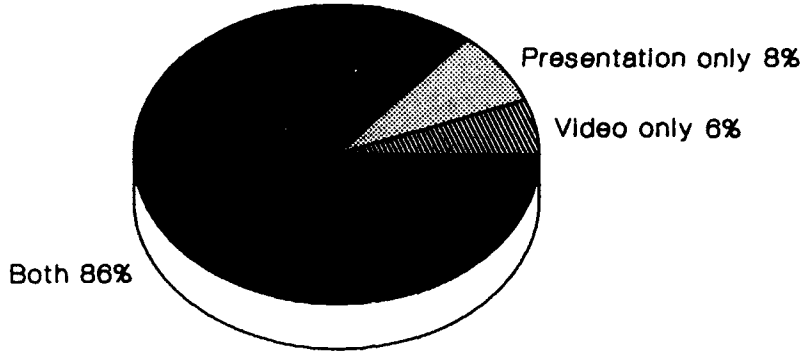
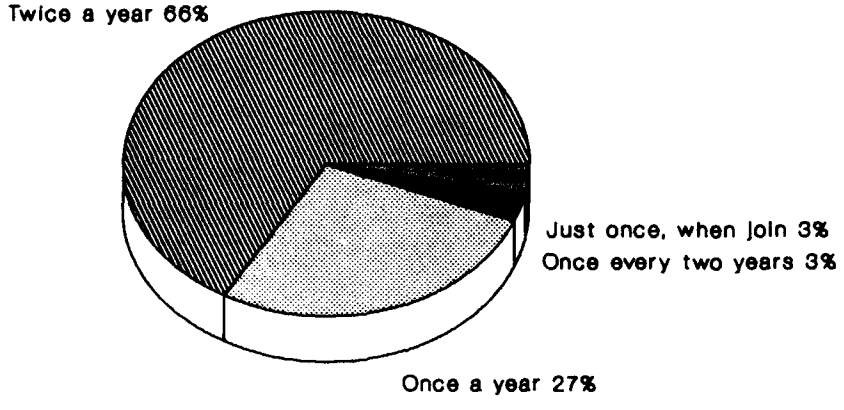


Figure 8
Frequency of AIDS Briefing
(N=325)



Appendices

A. Health and AIDS Information Questionnaires
B. Summaries of Data Analysis Results

Appendix A

Health and AIDS Information Questionnaires

A.1: Baseline Pretest Assessment
A.2: Baseline Posttest Assessment
A.3: 6-month Assessment
A.4: 12-month Assessment

BASELINE: PRETEST ASSESSMENT

☐☐☐-☐☐-☐☐☐☐

Health
and
AIDS Information
Questionnaire I

Survey Approval Authority: U.S. Army Soldier Support Center
Survey Control Number: ATNC-AO-90-37
RCS: MILPC-3
7/90

First, we have a few questions about your general health and safety habits.

☞ **Please answer each question with what you *REALLY* do, NOT what you think you *SHOULD* do.** ✍

1. How would you rate your health?
   - ☐ Poor
   - ☐ Fair
   - ☐ Good
   - ☐ Excellent

2. When you travel in a car, how often do you use seatbelts?
   - ☐ Never
   - ☐ Rarely
   - ☐ Sometimes
   - ☐ Usually
   - ☐ Always

3. Which of the next statements best describes you? (Check **one** box)
   - ☐ I am a cigarette smoker now.
   - ☐ I used to smoke cigarettes, but I don't now.
   - ☐ I have never smoked cigarettes.

4. How much alcohol do you usually drink during a week? **(If none at all, please write "0" in the box)**

   a) **Beer**: Number of cans or bottles (12 oz.) per 7-day week ☐☐ cans or bottles per week

   b) **Wine**: Number of glasses of wine (4 oz.) per 7-day week ☐☐ glasses per week

   c) **Liquor**: Number of hard liquor drinks (1 oz.) per 7-day week ☐☐ drinks per week

5. How often do you drive after you have been drinking?
   - ☐ Always
   - ☐ Usually
   - ☐ Sometimes
   - ☐ Rarely
   - ☐ Never

☞ **We are interested in what you think or feel about the following statements.**

Please tell us how much you agree or disagree with each of them.
Check one box for each statement. ✍

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Most of my friends who have sex with different partners use condoms (rubbers).	☐	☐	☐	☐
2. A lot of people my age use condoms.	☐	☐	☐	☐
3. Most of my friends think that condoms are just too much of a hassle to use.	☐	☐	☐	☐
4. If I were infected, my body would be able to fight off the AIDS virus.	☐	☐	☐	☐
5. News reports on the AIDS epidemic cannot be trusted.	☐	☐	☐	☐
6. People infected with the AIDS virus should be quarantined so they won't infect others.	☐	☐	☐	☐
7. My religious beliefs do not allow the use of condoms.	☐	☐	☐	☐
8. Catching the "clap" (gonorrhea) from a sex partner would bother me.	☐	☐	☐	☐
9. AIDS has made people a lot more careful about who they have sex with.	☐	☐	☐	☐
10. I have already heard more than I want to hear about AIDS.	☐	☐	☐	☐
11. If I found out that a friend of mine had AIDS, I would still go to see that friend.	☐	☐	☐	☐
12. People with AIDS deserve to get the disease.	☐	☐	☐	☐
13. I don't think AIDS will ever affect my own life.	☐	☐	☐	☐

Please check one box for each of the next questions:

☞ How likely do you think it is that you could get the AIDS virus infection from . . .

	Very Unlikely	Somewhat Unlikely	Somewhat Likely	Very Likely
1. receiving a blood transfusion in the United States?	☐	☐	☐	☐
2. donating or giving blood in the United States?	☐	☐	☐	☐
3. eating in a restaurant where the cook has AIDS?	☐	☐	☐	☐
4. shaking hands with or touching someone who has AIDS?	☐	☐	☐	☐
5. sharing needles for drug use with someone who has the AIDS virus?	☐	☐	☐	☐
6. being coughed or sneezed on by someone who has AIDS?	☐	☐	☐	☐
7. mosquitoes or other insects?	☐	☐	☐	☐
8. kissing a person who has AIDS with exchange of saliva?	☐	☐	☐	☐

Note: For questions 9 and 10, "having sex" means sexual intercourse in which the penis is inserted into the vagina or anus (rear-end or rectum).

9. having sex with a person who has the AIDS virus, using a condom?	☐	☐	☐	☐
10. having sex with a person who has the AIDS virus, ***not*** using a condom?	☐	☐	☐	☐
11. a pregnant woman who has the AIDS virus can give it to her baby.	☐	☐	☐	☐

☞ Please continue to check one box for each statement in the following section. ✍

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Once you've been told that you do not have the AIDS virus, you don't need to worry about catching AIDS in the future.	☐	☐	☐	☐
2. If you test negative on the HIV Antibody Test you don't have to be concerned with safer sex.	☐	☐	☐	☐
3. It is what people do, not who they are, that puts them at risk of getting AIDS.	☐	☐	☐	☐
4. Reducing the number of sexual partners you have will help reduce the risk for getting the AIDS virus.	☐	☐	☐	☐
5. You can tell if a person has AIDS by knowing about his/her lifestyle.	☐	☐	☐	☐
6. Throughout the world, AIDS is found *mostly among* homosexual (gay) men.	☐	☐	☐	☐
7. Sharing needles for drug use with friends can put you at risk of getting the AIDS virus.	☐	☐	☐	☐
8. Sharing needles for drug use with strangers can put you at risk of getting the AIDS virus.	☐	☐	☐	☐
9. You can be infected with the AIDS virus and still look healthy.	☐	☐	☐	☐
10. Women can **not** pass the AIDS virus to their male sex partners.	☐	☐	☐	☐
11. You can get the AIDS virus from oral sex.	☐	☐	☐	☐
12. If you have AIDS, the chances you will die from it are very high.	☐	☐	☐	☐
13. It is possible to catch the AIDS virus from having unsafe sex even one time.	☐	☐	☐	☐
14. Natural (lambskin) condoms work better than latex (rubber) condoms in preventing AIDS virus infection.	☐	☐	☐	☐
15. Oil-based lubricants (like Vaseline) cause condoms to break.	☐	☐	☐	☐

☞ **Please tell us how much you agree or disagree with each of the next statements, *EVEN IF IT DOESN'T APPLY TO YOU.***

Check one box for each statement. ✍

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Sex doesn't feel as good to a man when he uses a condom.	☐	☐	☐	☐
2. If I were single, it would be hard for me to limit the number of sexual partners I have.	☐	☐	☐	☐
3. I know of precautions I could take to reduce my risk of getting or giving the AIDS virus.	☐	☐	☐	☐
4. Having to stop sex to put on a condom takes the fun out of sex.	☐	☐	☐	☐
5. It's embarassing to buy condoms in a store.	☐	☐	☐	☐
6. Before I had sex with a new partner, I would discuss AIDS protection with them.	☐	☐	☐	☐
7. Other "safer sex" practices (such as masturbating each other, phone sex, fantasy) are not as enjoyable as having sex.	☐	☐	☐	☐
8. It would be hard for me to ask a new sex partner about their past sexual behaviors.	☐	☐	☐	☐
9. If my sex partner does not want to use condoms, there is little I can do about it.	☐	☐	☐	☐
10. Sex doesn't feel as good to a woman when her partner uses a condom.	☐	☐	☐	☐
11. If I were single, it would be hard for me to just stop having sex.	☐	☐	☐	☐
12. I don't know how to bring up the subject of past sexual behaviors with a new sex partner.	☐	☐	☐	☐
13. In the heat of passion with a new sex partner, I have a hard time stopping to use a condom.	☐	☐	☐	☐
14. a) **FOR MALES ONLY**: I wouldn't use a condom because I want my sex partner to become pregnant.	☐	☐	☐	☐
b) **FOR FEMALES ONLY**: I wouldn't have my sex partner use a condom because I want to become pregnant.	☐	☐	☐	☐

☞ **The next few questions ask about personal behaviors in the past.**

***Reminder*: For the next questions, "having sex" means sexual intercourse in which the penis is inserted into the vagina or anus (rear-end or rectum).**

1. Have you ever used a condom during sex?
   - ☐ Does not apply, I have not had sex.
   - ☐ No
   - ☐ Yes

2. Has a doctor or medical person ever told you that you have an infection that you got from another person during sex? For example, "clap" (gonorrhea) or herpes?
   - ☐ No
   - ☐ Yes → **If yes**: a) How many times?
     ☐ times
     b) Have any of these times been in the past year?
     ☐ times

3. How many different sex partners have you had in the past year?
   - ☐ No sex partners at all in the past year
   - ☐ One partner only
   - ☐ 2 - 4 partners
   - ☐ 5 - 9 partners
   - ☐ 10 - 15 partners
   - ☐ More than 15 partners

4. Did you travel outside of the United States during the past year?
   - ☐ No
   - ☐ Yes → **If yes**, did you have sex with a new partner when you were outside the U.S.?
     - ☐ No
     - ☐ Yes

5. In the past year, have you paid someone to have sex with you?

☐ No

☐ Yes → If yes, with how many partners?

☐☐ partners

6. In the past year when you had sex with a new partner, how often was a condom used?

☐ No new sex partner(s) in the past year

☐ Never

☐ Some of the time

☐ Most of the time

☐ Always

7. Have you personally known anyone who tested positive for the AIDS virus?

☐ No

☐ Yes

8. Have you personally known anyone who was sick with AIDS?

☐ No

☐ Yes

9. How worried or concerned are you that you will get AIDS?

☐ Not at all worried

☐ Not too worried

☐ Somewhat worried

☐ Very worried

10. How often do you carry condoms with you when you go out?

☐ Never

☐ Some of the time

☐ Most of the time

☐ Always

We are interested in what you'd do if you found yourself in the following settings.

☞ If the following cases were to happen to you, please answer what you think you would *REALLY* do, NOT what you think you *SHOULD* do. ✍

	Never	Some of the time	Most of the time	Always
1. Before having sex with a new partner, I would ask about the number of partners they've had sex with.	☐	☐	☐	☐
2. Before having sex with a new partner, I would ask how they feel about using condoms.	☐	☐	☐	☐
3. How often would you use a condom with a new sex partner that you *really* like?	☐	☐	☐	☐
4. How often would you use a condom with a new sex partner that you like but who isn't that special to you?	☐	☐	☐	☐
5. If I found out I was practicing unsafe sex, I would change to safer sex.	☐	☐	☐	☐
6. I would work with a person who has the AIDS virus infection.	☐	☐	☐	☐
7. Before having sex with a new partner, I would ask about their use of drugs.	☐	☐	☐	☐
8. If I'm too drunk or high to have safer sex, I won't have sex at all.	☐	☐	☐	☐
9. I will tell my friends to learn more about AIDS.	☐	☐	☐	☐
10. I will tell my friends to practice safer sex.	☐	☐	☐	☐
11. I will tell my friends to carry condoms.	☐	☐	☐	☐

☞ **For each of the next cases, choose the answer which comes closest to what you think you would do.**

Check one box only for each case. ✍

12. You return home on leave to see the person you've been going out with steadily. You go out on a date, and then return to the apartment where you both start thinking about having sex. You haven't seen each other for a while, and you each secretly wonder if the other has been seeing someone else. You never used condoms when you had sex together before, but you wonder if you should use a condom now.

    Check the one box that best fits what you think would really happen:

    1. You use a condom without talking about it first because you don't want to make a big deal about bringing up the subject of safer sex. ☐
    2. You don't use a condom because you don't want to risk having to talk about whether you've been faithful to each other. ☐
    3. You talk with your partner about practicing safer sex, and then you both decide to use a condom. ☐
    4. You don't use a condom because you both really like that natural feeling. ☐

13. **FOR MALES ONLY**: You and some of your friends go into a bar near the base one Saturday night. While you are talking with your friends a few women come over and ask you if you want to have a good time. You think they are prostitutes, and you think about the risk of AIDS, but it sounds like fun anyway.

    Check the one box that best fits what you think would really happen:

    1. You say yes and leave the bar with one of the women, but only after making sure you have a condom with you. ☐
    2. You say no, because you don't know anything about these women yet. ☐
    3. You say yes, and leave the bar with one of the women. You think there is very little chance of getting the AIDS virus. ☐
    4. You say no, because you have decided never to have sex with a prostitute. ☐

14. **FOR FEMALES ONLY**: You and some of your friends go into a bar near the base one Saturday night. While you are talking with your friends a few men come over, and later one of them asks you if you want to leave and go to his place. You think he's the kind of guy who is just looking for a good time, and you think about the risk of AIDS, but it sounds like fun anyway.

Check the one box that best fits what you think would really happen:

1. You say yes and leave the bar with him, but only after making sure you have a condom with you. ☐
2. You say no, because you don't know anything about this guy yet. ☐
3. You say yes, and leave the bar with him. You think there is very little chance of getting the AIDS virus. ☐
4. You say no, because you have decided never to have sex with the kind of guy who's only looking for a good time. ☐

☞ **We'll end with a few questions about yourself and your background. Your answers to these last questions will help us to relate your responses to others having alike or different backgrounds.**

1. What is your date of birth? ☐☐ month ☐☐ day 1 9☐☐ year

2. What is your sex?
   - ☐ Male
   - ☐ Female

3. What is your racial/ethnic background? (Check **one** box)
   - ☐ Asian
   - ☐ Black
   - ☐ Latino/Hispanic
   - ☐ Native American
   - ☐ White
   - ☐ Other (please specify):_____

4. What is your marital status?

- ☐ Never married
- ☐ Separated
- ☐ Divorced
- ☐ Widowed
- ☐ Married → **If married**, do you live with your spouse?
  - ☐ No
  - ☐ Yes

5. Please check the highest year you completed in school:

Grade school	☐ 1st	☐ 2nd	☐ 3rd	☐ 4th	☐ 5th	☐ 6th	☐ 7th	☐ 8th
High school	☐ 9th	☐ 10th	☐ 11th	☐ 12th				
College	☐ 1st	☐ 2nd	☐ 3rd	☐ 4th	☐ 5+			

6. What was the date of your enlistment? ☐☐ month ☐1 ☐9 ☐☐ year

7. What is your grade? (Write the number in the correct box below)

Enlisted: E ☐

Officer: O ☐

8. Not including today's class, have you had any other AIDS classes?

- ☐ No
- ☐ Yes

Thanks. We really appreciate your time and help.

BASELINE: POSTTEST ASSESSMENT

☐☐☐-☐☐-☐☐☐☐

Health
and
AIDS Information
Questionnaire II

Survey Approval Authority: U.S. Army Soldier Support Center
Survey Control Number: ATNC-AO-90-37
RCS: MILPC-3
7/90

☞ **We are interested in what you think or feel about the following statements.**

Please tell us how much you agree or disagree with each of them.
Check one box for each statement. ✍

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Most of my friends who have sex with different partners use condoms (rubbers).	☐	☐	☐	☐
2. A lot of people my age use condoms.	☐	☐	☐	☐
3. Most of my friends think that condoms are just too much of a hassle to use.	☐	☐	☐	☐
4. If I were infected, my body would be able to fight off the AIDS virus.	☐	☐	☐	☐
5. News reports on the AIDS epidemic cannot be trusted.	☐	☐	☐	☐
6. People infected with the AIDS virus should be quarantined so they won't infect others.	☐	☐	☐	☐
7. My religious beliefs do not allow the use of condoms.	☐	☐	☐	☐
8. Catching the "clap" (gonorrhea) from a sex partner would bother me.	☐	☐	☐	☐
9. AIDS has made people a lot more careful about who they have sex with.	☐	☐	☐	☐
10. I have already heard more than I want to hear about AIDS.	☐	☐	☐	☐
11. If I found out that a friend of mine had AIDS, I would still go to see that friend.	☐	☐	☐	☐
12. People with AIDS deserve to get the disease.	☐	☐	☐	☐
13. I don't think AIDS will ever affect my own life.	☐	☐	☐	☐

Please check one box for each of the next questions:

☞ How likely do you think it is that you could get the AIDS virus infection from . . .

	Very Unlikely	Somewhat Unlikely	Somewhat Likely	Very Likely
1. receiving a blood transfusion in the United States?	☐	☐	☐	☐
2. donating or giving blood in the United States?	☐	☐	☐	☐
3. eating in a restaurant where the cook has AIDS?	☐	☐	☐	☐
4. shaking hands with or touching someone who has AIDS?	☐	☐	☐	☐
5. sharing needles for drug use with someone who has the AIDS virus?	☐	☐	☐	☐
6. being coughed or sneezed on by someone who has AIDS?	☐	☐	☐	☐
7. mosquitoes or other insects?	☐	☐	☐	☐
8. kissing a person who has AIDS with exchange of saliva?	☐	☐	☐	☐

Note: For questions 9 and 10, "having sex" means sexual intercourse in which the penis is inserted into the vagina or anus (rear-end or rectum).

9. having sex with a person who has the AIDS virus, using a condom?	☐	☐	☐	☐
10. having sex with a person who has the AIDS virus, *not* using a condom?	☐	☐	☐	☐
11. a pregnant woman who has the AIDS virus can give it to her baby.	☐	☐	☐	☐

12. How worried or concerned are you that you will get AIDS?

- ☐ Not at all worried
- ☐ Not too worried
- ☐ Somewhat worried
- ☐ Very worried

☞ **Please continue to check one box for each statement in the following section.** ✍

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Once you've been told that you do not have the AIDS virus, you don't need to worry about catching AIDS in the future.	☐	☐	☐	☐
2. If you test negative on the HIV Antibody Test you don't have to be concerned with safer sex.	☐	☐	☐	☐
3. It is what people do, not who they are, that puts them at risk of getting AIDS.	☐	☐	☐	☐
4. Reducing the number of sexual partners you have will help reduce the risk for getting the AIDS virus.	☐	☐	☐	☐
5. You can tell if a person has AIDS by knowing about his/her lifestyle.	☐	☐	☐	☐
6. *Throughout the world, AIDS is found* mostly among homosexual (gay) men.	☐	☐	☐	☐
7. Sharing needles for drug use with friends can put you at risk of getting the AIDS virus.	☐	☐	☐	☐
8. Sharing needles for drug use with strangers can put you at risk of getting the AIDS virus.	☐	☐	☐	☐
9. You can be infected with the AIDS virus and still look healthy.	☐	☐	☐	☐
10. Women can **not** pass the AIDS virus to their male sex partners.	☐	☐	☐	☐
11. You can get the AIDS virus from oral sex.	☐	☐	☐	☐
12. If you have AIDS, the chances you will die from it are very high.	☐	☐	☐	☐
13. It is possible to catch the AIDS virus from having unsafe sex even one time.	☐	☐	☐	☐
14. Natural (lambskin) condoms work better than latex (rubber) condoms in preventing AIDS virus infection.	☐	☐	☐	☐
15. Oil-based lubricants (like Vaseline) cause condoms to break.	☐	☐	☐	☐

☞ **Please tell us how much you agree or disagree with each of the next statements, *EVEN IF IT DOESN'T APPLY TO YOU.***

Check one box for each statement. ✍

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Sex doesn't feel as good to a man when he uses a condom.	☐	☐	☐	☐
2. If I were single, it would be hard for me to limit the number of sexual partners I have.	☐	☐	☐	☐
3. I know of precautions I could take to reduce my risk of getting or giving the AIDS virus.	☐	☐	☐	☐
4. Having to stop sex to put on a condom takes the fun out of sex.	☐	☐	☐	☐
5. It's embarrassing to buy condoms in a store.	☐	☐	☐	☐
6. Before I had sex with a new partner, I would discuss AIDS protection with them.	☐	☐	☐	☐
7. Other "safer sex" practices (such as masturbating each other, phone sex, fantasy) are not as enjoyable as having sex.	☐	☐	☐	☐
8. It would be hard for me to ask a new sex partner about their past sexual behaviors.	☐	☐	☐	☐
9. If my sex partner does not want to use condoms, there is little I can do about it.	☐	☐	☐	☐
10. Sex doesn't feel as good to a woman when her partner uses a condom.	☐	☐	☐	☐
11. If I were single, it would be hard for me to just stop having sex.	☐	☐	☐	☐
12. I don't know how to bring up the subject of past sexual behaviors with a new sex partner.	☐	☐	☐	☐
13. In the heat of passion with a new sex partner, I have a hard time stopping to use a condom.	☐	☐	☐	☐
14. a) **FOR MALES ONLY**: I wouldn't use a condom because I want my sex partner to become pregnant.	☐	☐	☐	☐
b) **FOR FEMALES ONLY**: I wouldn't have my sex partner use a condom because I want to become pregnant.	☐	☐	☐	☐

We are interested in what you'd do if you found yourself in the following settings.

☞ If the following cases were to happen to you, please answer what you think you would *REALLY* do, NOT what you think you *SHOULD* do. ✍

	Never	Some of the time	Most of the time	Always
1. Before having sex with a new partner, I would ask about the number of partners they've had sex with.	☐	☐	☐	☐
2. Before having sex with a new partner, I would ask how they feel about using condoms.	☐	☐	☐	☐
3. How often would you use a condom with a new sex partner that you *really* like?	☐	☐	☐	☐
4. How often would you use a condom with a new sex partner that you like but who isn't that special to you?	☐	☐	☐	☐
5. If I found out I was practicing unsafe sex, I would change to safer sex.	☐	☐	☐	☐
6. I would work with a person who has the AIDS virus infection.	☐	☐	☐	☐
7. Before having sex with a new partner, I would ask about their use of drugs.	☐	☐	☐	☐
8. *If I'm too drunk or high to have safer sex,* I won't have sex at all.	☐	☐	☐	☐
9. I will tell my friends to learn more about AIDS.	☐	☐	☐	☐
10. I will tell my friends to practice safer sex.	☐	☐	☐	☐
11. I will tell my friends to carry condoms.	☐	☐	☐	☐

☞ **For each of the next cases, choose the answer which comes closest to what you think you would do.**

Check one box only for each case. ✍

12. You return home on leave to see the person you've been going out with steadily. You go out on a date, and then return to the apartment where you both start thinking about having sex. You haven't seen each other for a while, and you each secretly wonder if the other has been seeing someone else. You never used condoms when you had sex together before, but you wonder if you should use a condom now.

    Check the one box that best fits what you think would really happen:

    1. You use a condom without talking about it first because you don't want to make a big deal about bringing up the subject of safer sex. ☐
    2. You don't use a condom because you don't want to risk having to talk about whether you've been faithful to each other. ☐
    3. You talk with your partner about practicing safer sex, and then you both decide to use a condom. ☐
    4. You don't use a condom because you both *really like* that *natural* feeling. ☐

13. **FOR MALES ONLY**: You and some of your friends go into a bar near the base one Saturday night. While you are talking with your friends a few women come over and ask you if you want to have a good time. You think they are prostitutes, and you think about the risk of AIDS, but it sounds like fun anyway.

    Check the one box that best fits what you think would really happen:

    1. You say yes and leave the bar with one of the women, but only after making sure you have a condom with you. ☐
    2. You say no, because you don't know anything about these women yet. ☐
    3. You say yes, and leave the bar with one of the women. You think there is very little chance of getting the AIDS virus. ☐
    4. You say no, because you have decided never to have sex with a prostitute. ☐

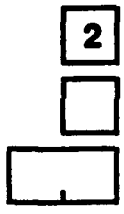
14. **FOR FEMALES ONLY:** You and some of your friends go into a bar near the base one Saturday night. While you are talking with your friends a few men come over, and later one of them asks you if you want to leave and go to his place. You think he's the kind of guy who is just looking for a good time, and you think about the risk of AIDS, but it sounds like fun anyway.

Check the one box that best fits what you think would really happen:

1. You say yes and leave the bar with him, but only after making sure you have a condom with you. ☐
2. You say no, because you don't know anything about this guy yet. ☐
3. You say yes, and leave the bar with him. You think there is very little chance of getting the AIDS virus. ☐
4. You say no, because you have decided never to have sex with the kind of guy who's only looking for a good time. ☐

Thanks again for your time and help.

6-MONTH ASSESSMENT



Health
and
AIDS Information Questionnaire

Survey Approval Authority: U.S. Army Soldier Support Center
Survey Control Number: ATNC-AO-90-37
RCS: MILPC-3
1/91

First, we have a few questions about your general health and safety habits.

☞ ***Please answer each question with what you REALLY do, NOT what you think you SHOULD do.*** ✍

1. How would you rate your health?
   - ☐ Poor
   - ☐ Fair
   - ☐ Good
   - ☐ Excellent

2. When you travel in a car, how often do you use seatbelts?
   - ☐ Never
   - ☐ Rarely
   - ☐ Sometimes
   - ☐ Usually
   - ☐ Always

3. Which of the next statements best describes you? (Check **one** box)
   - ☐ I am a cigarette smoker now.
   - ☐ I used to smoke cigarettes, but I don't now.
   - ☐ I have never smoked cigarettes.

4. How much alcohol do you usually drink during a week? **(If none at all, please write "0" in the box)**

   a) **Beer**: Number of cans or bottles (12 oz.) per 7-day week ☐☐ cans or bottles per week

   b) **Wine**: Number of glasses of wine (4 oz.) per 7-day week ☐☐ glasses per week

   c) **Liquor**: Number of hard liquor drinks (1 oz.) per 7-day week ☐☐ drinks per week

5. How often do you drive after you have been drinking?
   - ☐ Always
   - ☐ Usually
   - ☐ Sometimes
   - ☐ Rarely
   - ☐ Never

☞ **We are interested in what you think or feel about the following statements.**

Please tell us how much you agree or disagree with each of them.
Check *one* box *for* each statement.

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Most of my friends who have sex with different partners use condoms (rubbers).	☐	☐	☐	☐
2. A lot of people my age use condoms.	☐	☐	☐	☐
3. Most of my friends think that condoms are just too much of a hassle to use.	☐	☐	☐	☐
4. If I were infected, my body would be able to fight off the AIDS virus.	☐	☐	☐	☐
5. News reports on the AIDS epidemic cannot be trusted.	☐	☐	☐	☐
6. People infected with the AIDS virus should be quarantined so they won't infect others.	☐	☐	☐	☐
7. My religious beliefs do not allow the use of condoms.	☐	☐	☐	☐
8. Catching the "clap" (gonorrhea) from a sex partner would bother me.	☐	☐	☐	☐
9. AIDS has made people a lot more careful about who they have sex with.	☐	☐	☐	☐
10. I have already heard more than I want to hear about AIDS.	☐	☐	☐	☐
11. If I found out that a friend of mine had AIDS, I would still go to see that friend.	☐	☐	☐	☐
12. People with AIDS deserve to get the disease.	☐	☐	☐	☐
13. I don't think AIDS will ever affect my own life.	☐	☐	☐	☐

Please check one box for each of the next questions:

☞ How likely do you think it is that you could get the AIDS virus infection from . . .

	Very Unlikely	Somewhat Unlikely	Somewhat Likely	Very Likely
1. receiving a blood transfusion in the United States?	☐	☐	☐	☐
2. donating or giving blood in the United States?	☐	☐	☐	☐
3. eating in a restaurant where the cook has AIDS?	☐	☐	☐	☐
4. shaking hands with or touching someone who has AIDS?	☐	☐	☐	☐
5. sharing needles for drug use with someone who has the AIDS virus?	☐	☐	☐	☐
6. being coughed or sneezed on by someone who has AIDS?	☐	☐	☐	☐
7. mosquitoes or other insects?	☐	☐	☐	☐
8. kissing a person who has AIDS with exchange of saliva?	☐	☐	☐	☐

Note: For questions 9 and 10, "having sex" means sexual intercourse in which the penis is inserted into the vagina or anus (rear-end or rectum).

9. having sex with a person who has the AIDS virus, using a condom?	☐	☐	☐	☐
10. having sex with a person who has the AIDS virus, *not* using a condom?	☐	☐	☐	☐
11. a pregnant woman who has the AIDS virus can give it to her baby.	☐	☐	☐	☐

☞ **Please continue to check one box for each statement in the following section.** ✍

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Once you've been told that you do not have the AIDS virus, you don't need to worry about catching AIDS in the future.	☐	☐	☐	☐
2. If you test negative on the HIV Antibody Test you don't have to be concerned with safer sex.	☐	☐	☐	☐
3. It is what people do, not who they are, that puts them at risk of getting AIDS.	☐	☐	☐	☐
4. Reducing the number of sexual partners you have will help reduce the risk for getting the AIDS virus.	☐	☐	☐	☐
5. You can tell if a person has AIDS by knowing about his/her lifestyle.	☐	☐	☐	☐
6. Throughout the world, AIDS is found *mostly among homosexual (gay) men.*	☐	☐	☐	☐
7. Sharing needles for drug use with friends can put you at risk of getting the AIDS virus.	☐	☐	☐	☐
8. Sharing needles for drug use with strangers can put you at risk of getting the AIDS virus.	☐	☐	☐	☐
9. You can be infected with the AIDS virus and still look healthy.	☐	☐	☐	☐
10. Women can not pass the AIDS virus to their male sex partners.	☐	☐	☐	☐
11. You can get the AIDS virus from oral sex.	☐	☐	☐	☐
12. If you have AIDS, the chances you will die from it are very high.	☐	☐	☐	☐
13. It is possible to catch the AIDS virus from having unsafe sex even one time.	☐	☐	☐	☐
14. Natural (lambskin) condoms work better than latex (rubber) condoms in preventing AIDS virus infection.	☐	☐	☐	☐
15. Oil-based lubricants (like Vaseline) cause condoms to break.	☐	☐	☐	☐

☞ **Please tell us how much you agree or disagree with each of the next statements, *EVEN IF IT DOESN'T APPLY TO YOU.***

Check one box for each statement. ✍

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Sex doesn't feel as good to a man when he uses a condom.	☐	☐	☐	☐
2. If I were single, it would be hard for me to limit the number of sexual partners I have.	☐	☐	☐	☐
3. I know of precautions I could take to reduce my risk of getting or giving the AIDS virus.	☐	☐	☐	☐
4. Having to stop sex to put on a condom takes the fun out of sex.	☐	☐	☐	☐
5. It's embarrassing to buy condoms in a store.	☐	☐	☐	☐
6. Before I had sex with a new partner, I would discuss AIDS protection with them.	☐	☐	☐	☐
7. Other "safer sex" practices (such as masturbating each other, phone sex, fantasy) are not as enjoyable as having sex.	☐	☐	☐	☐
8. It would be hard for me to ask a new sex partner about their past sexual behaviors.	☐	☐	☐	☐
9. If my sex partner does not want to use condoms, there is little I can do about it.	☐	☐	☐	☐
10. Sex doesn't feel as good to a woman when her partner uses a condom.	☐	☐	☐	☐
11. If I were single, it would be hard for me to just stop having sex.	☐	☐	☐	☐
12. I don't know how to bring up the subject of past sexual behaviors with a new sex partner.	☐	☐	☐	☐
13. In the heat of passion with a new sex partner, I have a hard time stopping to use a condom.	☐	☐	☐	☐
14. a) <u>FOR MALES ONLY</u>: I wouldn't use a condom because I want my sex partner to become pregnant.	☐	☐	☐	☐
b) <u>FOR FEMALES ONLY</u>: I wouldn't have my sex partner use a condom because I want to become pregnant.	☐	☐	☐	☐

☞ **The next few questions ask about personal behaviors in the past 6 months.**

***Reminder*: For the next questions, "having sex" means sexual intercourse in which the penis is inserted into the vagina or anus (rear-end or rectum).**

1. In the past 6 months, have you used a condom during sex?
   - ☐ Does not apply, I have not had sex.
   - ☐ No
   - ☐ Yes

2. In the past 6 months, has a doctor or medical person told you that you have an infection that you got from another person during sex? For example, "clap" (gonorrhea) or herpes?
   - ☐ No
   - ☐ Yes → **If yes**: a) How many times?
     ☐☐ times

3. How many different sex partners have you had in the past 6 months?
   - ☐ No sex partners at all in the past 6 months
   - ☐ One partner only
   - ☐ 2 - 4 partners
   - ☐ 5 - 9 partners
   - ☐ 10 - 15 partners
   - ☐ More than 15 partners

4. Did you travel outside of the United States during the past 6 months?
   - ☐ No
   - ☐ Yes → If yes, did you have sex with a new partner when you were outside the U.S.?
     - ☐ No
     - ☐ Yes

5. In the past 6 months, have you paid someone to have sex with you?

☐ No

☐ Yes → If yes, with how many partners?

☐☐ partners

6. In the past 6 months when you had sex with a new partner, how often was a condom used?

☐ No new sex partner(s) in the past 6 months

☐ Never

☐ Some of the time

☐ Most of the time

☐ Always

7. In the past 6 months, have you personally met anyone who tested positive for the AIDS virus?

☐ No

☐ Yes

8. In the past 6 months, have you personally met anyone who was sick with AIDS?

☐ No

☐ Yes

9. How worried or concerned are you that you will get AIDS?

☐ Not at all worried

☐ Not too worried

☐ Somewhat worried

☐ Very worried

10. How often do you carry condoms with you when you go out?

☐ Never

☐ Some of the time

☐ Most of the time

☐ Always

We are interested in what you'd do if you found yourself in the following settings.

☞ **If the following cases were to happen to you, please answer what you think you would *REALLY* do, NOT what you think you *SHOULD* do.** ✍

	Never	Some of the time	Most of the time	Always
1. Before having sex with a new partner, I would ask about the number of partners they've had sex with.	☐	☐	☐	☐
2. Before having sex with a new partner, I would ask how they feel about using condoms.	☐	☐	☐	☐
3. How often would you use a condom with a new sex partner that you *really* like?	☐	☐	☐	☐
4. How often would you use a condom with a new sex partner that you like but who isn't that special to you?	☐	☐	☐	☐
5. If I found out I was practicing unsafe sex, I would change to safer sex.	☐	☐	☐	☐
6. I would work with a person who has the AIDS virus infection.	☐	☐	☐	☐
7. Before having sex with a new partner, I would ask about their use of drugs.	☐	☐	☐	☐
8. If I'm too drunk or high to have safer sex, I won't have sex at all.	☐	☐	☐	☐
9. I will tell my friends to learn more about AIDS.	☐	☐	☐	☐
10. I will tell my friends to practice safer sex.	☐	☐	☐	☐
11. I will tell my friends to carry condoms.	☐	☐	☐	☐

☞ For each of the next cases, choose the answer which comes closest to what you think you would do.

Check *one box only* for each case. ✍

12. You return home on leave to see the person you've been going out with steadily. You go out on a date, and then return to the apartment where you both start thinking about having sex. You haven't seen each other for a while, and you each secretly wonder if the other has been seeing someone else. You never used condoms when you had sex together before, but you wonder if you should use a condom now.

    Check the one box that best fits what you think would really happen:

    1. You use a condom without talking about it first because you don't want to make a big deal about bringing up the subject of safer sex. ☐
    2. You don't use a condom because you don't want to risk having to talk about whether you've been faithful to each other. ☐
    3. You talk with your partner about practicing safer sex, and then you both decide to use a condom. ☐
    4. You don't use a condom because you both really like that natural feeling. ☐

13. <u>FOR MALES ONLY</u>: You and some of your friends go into a bar near the base one Saturday night. While you are talking with your friends a few women come over and ask you if you want to have a good time. You think they are prostitutes, and you think about the risk of AIDS, but it sounds like fun anyway.

    Check the one box that best fits what you think would really happen:

    1. You say yes and leave the bar with one of the women, but only after making sure you have a condom with you. ☐
    2. You say no, because you don't know anything about these women yet. ☐
    3. You say yes, and leave the bar with one of the women. You think there is very little chance of getting the AIDS virus. ☐
    4. You say no, because you have decided never to have sex with a prostitute. ☐

14. **FOR FEMALES ONLY**: You and some of your friends go into a bar near the base one Saturday night. While you are talking with your friends a few men come over, and later one of them asks you if you want to leave and go to his place. You think he's the kind of guy who is just looking for a good time, and you think about the risk of AIDS, but it sounds like fun anyway.

Check the one box that best fits what you think would really happen:

1. You say yes and leave the bar with him, but only after making sure you have a condom with you. ☐
2. You say no, because you don't know anything about this guy yet. ☐
3. You say yes, and leave the bar with him. You think there is very little chance of getting the AIDS virus. ☐
4. You say no, because you have decided never to have sex with the kind of guy who's only looking for a good time. ☐

☞ **We'll end with a few questions about yourself and your background. Your answers to these last questions will help us to relate your responses to others having alike or different backgrounds.**

1. What is your marital status?
   - ☐ Never married
   - ☐ Separated
   - ☐ Divorced
   - ☐ Widowed
   - ☐ Married → **If married**, do you live with your spouse?
     - ☐ No
     - ☐ Yes

2. Please check the highest year you completed in school:

Grade school	☐ 1st	☐ 2nd	☐ 3rd	☐ 4th	☐ 5th	☐ 6th	☐ 7th	☐ 8th
High school	☐ 9th	☐ 10th	☐ 11th	☐ 12th				
College	☐ 1st	☐ 2nd	☐ 3rd	☐ 4th	☐ 5+			

3. What is your grade? (Write the number in the correct box below)

Enlisted: E ☐
Warrant Officer: W ☐
Commissioned Officer: O ☐

4. In the past 6 months, have you talked to friends about AIDS?

☐ No
☐ Yes

5. In the past 6 months, have you tried to learn more about AIDS? For example, by reading a pamphlet or newspaper story, watching a TV show, talking to a doctor or a medical person?

☐ No
☐ Yes

6. Not including your inprocessing briefing, have you had any other AIDS briefings in the past 6 months?

☐ No
☐ Yes

Thanks. Once again, we really appreciate your time and help.

12-MONTH ASSESSMENT

Health
and
AIDS Information Questionnaire

Survey Approval Authority: U.S. Army Soldier Support Center
Survey Control Number: ATNC-AO-90-37
RCS: MILPC-3
6/91

First, we have a few questions about your general health and safety habits.

☞ Please answer each question with what you *REALLY* do, NOT what you think you *SHOULD* do. ✍

1. How would you rate your health?
   - ☐ Poor
   - ☐ Fair
   - ☐ Good
   - ☐ Excellent

2. When you travel in a car, how often do you use seatbelts?
   - ☐ Never
   - ☐ Rarely
   - ☐ Sometimes
   - ☐ Usually
   - ☐ Always

3. Which of the next statements best describes you? (Check **one** box)
   - ☐ I am a cigarette smoker now.
   - ☐ I used to smoke cigarettes, but I don't now.
   - ☐ I have never smoked cigarettes.

4. How much alcohol do you usually drink during a week? **(If none at all, please write "0" in the box)**

   a) **Beer**: Number of cans or bottles (12 oz.) per 7-day week ☐☐ cans or bottles per week

   b) **Wine**: Number of glasses of wine (4 oz.) per 7-day week ☐☐ glasses per week

   c) **Liquor**: Number of hard liquor drinks (1 oz.) per 7-day week ☐☐ drinks per week

5. How often do you drive after you have been drinking?
   - ☐ Always
   - ☐ Usually
   - ☐ Sometimes
   - ☐ Rarely
   - ☐ Never

☞ **We are interested in what you think or feel about the following statements.**

Please tell us how much you agree or disagree with each of them.
Check one box for each statement. ✍

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Most of my friends who have sex with different partners use condoms (rubbers).	☐	☐	☐	☐
2. A lot of people my age use condoms.	☐	☐	☐	☐
3. Most of my friends think that condoms are just too much of a hassle to use.	☐	☐	☐	☐
4. If I were infected, my body would be able to fight off the AIDS virus.	☐	☐	☐	☐
5. News reports on the AIDS epidemic cannot be trusted.	☐	☐	☐	☐
6. People infected with the AIDS virus should be quarantined so they won't infect others.	☐	☐	☐	☐
7. My religious beliefs do not allow the use of condoms.	☐	☐	☐	☐
8. Catching the "clap" (gonorrhea) from a sex partner would bother me.	☐	☐	☐	☐
9. AIDS has made people a lot more careful about who they have sex with.	☐	☐	☐	☐
10. I have already heard more than I want to hear about AIDS.	☐	☐	☐	☐
11. If I found out that a friend of mine had AIDS, I would still go to see that friend.	☐	☐	☐	☐
12. People with AIDS deserve to get the disease.	☐	☐	☐	☐
13. I don't think AIDS will ever affect my own life.	☐	☐	☐	☐

Please check one box for each of the next questions:

☞ How likely do you think it is that you could get the AIDS virus infection from . . .

	Very Unlikely	Somewhat Unlikely	Somewhat Likely	Very Likely
1. receiving a blood transfusion in the United States?	☐	☐	☐	☐
2. donating or giving blood in the United States?	☐	☐	☐	☐
3. eating in a restaurant where the cook has AIDS?	☐	☐	☐	☐
4. shaking hands with or touching someone who has AIDS?	☐	☐	☐	☐
5. sharing needles for drug use with someone who has the AIDS virus?	☐	☐	☐	☐
6. being coughed or sneezed on by someone who has AIDS?	☐	☐	☐	☐
7. mosquitoes or other insects?	☐	☐	☐	☐
8. kissing a person who has AIDS with exchange of saliva?	☐	☐	☐	☐

Note: For questions 9 and 10, "having sex" means sexual intercourse in which the penis is inserted into the vagina or anus (rear-end or rectum).

9. having sex with a person who has the AIDS virus, using a condom?	☐	☐	☐	☐
10. having sex with a person who has the AIDS virus, *not* using a condom?	☐	☐	☐	☐
11. a pregnant woman who has the AIDS virus can give it to her baby.	☐	☐	☐	☐

Please continue to check one box for each statement in the following section.

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Once you've been told that you do not have the AIDS virus, you don't need to worry about catching AIDS in the future.	☐	☐	☐	☐
2. If you test negative on the HIV Antibody Test you don't have to be concerned with safer sex.	☐	☐	☐	☐
3. It is what people do, not who they are, that puts them at risk of getting AIDS.	☐	☐	☐	☐
4. Reducing the number of sexual partners you have will help reduce the risk for getting the AIDS virus.	☐	☐	☐	☐
5. You can tell if a person has AIDS by knowing about his/her lifestyle.	☐	☐	☐	☐
6. Throughout the world, AIDS is found mostly among homosexual (gay) men.	☐	☐	☐	☐
7. Sharing needles for drug use with friends can put you at risk of getting the AIDS virus.	☐	☐	☐	☐
8. Sharing needles for drug use with strangers can put you at risk of getting the AIDS virus.	☐	☐	☐	☐
9. You can be infected with the AIDS virus and still look healthy.	☐	☐	☐	☐
10. Women can not pass the AIDS virus to their male sex partners.	☐	☐	☐	☐
11. You can get the AIDS virus from oral sex.	☐	☐	☐	☐
12. If you have AIDS, the chances you will die from it are very high.	☐	☐	☐	☐
13. It is possible to catch the AIDS virus from having unsafe sex even one time.	☐	☐	☐	☐
14. Natural (lambskin) condoms work better than latex (rubber) condoms in preventing AIDS virus infection.	☐	☐	☐	☐
15. Oil-based lubricants (like Vaseline) cause condoms to break.	☐	☐	☐	☐

☞ **Please tell us how much you agree or disagree with each of the next statements, *EVEN IF IT DOESN'T APPLY TO YOU.***

Check one box for each statement. ✍

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Sex doesn't feel as good to a man when he uses a condom.	☐	☐	☐	☐
2. If I were single, it would be hard for me to limit the number of sexual partners I have.	☐	☐	☐	☐
3. I know of precautions I could take to reduce my risk of getting or giving the AIDS virus.	☐	☐	☐	☐
4. Having to stop sex to put on a condom takes the fun out of sex.	☐	☐	☐	☐
5. It's embarrassing to buy condoms in a store.	☐	☐	☐	☐
6. Before I had sex with a new partner, I would discuss AIDS protection with them.	☐	☐	☐	☐
7. Other "safer sex" practices (such as masturbating each other, phone sex, fantasy) are not as enjoyable as having sex.	☐	☐	☐	☐
8. It would be hard for me to ask a new sex partner about their past sexual behaviors.	☐	☐	☐	☐
9. If my sex partner does not want to use condoms, there is little I can do about it.	☐	☐	☐	☐
10. Sex doesn't feel as good to a woman when her partner uses a condom.	☐	☐	☐	☐
11. If I were single, it would be hard for me to just stop having sex.	☐	☐	☐	☐
12. I don't know how to bring up the subject of past sexual behaviors with a new sex partner.	☐	☐	☐	☐
13. In the heat of passion with a new sex partner, I have a hard time stopping to use a condom.	☐	☐	☐	☐
14. a) <u>FOR MALES ONLY</u>: I wouldn't use a condom because I want my sex partner to become pregnant.	☐	☐	☐	☐
b) <u>FOR FEMALES ONLY</u>: I wouldn't have my sex partner use a condom because I want to become pregnant.	☐	☐	☐	☐

☞ **The next few questions ask about personal behaviors in the past 6 months.**

***Reminder*: For the next questions, "having sex" means sexual intercourse in which the penis is inserted into the vagina or anus (rear-end or rectum).**

1. In the past 6 months, have you used a condom during sex?

   ☐ Does not apply, I have not had sex.
   ☐ No
   ☐ Yes

2. In the past 6 months, has a doctor or medical person told you that you have an infection that you got from another person during sex? For example, "clap" (gonorrhea) or herpes?

   ☐ No
   ☐ Yes → **If yes:** a) How many times?

   ☐ times

3. How many different sex partners have you had in the past 6 months?

   ☐ No sex partners at all in the past 6 months
   ☐ One partner only
   ☐ 2 - 4 partners
   ☐ 5 - 9 partners
   ☐ 10 - 15 partners
   ☐ More than 15 partners

4. Did you travel outside of the United States during the past 6 months?

   ☐ No
   ☐ Yes → If yes, did you have sex with a new partner when you were outside the U.S.?

      ☐ No
      ☐ Yes

5. In the past 6 months, have you paid someone to have sex with you?

☐ No

☐ Yes → If yes, with how many partners?

☐☐ partners

6. In the past 6 months when you had sex with a new partner, how often was a condom used?

☐ No new sex partner(s) in the past 6 months

☐ Never

☐ Some of the time

☐ Most of the time

☐ Always

7. In the past 6 months, have you personally met anyone who tested positive for the AIDS virus?

☐ No

☐ Yes

8. In the past 6 months, have you personally met anyone who was sick with AIDS?

☐ No

☐ Yes

9. How worried or concerned are you that you will get AIDS?

☐ Not at all worried

☐ Not too worried

☐ Somewhat worried

☐ Very worried

10. How often do you carry condoms with you when you go out?

☐ Never

☐ Some of the time

☐ Most of the time

☐ Always

We are interested in what you'd do if you found yourself in the following settings.

☞ **If the following cases were to happen to you, please answer what you think you would *REALLY* do, NOT what you think you *SHOULD* do.** ✍

	Never	Some of the time	Most of the time	Always
1. Before having sex with a new partner, I would ask about the number of partners they've had sex with.	☐	☐	☐	☐
2. Before having sex with a new partner, I would ask how they feel about using condoms.	☐	☐	☐	☐
3. How often would you use a condom with a new sex partner that you *really* like?	☐	☐	☐	☐
4. How often would you use a condom with a new sex partner that you like but who isn't that special to you?	☐	☐	☐	☐
5. If I found out I was practicing unsafe sex, I would change to safer sex.	☐	☐	☐	☐
6. I would work with a person who has the AIDS virus infection.	☐	☐	☐	☐
7. Before having sex with a new partner, I would ask about their use of drugs.	☐	☐	☐	☐
8. If I'm too drunk or high to have safer sex, I won't have sex at all.	☐	☐	☐	☐
9. I will tell my friends to learn more about AIDS.	☐	☐	☐	☐
10. I will tell my friends to practice safer sex.	☐	☐	☐	☐
11. I will tell my friends to carry condoms.	☐	☐	☐	☐

☞ For each of the next cases, choose the answer which comes closest to what you think you would do.

Check one box only for each case. ✍

12. You return home on leave to see the person you've been going out with steadily. You go out on a date, and then return to the apartment where you both start thinking about having sex. You haven't seen each other for a while, and you each secretly wonder if the other has been seeing someone else. You never used condoms when you had sex together before, but you wonder if you should use a condom now.

    Check the one box that best fits what you think would really happen:

    1. You use a condom without talking about it first because you don't want to make a big deal about bringing up the subject of safer sex. ☐
    2. You don't use a condom because you don't want to risk having to talk about whether you've been faithful to each other. ☐
    3. You talk with your partner about practicing safer sex, and then you both decide to use a condom. ☐
    4. You don't use a condom because you both really like that natural feeling. ☐

13. **FOR MALES ONLY**: You and some of your friends go into a bar near the base one Saturday night. While you are talking with your friends a few women come over and ask you if you want to have a good time. You think they are prostitutes, and you think about the risk of AIDS, but it sounds like fun anyway.

    Check the one box that best fits what you think would really happen:

    1. You say yes and leave the bar with one of the women, but only after making sure you have a condom with you. ☐
    2. You say no, because you don't know anything about these women yet. ☐
    3. You say yes, and leave the bar with one of the women. You think there is very little chance of getting the AIDS virus. ☐
    4. You say no, because you have decided never to have sex with a prostitute. ☐

14. **FOR FEMALES ONLY**: You and some of your friends go into a bar near the base one Saturday night. While you are talking with your friends a few men come over, and later one of them asks you if you want to leave and go to his place. You think he's the kind of guy who is just looking for a good time, and you think about the risk of AIDS, but it sounds like fun anyway.

Check the one box that best fits what you think would really happen:

1. You say yes and leave the bar with him, but only after making sure you have a condom with you. ☐
2. You say no, because you don't know anything about this guy yet. ☐
3. You say yes, and leave the bar with him. You think there is very little chance of getting the AIDS virus. ☐
4. You say no, because you have decided never to have sex with the kind of guy who's only looking for a good time. ☐

☞ **We'll end with a few questions about yourself and your background. Your answers to these last questions will help us to relate your responses to others having alike or different backgrounds.**

1. What is your marital status?
   - ☐ Never married
   - ☐ Separated
   - ☐ Divorced
   - ☐ Widowed
   - ☐ Married → **If married**, do you live with your spouse?
     - ☐ No
     - ☐ Yes

2. Please check the highest year you completed in school:

Grade school	☐ 1st	☐ 2nd	☐ 3rd	☐ 4th	☐ 5th	☐ 6th	☐ 7th	☐ 8th
High school	☐ 9th	☐ 10th	☐ 11th	☐ 12th				
College	☐ 1st	☐ 2nd	☐ 3rd	☐ 4th	☐ 5+			

3. What is your grade?

Enlisted: E ☐

Warrant Officer: W ☐

Commissioned Officer: O ☐

✍ Please:

Write a **NUMBER** in the correct box.

(Don't just check it).

4. In the past 6 months, have you talked to friends about AIDS?

☐ No

☐ Yes

5. In the past 6 months, have you tried to learn more about AIDS? For example, by reading a pamphlet or newspaper story, watching a TV show, talking to a doctor or a medical person?

☐ No

☐ Yes

6. Not including your inprocessing briefing, have you had any other AIDS briefings in the past 6 months?

☐ No

☐ Yes

☞ **And finally, we'd like to hear your comments on this research project and on the Army's AIDS briefings. Please tell us what you think by taking a few extra minutes to answer these final questions.**

1. In the future, the Army may choose a different way to present their AIDS briefings to all personnel. Which do you prefer?

☐ A briefing with a video only.

☐ A briefing presented by a medical person only.

☐ A briefing with both a video and a presentation by a medical person.

2. How often do you think the Army should conduct their AIDS briefings?

- ☐ Twice a year.
- ☐ Once a year.
- ☐ Once every other year.
- ☐ Just once, when a person joins the Army.

3. How well do you think the Army's AIDS briefings work?
   a) Do people learn more about AIDS?

   b) Do people who are not acting safely change their behavior after hearing a briefing?

4. What *could the Army do to make* the AIDS briefings work better?

5. Are there any other comments you'd like to make?

Thank you. Once again, we really appreciate your time and help.

Appendix B

Summaries of Data Analysis Results

Appendix B.1

BASELINE DATA COLLECTION SCHEDULE

GROUP	WEEK	DATE	TYPE OF BRIEFING	SUBJECTS (n)	RUNNING TOTAL (n)
1	1	8/8/90	Standard	29	29
2		8/9/90	Standard	27	56
3	2	8/15/90	Standard	31	87
4		8/16/90	Standard	38	125
5	3	8/22/90	Behavioral	32	157
6		8/23/90	Behavioral	43	200
7	4	8/29/90	Behavioral	30	230
8		8/30/90	Behavioral	38	268
9	5	9/12/90	Standard	34	302
10		9/13/90	Standard	33	335
11	6	9/19/90	Behavioral	23	358
12		9/20/90	Behavioral	27	385
13	7	9/26/90	Standard	20	405
14		9/27/90	Standard	35	440
15	8	10/3/90	Behavioral	27	467
16		10/4/90	Behavioral	36	503
***TOTAL**					**503**

* Two groups receiving standard HIV briefings on 9/5/90 and 9/6/90 were not included because the group sizes (n=10 and n=52, respectively) were too variant from the sizes of the other groups. This group size variance resulted from the occurrence of the Labor Day holiday during that particular week.

Appendix B.1 (cont'd)

BASELINE DATA CONSENT RATE

GROUP	WEEK	POTENTIAL PARTICIPANTS (n)	REFUSALS (n)	SUBJECTS (n)	RATE OF PARTICIPATION (%)
1	1	29	0	29	100
2		32	5	27	84
3	2	31	0	31	100
4		40	2	38	95
5	3	34	2	32	94
6		45	2	43	96
7	4	32	2	30	94
8		40	2	38	95
9	5	34	0	34	100
10		36	3	33	92
11	6	28	5	23	82
12		31	4	27	87
13	7	22	2	20	91
14		37	2	35	95
15	8	27	0	27	100
16		37	1	36	97
TOTAL		**535**	**32**	**503**	**94**

Appendix B.2: Sexual Behavior Risk Index -- Pretest Items -- Summary of Factor Analysis

Means, Standard Deviations, and Correlations (N=491)

	PRTNERSR	TRAVELR	PAIDSEX1	FREQUSER	CARRYR
Mean	0.43	0.32	0.08	0.45	0.33
Std Dev	0.50	0.47	0.27	0.50	0.47

PRTNERSR	100 *					Number of partners -- dichotomized
TRAVELR	55 *	100 *				Sex when traveling -- recoded
PAIDSEX1	28 *	35 *	100 *			Paid someone for sex in past year?
FREQUSER	61 *	45 *	12	100 *		Freq use condoms -- dichotomized
CARRYR	82 *	41 *	26 *	55 *	100 *	Freq carry condoms -- dichotomized

NOTE: Printed values for correlations are multiplied by 100 and rounded to the nearest integer. Absolute values >= .28 have been flagged by an '*' (p<.0001).

Initial Factor Method: Maximum Likelihood

Preliminary Eigenvalues: Total = 6.52792982 Average = 1.30558596

	1	2	3	4	5
Eigenvalue	6.815574	0.340876	0.094043	-0.259883	-0.462681
Difference	6.474698	0.246833	0.353926	0.202797	
Proportion	1.0441	0.0522	0.0144	-0.0398	-0.0709
Cumulative	1.0441	1.0963	1.1107	1.0709	1.0000

Initial Factor Method: ML | Prerotation Method: Varimax | Rotation Method: Promax

Factor Pattern		Rotated Factor Pattern	Factor Structure (Correlations)
	FACTOR1	Rotation not possible with 1 factor.	Rotation not possible with 1 factor.
PRTNERSR	97 *		
CARRYR	84 *		
FREQUSER	63 *	SBRI: Sexual Behavior Risk Index	
TRAVELR	57 *		
PAIDSEX1	29		

NOTE: Printed values for factor loadings are multiplied by 100 and rounded to the nearest integer. Absolute values >= .30 have been flagged by an '*'.

Appendix B.3

HAIQ Summary Scale Development

Summaries of the final factor analysis results are presented in Appendices B-4 through B-9. Final coefficient alphas, descriptive statistics, and correlations among the scale scores for the pretest are presented in Appendix B-10. The next six sections describe the groups of questionnaire items used to develop the ten summary scales.

Attitudes and Beliefs (AB). Ten items, comprising two scales of 7 and 3 items each, were selected from the original group of 17 items considered; the factor analysis results for the final items selected are presented in Appendix B-4. The 7 items deleted from the final scales included: FJBLFA, CATCHA, CAREFULA, ATRISKA, LFSTYLA, GAYMENA, and FIGHTA (see Appendix B-11 for a listing of pretest variable names and labels).

After rotation, the first factor (AB1) contained 7 items related to "General Attitudes and Beliefs" about AIDS (e.g., "If a friend had AIDS I would still visit"); the second factor (AB2) contained 3 items related to "Condom Use Norms" (e.g., "A lot of people my age use condoms"). Coefficient alphas were .66 and .71, respectively. Based upon the results of the factor analyses indicating two distinct factors and a relatively low coefficient alpha of .60 when all 10 items were combined into one scale, all subsequent analyses use the separate summary scales, AB1 and AB2.

General Knowledge (GK). Ten items comprising one scale were selected from the original group of 17 items considered; the factor analysis results for the final items selected are presented in Appendix B-5. The 7 items deleted from the final scale included: ATRISKA, LFSTYLA, GAYMENA, FIGHTA, AFFECTA, LATEXA, and LUBEA.

Seven of the 10 items in the "General Knowledge" scale had means greater than 3.5 (possible range 1.0 to 4.0), indicating ceiling effects due to the fact that most subjects knew the "correct" answer to these items; the means for the other 3 items were all above 3.0. As a result, the mean and standard deviation for the overall summary scale were 3.51 and 0.35, respectively, representing a compact, truncated distribution of individual scale scores that also showed a ceiling effect. In addition, because the two items (FUTUREA, TESTNEGA) which loaded on the second rotated factor also loaded (though more weakly) on the first unrotated factor, it was decided to combine all items into one summary scale, with a satisfactory coefficient alpha of .73. Finally, although ORALSEXA ("You can get the AIDS virus from oral sex") performed relatively poorly in this overall scale (factor loading .14; coefficient alpha .75 without item), it was decided to include the item for substantive reasons.

Transmission Knowledge (TK). Ten items, comprising two scales of 7 and 3 items each, were selected from the original group of 11 items considered; the factor analysis results for the final items selected are presented in Appendix B-6. One item was deleted from the final scales: TRANS9A.

After rotation, the first "Transmission Knowledge" factor (TK1) contained 7 items related to "Low Risk Activities" (e.g., "Being coughed or sneezed on by someone who has AIDS"); the second factor (TK2) contained 3 items related to "High Risk Activities" (e.g., "Sharing IV drug needles with someone who has AIDS"). Coefficient alphas were .76 and .60, respectively.

All 3 items in the "High Risk Activities" scale had means greater than 3.7, again indicating ceiling effects due to the fact that nearly all subjects knew the "correct" answer to these items. As a result, the mean and standard deviation for this second summary scale were 3.80 and 0.46, respectively, representing a highly skewed, truncated distribution of individual scale scores also showing a strong ceiling effect. The relatively low coefficient alpha of .60 for TK2 was most likely due to the lack of variability in the items because of the ceiling effects; combining the TK2 items with the TK1 items dropped the coefficient alpha

from .76 to .69. In addition, the results of the factor analyses indicated two distinct factors, with TK1 showing a broad range of individual scores with room for change and TK2 showing nearly "complete" knowledge with no room for improvement. For these reasons, it was decided to use the separate summary scales, TK1 and TK2, in all subsequent analyses, with the realization that results involving TK2 should be interpreted carefully.

To confirm the separate constructs being measured by the three AIDS knowledge scales (GK, TK1, and TK2), a factor analysis was performed using all 20 items. The results substantiated the findings from the separate analyses.

Prevention Behaviors (PB). Ten items, comprising two scales of 7 and 3 items each, were selected from the original group of 13 items considered; the factor analysis results for the final items selected are presented in Appendix B-7. The 3 items deleted from the final scales included: KNOSAFEA, FANTASYA, and FJAWK2A.

After rotation, the first factor (PB1) contained 7 items related to "Prevention Self-Efficacy" (e.g., "If I were single, it would [not] be hard to limit partners"); the second factor (PB2) contained 3 items related to "Safer-Sex Negotiations" (e.g., "It is [not] hard to ask new sex partners about their past sexual behaviors"). Coefficient alphas were .76 and .68, respectively; the coefficient alpha remained .76 when all 10 items were combined into one scale. Based upon the results of the factor analyses indicating two distinct factors, all subsequent analyses use the separate summary scales, PB1 and PB2.

Behavioral Intentions (BI). Ten items, comprising two scales of 7 and 3 items each, were selected from the original group of 11 items considered; the factor analysis results for the final items selected are presented in Appendix B-8. One item, BIWORKA, was deleted from the final scales, but was used instead in AB1, "General Attitudes and Beliefs" about AIDS.

After rotation, the first factor (BI1) contained 7 items related to "Safer-Sex Intentions" (e.g., "I'd use a condom with a new sex partner who isn't special to me"); the second factor (BI2) contained 3 items related to "Safer-Sex Information Sharing" (e.g., "I'll tell my friends to practice safer sex"). Coefficient alphas were .82 and .87, respectively; the coefficient alpha remained approximately the same (.86) when all 10 items were combined into one scale. Although the results of the factor analyses indicated that the set of items could be treated as one construct (i.e., all items loaded strongly on the first unrotated factor), the three BI2 items loaded even more strongly on the second factor, particularly after rotation. For these reasons, it was decided to use the separate summary scales, BI1 and BI2, in all subsequent analyses.

It should be noted, however, that the distribution of BI2 is bimodal with some ceiling effect. Although the overall sample mean is 2.80, the relatively large standard deviation of 0.95 is indicative of the fact that 25% of the subjects had a "perfect" scale score of 4.0, with no room for improvement. As with GK and TK2, results (or lack thereof) involving BI2 should be interpreted carefully.

Condom Use (CU). By combining all 17 questionnaire items specifically related to condom use that are contained in the previous five sets of questions, 12 items, comprising two scales of 9 and 3 items each, were selected; the factor analysis results for the final items selected are presented in Appendix B-9. The 5 items deleted from the final scales included: TRANS9A (TK), TRANS10A (TK), LATEXA (GK), LUBEA (GK), and FJAWK2A (PB).

After rotation, the first factor (CU1) contained 9 items related to "Personal Condom Use" (e.g., "I'd use a condom with a new sex partner I really liked"). Because 5 of the items are included in PB1 and another 3 items are in BI1, CU1 is highly correlated with both of these "behavior" scales, as shown in Appendix B-10 (.79 with PB1, .81 with BI1). All analyses involving CU1, PB1, and BI1, therefore, should be interpreted accordingly. The second factor (CU2) contained the same 3 items as AB2, "Condom Use Norms." Coefficient alpha for CU1 was .80 and remained the same when all 12 behavior and attitude items were combined into one scale. Although the results of the factor analyses indicated that the set of items could be treated as one construct (i.e., all items loaded on the first unrotated factor), the three CU2/AB2

items loaded much more strongly on the second factor after rotation. Given the fact that BI2 seems to assess condom use behavior and AB2 condom use normative attitudes, it was decided to use the two separate summary scales in all subsequent analyses.

Correlations among summary scales. At pretest, as shown in Appendix B-10, general attitudes and beliefs about AIDS (AB1) was moderately related to general knowledge about AIDS (GK, r=.26) and specific knowledge about low-risk transmission activities (TK1, r=.36). In addition, general knowledge (GK) and specific transmission knowledge about high-risk activities (TK2) were also moderately related (r=.33), which is not surprising given that most subjects knew the correct answers to these items, as reported previously.

Although normative attitudes about condom use (AB2) was unrelated to the other attitude and knowledge scales, it were moderately related to personal condom use behaviors (CU1, r=.27) and the highly similar safer-sex intentions scale (BI1, r=.23). Otherwise, at pretest, attitudes/beliefs and knowledge about AIDS were generally unrelated to behaviors. On the other hand, all five of the prevention and safer-sex behavior scales (PB1, PB2, BI1, BI2, CU1) were moderately to strongly interrelated.

Appendix B.4: "Attitudes and Beliefs" Scales -- Pretest Items -- Summary of Factor Analysis

Means, Standard Deviations, and Correlations (N=479)

	NEWSA	GUARANA	INFOA	VISITA	DESERVEA	AFFECTA	BIVORKA	SNORM1A	SNORM2A	SNORM3A	
Mean	2.97	2.63	3.05	3.13	3.46	2.71	2.63	2.55	2.51	2.53	
Std Dev	0.73	0.95	0.84	0.70	0.61	0.82	1.05	0.75	0.72	0.73	
NEWSA	100 *										News reports on AIDS cannot be trusted
GUARANA	14	100 *									People infected with AIDS virus should b
INFOA	16	14	100 *								I've already heard more than I want abou
VISITA	24 *	35 *	17	100 *							If a friend had AIDS I would still visit
DESERVEA	19	17	20 *	31 *	100 *						People with AIDS deserve the disease
AFFECTA	8	16	30 *	21 *	21 *	100 *					I don't think AIDS will ever affect my o
BIVORKA	12	41 *	15	53 *	15	19	100 *				I would work with a person who is HIV+
SNORM1A	3	-7	-2	0	3	-9	-6	100 *			Most friends use condoms ... with differ
SNORM2A	12	-7	-8	-4	7	-8	-9	56 *	100 *		A lot of people my age use condoms
SNORM3A	12	7	0	6	8	3	4	37 *	39 *	100 *	Most friends think condoms are too much

NOTE: Printed values for correlations are multiplied by 100 and rounded to the nearest integer. Absolute values >= .20 have been flagged by an '*' (p<.0001).

Initial Factor Method: Maximum Likelihood (ML)

Preliminary Eigenvalues: Total = 3.44100858 Average = 0.34410086

	1	2	3	4	5	6	7	8	9	10
Eigenvalue	2.286145	1.882314	0.390179	0.079595	-0.024983	-0.088418	-0.149692	-0.216944	-0.323633	-0.393552
Difference	0.403831	1.492135	0.310586	0.104575	0.063436	0.061274	0.067252	0.106689	0.069919	
Proportion	0.6644	0.5470	0.1134	0.0231	-0.0073	-0.0257	-0.0435	-0.0630	-0.0941	-0.1144
Cumulative	0.6644	1.2114	1.3248	1.3479	1.3407	1.3150	1.2715	1.2084	1.1144	1.0000

Initial Factor Method: ML

Factor Pattern

	FACTOR1	FACTOR2
SNORM2A	74 *	30 *
SNORM1A	65 *	27
SNORM3A	41 *	32 *
VISITA	-31 *	67 *
BIVORKA	-35 *	57 *
GUARANA	-27	45 *
DESERVEA	-8	39 *
NEWSA	0	32 *
AFFECTA	-22	26
INFOA	-18	24

Prerotation Method: Varimax

Rotated Factor Pattern

	FACTOR1	FACTOR2
VISITA	74 *	4
BIVORKA	67 *	-5
GUARANA	52 *	-3
DESERVEA	38 *	11
AFFECTA	33 *	-7
INFOA	30 *	-4
NEWSA	29	15
SNORM2A	-8	80 *
SNORM1A	-6	70 *
SNORM3A	9	51 *

Rotation Method: Promax

Factor Structure (Correlations)

	FACTOR1	FACTOR2	
VISITA	74 *	1	
BIVORKA	67 *	-8	
GUARANA	52 *	-6	
DESERVEA	38 *	9	AB1: General Attitudes and Beliefs
AFFECTA	33 *	-8	
INFOA	30 *	-6	
NEWSA	29	13	
SNORM2A	-9	80 *	
SNORM1A	-7	70 *	AB2: Condom Use Norms
SNORM3A	9	50 *	

Inter-factor Correlations

	FACTOR1	FACTOR2
FACTOR1	100	-6
FACTOR2	-6	100

NOTE: Printed values for factor loadings are multiplied by 100 and rounded to the nearest integer. Absolute values >= .30 have been flagged by an '*'.

Appendix B.5: "General Knowledge" Scale -- Pretest Items -- Summary of Factor Analysis

Means, Standard Deviations, and Correlations (N=490)

	FUTUREA	TESTNEGA	REDUCEA	NEEDLE1A	NEEDLE2A	LKGOODA	FTRANSA	ORALSEXA	MORTALA	ONETIMEA
Mean	3.59	3.64	3.28	3.69	3.75	3.34	3.67	3.05	3.53	3.56
Std Dev	0.66	0.61	0.73	0.55	0.51	0.65	0.59	0.76	0.66	0.64

FUTUREA	100 *										Once you've been told you don't have AID
TESTNEGA	68 *	100 *									If you test negative for HIV antibody ..
REDUCEA	6	11	100 *								Reducing the number of sexual partners .
NEEDLE1A	16	23 *	20 *	100 *							Sharing needles for drug use with friend
NEEDLE2A	13	20 *	22 *	85 *	100 *						Sharing needles for drug use with strang
LKGOODA	13	18	31 *	29 *	27 *	100 *					You can be infected with the AIDS virus
FTRANSA	16	17	16	28 *	24 *	17	100 *				Women can NOT pass the AIDS virus to mal
ORALSEXA	11	7	5	10	10	12	11	100 *			You can get the AIDS virus from oral sex
MORTALA	18	15	15	27 *	30 *	16	22 *	12	100 *		If you have AIDS, chances you will die f
ONETIMEA	23 *	26 *	24 *	34 *	33 *	36 *	26 *	23 *	54 *	100 *	It is possible ... from having unsafe se

NOTE: Printed values for correlations are multiplied by 100 and rounded to the nearest integer. Absolute values >= .20 have been flagged by an '*' (p<.0001).

Initial Factor Method: Maximum Likelihood

Preliminary Eigenvalues: Total = 9.11758026 Average = 0.91175803

	1	2	3	4	5	6	7	8	9	10
Eigenvalue	7.027045	2.138063	1.026849	0.295652	0.029056	-0.013001	-0.156287	-0.332100	-0.427340	-0.466358
Difference	4.888982	1.111214	0.733198	0.266595	0.042057	0.145287	0.173812	0.095240	0.039019	
Proportion	0.7707	0.2345	0.1126	0.0322	0.0032	-0.0014	-0.0174	-0.0364	-0.0469	-0.0511
Cumulative	0.7707	1.0052	1.1178	1.1500	1.1532	1.1518	1.1344	1.0980	1.0511	1.0000

Initial Factor Method: ML

Factor Pattern

	FACTOR1	FACTOR2
NEEDLE1A	91 *	-12
NEEDLE2A	91 *	-16
ONETIMEA	42 *	19
MORTALA	35 *	12
LKGOODA	34 *	9
FTRANSA	32 *	11
REDUCEA	25	3
ORALSEXA	14	9
FUTUREA	28	79 *
TESTNEGA	35 *	73 *

Prerotation Method: Varimax

Rotated Factor Pattern

	FACTOR1	FACTOR2
NEEDLE2A	92 *	3
NEEDLE1A	91 *	7
ONETIMEA	37 *	28
MORTALA	32 *	19
LKGOODA	31 *	17
FTRANSA	29	17
REDUCEA	24	8
ORALSEXA	11	11
FUTUREA	10	83 *
TESTNEGA	18	78 *

Rotation Method: Promax

Factor Structure (Correlations)

	FACTOR1	FACTOR2
NEEDLE2A	92 *	8
NEEDLE1A	92 *	12
ONETIMEA	39 *	30 *
MORTALA	33 *	21
LKGOODA	33 *	18
FTRANSA	30 *	19
REDUCEA	25	9
ORALSEXA	12	12
FUTUREA	17	83 *
TESTNEGA	25	79 *

GK: General Knowledge

Inter-factor Correlations

	FACTOR1	FACTOR2
FACTOR1	100	14
FACTOR2	14	100

NOTE: Printed values for factor loadings are multiplied by 100 and rounded to the nearest integer. Absolute values >= .30 have been flagged by an '*'.

Appendix B.6: "Transmission Knowledge" Scales -- Pretest Items -- Summary of Factor Analysis

Means, Standard Deviations, and Correlations (N=497)

	TRAN81A	TRAN82A	TRAN83A	TRAN84A	TRAN86A	TRAN87A	TRAN88A	TRAN85A	TRAN810A	TRAN811A	
Mean	2.29	3.13	3.03	3.59	2.98	2.74	2.35	3.88	3.72	3.79	
Std Dev	0.87	0.95	0.88	0.63	0.90	1.03	0.95	0.53	0.74	0.56	
TRAN81A	100 *										Recieving blood transfusion in the US ->
TRAN82A	47 *	100 *									Donating blood in the US -> AIDS
TRAN83A	25 *	27 *	100 *								Eating in restaurant where cook has AIDS
TRAN84A	19	27 *	51 *	100 *							Shaking hands or touching someone has AI
TRAN86A	20 *	19	48 *	47 *	100 *						Being coughed or sneezed on by someone h
TRAN87A	22 *	27 *	31 *	32 *	40 *	100 *					Mosquitoes or other insects -> AIDS
TRAN88A	13	16	35 *	32 *	56 *	33 *	100 *				Kissing / saliva with person who has AID
TRAN85A	-1	15	3	18	-3	-3	-15	100 *			Sharing IV drug needles with someone has
TRAN810A	-2	15	-2	9	-3	-6	-11	49 *	100 *		Having sex, NOT using condom with person
TRAN811A	1	-1	-7	6	0	-5	-6	24 *	30 *	100 *	Pregnant woman with AIDS can transmit to

NOTE: Printed values for correlations are multiplied by 100 and rounded to the nearest integer. Absolute values >= .20 have been flagged by an '*' (p<.0001).

Initial Factor Method: Maximum Likelihood

Preliminary Eigenvalues: Total = 4.70348442 Average = 0.47034844

	1	2	3	4	5	6	7	8	9	10
Eigenvalue	3.664407	1.539292	0.693116	0.147837	-0.027291	-0.085963	-0.245274	-0.269495	-0.329255	-0.383889
Difference	2.125115	0.846176	0.545280	0.175127	0.058673	0.139511	0.024221	0.059760	0.054633	
Proportion	0.7791	0.3273	0.1474	0.0314	-0.0058	-0.0183	-0.0521	-0.0573	-0.0700	-0.0816
Cumulative	0.7791	1.1063	1.2537	1.2851	1.2793	1.2611	1.2089	1.1516	1.0816	1.0000

Initial Factor Method: ML

Factor Pattern

	FACTOR1	FACTOR2
TRAN86A	75 *	-7
TRAN83A	66 *	2
TRAN84A	66 *	20
TRAN88A	61 *	-22
TRAN87A	53 *	-6
TRAN82A	38 *	21
TRAN81A	34 *	3
TRAN85A	3	73 *
TRAN810A	-1	67 *
Activ		
TRAN811A	-2	36 *

Prerotation Method: Varimax

Rotated Factor Pattern

	FACTOR1	FACTOR2
TRAN86A	75 *	-8
TRAN83A	66 *	1
TRAN84A	66 *	19
TRAN88A	61 *	-23
TRAN87A	53 *	-7
TRAN82A	39 *	20
TRAN81A	34 *	2
TRAN85A	4	73 *
TRAN810A	0	67 *
TRAN811A	-2	36 *

Rotation Method: Promax

Factor Structure (Correlations)

	FACTOR1	FACTOR2
TRAN86A	75 *	-8
TRAN83A	66 *	1
TRAN84A	66 *	19
TRAN88A	61 *	-23
TRAN87A	53 *	-7
TRAN82A	39 *	20
TRAN81A	34 *	2
TRAN85A	3	73 *
TRAN810A	-1	67 *
TRAN811A	-2	36 *

Inter-factor Correlations

	FACTOR1	FACTOR2
FACTOR1	100	-1
FACTOR2	-1	100

TK1: Transmission Knowledge: Low Risk Activ

TK2: Transmission Knowledge: High Risk

NOTE: Printed values for factor loadings are multiplied by 100 and rounded to the nearest integer. Absolute values >= .30 have been flagged by an '*'.

Appendix B.7. "Prevention Behaviors" Scales -- Pretest Items -- Summary of Factor Analysis

Means, Standard Deviations, and Correlations (N=470)

	FJCOND1A	FJLINITA	FJAWK1A	NOCHDNA	FJCOND2A	FJNOSEXA	FJSAFEA	DISCUSSA	FJNRELA	FJKNOWA	
Mean	2.08	2.87	2.67	3.18	2.70	2.03	2.50	2.70	2.56	2.63	
Std Dev	0.82	0.81	0.80	0.68	0.79	0.87	0.80	0.75	0.83	0.78	
FJCOND1A	100 *										Sex with condom doesn't feel as good to
FJLINITA	31 *	100 *									If I were single, it would be hard to ti
FJAWK1A	37 *	37 *	100 *								Having to stop sex to put on condom take
NOCHDNA	13	35 *	21 *	100 *							If sex partner doesn't want use condom,
FJCOND2A	40 *	23 *	33 *	16	100 *						Sex with condom doesn't feel as good to
FJNOSEXA	33 *	48 *	22 *	14	23 *	100 *					If I were single, it would be hard to st
FJSAFEA	38 *	44 *	50 *	32 *	24 *	34 *	100 *				In the heat of passion with new sex part
DISCUSSA	16	20 *	14	10	6	16	26 *	100 *			Before sex with new partner, I would dis
FJNRELA	10	15	19	20 *	-5	11	32 *	31 *	100 *		Hard to ask new sex partner about past s
FJKNOWA	6	21 *	13	14	-1	12	28 *	23 *	64 *	100 *	I don't know how to bring up subject of

NOTE: Printed values for correlations are multiplied by 100 and rounded to the nearest integer. Absolute values >= .20 have been flagged by an '*' (p<.0001).

Initial Factor Method: Maximum Likelihood

Preliminary Eigenvalues: Total = 5.06581812 Average = 0.50658181

	1	2	3	4	5	6	7	8	9	10
Eigenvalue	4.037884	1.681083	0.353259	0.195515	0.021818	-0.025704	-0.169874	-0.262717	-0.308855	-0.456590
Difference	2.356800	1.327825	0.157744	0.173698	0.047522	0.144170	0.092843	0.046138	0.147735	
Proportion	0.7971	0.3318	0.0697	0.0386	0.0043	-0.0051	-0.0335	-0.0519	-0.0610	-0.0901
Cumulative	0.7971	1.1289	1.1987	1.2373	1.2416	1.2365	1.2030	1.1511	1.0901	1.0000

Initial Factor Method: ML

Factor Pattern

	FACTOR1	FACTOR2
FJNRELA	84 *	-33 *
FJKNOWA	67 *	-22
FJSAFEA	56 *	45 *
DISCUSSA	39 *	6
NOCHDNA	32 *	23
FJLINITA	40 *	51 *
FJCOND1A	30 *	50 *
FJCOND2A	13	48 *
FJAWK1A	40 *	47 *
FJNOSEXA	30 *	44 *

Prerotation Method: Varimax

Rotated Factor Pattern

	FACTOR1	FACTOR2
FJSAFEA	64 *	33 *
FJLINITA	63 *	16
FJAWK1A	59 *	17
FJCOND1A	58 *	7
FJNOSEXA	52 *	10
FJCOND2A	49 *	-8
NOCHDNA	34 *	20
FJNRELA	4	90 *
FJKNOWA	8	70 *
DISCUSSA	21	33 *

Rotation Method: Promax

Factor Structure (Correlations)

	FACTOR1	FACTOR2	
FJLINITA	65 *	23	
FJSAFEA	69 *	40 *	
FJAWK1A	62 *	24	
FJCOND1A	58 *	14	PB1: Prevention Self-Efficacy
FJNOSEXA	53 *	16	
FJCOND2A	47 *	-2	
NOCHDNA	37 *	24	
FJNRELA	20	90 *	
FJKNOWA	20	71 *	PB2: Safer-Sex Negotiations
DISCUSSA	26	35 *	

Inter-factor Correlations

	FACTOR1	FACTOR2
FACTOR1	100	29
FACTOR2	29	100

NOTE: Printed values for factor loadings are multiplied by 100 and rounded to the nearest integer. Absolute values >= .30 have been flagged by an '*'.

Appendix B.8: "Behavioral Intentions" Scales -- Pretest Items -- Summary of Factor Analysis

Means, Standard Deviations, and Correlations (N=481)

	BIFREQA	BIUSEA	BINEW1A	BINEW2A	BICHGA	BIDRUGSA	BIDRUNKA	BILEARNA	BISAFEA	BICARRYA	
Mean	2.05	2.45	2.69	3.09	3.31	2.59	2.52	2.85	2.80	2.72	
Std Dev	0.97	1.05	1.10	1.02	0.87	1.19	1.14	1.04	1.05	1.13	
BIFREQA	100 *										I'd ask new sex partner about number of
BIUSEA	53 *	100 *									I'd ask new sex partner how they feel ab
BINEW1A	33 *	53 *	100 *								I'd use a condom with new sex partner I
BINEW2A	31 *	53 *	74 *	100 *							I'd use a condom with new sex partner wh
BICHGA	32 *	36 *	48 *	52 *	100 *						If practicing unsafe sex, I'd change to
BIDRUGSA	48 *	34 *	29 *	26 *	27 *	100 *					I'd ask new sex partner about their drug
BIDRUNKA	39 *	28 *	35 *	39 *	38 *	39 *	100 *				If I'm too drunk/high to have safe sex,
BILEARNA	25 *	20 *	23 *	24 *	35 *	28 *	28 *	100 *			I'll tell my friends to learn more about
BISAFEA	28 *	27 *	34 *	35 *	49 *	30 *	34 *	77 *	100 *		I'll tell my friends to practice safer s
BICARRYA	21 *	26 *	35 *	37 *	41 *	25 *	36 *	59 *	73 *	100 *	I'll tell my friends to carry condoms

NOTE: Printed values for correlations are multiplied by 100 and rounded to the nearest integer. Absolute values >= .20 have been flagged by an '*' (p<.0001).

Initial Factor Method: Maximum Likelihood

Preliminary Eigenvalues: Total = 11.619905 Average = 1.1619905

	1	2	3	4	5	6	7	8	9	10
Eigenvalue	9.143772	2.813541	0.950790	0.189049	-0.031899	-0.080332	-0.209895	-0.335307	-0.385377	-0.434438
Difference	6.330231	1.862751	0.761742	0.220947	0.048433	0.129563	0.125412	0.050070	0.049062	
Proportion	0.7869	0.2421	0.0818	0.0163	-0.0027	-0.0069	-0.0181	-0.0289	-0.0332	-0.0374
Cumulative	0.7869	1.0290	1.1109	1.1271	1.1244	1.1175	1.0994	1.0706	1.0374	1.0000

Initial Factor Method: ML

Factor Pattern

	FACTOR1	FACTOR2
BISAFEA	93 *	-23
BILEARNA	76 *	-25
BICARRYA	76 *	-8
BICHGA	59 *	29
BIDRUNKA	45 *	25
BIFREQA	38 *	29
BIDRUGSA	38 *	20
BINEW1A	52 *	66 *
BINEW2A	54 *	65 *
BIUSEA	42 *	50 *

Prerotation Method: Varimax

Rotated Factor Pattern

	FACTOR1	FACTOR2
BINEW2A	83 *	16
BINEW1A	83 *	14
BIUSEA	64 *	12
BICHGA	54 *	38 *
BIFREQA	44 *	19
BIDRUNKA	43 *	27
BIDRUGSA	36 *	24
BISAFEA	24	93 *
BILEARNA	14	79 *
BICARRYA	30 *	70 *

Rotation Method: Promax

Factor Structure (Correlations)

	FACTOR1	FACTOR2	
BINEW2A	85 *	34 *	
BINEW1A	84 *	32 *	
BIUSEA	65 *	26	
BICHGA	60 *	49 *	BI1: Safer-Sex Intentions
BIFREQA	47 *	29	
BIDRUNKA	48 *	36 *	
BIDRUGSA	40 *	31 *	
BISAFEA	43 *	96 *	
BILEARNA	31 *	80 *	BI2: Safer-Sex Information Sharing
BICARRYA	44 *	75 *	

Inter-factor Correlations

	FACTOR1	FACTOR2
FACTOR1	100	43
FACTOR2	43	100

NOTE: Printed values for factor loadings are multiplied by 100 and rounded to the nearest integer. Absolute values >= .30 have been flagged by an '*'.

Appendix B.9. "Condom Use" Scales -- Pretest Items -- Summary of Factor Analysis

Means, Standard Deviations, and Correlations (N=459)

	FJCOND1A	FJAWK1A	NOCNDMA	FJCOND2A	FJSAFEA	BIUSEA	
Mean	2.08	2.68	3.19	2.70	2.49	2.45	
Std Dev	0.82	0.80	0.67	0.79	0.80	1.05	
FJCOND1A	100 *						Sex with condom doesn't feel as good to
FJAWK1A	36 *	100 *					Having to stop sex to put on condom take
NOCNDMA	13	20 *	100 *				If sex partner doesn't want use condom,
FJCOND2A	40 *	33 *	17	100 *			Sex with condom doesn't feel as good to
FJSAFEA	38 *	51 *	31 *	24 *	100 *		In the heat of passion with new sex part
BIUSEA	19	30 *	21 *	16	38 *	100 *	I'd ask new sex partner how they feel ab
BINEW1A	27 *	38 *	22 *	20 *	47 *	52 *	I'd use a condom with new sex partner I
BINEW2A	17	36 *	30 *	15	42 *	52 *	I'd use a condom with new sex partner wh
BICARRYA	13	22 *	16	11	28 *	28 *	I'll tell my friends to carry condoms
SNORM1A	7	9	7	7	19	17	Most friends use condoms ... with differ
SNORM2A	8	7	4	7	19	12	A lot of people my age use condoms
SNORM3A	11	15	9	4	26 *	6	Most friends think condoms are too much

	BINEW1A	BINEW2A	BICARRYA	SNORM1A	SNORM2A	SNORM3A	
Mean	2.69	3.09	2.72	2.55	2.50	2.52	
Std Dev	1.10	1.03	1.13	0.76	0.72	0.73	
FJCOND1A							Sex with condom doesn't feel as good to
FJAWK1A							Having to stop sex to put on condom take
NOCNDMA							If sex partner doesn't want use condom,
FJCOND2A							Sex with condom doesn't feel as good to
FJSAFEA							In the heat of passion with new sex part
BIUSEA							I'd ask new sex partner how they feel ab
BINEW1A	100 *						I'd use a condom with new sex partner I
BINEW2A	74 *	100 *					I'd use a condom with new sex partner wh
BICARRYA	36 *	37 *	100 *				I'll tell my friends to carry condoms
SNORM1A	26 *	24 *	16	100 *			Most friends use condoms ... with differ
SNORM2A	19	18	10	58 *	100 *		A lot of people my age use condoms
SNORM3A	24 *	14	13	40 *	40 *	100 *	Most friends think condoms are too much

NOTE: Printed values for correlations are multiplied by 100 and rounded to the nearest integer. Absolute values >= .20 have been flagged by an '*' (p<.0001).

Initial Factor Method: Maximum Likelihood

Preliminary Eigenvalues: Total = 7.56915104 Average = 0.63076259

	1	2	3	4	5	6	7	8	9	10	11	12
Eigenvalue	6.157178	1.618296	1.031696	0.170305	0.069653	-0.018426	-0.036435	-0.119200	-0.220130	-0.318379	-0.339992	-0.425415
Difference	4.538881	0.586601	0.861390	0.100653	0.088078	0.018009	0.082765	0.100930	0.098250	0.021613	0.085423	
Proportion	0.8135	0.2138	0.1363	0.0225	0.0092	-0.0024	-0.0048	-0.0157	-0.0291	-0.0421	-0.0449	-0.0562
Cumulative	0.8135	1.0273	1.1636	1.1861	1.1953	1.1928	1.1880	1.1723	1.1432	1.1011	1.0562	1.0000

Appendix B.9: "Condom Use" Scales (continued)

Initial Factor Method: ML

Factor Pattern

	FACTOR1	FACTOR2
BIMEN1A	82 *	-18
BIMEN2A	79 *	-20
FJBAFEA	61 *	-8
BIUSEA	59 *	-18
FJAMK1A	49 *	-17
BICARRYA	44 *	-7
FJCOND1A	34 *	-10
NOCNDMA	33 *	-11
FJCOND2A	28	-8
SNORM2A	39 *	67 *
SNORM1A	44 *	61 *
SNORMSA	35 *	40 *

Prerotation Method: Varimax

Rotated Factor Pattern

	FACTOR1	FACTOR2
BIMEN1A	82 *	19
BIMEN2A	80 *	16
BIUSEA	61 *	9
FJBAFEA	58 *	19
FJAMK1A	52 *	6
BICARRYA	43 *	12
FJCOND1A	35 *	6
NOCNDMA	34 *	4
FJCOND2A	29	4
SNORM2A	6	77 *
SNORM1A	14	74 *
SNORMSA	14	51 *

Rotation Method: Promax

Factor Structure (Correlations)

	FACTOR1	FACTOR2
BIMEN1A	84 *	33 *
BIMEN2A	81 *	29
BIUSEA	62 *	19
FJBAFEA	61 *	28
FJAMK1A	52 *	14
BICARRYA	44 *	19
FJCOND1A	35 *	11
NOCNDMA	34 *	9
FJCOND2A	29	9
SNORM2A	21	77 *
SNORM1A	28	76 *
SNORMSA	23	53 *

CU1: Personal Condom Use

CU2: Condom Use Norms (same as AB2)

Inter-factor Correlations

	FACTOR1	FACTOR2
FACTOR1	100	35
FACTOR2	35	100

NOTE: Printed values for factor loadings are multiplied by 100 and rounded to the nearest integer. Absolute values >= .30 have been flagged by an '*'.

Appendix B.10[1] Coefficient Alphas, Descriptive Statistics, and Correlations Among NAIQ Scale Scores -- Pretest Data for Entire Sample

	AB1	AB2	GK	TK1	TK2	PB1	PB2	BI1	BI2	CU1
Alpha	0.66	0.71	0.73	0.76	0.60	0.76	0.68	0.82	0.87	0.80
# Items	7	3	10	7	3	7	3	7	3	9
N	500	486	503	501	501	495	494	495	497	497
Mean	2.94	2.53	3.51	2.87	3.80	2.58	2.65	2.68	2.80	2.68
Std Dev	0.48	0.58	0.35	0.57	0.46	0.51	0.61	0.73	0.95	0.57

Correlations (based on 479 observations with complete data)

	AB1	AB2	GK	TK1	TK2	PB1	PB2	BI1	BI2	CU1	
AB1	100 *										General Attitudes and Beliefs
AB2	-3	100 *									Condom Use Norms
GK	26 *	-3	100 *								General Knowledge
TK1	36 *	2	14	100 *							Transmission Knowledge: Low Risk Activities
TK2	6	0	33 *	2	100 *						Transmission Knowledge: High Risk Activities
PB1	21 *	18	8	8	2	100 *					Prevention Self-Efficacy
PB2	6	9	6	-12	4	32 *	100 *				Safer-Sex Negotiations
BI1	13	23 *	14	0	11	51 *	48 *	100 *			Safer-Sex Intentions
BI2	16	13	15	-13	7	28 *	33 *	50 *	100 *		Safer-Sex Information Sharing
CU1	21 *	27 *	20 *	6	10	79 *	39 *	81 *	53 *	100 *	Personal Condom Use

NOTE: Printed values for correlations are multiplied by 100 and rounded to the nearest integer. Absolute values >= .20 have been flagged by an '*' ($p<.0001$). Based on the factor analysis with "condom use" questions (see Table 6), CU2 and AB2 (Condom Use Norms) are the same scale.

Appendix B.11

HAIQ Pretest Variable Names and Labels

```
/* page 1 */

IDN       Subject ID number
WAVE      Wave
BRIEF     Briefing type
GROUP     Group

/* page 2 */

HEALTH    How would you rate your health?
BELTS     How often do you use seat belts?
SMOKER    Smoking history
BEER      Bottles of beer per week
WINE      Glasses of wine per week
LIQUOR    Drinks of hard liquor per week
DRIVE     How often do you drive after drinking?

/* page 3 */

SNORM1A   Most friends use condoms ... with different partners
SNORM2A   A lot of people my age use condoms
SNORM3A   Most friends think condoms are too much hassle
FIGHTA    If infected, my body would fight off the AIDS virus
NEWSA     News reports on AIDS cannot be trusted
QUARANA   People infected with AIDS virus should be quarantined
FJBLFA    My religious beliefs don't allow condom use
CATCHA    Catching clap from a sex partner would bother me
CAREFULA  AIDS has made people more careful .. who have sex with
INFOA     I've already heard more than I want about AIDS
VISITA    If a friend had AIDS I would still visit
DESERVEA  People with AIDS deserve the disease
AFFECTA   I don't think AIDS will ever affect my own life

/* page 4 */

TRANS1A   Recieving blood transfusion in the US -> AIDS
TRANS2A   Donating blood in the US -> AIDS
TRANS3A   Eating in restaurant where cook has AIDS -> AIDS
TRANS4A   Shaking hands or touching someone has AIDS -> AIDS
TRANS5A   Sharing IV drug needles with someone has AIDS -> AIDS
TRANS6A   Being coughed or sneezed on by someone has AIDS -> AIDS
TRANS7A   Mosquitoes or other insects -> AIDS
TRANS8A   Kissing / saliva with person who has AIDS -> AIDS
TRANS9A   Having sex, using condom with person has AIDS -> AIDS
TRANS10A  Having sex, NOT using condom with person has AIDS -> AIDS
TRANS11A  Pregnant woman with AIDS can transmit to her baby
```

/* page 5 */

FUTUREA Once you've been told you don't have AIDS virus ...
TESTNEGA If you test negative for HIV antibody ...
ATRISKA It is what people do, not who they are ...
REDUCEA Reducing the number of sexual partners ...
LFSTYLA You can tell if a person has AIDS by knowing about lifestyle
GAYMENA Throughout the world, AIDS is found mostly among gay men
NEEDLE1A Sharing needles for drug use with friends ...
NEEDLE2A Sharing needles for drug use with strangers ...
LKGOODA You can be infected with the AIDS virus and look healthy
FTRANSA Women can NOT pass the AIDS virus to male sex partners
ORALSEXA You can get the AIDS virus from oral sex
MORTALA If you have AIDS, chances you will die from it are very high
ONETIMEA It is possible ... from having unsafe sex even one time
LATEXA Natural condoms work better than latex condoms
LUBEA Oil-based lubricants cause condoms to break

/* page 6 */

FJCOND1A Sex with condom doesn't feel as good to a man
FJLIMITA If I were single, it would be hard to limit partners
KNOSAFEA I know of precautions to take to reduce risk
FJAWK1A Having to stop sex to put on condom takes fun out of sex
FJAWK2A It's embarrassing to buy condoms in a store
DISCUSSA Before sex with new partner, I would discuss AIDS protection
FANTASYA Safe sex practices are not as enjoyable as having sex
FJNRELA Hard to ask new sex partner about past sexual behaviors
NOCNDMA If sex partner doesn't want use condom, little I can do
FJCOND2A Sex with condom doesn't feel as good to a woman
FJNOSEXA If I were single, it would be hard to stop having sex
FJKNOWA I don't know how to bring up subject of past sexual behavior
FJSAFEA In the heat of passion with new sex partner ...
MPREGA Males: No condom -- want sex partner to become pregnant
FPREGA Females: No condom -- want to become pregnant

/* page 7 */

EVERUSED Ever used a condom during sex?
HXSTD Ever been diagnosed with STD?
FREQSTD If yes: Times diagnosed with STD
YEARSTD If yes: Times diagnosed with STD in past year
PARTNERS Number of different sex partners in past year
TRAVEL1 Travel outside US during past year?
TRAVEL2 If yes: Sex with new partner when outside US?

/* page 8 */

PAIDSEX1 Paid someone for sex in past year?
PAIDSEX2 If yes: Number of partners paid for sex
FREQUSE How ofter use condom with new partner in past year?
KNOWHIV Have you known anyone HIV+?
KNOWPWA Have you known anyone with AIDS?
WORRYA How worried or concerned that you will get AIDS?
CARRY How often carry condoms when go out?

/* page 9 */

BIFREQA I'd ask new sex partner about number of sex partners
BIUSEA I'd ask new sex partner how they feel about using condoms
BINEW1A I'd use a condom with new sex partner I really liked
BINEW2A I'd use a condom with new sex partner who isn't special
BICHGA If practicing unsafe sex, I'd change to safer sex
BIWORKA I would work with a person who is HIV+
BIDRUGSA I'd ask new sex partner about their drug use
BIDRUNKA If I'm too drunk/high to have safe sex, I won't have sex
BILEARNA I'll tell my friends to learn more about AIDS
BISAFEA I'll tell my friends to practice safer sex
BICARRYA I'll tell my friends to carry condoms

/* page 10 */

BVSTDYA Case: Return home on leave to see steady ...
BVPROSTA Case, MALES only: In bar, think prostitutes ...

/* page 11 */

BVPKUPA Case, FEMALES only: In bar, men looking for good time ...
DOBMONTH Birth month
DOBDAY Birth day
DOBYEAR Birth year
GENDER Gender
ETHNIC Racial/ethnic background
OTHERETH Other ethnicity

/* page 12 */

MARITAL1 Marital status
MARITAL2 If married: Live with spouse?
EDUC Highest year of school completed
ENLISTMO Enlisted month
ENLISTYR Enlisted year
GRADE1 Enlisted grade
GRADE2 Officer grade
AIDSEDUC Previous AIDS classes?

Appendix B.12[1] Summary of Repeated Measures Multivariate Analysis of Variance (MANOVA) for MAIN Scale Scores -- Pretest-Posttest Change -- Entire Sample (N=505)

Scale	MANOVA Results				Descriptive Statistics					
							Pretest		Posttest	
	Effect	DF	P-value		Briefing Group	N	Mean	SD	Mean	SD
AB1 General Attitudes and Beliefs	TIME	1	.0001	*	Behavioral	253	2.95	0.46	2.98	0.44
	TIME*GROUP	1	.2578		Standard	244	2.95	0.48	3.03	0.47
AB2 Condom Use Norms	TIME	1	.2778		Behavioral	246	2.53	0.60	2.51	0.55
	TIME*GROUP	1	.7979		Standard	234	2.52	0.57	2.50	0.55
GK General Knowledge	TIME	1	.6314		Behavioral	254	3.49	0.34	3.54	0.36
	TIME*GROUP	1	.0098	*	Standard	245	3.52	0.35	3.49	0.41
TK1 Transmission Knowledge: Low Risk Activities	TIME	1	.0001	*	Behavioral	251	2.89	0.56	3.21	0.49
	TIME*GROUP	1	.0046	*	Standard	244	2.86	0.59	3.07	0.50
TK2 Transmission Knowledge: High Risk Activities	TIME	1	.0684		Behavioral	250	3.80	0.44	3.78	0.43
	TIME*GROUP	1	.3784		Standard	243	3.79	0.48	3.73	0.58
PB1 Prevention Self-Efficacy	TIME	1	.0001	*	Behavioral	247	2.59	0.50	2.68	0.49
	TIME*GROUP	1	.4014		Standard	236	2.56	0.52	2.63	0.51
PB2 Safer-Sex Negotiations	TIME	1	.0001	*	Behavioral	248	2.64	0.61	2.81	0.58
	TIME*GROUP	1	.0679		Standard	237	2.65	0.61	2.74	0.54
BI1 Safer-Sex Intentions	TIME	1	.0001	*	Behavioral	248	2.67	0.74	2.96	0.73
	TIME*GROUP	1	.0016	*	Standard	235	2.67	0.73	2.85	0.72
BI2 Safer-Sex Information Sharing	TIME	1	.0001	*	Behavioral	247	2.74	0.98	3.02	0.92
	TIME*GROUP	1	.0398	*	Standard	236	2.82	0.92	2.99	0.92
CU1 Personal Condom Use	TIME	1	.0001	*	Behavioral	247	2.67	0.58	2.87	0.55
	TIME*GROUP	1	.0005	*	Standard	236	2.66	0.55	2.76	0.53

NOTE[1] MANOVA results for each effect include the degrees of freedom (DF) and p-value for Wilk's lambda and the associated multivariate F statistic. The "time" effect is the overall test of change from pretest to posttest, ignoring briefing group; the "time by group" interaction effect is the overall test for the equality of change in the two briefing groups.

* = statistically significant overall effect ($p < .05$)

Appendix B.13: Summary of Repeated Measures Multivariate Analysis of Variance (MANOVA) for HAIQ Scale Scores -- Pretest-Posttest-6 Month Change -- Follow-up Sample (N=186)

		MANOVA Results			Descriptive Statistics							
							Pretest		Posttest		6 Months	
Scale	Effect	DF	P-value	Briefing Group	N	Mean	SD	Mean	SD	Mean	SD
AB1 General Attitudes and Beliefs	TIME	2	.0001 *	Behavioral	90	2.95	0.48	3.05	0.44	3.04	0.47
	Pre-Post	1	.0001 **	Standard	92	2.93	0.48	3.03	0.46	3.01	0.45
	Pre-6 mos	1	.0063 **								
	TIME*GROUP	2	.9886								
	Pr-Po*Grp	1	.8876								
	Pr-6M*Grp	1	.9966								
AB2 Condom Use Norms	TIME	2	.0010 *	Behavioral	83	2.52	0.57	2.46	0.50	2.61	0.57
	Pre-Post	1	.0814	Standard	87	2.55	0.58	2.52	0.53	2.70	0.61
	Pre-6 mos	1	.0147 **								
	TIME*GROUP	2	.6805								
	Pr-Po*Grp	1	.4722								
	Pr-6M*Grp	1	.4584								
GK General Knowledge	TIME	2	.3205	Behavioral	89	3.50	0.34	3.56	0.38	3.54	0.37
	Pre-Post	1	.8992	Standard	93	3.54	0.36	3.47	0.44	3.56	0.36
	Pre-6 mos	1	.1884								
	TIME*GROUP	2	.0559								
	Pr-Po*Grp	1	.0199 **								
	Pr-6M*Grp	1	.7613								
TK1 Transmission Knowledge: Low Risk Activities	TIME	2	.0001 *	Behavioral	89	2.92	0.57	3.25	0.52	3.14	0.51
	Pre-Post	1	.0001 **	Standard	92	2.86	0.60	3.05	0.53	3.00	0.52
	Pre-6 mos	1	.0001 **								
	TIME*GROUP	2	.0973								
	Pr-Po*Grp	1	.0317								
	Pr-6M*Grp	1	.2496								
TK2 Transmission Knowledge: High Risk Activities	TIME	2	.1795	Behavioral	88	3.83	0.33	3.79	0.46	3.90	0.22
	Pre-Post	1	.4143	Standard	88	3.83	0.39	3.82	0.40	3.84	0.37
	Pre-6 mos	1	.1823								
	TIME*GROUP	2	.4615								
	Pr-Po*Grp	1	.4962								
	Pr-6M*Grp	1	.4358								

NOTE: MANOVA results for each effect include the degrees of freedom (DF) and p-value for Wilk's lambda and the associated multivariate F statistic. The "time" effect is the overall test of change from pretest to posttest to 6 months, ignoring briefing group; the "time by group" interaction effect is the overall test for the equality of change in the two briefing groups. Each overall effect is divided into 2 single-DF contrasts to locate the source of the effect (if any). The first contrast is between pretest and posttest; the second contrast is between pretest and 6 months.

* = statistically significant overall effect ($p < .05$)

** = statistically significant 1-DF contrast ($p < .025$ [.05/2])

Appendix B.13: Summary of Repeated Measures MANOVA for 6-Month Follow-up Sample (continued)

Scale	MANOVA Results: Effect	DF	P-value	Briefing Group	N	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	6 Months Mean	6 Months SD
PB1 Prevention Self-Efficacy	TIME	2	.0001 *	Behavioral	87	2.58	0.53	2.72	0.53	2.63	0.55
	Pre-Post	1	.0001 **	Standard	88	2.52	0.50	2.58	0.51	2.54	0.48
	Pre-6 mos	1	.3097								
	TIME*GROUP	2	.2125								
	Pr-Po*Grp	1	.0780								
	Pr-6M*Grp	1	.6764								
PB2 Safer-Sex Negotiations	TIME	2	.0001 *	Behavioral	84	2.57	0.55	2.79	0.60	2.66	0.60
	Pre-Post	1	.0001 **	Standard	91	2.60	0.58	2.72	0.49	2.73	0.55
	Pre-6 mos	1	.0108 **								
	TIME*GROUP	2	.1381								
	Pr-Po*Grp	1	.1282								
	Pr-6M*Grp	1	.6156								
BI1 Safer-Sex Intentions	TIME	2	.0001 *	Behavioral	87	2.70	0.79	3.00	0.75	2.79	0.77
	Pre-Post	1	.0001 **	Standard	91	2.61	0.73	2.82	0.73	2.77	0.70
	Pre-6 mos	1	.0116 **								
	TIME*GROUP	2	.2214								
	Pr-Po*Grp	1	.2034								
	Pr-6M*Grp	1	.5248								
BI2 Safer-Sex Information Sharing	TIME	2	.0001 *	Behavioral	88	2.60	0.99	2.97	0.94	2.75	1.02
	Pre-Post	1	.0001 **	Standard	92	2.88	0.93	3.06	0.86	2.95	0.92
	Pre-6 mos	1	.1485								
	TIME*GROUP	2	.0926								
	Pr-Po*Grp	1	.0299								
	Pr-6M*Grp	1	.4510								
CU1 Personal Condom Use	TIME	2	.0001 *	Behavioral	87	2.66	0.61	2.90	0.59	2.75	0.57
	Pre-Post	1	.0001 **	Standard	92	2.61	0.54	2.72	0.53	2.73	0.51
	Pre-6 mos	1	.0048 **								
	TIME*GROUP	2	.0193 *								
	Pr-Po*Grp	1	.0129 **								
	Pr-6M*Grp	1	.6672								

NOTE: MANOVA results for each effect include the degrees of freedom (DF) and p-value for Wilk's lambda and the associated multivariate F statistic. The "time" effect is the overall test of change from pretest to posttest to 6 months, ignoring briefing group; the "time by group" interaction effect is the overall test for the equality of change in the two briefing groups. Each overall effect is divided into 2 single-DF contrasts to locate the source of the effect (if any). The first contrast is between pretest and posttest; the second contrast is between pretest and 6 months.

* = statistically significant overall effect ($p < .05$)

** = statistically significant 1-DF contrast ($p < .025$ [.05/2])

Appendix B.14: Summary of Repeated Measures Multivariate Analysis of Variance (MANOVA) for MAIQ Scale Scores -- Pretest-Posttest-12 Month Change -- Follow-up Sample (N=328)

Scale	MANOVA Results: Effect	DF	P-value	Briefing Group	N	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	12 Months Mean	12 Months SD
AB1 General Attitudes and Beliefs	TIME	2	.0001 *	Behavioral	160	2.94	0.47	2.97	0.44	2.98	0.48
	Pre-Post	1	.0001 **	Standard	162	2.95	0.48	3.04	0.47	3.03	0.44
	Pre-12 mos	1	.0026 **								
	TIME*GROUP	2	.1625								
	Pr-Po*Grp	1	.0618								
	Pr-12M*Grp	1	.2825								
AB2 Condom Use Norms	TIME	2	.0001 *	Behavioral	154	2.52	0.59	2.47	0.56	2.67	0.58
	Pre-Post	1	.0743	Standard	153	2.49	0.60	2.47	0.56	2.68	0.57
	Pre-12 mos	1	.0001 **								
	TIME*GROUP	2	.8300								
	Pr-Po*Grp	1	.5775								
	Pr-12M*Grp	1	.6633								
GK General Knowledge	TIME	2	.9094	Behavioral	161	3.47	0.35	3.52	0.38	3.52	0.42
	Pre-Post	1	.8073	Standard	164	3.54	0.36	3.49	0.42	3.50	0.43
	Pre-12 mos	1	.6677								
	TIME*GROUP	2	.0219 *								
	Pr-Po*Grp	1	.0078 **								
	Pr-12M*Grp	1	.0754								
TK1 Transmission Knowledge: Low Risk Activities	TIME	2	.0001 *	Behavioral	159	2.86	0.57	3.19	0.52	3.00	0.51
	Pre-Post	1	.0001 **	Standard	162	2.88	0.58	3.12	0.48	3.01	0.54
	Pre-12 mos	1	.0001 **								
	TIME*GROUP	2	.1574								
	Pr-Po*Grp	1	.0812								
	Pr-12M*Grp	1	.9995								
TK2 Transmission Knowledge: High Risk Activities	TIME	2	.6442	Behavioral	158	3.76	0.51	3.75	0.47	3.71	0.55
	Pre-Post	1	.3491	Standard	161	3.77	0.52	3.75	0.56	3.79	0.52
	Pre-12 mos	1	.7304								
	TIME*GROUP	2	.4326								
	Pr-Po*Grp	1	.7017								
	Pr-12M*Grp	1	.3403								

NOTE: MANOVA results for each effect include the degrees of freedom (DF) and p-value for Wilk's Lambda and the associated multivariate F statistic. The "time" effect is the overall test of change from pretest to posttest to 12 months, ignoring briefing group; the "time by group" interaction effect is the overall test for the equality of change in the two briefing groups. Each overall effect is divided into 2 single-DF contrasts to locate the source of the effect (if any). The first contrast is between pretest and posttest; the second contrast is between pretest and 12 months.

* = statistically significant overall effect ($p < .05$)

** = statistically significant 1-DF contrast ($p < .025$ [.05/2])

Appendix B.14: Summary of Repeated Measures MANOVA for 12-Month Follow-up Sample (continued)

Scale	MANOVA Results: Effect	DF	P-value	Briefing Group	N	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	12 Months Mean	12 Months SD
PB1 Prevention Self-Efficacy	TIME	2	.0001 *	Behavioral	154	2.58	0.49	2.66	0.50	2.54	0.51
	Pre-Post	1	.0001 **	Standard	155	2.57	0.50	2.64	0.51	2.56	0.53
	Pre-12 mos	1	.3805								
	TIME*GROUP	2	.7109								
	Pr-Po*Grp	1	.6371								
	Pr-12M*Grp	1	.6176								
PB2 Safer-Sex Negotiations	TIME	2	.0001 *	Behavioral	153	2.62	0.61	2.77	0.60	2.76	0.60
	Pre-Post	1	.0001 **	Standard	158	2.63	0.61	2.73	0.53	2.70	0.55
	Pre-12 mos	1	.0020 **								
	TIME*GROUP	2	.5420								
	Pr-Po*Grp	1	.4042								
	Pr-12M*Grp	1	.3160								
BI1 Safer-Sex Intentions	TIME	2	.0001 *	Behavioral	151	2.58	0.74	2.84	0.73	2.70	0.77
	Pre-Post	1	.0001 **	Standard	155	2.70	0.74	2.86	0.74	2.77	0.70
	Pre-12 mos	1	.0254								
	TIME*GROUP	2	.1399								
	Pr-Po*Grp	1	.0472								
	Pr-12M*Grp	1	.5175								
BI2 Safer-Sex Information Sharing	TIME	2	.0001 *	Behavioral	152	2.68	0.96	3.00	0.86	2.70	0.95
	Pre-Post	1	.0001 **	Standard	157	2.87	0.91	3.04	0.90	2.86	1.01
	Pre-12 mos	1	.8120								
	TIME*GROUP	2	.1126								
	Pr-Po*Grp	1	.0391								
	Pr-12M*Grp	1	.7824								
CU1 Personal Condom Use	TIME	2	.0001 *	Behavioral	153	2.62	0.58	2.81	0.55	2.70	0.55
	Pre-Post	1	.0001 **	Standard	157	2.69	0.53	2.78	0.54	2.74	0.59
	Pre-12 mos	1	.0406								
	TIME*GROUP	2	.0191 *								
	Pr-Po*Grp	1	.0066 **								
	Pr-12M*Grp	1	.7684								

NOTE: MANOVA results for each effect include the degrees of freedom (DF) and p-value for Wilk's lambda and the associated multivariate F statistic. The "time" effect is the overall test of change from pretest to posttest to 12 months, ignoring briefing group; the "time by group" interaction effect is the overall test for the equality of change in the two briefing groups. Each overall effect is divided into 2 single-DF contrasts to locate the source of the effect (if any). The first contrast is between pretest and posttest; the second contrast is between pretest and 12 months.

* = statistically significant overall effect ($p < .05$)

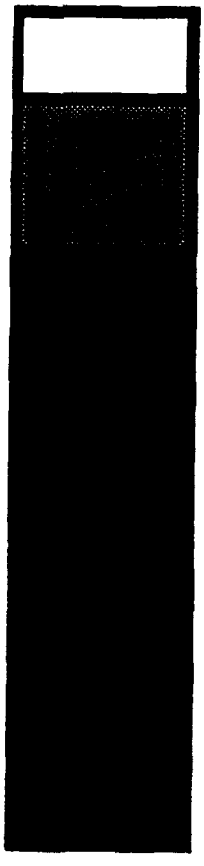
** = statistically significant 1-DF contrast ($p < .025$ [.05/2])

HIV Education Manual

March 1992

A lesson plan and narrative script for health educators

The HIV Spectrum



AIDS

HIV: Infected with symptoms

HIV: Infected without symptoms

High-risk behaviors: Not infected yet

Developed for the U.S. Army under a contract with the University of California, San Francisco

HIV Education Manual

A lesson plan and narrative script for health educators

Joey Taylor, SRA
Margaret Chesney, PhD
Linda Spannagel, RN

A manual developed for contract number DAMD17-88-C-8097
"Evaluation of the U.S. Army's AIDS Education Program"
Margaret Chesney, Principal Investigator, UCSF
COL Karen Ray, Contracting Officer's Representative, WRAIR

Acknowledgments

We'd like to thank a few individuals for their special contributions to the creation of this manual:

For their expertise and assistance in the development of the HIV education program, we are especially grateful to Mr. Bob Elam, Program Director of the HRA/HIV Clinic, and to MAJ Douglas Phillip, Chief of Preventive Medicine, at Fort Ord; and to Mr. Steve Gardner, health educator and AIDS Project Director at the West Oakland Health Center in Oakland, California.

Our very special thanks are extended to Ms. Linda Spannagel, RN, for conducting the HIV briefings with remarkable competence and proficiency.

Finally, we'd like to acknowledge the creativity and dedication of Ms. Jill Nealey, who developed the graphic representations of the educational material.

PREFACE

The purpose of this education manual is to provide the health educator with a clear and effective plan for teaching military personnel and their dependents information about the human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS). The plan is intended to supply the learner with a basic knowledge of HIV transmission, infection and disease, and to increase learners' perceptions of personal vulnerability to this deadly virus. Most importantly, this education plan contains a clear focus on the identification and reduction of the specific behaviors that place a person at high risk of contracting the AIDS virus.

The 'how' and 'why' of effective HIV education for the military

The manual is organized into 8 consecutive topics, all of which need to be included in a basic HIV educational briefing: an **Introduction** in which the purpose of the briefing and HIV- and AIDS-related terms are defined; a brief explanation of the **Immune System** to provide an understanding of the severity of the disease; brief presentations of the **Progression of HIV Infection** from exposure to the virus through the end stage of AIDS, and **Treatment** for symptoms, infections and AIDS-defining diagnoses; a **Scope of the Problem** or epidemiology section to broaden awareness of the modes of HIV transmission and the increasing numbers of those with HIV infection; a more detailed **HIV Transmission** segment which dispels myths and emphasizes viral transmission through specific sexual behaviors; a section on **Military Significance** that describes Army policies and their underlying rationale regarding HIV infection and AIDS; and finally, and most significantly, an in-depth **Prevention** section which is intended to be the cornerstone of this educational program and teaches strategies to reduce high-risk HIV transmission behaviors.

The manual is also designed for adaptibility to the different constraints that a health educator may sometimes encounter. Activities and exercises with varying degrees of learner interaction are included and their use is encouraged for optimal learning and behavior change. Educators faced with time or group-size constraints, however, will be able to limit the more interactive activities and still provide learners with comprehensive knowledge of the behaviors needed to avoid HIV infection.

The ultimate goal is lasting behavior change

A crucial point to keep in mind while using this manual to guide an HIV educational program is that *knowledge is necessary but not always sufficient to persuade people to change their behavior.* Health education with a goal of behavior change, followed by consistent maintenance of the new behavior, will be more likely to succeed if the health educator can instill in each learner a sense of personal certainty about the following concepts:

- The learner is indeed vulnerable to exposure to the AIDS virus through his or her behaviors, and that these high-risk behaviors are seen as problematic.

- The learner is committed to a decision to change the behaviors that place him or her at risk of contracting HIV, and considers the new behaviors to be preferable and worth the effort.

- The learner perceives low-risk behaviors as the social norm, and believes friends and peers will be supportive of the new behaviors.

- The learner feels that he or she has the skills and confidence needed to perform the new behaviors, and to resist any temptations to revert to riskier behaviors.

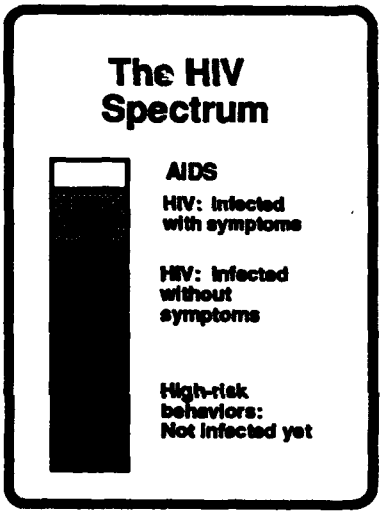
An HIV educational briefing which helps each individual to grasp these concepts is likely to succeed in its goal of behavior change.

The remainder of this manual is devoted to a detailed lesson plan and narrative script, designed to guide health educators in presenting a maximally effective HIV educational briefing (an abbreviated version of the lesson plan is included as Appendix I).

The behaviorally-oriented HIV education program was developed under contract to the Department of Defense by behavioral medicine researchers at the University of California, San Francisco in conjunction with medical personnel at Fort Ord in Monterey, California. The HIV briefings described in this manual were conducted at Fort Ord by a community health nurse, and delivered to various-sized groups of soldiers in an inprocessing setting. The briefings were developed to run an average length of 75 minutes in order to accommodate the inprocessing setting, but as mentioned previously, health educators with time constraints can limit the suggested interactive activities and still provide comprehensive knowledge. Or, conversely, the briefing may be lengthened or even divided into several sessions, allowing individuals to more fully understand and integrate the material. Graphic representations of the educational material, in the form of a flip chart or slides, were used to visually augment the oral presentation (see Appendix II for 8 1/2 x 11 inch graphic reproductions).

Readers will notice that some sections of the narrative script and some graphic reproductions refer specifically to Fort Ord, where the program was carried out; health educators may simply adapt the particular text to their own regions and localities.

INTRODUCTION



The teaching objective of the introductory topic in the HIV educational briefing is to convey knowledge of basic HIV- and AIDS-related terms and concepts. After the health educator introduces him- or herself, it's helpful to set the stage for learning in a group setting by beginning with a brief "icebreaker" exercise comprised of word association and values clarification. This activity establishes a participatory environment, and enables the health educator to identify and focus on positive development of group attitudes.

The exercise is easily carried out by the health educator asking the group for their thoughts and feelings associated with the word "AIDS." As individuals respond, the health educator writes the responses on a chalk board or large sheet of paper for all to see, and discusses them accordingly. Following a few minutes of this exercise, basic HIV terminology can then be introduced:

The HIV Spectrum:

defining the terms

- ***Exposure*** to the virus through ***high-risk behaviors***
- Infection with ***HIV, or the Human Immunodeficiency Virus*** -- the early years of infection are without symptoms
- The symptomatic stage of ***HIV disease*** -- was previously called ARC, or AIDS-Related Complex
- The "tip of the iceberg" known as ***AIDS, or the Acquired Immunodeficiency Syndrome***

Narrative script:

Begin by identifying yourself, stating your name and position and describing your work with an HIV focus.

For example:

"Hello, my name is _____ , and I'm a community health nurse in the HIV clinic here on base. I work with our HIV-positive soldiers and their families, and with any soldiers diagnosed with a sexually transmitted disease."

Set the tone for the group: Participation and interaction

❖ Icebreaker Exercise:

A chalk board or large easel with paper and markers is needed to record participants' responses. Write the word "AIDS" in large letters in the center of the board or sheet of paper. Open up the discussion by asking the following questions:

"When I say the word 'AIDS,' what do you think about? What are your feelings, and who do you think is at risk?"

As group members call out responses to your questions, write the responses on the board or paper so that they surround the central word "AIDS." If group members are hesitant to respond, begin the discussion by suggesting some of the following:

"Many people think of homosexual men and IV drug users. How many of you think about women, babies, or children? The thoughts that come to mind for many are disease, blood, sex, needles, pain, death, isolation. These ideas generate feelings of fear, grief, and anger."

At the conclusion of the icebreaker exercise, when all discussion is finished, continue the briefing with the introduction of basic terms and concepts of HIV Disease:

Introduce the basic terms and concepts of HIV Disease

"HIV-AIDS education and testing in the Army has been mandatory since 1986. Through surveys, we find most soldiers have a good knowledge of HIV. They know that HIV stands for 'Human Immunodeficiency Virus.' They know how HIV is transmitted. Many know the basics about how to prevent getting infected. However, soldiers continue to become infected with HIV. Why do you think this is happening? How many of you actually believe you are personally at risk for becoming infected with HIV? Most people think it is going to happen to someone else."

"When we look at the disease caused by HIV, we need to look at it as a spectrum. The disease process takes place over a period of time. We need to include in that spectrum those who are not infected now but will be if they do not change their high-risk behaviors. This is a disease of attitude and behaviors. The two specific high-risk behaviors I'm referring to are:

1) having sex with a partner who is infected with HIV and not using condoms for protection, and

2) using drugs and sharing needles.

Again, most people think it will happen to someone else, not to them."

"The next segment of the spectrum includes those who are infected with HIV but don't have signs

or symptoms. Most people who are infected fall into this category. If a person were to become infected with HIV today, a blood test for the virus would show positive within six months. However, it is an average of four to five years before most would experience any symptoms of the disease. Infected people don't know they're infected because they don't feel or look sick. Unless they're tested for HIV, they have no way of knowing they're infected. It's when symptoms appear, and when these people seek out medical care, that they will learn they are infected."

What Is the Impact of HIV Infection?

"Testing for HIV is mandatory in the military. It is not required in the civilian population. Free, anonymous HIV testing sites are available in most counties across the United States. But most people don't get tested. Why? Public health officials encourage everyone in the general population who engages in those two high-risk behaviors to get tested. Why don't they get tested? What impact will being infected with HIV have on their lives? What effect will it have on their social lives, their families, jobs, health insurance, as well as their ability to live long productive lives? Most people don't get tested because they are either afraid to find out they have a life-threatening disease that is socially unacceptable, or they just don't think they are at risk. As a result, most don't find out they are infected until they feel sick, which is the next segment of the HIV spectrum. This segment has also been called ARC, or AIDS-Related Complex."

"When a person reaches this stage of the spectrum, they've been infected for about four to five years. They feel sick and seek out medical care. Because of the symptoms they are experiencing, if

they haven't been previously tested, medical professionals will test them for HIV. Unfortunately, by this time, at this stage of HIV infection, the immune system has received severe damage."

"AIDS, or the Acquired Immunodeficiency Syndrome, is the final stage of the spectrum. From the time of infection, without medical treatment, it takes an average of six to eight years to develop AIDS. Actually, AIDS is not a disease itself, but it describes the condition of the immune system. There are twenty four separate diseases under the title of AIDS."

Why the concern?

- AIDS is deadly and there is no cure
- HIV is still spreading
- Infected soldiers are non-deployable
- People must act responsibly in order to be safe

❖ ***It's important at this point in the briefing to begin to develop each individuals' commitment to reduce his or her own high-risk behaviors. Methods to influence group members' intentions to reduce risky behaviors include increasing their perceptions of the severity of HIV disease, and increasing their feelings of personal vulnerability:***

"At this time, we believe that every person who reaches this stage of the HIV spectrum will die. If people who are infected with HIV get medical treatment, their chances of living longer greatly improve; however, there is no cure available at this time which means they too will eventually die from AIDS."

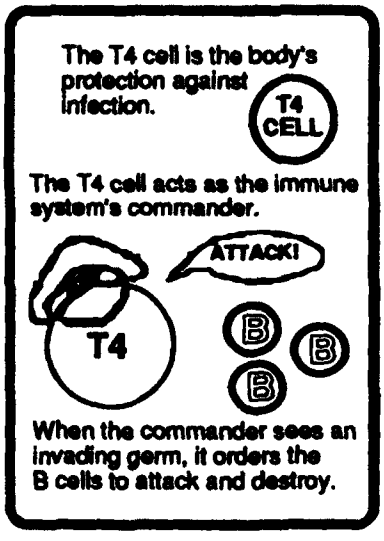
"HIV is continuing to spread rapidly. It was first diagnosed in 1981, just over ten years ago. Millions are already infected and millions more will be

infected before researchers find a cure or before there is a vaccine to prevent it."

"The primary reason the military started mandatory HIV testing was to protect the 'walking blood supply.' That blood supply is made up of all active duty and reservists in the military. If you receive wounds in a combat situation and you need a blood transfusion, you want blood that is free of HIV. Because of the potential for transmitting HIV through a blood transfusion, soldiers are tested regularly and any HIV-infected soldier is non-deployable. "

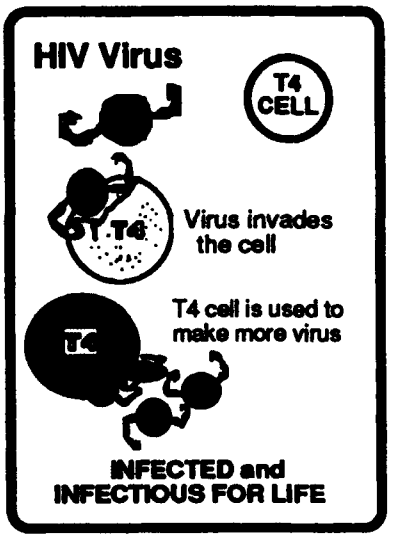
"I can give you all the information about HIV transmission and how to protect yourself, but only you can keep yourself from getting infected. Whether or not you become infected with HIV depends on how you behave. It is your responsibility to act in a safe manner."

The Immune System



❖ ***Next, you'll need to provide a brief explanation of the immune system to ensure that the group will have a basic understanding of the underlying mechanisms of HIV. A simple military analogy can best serve this purpose:***

"I'd like to briefly discuss how your immune system works and how the AIDS virus destroys it. Your immune system is your body's defense system. It protects you from getting sick and helps you to get well when you are exposed to or become infected with various viruses, like the common cold virus.



The immune system is made up of white blood cells. One of these, the T4 cell, is the commander of your defense system. It functions by recognizing harmful organisms that enter your body. It then orders another group of white blood cells, called the B cells, to attack and destroy. It's a very effective system. If you get a cold, you don't have it for the rest of your life. The T4 cell recognizes the cold virus as harmful. It orders the B cells to attack and destroy and you get well. The problem with HIV is that the T4 cell is the very cell that the virus attacks when it enters the body. It invades the cell, turning it into a factory for manufacturing HIV. The body continues to make more T4 cells, but for every single T4 cell the body makes, the AIDS virus is able to manufacture thousands of new HIV particles. Eventually the body is exhausted and unable to fight off infection."

Disease Progression and Treatment

❖ ***Provide a brief summary of the progression of HIV Disease, and explain that there are only limited treatments and no cure:***

Early Symptoms of HIV

- ☐ Fatigue
- ☐ Fevers
- ☐ Night sweats
- ☐ Nausea, diarrhea and weight loss
- ☐ Swollen lymph glands
- ☐ Skin rashes

"When the body becomes unable to fight off infection, symptoms start to appear. An overwhelming fatigue afflicts many. Fevers lasting for weeks are common. People may experience night sweats, awakening with drenched bedclothes. Nausea, vomiting, and diarrhea are frequently debilitating, and these symptoms are often accompanied by a rapid weight loss. Swollen lymph glands in the neck, under the arms and in the groin are often present, remaining swollen for months at a time. Skin rashes are very common as a first symptom."

The Final Stage of AIDS

- PCP
- KS
- Thrush
- Athlete's Foot
- CMV, Blindness
- AIDS Dementia
- Isolation and Death

HIV Disease Severity

TREATMENT

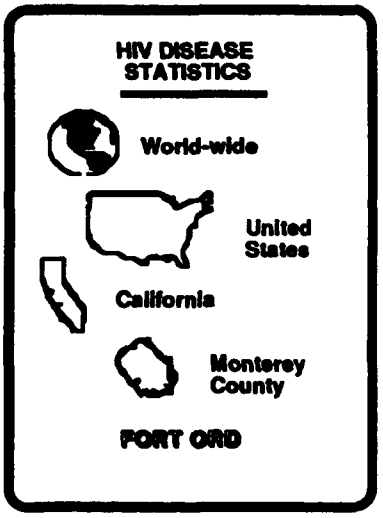
- No cure
- Drugs may prolong life
- Good health practices

"When the infected person reaches the final stage of HIV infection, they have AIDS. They develop diseases which are very rare, or they have an unusual response to common diseases. I'll describe some of these. One of the most commonly diagnosed diseases of AIDS is PCP, pneumocystis carinii pneumonia, a parasitic infection of the lungs. This has been the most common cause of death for those infected with HIV. Kaposi's sarcoma, or KS, is a rare type of skin cancer which usually affects older men and is normally not life-threatening. For those with a suppressed immune system, KS attacks the internal organs, resulting in death. Thrush is a yeast infection most commonly found in the mouths of newborn infants. We see thrush in the mouths of adults who are HIV-infected. Athlete's foot fungus is another common problem which is very persistent and difficult to cure. CMV is a flu virus which 90% of the population gets during their lifetimes. People who are HIV-infected have a different response, in that the virus attacks their eyes and causes permanent blindness. The AIDS virus also creates a toxin, a poison which destroys brain tissue and causes altered mental ability. There are many other diseases and problems afflicting people with AIDS, but I won't go into more detail on this now."

"If you have just taken an HIV test and it comes back positive, it means you are infected with the AIDS virus. People who are infected are often called HIV-positive. If I were to tell you that your HIV test came back positive, who would you tell? Who is going to be in your corner to support you while you deal with all the mental, emotional and physical trauma of this disease? One-third of the soldiers diagnosed with this disease are married. How would you feel if you had to inform your spouse that

you are HIV-positive? What impact is that going to have on your children? How will people treat you if they find out you have the AIDS virus? These are just some of the issues that newly-diagnosed soldiers have to deal with. Often, they become very isolated and alone out of fear of how they will be treated. They wonder what people will assume about their lifestyle and they worry that their friends will be afraid of catching the virus from them."

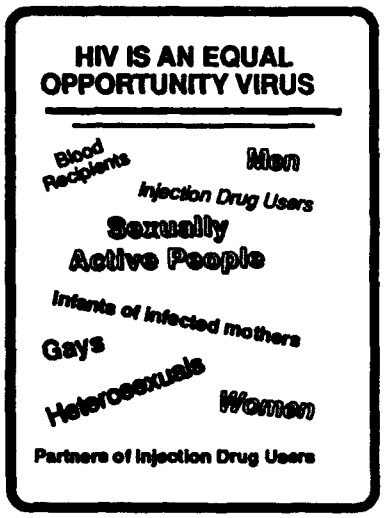
"As I mentioned earlier, there is no cure for AIDS at this time. There are medications available now, that, if received in time, help to slow the destruction of the immune system. But the destruction can't be stopped. Many of the drugs have unpleasant and harmful side effects and can only be tolerated for a short period of time. Good health practices such as getting plenty of rest, good nutrition and exercise may help to delay the onset of symptoms, but eventually most will go on to develop the diseases we associate with AIDS."



Epidemiology: Scope of the problem

❖ ***A brief overview of HIV incidence statistics and transmission patterns will be helpful at this point, with an emphasis on personal vulnerability and personal behaviors:***

"According to the World Health Organization, there are now over eleven million people worldwide who are infected with HIV. In the United States, health officials estimate that between one-and-a-half and two million people are infected with the



*Transmission depends on what you do, **not** who you are*

AIDS virus. New York has the highest number of HIV-infected people; California is second-highest. Monterey County officials estimate that there are over three thousand people who are HIV-positive living in this area. I am unable to give definite numbers for the Army, but one study has estimated that perhaps 600 active duty personnel become HIV-positive per year. We currently have several active duty, dependents and retirees who are HIV-positive on this post."

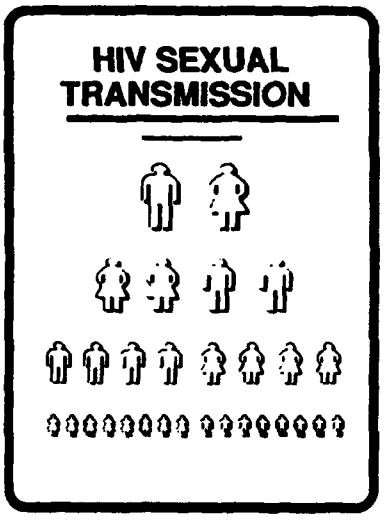
"HIV is an equal opportunity disease; its transmission depends on what you do, not who you are. It's not selective for sex or gender, sexual preference or age. An infected pregnant woman has a thirty to sixty percent chance of transmitting the virus to her unborn baby. We strongly encourage all couples thinking about starting a family to be tested for HIV prior to getting pregnant."

"In the past, thousands of people were infected from blood transfusions or blood products before researchers came up with a way to test the blood. Since 1985, when it became possible to test donated blood, the U.S. blood supply has been very safe. However, it's not one hundred percent safe due to the time delay between initial infection and when the test is able to detect that the virus is present."

"Injection drug users share their needles with an average of thirty-seven people a year. By sharing needles, they can transmit the AIDS virus to the others who use their needles and to any sex partners."

Viral Transmission

"The primary way that HIV is spread is through sexual intercourse between one person who is infected and one who is not. HIV can be transmitted from man to woman, woman to man, man to man or woman to woman. In other parts of the world, AIDS is primarily a heterosexual disease, and in the U.S. there's an increasing number of HIV infections being spread among heterosexuals and people who do not use drugs."



The number of heterosexual, non-drug user HIV infections is increasing

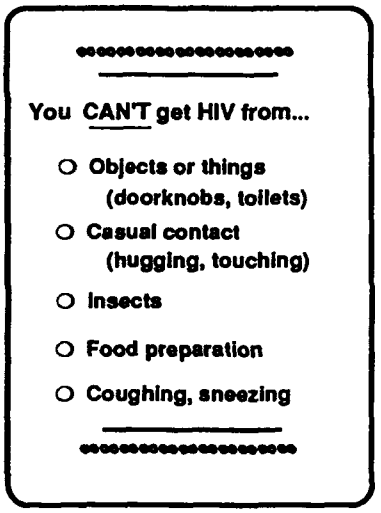
❖ ***Next, convey information about specific high-risk behaviors leading to HIV transmission, and correct misinformation about the "myths" of HIV transmission:***

"So, what is your risk for becoming infected with HIV? Do you need to be concerned with just your new sex partner? What about any others they have had sex with? You may be concerned enough about becoming infected to try to learn more about a new sex partner. But if you ask people for information about their sexual background or whether they use drugs, can you trust that the answer will always be completely honest? Even if a potential sex partner answers your questions honestly, he or she will not always know the complete history of all previous sex partners."

[If you have a reproduction -- flip chart or slide -- of the HIV Sexual Transmission chart, refer to it as you illustrate the following]:

"We'll use this chart as an example. I'm going to be conservative and say that each person has had only two other sex partners in his or her lifetime.

However, each of those partners has also had two other sex partners. There is no way for you to know or even to find out the history of drug use or other high-risk behaviors from all those individuals. It's been estimated that when two new partners have sex, there are between 150 and 250 sexual contacts in their total history. That means there are between 150 and 250 people in the bed with them! The only way to know that a person is free of the AIDS virus is through the blood test for HIV."



Transmission Myths

"There are several myths regarding transmission of HIV. The AIDS virus is fragile and doesn't live long outside the human body. It wants a warm, wet, human body that is about 98.6 degrees. Heat and cold quickly destroy the virus. If HIV is exposed to the air, it dies. Your risk of becoming infected from objects or bathroom facilities is almost nonexistent."

"Casual touching or hugging doesn't pose any threat of infection. Numerous studies have been conducted with family members who are living with an HIV-positive person. They drank water from the same glass, even shared toothbrushes. There has been no documented case in which a member of a household became infected with HIV without intimate sexual contact or sharing of contaminated needles."

"Insects do not transmit the AIDS virus. The virus is specific to human beings. You might think that mosquitos or ticks could spread the virus because they suck your blood; however, it's thought that the enzymes which the insects have may kill the virus."

HIGH-RISK BEHAVIORS

- ⊗ Unprotected vaginal sex
- ⊗ Unprotected anal sex
- ⊗ Unprotected oral sex
- ⊗ Sharing contaminated needles

IT ONLY TAKES *ONCE* TO GET INFECTED

Transmission occurs only with certain specific behaviors

"Because HIV dies rapidly when exposed to air, heat or cold, eating food prepared by an HIV-infected person does not create a risk."

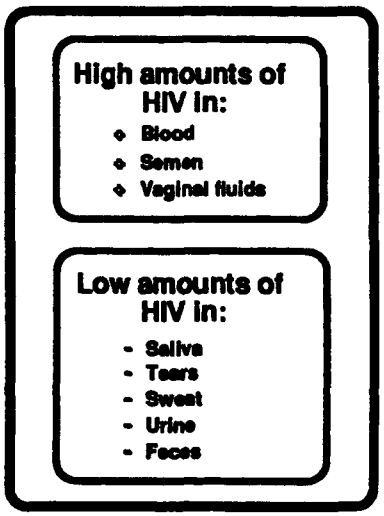
"The AIDS virus is not an airborne disease. That means it's not transmitted through the air into the respiratory tract. If an infected individual has a cold and is coughing and sneezing, you're at risk for catching the cold, but not HIV."

"HIV transmission happens only with certain specific behaviors. The behaviors that will put you at risk of getting the AIDS virus are:

- Unprotected vaginal sex, anal sex or oral sex, and
- The sharing of contaminated needles during drug injection.

There's no need to be concerned about needle use during medical care or blood donation. In the United States, medical facilities use sterile, disposable needles. They are used once, on one person only, and then are thrown away."

"You should always keep in mind that you can become infected by having sex with an infected partner or sharing a needle *just once. It only takes one time.*"



Transmission occurs only through certain body fluids

❖ ***Here's another interactive opportunity: ask the group to identify different 'body fluids," and write their responses on the chalkboard, before beginning the following discussion:***

"What body fluids have a high concentration of HIV? Which ones have a low concentration? There are three body fluids which contain a high concentration of the virus: blood, semen and vaginal fluids."

"All other body fluids, such as saliva, tears, sweat, urine and feces have a low concentration of HIV because their white blood cell content is much lower."

"There is much concern about whether kissing and the exchange of saliva puts a person at risk for HIV infection. There has ***not*** been one documented case where HIV has been transmitted from saliva alone. I do caution people that if they have a sore in their mouth, have recently had invasive dental work or have chapped or cracked lips that they are at risk of infection from any virus or infectious organism. If this is the case, it would be best to abstain from kissing until the tissue is completely healed."

Military Significance

❖ ***This next section on military policy is always of particular interest to group members and tends to generate many questions. It's a perfect opportunity for the health educator to emphasize personal relevance by describing the effects of HIV infection on an individual's military career:***

When are you tested?

- Upon enlistment
- Every 2 years (in birth month)
- Overseas (within 6 months)
- STDs (4 times a year)

"These are the Army regulations for HIV testing: All applicants are screened for the AIDS virus. If an applicant tests positive, he or she isn't allowed into the Army. Active duty personnel are tested every two years in their birth month. An HIV test is required within six months of deployment to an overseas post. If a soldier is diagnosed with a sexually transmitted disease, they'll be tested four times within that year because they are considered to be at high risk for HIV infection."

"HIV testing is done in the following way: a sample of your blood is drawn and then sent to a lab for testing. It's first tested with the ELISA test. If it tests negative for HIV, no further testing is done on your blood sample. If it tests positive, however, the test is repeated on the same blood sample. If that test is also positive, your blood will then be tested with the Western Blot, which is even more accurate than the ELISA test. If the Western Blot is positive also, we have you and your company commander come into the HIV clinic where you are informed that your first blood sample has tested positive for HIV. The physician then explains the possibility of error, and a second blood sample is drawn. An HIV counselor educates you on how to prevent transmission of the AIDS virus to others and

If HIV-Positive:

- First blood sample is tested 4 times
- Commanding Officer is notified
- Second blood sample is drawn and tested 4 times

encourages you to abstain from sexual interaction or sharing needles until the second blood test results are received. If an individual cannot abstain from having sex, then the necessity of always using condoms is emphasized."

"The second blood sample is tested in the same manner as the first. If the final results are again positive for HIV, you and your company commander, and sometimes the first sergeant, return to the HIV clinic. The physician informs you that you are infected with HIV. You receive counseling on the progression of the disease and again on how to prevent transmission to others."

Effects of HIV seropositivity on military career

"The company commander then gives a counseling statement in the form of a Direct Order, which you and your commander will sign. The essence of the order is that an infected soldier must inform a spouse and/or sexual partners of his or her HIV status. This is done so that the partner or partners can be tested and receive medical care, and to stop the spread of the disease to others. An HIV-infected soldier cannot donate blood, tissue or sperm, and must notify dental and medical personnel prior to receiving any treatment that he or she is infected with the AIDS virus. This is done so that health care workers can use precautions to prevent transmission to themselves and to others, and also in order to deliver appropriate medical care to the soldier. Finally, the soldier is ordered to inform any potential sex partner of his or her infected status, prior to any sexual interaction, and the male partner must always use condoms."

DIRECT ORDER

- Inform spouse and/or all sex partners
- Cannot donate blood, tissue or sperm
- Inform dental/medical personnel
- Inform new sex partners
- Protected sex only

"HIV-infected soldiers may stay in the Army as long as they are well and able to function in their jobs. They will no longer be deployable, however, and cannot take any further specialized schooling."

"Their state of health and ability to function is determined by twice yearly medical evaluation called staging. Walter Reed Army Medical Center developed criteria to determine progression of HIV infection ranging from stage one, which is HIV-infected with no symptoms, to stage six, which is full-blown AIDS. Most soldiers are medically boarded between stages three and five, and will receive ongoing medical care and financial benefits as determined by the medical board."

"HIV-infected soldiers may chapter out or ETS; if either of these last two choices are made, however, they will not receive the same medical or financial benefits they would have received if they boarded."

MILITARY POLICY IF INFECTED

- ☐ May re-enlist
- ☐ Non-deployable
- ☐ No special schools
- ☐ Medical care
- ☐ Medical discharge
- ☐ Continued medical benefits

PREVENTION

❖ ***The final section on prevention of HIV transmission is the essence of the behaviorally-oriented HIV educational program. This is the health educator's opportunity to convey information about specific risk-reducing or "safer sex" behaviors. It's also extremely important to promote positive attitudes and communication with sex partners about condom use and other safer sex practices. Helping individuals to believe that they can make the right decisions in high-risk situations is another goal in HIV preventive education. And finally, motivating group members to actually decrease any high-risk behaviors, and promoting their intentions to teach friends and family to also behave in a safe and responsible manner, are the ultimate objectives of a successful HIV briefing.***

Remember that it's essential to emphasize choice and positive reasoning throughout this section, rather than presenting group members with a long 'Don't do this" list.

Clearly define risky vs. safe sexual behaviors

"So, what can you do to reduce your risk of becoming infected with HIV? Change any and all high-risk sexual behaviors. Many healthy, normal people are choosing abstinence, which means doing without sex, at least until they are involved in a long-term relationship. A long-term relationship when the partners are sexually exclusive to each other is known as monogamy. As long as both partners are HIV-negative, and remain faithful, they are not at risk of becoming infected. If one partner has sex outside of that exclusive relationship, it is no longer safe sex."

Reduce RISKY Behavior

- O Abstinence
- O Monogamy
- O Fewer sex partners
- O Communication
- O Safer sex behaviors

"By reducing the number of sex partners that you have, you reduce your risk of possible exposure to HIV. However, it takes only one infected partner to infect you. If you find yourself in a situation in which you're unsure of possible exposure, it's best for you to choose not to have sexual intercourse. In our society, it can sometimes be difficult for men to turn down an opportunity to have sexual intercourse, even when they don't feel like sex or if they think they are at risk. Society has programmed men and women to believe that men are always ready to perform sexually, and there is a fear that if a man chooses not to have sex that there must be something wrong with his masculinity. Today there is a life-threatening sexually transmitted disease. If a man decides not to have sex unless it is safe sex, there is nothing wrong with his masculinity. On the contrary, it means that he puts a greater value on living and will live to have sex for many more years."

"Even though you can't completely determine your risk by simply talking with a new sex partner, it's still important to communicate your concerns about safe sex. Many people are embarrassed to bring the subject of safer sex up for fear of offending or making their partner angry. But it's likely that most people that you meet these days are just as worried about what *they* might catch from *you*, and will be relieved to have the concerns brought out into the open. You can then decide together how to provide safety for the both of you."

UNSAFE SEX Behaviors

- ⊛ Anal sex without a condom
- ⊛ Vaginal sex without a condom
- ⊛ Oral sex without a condom
- ⊛ Condom used with oil lubrication
- ⊛ Any activity that allows blood-to-blood contact

SAFER SEX Behaviors

- ✓ Abstinence
- ✓ Fantasy / Phone sex
- ✓ Touching, hugging and massage
- ✓ Masturbation
- ✓ Oral sex with a condom
- ✓ Vaginal sex with a condom
- ✓ Anal sex with a condom

❖ ***Here's another interactive opportunity: ask the group to identify safer vs. unsafe behaviors before turning to the following explanation:***

"Unsafe sex behaviors include oral, vaginal and anal sex without a condom. It's also unsafe to use oil-based lubricants with condoms, because oil damages latex, the rubber material that condoms are made of, and can cause the condom to break. Any activity that allows or causes blood-to-blood contact is unsafe -- be aware of any open sores or cuts that a sex partner has anywhere on his or her body."

"What is safe? Abstinence leads the list of safer sex behaviors. There are a variety of sexual practices that can be a safe alternative to penetrative sexual intercourse, thus avoiding the exchange of body fluids. Fantasy and phone sex between consenting adults can be stimulating without the risk of infection. (This does *not* refer to unsolicited obscene phone calls, which are illegal and usually bring pleasure and satisfaction to the initiator of the call only). Masturbation is a safe alternative as long as sex toys or vibrators are not exchanged. Using a condom with oral, vaginal or anal sex will significantly reduce the risk of infection. But keep in mind that it's not one hundred percent safe -- the condom can break, especially if used incorrectly."

❖ ***It's useful at this point to bring out preassembled boxes containing samples of products categorized as "USE" or "DON'T USE." Show the group different products to illustrate the points below:***

The Good

- ✓ Latex condoms
- ✓ Water-soluble lubricants
- ✓ Spermicides (Nonoxynol-9)

The Bad and Ugly

- ⊗ No condoms
- ⊗ Natural condoms
- ⊗ Oil-based lubricants
- ⊗ Novelty condoms

All condoms are not created equal

"Not all condoms are the same. There are two primary kinds: latex or rubber, and lambskin or 'natural.' To prevent the spread of HIV, use latex or rubber condoms. Don't use lambskin or natural condoms. The lambskin condoms are made from the membrane or skin that covered the intestine of the sheep or lamb. The membrane is full of pores which allow food and water molecules to pass through. Viruses and bacteria are much smaller molecules and pass right through natural condoms."

"Some people use water-based lubricants such as K-Y Jelly™, Astroglide™, or PrePair™ during sex. These are all okay. What you *do not* want to use is Vaseline™, massage oil, baby oil, hand creams, body lotion, or any other oil-based lubricants. These cause the latex in condoms to weaken, increasing the possibility of breakage during sex. Instead, use only oil-free, water-soluble lubricants. For added protection, use a lubricant with nonoxynol-9 spermicide because it kills HIV on contact. Nonoxynol-9 should not be used alone, but in combination with a latex condom. Finally, be aware that novelty condoms such as glow-in-the-dark condoms, often will not give you the same level of protection as untreated condoms. Frequently the coloring or solution used to make it glow weakens the latex. Check the package; it should state that it's a novelty and not meant to protect against infection."

❖ ***Condom demonstration: enlist a volunteer from the group to help in your demonstration of the "11 Steps of Condom Use." If you have a large reproduction (flip chart or slide) of the "11 Steps of Condom Use," direct the group to refer to it as you lead the volunteer through the following:***

"There are some basic steps to keep in mind when using a condom that will increase its effectiveness and assure you of greater protection. I'd like a volunteer to come up so we can demonstrate some of the essential steps. *[If no one volunteers or consents to join you after some encouragement, you can use your own fingers to carry out the demonstration].* We'll use our volunteer's fingers to demonstrate the proper way to put on the condom. But first, check the package for the expiration date; old latex breaks easily. Make sure the package isn't damaged and that there's no lubricant leaking from it. When you open the package, take your time so that you don't accidently puncture the condom with your fingernails or teeth."

"Wait until you're sexually aroused to put on the condom. If you put it on before you're aroused, it will slip off. Make sure the condom fits. *One size does not fit all!* Condoms are available in different lengths, widths and shapes. Also, make sure that you leave some space at the tip of the condom for semen. Some condoms already have this -- it's called a 'reservoir tip.' If the condom doesn't have a reservoir tip, you can create your own; just leave about one half-inch of space at the tip to catch the semen. You can even put a small dab of lubricant inside the tip of

11 STEPS OF CONDOM USE

1. Check the package for holes and expiration date.

2. Make sure the condom is latex. Some are lubricated, and some are non-lubricated.

3. Carefully (not with your teeth) open the condom, making sure your finger nails don't tear it.

4. Make sure the condom is right side out. You can check this by blowing into the tip of the condom until the tip naturally sticks out.

5. You can put a small amount of a water-based lubricant inside the tip of the condom for more sensation.

6. Between the tip of your thumb and forefinger of your weaker hand, gently pinch the tip of the condom, pressing out any pockets of air.

7. Before the erect penis goes anywhere roll the condom with your stronger hand onto the penis. As you roll it down to the base of the penis (the part closest to the body) press out any air bubbles. You can apply more water-based lubricant to the outside of the condom for better fit. Make sure to use a water-based lubricant because oil-based lubricants damage latex condoms and cause them to break. Water-based lubricants with spermicide (nonoxynol-9) also may help kill the AIDS virus.

8. As soon as you ejaculate, hold on to the condom at the base of the penis and then gently withdraw the penis along with the condom and its contents.

9. Take the condom off the penis, being careful not to spill its contents.

10. Tie a knot near the opening of the condom.

11. Throw away the used condom in a safe place - NEVER reuse it.

the condom before putting it on -- this can increase sensation for many men."

"As you begin to put on the condom, gently press any air out of the reservoir tip. Air trapped in the condom will expand from heat, causing the condom to stretch and possibly break. Also, trapped air can be forced up through the urethra during intercourse, resulting in significant discomfort. Finally, air also acts as an insulator, which reduces sensation."

"Unroll the condom so that it covers the entire penis. Additional lubricant can be put on the outside of the condom to help prevent tearing from excess dryness. Lubricant containing nonoxynol-9 will give you added protection just in case the condom does tear or slip off."

Emphasize choice and positive attitudes toward condom use

"After ejaculation, hold onto the condom around the base and withdraw before the penis becomes soft. If the penis is soft while withdrawing, it's very important to hold onto the condom so that it doesn't slip off or the contents spill out. Throw the used condom away. NEVER reuse condoms."

❖ ***Thank your volunteer, and conclude the condom demonstration by showing the group any other samples of condoms and lubricants you've brought with you. Again, accent personal choice and positive attitudes by emphasizing the variety of brands available. Suggest that people need to experiment with different brands and styles to get the most pleasure and enjoyment from condom and lubricant use. Tell the group members that they can come up after the briefing to look at the samples more closely, and that you'll be available to answer any other questions at that time also.***

Next, you can begin to provoke some group discussion or comments about condom use through the method of 'paradoxical intention'; that is, you can begin to disarm resistance to condom use by introducing the likely barriers:

Barriers to Condom Use:

- Cost
- Embarrassment
- Spontaneity
- Sensation
- Women's point of view

Discussing barriers can help break down resistance to condom use

"There are several reasons people resist using condoms. Some think they're too expensive. This isn't the case here on post. We have free condoms available at the clinic -- stop in and take some. Condoms are also available at all aids stations on post. If you'd like to buy different kinds, they usually cost less than a dollar unless you buy exotic or novelty condoms. They're available in most food and drug stores, and also in many rest rooms in bars, clubs and gas stations."

"Some people are embarrassed to either buy or use condoms. What do you think? How much embarrassment can you handle? What if using a condom saves your life? People today are becoming more comfortable with condom use, and many actually expect a sex partner to use them."

"Some people think or say that having to stop to put on a condom can be a disruption during sex. Well, AIDS could be a permanent disruption to your sex life, couldn't it?"

"Then there are those who say that wearing a condom decreases pleasurable feelings during sex. As I said earlier, adding a dab of lubricant to the tip on the inside of the condom can actually increase sensations. On the other hand, some people even prefer slightly less sensation, because they can prolong sex before ejaculating."

"Finally, some men are reluctant to use condoms because they're unsure of how women feel about them. First, there's no change in the sensation to the woman with or without a condom. Second, and most important, women are dependent on their partners to provide protection. Surveys show that the majority of women appreciate it when their partner brings up the subject and uses a condom."

RISKY: Needles and Skin Puncture

Be a "Change Agent"

⊗ Injection Drugs
Tattoos
Ear piercing
Acupuncture
Steroids

⊗ DON'T SHARE needles or equipment

✧ Clean needles with: bleach, rubbing alcohol or hydrogen peroxide

❖ ***This final prevention section focuses on substance use and HIV high-risk behaviors. The health education objectives are to convey specific risk-reduction information connected with drug or alcohol use, and to appeal to the group members' sense of duty and responsibility in the attempt to motivate them to change behaviors:***

"I'm aware of the Army's regulations on drugs, and I'm sure you are also; however, the issue of HIV infection from sharing needles needs to be addressed. Some of you have children, or expect to have children some day, and will need to talk to them at some point about drug use. Some of you have friends or family members who may be using drugs. I'm going to tell you what you need to know to prevent the spread of AIDS with needles. This way you can become a 'change agent.' That means that each of you will have all the information needed to help others change their risky behavior. So even if you don't use drugs, it's important to know how to prevent transmission of HIV among drug users."

"Though most needle-sharing HIV transmission happens in connection with drug use, other types of needle use can also be dangerous. Tattooing, ear piercing, acupuncture and injecting steroids may be extremely risky behaviors. When needles puncture the skin of more than one person, without proper cleaning, there is always a risk of transmitting an infectious organism. You need to make sure that needles have not been previously used, or if they have been, that they've been properly cleaned. The needle and syringe should both be rinsed twice with full-strength bleach (drawn up into the syringe and then expelled), followed by two more rinses with water. Household bleach is probably the best, but rubbing alcohol, hydrogen peroxide, and even hot soap and water can kill the AIDS virus. You also need to be sure that all the equipment involved is cleaned -- in the case of injection drugs, that includes not only the needle and syringe but the 'cooker,' too. Any other materials that come in contact with blood and can't be cleaned, such as cotton, shouldn't be shared or reused, either. The basic message is:

- Don't use injection drugs.
- If you use drugs, don't share needles or 'works.'
- If you share needles or 'works,' clean them with bleach."

Alcohol and Drugs: What's the connection?

- Impairment of sound decision-making and judgment
- Impairment of the immune system

"What about alcohol and non-IV drug use? How does this increase your risk of HIV infection? The immediate effects of alcohol and other drugs will often alter good judgment and decision-making. As one soldier told me, 'The more beers I drink, the better all women look and the less I worry about

what I can catch from them.' Unfortunately, he's not alone in his attitude or behavior. Studies have shown that there's an increased sexual drive and less attention paid to factors like safe sex when people are under the influence of alcohol or drugs. You already know the regulations on drugs. I'm not telling you not to drink alcohol, but don't let it make your sexual decisions for you. Also, for people who are HIV-positive, alcohol or drug use may lead to further weakening of the immune system."

Consistency is the KEY to prevention

- Always use condoms
- Always have a condom with you
- Always practice safer sex

"One of the most important points that I want you all to take away with you from this briefing is that *consistency is the key to prevention -- always practice safer sex.* Being consistent in practicing safe sex behaviors reduces your risk of becoming infected with HIV. Always use a condom until you know, through laboratory tests over a six-month period of time, that your partner is HIV-negative. In order to use a condom, you need to have one with you. If you don't have one, stop and get one. Can you imagine the peace of mind in the morning when you know you protected yourself the night before? Decreasing the number of your sex partners will also reduce your risk. Don't let alcohol and drugs make your sexual decisions for you. And finally, educate your friends and family. Remember, something you say could save their lives."

- Decrease the number of your sex partners
- Decrease your use of alcohol and drugs
- Educate your friends and family

"Are there any more questions? If you have any questions in the future or want additional information, we're available in the HIV clinic. Just give us a call. I'll be around after the briefing to answer questions or in case you'd like to come and look at any of the materials I've brought along with me."

❖ ***It's best to conclude the briefing by giving group members something to take along with them; at the very least, you can distribute educational pamphlets. Better yet, distribute materials they can use that will actually help them to change their behavior, such as condoms packaged in handy keychains or lipstick cases or matchbooks (such products can easily be ordered in quantity from manufacturers and wholesale suppliers).***

Health educators can make a difference

Be available for soldiers to come up and ask questions personally; the sad truth is that at least one HIV-positive person has realized his own HIV-seropositivity as a result of recognizing the symptoms and behaviors described by the health educator during one of these briefings. He approached the health educator directly after a briefing, and privately told her that he'd been experiencing all of the symptoms that she'd just described. She arranged an HIV test for the soldier immediately, and the test unfortunately came back positive for HIV. This is, of course, a very sad ending to one soldier's personal story. The positive message is that the spread of a deadly virus was contained at that point through the efforts of health education. Straightforward, explicit information can make a difference in stopping the transmission of HIV.

Appendix I

Lesson Plan

HIV - AIDS Education Program

LESSON PLAN

Present and discuss each of the following issues and activities:
(Suggested presentation length of this behaviorally-oriented HIV education program is 75 minutes, including 5 minutes leeway for questions and answers during the delivery. This may, of course, be adapted to meet time constraints. The briefing may also be lengthened or even divided into several sessions, allowing individuals to more fully understand and integrate the material.)

I. INTRODUCTION

A. Icebreaker: AIDS word association/values clarification exercise (5 minutes)

☞ *[This activity establishes a participatory environment, and enables the health educator to identify and focus on positive development of group attitudes.]*

B. The HIV Spectrum: Defining the terms (7 minutes)

Convey knowledge of basic terms and concepts.

1. Introduce HIV terminology.

   a. AIDS: the tip of the iceberg
   b. HIV Disease: the symptomatic stage
   c. HIV Seropositivity: the infected stage
   d. Exposure: through high-risk behaviors

2. Introduce basic concepts of perceived severity, personal vulnerability and commitment to reducing high-risk behaviors.

   a. AIDS is deadly and there is no known cure.
   b. HIV is continuing to spread through the heterosexual population.
   c. HIV-infected soldiers are non-deployable.
   d. Each individual can choose to act responsibly and as a community "change agent."

II. THE IMMUNE SYSTEM (3 minutes)

Provide a very brief explanation of immune system function to ensure a basic understanding of the underlying mechanisms of the HIV virus. A simple military analogy (e.g., our bodies' armed forces of defense) can serve this purpose.

A. **Normal immune system response:**
White blood cells, T helper cells and B cells (macrophages) will identify, attack and destroy germs, bacteria and viruses.

B. **HIV infection alters the immune system response:**
HIV invades the T cells, using the cell to nourish and reproduce itself. The virus immobilizes the T cells and eventually destroys them, leaving the body vulnerable to disease.

III. PROGRESSION OF HIV INFECTION (7 minutes)

Provide a very brief synopsis of the progression of HIV Disease, from exposure to the end-stage of AIDS.

A. **Exposure** to the virus through specific high-risk behaviors

B. **Asymptomatic HIV seropositivity**

C. **HIV Disease:** the onset of symptoms

1. Fatigue
2. Fevers
3. Night sweats
4. Nausea, diarrhea, weight loss
5. Swollen lymph glands
6. Skin rashes

D. **AIDS:** the end-stage of opportunistic infections and AIDS-defining diagnoses

1. PCP: Pneumocystis carinii pneumonia
2. KS: Kaposi's sarcoma
3. Thrush
4. Athlete's foot
5. CMV: Cytomegalovirus leading to blindness
6. AIDS-related dementia
7. Isolation and death

IV. TREATMENT (3 minutes)

Briefly explain that there is no known cure for HIV infection or AIDS, and provide a very brief description of healthful practices and drugs that may prolong life.

A. **No cure**

B. **Drugs that may prolong life:** AZT, aerosolized pentamidine, experimental drugs

C. **Good health practices**

V. SCOPE OF THE PROBLEM: EPIDEMIOLOGY (10 minutes)

Provide a brief overview of HIV incidence statistics and transmission patterns, with an emphasis on personal vulnerability (e.g., geographic proximity of epicenters) and behaviors (e.g., increasing number of heterosexual non-drug user HIV infections).

A. **Incidence statistics**

1. Global
2. National
3. State
4. County (emphasize local focus)
5. Base (emphasize local focus)

B. **HIV is an "Equal Opportunity Virus":** transmission depends on *what you do, **not** who you are.*

1. Sexual transmission: male-to-male, male-to-female, female-to-male, female-to-female; with an increasing number of heterosexual, non-drug user HIV infections in the U.S. In other parts of the world, AIDS is primarily a heterosexual disease.
2. Injection drug users
3. Blood recipients
4. Infants of infected mothers
5. Sex partners of injection drug users
6. Sexually active persons

VI. HIV TRANSMISSION (10 minutes)

Convey information about specific high-risk behaviors leading to HIV transmission, and correct misinformation about the "myths" of transmission.

A. Myths of transmission

1. Objects or things (door knobs or toilets)
2. Casual contact (hugging, touching)
3. Insects
4. Food preparation
5. Coughing, sneezing

B. Transmission through specific behaviors

1. Unprotected vaginal sex
2. Unprotected anal sex
3. Unprotected oral sex
4. Sharing contaminated needles
5. Emphasize: it only takes *one single act*

C. **HIV is a blood-borne virus:** must enter the blood stream of recipient

☛ [*Interactive opportunity: ask group to identify and define "body fluids"*]

1. High concentration of HIV in 3 body fluids
   a. Blood
   b. Semen
   c. Vaginal secretions

2. Low concentration (low WBC count) and no evidence of HIV transmission
   a. Saliva
   b. Tears
   c. Sweat
   d. Urine
   e. Feces

VII. MILITARY SIGNIFICANCE (7 minutes)

Provide a brief overview of military policy, emphasizing personal relevance by describing the effects of HIV infection on an individual's military career.
☞ *[Encourage questions following each segment]*

A. **Repeat basic military concerns:** Protection of blood supply, deployability, and prevention through HIV antibody testing, counseling, and education

B. **Army policy**

1. HIV antibody testing requirements
   a. Enlistment (not allowed to enlist if HIV-positive)
   b. Once every 2 years in birth month
   c. Overseas: negative test within 6 months
   d. STD diagnosis: 4 times within the following year

2. Testing HIV seropositive: procedures
   a. First blood sample is tested 4 times
   b. Commanding officer is notified
   c. Second blood sample is drawn and tested 4 times

3. Testing HIV seropositive: Direct Order
   a. Inform spouse and/or sexual partner(s)
   b. Cannot donate blood, sperm or tissue
   c. Inform dental and medical personnel
   d. Inform new sexual partners
   e. Protected sex only

4. Testing HIV seropositive: effects on military career
   a. Allowed to re-enlist
   b. Non-deployable unit assignment
   c. No specialized schooling
   d. Re-staged and re-evaluated every 6 months
   e. If symptomatic, medical discharge and continued medical benefits

VIII. PREVENTION (18 minutes)

This section is the essence of the behaviorally-oriented educational program and is designed to: convey information about specific risk-reducing or "safer sex" behaviors; promote positive attitudes and communication with sex partners about condom use and other safer sex practices; increase perceptions of self-efficacy regarding decision-making skills in high-risk situations; and promote intentions to decrease high-risk behaviors and intentions to behave as a community change agent.

A. Reduction of high-risk sexual behaviors

1. Abstinence or choosing alternatives to penetrative intercourse
   ☞ [*Emphasize choice and positive reasoning*]
2. Mutual monogamy between HIV negative partners
3. Decrease number of sexual partners
4. Communicate with partner about reducing high-risk behaviors
5. Safer sexual behaviors vs. unsafe sexual behaviors
   ☞ [*Interactive opportunity: ask group to identify safer vs. unsafe behaviors*]

B. Condom use

1. Latex vs. natural condoms
2. Water-soluble vs. oil-based lubricants
3. Nonoxynol-9 and spermicides
   ☞ [*Visual aids: samples of products in "Use" or "Don't Use" boxes*]
4. Proper storage and availability
5. Condom demonstration
   ☞ [*Enlist volunteer to help illustrate "11 Steps of Condom Use"*]
6. Discussion of barriers to condom use
   a. Expensive or embarrassing to buy
   b. Embarrassing to discuss with partner
   c. Disruption of spontaneity
   d. Decreases pleasurable sensations
   e. Women's point of view
7. With so many barriers, why use condoms?
   ☞ [*Provoke group discussion: paradoxical intention*]

C. Reduction of high-risk needle use

1. Don't use injection drugs
2. If using, don't share needles or equipment
3. If sharing needles and equipment, clean with bleach/alcohol/hydrogen peroxide
4. Other needle use: tattoos, piercing, acupuncture, steroids, etc.

D. Alcohol and drugs and HIV: what's the connection?

1. Impairment of sound decision-making and judgment
2. Weakening of immune system if HIV-positive

E. Consistency is the key to prevention

1. Always use condoms
2. Always practice safer sex
3. Educate your friends and family
   ☞ [*Challenge group to describe How? Why?*]

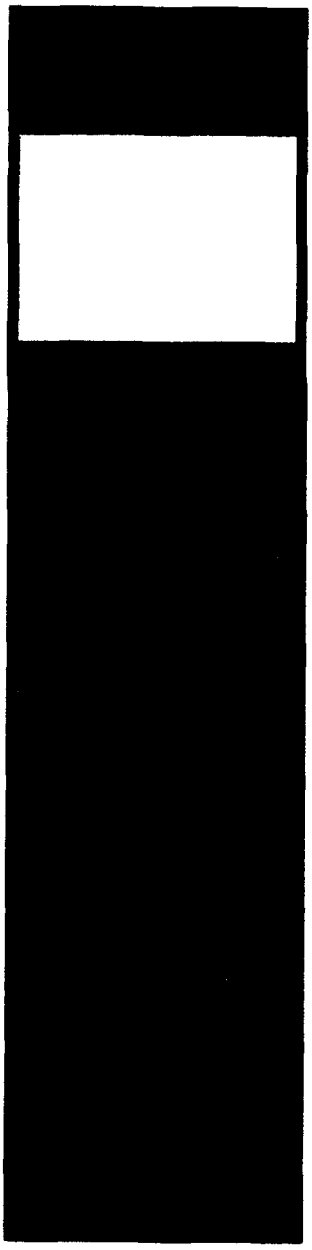
Conclude the HIV briefing by distributing some information or materials that individuals can take away with them, such as educational pamphlets and condoms. Inform soldiers that you'll be available following the briefing to answer individual questions, and let them know where they can get in touch with you if needed in the future.

Appendix II

Graphics

To visually augment the oral presentation of the HIV educational material, the graphics contained in this appendix may be reproduced in the form of slides, or enlarged, laminated and bound together for use as a flip chart. In either of these forms, they serve not only as a focused visual summary of the information for learners, but also as reference "notes" for the health educator.

The HIV Spectrum



AIDS

HIV: Infected with symptoms

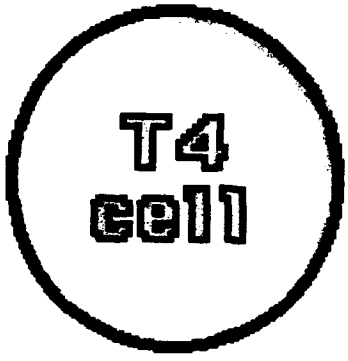
HIV: Infected without symptoms

High-risk behaviors: Not infected yet

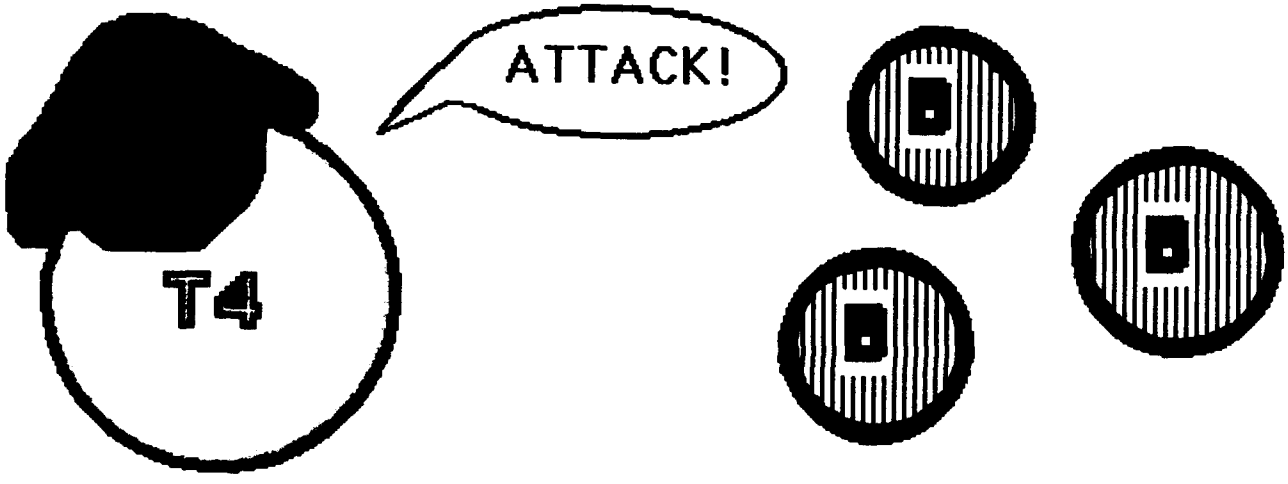
Why the concern?

- AIDS is deadly and there is no cure
- HIV is still spreading
- Infected soldiers are non-deployable
- People must act responsibly in order to be safe

The T4 cell is the body's protection against infection.

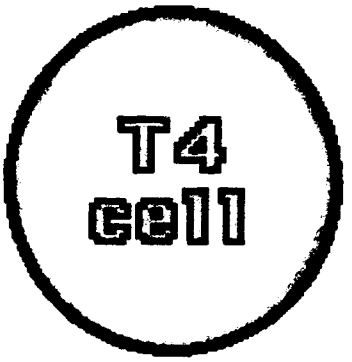


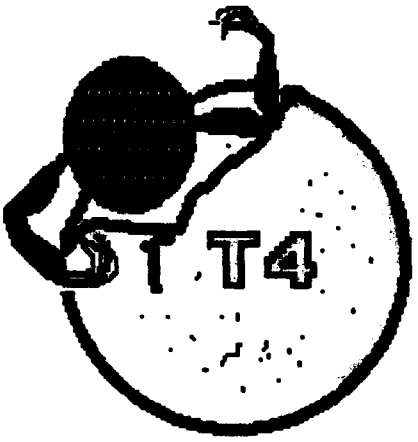
The T4 cell acts as the immune system's commander.



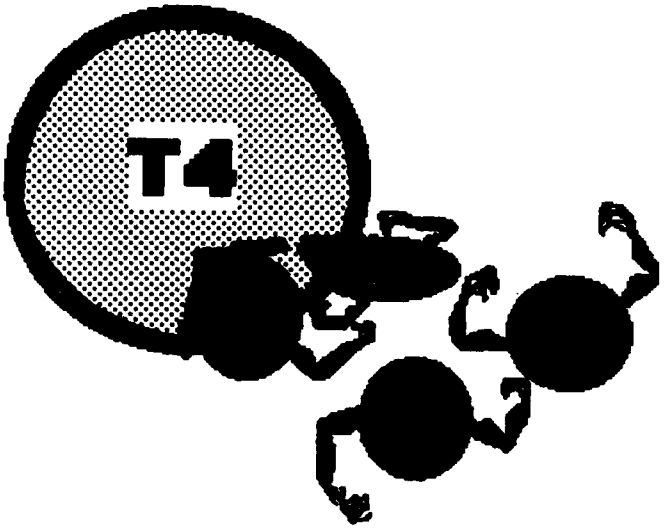
When the commander sees an invading germ, it orders the B cells to attack and destroy.

HIV Virus





Virus invades the cell



T4 cell is used to make more virus

INFECTED and INFECTIOUS FOR LIFE

Early Symptoms of

HIV

- ☑ Fatigue
- ☑ Fevers
- ☑ Night sweats
- ☑ Nausea, diarrhea and weight loss
- ☑ Swollen lymph glands
- ☑ Skin rashes

The Final Stage of AIDS

- PCP
- KS
- Thrush
- Athlete's Foot
- CMV, Blindness
- AIDS Dementia
- Isolation and Death

TREATMENT

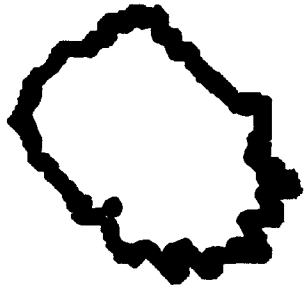
- ✧ **No cure**
- ✧ **Drugs may prolong life**
- ✧ **Good health practices**

HIV DISEASE STATISTICS

World-wide

United States

California



Monterey County

FORT ORD

HIV IS AN EQUAL OPPORTUNITY VIRUS

Blood Recipients

Men

Injection Drug Users

Sexually Active People

Partners of Injection Drug Users

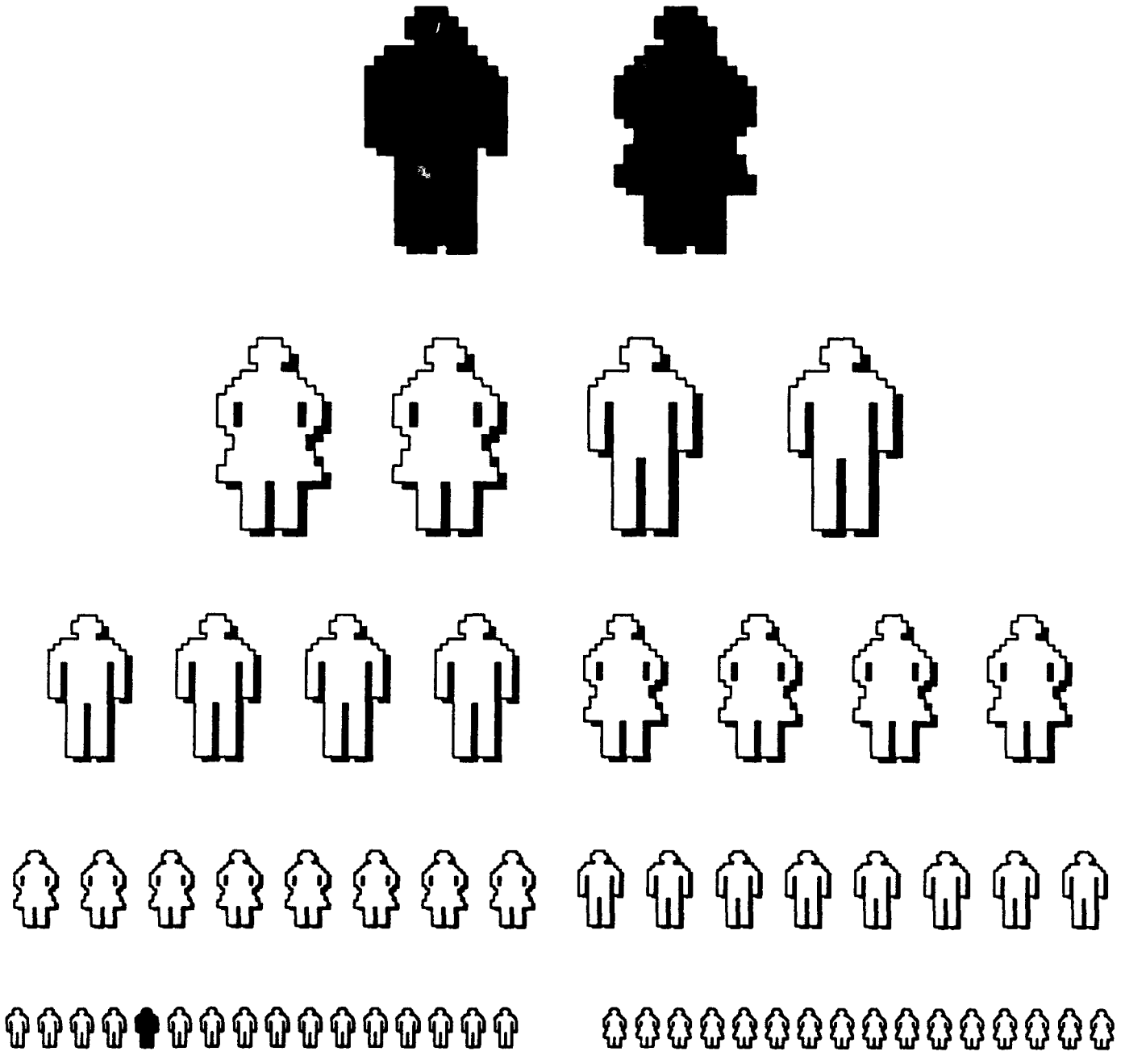
Gays

Heterosexuals

Women

Infants of infected mothers

HIV SEXUAL TRANSMISSION



You CAN'T get HIV from...

- Objects or things (doorknobs, toilets)
- Casual contact (hugging, touching)
- Insects
- Food preparation
- Coughing, sneezing

HIGH-RISK BEHAVIORS

- ⊗ Unprotected vaginal sex
- ⊗ Unprotected anal sex
- ⊗ Unprotected oral sex
- ⊗ Sharing contaminated needles

IT ONLY TAKES ONCE TO GET INFECTED

High amounts of HIV in:

- Blood
- Semen
- Vaginal fluids

Low amounts of HIV in:

- Saliva
- Tears
- Sweat
- Urine
- Feces

When are you tested?

- Upon enlistment
- Every 2 years (in birth month)
- Overseas (within 6 months)
- STDs (4 times a year)

If HIV-Positive:

- First blood sample is tested 4 times
- Commanding Officer is notified
- Second blood sample is drawn and tested 4 times

Direct Order

1. Inform spouse and/or all sex partners
2. Cannot donate blood, tissue or sperm
3. Inform dental/medical personnel
4. Inform new sex partners
5. Protected sex only

MILITARY POLICY IF INFECTED

- May re-enlist
- Non-deployable
- No special schools
- Medical care
- Medical discharge
- Continued medical benefits

REDUCE RISKY BEHAVIOR

- Abstinence
- Monogamy
- Fewer sex partners
- Communication
- Safer sex behaviors

UNSAFE SEX Behaviors

- ⊗ Anal sex without a condom
- ⊗ Vaginal sex without a condom
- ⊗ Oral sex without a condom
- ⊗ Condom used with oil lubrication
- ⊗ Any activity that allows blood-to-blood contact

SAFER SEX
Behaviors

- ✓ Abstinence
- ✓ Fantasy / Phone sex
- ✓ Touching, hugging and massage
- ✓ Masturbation
- ✓ Oral sex with a condom
- ✓ Vaginal sex with a condom
- ✓ Anal sex with a condom

The Good

- ✓ Latex condoms
- ✓ Water-soluble lubricants
- ✓ Spermicides (Nonoxynol-9)

The Bad and Ugly

- ⊗ No condoms
- ⊗ Natural condoms
- ⊗ Oil-based lubricants
- ⊗ Novelty condoms

11 STEPS OF CONDOM USE

1. Check the package for holes and expiration date.

2. Make sure the condom is **latex**. Some are lubricated, and some are non-lubricated.

3. Carefully (*not* with your teeth) open the condom, making sure your finger nails don't tear it.

4. Make sure the condom is right side out. You can check this by blowing into the tip of the condom until the tip naturally sticks out.

5. You can put a small amount of a ***water-based*** lubricant inside the tip of the condom for more sensation.

6. Between the tip of your thumb and forefinger of your weaker hand, gently pinch the tip of the condom, pressing out any pockets of air.

7. *Before the erect penis goes anywhere* roll the condom with your stronger hand onto the penis. As you roll it down to the base of the penis (the part closest to the body) press out any air bubbles. You can apply more ***water-based*** lubricant to the outside of the condom for better fit. Make sure to use a water-based lubricant because oil-based lubricants damage latex condoms and cause them to break. Water-based lubricants with spermicide (nonoxynol-9) also may help kill the AIDS virus.

8. *As soon as* you ejaculate, hold on to the condom at the base of the penis and then gently withdraw the penis along with the condom and its contents.

9. Take the condom off the penis, being careful not to spill its contents.

10. Tie a knot near the opening of the condom.

11. Throw away the used condom in a safe place - NEVER reuse it.

Barriers to Condom Use:

- Cost
- Embarrassment
- Spontaneity
- Sensation
- Women's point of view

RISKY: Needles and Skin Puncture

Be a "Change Agent"

⊗ Injection Drugs
Tattoos
Ear piercing
Acupuncture
Steroids

⊗ DON'T SHARE needles or equipment

✧ Clean needles with:
bleach, rubbing alcohol or hydrogen peroxide

Alcohol and Drugs: What's the connection?

- Impairment of sound decision-making and judgment

- Impairment of the immune system

Consistency is the KEY to prevention

Always use condoms

Always have a condom with you

Always practice safer sex

Decrease the number of your sex partners

Decrease your use of alcohol and drugs

Educate your friends and family