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M.A. Thesis (Research Psychology)

AN EVALUATION OF AN AIDS EDUCATIONAL PROGRAMME IN INDUSTRY:

AN EXPLORATORY STUDY

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THIS RESEARCH WAS CONDUCTED IN FEBRUARY, APRIL, JULY AND AUGUST OF 1989 FOLLOWING A SERIES OF PILOT STUDIES OF AN AMERICAN QUESTIONNAIRE ON SEVERAL SAMPLES OF THE WESTERN CAPE POPULATION IN APRIL AND SEPTEMBER OF 1988. THE ANALYSIS OF THIS DATA HAS BEEN COMPLICATED, SEVERAL METHODS OF DATA ANALYSIS HAVING BEEN TRIED BEFORE DECIDING ON THE MODEL UTILIZED IN THIS THESIS.

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MY FAMILY FOR THEIR WILLINGNESS TO COOK THEIR OWN SUPPER FAR TO OFTEN.

ABSTRACT

This study evaluates a small group educational programme on AIDS using a Solomon - Four group design. The research was conducted in 16 randomly selected Western Cape stores of a national supermarket chain. These stores were stratified into northern, central, southern suburbs and outlying districts. Each group of 4 stores was assigned at random to either the treatment or control group of each component of the Solomon - four according to their suburb stratification. 16 randomly selected weekly paid employees (8 males and 8 females) at each store were interviewed, by social work students, using an adapted version of the Temoshok (1987) questionnaire assessing knowledge and personal opinions about AIDS. Subjects were interviewed either pre and post education or post education only depending on which store (and hence which treatment group) they were working in. A model to examine the probability of any subject knowing the "correct" answer to each item of the questionnaire was used in an item analysis of 16 knowledge questions and 22 personal opinion items using a BMDP logistic regression programme for binary data. Odds ratios and exact p values are reported for each item to determine the strengths and weaknesses of the educational programme and to pinpoint areas in the programme which need revision. Results indicated a significant improvement in knowledge in terms of the myths surrounding casual transmission of (HIV) AIDS and an improvement in knowledge on certain factual items. A statistically significant negative effect of education was evident in the section of the programme dealing with blood transfusions and contamination. Results also suggest a shift towards more desirable responses, on the personal opinion items of the questionnaire, towards people with AIDS particularly in those items which linked up with the educational programme. 67 subjects from the original sample who had received education were re-interviewed 2 months after the programme using all the knowledge questions and selected personal opinion items to determine what respondents had remembered or forgotten. These results suggest that the gains in knowledge were maintained on items dealing with casual transmission, and that the shifts towards more desirable responses on certain items were also maintained over the 2 month period. Recommendations for adjustments to the content of the programme are outlined.

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INTRODUCTION

The aim of this study was to evaluate a small group educational programme on AIDS by using a Solomon - four group research design. Although the educational programme was aimed at all the weekly paid employees of a national supermarket chain in South Africa, the study was confined to 16 randomly selected stores of the supermarket chain in the Western Cape and 256 randomly selected employees within these stores.

In order to evaluate the programme, a BMDP logistic regression programme was used to conduct an item analysis of pre and post education questionnaire data on the knowledge and personal opinions of the sample under study, the objectives being:

- a) to assess the suitability and effectiveness of the educational programme on AIDS which was targeted at the Western Cape weekly paid labour force of the national supermarket chain.
- b) to establish whether this programme provided enough factual information on AIDS to alter the "myths" and misinformation on the disease that were prevalent amongst the supermarket staff (and in the Western Cape) at the time.
- c) to establish whether providing programme participants with accurate factual information on the disease would lead to a shift in emphasis in the personal responses to attitudinal statements on AIDS contained in the questionnaire.

- d) to provide the company with a scientific evaluation of their educational programme on AIDS and (if necessary) to recommend suitable changes to the content of the programme.

In order to examine the effects of the programme over time, as well as to ascertain what respondents had remembered, forgotten or been prompted to find out for themselves, 67 subjects from the original sample of 128 subjects, who had received AIDS education, were contacted for repeat interviews approximately 2 months after the post programme data collection. Whilst every effort was made to contact all the subjects who had received education it was not always possible. The major reasons being, staff were either on leave (vacation or sick) or had resigned. Several of the original sample refused to take part in the follow up research again.

All the knowledge questions and certain of the attitude questions from the original (adapted version of Temoshok's 1987) questionnaire were re-administered as well as a questionnaire designed by the researcher and based on an adaptation of McGuire's (1974) persuasive communication model. This latter questionnaire was administered during in-depth interviews to determine the participants' perceptions of the programme content and the educator delivering it. The analysis of the data derived from the in-depth interviews however are not included in this study.

It must be noted that at the time this study was initiated (February, 1988) a literature search for educational campaigns on AIDS revealed a paucity of research in this area. Notable exceptions were reports on government sponsored, large scale mass media campaigns (Sherr, 1987; Temoshok, 1987), a limited variety of manuals, posters and pamphlets which had been produced for the general public and trade union organisations (Critical health, 1988; Duckitt, 1987), and a few articles on interventions and behavioral change in the gay population, a community with a vested interest in a disease which had so directly affected their colleagues (Feldman and Johnson, 1986; Isaacs, 1985; Kotarba and Lang, 1986; Riesenber, 1986).

AIDS educational programme literature (Joseph, 1988; WHO Global Programme on AIDS, 1988), were not readily available when this project was conceptualised, designed and implemented. Other non - AIDS literature on programme evaluation, in particular the drug education literature (McGuire, 1974) did not seem to offer a suitable yardstick with which to compare an educational programme on AIDS in the workplace.

In retrospect, failing to consult appropriate educational programmes and evaluations from other disciplines beside psychology had more to do with getting started quickly than conscious intention. Indeed as has subsequently been reported, because of the general sense of urgency to educate for prevention of the disease, "Many early programmes for the general public began in a hurry. Thus they often skipped preliminary research, careful planning and plans for evaluation" (Population reports, 1989, p 45).

It was not until after the programme had been completed and the data collected in April, July and August of 1989, that the first comprehensive material on educating about AIDS and the value of participatory styles of educating became available (Aggleton, Homans, Mojsa, Watson and Watney, 1989c; Williams & Lockley, 1989; NYCHD Trainers Manual, 1990). Following the June 1989 Conference in Montreal however and particularly the 1990 Conference in San Francisco, the abstract literature was flooded with reports of programmes and interventions designed to educate different communities. Educational programmes on AIDS for the workplace however were still almost non-existent. Less than 10 educational interventions in the workplace were presented at the 1990 international conference in San Francisco.

Similarly, at the time this research was initiated, there had not been a programme, designed in South Africa, for the specific purpose of educating large numbers of managerial and working class people about HIV infection and AIDS at their place of employment. Nor had there been a scientific evaluation of such an educational campaign.

To redress this situation, and at the request of the personnel management of the supermarket organisation, an intensive 3 day "train the trainer" workshop was developed for a national supermarket chain in South Africa (refer "goals of train the trainer" workshop, Appendix 2). The programme was developed in Cape Town in conjunction with acknowledged local experts in the field of AIDS (GASA 6010 counselling service) and was aimed at providing personnel and nursing staff employed by the supermarket chain, with the necessary skills and information pertaining to many aspects of HIV infection and AIDS, including counselling strategies, so that they in turn could impart accurate information and advice to the weekly paid labour force of the organisation in a systematic, and coherent manner. This the personnel and nursing staff subsequently did via small group training sessions during the employee's working week.

The small group educational programme was developed in February 1989, by the personnel management and nursing staff of the supermarket chain (in conjunction with representatives of their weekly paid labour force) following their attendance at the intensive 3 day "train the trainer " AIDS educational workshop. Four members of the personnel /nursing staff (who had received further training to enable them to deliver the small group educational programme) conducted the series of 1 hour programmes, during working hours, in March / April 1989, to those employees who had been randomly assigned to either of the two treatment groups of the solomon four group design.

Third year social work students from the University of Cape Town, who had received training in interviewing skills and in the administration of the questionnaire, conducted pre and post education interviews, using an adapted version of the Temoshok (1987) questionnaire on Knowledge and Attitudes about AIDS.¹

This small group educational programme aimed at the weekly paid labour force of the Western Cape branches of the national supermarket chain, is the subject of the evaluation programme described in this research.

¹ The reader is alerted to the fact that during the latter half of 1989, following the completion of the educational programme and post education data collection, literature on popular misconceptions about the metaphors and language of AIDS became available. In particular the work of Aggleton, Homans, Mojsa, Watson, & Watney (1989b), highlighted the misuse and misconceptions surrounding the words "AIDS test and AIDS virus" (refer ch.1 footnotes 2 and 3). The use of this inaccurate terminology in the Temoshok (1987) questionnaire, although now viewed as problematic, was accepted without question at the time of this research. Use of the terms "AIDS test and AIDS virus" therefore may have unknowingly promoted misinformation. This terminology however, continues to be used by the media (Argus newspaper supplement on AIDS, 1991) and general public in Cape Town in 1991, and is extremely difficult to change. Further elaboration on the problems posed by the wording of items in the Temoshok (1987) questionnaire will be addressed in the discussion section of this document.

RESEARCH PLAN:

The study is divided into three components:

Section A - the literature review,

Section B - the methodology utilised and

Section C - the results and discussion.

Chapter one of the literature review, describes the factual information on the acquired immune deficiency syndrome (AIDS), the social history of the pattern of spread of the virus responsible for the syndrome and the psychological phenomena associated with the disease, while chapter 2 reviews the current international and local literature on AIDS education, various models of health education and the differing educator styles associated with each model. The importance of drawing a distinction between professional and personal ("lay beliefs") understandings of health and illness particularly as these relate to AIDS is discussed before turning to the positive and negative effects of the mass media, the value of participatory small group education and the most appropriate methods of evaluation of programmes. This chapter concludes with a restatement of the objectives of the study.

In chapter 3, the Solomon four-group research design, the methodology and sampling procedures used, the details of the subjects, the interviewers responsible for the collection of the data and the pilot studies conducted to evaluate and adapt the questionnaire for a Western Cape lower socio - economic sample, and the translation

of the questionnaire into Afrikaans and Xhosa, according to the Brislin technique are described. Thereafter, the procedures followed and specific methodological problems associated with research on AIDS and with the collection of the data in this study are discussed as many of these impinged upon the collection of the data, and possibly affected the quality of the material gathered for analysis.

Chapter 4 presents the model used in the statistical analysis of the data including the logistic regression analysis. Reasons for conducting an item analysis of the data and the reporting of odds ratios and exact p-values are given.

The results and discussion are combined in Section C, chapter 5. Each section of the item analysis of the questionnaire is followed by a brief summary of the main results emanating from that section of the research.

Chapter 6 of Section C outlines and discusses the results and differences found in a 2 month follow up study using the Temoshok questionnaire.

Finally chapter 7 evaluates and discusses the overall study, in the light of the objectives stated at the outset. It must be borne in mind at all times however that this exploratory study was undertaken before appropriate literature became available. As such the study was pioneering and without precedence in this field.

SECTION A:

LITERATURE REVIEW

SECTION A:

LITERATURE REVIEW

CHAPTER ONE

INTRODUCTION

In this chapter, selected literature on the acquired immune deficiency syndrome (AIDS), the social history of its pattern of spread and the psychological phenomena associated with the disease, will be reviewed.

In the following chapter, the international and local literature on AIDS education and the rationale for focusing on a small group AIDS educational programme in industry, will be discussed.

1.1: THE ACQUIRED IMMUNE DEFICIENCY SYNDROME - AIDS

The acquired immune deficiency syndrome (AIDS) is a term used to describe the terminal or end stage of a viral disease caused by the human immunodeficiency virus (HIV). Although primarily sexually transmitted (Osmond, 1990; Quinn, 1990) this disease can also be transmitted by transfusion of HIV contaminated blood or blood products (Donegan, 1990,) and through HIV contaminated syringes and injection needles (Chaisson, 1990; Donoghoe, Stimson & Dolan 1990; Hart, 1990). It is also transmitted through organ and semen donation (Osmond, 1990) and from an HIV

infected mother to her child either before, during or after birth via contaminated body fluids (Green and Millar, 1986; Sherr, 1990). Although the virus has been isolated in and is theoretically transmissible via body fluids such as saliva, tears, urine, cerebrospinal fluids, amniotic fluid and bronchoalveolar lavage fluid, to date there have been no documented cases of HIV transmission via external body fluids other than semen (Hollander, 1990; Osmond, 1990). The virus is found in greater concentrations in semen than in vaginal secretions, which supports the hypothesis that transmission occurs more readily from male to female than from female to male (Osmond, 1990). That the sexually receptive partner is at relatively greater risk of infection is also supported in the literature documenting homosexual risk activity (Fitzpatrick, Boulton & Hart, 1989; Isaacs, 1985; Osmond, 1990). This efficiency of transmission is explained by the fact that HIV enters the blood stream through tears in the rectal and vaginal mucosa. In Africa however, heterosexual transmission of HIV infection occurs in a ratio of approximately 1.1 and is especially enhanced in the presence of other sexually transmitted diseases particularly those causing genital ulcers (Greenblatt, Lukehart and Plummer, 1988). While certain studies (primarily the haemophiliac studies) suggest that the virus is not always easily transmitted from a seropositive male to a female, other reports suggest that individuals have become infected after a single sexual exposure to the virus (Osmond, 1990). To date, unprotected oral sex remains a theoretical route of transmission. Those studies citing oral sex as a possible route of transmission also document that the reported sexual activities involved either trauma, orogenital contact and/or occurred during the menses (Osmond, 1990).

The human immunodeficiency virus commonly called "the AIDS virus"², belongs to a group of viruses known as the retroviruses. These viruses work in the opposite direction to nature. Viruses are little packets of chemicals whose only purpose is to reproduce themselves. This they do by invading a host, either plant, animal or human. Usually the human body produces "virus specific" antibodies which seek out and destroy an invading virus. Retroviruses however, destroy the antibodies designed to eliminate them as well as the coordinators of the immune system, the T4 helper cells. As the disease progresses and the T4 cell count drops, the immune system of an infected person ceases to function adequately, thereby enabling fungal and opportunistic infections such as herpes, pneumocystis carinii and tuberculosis to flourish (Aggleton, et al. 1989b; Osmond, 1990; Volberding & Cohen, 1990).

1.2: The "AIDS Test"

To date, there is no reliable, economical test to determine the presence of the (HIV) virus in body fluids. Although methods of isolating the virus in body fluids (such as the polymerase chain reaction by use of gene amplification techniques) are currently available (McGrath, 1990; Cohen, 1990), these are research specific, highly sensitive, often inaccurate, laboratory tools which are not suitable for large scale mass screening

² The use of the term "the AIDS virus" has recently been criticized (Aggleton, Homans, Mojsa, Watson and Watney, 1989b). It is now recognized that conflating the word "AIDS" with the word "virus", promotes confusing and misleading information on HIV disease and encourages the public to believe that infection with the virus implies that one is infected with AIDS. AIDS therefore is presented as the cause of infection rather than as one of the outcomes of infection with HIV.

and testing purposes. The current blood screening test used to detect HIV is known as the Elisa (enzyme linked immunosorbent assay). This indirectly identifies the presence of HIV in infected individuals by detecting antibodies to the virus in their blood. All Elisa identified HIV antibody positive tests must be confirmed as such by using the western blot method - a more accurate and expensive procedure of determining an individual's HIV antibody status (Crowe, Mills & McGrath, 1990; Wilber, 1990). Any individual wishing to determine their HIV positivity status, would thus require an HIV antibody blood test to detect HIV infection (Schoub, 1988; Volberding, 1990).

The reliability of the test however has been questioned. Early on in the epidemic, Green and Millar (1986) reported false positive results of up to 4%. Recent literature in elaborating on the occurrence of false positive tests point out that "HIV antibody assays are highly sensitive and specific but have a low predictive value in populations with a very low incidence of HIV infection. That is, when an individual with no risk for HIV infection tests positive for HIV antibody, the result is more likely to be a false positive than a true one because the occurrence of disease is more rare than the occurrence of a false positive test. Thus wide spread mass screening of low risk populations produces many false positive results" (Wilber, 1990, 2.1.2.). It is for this reason that confirmatory tests with the western blot method are so essential. Furthermore it is imperative that all laboratories involved in testing for HIV adhere to rigidly controlled standards of test kits and methods.

As it takes time for the body to develop antibodies to the virus, a series of tests at regular (3 monthly) intervals are required to arrive at an accurate HIV antibody positive diagnosis. An individual testing negative initially, could be in "the window period of infection" a time when an HIV infected individual is not registering as positive on the currently available tests. Recent studies suggest that some people could harbour the virus without registering as HIV antibody positive (Imagawa, Lee, & Wolinsky, 1989), although on current evidence the majority of individuals will seroconvert within 10 weeks of initial infection (Crowe & McGrath, 1990).

Green and Millar (1986) highlight three important points in regard to the so called "AIDS TEST" These are:

- 1: It does not show that some one has AIDS, only that the person has been infected with the virus at one time or another.
- 2: It does not show that someone will develop AIDS in the future
- 3: It sometimes makes mistakes, like any other tests. This is why someone who indulges in high risk behaviors (such as sexual promiscuity and intravenous drug abuse) should not give blood or donate organs or semen. ³

³ re point 2. Sabatier (1988) suggests that as many as 100% of HIV infected persons will ultimately develop terminal stage AIDS. This has caused some controversy (Rutherford, G. W., Lifson, A. R., Hessol, N. A., Darrow, W. W., O'Malley, P. M., Buchbinder, S. P., Barnhart, J. L., Bodecker, T. W., Cannon, L., Doll, L. S., Holmberg, S. D., Harrison, J. S., Rogers, M. F., Werdegar, D., & Jaffe, H. W., 1990), for example, not all the original individuals enrolled in the San Francisco cohort have developed end stage disease (AIDS) yet.

re point 3. Certain questions and cautionary comments are necessary in regard to Green and Millar's (1986) interpretation of the "AIDS TEST". For example the definition and perceived meaning of the word "promiscuity" is problematic. The dictionary definition of "promiscuity" is given as "many sexual partners", with "many" not being defined. However in polygamous cultures, to have "many sexual partners (i.e. wives)" is a cultural

There is increasing evidence that many factors will determine whether an infected individual will actually progress to the physical manifestations of late stage HIV disease (AIDS). Recent literature notes that "HIV infection and progression to end stage disease shows a high degree of variability, ranging from development of AIDS and death within a year of infection to an absence of any disease manifestations many years after infection" (Osmond, 1990. 1.1.6). There is recent evidence to suggest that the stage of disease of the source patient determines the survival time of the newly infected individual. Thus an individual receiving the infection from someone with late stage disease is more likely to develop symptomatic HIV disease within a short space of time than an individual receiving the virus from someone in the latency stage of the disease at a time when the level of virus is relatively low and less virulent (Levy, J. 1990).

In examining psychosocial predictors of disease progression, Coates, Temoshok and Mandel (1984) of San Francisco and Todd, Burcham, Grant and Penny (1987) of Australia have indicated that psychosocial factors may be determinants of changes in biological mechanisms, claiming that neuroendocrine and immune system variables can mediate the impact of these psychosocial factors upon disease onset. Recent literature exploring coping strategies and response styles in homosexual symptomatic seropositive men, suggest that a response style characterised by a pro active

tradition. Furthermore, couples who practice serialized monogamy (i.e. one partner at a time) do not consider themselves as having "many sexual partners" nor to be "promiscuous". Because different meanings are attached to the term "promiscuous", it's use in scientific documents is to be discouraged, the more accurate terminology being, "multiple or many sexual partners".

acceptance of responsibility of the disease and active strategies of seeking out social support systems and maintaining a positive attitude may affect survival time in men with AIDS (Temoshok, O'Leary and Jenkins, 1990; Pivar & Temoshok, 1990). The new field of psychoneuroimmunology thus heralds an important breakthrough in the way the onset of disease is understood. Certainly it is now recognized that individuals infected with the virus should be advised to maintain optimal health through correct diet, plenty of sleep and enough exercise (Coates et al., 1984).

1.3: Physical Manifestations of AIDS:

While HIV is a term for a "virus, with well understood modes of transmission," which may have many consequences prior to and sometimes independently of AIDS, including persistent generalized lymphadenopathy (PGL) and AIDS related complex (ARC), AIDS is a syndrome of more than 30 distinct medical conditions (Aggleton et al., 1989b).

It has been well documented that the physical manifestations of the disease may differ according to geographical location, previous history of sexually transmitted diseases and exposure to different infections before the onset of illness (Goebel, 1988; Green and Millar, 1986; Van der Groen, 1988). For example, in America, Britain and Europe where the disease initially affected members of the homosexual community, the most common manifestations are a rare type of chest infection know as Pneumocystis Carinii Pneumonia (PCP), a rare skin tumour called Kaposi's Sarcoma (KS) and recently, increasing cases of dementia and disorders of the central nervous system

(CNS) (Green and Millar, 1986; Van der Groen, 1988; Proceedings of the M.R.C Congress, 1988). In parts of West Germany, in addition to the usual diseases common to America and Britain, a condition known as cerebral toxoplasmosis (an abscess in the brain, which may be caused by eating infected raw meat), is often found (Goebel, 1988). In Africa where the numbers of people infected suddenly increased during the late 1970's and early 1980's, the disease affects the heterosexual population, and is progressing very rapidly among all sections of the population (Green and Millar, 1986; Osmond, 1990; Van der Groen, 1988; Sabatier, 1988). HIV infected people present mainly with gastro-intestinal disorders, weight loss, anaemia and tuberculosis (Van der Groen, 1988). Osmond (1990), reports that clinicians working in Africa since the 1960's have reported AIDS as a strikingly new disease and that (Bayley, 1983) reported increasing numbers of an aggressive form of Kaposi's sarcoma similar to that seen in western AIDS patients in Zambia and Uganda.

Although the physical manifestations of the disease include the aforementioned *Pneumocystis Carinii*, Kaposi's Sarcoma and Central Nervous System involvements, they also appear in conjunction with many of the tropical diseases such as malaria, tuberculosis⁴, cholera, bilharzia and dysentery.

Normally the body's immune system can cope efficiently with infected meat or gastro intestinal infections. However, in late stage HIV infected individuals it appears that as

⁴Recent reports indicate that in first world cities like New York a "new" epidemic of tuberculosis is emerging in HIV infected individuals (personal communication with Dr. Polly Thomas, head of HIV and AIDS surveillance at the New York City Health Department).

the body's immune system is undermined by the virus, a variety of opportunistic infections and other diseases run rampant through the body thereby weakening it further. Thus depending on which group of diseases is more prevalent in an area or country so those diseases will predominate in people with end stage HIV disease (AIDS).

1.4 STAGES OF THE EPIDEMIC

The terms HIV and AIDS are often used interchangeably, especially by the media and the lay public. This has led to several "myths"⁵ about the disease, one of which is that AIDS and HIV infection are synonymous. As the following diagram indicates however, AIDS is the end stage of infection with HIV disease (Green and Millar, 1986).

⁵ The "myths" associated with AIDS will be explored in chapter 2 under the heading "Lay Beliefs".

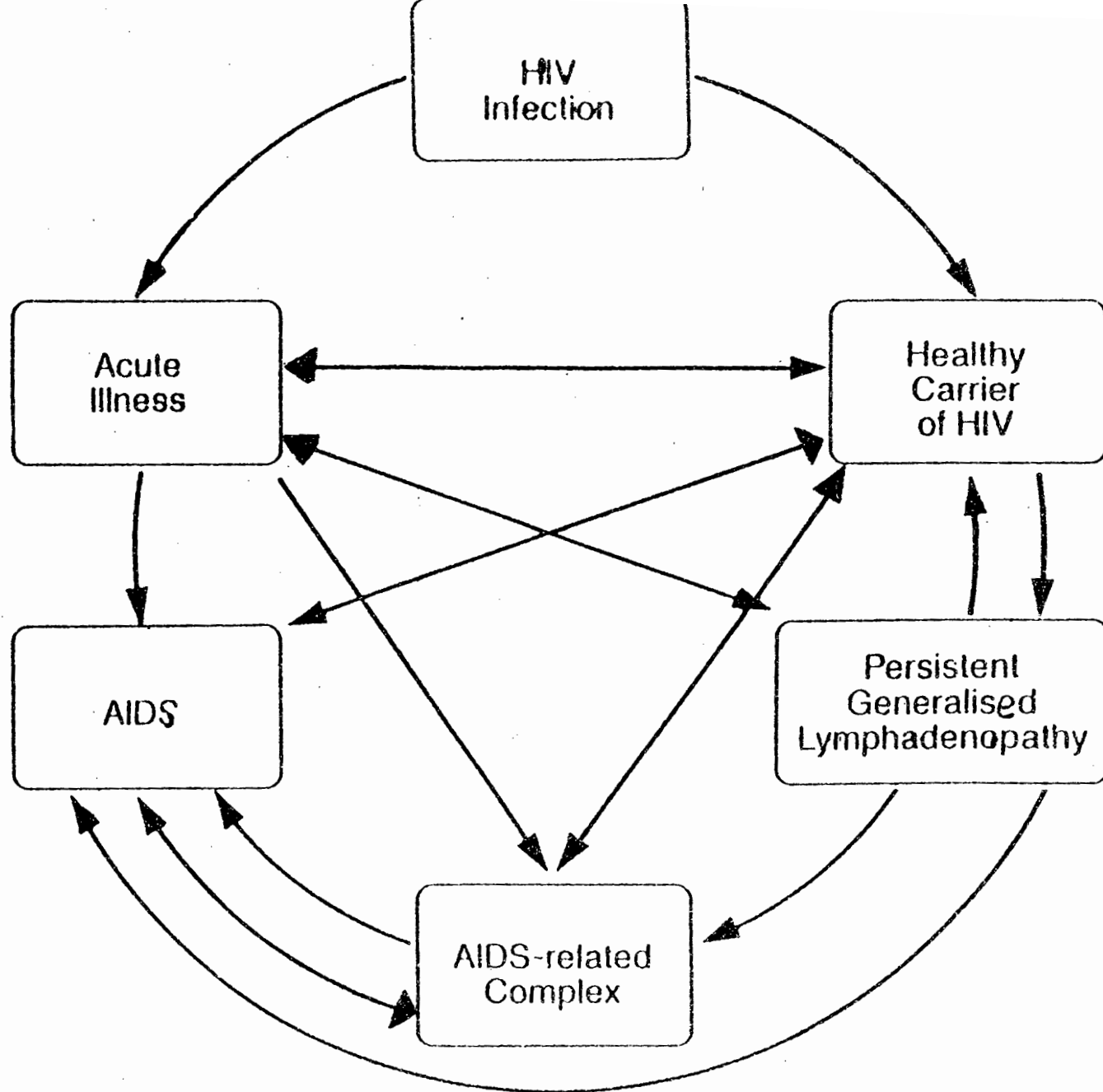


FIGURE 1:

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Ground Floor
Civic Centre
12 Hertzog Boulevard
Foreshore
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Dr. Jonathan Mann (1988) the director of the WHO'S Special Programme on AIDS, has identified not one but three separate epidemics. The first is the world wide epidemic of infection with the human immunodeficiency virus (HIV). This epidemic started sometime in the mid 1970's and since then has spread to virtually every country around the globe. The exact origins of the virus are unclear. Green and Millar (1986) report that researchers looking for evidence of the virus in stored blood samples in laboratories in selected countries, identified a virus, thought to be similar to HIV, in stored sera (blood serum) in Central Africa dating back to 1959. This African origin however, has been challenged by the Panos institute (Panos Dossier, 1989, p.74) and it is probably more accurate to concur with Dr. Jonathan Mann's (1988) assertion that "Wherever the effort is made to find the virus , it is usually found."

The second epidemic is that of AIDS Related Complex⁶ which is usually followed by the fullblown AIDS spectrum of disorders. This epidemic follows the epidemic of infection with the virus. The increasing numbers of AIDS cases around the world indicate that we are now simultaneously experiencing the first and second epidemics

⁶ Volberding, (1989) has argued that the terminology "healthy seropositive" should be rejected and that HIV infection be considered a disease from the outset. HIV disease would then be classified according to early, middle and late stage disease rather than assigning the terms healthy asymptomatic, ARC and AIDS. This he argues would result in more effective, continuous and progressive management of the disease. If this redefinition is adopted, HIV testing will only be performed where indicated (in people practising high risk sexual and drug using behaviours) and not used routinely as a public health strategy to identify, label and possibly discriminate against people perceived to be at risk of the disease. Although this classification is becoming more acceptable (Abrams, 1990), this document will continue to use the terms ARC and AIDS to avoid confusion since the questionnaire used refers to AIDS (refer ch.3.9).

(Mann, 1988). Although no accurate figures exist it has been estimated that for every one case of AIDS, 10 to 100 people are infected with the virus, with certain countries and regions more heavily affected than others. Certainly "we are facing a global pandemic" (Mann, 1988, p 2).

1.5: Diagnosis

Aggleton et al. (1989b, p.11) report that "it is now widely accepted that HIV is the cause, not only of AIDS but of a wide range of related conditions. These include acute HIV infection, Persistent generalized lymphadenopathy (PGL) and AIDS related complex (ARC)".

Although acute HIV infection (presenting typically as a form of glandular fever and often accompanied by a reddish motley rash), does not necessarily follow infection with HIV, it usually appears from 6 days to 6 weeks after infection. This is usually (but not always) followed by seroconversion from HIV antibody negative to HIV antibody positive. A latency or asymptomatic period lasting from a few weeks to up to 12 years has been described to date (Cohen et al.1990). This period of 12 years however, represents the available data on HIV infected asymptomatic individuals. As the disease progresses and the immune system becomes increasingly compromised, other HIV related disorders such as PGL and symptoms of ARC start to appear.

According to the CDC classification system, for a diagnosis of AIDS Related Complex to be made, one symptom, one clinical sign and one abnormality arising from laboratory testing is required. Symptoms of ARC include fever, night sweats, aches, fatigue, loss of more than 10% of body weight, vomiting and diarrhoea. This diagnosis

changes to one of AIDS as soon as any opportunistic infection (eg. Pneumocystis Carinii Pneumonia, Toxoplasmosis or Kaposi's Sarcoma etc.) is made (Green and Millar, 1986, 54-56). Furthermore, a "diagnosis of AIDS requires the presence of an infection or tumour which is extremely rare in those who do not have a severely impaired immune system" (Green and Millar, 1986. p 55). In 1987 a revised definition of AIDS (CDC, 1987 cited in Aggleton et al., 1989b, p.11) was formulated. In addition to the above definition of AIDS, the results of laboratory testing for HIV have now been taken into account in making a diagnosis of AIDS (Aggleton et al., 1989b). The previous definition is adhered to however in countries without laboratory facilities.

In summary, the worldwide epidemic of HIV infection started in the mid 1970's and the epidemic of AIDS in the late 1970's and early 1980's. The first cases of AIDS were documented in 1981 and the virus identified in 1983, a remarkably short space of time for a rapidly mutating virus.

According to Mann (1988) the third epidemic is the epidemic of reaction, fear and prejudice which has occurred in response to the worldwide epidemics of HIV infection and AIDS. This in turn has affected "the cultural, social, economic and political impact of AIDS" (Mann, 1988, p.2). This statement has been supported by Sabatier (1988).

This reaction, fear and prejudice has been widespread, is fuelled by sensationalist media reporting and has resulted in hysteria and panic in all sectors of society throughout the world. This has led to severe discrimination and stigmatization of people infected with the virus and groups of people perceived to fall into so called

"high risk categories" (Coates et al.,1984; Jinadu, 1990; Mann, 1988; Shiltz, 1987; Sherr, 1987, 1990; Temoshok, Sweet and Zich, 1987).

As Green and Millar (1986) have noted , "A glance at the popular press could leave anyone with the feeling that the virus is extremely infectious and that people who have it are a grave threat to others" (p.69). For example, newspapers carry stories of:

- a) "Town Swimming Pool quarantined and scrubbed after AIDS victim goes for a swim."
- b) workmates shunning AIDS "victims"⁷ and moving them to separate offices
- c) "Gay Bashing"
- d) children who, having received infected blood, are denied schooling and in some cases have been evicted from their homes and towns along with their families
- e) homes of reported / perceived people with AIDS being gutted
- f) health care workers refusing to treat Aids patients
- g) ambulance and police personnel and firemen refusing to attend to people they suspect of harboring the virus.

If it were possible to become infected in the course of one's work, then we could expect larger numbers of health care and public safety workers to have shown evidence of symptoms of the disease. Before the virus was isolated and labelled in 1983, health care, public safety and emergency workers had been examining,

⁷ The media in popularizing the word "victim" has added to the prevailing opinion and stereotype, that people with AIDS are helpless, passive and dependant "patients" waiting their turn to die. This is not peculiar to AIDS. Aggleton et.al. (1989b) has noted that "the category of "victim" [and sufferer] invariably functions to disempower people with a wide variety of illnesses, from cancer to multiple sclerosis, by suggesting that those with incurable illnesses are powerless in the face of disease" (p.59).

operating on and caring for any number of infected individuals since the middle 1970's without using any of the precautions which have since been recommended and implemented (Green and Millar, 1986; Hepworth, 1991, Volberding, J.L, 1990).

1.6: Co-factors Aiding HIV Transmission

As a sexually transmitted disease AIDS can be transmitted either from man to man; man to woman, woman to man and theoretically woman to woman. It is spread via anal, vaginal and possibly oral sex (Aggleton et al., 1989b). The virus gains access to the body primarily through breaks in the mucosal lining of the rectum, vagina and mouth especially in the presence of other sexually transmitted diseases and genital sores and ulcers (Berkley, Widy-Wirski, 1989). Specific co - factors predisposing an individual to the likelihood of rapidly developing the full blown AIDS spectrum of disease include:

- 1: sexually transmitted diseases such as herpes, gonorrhoea, syphilis and chlamydia.
- 2: Drug and alcohol misuse
- 3: Unprotected sexual activity with multiple sexual partners therefore increasing the likelihood that one could become re-infected with different strains of the virus.
- 4: Poor nutritional history.
(Green and Millar, 1986).

Unbroken skin forms a very efficient barrier to HIV. Furthermore, the virus is NOT spread through non-sexual contact, air, sharing cups, eating utensils, clothing and bedding. Nor can it be spread via toilet seats, baths, washbasins and other household

equipment. (Lifson, 1990). Although there are no recorded cases of anyone having contracted the virus in this manner infection control measures indicate that one should not share razors and toothbrushes (Volberding, 1990).

It is of interest to note that family members of infected adults and children have not become infected with the virus in spite of handling body fluids, and maintaining close non- sexual contact. (Green and Millar, 1986; Aggleton et al., 1989, p.42, Lifson, 1990). Lifson (1990), in a recent review of the literature reports that at least 12 studies in the United States and Europe have evaluated the risk of nonsexually transmitted HIV infection in over 700 households or boarding school contacts between non - HIV - infected persons and persons infected with HIV. All studies reporting HIV infection in family members of an infected person, involved either sexual or open sores/infected blood contact (Lifson, 1990).

Thus it can be stated that HIV infection is entirely preventable through careful adherence to a few simple rules. These include:

- 1: Safer Sexual practices which implies effective condom usage,
 - 2: Maintaining basic hygiene principles,
 - 3: A healthy diet and
 - 4: A healthy lifestyle.
 - 5: Screening of blood banks
 - 6: Heat treating of factor V111 in blood before transfusing into haemophiliac patients.
 - 7: Efficient sterilising of all surgical equipment.
 - 8: Screening of blood for organ and tissue donation
 - 9: Adhering to appropriate infection control guidelines.
- Volberding, J.L. (1990, 10.2)

1.7: Pattern of Spread:

The pattern of spread is similar to that of other sexually transmitted diseases (STD'S). For example, in the 16th century, syphilis a disease apparently imported into Europe and England by Christopher Columbus, was largely concentrated in London, which was then rapidly expanding (Green and Millar, in Gottlieb, Jeffries, Mildvan, Pinching, Quinn & Weiss, 1987). At this time greater numbers of men than women, lack of opportunities for pre-marital sex and late marriage for men contributed to an expanding market for prostitution, which in turn facilitated the spread of STD'S.

During the last two decades an increase in air travel between the west and other countries has occurred. Gottlieb et al. (1987) claim that many westerners travelling to developing countries, like Africa, took the opportunity of cheap paid sex, were infected with the virus, and transported it back to the west. The virus, which may have been a local variant and well tolerated within a particular geographical region, had a new lease of life (mutated), once it had been transmitted into a different host.

Osmond (1990), also noting that the disease may have originated in Africa, points out that in epidemic form it appears to be as new to Africa as it is to the west. Pokorovsky (1990), investigating the transmission of HIV infection in a sample of the male homosexual population of the USSR, concluded that sex with foreigners contributed to the spread of the virus in 1987 -1988 among homosexual men resident in the USSR.

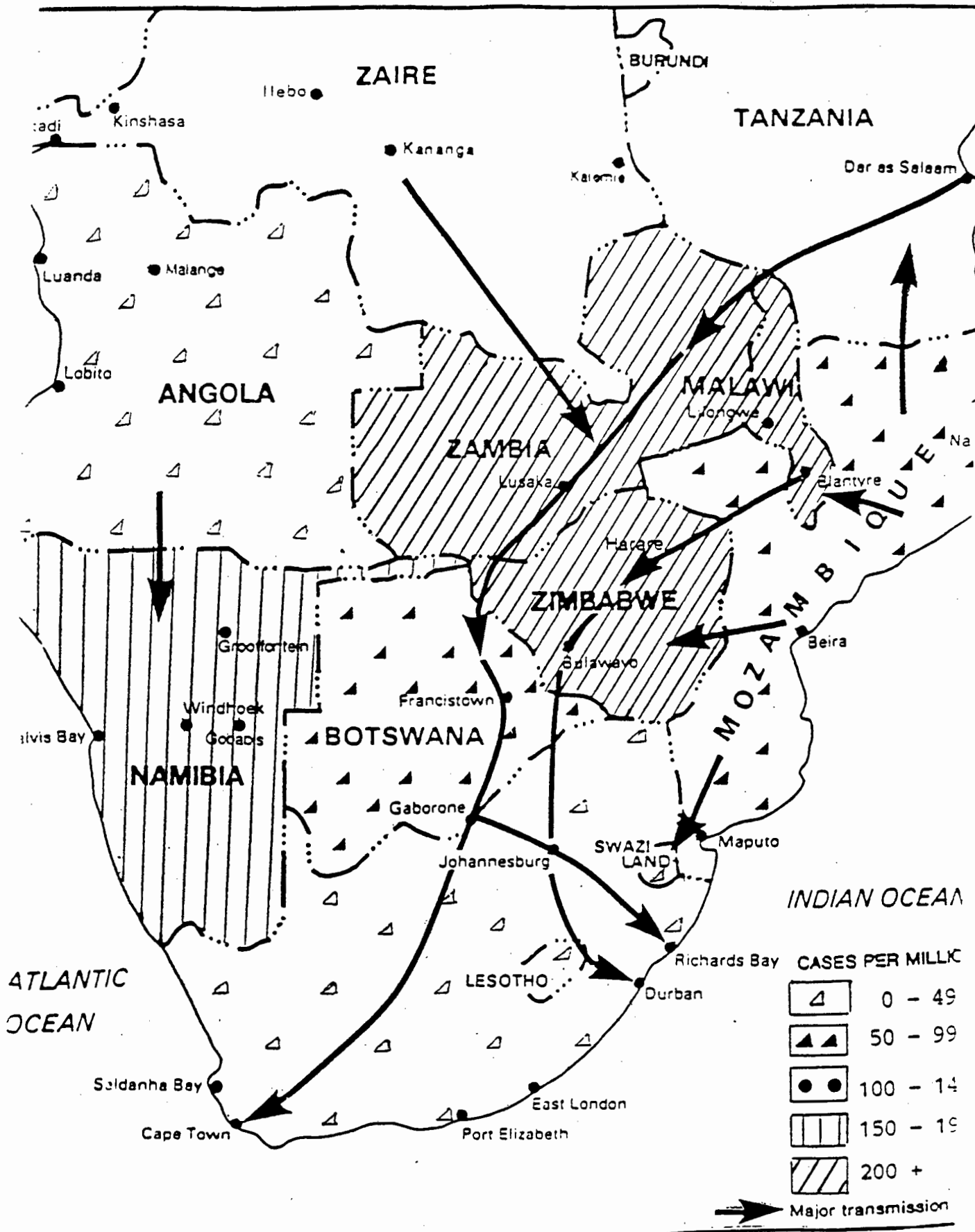
The first group of western people to become infected were American male homosexuals. With the increased opportunities for education, rising incomes, legislation against discrimination and a consequent relaxation in attitudes towards homosexuality by some of the heterosexual population, young homosexual men were able to travel extensively and settle in areas of their choice. The major cities of Europe and America thus attracted homosexual men escaping from the persecutory climate of their towns of origin. Gay bars, clubs and bath houses, similar to those of previous civilizations arose. In this relaxed, tolerant atmosphere, the particular sexual practice utilized by certain male homosexuals, namely anal intercourse, was a favorable means of transmitting the virus (Gottlieb et al., 1987).

In response to the onset of the AIDS epidemic, the Gay community in all countries are reported to have markedly altered their patterns of behavior and introduced "safer sex" directives for their colleagues to adhere to (Bradbeer, 1987; Riesenber, 1986). This however, has been queried by Kotarba and Lang (in Feldman and Johnson, 1986) who suggest a confusion between ideological / political positions of the organized gay community (generally espoused by gay activists, spokesmen and leaders) and actual everyday gay sexual behavior and practices. Recent literature (Kelly, 1990) also confirms that although the level of new infections are dropping in the visible gay community it is still rising in the "closeted" gay population. Furthermore the media, in assuming that the fear of AIDS would automatically cause a national response, have tended to ignore " the immense complexity of human behavior especially the irrational component of this behavior" (Kotarba and Lang, in Feldman et al.(eds), 1986, p.128).

The situation in Africa however is somewhat different:

Green and Millar (1986, p.43) have suggested that in contrast to the situation in America, a strain of the virus has been present in Africa for at least 10 years and more. The available evidence suggests that economic, cultural, political and social reasons contribute to the heterosexual spread of the virus in Africa with prostitutes and long distance truck drivers being identified as specific groups of people practicing high risk behavior. Their travelling habits thus implicate them in the spread of the virus (Green and Millar, 1986; Sabatier, 1988). The following map indicates the major routes of transmission of the virus into South Africa (see overleaf).

Major Aids Transmission Routes



INDIAN OCEAN

Symbol	CASES PER MILLIC
△	0 - 49
▲▲	50 - 99
●●	100 - 149
▨	150 - 199
▩	200 +

➔ Major transmission

Source: Economic Research Unit, University of Natal.

One of the reasons put forward for the sudden upsurge of the disease hinges around the migration, from the late 1960's onwards, of young men to the cities to find work. Here they came into contact with large numbers of prostitutes (Gottlieb et al., 1987). In 1986, Green and Millar reported that in Butare, 88% of the prostitutes were infected compared to 12% of non prostitute women, and recent literature from Uganda confirms that there is a strong association between HIV status and the number of episodes of STD's, the number of wives, or sexual partners, prostitution and inter-regional travel (Berkley et al., 1989).

It seems in Central Africa that several social factors actually encourage young men to use prostitutes. These include:

- The taboo on sexual intercourse between men and their wives for lengthy periods following childbirth.
- Men marry late. (This was a factor in the high rate of usage of prostitutes in nineteenth century London) and
- Strong traditional taboo's against pre-marital sex.

Thus when the young men visit their rural homes they take the virus with them, thereby potentially infecting their wives and future unborn children (Green and Millar, 1986).

In South Africa according to recent reports (AIDS Advisory Group, 1991; HIV Update, 1991), there have been 613 cases of AIDS and an estimated 100,000 carriers of the virus. While most of the reported AIDS cases to date (Department of National Health

and Population Development, 1990) have involved white male homosexuals, the HIV infection profile is changing, with the spread beginning to resemble the heterosexual situation in Africa. Latest South African surveillance data (see Appendix 4) indicate that infection is now prevalent in the heterosexual community, particularly the black heterosexual community. Although very little surveillance data is available for the white heterosexual population, further data may become available as awareness of HIV disease increases in the white heterosexual community and more individuals perceiving themselves to be at risk voluntarily come forward for HIV antibody testing. Recent reports (AIDS Analysis Africa, 1990, p.5) indicate that the virus is spreading like a "bush fire" particularly in Kwa-Zulu and Natal. According to Pudifin and Windsor (1990), the highest incidence rates, detected recently amongst STD clinic attenders in Natal, have been in African females between the ages of 15 and 25 (11% HIV positive) and African men between 25 and 35 years (7.5% HIV positive). If the experience from the rest of Africa is considered they are likely to reflect only a proportion of the severity of the incidence of infection (Van der Groen, 1988; Sabatier, 1988).

At this point the reader must be alerted to the unique position of HIV disease and AIDS in South Africa. A unique position that has particular reference to the Apartheid heritage. This heritage

includes:

- 1: a) The migrant labor system and all male compounds and the system of "concubinage" associated with migrant lifestyles.

This has resulted in a breakdown of traditional family systems which

has eventual implications for caring for those infected with HIV.

- b) Many returning exiles who have been resident for extended periods in countries such as Zaire where HIV infection is endemic (Weekly epidemiological record, 1991). If, as exiles, these individuals were fully integrated into their host societies, it is not unreasonable to expect that infection rates could be equally distributed amongst them as a group.
- c) The fragmented nature of the political structures and the health care system which inevitably have led to
- d) Unequal access to health care with those at the lower end of the socio-economic scale experiencing delays in treatment and medication and
- e) A lack of trained medical and nursing personnel because of poor facilities and low wages.
- f) National AIDS strategies which are still being developed. However a lack of consensus on what to include and exclude in a national strategy delays the full implementation of a comprehensive campaign against the disease.

g) The state run family planning policy which has been interpreted in the black community as a racist ploy to curb black population growth. This has led to a suspicion of government attempts to promote the condom in terms of disease prevention.

2: AIDS has been linked very strongly to human rights issues (Shiltz, 1986). The absence of human rights in South Africa makes for a situation in which discriminatory practices can flourish. This disease disproportionately affects those at the lower end of the socio-economic scale who because they occupy this position in society are more likely in South Africa to be black. In addition Black women face double discrimination:

Politically in terms of HIV disease in that they are black and have limited access to resources, and culturally because they are perceived to be inferior to males and not permitted to talk about sexuality with their male partners, who strongly believe that condoms interfere with male dominance and infertility.

The African experience has highlighted the role that long distance truck drivers and prostitutes play in the rapid spread of the virus (Panos, 1989; Wilson, Chiroro, Lavelle and Mutero, 1989). Although the rate of prostitution usage in South Africa remains unclear at this stage, certainly on the mines, the migrant labor system encourages men to consort with prostitutes (Critical Health, 1990, p.26). Therefore as in the rest of Africa, political, economic, cultural and social conditions are significant factors contributing to the spread of the virus (Critical Health, 1988).

AIDS has been referred to as a human rights issue (Knobel, 1988; Critical Health, 1988; 1990) affecting not only the individual at risk but also the community and society of which he or she is part (Batchelor, 1984; Coates et al., 1984; Critical Health, 1990; Don, 1987; Feldman & Johnson, 1986; Gillon, 1987; Kelly, St. Lawrence, Smith, Hood, & Cook, 1987; Millar, Green, Farmer, & Carroll, 1985; Morin, 1984; Moss, 1987; O'Donnell, O'Donnell, Pleck, Snarey, & Rose, 1987; Schoub, 1988; Sonnex, Petherick, Adler, & Millar, 1987). It is recognized that this disease has the same potential as the black death in Europe and smallpox before a vaccine was discovered, to decimate the worlds population (Gottlieb et al., 1987; Sabatier, 1988). Unlike the black death and other major epidemics at certain times in history however, AIDS is played out over decades (not weeks or months) bringing with it economic, cultural, sociopolitical and psychological upheaval (Sabatier, 1988; Swenson, 1988; Critical Health, 1990).

1.8: The Psychosocial Consequences of Infection:

A diagnosis of HIV infection can lead to serious practical and emotional consequences (Kapila, 1990). On a practical level, loss of employment, refusal of life insurance policies, medical aid schemes and housing mortgages coupled with the knowledge that one will die as a result of a stigmatised illness, contribute to the sense of isolation and alienation that an infected individual experiences. Friends, family and partners may reject the infected person and this inevitably leads to some or all of the psychological phenomena outlined in Table 1 (refer p.45).

The psychological phenomena associated with the disease arise as a result of the

perceived societal and personal stereotypes associated with the stigma attached to AIDS. AIDS, largely as a result of media sensationalism (refer chapter 2), has been linked to IV drug using, homosexuality and prostitution. Individuals receiving a diagnosis of HIV infection usually experience a sense of panic, shock, anger and extreme distress. Later reactions can include self isolation, loss of self esteem, extreme depression, rage reactions and suicide. A diagnosis of HIV infection also has implications for the individual in terms of their future sexual experiences.

TABLE 1.

PSYCHOLOGICAL PHENOMENA ASSOCIATED WITH HIV INFECTION AND DISEASE.

SHOCK

Over diagnosis and possible death.
Over loss of hope for good news.

FEAR AND ANXIETY

Of uncertain prognosis and course of illness.
Of disfigurement and disability.
Of effects of medication and treatment.
Of isolation and abandonment and social and sexual rejection.
Of infecting others and being infected by them.
Of loved ones' inability to cope with their possible illness.
Of loss of cognitive, physical, social and work abilities.

DEPRESSION

Over "inevitability" of health decline.
Over absence of a cure.
Over the virus controlling future life.
Over limits imposed by ill-health and possible social, occupational, emotional and sexual rejection.
from self blame and recrimination for being vulnerable to infection in the first place.

ANGER AND FRUSTRATION

Over inability to overcome the virus.
Over new and involuntary health and lifestyle restrictions.
At being "caught out" and the uncertainty of the future.

GUILT

Over past "misdemeanors" resulting in "punishment."
Over possibly having spread infection to others.
Over being homosexual or a drug abuser.

HYPOCHONDRIASIS AND OBSESSIVE DISORDERS:

Relentless searching for new physical diagnostic evidence.
Faddism over health and diets.
Preoccupations with death and decline, and avoidance of new infections.

Source: Miller and Brown (1988).

It is clear from Table 1 that "extraordinary physical, social and psychological threats confront those people with AIDS and those at high-risk" (Siegal and Bauman, 1986, p.34). It is also clear that the effects on societal structures (family, cultural, political and economic) are equally extraordinary. The implications of the psychological consequences of a diagnosis of HIV infection impact not only on the individual but also on the family and organisations to which the individual belongs or within which he or she is employed. It is important therefore that communities take up the challenge of educating for prevention. However, because of the psychosocial consequences of the illness, the active involvement of social science researchers is crucial (Cooper and Bender, 1987; Siegal and Bauman, 1986). Clearly it is important that in becoming actively involved, an AIDS researcher has a "context of concern" (Zich and Temoshok, 1986) with some aspect of an AIDS related problem before attempting to launch a study.

According to Zich and Temoshok (1986), from the very beginning of the AIDS crisis, research had been dominated by the biomedical community. Research activity by social and behavioral scientists on the other hand had been far less noticeable (Feldman and Johnson, 1986, p.4). This reflected perhaps not so much disinterest in the topic at the time, but a lack of research funding for social scientists wishing to research and develop campaigns against this disease (Feldman and Johnson, 1986; Zich and Temoshok, 1986).

With respect to the "context of concern" referred to previously, it was the realization (in February 1988) that the South African public were unlikely to be exposed to an explicitly frank and honest national media campaign (of the kind initiated in Britain,

Holland and Sweden) that prompted a search for an appropriate educational campaign on AIDS to investigate and evaluate. The lack of such a campaign thus opened up a new and exciting field for research and it is this - the field of AIDS education - that this study will address in the following chapters.

CHAPTER TWO.

2.1: AIDS EDUCATION

Whilst the African experience has highlighted the role of long distance truckers, prostitutes, sociopolitical, economic and cultural conditions in the spread of the virus (Panos 1989; Critical Health, 1990; Mclean, 1990), it has also highlighted the importance of cost effective, culturally appropriate, well targeted educational campaigns on AIDS (Allen, Serufilira, Van de Perre, Lindan, Tice, Hulley & Black, 1990; Ngugi, Njeru, Kariuki, Plummer, Moses, Ngugi, Nagelkerke, Bosire, Waiyaki & Plummer, 1990; Weekly Epidemiological Record, 1989).

The national union of mineworkers in South Africa, in elaborating on the sociopolitical dimensions of this disease, has identified AIDS as a disease which disproportionately affects disadvantaged communities in South Africa. In putting forward an agenda and policy for consideration by their unions, they argue for a comprehensive policy which includes a "massive AIDS education and support programme that reaches into all sectors of our society" (Critical Health, 1990).

That an educational programme on AIDS is urgently needed in South Africa at this time is underscored by repeated international and local calls for social scientists of all disciplines to become involved in the myriad aspects and issues relating to AIDS and HIV infection (Brink, 1988; Cooper & Bender, 1987; Coates et.al, 1984; Feldman &

Johnson, 1986; Issacs, 1985; Miller & Brown, 1988; Stallard, Heather & Johnson, 1987). It is appropriate therefore that medical and social scientists working in conjunction with government, business and community representatives, pool their individual resources to provide clear, unambiguous information and education about this disease to targeted communities.

According to a recent report psychology and psychologists have a pivotal role to play, especially by becoming involved in behavioural research aimed at combating the spread of Aids and HIV infection as well as addressing the social and psychological problems that accompany this disease (Phillips, 1988; Snell & Finney, 1988). Social psychologists for example have demonstrated that the beliefs underpinning behaviour are generated and sustained by the social groups to which individuals belong. Thus the promotion of preventative practices will depend upon identifying both the relevant social networks and the particular models of influence within them (Abrams & Abraham, 1988, p.47).

Recent literature (Aggleton, Hart & Davies, 1989a) note that early educational initiatives about AIDS were broadly reactive, immediate, possibly hasty, well-meaning responses to the challenges posed by AIDS. Aggleton et al. (1989a, p.221) recommend that health education about AIDS move now toward an era in which AIDS education can be "more systematically planned, implemented and evaluated". In doing so, it is important to reflect on and learn from the strengths and weaknesses of earlier educational endeavors.

In order to critically evaluate the present research it is important therefore that the

small group educational programme be located within a particular model or theoretical framework of health education. It is equally important that a distinction is made between the content of the AIDS education intervention, the goals of the intervention and the means by which this is achieved.

It will be necessary therefore to examine in some detail the different models of health education as proposed by Aggleton and Homans (1987), Homans and Aggleton (1988), Aggleton, Hart and Davies, (1989a). These models link up with and are informed by underlying assumptions contained in professional and popular definitions of health and disease. Indeed recent reports indicate that future health educational efforts must allow for popular or lay beliefs about AIDS and HIV infection, which are often different to mainstream medical knowledge (Aggleton et al, 1989b; Aggleton & Warwick, 1988; Sherr, 1987).

2.2: MODELS OF HEALTH EDUCATION

Recent literature on the social aspects of AIDS contain reference to the various styles of education thought to be appropriate for different kinds of communities. These styles of education are located within and are influenced by various paradigms or models of health education of disease and prevention. Each of these models differ in terms of the goals which are set for health education and in terms of the means by which these can be achieved (Aggleton and Homans, 1987; Aggleton et al., 1989). The most familiar model of health education is the information-giving model, the aim of which is to bring about behavioural change in people by providing them with the "facts" about

health and various diseases such as AIDS. According to this model, facts presented to individuals about HIV and AIDS, the modes of transmission and possible consequences, will enable them to make informed rational decisions based upon accurate information. The underlying assumptions are that human beings are rational decision makers, motivated to make informed (correct) choices. The particular educational style of the educator delivering the education being that of a traditional "teacher" to "passive receiving pupil".

This approach to education has been criticized for focusing on the "role" of the "expert". As Aggleton and Homans (1987, p 27) point out:

"To be on the receiving end of a health education intervention of this type may be a profoundly dis-empowering experience for many people".

The self empowerment model on the other hand, aims to encourage people to develop skills, understandings and awareness so that they too can make informed decisions and choices (Aggleton & Homans, 1987). The particular educator style chosen however, is one of group facilitation, problem solving techniques and client centered counselling, all of which has as its goal a reduction in the incidence of illness and disease by enhancing people's abilities to act rationally rather than irrationally in matters related to personal and public health (Aggleton et al., 1989). This model is based on a participative learning style, in which each member of group is encouraged to actively participate in their own learning programme.

Although self empowerment strategies focus on individuals being active agents

responsible for their own health choices, this approach has been criticized in that it affords the individual little access to the decision-making processes that affect their everyday lives. Self empowerment strategies are useful when seen in terms of a first stage in enabling people to gain confidence, understanding and assertiveness skills, claim Aggleton and Homans, (1987, p 28):

"but wider participation in community matters and social issues would seem essential if the root causes of ill health are to be dealt with"(p.29).

Although the present research used an alternative strategy of operating within an information-giving model, using the techniques of participatory styles of educating, it could be argued that in this instance the principles of participatory styles of educating are in direct conflict with the disempowering experience that some people exposed to an information giving style of educating report (Aggleton and Homans, 1987). Furthermore, it is doubtful whether workers, under the control of management in an educational programme lasting one hour, feel sufficiently empowered to actively participate in their own learning which is the basis of the self empowerment model. Indeed as Aggleton and Homans (1987, 28) point out:

"It is not enough for individuals to participate in their own learning experiences. They also need to participate in and be involved with the decision-making processes that affect their everyday lives".

A more community orientated model of health education has as its goal the enhancement of health of a community by bringing about community change through collective action, using participative learning and shared experiences to identify and

plan collective needs and strategies (McGuire, 1989; Homans and Aggleton, 1988). This model attempts to move away from the underlying assumptions of the first two models, namely that individuals are responsible for their own health. Aggleton and Homans (1987, 29) citing Watts (1986) claim that the term community is problematic, often being used to indicate for example the shared environments of people associated by gender, sexual orientation or class. Such groups are often presented as homogenous which tends to negate and obscure the within group differences that do exist. Thus individual characteristics and health needs of people associated with and assigned to, for example, " gay , black, womens, drug user and working class" groups, are often overlooked, being subsumed to an overriding stereotype of behaviour or needs associated with the particular and/or popular definition of the "group" in question. Within the context of AIDS education the "Terrance Higgins Trust" (a London based self help organisation set up HIV infected gay men in the early days of the epidemic) provides a useful example of a community orientated self-help group which has developed a network of social supports and provided education on AIDS in general and safer sexual practices to both infected and non infected alike.

According to Aggelton and Homans (1987); Homans & Aggleton, (1988), the social transformatory model aims to enhance health by bringing about far reaching societal change, through a group participatory learning approach designed to develop a critical awareness of the societal factors affecting health and the establishment of affirmative action to achieve these.

Underlying this approach to health education is the assumption that individual health

and well being and far reaching societal change can be achieved by focusing on changing ideas of health and wellness, by fostering an increased understanding and compassion for those who have or are assumed to have HIV infection, by advocating assertiveness training skills for women to empower them in negotiating safer sexual practices in their relationships with men, by working towards more open and honest participation in political processes involving health and social services and by the re-education of those who control access to health resources.

2.3: HEALTH EDUCATION, HIV INFECTION AND AIDS.

Homans and Aggleton (1988, p.154), in discussing health education, HIV infection and AIDS, point out that educators need to be clear about their definitions of health before deciding on the kind of education they wish to deliver.

Various distinctions and definition of health have been proposed. Amongst these are the bio-medical model which views health as the absence of disease, the social model which sees health as the absence of illness and the holistic model which regards health as a positive ideal to which to subscribe (Aggleton & Homans, 1987, Homans & Aggleton,1988). The type and content of any educational programme chosen for a particular community therefore will be dependant on the underlying philosophy and health model to which a health educator chooses to subscribe. In addition the type of programme will also depend on a health educators own non professional definitions or lay beliefs about health.

2.4: LAY BELIEFS ABOUT AIDS:

It is important to recognize that the non professional definitions of health of both educator and target audience exert a powerful influence on any health education message delivered to and received by a community. These definitions commonly referred to as popular or lay understandings of health have only recently become the target of research. Indeed in the context of AIDS they are particularly relevant since they link up and co-exist with professional explanations of health, often influencing

people to misperceive the risks associated with particular kinds of behaviour. Evidence from smoking, alcohol and heart disease studies suggest that lay beliefs about health are very important in determining whether or not a person responds to health education messages (Aggleton et al., 1989b). Lay beliefs can also weaken or water down health education that lays particular emphasis on medical facts and epidemiology, since compared with popular understandings of, for example air borne viruses (such as the flu virus), the complicated and specific mechanisms of reproduction and transmission of a retrovirus such as the human immunodeficiency virus (HIV) is poorly understood and conceptualized.

Aggleton et al. (1989b) has distinguished between several kinds of lay beliefs about HIV infection and AIDS. Beliefs about the disease process of AIDS itself, it's causes, who gets "AIDS", the manner in which it is transmitted and diagnosed, beliefs about high risk practices, the beliefs about the origins of the virus, and beliefs which distinguish between the so called "innocent and guilty victims" of infection. These beliefs lead to particular kinds of images and metaphors which affects the kind of everyday "language" used individually and in the media, to describe the virus and those infected and affected. For example as mentioned in chapter 1 conflating the word AIDS with the word virus leads to a verbal description of the virus eventually causing AIDS as "The AIDS virus", thereby suggesting that AIDS is the cause of and not the outcome of infection. The term "AIDS carrier" also implies that people with AIDS are infectious and threatening to society rather than being threatened by the diseases and viruses that other people may harbour. Using the word AIDS in the same breath as the word virus therefore promotes misinformation about what it means to

have HIV infection and to have the disease AIDS. Furthermore, it tends to lead to assumptions that AIDS can be "caught" in the same way as one "catches a cold", or that it can be "picked up" from towels, toilet seats, toothbrushes and cutlery.

Some of the literature (both scientific and popular) and pamphlets published on AIDS also promotes misinformation in terms of the language used. Leaflets stating that "you can't catch AIDS from" subtly continue to promote a message that "you can catch AIDS by". What is not questioned at all is the underlying assumption that "AIDS can be caught" (Aggleton et al., 1989b,p.58).

One of the most powerful lay beliefs on the origins of the virus suggest that "AIDS is the consequence of divine retribution". According to this view, people who have multiple sexual partners or who are prostitutes and /or practice high risk behaviors such as anal intercourse, and inject drugs therefore "deserve" infection. Hemophiliacs and children on the other hand "didn't deserve" to pick up the virus and are viewed as the "innocent victims" of a dreaded disease caused by the behaviour of a deviant few (Aggleton et al., 1989b; Homans & Aggleton, 1988, Wellings, 1988).

In designing health education programmes educators need to recognize that different communities and social networks will subscribe to differing sets of lay beliefs depending on the traditional, cultural, religious, political and educational background that inform their beliefs. It is necessary also to recognize that "individuals are not passive receivers of health education messages. Rather they actively interpret the information they encounter, shaping it to make it fit with what they already know"

(Aggleton et al. 1989b, p.64). Educators in assuming that they are providing people with the facts about AIDS may in fact be "fuelling popular anxieties, fears, prejudices and stereotypes" (Aggleton et al.1989b, p.64).

Many of these lay beliefs have arisen over the past decade from the early and indeed more recent media portrayals about AIDS. If health educational programmes are to be successful in a community, it is equally important to examine and reflect on the role of the media in the education process.

2.5: THE ROLE OF THE MEDIA:

An educational programme is naturally not the only information on AIDS that a targeted community will receive. AIDS education, via the mass media in this regard, has been shown to have both positive and negative consequences. A positive consequence is, that by alerting the public, awareness is generated (Eiger, Kyungu, Kalombo, Kambamba, Convisser, 1990; Kyungu, Eiger, Kaombo, Kambamba, Convisser, 1990). A negative consequence is that by serving primarily to increase fear, misinformation and myths on this disease proliferate, depending on the choice and quality of the communication, and individual perceptions (Anguelov & Deyanov, 1990; Jinadu, 1990; Oganyankin & Jinadu, 1990, Watney, 1989, Wellings, 1988).

Indeed international experts on this disease, during recent visits to Cape Town (1990), stressed that if South Africa wished to avoid the type of epidemic experienced in Africa, America, Europe, the U.K. and the Caribbean then educational programmes

aimed at all sectors of the population were a vital necessity. That these programmes should not be left to state run mass media campaigns is highlighted by the international experience of efforts aimed at this disease (Jimenez & Bond, 1990; Sabatier, 1988; Sherr, 1987, 1990; Soskolne, 1988; Temoshok et al., 1987; Wellings, 1988).

In an address delivered at the medical school in Cape Town in 1988, Sabatier of the Panos institute in London noted that "A mass media campaign can only communicate simple messages. The best AIDS education is done in face to face situations. AIDS education should be labor intensive. "This statement has been supported in recent evaluations of the British and American government sponsored AIDS campaigns (Sherr, 1987, 1990, Temoshok et al., 1987) and the experience of Gay activist organizations both internationally and in South Africa (Isaacs, 1985; Kelly et al., 1990; Lee & Freudenberg, 1990; Norman & Aldrich, 1990). While recent literature (Kyungu et al., 1990) found television to be a useful tool for reaching a large African audience, the international experience has indicated that although mass media campaigns on AIDS may impart simple information, self reported behavioral intention and behavior change has not been achieved (Sherr 1987, 1989; Temoshok et al., 1987; Wellings, 1988).

Since mass media education seems to be limited in it's ability to promote behavioral change, it is useful to explore alternative educational styles. Recent studies (Bastien, Longpre, Thomas, Otis, Provencher & Longeran, 1990; Rukarangira, 1990) suggest that community based interventions using interpersonal communication techniques be

used to make up for deficiencies in mass media campaigns.

The lessons learnt from research focusing on both the hetero- and homosexual community abroad (Heckman, Gabbert, Gusy, Krauss, Seyrer & Schrott-Ben Redjeb, 1990; Kelly et al., 1990) and in Africa (Aggleton et al., 1989a, Joinet, Laukamm-Josten & Kilonzo, 1990; Mwilu, Rader, Campbell, Towani, 1990), and recent educational efforts among prostitutes in Kenya and Zambia (Hira, Slutkin, Keenlyside, Phiri, van Praag, Heymann, Holmes, Meheus & Mann, 1990; Moses, Ngugi, Nagelkerke, Bosire, Waiyaki & Plummer 1990; Ngugi, Njeru, Kariuki, Plummer, Moses & Muchunga, 1990), point to the effectiveness of participatory small group discussions in which individuals are able to internalize the personal and public health realities of AIDS within a comfortable and supportive environment.

2.6: PARTICIPATORY STYLES OF HEALTH EDUCATION: THE SMALL GROUP.

Participatory styles of educating recognize that individuals already know (either formally or informally) a fair amount about health issues. This knowledge is used as a starting point in any educational exercise, the principal being that if an educator elicits from the group what they already know about a subject, that which the group doesn't know is also revealed. This approach, if used correctly, encourages participants to ask questions and to explore with others, in a non-threatening and supportive environment, just what the information being presented means for them (Aggleton et al, 1989).

Sabatier (1988) and Gatherer et al. (1979, cited in NHS training authority) have also highlighted the importance of small group discussions in disseminating AIDS information, since active rather than passive involvement with the subject matter has been shown to be more effective in influencing subsequent behavioural change.

This active involvement on the part of the participants is further supported in the persuasive communication literature (Zimbardo, Ebersen and Maslach, 1977) which indicates that in order to communicate effective messages which are ultimately perceived and acted upon in the way in which the sender had intended, the language of the community spoken by respected sources is more readily attended to (Sabatier, 1988; McGuire, 1974; Zimbardo et al., 1977).

The value of participatory styles of health education indicates that AIDS education (as opposed to information) is best achieved in small group discussions under the guidance of a trained AIDS educator who encourages participants to explore sensitive and intensely personal issues, the issue of human sexuality, specific high risk sexual practices and drug using behaviors. These behaviors as previously mentioned (refer section on lay beliefs) carry a social stigma and are associated with "moral laxness" or "loose living". People perceived to practice these behaviors therefore are publicly associated with these stigmatizing labels.

In a small group discussion of the transmission mechanisms of HIV and personal and societal perceptions of at risk behaviors, individuals are more likely to explore issues that may be relevant to themselves or their partners (Aggleton et al., 1989c; Tressider, 1990; Wroblewski & Rudd, 1990).

Thus what Aggleton et al. (1989c) has termed " participatory styles" of AIDS education may be more useful than conventional approaches in achieving a goal of AIDS education on a wide scale, although it is likely that both approaches are ultimately necessary in providing for effective AIDS education and hopefully behavioral change.

The most important message from the international experience is that one should not rely solely on government sponsored mass media campaigns to educate the general public about HIV infection and AIDS. Indeed it is up to members of the educational, academic, scientific, business and public health community who have the inclination, knowledge and relevant skills, to devise methods of educating their communities about the economic, public and personal health threat posed by this disease. Bearing this in mind, the present research took shape. In accordance with the principles underlying participatory styles of health education, a small group AIDS educational programme was designed by (previously trained) key people within a national supermarket chain. This small group educational programme on AIDS was undertaken during working hours in randomly selected stores, targeted at a randomly drawn sample of the weekly paid workforce and conducted by personnel and nursing staff employed by the organization.

2.7: EVALUATION OF SMALL GROUP PROGRAMMES:

A useful framework within which to assess programmes aimed at preventing the spread of AIDS would include five elements of personal behaviour and the social context relevant to health education about AIDS (Population reports, 1989). These are:

- 1: The rational element based on knowledge. Quite obviously individuals must know:
 - a) what the disease is
 - b) the methods of transmission
 - c) their own risk of contracting the virus and
 - d) how to avoid infection.

- 2: The emotional element, based on the intensity of attitudes or feelings. Inherent in this element is the degree to which individuals personalize the risk for themselves, have a compassion for those already infected and affected and a commitment to protect their loved ones from the disease.

- 3: The practical element based on a determination and commitment to adopting new less risky behaviors .

- 4: The interpersonal element or social networks to which people belong. In dealing with either behavioural change or infection with HIV disease it is important that individuals feel supported by their peers, families and the community to which they belong. In this way new behaviors become a norm to which the majority are then encouraged to subscribe.

- 5: The structural element or social, economic, legal and technological context in which behaviour takes place. Individuals need to have access to the necessary supplies and services (such as condoms, testing facilities and care) to live in

an environment where safer behaviors become the norm, are self and other enforced and thus made easier to comply with.

Whilst the above offers an ideal framework within which behavioural change could be explored and facilitated, a potentially effective educational programme has to be evaluated in terms of the goals which were set and the means by which these were to be achieved.

Aggleton et al.(1989, p 227), suggest that education about HIV and AIDS should be evaluated using criteria specific to the paradigm (or paradigms) within which it takes place. These authors place particular emphasis on outcome and process evaluation (the issue of what is to be evaluated) as well as the issue of insider versus outsider (who evaluates?) evaluation strategies. In this research the major discussion will be focused on the outcome of the evaluation (in the form of questionnaire responses). Process however, will be briefly alluded to.

In terms of the information-giving model and participatory styles utilized in the present research, one of the desired outcomes is a cognitive change in knowledge. This potential outcome of an educational endeavour on AIDS relates particularly to greater knowledge about the virus and it's modes of transmission.

Attitudinal outcomes on the other hand, are dependant on the feelings that people experience and have about AIDS and those affected by it, while behavioural change, a third outcome, is usually operative at the level of the individual or group.

Although the underlying assumptions of the information - giving and the self empowerment models are that individuals, as rational decision makers, will change risky behaviour when armed with accurate information on AIDS, the literature informs us that

"contrary to popular belief, there is no reason to assume that change in any one of these three different outcomes will necessarily be mirrored by change in any of the others. Thus an enhanced awareness of the ways in which HIV is (and is not) transmitted will not necessarily be accompanied by behavioural or attitudinal change" (Aggleton et al., 1989. 228).

Process evaluation examines how certain outcomes were achieved by exploring for example the gap between a health educators intentions and the measured effects of a programme (Aggleton, et al., 1989). In examining the processes involved in this research (albeit briefly) which utilized an information-giving model according to the principles of participatory small group education on AIDS, the focus will be on the nature of the rapport established between health educator and group participants.

A potentially effective educational programme on AIDS however, also has to address and counteract not only public misinformation, opinions and attitudes towards the disease (which have been shaped both negatively and positively by the media) but also previously held lay and health beliefs (Feldman and Johnson, 1986, p7; Aggleton, 1988; Aggleton & Warwick, 1988). These beliefs and attitudes affect not only the behaviour of a targeted community but also public policy and quite possibly the research team's perspectives. Thus it is crucial for researchers to consider in some depth the methodological problems which may be encountered when undertaking

socially sensitive research into for example, respondents personal opinions and behaviour with regard to drug using practices, promiscuity, prostitution, condom usage and sexual behaviors and practices (Zich & Temoshok, 1986; Siegel & Bauman, 1986):

Similarly it is important to select and train interviewers who are familiar with the target community in terms of cultural habits, style, language and living conditions, for, as Siegel and Bauman (1986) have noted

"The AIDS epidemic represents a particularly formidable challenge to the social science enterprise, for this complex and tragic phenomenon presents a great many obstacles to the conduct of social research and the collection of quality data."(p.15)

These methodological and interviewer training issues will be addressed in the following chapter (3) after describing the details of the methods used in this research.

The reader is reminded however, that at the time this research started (February 1988) most of the available international literature on educational programmes on AIDS reported on government sponsored, large scale mass media campaigns (Sherr, 1987, Temoshok et al., 1987), and it was not until after the programme had been completed and the data collected in 1989, that the first comprehensive material on educating about AIDS and the value of participatory styles of educating became available (Aggleton et al., 1989c).

Similarly, at the time this research was initiated, there had not been a programme,

designed in South Africa, for the specific purpose of educating large numbers of managerial and working class people about HIV infection and AIDS at their place of employment. Nor had there been a scientific evaluation of such an educational campaign.

To redress this situation, and at the request of the personnel management, an intensive 3 day "train the trainer" workshop was developed for a national supermarket chain in South Africa (refer "goals of train the trainer" workshop, Appendix 2). The programme was developed in Cape Town in conjunction with acknowledged local experts (GASA 6010 counselling service co-ordinators) in the field of AIDS and was aimed at providing personnel and nursing staff employed by the supermarket chain, with the necessary skills and information pertaining to many aspects of HIV infection and AIDS, including counselling strategies, so that they in turn could impart accurate information and advice to the weekly paid labor force of the organization in a systematic, and coherent manner. This the personnel and nursing staff subsequently did via small group training sessions during the employee's working week.

This small group educational programme aimed at the weekly paid labor force of the Western Cape branches of the national supermarket chain, is the subject of the evaluation programme described in this study.

The objectives of this study, as stated previously (refer introduction) therefore are:

a) to assess the suitability and effectiveness of the educational programme on

AIDS which was targeted at the Western Cape weekly paid labor force of the national supermarket chain:

- b) to establish whether this programme provided enough factual information on AIDS to alter the "myths" and misinformation on the disease that were prevalent amongst the supermarket staff (and in the Western Cape) at the time.
- c) to establish whether providing programme participants with accurate factual information on the disease would lead to a shift in emphasis in the personal responses to attitudinal statements on AIDS contained in the questionnaire.
- d) to provide the company with a scientific evaluation of their educational programme on AIDS and (if necessary) to recommend suitable changes to the content of the programme.

SECTION B:

METHODOLOGY

CHAPTER 3:

METHOD

3.1: RESEARCH PLAN: THE SOLOMON FOUR GROUP DESIGN.

To examine the effectiveness of the small group educational programme on AIDS a Solomon four group design was used (See Figure 2, next page).

The Solomon four group design involves 4 randomly selected and assigned groups of subjects. Two of the groups (Groups 1 and Group 2) are pre-tested, with only group 1 being treated (i.e. educated) before they are both re-tested. The other two groups (Group 3 and Group 4) are only tested once, with group 3 being tested post-treatment. This design in effect, combines the pre-test / post-test control group design (Groups 1 and 2) and the post-test only control group design (Groups 3 and 4). In so doing it addresses problems inherent in both these designs and has unique advantages. (Note that for the purposes of this discussion the observations 01 to 06 are as defined in Figure 2).

FIGURE 2: THE SOLOMON - FOUR GROUP DESIGN.

IEI	GROUP 1:	R	O1	X	O2
II	GROUP 2:	R	O3		O4
EI	GROUP 3:	R		X	O5
I	GROUP 4:	R			O6

Note: R = Randomization

O = Assessment (Questionnaire Interview)

X = AIDS Education.

Refer Table 2 (this chapter) for a diagrammatic representation of the research and data set. In table 2 the pre - test interview is represented by the notation "I", the educational programme (treatment) by "E" and the post - test interview by "I". Thus IEI = Group 1, II = Group 2, EI = Group 3 and I = Group 4.

Source: Campbell and Stanley, 1963.

3.2: ADVANTAGES OF THE SOLOMON FOUR GROUP DESIGN

Firstly, whether or not testing the subjects in itself has any effect irrespective of treatment can be evaluated by comparing the results from 03 and 04, as well as those from 04 and 06.

Then, the effect of treatment is replicated in four different comparisons: 01 and 02 which examines the effect of treatment on one group of subjects before and after treatment; 02 and 04 which examines the effect of treatment on two groups of subjects, a control and a treatment group which were both pre-tested; 05 and 06 which examines the effect of treatment on two groups of subjects, a control and a treatment group, where neither was pre-tested; and 05 and 03 which examines the effect of treatment on a group which was pre-tested but not treated and a group which was treated then tested. In addition, whether there is a significant interaction between testing and treatment can be ascertained by comparing 01,02,03,and 04. Because both the main effects of testing and the interaction of testing and treatment are determinable, generalizability is increased. In addition the effect of treatment is replicated in four different fashions:

$$O2>O1; O2>O4; O5>O6; O5>O3.$$

Furthermore, the combined effects of maturation and history can be noted by comparing 06 with 01 and 03 (Campbell and Stanley, 1963, p.24). However not all the comparisons described here have been carried out in the present analysis. (refer ch.4.3 - model for analysis of binary data).

3.3: DISADVANTAGES OF THE SOLOMON - FOUR GROUP DESIGN.

INTERNAL AND EXTERNAL SOURCES OF INVALIDITY

The Reactive Effects of Pre-Treatment (i.e pre - education) Measurement:

This design is described as a true experimental design (Campbell and Stanley, 1963) and has been chosen for this experimental field research since it incorporates both the simple 2 group pre-test - post-test design and the post-test only design. Because the nature of such sensitive subject matter (sexual behavior) and the questionnaire utilized in the pre-educational assessment are expected to have an educative effect on the subjects (i.e. "pre test sensitization"), this may have an effect on the post-test assessment. However, this internal source of invalidity (undesirable in other forms of research), is not seen as detrimental in this particular instance since the post-test only component of the Solomon four group design facilitates an examination of the reactive effects of the questionnaire , the interactive effects of testing and the programme as well as the effects of the educational programme on it's own.

In conducting the pilot studies on the questionnaire it seemed that the questionnaire became a valuable educative source in itself, indicating to respondents for example, a lack of personal knowledge. Many of the respondents in the pilot studies were thus prompted to ask questions or seek information for themselves. If a reactive effect is evident in this research, it may be important to include a pre -educational questionnaire or a question and answer quiz in small group educational programmes in the future,

both for evaluative and educative purposes.

Two major external sources of invalidity in the design may come from:

- 1: Interaction of selection biases and the experimental variable (i.e. the educational programme).
- 2: Reactive effects of the experiment.

1: INTERACTION OF SELECTION BIASES AND THE EXPERIMENTAL VARIABLE

This means that the effect of the educational programme may only show up on certain kinds of subjects. eg. Maybe the subjects all have extreme attitudes towards sexuality, drug abuse and AIDS which an educational programme fails to address.

2: REACTIVE EFFECTS OF THE EXPERIMENT

There may be specific differences between conditions occurring in an in-house educational programme on AIDS and conditions existing outside of the work situation itself. Perhaps in the working environment subjects are either highly curious, embarrassed or apathetic. Consequently they may not pay the same kind of attention as they might do under different circumstances.

Related to these conditions is the nature of the relationship between employee and educator in the form of management. This relationship will depend on the pre-existing work relationship and the degree of goodwill on both sides. In this study, when

management approached the workers regarding the proposed educational programme, the employees, in responding to the personnel management responsible for the programme, indicated that although they were in favor of the programme, they would prefer management to undertake the education. This was in contrast to previous work related educational programmes, when they had chosen shop floor stewards to receive special training in order to educate their workforce.

Reasons given for this departure from usual practice related to workers worrying that their colleagues would perceive them as "having AIDS", would become known as the "AIDS MENSE", or that their colleagues would regard them as homosexual.

The nature of the subject matter however is both topical and interesting to many sectors of society as evidenced by the reaction to 2 pilot studies examining the suitability of the questionnaire for the Cape Town community. It was therefore expected that the above-mentioned reactive effects of the experiment will become minimized once the small group discussions are underway.

3.4: SAMPLING PROCEDURE:

The national supermarket chain has 26 stores in the Western Cape. These were grouped according to geographical location into 4 separate samples which roughly correspond to the central suburbs, the southern suburbs, the northern city area and outlying districts. Four stores were drawn at random from each group using a random number table and randomly assigned to the experimental or control store within each appropriate sample. Thus 16 stores in all were utilized in this research. The reason for quadrupling the Solomon four group design was to achieve a representative spread of the organization's labor force in the Western Cape and to increase the reliability of the research.

According to the personnel manager of the organization, their employees were drawn from a wide area of the Cape flats and do not necessarily work at the nearest store to their home. Although this sampling method seemed to be appropriate to achieve a representative spread of the organizations labor force, and in spite of management claims that employees were drawn from all areas of the Peninsula, employees at isolated stores (eg.Sun Valley or Paarl) are likely to be drawn from more homogeneous communities which may differ from other communities in terms of cultural habits. Furthermore the situational context of a store may be responsible for significant differences in educational programme absorption. For example, the cultural tone of a store situated in an upper middle class area versus a working class area, could have an effect on the quality of informal learning that the employee has absorbed during the course of employment. This in turn might have an effect on the

level of communicative competence of an employee at stores situated in a lower socio-economic area and may affect comprehension of the AIDS programme to a significant degree. Although these potential differences will not be examined in this study, they could affect the overall success of the educational programme. As the ultimate goal of this research is to devise an in-store educational programme on AIDS which is suitable for adaptation over a broad range of industrial settings, any major differences noted between stores would require further investigation, beyond the scope of this study.

The personnel management of the organization also stated that weekly paid employees were roughly equivalent in terms of socio-economic status and educational level. Since it is expected that the population under investigation are roughly equivalent, the educational level of the employees as an important variable in evaluating the success of the programme overall, will not be accounted for by an analysis of the data. An inspection of the descriptive statistics should confirm this equivalence.

The following diagram (table 2) outlines the actual research plan used in the collection of the data.

NOTE: In this diagrammatic representation of the research plan, the first "I" indicates the pre-test interview; "E" indicates the educational programme; The second "I" indicates the post-test interview. Thus the four components of the Solomon four group are horizontally indicated on the diagram from left to right. The four geographical areas are horizontally indicated on the diagram from left to right. The four geographical areas are represented on the vertical axis of the diagram. The numbers in each cell refer to the identifying code numbers of each of the 16 participants within the particular store assigned to each cell.

TABLE 2:

DIAGRAMMATIC REPRESENTATION OF THE RESEARCH AND DATA SET:

	IEI GROUP 1	II GROUP 2	EI GROUP 3	I GROUP 4
Central	017-032	113-128	161-176	129-144
Southern	001-016	033-048	194-210	227-242
Northern	097-112	065-080	243-258	211-226
Outlying	049-064	081-096	177-192	145-160

The timing of this research was crucial and required a high level of co-operation between the researcher and the relevant personnel of the organization. As outlined above within each group of four, the design incorporates both the simple 2 group pretest - post test design and the post test only design (Campbell & Stanley 1963).

As one store served as an experimental element and another as a control, it was necessary to co-ordinate which stores within each cluster received the AIDS programme first. In addition it was also necessary to ensure that the 8 stores serving as controls did not receive the educational programme until all the post programme interviews had been concluded.

To examine the effects of the programme over time, 67 subjects from the original sample who had received education (groups 1 and 3) were contacted for in-depth interviews 2 months after the post programme data collection. Whilst every effort was made to re-interview all possible subjects from the original sample, it was not always possible. The main reason for this being that staff were on leave, were ill or had resigned. Several of the original sample refused to take part in the research again, the most common reason being that as they had already completed the questionnaire twice, they were not interested.

3.5: SUBJECTS:

8 males and 8 females (16 subjects) from each selected store were drawn at random using a random number table. Within each geographical group of the Solomon four there were 64 subjects, 32 of whom were assessed at the beginning and end of the educational programme. These subjects were reportedly roughly equivalent in terms of socio-economic status having an average educational level corresponding to standard five.

3.6: QUESTIONNAIRE:

The questionnaire utilized for this research was an adapted version of one developed by Temoshok in San Francisco during 1983/84 and 1987 (see Appendix 2). Versions of this questionnaire have been used extensively in America, Europe, Britain and recently Amsterdam (Temoshok and Albrechts, 1988). It has been adapted for research on the Cape Town community (Pilot Studies 1, 2 & 3), and translated, according to the Brislin (1986) technique, into Afrikaans and Xhosa (see below).

As very little published information was available at the time this research started, an abovementioned questionnaires were obtained from America (Temoshok, 1987, Temoshok & Albrechts, 1988, personal communication). In this regard, Brislin (1986, p.138), notes that:

"there is a sense of security when using existing instruments, a sense that if some established researcher has used a certain measure and obtained respectable publications, then it must have merit".

The reader is reminded however that during the latter half of 1989, following the completion of the educational programme and post education data collection, critiques of the unquestioning acceptance of the terminologies used by AIDS workers and in AIDS literature became available. Use of the terms "AIDS test and AIDS virus" in this questionnaire and in discussions and literature relating to testing and to the mechanisms of transmission of the virus helped to fuel popular misconceptions and

misinformation about the disease. In particular the work of Aggleton et al (1989b) and Warwick, et al (1988) has highlighted the misuse and misconceptions surrounding the words "AIDS test and AIDS virus" (refer ch.1 footnotes 2 and 3). The use of this inaccurate terminology in the Temoshok (1987) questionnaire, although now viewed as problematic, was accepted without question at the time of this research and possibly promoted misinformation.

3.7: PILOT STUDIES:

Pilot study 1:

During April and August 1988, the original Temoshok questionnaire (appendix 4) was administered to 240 Psychology undergraduate students to assess it's suitability for the Cape Town community. Students experienced problems with the wording of several of the questions and with the double negatives inherent in many of the items. In addition some of the terminology was clumsy and problematic for this community.

Pilot Study 2:

Following adjustment of the terminology and the double negatives, the same students administered the adapted questionnaire to approximately 700 students at the university and technical colleges in Cape Town. Once again certain questions needed careful adjustment. Several of the "don't Know" responses were also removed. Students were requested to tape record and content analyses these interviews for the purpose of course credits and also to reveal any major problems with the questionnaire construction. Following analysis of the problems experienced, it was decided to clarify some of the instructions in the questionnaire and to change the scoring system on the personal opinion section to a Likert scale.

Pilot Study 3:

A second group of 240 psychology students enrolled for an interviewing skills practical programme (August, 1988) adjusted the layout of the questionnaire and attempted to improve the personal opinion section of the questionnaire by applying a likert scale instead of the forced choice option of the original questionnaire. This group of students then administered this questionnaire to approximately 700 "working class " Capetonians. These students were also instructed to tape record and content analyses these interviews for the same reasons as before.

After minor adjustments, the final English version of the questionnaire was translated into Afrikaans and then into Xhosa according to the Brislin technique.

3.8: TRANSLATION OF THE QUESTIONNAIRE ACCORDING TO THE BRISLIN TECHNIQUE

Brislin (1986, p. 159) recommends back-translation as being an appropriate method in the translating of a questionnaire. In back translating, one bilingual person translates from the source to the target language; and another bilingual person blindly translates this version back to the source. Decentering however (a process whereby different translators move back and forth between languages), was not appropriate in this research since words related to AIDS had no direct translation into either Afrikaans or Xhosa. Bilingual Afrikaans and Xhosa speaking social work students independently translated and back-translated the questionnaire until a satisfactory final version was achieved.

It was necessary to conduct a small (20 subjects) pilot study on the Afrikaans and Xhosa versions of the questionnaire on the actual supermarket community who would take part in the research. In conducting this pilot study all attempts were made to approximate as accurately as possible the conditions under which the actual data collection occurred.

3.9: DETAILS OF THE ADAPTED VERSION OF TEMOSHOK (1987) QUESTIONNAIRE:

The adapted version of the Temoshok (1987) Questionnaire (refer appendix 2) is comprised of detailed demographic items as well as items which yield the following separate subsets:

Demographic items:	Q 1 to Q 9
Knowledge items:	Q 10 to Q 25
Personal opinion/attitude items:	Q 26 to Q 47
Health behavior and health related items:	Q 48 to Q 57
Personal, drug related and sexual practice items:	Q 60 to Q 65

In this study, an item analysis was conducted on the demographic, knowledge and personal opinion/ attitude items only. Items 10 - 25 link up with section B of the educational programme (refer Appendix 2) but items 26 - 47 only indirectly reflect participants understanding of the programme (refer 3.10). Thus the item analysis, results and discussion in chapter 5 relate to items 1 to 47.

3.10: THE PERSONAL OPINION ITEMS:

Items 26 - 47 (Personal opinions about AIDS) reflect to a certain extent the participants understanding of the factual information on AIDS contained in section B of the educational policy (refer Appendix 2) and an understanding and integration of the "trainers" explanation of section C (Company policy) of the educational programme (refer Appendix 2). In particular items 27 (worker dismissal), 28 (discrimination in the

workplace), 41 (food handling), were mentioned in an indirect way in the educational programme. Items 44 (compulsory hospitalization), 45 (homosexuals quarantined), 26 (casual contact), 31 (doctors unethical notification of spouses - an issue that has caused controversy internationally), 36 (deportation of black migrants), 37 (health worker safety), 42 (divine retribution), 46 (blood transfusion danger) were items which reflect societal misinformation, prejudice and discriminatory practices against people with the disease, but were not specifically referred to in the educational programme. In section C of the educational programme each "educator" was instructed to ensure that each participant understood the company policy on AIDS and was thus made aware of the company's viewpoint on a variety of issues including pre-employment screening, non dismissal of workers if found to be infected, salary continuation, details of the medical aid policies and the provision of counselling services if required or requested. In many organizations these issues have been handled in a discriminatory manner, often causing an infected individual/ family to experience the psychological consequences referred to in Table 1, chapter 1.

Although the personal opinion / attitude questions in the original Temoshok (1987) questionnaire were scored according to a yes, no and don't know format, later versions (Temoshok & Albrechts, 1988) of the questionnaire were scored on a 1 to 5 Likert scale. The pilot studies, on the various target populations sampled for this research, indicated that while a yes, no and don't know scoring system seemed appropriate for the knowledge items, this forced choice option was not suitable for the attitude items. It seemed more appropriate to score the attitude items on a likert scale of 1 to 5, (from strongly disagree to strongly agree). This scoring system will also facilitate a detailed

inspection of the descriptive statistics on each item, thus allowing for a better interpretation of the data, even though the categories will be reduced to 2 for the statistical analysis of the data.

Using a don't know category in both forced choice and Likert scales, whilst making the statistical analysis more difficult (especially in the forced choice options) is necessary when a respondent legitimately might not know the answer (Couper, 1988, p.145). This category certainly seemed to be a necessary inclusion, following the pilot study analysis.

Couper (1988, p.125), also supports the idea of using a Likert scale for opinion or attitude questions, claiming that the use of scales as indirect measures for attitudes that cannot be measured directly, may be more appropriate. Furthermore he states that it may be "important to measure the intensity of the opinion or attitude and decide how important the issue is to the respondent". This was probably the first time that respondents would be asked to give an opinion on anything related to AIDS, and in Cape Town in 1988 and 1989, the pilot studies had indicated that knowledge about the disease was virtually non-existent.

In retrospect it has become apparent that the questionnaire chosen for this research was possibly not the most appropriate protocol to accurately reflect participants understanding and integration of the content of the educational programme. In spite of extensive pilot testing and subsequent adaptation (and re - pilot-testing) of the questionnaire, among various communities in Cape Town, certain items (Q's 12, 13

,20,) were confusing for this population. Furthermore the double negatives in items (Q 28, 37, 40) that were still in the protocol were problematic and it is therefore suggested that the results emanating from these items be interpreted with caution.

In addition, for the reasons already stated (refer section 3.6), serious problems are now evident in the wording of the entire questionnaire, however it must be remembered that at the time this research started (February, 1988), there was no suitable instrument available for adaptation, nor was there the wealth of information, knowledge, styles of educating and methods of evaluation, which are available today, to depend upon. Furthermore, an adapted version of the Temoshok (1987) and Temoshok and Albrechts (1988), questionnaires seemed to offer the best possible option for evaluating the programme as the originals had been used successfully in evaluating mass media campaigns in many parts of the world (Temoshok, 1987, Temoshok and Albrechts, 1988).

3.11: CODING OF THE QUESTIONNAIRE.

To facilitate ease of coding, computer data capture and interpretation of the questionnaire, 3 columns were marked onto the actual questionnaire sheet (refer appendix 2). Column 1 marked "Q" refers to each individual item on the protocol. Column 2 marked "C" refers to the column on the computer corresponding to each individual question. Column 3 marked "R" refers to the respondents actual answer (coded 1 to 5 or 1 - 3 where appropriate).

3.12: INTERVIEWERS.

12 bilingual "colored" (of mixed ethnic origins) social work students conducted the initial interviews during February/ March 1989. All interviewers had experience with the questionnaire during the pilot studies conducted in April and August of 1988. Social work students were considered the most appropriate interviewers as their considerable interviewing training takes account of socially sensitive issues such as sexually transmitted diseases, alcoholism, the problems associated with lower socio-economic communities and their familiarity with the type of subject under investigation. All social workers underwent a 2 day training workshop at which the research plan was outlined, and were briefed on the exact procedure to follow at each store. They also received further training in the administration of the questionnaire.

All interviewers had been instructed that the first priority was the customer at the supermarket, this often resulted in lengthy delays particularly when the store was busy.

In some stores the interviewing facility was the staff canteen and it was often difficult to conduct the interviews without interference from non selected workers.

3.13: PROCEDURE.

The Solomon four group design requires that half the subjects are interviewed prior to the onset of the educational programme on AIDS. Thus 128 subjects at those stores randomly assigned to the pre-test - post-test component of the design were interviewed just prior to the start of this programme. Each semi-structured interview took between 20 and 30 minutes to complete. Interviewers were instructed to verbally administer the questionnaire allowing time for an in-depth exploration of the subjects choice of answer to certain items whenever necessary. These in depth responses were separately recorded, but do not necessarily form part of the analysis and evaluation in this study.

Although not examined systematically as part of this research, for completeness and to alert the reader to the conditions operative in the actual educational programme, observations on the process of the educational programme are included in chapter 7. These observations relate to the actual in house education programmes in which two social work students (who were involved in a pilot study investigating the participants viewpoints of the programme and the educators), observed the educational programme at 5 of the 8 stores during normal working days on the premises of the supermarket stores.

3.14: METHODOLOGICAL PROBLEMS ASSOCIATED WITH AIDS RESEARCH

In this section, specific methodological problems encountered in the collection of the data will be commented on.

Siegel and Bauman (1986) and Zich and Temoshok (1986) have highlighted many of the methodological problems likely to be encountered in any research focusing upon socially sensitive material such as AIDS (Refer table overleaf). Although their work specifically examines research focused on people with HIV infection and AIDS and the problems encountered in that context, it is useful to look at some of the issues they have detailed and apply them to the present study.

SAMPLING ERROR AND REFUSAL RATE:

In this research, although every attempt was made to keep sampling errors to a minimum by strictly complying with the basic principles of random sampling without replacement, as outlined by Van der Merwe (1988, p.49), and by encouraging those selected to participate in the research, 12 of the people initially drawn in the sample did not wish to be interviewed.

TABLE 3:

- * Sampling Error and Refusal Rate
- * Recruitment, Co-operation and Refusals
Respondents Accessibility to information
- * Respondents Abilities to answer
Respondents Motivations
- * Socially Acceptable Response Biases: Threatening and Sensitive Information
- * Identifiability, Anonymity and Confidentiality
Effects of Different Methods of Data Collection
- * Interview Rapport

The Political, Professional and Personal Context of AIDS Research

Planning and funding of a research project

Operationalizing Concepts and Developing Methods

Implementation of the Research

NOTE: Only those items marked with an asterisk will be commented on.

As one of the conditions of undertaking the research in the supermarkets was that there be no coercion of workers to participate, reasons for not wishing to take part were not pursued very forcibly. These individuals were then replaced with others who had been selected according to the same random sampling procedures. During the pilot study it was found that it was less disruptive to randomly select a back up list at the outset (i.e. Instead of selecting 8 men and 8 woman using a random number table applied to each persons clock card, 12 men and 12 women were selected, see sampling procedure, ch.3.4).

It was discovered on a few occasions (particularly in one southern suburb store) that store managers arbitrarily decided to substitute a selected individual. This was usually discovered only after the individual arrived in the room set aside for the interviews. In some stores this room was quite a distance from the shop floor and interviewers who were not in contact with the store manager often had unacceptably lengthy delays in locating them and explaining that only a selected individual was to be interviewed. In one particular store it was impossible to interview 3 of the sampled participants since the store manager was adamant that others could substitute for them. These on site problems were particularly evident in the initial interview (see Ch.3, Table 2, p.80 for an outline of the research plan).

RECRUITMENT, CO-OPERATION AND REFUSALS:

Most of the sample were very interested in the research and with the news that an educational programme on AIDS was to be run in their store. Interestingly, the women were far more responsive to the idea of the programme and were more co-operative during the actual data collection than the men who generally seemed either disinterested, joked about the subject or used the interview occasion to have a smoke break and fool around with their colleagues in the corridor awaiting their turn. Several of the men disappeared whilst waiting and had to be recalled by the management, who then had to ascertain once again whether they in fact wished to participate in the study.

During the post education interviews 8 participants, of the original sample who were interviewed, refused to be interviewed again, the usual reason being that as they had already completed the first interview there was no reason to do it again or that their union had told them they could refuse. Couper (1988), in examining "refusals to participate" in survey research, suggests that refusal could indicate general respondent resistance to surveys, problems in the interviewers initial approach, or problems associated with the questionnaire (topic of the research, length of questionnaire and interview). Certainly the topic of the research could be a factor in the refusal of some respondents to refuse both before and after the educational programme, but it is doubtful that the interviewers were responsible as only students who wished to become involved in the research were selected, all had participated in the pilot studies, had received special training and had requested the opportunity to further their skills

in this way. All of the interviewers had rehearsed the manner in which they approached the participants initially and all took time to outline the purpose of the research, the educational programme that would eventually be held in all the stores nationwide and the importance of the participants role in the exercise. The questionnaire was not unduly long (approximately 20 to 30 minutes to administer).

A common problem in the post education interviews was the unavailability of certain respondents because of resignations and sick, maternity and vacation leave. Interviewers returned to each supermarket up to three times in an effort to reduce the number of drop outs. However, as can be seen from the tables detailing the item analysis (chapter 5) as many as 20 respondents out of a possible 128 in the post test component of groups 1 and 2 of the solomon four group were unavailable for re-interview.

RESPONDENTS ABILITIES TO ANSWER:

This sample was drawn from the weekly paid work force of the supermarket chain. According to the personnel management of the organization, this category of worker has an average educational level of std. 5 and 6. To avoid misinterpretation the questionnaire had to be as clearly and unambiguously worded as possible. As Siegal and Bauman (in Feldman and Johnson (Eds.) 1986, p. 24) point out, a respondents ability to provide valid data is obviously influenced by their level of cognitive functioning, their level of education and by the extent to which they understand the respondent role. Cannell and Kahn (1968:553, cited in Siegal and Bauman, 1986,p.

24) also note that "Choice of language should be made from the shared vocabulary of the respondent and researcher", and that levels of literacy and variation in language use among geographic areas, generations and social classes must be carefully considered when wording questions. In adapting the Temoshok (1987) questionnaire following the 1st and 2nd pilot study's it was found that many of the double negatives in the original protocol caused confusion in a sample of university students. These double negatives were then removed and simplified before translating and pilot testing the protocol on a working class sample. In selecting social work students as the interviewers in the final pilot study and the actual research, a selection criteria was that they understood the background of the respondents and that they shared a common vocabulary with the sample.

Regarding the administration of questionnaires Couper (1988) in examining face to face interviews, points out that

"although the presence of the interviewer to clarify certain questions may be an advantage of the interviewer - administered approaches in some respects, in other respects the interviewer's presence may be a disadvantage. The way in which the interviewer reads the question, and the way in which certain questions are clarified can and does affect the way the respondent answers the question. In fact, the interviewer's general verbal and non - verbal behavior (including his general appearance and manner) throughout the contact can subtly bias responses" (Couper, 1988, p.108).

SOCIALLY ACCEPTABLE RESPONSE BIASES: THREATENING AND SENSITIVE INFORMATION.

In this research only certain questions from a larger questionnaire have been analyzed. The last few question of the complete questionnaire however contains very personal items, some of which could potentially cause embarrassment to an individual (refer Appendix 2). Each interviewer was instructed to point out to the respondent the following: "These questions are quite personal, I'd like you to read through them from this separate sheet of paper with me, if there are any you would prefer not to answer, please tell me". This approach seemed to be appropriate as respondents were fairly forthcoming, and the interviewers did not report any incidents. It seems likely though that some of the respondents gave inaccurate answers to the questions on their number of sexual partners. Interviewers reported that they could pick up when a respondent was lying on these questions. Although these questions have not been included in this research, they could have been one of the reasons for respondents (from groups 1 and 2) refusing to participate in the post education component of the research.

IDENTIFIABILITY, ANONYMITY AND CONFIDENTIALITY:

Siegal and Bauman, cited in Feldman and Johnson (Eds.), 1986, p.30), claim that "although the promise of anonymity can be an influential factor in an individual's willingness to report threatening or sensitive information, we believe that satisfying assurances of confidentiality can persuade a respondent to be candid in an interview". In this research, all respondents were assured of absolute confidentiality and anonymity before taking part in the research. Interviewers explained to participants that they had been selected on the basis of their "clock card numbers" and that these numbers although recorded on the questionnaires for post education purposes, were not used in the analysis at all.

INTERVIEW RAPPORT:

Interview rapport has been assigned almost "magical qualities" according to Siegal and Bauman (cited in Feldman and Johnson (Eds. 1986). While the arguments they raise will not be detailed here it is important to note that while some degree of rapport is required particularly in sensitive research, technical interviewing skills, such as objectivity, neutrality, creating a permissive atmosphere for admitting socially undesirable information, and professionalism are the most important qualities to bring to the interview situation in order to preserve validity (Siegal and Bauman, cited in Feldman and Johnson, (Eds.),1986).

CHAPTER 4:

In this chapter, reasons for choosing to conduct an item analysis of the data will be discussed. Logistic regression analysis for binary data will be reviewed as well as the rationale for the reporting of odds ratios and exact p - values, instead of the more conventional method of hypothesis testing.

4.1: STATISTICAL METHOD AND ANALYSIS OF THE DATA.

Two of the statistical methods which could have been utilized in the analysis of the data were:

- 1: An analysis of Variance (Anova) to determine within group and between group differences on total subscale scores of, for example, a "knowledge total". Although this analysis would provide a direct measure of the overall effectiveness of the small group educational programme, it would fail to provide an item by item in-depth assessment of participants knowledge and understanding of the programme content and the issues surrounding AIDS (Braver & Braver,1988).

- 2: Correlations between total knowledge and attitude subscale scores as well as with the biographical information. However, since this study evaluates an educational programme, this kind of analysis would be inappropriate. A correlational analysis would not have yielded the type of information required.

It was decided therefore to analyse each of the knowledge and attitude items separately and not to sum the various subsets into total knowledge and attitude scores.

Analyzing each item separately was considered necessary since each item relates to specific issues and controversial areas that have been identified in the AIDS related spectrum. Thus this procedure was chosen to obtain the most knowledge about programme participants learning. It was also chosen to identify specific gaps in the educational programme content itself.

Analysis of the Solomon four group design requires evaluation of the effect of treatment as revealed in the post-test scores only, combined with an evaluation of the same effect as revealed by a comparison of pre-test and post-test scores. This essentially involves the evaluation of two alternative models for the data. One which takes into account pre-test sensitisation, and an alternative which does not. (Braver and Braver, 1988). Log linear analysis of categorical data (Kennedy, 1983), is a method particularly suitable for deciding between such alternative models. In this research the data for individual items were treated as categorical and for the purposes of analysis were reduced to two (binary) levels as described below. In this regard a simplified form of log linear analysis suitable for binary data, called logistic regression, was used.

4.2: QUESTIONNAIRE DATA.

Data on 16 knowledge and 22 attitude questions, collected using a Solomon four group design were available for analysis.

Possible answers for the knowledge questions were "yes", "no", and "don't know". For the purposes of this analysis, these three categories were reduced to two, namely "person knows the correct answer" and "person doesn't know the correct answer". Thus, "don't know" was always attributed to "person doesn't know the correct answer", and "yes" and "no" were attributed depending on what was the correct answer.

Possible answers for the attitude questions were "strongly disagree", "disagree", "don't know", "agree", and "strongly agree". These were also reduced to two categories. "Strongly disagree" and "disagree" in one category, and "strongly agree" and "agree" in the other. "Don't Know" was attributed to the category which represented the desirable answer. The reason for attributing "don't know" to the desirable answer on any individual item was to accord with one of the aims of the educational programme which was to reduce the proportion of people who held "wrong opinions or undesirable attitudes". In deciding on what constituted a "desirable answer" to any individual attitude item, the recommendations of the WHO (the World Health Organization) and the progressive organizations were always subscribed and adhered to.

4.3: MODEL.

For the purpose of analysis a model for binary data was formulated for the probability of any subject knowing the "accurate" or "most desirable" answer to each item on the post-test questionnaire. The Solomon four - group design can be described essentially by a two-way contingency situation with the factors PRETEST (present/absent) and TREATMENT (present/absent) (Braver and Braver, 1988). In the diagrammatic representation of this two-way layout (Table 4) note that the post test scores, when there was a pre - test (observations 2 and observations 4 in figure 2, p.72), are represented by groups 1 and 2. The post test scores when no pre - tests were conducted (observations 5 and observation 6 in figure 2, p.72) are represented by groups 3 and 4.

TABLE 4:

		PRE-TEST	
		PRESENT	ABSENT
TREATMENT	PRESENT	Group 1	Group 3
	ABSENT	Group 2	Group 4

For this table the probability of a subject knowing the "correct" answer is given by the equation

$$\log p_{ij} / (1 - p_{ij}) = \mu + \alpha_i + \beta_j + (\alpha\beta)_{ij} \quad i, j = 1, 2 \quad (1)$$

where α_i represents the main effect for PRE - TEST, β_j the main effect for TREATMENT, and $(\alpha\beta)_{ij}$ the PRE - TEST * TREATMENT interaction. This equation is the direct equivalent of the model for a 2x2 ANOVA on continuous (interval) data. Using logistic regression, estimation of the β coefficient in this equation would allow evaluation of the outcome of the educational intervention.

While this model would allow a valid analysis of the data, some available information in the form of pre - test scores would be ignored. As it is an area of investigation in the present study whether or not pre - test sensitization is a factor, this information must be incorporated. A more accurate model for groups 1 and 2 takes the form :

$$\log p_{1jk} / (1 - p_{1jk}) = \mu + \alpha_1 + \beta_j + (\alpha\beta)_{1j} + \gamma_k \quad j, k = 1, 2 \quad (2)$$

where γ_k represents the main effect (or the binary co-variate information) due to the pre - test score. The subjects in groups 3 and 4 can not be further stratified , and thus the model for these two groups remains:

$$\log p_{2j} / (1 - p_{2j}) = \mu + \alpha_2 + \beta_j + (\alpha\beta)_{2j} \quad j = 1, 2 \quad (3)$$

Equations (2) and (3) together now describe a model for the data which incorporates both the pre - test and post - test information. The various steps describing which of

these equations (1, 2 and 3) to use is outlined in the following procedure.

4.4: ANALYSIS OF KNOWLEDGE AND ATTITUDE ITEMS:

The data were analyzed using the BMDP programme LR for logistic regression and proceeded along the following lines:

First a chi - square statistic for the PRETEST * TREATMENT interaction ($\alpha\beta$) was computed using equation (1) above. This constituted a test for pretest sensitization. With one degree of freedom, this test was regarded as significant if the chi square statistic was greater than 2.

If the chi square statistic was smaller than 2, then the interaction term was dropped from the model, and the treatment main effect was computed. This involved estimation of the coefficient (β) in the model and its standard error ($STE(\beta)$). Further, the odds ratio (see 4.5) for treated versus non - treated subjects is given by $OR = \exp(\beta)$, and a 95% confidence interval for this odds ratio is given by $OR - 1.96 \cdot STE(\beta)$ to $OR + 1.96 \cdot STE(\beta)$.

If the chi-square statistic for interaction was larger than 2 however, then the treatment effect was computed separately for groups 1 and 2 using equation (2), and for groups 3 and 4 using equation (3). The treatment effect computed from groups 1 and 2 would then incorporate pre - test sensitization as given by equation (2). For groups 3 and 4 the treatment effect without pre - test sensitization would be obtained from

equation (3).

4.5: ODDS RATIOS , CONFIDENCE INTERVALS AND P - VALUES.

In the present study, the chi-square test would be appropriate to determine the statistical significance of the association between exposure to the educational programme (treatment) and gain or change in knowledge and attitudes. However, because significance (ie. the value of p) is dependant upon, among other things, the size of the sample, it is not the only thing of interest. The strength of the association provides additional relevant information . The odds ratio gives a direct measure of the strength of the association (Kennedy,1983).

In the knowledge section of the questionnaire, the odds ratio (OR) is defined as the ratio of the odds of (a subject having) increased knowledge among those subjects exposed to the educational programme and the odds of (a subject having) knowledge among those not exposed to the programme. i.e. $OR = [R1/(1-R1)] / [R2/(1-R2)]$ where $R1 =$ odds of having knowledge among the treated/educated and $R2 =$ odds of having knowledge among the untreated/uneducated. An odds ratio greater than 1 indicates that educated subjects are more likely than uneducated subjects to know the accurate answer to a questionnaire item. Therefore, in the summary table 8 (refer ch. 5.3), an odds ratios in excess of 1 indicates that the educational programme was effective. Furthermore the size of the odds ratio is an indication of the strength of the effect of the educational programme in the sample. This is conditional on inspection of the accompanying p-value based based on the relevant chi square test, with the

significance level set at $\alpha = 0.05$.

The odds ratio(OR) for the personal opinion section of the questionnaire is defined as the ratio of the odds of an unprejudiced or more desirable attitude among subjects exposed to the educational programme and the odds of an unprejudiced attitude among subjects not exposed to the programme. Because attitude items reflect either positive or negative attitudes, an odds ratio (OR) of larger than 1 in the summary table 10 (ch. 5.4), reflects an unprejudiced (more desirable) attitude when the item is a positive one. Conversely when the item reflects a negative attitude, an odds ratio (OR) of less than 1 reflects an unprejudiced attitude. Once again this is conditional upon an inspection of the accompanying p-value.

SECTION C:

RESULTS AND DISCUSSION

CHAPTER 5:

RESULTS AND DISCUSSION:

In analysing the data set it became apparent that the questionnaire chosen for this research was not the most appropriate protocol to accurately reflect participants understanding and integration of the content of the educational programme. In spite of extensive pilot testing and subsequent adaptation (and re - pilot-testing) of the questionnaire, among all communities of Cape town, certain items (Q's 12, 13, and 20) were confusing for this population. Furthermore the use of the double negative in items (Q 28, 37,and 40,) in the protocol was problematic and it is suggested that the results emanating from these items be regarded with suspicion. Although the double negatives had been removed from certain items, the remaining ones had somehow been overlooked.

At the time this research started (February,1988) however, there was no suitable instrument available for adaptation, nor was there the wealth of information, knowledge, styles of educating and methods of evaluation to depend upon. The questionnaire seemed to offer the best possible option for evaluating the programme and had apparently been used with success in many parts of the world (Temoshok,1987., Temoshok and Albrechts, 1988).

5.1: DEMOGRAPHIC DATA

To produce a demographic profile of the sample from the wealth of demographic information obtained (refer Appendix 1), the 256 participants were regarded as belonging to a single sample.

The accompanying demographic profile (Table 6, p.111) of the respondents in the sample is based on the responses given to the interviewers at the initial interview session. Thus in treatment groups 1 and 2 the pre -education interview responses are used and in treatment groups 3 and 4, the post - education responses, since these groups were not interviewed prior to the programme. The full details of the demographic data for each interview (ie. pre and post for all treatment groups) is available for inspection in Appendix 1.

5.2: ANALYSIS OF DEMOGRAPHIC DATA:

(Refer Tables 5 and 6, p.106):

It must be noted that 2 respondents failed to answer the demographic questions on Sex, Language and Age while 3 failed to answer the question relating to occupation (see Appendix 1). Three respondents failed to answer Q's 1 (Ethnic group) and 6 (marital status), 2 respondents Q's 2 (years of education) and 3 (salary) and 6 respondents Q.4 (religion). This is probably due to errors in the questionnaire layout and / or an oversight on the part of the interviewers.

TABLE 5: QUESTIONNAIRE ITEMS

DEMOGRAPHIC DETAILS

Please tell me about yourself on the following:

- Q 1. In South Africa, to which classified race group do you belong?
- Q 2. How many years of education do you have?
- Q 3. What is your approximate yearly salary or income?
- Q 4. What church/faith do you belong to?
- Q 5. What is your marital/relationship status?

TABLE 6: DEMOGRAPHIC PROFILE OF SAMPLE: %

<u>"RACIAL CLASSIFICATION:"</u>		<u>LANGUAGE:</u>	
White:	2.4%	English	7.94%
Black:	6.4%	Xhosa	6.35%
Colored:	91.2%	Afrikaans	81.75%
Indian/Asian/Other:	0%	Eng/Afr Bilingual	3.96%
 <u>SEX:</u>			
Males	51.59%		
Females	48.41%		
 <u>EDUCATION:</u>		<u>INCOME:</u>	
Std.5	22.2 %	Up to R 5000	46.83%
Std.6	36.51%	Up to R 9999	46.83%
Std.8	31.75%	Up to R19999	3.17%
Std.10	7.14%	Up to R29999	0.00%
Matric	1.59%	Up to R39999	3.17%
University/College	0.79%		

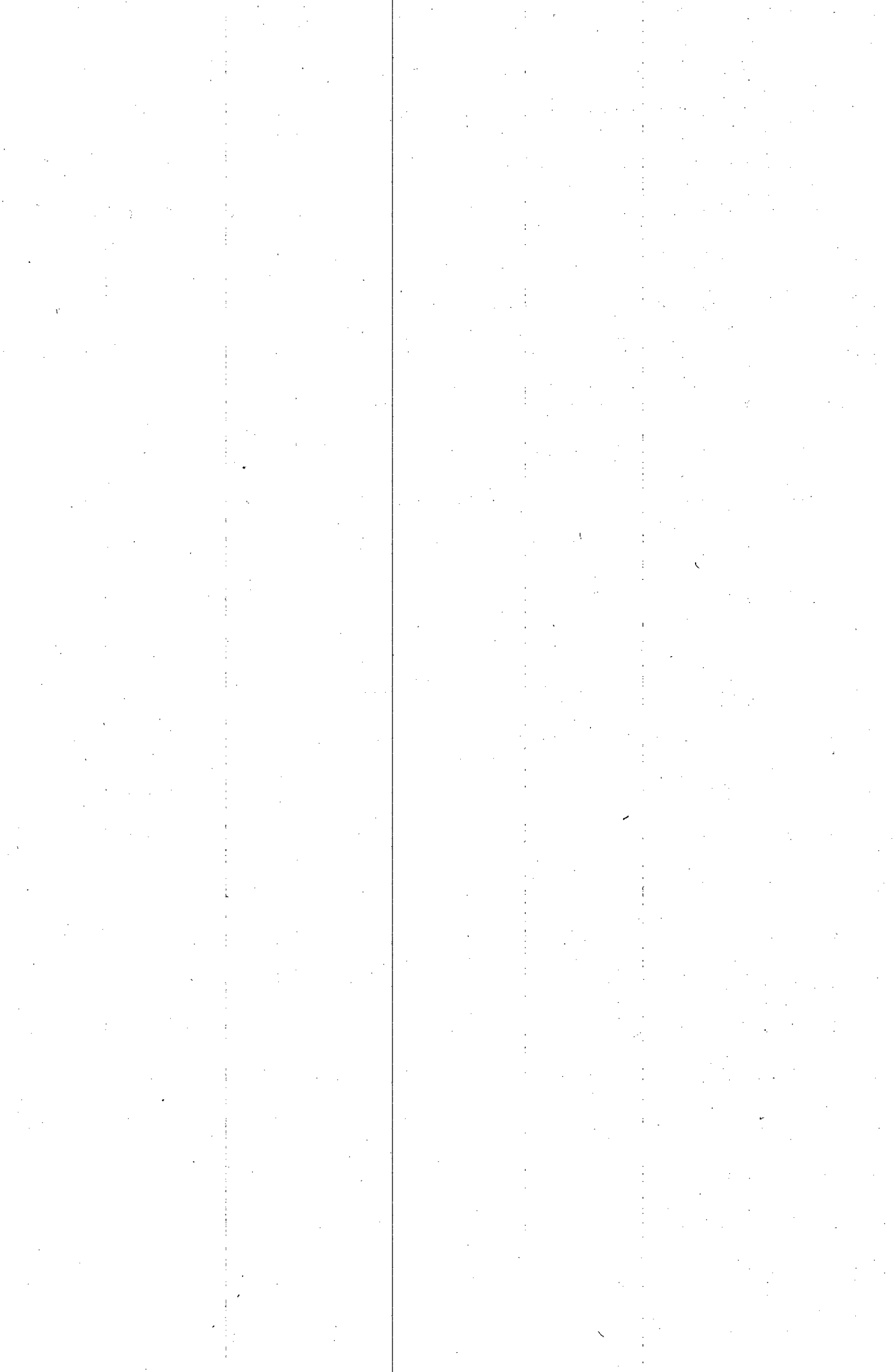
CHURCH / FAITH:

Roman Catholic	7.38%
Christian (not Catholic)	73.77%
Moslem	12.29%
Other	6.56%

MARITAL STATUS:

Married	48 %
Separated	0 %
Divorced	32 %
Single	19.2%
Co-habiting	0.8%

The sample was comprised of almost equal numbers of men and women (Males - 51.59%, Females - 48.41%), and is predominantly of mixed ethnic origin i.e. "colored" (91.2%). It is an Afrikaans speaking (81.75%) Christian, mainly Anglican and Protestant (73.77%) population, with the majority (over 90%) having less than a Standard Eight education. 94% of the sample earned less than R9999 per annum. This confirms the personnel management claims regarding the educational levels of the weekly paid work force. Although predominantly Afrikaans speaking, the majority of the participants chose to be interviewed in English, referring to the Afrikaans version of the questionnaire from time to time in order to gain greater clarity regarding questionnaire items.



5.3: KNOWLEDGE ABOUT AIDS

(Refer to Tables 7 and 8, p. 109 - 110).

Items 10 - 25 of the questionnaire (Table 7: Knowledge about AIDS), reflect the participants understanding of the "educators" explanation of section B of the educational programme (refer Appendix 2,). Although all 4 educators followed the programme as outlined in Appendix 2, because of the nature of the small groups and the emphasis on promoting a non-threatening and comfortable learning environment, each educator was encouraged to alter their explanatory styles in accordance with the needs of each group.

TABLE 7: QUESTIONNAIRE ITEMS:

KNOWLEDGE ABOUT AIDS

Would you answer yes or no to the following statements?

- Q 10. A person can have the AIDS virus without being or looking sick.
- Q 11. A person can transmit the AIDS virus without being or looking sick.
- Q 12. The AIDS virus can be passed on through semen.
- Q 13. The AIDS virus can be passed on through contaminated blood or blood products.
- Q 14. You can catch AIDS like you catch a cold from someone coughing or sneezing because the AIDS virus can be carried in the air.
- Q 15. If a woman with AIDS gets pregnant, her baby is likely to develop AIDS.
- Q 16. AIDS can be passed on by shaking hands with someone who has AIDS.
- Q 17. Being monogamous, i.e. in a one partner relationship (with a monogamous partner) reduces the risk of getting AIDS.
- Q 18. Always using condoms (FL's) reduces the risk of getting AIDS.
- Q 19. At present, there is no cure for AIDS.
- Q 20. A person can get AIDS sharing intravenous needles with someone who has the virus.
- Q 21. A person can be infected with the AIDS virus without knowing it.
- Q 22. A person can get AIDS by sharing drinking glasses, forks or spoons with someone who has the virus.
- Q 23. Women with the AIDS virus can transmit it to their male sexual partners.
- Q 24. Mosquitoes can transmit the AIDS virus.
- Q 25. Men with the AIDS virus can transmit it to their female sexual partners.

TABLE 8: SUMMARY STATISTICS FOR KNOWLEDGE ITEMS.

Qu	Chi-sq	p	β	STE	OR	95% CI	Chi-sq	p
10	0.18	0.67	0.69	0.31	2	1.1 - 3.7	4.9	0.026
11	1.3	0.25	0.14	0.32	1.2	0.61 - 2.2	0.2	0.66
12	4.3	0.039	1.7	0.81	5.2	1.1 - 26.8	5.3	0.021
			-0.091	0.42	0.91	0.4 - 2.1	0.05	0.83
13	4.5	0.034	-1.8	0.74	0.17	0.039- 0.71	7.3	0.007
			-0.018	0.48	0.98	0.38 - 2.5	<0.005	0.97
14	0.07	0.79	2.7	0.37	14.3	7.2 - 30.7	66.2	<0.00005
15	1.3	0.25	1.1	0.51	3	1.1 - 8.2	5.2	0.023
16	2.3	0.13	1.8	0.61	6.2	1.8 - 20	10.2	0.0014
			3.2	0.76	25.8	5.5 -108.8	35	<0.00005
17	0.79	0.37	0.65	0.33	1.9	1 - 3.7	3.8	0.05
18	<0.005	0.97	0.85	0.36	2.3	1.2 - 4.7	5.6	0.018
19	1.71	0.19	0.42	0.28	1.5	0.88 - 2.6	2.3	0.13
20	3.65	0.056	-2.3	1.1	0.099	0.012- 0.87	6.9	0.0088
			-0.28	0.5	0.76	0.28 - 2	0.31	0.58
21	0.03	0.87	-0.24	0.41	0.79	0.35 - 1.8	0.35	0.56
22	0.92	0.34	3.2	0.42	25.3	10.8 - 55.9	86.2	<0.00005
23	0.34	0.56	0.085	0.58	1.1	0.35 - 3.4	0.02	0.88
24	0.01	0.93	2.8	0.39	16.3	7.7 - 35.3	71.1	<0.00005
25	1.04	0.31	-0.071	0.83	0.93	0.18 - 4.7	0.01	0.93

Note: In the notations from left to right across the top of the table:

Qu = Questionnaire item number

Chi-sq = Chi-square statistic If > 2 then pre-test sensitisation effect has occurred.

p = probability level ($\alpha = 0.05$) of the chi-sq.

β = estimation of the coefficient in the model.

STE = Standard error of estimate.

OR = Odd's ratio.

95%CI = 95% Confidence interval or level.

p = probability level ($\alpha = 0.05$) of the chi-sq.

5.4: SUMMARY OF KNOWLEDGE ITEMS:

Following this summary and overview of the results obtained from the knowledge items of the questionnaire (refer summary table 8, p.116) a detailed item analysis and discussion of each questionnaire item is presented in section 5.5.

The results suggest an improvement in knowledge particularly in terms of the myths (cutlery, crockery, mosquitoes, sneezing, hand shaking) surrounding casual transmission of (HIV) AIDS. In this regard the educational programme was successful to the extent that a highly significant improvement in knowledge occurred as evidenced in the responses to item 14, O.R.= 14.3, $p = <0.00005$, item 16 (groups 3 and 4 only because of an interaction effect), O.R.= 25.8, $p = <0.00005$, item 22 O.R.= 25.3, $p = <0.00005$, and item 24, O.R.= 16.3, $p = <0.00005$).

Several items revealed an interaction effect. With regard to item 12 (Chi sq = 4.3) the most likely explanation (and one put forward by interviewers) for the sensitisation effect is that at the initial interview session, many respondents from all groups, misunderstood the word "semen". The respondents in group 1 would have had this misunderstanding cleared up in the educational programme whereas those in group 3 might have missed the significance of the word "semen" during the educational programme, and could still be under the impression that "seamen" can transmit the AIDS virus (which is not an unreasonable assumption to make given that sailors have a reputation for high risk behaviour). Alternatively since this word may have been foreign to the respondents initially, hearing it again during a programme could have reinforced their knowledge and hence improved the overall accuracy of response on this item.

The sensitisation effect evident in item 13 (chi sq = 4.5), appears to be due to confusing and insufficient information regarding contaminated blood and blood products being given to the participants during the educational programme. The programme stressed that since all blood donations in South Africa are screened for HIV, blood transfusions are therefore safe (it is highly unlikely that the educators elaborated on the possibility of someone receiving a transfusion of HIV contaminated blood that was still in the "window period"). Furthermore, since the educational programme omitted infection control procedures and information regarding accidental blood spills it seems likely that respondents then misunderstood the question being put to them during the interview. It must be borne in mind however that at the time this research took place, these aspects of infection control were not as heavily emphasised as they are today.

The interaction effect in item 16 (chi sq = 2.3) is not as marked as in items 12, 13 and 20. While a significant improvement in knowledge is revealed on analysis of groups 1 and 2 (O.R.= 6.2, p = 0.0014), a highly significant improvement in accurate knowledge is evidenced following analysis of groups 3 and 4 (O.R. = 25.8, p = <.00005). The descriptive statistics for all groups on this item (refer 5.5, item analysis) reveal that those respondents who had received education were less likely to answer the incorrect and don't know categories on the questionnaire than those who had not had education. The respondents in group three however had a higher percentage of respondents who gave the correct answer. The reason for this is unclear, since the programme itself was fairly straightforward in terms of the casual transmission of the virus. One explanation for the marked difference in odds ratios could lie with differing educator styles and emphasis.

The sensitisation effect revealed in item 20 (chi sq = 3.65), is likely to be as a result of confusing messages regarding the sharing of intravenous needles, since the accuracy of responses in group 1 dropped significantly following the educational programme (O.R. = 0.099, p = 0.0088). It is possible that some respondents following the programme associated intravenous needles with blood screening and transfusions (thus regarding the practice as safe because of the information that "all blood is screened"), rather than with drug usage as the question had intended.

To reiterate, although responses to 2 items (Q's.13, 20) revealed that the participants already had accurate knowledge prior to the educational programme, the programme was unsuccessful in that it did not provide a clear picture regarding transmission via blood i.e. contaminated blood and blood products (Q13) and intravenous needle transmission (Q20). In this instance following the educational programme, participants in the pre-tested treatment group 1 held significantly less accurate knowledge than the pre-test control group 2. It is unclear whether accurate knowledge decreased following the educational programme in treatment group 3 since they form part of the post test only component of the Solomon 4 group design. In spite of the negative effect of education in respect of blood transmission however, the descriptive statistics revealed that a high percentage of participants held accurate perceptions regarding transmission by blood.

With regard to the general facts about AIDS although the descriptive statistics and analysis reveal that items 10, 15 and 18 were significant, the odds ratios reveal that the strength of the educative effect on these items is marginal (Item 10, O.R.= 2.0, $p = 0.026$; item 15, O.R. = 3.0, $p = 0.023$ and item 18, O.R. = 2.3, $p = 0.018$). Item 17 showed an improvement in knowledge, approaching significance (refer summary table 8).

NOTE: The detailed item analysis and discussion of the knowledge items of the questionnaire, presented in the following section, will be followed by a summary, item analysis and discussion of the personal opinion items of the questionnaire.

5.5: ITEM ANALYSIS OF THE RESULTS AND DISCUSSION:

To simplify the presentation of these results each individual questionnaire item is presented in the following manner:

- 1: The question itself
- 2: The descriptive statistics relating to both the pre- educational and post-educational programme responses
- 3: The statistical analysis and discussion pertaining to each item.

TABLE 9:

KNOWLEDGE ABOUT AIDS

Would you answer yes or no to the following statements?

Q 10. A person can have the AIDS virus without being or looking sick.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	72.58	63.49			
"No" (Inaccurate)	9.68	15.87			
"Don't know"	17.74	20.63			
Total	62	63			125

Frequency missing: 3

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	86.36	73.58	66.15	51.67	
"No" (Inaccurate)	6.82	9.43	18.46	13.33	
"Don't know"	6.82	16.98	15.38	35.00	
Total	44	53	65	60	222

Frequency missing: 36

No pre-test sensitization occurred (Chi Sq = 0.18). Following the educational programme, a significant treatment/educational effect is evident (O.R = 2.0, 95% C I 1.1 to 3.7, Chi Sq = 4.9, p = 0.026) indicating that knowledge improved as a result of the educational programme.

Q 11. A person can transmit the AIDS virus without being or looking sick.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	79.37	68.25			
"No" (Inaccurate)	4.76	12.70			
"Don't know"	15.87	19.05			
Total	63	63			126
Frequency missing:	2				

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	81.82	84.91	73.44	65.00	
"No" (Inaccurate)	6.82	7.55	15.63	8.33	
"Don't know"	11.36	7.55	10.94	26.67	
Total	44	53	64	60	221
Frequency missing:	37				

No pre-test sensitization occurred (Chi Sq = 1.3). Although the descriptive statistics indicate that accurate responses improved following the educational programme, these were not significant (O R = 1.2, 95% C I 0.61 to 2.2, Chi Sq = 0.20, p = 0.66).

Q 12. The AIDS virus can be passed on through semen.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	80.95	82.54			
"No" (Inaccurate)	1.59	3.17			
"Don't know"	17.46	14.29			
Total	63	63			126

Frequency missing: 2

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	95.45	81.13	75.00	76.67	
"No" (Inaccurate)	0.00	3.77	9.38	1.67	
"Don't know"	4.55	15.09	15.63	21.67	
Total	44	53	64	60	221

Frequency missing: 37

These results indicate a pre-test sensitization effect (Chi Sq = 4.3). Following the educational programme a significant improvement in knowledge (O R = 5.2, 95% C I 1.1 to 26.8, Chi Sq = 5.3, p = 0.021) is discernible in the pre-tested treatment group 1. No treatment/educational effect is evident, however, in the non pre-tested group 3 (O R = 0.91, 95% C I 0.40 to 2.1, Chi Sq = 0.05, p = 0.83). It must be noted that interviewers noticed that the word "semen" seemed to cause confusion in some of the respondents from all groups. The improvement in accurate responses in group 1 may be due to this confusion being clarified during the educational programme, whereas respondents in the non pre-tested group might have missed the significance of the meaning of the word. It is possible then that some participants are still under the illusion that the word "semen" refers to "seamen". The terminology utilized in the Afrikaans version of the questionnaire refers to "semen" as "sperma" and although this translation of the English terminology is not entirely accurate it is doubtful whether those respondents who chose to be interviewed in Afrikaans were confused by the meaning inherent in the term. Our subsequent experience has indicated that it is useful to clarify the meanings of both "semen" and "sperma" by incorporating the term "sexual fluid produced by a man [during sexual intercourse]". This is also useful terminology to utilize with a Xhosa speaking person.

Q 13. The AIDS virus can be passed on through contaminated blood or blood products.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	92.06	95.24			
"No" (Inaccurate)	0.00	1.59			
"Don't know"	7.94	3.17			
Total	63	63			126

Frequency missing: 2

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	72.73	94.34	83.08	83.33	
"No" (Inaccurate)	22.73	1.89	13.85	0.00	
"Don't know"	4.55	3.77	3.08	16.67	
Total	44	53	65	60	222

Frequency missing: 36

These results indicate a sensitization effect (Chi Sq = 4.5). However, it is evident that the educational programme in this instance served to promote confusing messages. As the descriptive statistics reveal, participants in the pre-tested treatment group 1 and non treatment group 2 had a high level of accurate knowledge prior to the educational programme. Following education the accuracy of responses in group 1 dropped significantly (O R = 0.17, 95% C I range 0.039 to 0.71, Chi Sq = 7.3, p = 0.0070). These results highlight the importance of clear educational messages in programmes. In this regard it is essential that AIDS educators check whether all participants understand a message accurately. It is questionable in this instance whether participants understood the meaning of the word "contaminated". Since the programme stressed that the blood supply in South Africa has been screened since 1985 and is therefore "safe" in terms of receiving or donating blood, an implicit assumption that "blood is not contaminated any more" may have been made. In focusing on the safety of the blood supply in an effort to reduce irrational fear, educators may not have thought to highlight the importance of avoiding contaminated blood either through needle use or through casual contact. This focus in the educational programme then may have led participants to assume that this question referred to blood in terms of the screening services practiced at the blood bank.

No treatment/educational effect is evident however in the non pre-tested group 3 (O R = 0.98, 95% C I range 0.38 to 2.5, Chi Sq = <0.005, p = 0.97).

Q 14. You can catch AIDS like you catch a cold from someone coughing or sneezing because the AIDS virus can be carried in the air.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Inaccurate)	44.44	47.62			
"No" (Accurate)	36.51	33.33			
"Don't know"	19.05	19.05			
Total	63	63			126

Frequency missing: 2

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Inaccurate)	15.91	43.04	7.69	43.33	
"No" (Accurate)	84.09	39.62	87.69	31.67	
"Don't know"	0.00	16.89	4.62	25.00	
Total	44	53	65	60	222

Frequency missing: 36

No pre-test sensitization occurred (Chi Sq = 0.07). Following the educational programme however, a highly significant improvement in knowledge is evident (O R = 14.3, 95% C I range 7.2 to 30.7, Chi Sq = 66.2, p = <0.00005). The descriptive statistics indicate that the accuracy of responses differed by almost 50% between Groups 1 and 3 (treatment groups) and Groups 2 and 4 (control groups). This popularly held myth surrounding transmission was thus successfully removed through the educational programme.

Q 15. If a woman with AIDS gets pregnant, her baby is likely to develop AIDS.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	85.71	92.06			
"No" (Inaccurate)	1.59	3.17			
Don't know"	12.70	4.76			

Total	63	63			126
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Frequency missing: 2

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	90.91	86.79	96.92	85.00	
"No" (Inaccurate)	2.27	1.89	1.54	1.67	
"Don't know"	6.82	11.32	1.54	13.33	

Total	44	53	65	60	222
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Frequency missing: 36

No pre-test sensitization occurred (Chi Sq = 1.3). Following the educational programme however, a significant treatment/educational effect (O R = 3.0, 95% C I range 1.1 to 8.2, Chi Sq = 5.2, p = 0.023) is discernible.

In the light of what is now known about perinatal transmission of HIV (i.e the likelihood of a baby becoming infected with HIV depend on the stage of HIV disease of the mother) the educational programme should be adapted to include more up to date knowledge. Although it could be argued that detail such as this should not form part of a "brief" educational programme in the workplace, it is important that participants in educational programmes understand the complexities surrounding perinatal transmission of HIV, since following an educational programme, some participants may undertake to educate others about HIV infection and AIDS without first clarifying information. "Watered down" second hand information could lead to misinformation and inaccuracies in informal education. The wording in the questionnaire should also be adapted to take account of updated information.

NOTE: It is recommended therefore that the company clarify and update the information held by their employees.

Q 16. AIDS can be passed on by shaking hands with someone who has AIDS.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Inaccurate)	28.57	31.75			
"No" (Accurate)	53.97	50.79			
"Don't know"	17.46	17.46			
Total	63	63			126

Frequency missing: 2

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Inaccurate)	9.09	32.08	1.54	25.00	
"No" (Accurate)	84.09	52.83	96.92	55.00	
"Don't know"	6.82	15.09	1.54	20.00	
Total	44	53	65	60	222

Frequency missing: 36

These results indicate a sensitization effect (Chi Sq = 2.3). Therefore, following the educational programme an improvement in knowledge in treatment group 1 is discerned (O R = 6.2, 95% C I range 1.8 to 20.0, Chi Sq = 10.2, p = 0.0014). However there is a highly significant improvement in knowledge in the non pre-tested group 3 (O R = 25.8, 95% C I range 5.5 to 108.8, p = < 0.00005), which is surprising since it is expected that the pre-tested group would be higher, because of the pretest sensitization effect. Nevertheless these results demonstrate the effectiveness of an AIDS educational programme in which the myths surrounding casual transmission are clearly addressed.

Q 17. Being monogamous, i.e. in a one partner relationship (with a monogamous partner) reduces the risk of getting AIDS.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	74.60	80.95			
"No" (Inaccurate)	17.46	12.70			
"Don't know"	7.94	6.35			
Total	63	63			126

Frequency missing: 2

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	83.72	81.13	81.54	65.00	
"No" (Inaccurate)	11.63	15.09	15.38	15.00	
"Don't know"	4.65	3.77	3.08	20.00	
Total	43	53	65	60	221

Frequency missing: 37

No pre-test sensitization occurred (Chi Sq = 0.79). Following the educational programme however, a marginally significant treatment/educational effect (O.R = 1.9, 95% C I range 1.0 to 3.7, Chi Sq = 3.8, p = 0.050) is discernible, indicating an improvement in knowledge on this item.

Q 18. Always using condoms (FL's) reduces the risk of getting AIDS.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	69.84	76.19			
"No" (Inaccurate)	7.94	12.70			
"Don't know"	22.22	11.11			
Total	63	63			126

Frequency missing: 2

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	86.36	79.25	84.62	70.00	
"No" (Inaccurate)	2.27	9.43	12.31	8.33	
"Don't know"	11.36	11.32	3.08	21.67	
Total	44	53	65	60	222

Frequency missing: 36

No pre-test sensitization occurred (Chi Sq = <0.005). Following the educational programme, a significant treatment/educational effect (O R = 2.3, 95% C I range 1.2 to 4.7, Chi Sq = 5.6, p = 0.018) is discernible. This improvement in knowledge about methods of prevention after a very short awareness programme is certainly encouraging and suggests that the educators, at least on this item, were communicating in an appropriate way.

Q 19. At present, there is no cure for AIDS.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	52.38	55.56			
"No" (Inaccurate)	19.05	31.75			
"Don't know"	28.57	12.70			
Total	63	63			126

Frequency missing: 2

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	54.55	54.72	56.92	38.98	
"No" (Inaccurate)	29.55	28.30	33.85	37.29	
"Don't know"	15.91	16.98	9.23	23.73	
Total	44	53	65	59	221

Frequency missing: 37

No pre-test sensitization occurred (Chi Sq = 1.71). Although the descriptive statistics indicate that accurate responses improved following the educational programme particularly in the non pre-tested treatment group 3, these were not significant (O R = 1.5, 95% C I range 0.88 to 2.6, Chi Sq = 2.3, p = 0.13).

As the structure of this question presented problems during the administration of the questionnaire, these results should be interpreted with caution.

Q 20. A person can get AIDS sharing intravenous needles with someone who has the virus.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	90.48	98.41			
"No" (Inaccurate)					
"Don't know"	9.52	1.59			
Total	63	63			126

Frequency missing: 2

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	79.55	98.11	83.08	86.67	
"No" (Inaccurate)	15.91	0.00	7.69	1.67	
"Don't know"	4.55	1.89	9.23	11.67	
Total	44	53	65	60	222

Frequency missing: 36

These results indicate a sensitization effect (Chi Sq = 3.65). However, it is evident that the educational programme in this instance served to promote confusing messages. As the descriptive statistics reveal, participants in the pre-tested treatment group 1 and non treatment group 2 had a high level of accurate knowledge prior to the educational programme. Following education however, the accuracy of responses in group 1 dropped significantly (O R = 0.099, 95% C I range 0.012 to 0.87, Chi Sq = 6.9, p = 0.0088) These results highlight the importance of clear educational messages in programmes. In this regard it is essential that AIDS educators check whether all participants understand a message accurately.

No treatment/educational effect is evident in the non pre-tested treatment group 3. (O R = 0.76, 95% C I range 0.28 to 2.0, Chi Sq = 0.31, p = 0.58). It is possible that the programme did not clearly describe the possibility of transmission via injecting drug use and that some respondents in the pre-tested treatment group 1 associated intravenous needles with blood transfusions and the recent screening of blood, therefore assuming that transmission via needles was no longer a threat. This negative effect of the education programme may be responsible for the slightly more accurate responses evident in control group 4 as opposed to treatment group 3. The wording of the question however is problematic since "intravenous needles" does not only refer to intravenous drug use. Although the terminology used in the questionnaire is well understood in America as referring to injecting drug use, it is questionable whether the subjects in this study correctly understood the terminology.

Q 21. A person can be infected with the AIDS virus without knowing it.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	90.32	95.24			
"No" (Inaccurate)	3.23	0.00			
"Don't know"	6.45	4.76			
Total	62	63			125

Frequency missing: 3

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	81.82	90.57	84.38	86.67	
"No" (Inaccurate)	13.64	1.89	9.38	3.33	
"Don't know"	4.55	7.55	6.25	10.00	
Total	44	53	64	60	221

Frequency missing: 37

No pre-test sensitization occurred (Chi Sq = 0.03). It seems that the educational programme in this instance delivered confusing messages. As the descriptive statistics reveal, participants in the pre-tested treatment group 1 and non treatment group 2 had a high level of accurate knowledge prior to the educational programme. Following education the accuracy of responses in treatment groups 1 and 3 decreased somewhat compared to control groups 2 and 4 although this was not significant (O R = 0.79, 95% C I range 0.35 to 1.8, Chi Sq = 0.35, p = 0.56). These results highlight the importance of clear educational messages in programmes. In this regard it is essential that AIDS educators check whether all participants understand a message accurately.

Q 22. A person can get AIDS by sharing drinking glasses, forks or spoons with someone who has the virus.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Inaccurate)	55.56	50.79			
"No" (Accurate)	33.33	33.33			
"Don't know"	11.11	15.87			
Total	63	63			126

Frequency missing: 22

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Inaccurate)	15.91	56.60	4.62	50.00	
"No" (Accurate)	81.82	32.08	89.23	30.00	
"Don't know"	2.27	11.32	6.15	20.22	
Total	44	53	65	60	222

Frequency missing: 36

No pre-test sensitization occurred (Chi Sq = 0.92). Following the educational programme however, a highly significant improvement in knowledge is discerned (O R = 25.3, 95% C I range 10.8 to 55.9, Chi Sq = 86.2, p = <0.00005). The descriptive statistics indicate that the accuracy of responses differed by approximately 50% between Groups 1 and 3 (treatment groups) and Groups 2 and 4 (control groups). Popularly held myths surrounding transmission were thus successfully addressed in the educational programme.

Q 23. Women with the AIDS virus can transmit it to their male sexual partners.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	85.71	95.16			
"No" (Inaccurate)	4.76	4.84			
"Don't know"	9.52	0.00			
Total	63	62			125

Frequency missing: 3

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	93.02	92.45	93.85	95.00	
"No" (Inaccurate)	0.00	3.77	4.62	0.00	
"Don't know"	6.98	3.77	1.54	5.50	
Total	43	53	65	60	221

frequency missing: 37

No pre-test sensitization occurred (Chi Sq = 0.34). The descriptive statistics show that almost all of the respondents had accurate knowledge from the outset. (O R = 1.1, 95% C I range 0.35 to 3.4, Chi Sq = 0.02, p = 0.88).

Q 24. Mosquitoes can transmit the AIDS virus.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Inaccurate)	47.62	56.45			
"No" (Accurate)	20.63	17.74			
"Don't know"	31.75	25.81			
Total	63	62			125
Frequency missing:	3				

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Inaccurate)	20.45	52.83	9.23	33.33	
"No" (Accurate)	61.36	13.21	67.69	11.67	
"Don't know"	18.18	33.96	23.08	55.00	
Total	44	53	65	60	222
Frequency missing:	36				

No pre-test sensitization occurred (Chi Sq = 0.01). Following the educational programme, a highly significant improvement in knowledge is discerned (O R = 16.3, 95% C I 7.7 to 35.3, Chi Sq = 71.1, p = <0.00005). The descriptive statistics indicate that the accuracy of responses differed by approximately 40 to 50% between Groups 1 and 3 (treatment groups) and Groups 2 and 4 (control groups). Popularly held myths on transmission were thus successfully addressed in the educational programme. It is interesting to note that the strength of the educational effect in this item is not as marked as in questions 14, 16 and 22. Our experience indicates that many people believe that mosquitoes transmit HIV.

Q 25. Men with the AIDS virus can transmit it to their female sexual partners.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	95.24	98.41			
"No" (Inaccurate)	1.59	1.59			
"Don't know"	3.17	0.00			
Total	63	63			126

Frequency missing: 2

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
"Yes" (Accurate)	95.45	98.11	98.46	96.67	
"No" (Inaccurate)	2.27	0.00	1.54	0.00	
"Don't know"	2.27	1.89	0.00	3.33	
Total	44	53	65	60	222

Frequency missing: 36

No pre-test sensitization occurred (Chi Sq = 1.04). The descriptive statistics show that almost all of the respondents had accurate knowledge from the outset. (O R = 0.93, 95% C I range 0.18 to 4.7, Chi Sq = 0.01, p = 0.93).

5.6: SUMMARY: PERSONAL OPINION ITEMS

Refer summary tables 10 and 11. p.132 - 133:

Items 26 - 47 (Personal opinions about AIDS) reflects to a certain extent the participants understanding and integration of the "trainers" explanation of section C (Company policy) of the educational programme (refer Appendix 2).

In this section of the educational programme each "trainer" was instructed to ensure that each participant understood the company policy on AIDS and was thus made aware of the company's stand on a variety of issues including pre-employment screening, non dismissal of workers if found to be infected, salary continuation, details of the medical aid policies and the provision of counselling services if required or requested. In many organizations these issues have been handled in a discriminatory manner, often causing an infected individual/ family to experience many of the psychological consequences referred to in Table 1, ch.1.

TABLE 11: SUMMARY STATISTICS FOR PERSONAL OPINION ITEMS:

Qu	Chi-sq	P	β	STE	OR	95% CI	Chi-sq	P
26	0.34	0.56	1.3	0.3	3.7	2.0 - 6.6	20.2	<0.00005
27*	1.6	0.2	-1.9	0.36	0.15	0.074- 0.3	32.5	<0.00005
28*	0.33	0.56	-1.9	0.31	0.15	0.081- 0.28	41.1	<0.00005
29	0.07	0.8	-0.35	0.56	0.71	0.23 - 2.1	0.39	0.53
30	0.8	0.37	-0.61	0.35	0.54	0.27 - 1.1	3.17	0.075
31*	1.37	0.24	0.024	0.83	1.02	0.2 - 5.2	<0.005	0.88
32	3.85	0.05	-0.36	0.54	0.7	0.24 - 2	0.44	0.5
			-1.7	0.45	0.17	0.076- 0.44	17.2	<0.00005
33	0.92	0.34	-0.37	0.78	0.69	0.15 - 3.2	0.22	0.64
34	0.12	0.73	0.36	0.44	1.4	0.6 - 3.4	0.68	0.41
35*	<0.005	0.97	-0.55	0.58	0.57	0.18 - 1.8	0.93	0.34
36*	0.01	0.92	-1.1	0.29	0.35	0.19 - 0.59	13.8	0.0002
37*	0.07	0.78	-0.59	0.38	0.56	0.26 - 1.2	2.4	0.12
38*	1.3	0.25	0.0074	0.34	1	0.52 - 2	<0.005	0.98
39*	0.24	0.62	-0.35	0.3	0.7	0.39 - 1.3	1.4	0.23
40*	0.78	0.38	-0.0072	0.28	0.99	0.57 - 1.7	<0.005	0.98
41*	2.1	0.15	-1.2	0.46	0.31	0.12 - 0.74	6.7	0.0097
			-2.1	0.41	0.13	0.055- 0.27	29.1	<0.00005
42*	0.28	0.6	0.012	0.32	1	0.54 - 1.9	<0.005	0.97
43*	0.01	0.9	0.17	0.28	1.2	0.68 - 2.1	0.37	0.54
44*	0.34	0.56	-0.76	0.31	0.47	0.26 - 0.86	6.35	0.012
45*	1.1	0.3	-0.77	0.29	0.46	0.26 - 0.82	7.2	0.0071
46*	0.73	0.39	-1.2	0.31	0.3	0.16 - 0.55	16	0.00001
47*	0.07	0.79	-0.5	0.39	0.6	0.28 - 1.3	1.7	0.19

Note: In the notations from left to right across the top of the table:

Qu = Questionnaire item number

Chi-sq = Chi-square statistic If > 2 then pre-test sensitisation effect has occurred.

p = probability level ($\alpha = 0.05$) of the chi-sq.

β = estimation of the coefficient in the model.

STE = Standard error of estimate.

OR = Odd's ratio.

95%CI = 95% Confidence interval or level.

p = probability level ($\alpha = 0.05$) of the chi-sq.

* = The most desirable response is to disagree with the statement.

In spite of certain problems with the questionnaire (refer ch. 3.7), the results suggest that participants responses shifted towards more desirable statements regarding people with HIV infection and AIDS, particularly in those items which linked up with the factual content of the educational programme (Personal opinion items, 26, 27, 28, 36, 41, 44, 45 and 46).

In particular a significant shift towards more desirable statements has occurred on item 26, O.R. =3.7, $p = <0.00005$ (children with AIDS in school), item 27, O.R. = 0.15, $p = <0.00005$ (firing of workers found to be positive), item 28, O.R. = 0.15, $p = <0.00005$ and 32, O.R. = 0.17, $p = <0.00005$ (discrimination in the workplace and against patients with AIDS) and item 41, O.R.= 0.13, $p = <0.00005$ (discrimination against food handlers). The analysis of items 32 and 41 reveals that a pre-test sensitization effect has occurred, thus the above statistics reflect the post-test only component of the Solomon four. The analysis of the pre-test / post-test component of the Solomon four group design (i.e. analysis of data from groups 1 and 2 only) on item 32 reveal no educative effect, but a statistically significant shift towards more desirable statements regarding people with AIDS handling food has occurred on item 41 O.R.= 0.31, $p = 0.0097$.

In examining the odds ratios on the above items, it is interesting to note that although highly significant ($p = <.00005$), the strength of the educative effect is not as marked on opinion items as it is on factual misinformation being cleared up (refer 5.4: Knowledge about AIDS).

It is particularly interesting that insofar as the programme did not actually spell out the company policy in terminology reflected by the questionnaire items, the general gist of section C of the programme (company policy) confirming that the company had adopted a non discriminatory policy towards employees infected with HIV infection and AIDS, appears to have been understood by the participants on the programme. Most questionnaire items in which a positive shift occurred, were addressed in the programme. No shift occurred however on questionnaire items which had not been addressed directly in the programme (items 31, 35, 38, 42).

TABLE 12:

PERSONAL OPINIONS ABOUT AIDS

How do you feel about the following statements?
Please indicate on a scale of 1 - 5, whether you:

- 1 = Strongly disagree
- 2 = Disagree
- 3 = Don't know
- 4 = Agree
- 5 = Strongly agree

Q 26. Children who have the AIDS virus should be allowed to go to school with other children.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	22.22	16.13			
2 = Disagree	46.03	56.45			
3 = Don't know	12.70	4.84			
4 = Agree	17.46	17.74			
5 = Strongly agree	1.59	4.84			
Total	63	62			125

Frequency missing: 3

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	13.64	16.98	6.15	10.00	
2 = Disagree	18.18	50.94	21.54	45.00	
3 = Don't know	6.82	15.09	6.15	11.67	
4 = Agree	59.09	16.98	46.15	26.67	
5 = Strongly agree	2.27	0.00	20.00	6.67	
Total	44	53	65	60	222

Frequency missing: 36

No pre-test sensitisation occurred (Chi Sq = 0.34). Following the educational programme, the descriptive statistics and subsequent analysis reveal a highly significant shift towards more desirable attitudes concerning children with AIDS remaining in school (O R = 3.7, 95% C I range = 2.0 to 6.6, Chi Sq = 20.2, p = <0.00005). These results suggest that the educational programme successfully addressed participants fears regarding casual transmission of AIDS.

Q 27. Employers should be allowed to fire workers who have the AIDS virus.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	15.87	11.11			
2 = Disagree	22.22	39.68			
3 = Don't know	19.05	7.94			
4 = Agree	33.33	31.75			
5 = Strongly agree	9.52	9.52			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	11.36	9.62	14.06	1.67	
2 = Disagree	68.18	36.54	71.88	23.33	
3 = Don't know	6.82	19.23	1.56	18.33	
4 = Agree	13.64	30.77	10.94	45.00	
5 = Strongly agree	0.00	3.85	1.56	11.67	
Total	44	52	64	60	220

Frequency missing: 38

No pre-test sensitisation occurred (Chi Sq = 1.6). Following the educational programme, the descriptive statistics and subsequent analysis reveal a highly significant shift towards those statements favouring non-discrimination in the workplace (O R = 0.15, 95% C I range = 0.074 to 0.30, Chi Sq = 32.5, p = <0.00005). This suggests that the educational programme was successful. Educators had stressed that workers who became infected would not lose their jobs and would receive the usual staff benefits in the case of illness, and that workers who became too ill to handle their original jobs would be relocated to more appropriate work. Indeed, the existing staff benefits in this company adequately cover the possibility of a worker becoming infected. By successfully defusing workers fears regarding casual transmission, the educational programme appears to have had the desired effect. Before the programme many participants favoured employers dismissing workers with AIDS. After the programme participants in both treatment groups held different opinions.

Q 28. Co-workers should be allowed to refuse to work near someone who has the AIDS virus.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	7.94	3.17			
2 = Disagree	25.40	31.75			
3 = Don't know	4.76	4.76			
4 = Agree	53.97	49.21			
5 = Strongly agree	7.94	11.11			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	6.98	5.66	10.94	1.67	
2 = Disagree	67.44	22.64	57.81	16.67	
3 = Don't know	4.65	13.21	6.25	10.00	
4 = Agree	13.95	50.94	23.44	55.00	
5 = Strongly agree	6.98	7.55	1.56	16.67	
Total	43	53	64	60	220

Frequency missing: 38

No pre-test sensitisation occurred (Chi Sq = 0.33) Following the educational programme, a highly significant shift towards more desirable attitudes occurred (OR = 0.15, 95% CI = 0.081 to 0.28, Chi Sq = 41.1, p = <0.00005). In examining the descriptive statistics it is evident that the programme was sufficiently persuasive to allay myths and fears over casual transmission of AIDS. However, the terminology used in this item is problematic and it is suggested that the double negative inherent in the meaning of the statement be adjusted in future questionnaires.

Q.29. AIDS education programmes should be required for teenagers (age 13-19).

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree					
2 = Disagree	3.17	3.17			
3 = Don't know	3.17	0.00			
4 = Agree	52.38	68.25			
5 = Strongly agree	41.27	28.57			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	0.00	1.89	3.13	1.67	
2 = Disagree	6.82	3.77	4.69	3.33	
3 = Don't know	2.27	1.89	1.56	13.33	
4 = Agree	79.55	77.36	62.50	68.33	
5 = Strongly agree	11.36	15.09	28.13	13.33	
Total	44	53	64	60	221

Frequency missing: 37

The descriptive statistics show that almost all respondents concurred with this statement before and after the educational programme.

Q 30. AIDS education programmes should be required for children age 12 and under.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
2 = Disagree	22.58	11.11			
3 = Don't know	1.61	1.59			
4 = Agree	53.23	68.25			
5 = Strongly agree	19.35	11.11			
Total	62	63			125

Frequency missing: 3

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	2.33	3.77	3.13	8.33	
2 = Disagree	30.23	13.21	18.75	8.33	
3 = Don't know	6.98	5.66	14.06	10.00	
4 = Agree	55.81	69.81	48.44	56.67	
5 = Strongly agree	4.65	7.55	15.63	16.67	
Total	43	53	64	60	220

Frequency missing: 38

No pre-test sensitisation occurred (Chi Sq = 0.80). Although following the educational programme respondents were less likely to agree that children under the age of 12 have AIDS education (O R = 0.54, 95% C I = 0.27 to 1.1, Chi Sq = 3.17, p = 0.075), this was not significant. As the educational programme content was fairly explicit, this could be the reason that programme participants were less inclined to agree that children under the age of 12 be given similar information.

Q 31. Doctors should notify spouses and sexual partners when a patient is found to have the AIDS virus.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree					
2 = Disagree	9.52	6.35			
3 = Don't know	1.59	0.00			
4 = Agree	63.49	69.84			
5 = Strongly agree	25.40	23.81			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	0.00	0.00	1.56	1.67	
2 = Disagree	0.00	1.89	3.13	1.67	
3 = Don't know	4.55	1.89	3.13	8.33	
4 = Agree	86.36	73.58	65.63	60.00	
5 = Strongly agree	9.09	22.64	26.56	28.33	
Total	44	53	64	60	221

Frequency missing: 37

No pre-test sensitisation occurred (Chi Sq = 1.37). The programme did not significantly alter respondents attitudes on this item ((O R = 1.02, 95% C I range = 0.20 to 5.2, Chi Sq = <0.005, p = 0.88). As this brief educational programme focused on accurate information and company policy towards potentially infected workers, it did not deliberate on the ethical issues involved in the debate surrounding a "doctors duty to inform in the interests of public health" and it is therefore suggested that a follow up programme alert participants to the ethical codes of confidentiality to which doctors are bound.

Q 32. There should be laws to prevent discrimination against AIDS patients.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
2 = Disagree	25.40	20.63			
3 = Don't know	15.87	12.70			
4 = Agree	36.51	60.32			
5 = Strongly agree	20.63	4.76			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	0.00	3.85	4.69	0.00	
2 = Disagree	20.45	11.45	42.19	13.33	
3 = Don't know	13.64	11.54	12.50	21.67	
4 = Agree	61.36	63.46	32.81	51.67	
5 = Strongly agree	4.55	9.62	7.81	13.33	
Total	44	52	64	60	220

Frequency missing: 38

These results indicate a pre-test sensitisation effect (Chi Sq = 3.85). Following the educational programme a shift towards a more desirable attitude is discernible in pre-test treatment group 1 (O R = 0.70, 95% C I range = 0.24 to 2.0 , Chi Sq = 0.44, p = 0.50). In the non pre-tested treatment group 3 however, a highly significant shift towards a less desirable attitude is evident (O R = 0.17, 95% C I range = 0.076 to 0.44, Chi Sq = 17.2, p = <0.00005) following the educational programme. It is difficult to understand this difference between the two treatment groups. One explanation is that it could be as a result of different educators stressing different aspects relating to discrimination in general.

Q 33. Persons at risk for AIDS should be encouraged to take the AIDS test.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree					
2 = Disagree	3.17	0.00			
3 = Don't know	69.84	79.03			
4 = Agree					
5 = Strongly agree	26.98	20.97			
Total	63	62			125

Frequency missing: 3

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	0.00	1.89	1.59	1.67	
2 = Disagree	2.27	1.89	3.17	0.00	
3 = Don't know	2.27	1.89	1.59	5.00	
4 = Agree	72.73	81.13	63.49	68.33	
5 = Strongly agree	22.73	13.21	30.16	25.00	
Total	44	53	63	60	220

Frequency missing: 38

No pre-test sensitisation occurred (Chi Sq = 0.92). The programme did not significantly alter respondents attitudes on this item ((O R = 0.69, 95% C I range = 0.15 to 3.2, Chi Sq = 0.22, p = 0.64). It is interesting to note that whereas prior to the programme many of the respondents in groups 1 and 2 could not respond to this item with confidence almost all participants in both these groups agreed with the statement following the programme. It is difficult to understand the high level of concurrence in non-treatment group 4 with this statement, since one would have expected a similar pattern to that found in groups 1 and 2 prior to the programme.

Q 34. Persons at risk for AIDS should be required to take the AIDS test.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	0.00	3.17			
2 = Disagree	12.70	4.76			
3 = Don't know	1.59	1.59			
4 = Agree	61.90	68.25			
5 = Strongly agree	23.81	22.22			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	0.00	3.77	1.59	0.00	
2 = Disagree	4.55	5.66	6.35	3.33	
3 = Don't know	4.55	3.77	1.59	8.33	
4 = Agree	72.73	79.25	65.08	73.33	
5 = Strongly agree	18.18	7.55	25.40	15.00	
Total	44	53	63	60	220

Frequency missing: 38

These results indicate that no pre-test sensitisation has occurred (Chi Sq = 0.12). Although the programme did not significantly alter respondents attitudes on this item ((O R = 1.4, 95% C I range = 0.60 to 3.4, Chi Sq = 0.68, p = 0.41), it is interesting to note that more participants agreed with the statement following the programme.

Q 35. All new immigrants (persons coming into a country) should be tested for AIDS.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree					
2 = Disagree	4.76	1.59			
3 = Don't know	4.76	3.17			
4 = Agree	57.14	60.32			
5 = Strongly agree	33.33	34.92			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	0.00	0.00	1.56	1.67	
2 = Disagree	4.55	1.89	9.38	5.00	
3 = Don't know	6.82	3.77	14.06	3.33	
4 = Agree	68.18	75.47	48.44	58.33	
5 = Strongly agree	20.45	18.87	26.56	31.67	
Total	44	53	64	60	221

Frequency missing: 37

These results indicate that no pre-test sensitisation has occurred (Chi Sq = <0.005) and that the programme did not significantly alter respondents attitudes on this item (O R = 0.57, 95% C I range = 0.18 to 1.8, Chi Sq = 0.93, p = 0.34). This finding is not surprising since the programme content did not address the complex issues surrounding testing of new immigrants, nor did it address the issue of informed consent to testing other than in a cursory way. It would seem from the strength of the response on this item that respondents had not conceptualised the realities of being positive and being screened for HIV. This is hardly surprising. The educational programme was limited to one hour per group.

Q 36. Black migrant workers from other African countries should be deported if they are found to have the AIDS virus.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	3.17	6.35			
2 = Disagree	15.87	33.33			
3 = Don't know	14.29	6.35			
4 = Agree	39.68	42.86			
5 = Strongly agree	26.98	11.11			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	4.55	5.66	6.15	5.00	
2 = Disagree	50.00	43.40	49.23	16.67	
3 = Don't know	13.64	3.77	9.23	16.67	
4 = Agree	25.00	45.28	30.77	53.33	
5 = Strongly agree	6.82	1.89	4.62	8.33	
Total	44	53	65	60	222

Frequency missing: 36

These results indicate that no pre-test sensitisation has occurred (Chi Sq = 0.01) Following the educational programme, a significant shift towards more desirable attitudes concerning black migrant workers with AIDS is discernible (O R = 0.35, 95% C I range = 0.19 to 0.59, Chi Sq = 13.8, p = 0.0002).

Q 37. Ambulance drivers, police and firemen should not be expected to assist people they believe have the AIDS virus.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	16.13	6.45			
2 = Disagree	50.00	64.52			
3 = Don't know	9.68	8.06			
4 = Agree	16.13	16.13			
5 = Strongly agree	8.06	4.84			
Total	62	62			124
Frequency missing:	4				

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	6.82	3.77	12.31	6.67	
2 = Disagree	70.45	67.92	60.00	50.00	
3 = Don't know	11.36	11.32	12.31	20.00	
4 = Agree	9.09	11.32	10.77	20.00	
5 = Strongly agree	2.27	5.66	4.62	3.33	
Total	44	53	65	60	222
Frequency missing:	36				

These results indicate that no pre-test sensitisation has occurred (Chi Sq = 0.07). Following the educational programme however, the descriptive statistics and subsequent analysis reveal a shift approaching significance towards more desirable attitudes concerning emergency workers treating perceived "AIDS carriers" (O R = 0.56 95% C I range = 0.26 to 1.2, Chi Sq = 2.4, p = 0.12).

Q 38. Insurance companies should be allowed to require antibody tests of persons applying for insurance.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	1.59	1.59			
2 = Disagree	20.63	15.87			
3 = Don't know	9.52	15.87			
4 = Agree	53.97	60.32			
5 = Strongly agree	14.29	6.35			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	0.00	0.00	1.54	1.72	
2 = Disagree	23.26	16.98	15.38	20.69	
3 = Don't know	16.28	13.21	10.77	22.41	
4 = Agree	60.47	64.15	64.62	43.10	
5 = Strongly agree	0.00	5.66	7.69	12.07	
Total	43	53	65	58	219

Frequency missing: 39

These results indicate that no pre-test sensitisation has occurred (Chi Sq = 1.3) and that the programme did not significantly alter respondents attitudes on this item ((O R = 1.0, 95% C I range = 0.52 to 2.0, Chi Sq =<0.005, p = 0.98). This finding is not surprising since the programme content did not address the complex issues surrounding testing of insurance applicants nor did it address the issue of informed consent to testing other than in a cursory way.

Q 39. AIDS is more easily transmitted than we are currently being told.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree					
2 = Disagree	9.52	25.40			
3 = Don't know	22.22	15.87			
4 = Agree	52.38	52.38			
5 = Strongly agree	15.87	6.35			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	2.27	0.00	1.54	0.00	
2 = Disagree	15.91	11.32	20.00	10.00	
3 = Don't know	18.18	15.09	15.38	21.67	
4 = Agree	56.82	66.04	49.23	58.33	
5 = Strongly agree	6.82	7.55	13.85	10.00	
Total	44	53	65	60	222

Frequency missing: 36

These results indicate that no pre-test sensitisation has occurred (Chi Sq = 0.24) and that the programme although indicating a slight educative effect, did not significantly alter respondents attitudes on this item ((O R = 0.70,95% C I range = 0.39 to 1.3, Chi Sq = 1.4, p = 0.23). In spite of the educational programme, more than half of the respondents still felt that AIDS is more easily transmitted than is reported. It is recommended therefore that a follow up programme incorporating more in depth information and time for discussion be implemented in the company in order to effectively educate participants as to the nature of the virus and disease.

Q 40. There is some information about AIDS that is being withheld from the general public.

<u>Pre-educ. Responses:</u>	<u>I/EI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	3.17	0.00			
2 = Disagree	26.98	41.27			
3 = Don't know	22.22	19.05			
4 = Agree	39.68	33.33			
5 = Strongly agree	7.94	6.35			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>I/EI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	0.00	0.00	1.56	3.39	
2 = Disagree	25.00	32.08	32.81	20.34	
3 = Don't know	36.36	24.53	21.88	37.29	
4 = Agree	36.36	35.85	39.06	32.20	
5 = Strongly agree	2.27	7.55	4.69	6.78	
Total	44	53	64	59	220

Frequency missing: 38

These results indicate that no pre-test sensitisation has occurred (Chi Sq = 0.78) and that the programme did not significantly alter respondents attitudes on this item ((O R = 0.99, 95% C I range = 0.57 to 1.7, Chi Sq = <0.005, p = 0.98). As with the previous item many respondents in spite of having fears of casual transmission allayed, concur with the statement. This may be due to the inherent suspicion with which this particular working class population view authority and the messages emanating from authority figures.

Q 41. People with AIDS should not be allowed to handle food in restaurants.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	3.17	0.00			
2 = Disagree	7.94	11.11			
3 = Don't know	9.52	7.94			
4 = Agree	57.14	66.67			
5 = Strongly agree	22.22	14.29			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	4.55	0.00	6.15	3.33	
2 = Disagree	50.00	26.42	56.92	8.33	
3 = Don't know	4.55	11.32	9.23	13.33	
4 = Agree	36.36	47.17	20.00	60.00	
5 = Strongly agree	4.55	15.09	7.69	15.00	
Total	44	53	65	60	222

Frequency missing: 36

These results indicate a sensitisation effect (Chi Sq = 2.1). Following the educational programme a shift towards a more desirable attitude which approaches significance is discernible in pre-test treatment group 1 (O R = 0.31, 95% C I range = 0.12 to 0.74 , Chi Sq = 6.7, p = 0.0097) and a highly significant shift towards a more desirable attitude is evident in non pre-test treatment group 3 (O R = 0.13, 95% C I range = 0.055 to 0.27, Chi Sq = 29.1, p = <0.00005). As previous items have indicated, the educational programme seems to have addressed the myths surrounding casual transmission most successfully.

Q 42. AIDS is God's punishment for immorality.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	7.94	11.11			
2 = Disagree	26.98	28.57			
3 = Don't know	36.51	22.22			
4 = Agree	20.63	31.75			
5 = Strongly agree	7.94	6.35			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	4.55	9.43	12.31	8.33	
2 = Disagree	38.64	35.85	44.62	26.67	
3 = Don't know	18.18	18.87	15.38	35.00	
4 = Agree	36.36	28.30	20.00	23.33	
5 = Strongly agree	2.27	7.55	7.69	6.67	
Total	44	53	65	60	222

Frequency missing: 36

These results indicate that no pre-test sensitisation has occurred (Chi Sq = 0.28) and that the programme did not significantly alter respondents attitudes on this item ((O R = 1.0, 95% C I range = 0.54 to 1.9, Chi Sq =<0.005, p = 0.97). As the educational programme did not mention this "lay belief", these results are not surprising, but it is questionable whether an educational programme of this nature would shift deeply held religious convictions which have their origins in the cultural traditions of a community.

Q 43. The high cost of treating AIDS is unfair to people suffering from other diseases, e.g. TB.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	4.76	0.00			
2 = Disagree	33.33	44.44			
3 = Don't know	15.87	22.22			
4 = Agree	36.51	26.98			
5 = Strongly agree	9.52	6.35			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	0.00	0.00	4.62	3.33	
2 = Disagree	41.86	43.40	35.38	25.00	
3 = Don't know	16.28	18.87	20.00	35.00	
4 = Agree	39.53	33.96	36.92	30.00	
5 = Strongly agree	2.33	3.77	3.08	6.67	
Total	43	53	65	60	221

Frequency missing: 37

These results indicate that no pre-test sensitisation has occurred (Chi Sq = 0.01) and that the programme did not significantly alter respondents attitudes on this item ((O R = 1.2, 95% C I range = 0.68 to 2.1, Chi Sq = 0.37, p = 0.54). This result is not surprising since the educational programme did not focus on treatment costs nor the debate surrounding the costs of drugs. Most participants were probably unaware of the realities facing HIV infected people. It is difficult to interpret the descriptive statistics with any degree of confidence since there may well be more than one reason why participants responded as they did.

Q 44. People with AIDS should be confined in hospitals - against their wills, if necessary.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	7.94	3.17			
2 = Disagree	30.16	36.51			
3 = Don't know	3.17	11.11			
4 = Agree	47.62	44.44			
5 = Strongly agree	11.11	4.76			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	6.82	3.77	9.23	10.00	
2 = Disagree	40.91	41.51	56.92	38.33	
3 = Don't know	11.36	1.89	6.15	10.00	
4 = Agree	36.36	45.28	24.62	33.33	
5 = Strongly agree	4.55	7.55	3.08	8.33	
Total	44	53	65	60	222

Frequency missing: 36

These results indicate that no pre-test sensitisation has occurred (Chi Sq = 0.34) Following the educational programme a shift approaching significance towards more desirable attitudes occurred (O R = 0.47, 95% C I range = 0.26 to 0.86, Chi Sq = 6.35, p = 0.012). In spite of education though a surprisingly high percentage of participants in both treatment groups agreed with the statement.

Q 45. Homosexuals should be quarantined (strictly isolated, excluded or detained) to prevent the spread of AIDS.

<u>Pre-educ. Responses:</u>	<u>I/EI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	1.59	3.17			
2 = Disagree	23.81	23.18			
3 = Don't know	14.29	14.29			
4 = Agree	41.27	49.21			
5 = Strongly agree	19.05	9.52			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>I/EI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	4.55	1.89	6.15	0.00	
2 = Disagree	29.55	30.19	41.54	20.00	
3 = Don't know	18.18	15.09	16.92	20.00	
4 = Agree	45.45	47.17	30.77	45.00	
5 = Strongly agree	2.27	5.66	4.62	15.00	
Total	44	53	65	60	222

Frequency missing: 36

These results indicate that no pre-test sensitisation has occurred (Chi Sq = 1.1) Following the educational programme a significant shift towards more desirable attitudes occurred (O R = 0.46,95% C I range = 0.26 to 0.82 Chi Sq = 7.2, p = 0.0071). The descriptive statistics however reveal that even after the educational programme, many of the respondents agreed with the statement as given, which negate the somewhat positive picture painted by the analysis. More education and more in-depth discussion and debate would help to address condemnatory belief statements such as are given in the above item.

Q 46. There is a significant danger of getting AIDS from a blood transfusion in this country.

<u>Pre-educ. Responses:</u>	<u>I/EI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree					
2 = Disagree	12.70	15.87			
3 = Don't know	9.52	1.59			
4 = Agree	61.90	71.43			
5 = Strongly agree	15.87	11.11			
Total	63	63			126
Frequency missing:	2				

<u>Pre-educ. Responses:</u>	<u>I/EI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	2.27	0.00	6.15	0.00	
2 = Disagree	36.36	15.09	30.77	3.33	
3 = Don't know	9.09	13.21	13.85	16.67	
4 = Agree	50.00	58.49	44.62	65.00	
5 = Strongly agree	2.27	13.21	4.62	15.00	
Total	44	53	65	60	222
Frequency missing:	36				

These results indicate that no pre-test sensitisation has occurred (Chi Sq = 0.73) Following the educational programme a highly significant shift towards more desirable attitudes occurred (O R = 0.30, 95% C I range = 0.16 to 0.55, Chi Sq = 16.0, p = 0.00001). Although a significant shift has occurred, the descriptive statistics reveal that a high percentage of participants still believe that it is possible to pick up AIDS from a blood transfusion in this country. It is extremely important therefore that a follow up programme be held, in which erroneous beliefs such as the above are addressed.

Q 47. In order to protect the public, everyone should be required to have a blood test to determine if they have been exposed to AIDS.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	1.59	0.00			
2 = Disagree	7.94	11.11			
3 = Don't know	1.59	3.17			
4 = Agree	69.84	66.67			
5 = Strongly agree	19.05	19.05			
Total	63	63			126

Frequency missing: 2

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
1 = Strongly disagree	2.27	0.00	4.62	1.67	
2 = Disagree	9.09	11.32	13.85	3.33	
3 = Don't know	2.27	1.89	3.08	8.33	
4 = Agree	75.00	75.47	63.08	68.33	
5 = Strongly agree	11.38	11.32	15.38	18.33	
Total	44	53	65	60	222

Frequency missing: 36

These results indicate that no pre-test sensitisation has occurred (Chi Sq = 0.07) and that the programme did not significantly alter respondents attitudes on this item ((O R = 0.60, 95% C I range = 0.28 to 1.3, Chi Sq =1.7,p = 0.19). If anything the descriptive statistics reveal that more respondents agreed with the statement than before. Since the educational programme did not address the issue of mandatory screening and the very valid arguments against such a step, it is doubtful whether respondents had thought through the issues for and against such a procedure. Our experience has indicated that it is necessary to alert people to the pro's and cons inherent in the debate for and against mandatory screening in order to stimulate discussion and subsequent decision making. It would be necessary therefore to have a follow up programme in which the complex issues surrounding testing, insurance , mandatory screening, ethics and legal issues are aired and debated so that participants can give an opinion on this item.

5.7: CONCLUSION:

Although the questionnaire did not fully reflect the educational programme content it nevertheless revealed participants beliefs and opinions on the issues raised. The questionnaire was useful to the extent that the results obtained, both pre and post education, confirmed and supported the results of international surveys and research into the knowledge and opinions held by individuals about HIV infection and AIDS throughout the America's, Europe and Africa (Di Clemente, Zorn & Temoshok, 1986; Feldman et al., 1986; Kotarba, cited in Feldman et al., 1986; O'Donnell et al., 1987; Population reports : AIDS Education, 1989). In many of these reports the same kinds of controversial issues and reactions regarding casual transmission and general factual information on AIDS have been identified prior to the introduction of educational programmes. Furthermore the trend towards improved knowledge about AIDS following educational campaigns is also supported in the above-mentioned literature.

This research also supported the international and local research which indicates that following a well targeted, culturally appropriate educational programme on AIDS, accurate knowledge on the mechanisms of transmission occurs. In addition misinformation and the myths associated with the disease are also removed after such a programme (Allen et al., 1990; Aggleton & Warwick, 1988; Jinadu, 1990; Kelly et al., 1989; Ngugi et al., 1990; Riesenber, 1986; Samuel & Boyle, 1989; Sherr, Christie, Sher & Metz, 1989; Sherr, 1987; Sherr, 1989; Sonnex, 1987; Wilson, Chiroro, Lavelle, & Mutero, 1989).

Following such an educational programme, a general lessening of fear and a more tolerant and non discriminatory attitude towards people with AIDS has been reported as individuals realize that the disease is not transmissible through normal everyday social contact (Feldman et al., 1986; Klimes, Catalan, Bond, & Day, 1989; Sherr et al., 1989).

The methodology employed to evaluate the programme seems to have been appropriate. Using the Solomon four - group design in conjunction with an item analysis of the data, yielded the type of information required about the programme. Particular strengths and weaknesses of the programme were identified and areas and shortcomings not satisfactorily addressed were pinpointed. In particular, the model was usefully employed in that it related directly to the Solomon four group design. By using a 2 step approach, it examined the issue of pre-test sensitisation and allowed an analysis of groups 1 and 2 versus groups 3 and 4 wherever sensitisation was present. In the absence of pre-test sensitisation the data for all four groups was combined into an overall analysis. This design therefore is an extremely powerful tool to apply to field research such as this and can be used in a variety of settings. Had an Anova been employed (Braver and Braver, 1988) to evaluate the programme overall, the shortcomings of the programme would have been obscured. The descriptive statistics were particularly helpful in examining changes in knowledge and opinions following education. These results will next be compared to results obtained from a 2 month follow up study in which all of the knowledge items and certain of the attitude items from the questionnaire were re-administered to 67 participants from the original sample (treatment groups 1 and 3), who had received education. This was done to

determine if the increases in knowledge and the shift towards more desirable attitudinal statements would endure over a longer time period.

CHAPTER 6

6.1: RATIONALE FOR THE TWO MONTH FOLLOW UP INTERVIEWS

To examine the effects of the programme over time, and to ascertain what respondents had remembered, forgotten or possibly had been prompted to find out for themselves, repeat interviews approximately 2 months after the programme evaluation data collection, were conducted. This follow up study was not part of the original design however and was not undertaken with rigorous scientific precision. It was an ad hoc attempt to find out what respondents had remembered after two months and formed part of an exploratory pilot study to determine how respondents had perceived the educators and the educational programme content.

6.2: METHOD

6.2.1 SUBJECTS:

Whilst every effort was made to include all the subjects from the original sample who had received AIDS education (groups 1 and 3), it was not always possible. The major reasons being, staff were either on leave (vacation or sick) or had resigned. Several of the original sample refused to take part in the follow up research again, the main reasons being that having received AIDS education, and having had the repeat interview (Group 1) they now saw no reason to be interviewed for a third time.

A total of 67 participants from the original sample of 128, who had received AIDS education, were available for the 2 month follow up re-interview, and as such constitute a self selected sample. Thirty two subjects from group 1 were interviewed a third time and 35 subjects from group 3 a second time.

6.2.2 QUESTIONNAIRE:

All of the knowledge questions and items 26, 27, 28, 32, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46 and 47, of the personal opinion/attitude questions from the original (adapted version of Temoshok's 1988) questionnaire were re-administered. Items 29, 30, 31, 33, and 34 were not re-administered on the basis that these items had not been directly addressed in the educational programme. In retrospect this may not have been the correct thing to do, since this was a subjective decision based on an inaccurate assessment of the usefulness of certain items in relation to the educational programme and not on a careful analysis of the post test data which had not been fully analysed at the time.

6.2.3 PROCEDURE:

Each interview proceeded in exactly the same manner as before. Participants who had agreed to be re-interviewed were given permission by the store manager to participate in the interviews.

6.3: ANALYSIS OF THE DATA:

Once again the data for the knowledge questions was reduced to two categories, namely "person knows the correct answer" and "person doesn't know the correct answer". "Don't know" once again was attributed to "person doesn't know the correct answer" and "yes" and "no" were attributed depending on what was the correct answer. Similarly for the personal opinion items, "strongly disagree" and "disagree" in one category and "strongly agree" and "agree" in the other. "Don't know" once again was attributed to the category which represented the correct answer (refer chapter 5).

The analysis proceeded in the following way:

- 1: The data from the 2 month questionnaire evaluation of the 32 subjects in group 1 was compared with the data from the original pre education data for the same subjects, i.e. a repeated measures test on matched samples.
- 2: The data from the 2 month questionnaire evaluation of the 35 subjects in group 3 was compared with the data from the original pretest data of the 64 subjects in group 2 (the control group in the pre-test / post-test component of the Solomon four group design). It was decided that by comparing the responses of 35 participants who had received education with nearly double the number of controls, the statistical reliability of the data obtained would be enhanced.

All the data were then combined in an analysis to determine pre-test sensitisation.

(The interaction chi square statistic in Table 14: refer to the first column).

If the chi square statistic was greater than 2, this was regarded as evidence for interaction or pre-test sensitisation. The data was then analysed thereafter as two separate samples, (i.e. a matched sample in line one of an item on Table 14, and an unmatched sample in line two of the same item on the table). The treatment effect computed from the matched sample would then reflect pre-test sensitisation, while the unmatched sample would allow one to estimate the treatment effect without pre-test sensitisation.

The odds ratio's in both of these instances would reflect the odd's ratio of matched binary data and the odd's ratio of unmatched binary data.

If the chi square statistic was smaller than two, there is little evidence for pre-test sensitisation and the treatment main effect was computed by analysing the combined data by means of a maximum likelihood estimation technique. The odd's ratio in this instance then reflects the strength of the treatment main effect.

6.4: RESULTS AND DISCUSSION

(Refer summary statistics, table 14, ch.6).

The results suggest that the improvement in knowledge particularly in terms of the myths (i.e. crockery, handshaking, mosquitoes and sneezing) surrounding casual

transmission of (HIV) AIDS, has been maintained for at least the 2 month period following the educational programme. In this regard the follow up results indicate that a significant improvement in knowledge still persists as evidenced in the responses to items 14 (O.R.= 5.6, $p = .001$, unmatched sample), 16 (O.R. = 8.8, $p = <.00005$), 22 (O.R. = 20.1, $p = <.00005$) and 24 (O.R. = 3.7, $p = .00005$). Interestingly the strength of the effect on item 24 (mosquito question) has decreased from O.R.= 16.3 in the immediate post evaluation to 3.7. It will be recalled that immediately post evaluation, the strength of the educative effect on this item was not as marked as on other items relating to the "myths" about transmission.

With regard to the factual information on AIDS (items 10,11,12, 17, 18, 19, 21, 23, 25 (refer summary of questionnaire items, ch. 3) the 2 month follow up analysis reveals that on item 10, a slightly stronger educational effect is apparent than previously (O.R. = 4, $p = .0013$). In item 12, the pre-sensitisation effect (Chi-sq = 3.06) reveals interaction. No treatment / educational effect is evident however in the unmatched sample, which reflects the scores from group 3 which had education versus group 2 which did not. This question, as noted previously (refer appendix 2) may have caused confusion with the word "semen" being understood by group 1 (because they had had their confusion cleared up in the educational programme following the administration of the pre-test questionnaire), while participants in group 3 have not had misunderstandings clarified. This however remains conjecture.

No firm conclusions can be drawn unless one asks the participants whether they believe the word "semen" refers to "male sexual fluid" or "seamen".

In item 15 a pre-test sensitisation effect is evident ($\chi^2 = 10.01$) while the treatment main effect (for the unmatched sample) reveals that the educative effect dropped slightly and is no longer significant ($\chi^2 = 3.1$; $p = .078$). Similarly items 17 and 18 are no longer significant ($\chi^2 = 0.76$; $p = .38$), and ($\chi^2 = 2.8$; $p = .093$).

In the responses to the 2 items concerning transmission via blood and blood products and via needles, (Q's.13 and 20) in which a significant negative effect of education had occurred post education, the 2 month follow up statistics reveal that on item 13 respondents still have inaccurate information although the significance decreased to $p = .010$, and on item 20 a pre-test sensitisation effect is still evident ($\chi^2 = 4.33$) while the same significantly negative effect remains ($\chi^2 = 12.6$; $p = .0004$). Thus misinformation still persists after 2 months indicating that this aspect of the educational programme needs careful re-adjustment. In addition it appears that participants are still confused about being infected with the virus without knowing it (item 21, which is now significant, $\chi^2 = 5.7$; $p = .017$).

The general trend therefore, on the knowledge items, is still in the same direction as the immediate post educational programme. This suggests that the programme has been reasonably effective and that participants have absorbed some but not all of the factual information presented to them in a 1 hour programme on AIDS.

TABLE 13: QUESTIONNAIRE ITEMS:

KNOWLEDGE ABOUT AIDS

Would you answer yes or no to the following statements?

- Q 10. A person can have the AIDS virus without being or looking sick.
- Q 11. A person can transmit the AIDS virus without being or looking sick.
- Q 12. The AIDS virus can be passed on through semen.
- Q 13. The AIDS virus can be passed on through contaminated blood or blood products.
- Q 14. You can catch AIDS like you catch a cold from someone coughing or sneezing because the AIDS virus can be carried in the air.
- Q 15. If a woman with AIDS gets pregnant, her baby is likely to develop AIDS.
- Q 16. AIDS can be passed on by shaking hands with someone who has AIDS.
- Q 17. Being monogamous, i.e. in a one partner relationship (with a monogamous partner) reduces the risk of getting AIDS.
- Q 18. Always using condoms (FL's) reduces the risk of getting AIDS.
- Q 19. At present, there is no cure for AIDS.
- Q 20. A person can get AIDS sharing intravenous needles with someone who has the virus.
- Q 21. A person can be infected with the AIDS virus without knowing it.
- Q 22. A person can get AIDS by sharing drinking glasses, forks or spoons with someone who has the virus.
- Q 23. Women with the AIDS virus can transmit it to their male sexual partners.
- Q 24. Mosquitoes can transmit the AIDS virus.
- Q 25. Men with the AIDS virus can transmit it to their female sexual partners.

TABLE 14: STATISTICS FOR KNOWLEDGE QUESTIONS:

Qu	Chi-sq	P	β	STE	OR	95% CI	Chi-sq	P
10	0.04	0.84	1.4	0.48	4.0	1.6 -10.4	10.3	0.0013
11	0.12	0.73	0.68	0.43	2.0	0.85 - 4.6	2.6	0.11
12	3.06	0.080			4.0	0.64 -49		
			-0.20	0.54	0.82	0.28 - 2.4	0.14	0.71
13	0.02	0.89	-1.3	0.55	0.27	0.093 - 0.80	6.6	0.010
14	4.56	0.033			∞	4.0 - ∞		
			1.7	0.47	5.6	2.1 -13.8	14.7	0.001
15	10.01	0.0016			∞	1.2 - ∞		
			-1.1	0.63	0.33	0.097 - 1.1	3.1	0.078
16	0.33	0.56	2.2	0.50	8.8	3.4 -24.0	28.0	<0.00005
17	1.63	0.20	0.36	0.41	1.4	0.64 - 3.2	0.76	0.38
18	0.02	0.88	0.80	0.50	2.2	0.84 - 5.9	2.8	0.093
19	1.11	0.29	0.077	0.32	1.1	0.58 - 2.0	0.06	0.81
20	4.33	0.037			1.0	0.053 -19		1.0
			-2.9	1.1	0.052	0.0064- 0.48	12.6	0.0004
21	2.28	0.13			1.0	0.11 - 9.0		1.0
			-1.6	0.73	0.19	0.048 - 0.84	5.7	0.017
22	1.97	0.16	3.0	0.56	20.1	6.7 -60.2	52.4	<0.00005
23	4.58	0.032			∞	1.2 - ∞		
			-0.21	0.94	0.81	0.13 - 5.1	0.05	0.83
24	0.72	0.40	1.3	0.39	3.7	1.7 - 7.9	12.0	0.00005
25	0.10	0.75	-0.31	1.02	0.73	0.099 - 5.4	0.09	0.76

Note: In the notations from left to right across the top of the table:

Qu = Questionnaire item number

Chi-sq = Chi-square statistic If > 2 then pre-test sensitisation effect has occurred.

p = probability level ($\alpha = 0.05$) of the chi-sq.

β = estimation of the coefficient in the model.

STE = Standard error of estimate.

OR = Odd's ratio.

95%CI = 95% Confidence interval or level.

p = probability level ($\alpha = 0.05$) of the chi-sq.

Turning to the attitude/personal opinion section of the questionnaire (refer Table 16, chapter 6), the 2 month follow up results suggest that the overall shift towards more desirable attitudes towards people with HIV infection and AIDS, and in issues related to testing and general discrimination, have persisted over time. The strength of the positive shift on item 26 (question regarding children with AIDS being allowed to go to school) has increased over time (O.R. post programme 3.7 and at 2 months, 9.3, p still = < .00005). Items 27 and 28 (questions pertaining to discrimination in the workplace) remain virtually unchanged with O.R. = 0.26, p = .00004 and O.R. 0.19, p = <.00005, while on item 32 (discrimination against AIDS patients) a significantly more desirable attitude still holds O.R. = 0.44, p = .021.

Similarly on items 41 (p = < .00005), 44 (p = .0005), 45 (p = .0006 and 46 (p = <.00005) a shift towards more desirable attitudes has been maintained with the shift increasing in strength on items 44 (O.R.= 0.18, previously 0.47), 45 (O.R.= 0.29, previously 0.46), and 46 (O.R = 0.15, previously 0.30). Interestingly previously non-significant items 35 (question relating to testing of all new immigrants), 38 (testing for insurance purposes) and 47 (question regarding mandatory screening) now reveals significant shifts towards more enlightened attitudes on these issues, with item 35 (O.R.= 0.029, p = <.00005), item 38 (O.R. = 0.42, p = .021) and item 47 (O.R.= 0.33, p = .0076), respectively. These positive shifts towards non discriminatory attitudes are in line with the WHO recommendations regarding the abolition of mandatory screening for whatever purpose. These results suggest that these participants had thought about these issues.

Overall the results from this section of the questionnaire indicate that the educative effect of the programme on certain items persisted over a 2 month period. It must be borne in mind however that this was a small, self selected sample. These participants were motivated to take part again and were possibly more highly motivated (and educated) than their counterparts who had refused. An analysis of the responses of the dropouts would need to be conducted to be able to conclude with absolute confidence that the educational programme was highly successful. Nevertheless the results look promising.

TABLE 15: QUESTIONNAIRE ITEMS:

PERSONAL OPINIONS ABOUT AIDS

How do you feel about the following statements?

Please indicate on a scale of 1 - 5, whether you:

1 = strongly disagree

2 = disagree

3 = don't know

4 = agree

5 = strongly agree

- Q 26. Children who have the AIDS virus should be allowed to go to school with other children.
- Q 27. Employers should be allowed to fire workers who have the AIDS virus.
- Q 28. Co-workers should be allowed to refuse to work near someone who has the AIDS virus.
- Q 29. AIDS education programmes should be required for teenagers (age 13-19).
- Q 30. AIDS education programmes should be required for children age 12 and under.
- Q 31. Doctors should notify spouses and sexual partners when a patient is found to have the AIDS virus.
- Q 32. There should be laws to prevent discrimination against AIDS patients.
- Q 33. Persons at risk for AIDS should be encouraged to take the AIDS test.
- Q 34. Persons at risk for AIDS should be required to take the AIDS test.
- Q 35. All new immigrants (persons coming into a country) should be tested for AIDS.
- Q 36. Black migrant workers from other African countries should be deported if they are found to have the AIDS virus.
- Q 37. Ambulance drivers, police and firemen should not be expected to assist people they believe have the AIDS virus.
- Q 38. Insurance companies should be allowed to require antibody tests of persons applying for insurance.
- Q 39. AIDS is more easily transmitted than we are currently being told.
- Q 40. There is some information about AIDS that is being withheld from the general public.
- Q 41. People with AIDS should not be allowed to handle food in restaurants.
- Q 42. AIDS is God's punishment for immorality.
- Q 43. The high cost of treating AIDS is unfair to people suffering from other diseases, e.g. TB.
- Q 44. People with AIDS should be confined in hospitals - against their wills, if necessary.
- Q 45. Homosexuals should be quarantined (strictly isolated, excluded or detained) to prevent the spread of AIDS.
- Q 46. There is a significant danger of getting AIDS from a blood transfusion in this country.
- Q 47. In order to protect the public, everyone should be required to have a blood test to determine if they have been exposed to AIDS.

TABLE 16: STATISTICS FOR ATTITUDE QUESTIONS:

Qu	Chi-sq	P	β	STE	OR	95% CI	Chi-sq	P
26	0.11	0.74	2.23	0.43	9.3	4.0 -21.6	36.1	<0.00005
27*	0.02	0.90	-1.4	0.42	0.26	0.11 - 0.56	12.6	0.0004
28*	0.05	0.81	-1.7	0.39	0.19	0.085 - 0.39	21.6	<0.00005
32	0.04	0.85	-0.83	0.36	0.44	0.22 - 0.88	5.4	0.021
35*	0.30	0.58	-3.6	1.1	0.029	0.0032- 0.24	25.2	<0.00005
36*	3.72	0.054			0.077	0 - 0.51		
			-0.72	0.44	0.49	0.21 - 1.2	2.7	0.099
37*	0.26	0.61	-0.42	0.39	0.66	0.31 - 1.4	1.2	0.27
38*	1.26	0.26	-0.87	0.38	0.42	0.20 - 0.88	5.4	0.021
39*	0.23	0.63	0.48	0.35	1.6	0.81 - 3.2	1.9	0.16
40*	1.01	0.31	-0.41	0.35	0.67	0.33 - 1.3	1.3	0.25
41*	2.60	0.11			0	0 - 0.27		
			-2.3	0.49	0.098	0.038 - 0.26	25.4	<0.00005
42*	0.32	0.57	-0.54	0.39	0.58	0.27 - 1.3	2.0	0.16
43*	3.62	0.57			0.22	0.026 - 1.1		
			0.087	0.45	1.1	0.45 - 2.6	0.04	0.85
44*	2.27	0.13			0	0 - 0.59		
			-1.7	0.55	0.18	0.062 - 0.54	12.2	0.0005
45*	0.36	0.55	-1.2	0.38	0.29	0.14 - 0.63	11.7	0.0006
46*	0.13	0.72	-1.9	0.43	0.15	0.064 - 0.35	22.2	<0.00005
47*	0.04	0.83	-1.1	0.43	0.33	0.14 - 0.77	7.1	0.0076

Note: In the notations from left to right across the top of the table:

Qu = Questionnaire item number

Chi-sq = Chi-square statistic If > 2 then pre-test sensitisation effect has occurred.

p = probability level ($\alpha = 0.05$) of the chi-sq.

β = estimation of the coefficient in the model.

STE = Standard error of estimate.

OR = Odd's ratio.

95%CI = 95% Confidence interval or level.

p = probability level ($\alpha = 0.05$) of the chi-sq.

CHAPTER 7:

OVERALL DISCUSSION RECOMMENDATIONS AND CONCLUSION:

The aim of this research was to evaluate the suitability and effectiveness of an in-house, small group, 1 hour educational programme on AIDS, targeted at the Western Cape weekly paid labor force of a national supermarket chain in South Africa.

In terms of the aims and objectives which were set for this study (refer chapter 2):

The results of a pre and post questionnaire assessment of a randomly selected sample of workers receiving this educational programme, suggest that this programme was effective in addressing the myths surrounding casual transmission of the virus causing AIDS and that an change in general factual information on AIDS occurred. However in the light of our current (1990) understanding of the meanings attached to the language of AIDS these results do not necessarily imply that the change was always in the desired direction. In addition the results of the personal opinion items on the questionnaire suggest that participants, having had their fears of casual transmission allayed, experienced a shift in their attitudes towards people infected with the virus and in matters regarding transmission of the virus.

These positive effects of the educational programme appear to have been maintained over a 2 month period.

A true evaluation of the personal opinion section of the questionnaire has not been possible. The questionnaire having been adapted from an American protocol was not specifically designed to tap the programme. Nevertheless it was possible to extrapolate ideas from the educational programme, in the section dealing with the company policy on AIDS, and link them up with the general wording of some of the items and examine participants responses following the programme. In terms of the responses to the questionnaire, it would appear that participants had integrated their factual knowledge about casual transmission of the virus, as only those questions which related to the factual content of the programme, actually revealed a positive shift in personal opinions.

The results of the 2 month follow up study seem to indicate that those participants who were followed up, had adopted a more enlightened attitude towards compulsory testing. No firm conclusions can be made regarding this aspect though as this self selected sample was small and not representative of the whole sample under study. Furthermore, whether these participants had thought about the issues surrounding mandatory screening following the programme or whether these results are simply the result of exposure to other sources of information was not examined.

It must be remembered that following the completion of the educational programme and post education data collection, new literature on popular misconceptions about the metaphors and language of AIDS became available. As mentioned in the introduction and in chapter 3.6 the work of Aggleton et al (1989b) and Warwick et al (1988), has recently highlighted the misuse, misinformation and subsequent popular misconceptions surrounding the words "AIDS test and AIDS virus" (refer ch.1 footnotes 2 and 3). That use of this inaccurate terminology in the Temoshok (1987) questionnaire, was accepted without question at the time this research was

undertaken, highlights the many difficulties faced by scientists and social science researchers when undertaking projects involving such a rapidly evolving knowledge base. In retrospect it is now apparent that terminology in questionnaires referring to "Aids tests" rather than "HIV antibody tests" covertly suggested to questionnaire respondents that there was a test for the virus itself. Similarly items suggesting that "AIDS" (rather than the virus) could be caught via sneezes, handshakes or crockery and cutlery or passed on through blood transfusions may have unwittingly promoted misinformation amongst the supermarket employees receiving education. The educational programme too in using the terminology "AIDS can be passed on by" (refer Appendix 2 section B 2) reinforced this notion that it is "AIDS" that is transmitted and not the human immunodeficiency virus. This misinformation however continues to be reinforced by its use in the popular press and news media despite current (1990) attempts by AIDS educators to rectify it.

The results of this research, given that the questionnaire and sections of the educational programme unwittingly employed misleading terminology, nevertheless confirm and support local literature and international surveys and research into the knowledge and opinions held by individuals about HIV infection and AIDS throughout the America's, Europe and Africa. The results also support the international and local research which indicates that following a well targeted, culturally appropriate educational programme on AIDS, myths and misinformation about casual transmission can be removed and that accurate knowledge on the mechanisms of transmission of the virus (unknowingly and questionably referred to in this research as the AIDS virus and AIDS) can improve. Following such an educational programme, a general lessening of fear and a more tolerant and non discriminatory attitude towards people with AIDS is usually evident. It must be noted though that misinformation can also result from inadequate explanations of mechanisms of transmission.

Conducting this research in 16 busy supermarkets however was problematic. Although the research team were given every assistance and encouragement by the management and most of the supervisory staff at the supermarkets, interviewers had to overcome worker suspicion, avoidance on some occasions, impatience and intolerance from peripheral staff who were not fully conversant with the aims of the research, non compliance from some of the selected participants who changed their minds after agreeing to participate, certain store management arbitrarily switching participants to facilitate efficient trading and unsuitable interviewing facilities which were often quite a distance from the shop floor.

These on site problems in conducting research in the workplace however must be expected. It would be unrealistic to expect the management of busy supermarkets to close a store so that researchers can conduct interviews under ideal conditions.

This research has proved to be pioneering in that:

- 1: a) It employed a powerful research methodology with which to evaluate the educational programme. The model used to analyse the data related closely to the Solomon four group design. Using a 2 step approach, the issue of pre-test sensitisation was addressed and catered for. No firm evidence was found however, to support the authors original belief that the pre-test questionnaire becomes a valuable educative source itself.
- b) It reviewed a cross section of up to date (1990) information pertaining to AIDS and

AIDS education;

- c) It examined an AIDS educational programme in the workplace. This aspect is seminal, particularly as HIV infection is known to infect individuals in the age range 17 to approximately 55. This is the sexually active, economically productive group of any society. HIV infection is also known to disproportionately affect the lower socio-economic group (i.e. the working class) in any society. It also disproportionately affects the marginalized individuals in society, be they homeless, homosexual, drug users or prostitutes. HIV infection therefore carries a social stigma, being perceived as a disease that happens to others. Because working class individuals have lower educational levels, lower literacy levels and lower financial status, they also have less access to potential information on AIDS via radio, television, popular magazines where factual information on AIDS is usually presented and specifically designed AIDS educational materials.

This research looked at educational strategies on AIDS, in particular at participatory small group education, and found that this strategy appears suited to addressing the myths and misinformation which are prevalent amongst this population of working class people. Although the educational programme operated from an information giving framework, it attempted to personalize the messages contained within the programme and make them relevant for the community at which it was targeted. Using the principles of participatory styles of educating from the outset of the programme, in an attempt to put participants at ease, facilitated discussion certainly in a few of the programmes that were observed in situ (refer next page). However the programme fell short of the true aims of the participatory approach which is the basis of the self - empowerment model,

in that it did not allow for participants to become involved with the material over an extended period of time, which is usually required in such a programme. Even a one day workshop is useful in enabling participants to get to grips with the issues, one hour however, is far from ideal.

It must be noted, that although the educational programme in the supermarket occurred in small group settings as originally planned, the quality of the delivery of two of the four educators, who were observed actually conducting the programme, seemed to be variable.

In this regard and bearing in mind that the following observations were not examined systematically as part of this research, for completeness and to alert the reader to the conditions operative in the actual educational programme, the following observations on the educational programme are included.

During the actual in house education programmes, 2 social work students (who were involved in a pilot study investigating the participants viewpoints of the programme and educators), observed two of the four educators delivering the programme in 5 of the 8 stores in which the educational programme took place.

As reported by the interviewers the educator styles provided a very interesting contrast. The first educator (A) conducted the programme in the stores as a discussion forum. She constantly probed the audience and asked many questions. This seemed to confirm what Zimbardo et al. (1977) has noted. He claims that an effective persuader should use eye contact, individuate the person by using names and reinforce specific behaviors explicitly and immediately by nodding, saying 'good' and so on. This particular educator apparently satisfied all of the above criteria.

She maintained contact with the respondents throughout the programme by encouraging them to express their views, listening attentively and commenting positively no matter how absurd the opinion. She made effective use of a flip-chart defining exactly what AIDS was in a very simplistic, diagrammatical way.

The second educator (B) however approached the programme in her stores in an entirely different way. She encouraged very little group discussion, and asked fewer questions. She maintained eye contact but did not individualize members by the use of their names. She presented the information in an "authoritative manner" in lecture format, constantly expanded on the factual information with very long, drawn out examples, did not make use of the flip chart and only encouraged questions on conclusion of the programme. This style created a very serious atmosphere.

Also noted was the difference between groups made up of female members only and those with a mixed (male and female) audience. The presence of both sexes seemed to disturb and inhibit some of the members. The women were less responsive when placed in a mixed group and the men seemed to feel uncomfortable and reacted by joking and causing a general disturbance. As a result, the mixed groups did not ask and answer questions as freely as those who were in single sex groups. The younger women were less interested and were especially distracted by some of the less attentive males.

From the observations noted, it would appear that the small group discussion-orientated programme seemed to be more effective than one presented as a lecture. Participants were more enthusiastic and interested when involved in group discussion. These observations also

appear to confirm the literature on participatory small group education (Aggleton et al. 1989c; Gatherer, 1979; Heckman et al., 1990; Hira et al., 1990; Joinet et al., 1990; Kelly et al., 1990; Moses et al., 1990; Mwilu et al., 1990; Ngugi et al., 1990; Sabatier, 1988) and point to the importance of educating the "trainers" in persuasive communication techniques. This had not been done in the original "train the trainer" workshop.

One of the problems noted by all four educators, was the degree to which they experienced "burn out" delivering the same programme 4 times a day, almost every day of the week. They reported having to work harder at maintaining their own enthusiasm levels as the programmes increased. This aspect of an educational programme often goes unnoticed and is not catered for in the original programme planning. It represents a real threat to the success of a programme however as styles and content could differ quite markedly from the beginning to the end of a programme.

In spite of the reported variability in programme delivery, the questionnaire results of the educational programme suggest that the programme was effective to a certain degree and that these positive changes persisted over a 2 month period.

RECOMMENDATIONS:

In the light of the above, it is recommended therefore, that the existing programme content be adjusted and improved especially regarding information concerning:

- the differences between HIV disease, (early, middle and late stage), and the problems associated with conflating the terms HIV and AIDS.
- the remote possibility of transmission of HIV via blood transfusions in South Africa today. It is important however, to alert employees to the real possibility of this increasing in the future because of rising levels of infectivity in the general population which would increase the likelihood of donated HIV positive blood being in the window period and hence not identifiable as positive on the current antibody tests.
- the importance of avoiding blood and other body fluids, i.e. contaminated blood,
- the meaning of the word "semen",
- the latest information regarding perinatal transmission,
- the latest information regarding accurate condom usage and that educators check that all participants in educational programmes clearly understand the material being presented.

In addition it is recommended that videos form part of an ongoing educational endeavour and that more informal discussions, in which people are encouraged to air their own opinions, be held in the company. It is also important that women of child bearing age be alerted to the complex issues surrounding the transmission of HIV from mother to child.

It is particularly important that appropriate, culturally specific, well targeted AIDS educational

programmes be conducted during working hours in the workplace. In this way, educators (either from within or outside of an organization) will be able to reach large numbers of working class people, to whom they might normally not have access.

*

It is suggested however, that future educational programmes in the workplace be closely monitored in terms of the content delivered, the style of delivery and the ease with which an educational programmes on AIDS is accepted and facilitated by management. Many of the problems encountered during the programmes (and the interviews) could have been avoided had management closed shop for specific periods to enable the programme (and subsequent interviews) to proceed without interruption. Whilst this may seem to be bad business practice, certainly initially it may ultimately be the most cost effective strategy, since it would send a clear message to workers that the management was concerned enough about the spread of the disease to warrant such a drastic step. A comprehensive campaign on AIDS prevention could thus be ensured without the attendant interruptions and disruptions of the shop floor.

In conclusion it is important to remember that the above findings say nothing about the behavioral change of the sample and it is thus recommended that further research be conducted to ascertain whether behavioral change followed these small group education programmes. Further research also needs to examine the participants viewpoints of the programme and the educators delivering it. Such a follow up study, could reveal worker dissatisfaction in the type and content of the programme, which would thus necessitate a greater involvement from the workforce in the design of culturally appropriate education about HIV infection and AIDS.

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APPENDIX 1:

APPENDIX 1:

RESULTS: DEMOGRAPHIC DATA.

To avoid confusion the numbers and percentages of participants for both the pre - educational responses and post educational responses, are given in the following Tables.

Demographic data (Sex, Language, Occupation and Age) of the sample are given in table. (Refer to results, Chapter 5) for an analysis of this data).

TABLE 17:

Frequency
Column percentage

SEX

<u>Pre-educ. Responses:</u>	<u>I %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
Male	32 50.79	33 52.38	0	0	65
Female	31 49.29	30 47.62	0	0	61
Total	63	63	0	0	126
Frequency missing:	132				
<u>Post-educ. Responses:</u>	<u>I %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
Male	24 54.55	25 47.17	33 52.38	29 49.15	111
Female	20 45.45	28 52.83	30 47.62	30 50.85	108
Total	44	53	63	59	219
Frequency missing:	39				

LANGUAGE

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
English	6 9.52	4 6.35	0	0	10
Afrikaans	49 77.78	54 85.71	0	0	103
Bilingual	3 4.76	2 3.17	0	0	5
Xhosa	5 7.94	3 4.76	0	0	8
Total	63	63	0	0	126
Frequency missing:	132				

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
English	5 11.36	3 5.66	7 10.94	8 13.33	23
Afrikaans	32 72.73	44 83.02	48 75	46 76.67	170
Bilingual	1 2.27	2 3.77	3 4.69	1 1.67	7
Xhosa	6 13.64	4 7.59	5 7.81	4 6.67	19
Other	0 0.00	0 0.00	1 1.56	1 1.67	2
Total	44	53	64	60	221
Frequency missing:	37				

OCCUPATION.

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
Till/Packer	18 28.57	22 35.48	0	0	40
Assistant	11 17.46	6 9.68	0	0	17
Storeman	5 7.94	4 6.45	0	0	9
Cashier	6 9.52	5 8.06	0	0	11
Cleaner	4 6.35	3 4.84	0	0	7
Merchandiser	6 9.52	1 1.61	0	0	7
Supervisor	3 4.76	5 8.06	0	0	8
Other	10 15.87	16 25.81	0	0	26
Total	63	62	0	0	125
Frequency missing:	133				

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
Till/Packer	13 29.55	20 38.46	25 39.68	29 48.33	87
Assistant	6 13.64	6 11.54	7 11.11	7 11.67	26
Storeman	3 6.82	3 5.77	3 4.76	2 3.33	11
Cashier	4 9.09	4 7.69	4 6.35	8 13.33	20
Cleaner	3 6.82	3 5.77	3 4.76	4 6.67	13
Merchandiser	4 9.09	0 0.00	1 1.59	1 1.67	6
Supervisor	2 4.55	4 7.69	10 15.87	3 5.00	19
Other	9 20.45	12 23.08	10 15.87	6 10.00	37
Total	44	52	63	60	219
Frequency missing:	39				

AGE

<u>Pre-educ. Responses:</u>	<u>I</u>	<u>II</u>	<u>EI</u>	<u>I</u>
Mean	28.7	31.6	.	.
Std	8.8	10.6	.	.
Minimum	19	19	.	.
Maximum	61	62	.	.
N	63	63	0	0
<u>Post-educ. Responses:</u>	<u>I</u>	<u>II</u>	<u>EI</u>	<u>I</u>
Mean	28.6	32.0	25.8	27.0
Std	7.5	11.1	7.1	6.2
Minimum	19	19	17	17
Maximum	49	62	54	46
N	44	53	65	60

APPENDIX 1:

RESULTS: DEMOGRAPHIC DATA. (Q1,2,3,4 and 5) of the data set are given in Table 17. (Refer to results, Chapter 5 for an analysis of this data).

TABLE 18:

Q 1. In South Africa, to which classified race group do you belong?

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
White	0.00	4.84			
Black	7.94	4.84			
Coloured	92.06	90.32			
Indian					
Asian					
Other					
Total	63	62			125
Frequency missing:	3				

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
White	0.00	5.66	3.13	0.00	
Black	14.29	7.55	7.81	10.00	
Coloured	80.95	86.79	89.06	88.03	
Indian	2.38	0.00	0.00	1.67	
Asian					
Other	2.38	0.00	0.00	0.00	
Total	42	53	64	60	219
Frequency missing:	39				

Q 2. How many years of education do you have?

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
To Std. 5	17.46	26.98			
To Std. 6	39.68	33.33			
To Std. 8	31.75	31.75			
To Std. 10	9.52	4.76			
Matric	1.59	1.59			
University	0.00	1.59			
College					
Training Centre					
Total	63	63			126
Frequency missing:	2				

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
To Std. 5	20.93	24.53	12.31	18.33	
To Std. 6	32.56	24.53	15.38	36.67	
To Std. 8	39.53	39.62	50.77	35.00	
To Std. 10	4.65	9.43	16.92	8.33	
Matric	2.33	0.00	4.62	1.67	
University	0.00	1.89	0.00	0.00	
College					
Training Centre					
Total	43	53	65	60	221
Frequency missing:	37				

Q 3. What is your approximate yearly salary or income?

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
Below R5000	39.68	53.97			
R5000-9999	50.79	42.86			
R10000-19999	3.17	3.17			
R20000-29999					
R30000-39999	6.35	0.00			
Total	63	63			126
Frequency missing:	2				

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
Below R5000	15.91	16.98	17.46	10.00	
R5000-9999	75.00	69.81	74.60	88.33	
R10000-19999	6.82	13.21	7.94	1.67	
R20000-29999	2.27	0.00	0.00	0.00	
R30000-39999					
Total	44	53	63	60	220
Frequency missing:	38				

Q 4. What church/faith do you belong to?

<u>Pre-educ. Responses:</u>		<u>I</u>	<u>E</u>	<u>E</u>	<u>I</u>	<u>Total</u>
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
1	Catholic	11.67	3.23			
2	Christian(Gen)	75.00	72.58			
3	Moslem/Malay	8.33	16.13			
4	Jehovah Witness	0.00	1.61			
5	Other	1.67	4.84			
6						
7		3.33	1.61			
Total		60	62			122
Frequency missing:		6				

<u>Post-educ. Responses:</u>		<u>I</u>	<u>E</u>	<u>E</u>	<u>I</u>	<u>Total</u>
		<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
1		19.51	3.77	9.38	10.00	
2		60.98	66.04	70.31	58.33	
3		9.76	18.87	3.13	11.67	
4		0.00	1.89	1.56	0.00	
5		7.32	7.55	15.63	20.00	
6						
7		2.44	1.89	0.00	0.00	
Total		41	53	64	60	218
Frequency missing:		40				

PERSONAL DETAILS

Q 5. What is your marital/relationship status?

<u>Pre-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
Married	48.39	47.62			
Separated					
Divorced	30.65	33.33			
Single	20.97	17.46			
Living with someone	0.00	1.59			
Total	62	63			125

Frequency missing: 3

<u>Post-educ. Responses:</u>	<u>IEI %</u>	<u>II %</u>	<u>EI %</u>	<u>I %</u>	<u>Total</u>
Married	41.86	47.17	30.77	41.67	
Separated	0.00	0.00	3.08	0.00	
Divorced	23.26	3.77	6.15	8.33	
Single	34.88	45.28	60.00	50.00	
Living with someone	0.00	3.77	0.00	0.00	
Total	43	53	65	60	221

Frequency missing: 37

APPENDIX 2:

APPENDIX 2:

GOALS OF THE THE INITIAL "TRAIN THE TRAINER WORKSHOP"

An intensive 3 day training programme for personnel and nursing staff of the South African supermarket chain was initiated and developed. The training programme, while not the object of study in this research, was an attempt to provide an organisation with the necessary skills to deal not only with AIDS education but also to equip them to competently handle AIDS related queries and problems arising within their workforce. The specific learning objectives of this training programme for personnel and nursing staff were to enable them

to:

- a) re-examine and evaluate their attitudes toward human sexuality, sexually transmitted illness, and AIDS.
- b) understand their role in AIDS prevention - education programmes in their own setting.
- c) understand and identify the up-to-date features of AIDS.
- d) understand and provide education on high risk and problematic behaviours.
- e) identify appropriate referral agencies.
- f) develop an in-house small group training programme on AIDS for the organisation's weekly paid labour force.
- g) design and implement on-going training for selected personnel.

This small group training programme (f) aimed at the weekly paid labour force of the Western Cape branches of the national supermarket chain, is the subject of the evaluation programme described in this thesis.

APPENDIX 2:

OUTLINE OF SMALL GROUP AIDS EDUCATIONAL PROGRAMME - 1989

NOTE: Although each educator was instructed to follow this programme outline and to ensure that all aspects of the programme were covered, they were to make every effort to provide a supportive and non - threatening environment and to encourage maximum participation by the programme attendees.

Males and Females separate

Attendance checked by store-clock numbers:

A. OPENING (+- 10 minutes)

(To relax audience and get participation)

1. Welcome group
2. Inform group that you are going to talk to them about AIDS.
3. Write the following on a flip chart :

<u>AIDS</u>			
<u>Acquired</u> You get it, not born with it (except with babies of mother who have AIDS)	<u>Immune</u> Body's defence system against any disease	<u>Deficiency</u> Severe shortage	<u>Syndrome</u> Cluster of symptoms that characterise the disease

4. Ask general questions like :
 - Has anyone heard of AIDS before?
 - How do you get it?
 - Who can get it?
5. Regardless of the level/quality of answers; inform the group that you will give the correct/true answers during the next half hour.

6.1 Do the "alcoholic through the door" exercise under the following headings :

- What does the person look like (let your group decide whether it's a "he" or a "she")
- What do you feel about him/her
- What would you like to do with him/her

NB : It is important to obtain immediate, spontaneous reactions from your group and to write them down on flip chart.

6.2 Repeat the same exercise with "AIDS - sufferer through the door".

B. FACTS ABOUT AIDS (+- 10 minutes)

1. What is AIDS ?

- Refer to first page of flip chart.
- If you have AIDS, the body has lost its natural ability to fight off diseases. (EXAMPLE: If one person in the room has a cold/TB etc, not everyone will get it, because your body fights it)
- If you have AIDS you get many diseases that you would not normally get, because your body can no longer fight them.
- AIDS is a new disease; discovered in the late 1970's.
- AIDS has various stages.

First Stage :

- Infection by the AIDS virus (the trainer can give a short explanation of what a virus is).
- The virus is known as HIV (Human Immuno Deficiency Virus)
- When one is infected by the AIDS virus, this can lead to a short spell of 'flu'.
- One can be infected by the virus for 7 years before getting AIDS, but once you are infected, you can pass it on.

Second Stage :

- Known as ARC (Aids related complex)
- One can develop ARC months or years after being infected by the HIV.
- Symptoms: skin rashes
weight loss
swollen lymph glands (neck, shoulders, groin)
diarrhoea
night sweats

Third Stage :

- Known as "full-blown" AIDS.
- The body has now lost all resistance to fight any diseases.
- Typical diseases with AIDS sufferers get:
 - pneumonia
 - kidney and liver infections
 - ulcers
 - lung diseases similar to TB
 - brain infections
 - skin cancer
 - cancer of the lymph glands
- Because the body cannot fight these diseases, the AIDS sufferer cannot be cured.
- All people with full-blown AIDS die.
- 106 people have died from AIDS in S.A. up to November 1988 (see official announcements for more detail)

2. How can one get AIDS?

- The AIDS virus lives in blood, semen and vagina.
- AIDS is passed on when an infected person has sex with another person.
- AIDS can be passed on from man to man (anal intercourse).
- AIDS can be passed on from man to woman (vaginal intercourse).
- AIDS can be passed on from woman to woman.
- AIDS can be passed on by an infected mother to her baby during pregnancy birth and breast feeding.
- AIDS can be passed on by drug users sharing needles.

3. Who can get AIDS?

- ANYBODY ! (Black or White, gay or straight).

4. How to avoid AIDS

- Avoid sex with strangers or with many different people, because they might have AIDS and you don't know it.
- Stick to one partner so that both can stay "virus-free".
- Always use a condom when having sex with someone you don't know well.
- If you are a woman, insist that the man uses a condom. (There will probably not be much time to demonstrate it here).

Remember: Even if the other person looks "clean" and "nice", you don't know with whom he/she has had sex before you.

- one does not get AIDS from :
 - kissing
 - sneezing
 - hugging
 - blood transfusions
 - mosquitoes
 - using the same eating utensils
 - toilets as an infected person.

5. Treatment of AIDS

- There is no cure for AIDS.
- Doctors can treat the symptoms and make you suffer less.

6. Tests for AIDS

- HIV - test :
 - This is a blood test which shows that you have the virus.
 - One has to be tested a few times in order to prove that you have the AIDS virus.
 - This test will only show that you have the AIDS virus 2 -12 weeks after infection (i.e. after you have had sex with an infected person).
- If your HIV test is positive you can pass AIDS onto another person or your unborn baby.
- One must not just be tested for AIDS. You must know what you are going to do if you test positive. You must discuss having an AIDS test with your nursing sister/P.O. before you have the test done. You must know that someone will help you if your test is positive for AIDS.

C. COMPANY POLICY

- If you have AIDS you will not be fired.
 - If you have AIDS you will be allowed to work as long as you are healthy.
 - If you have AIDS, speak to your nursing sister or Personnel Officer who will put you into contact with counsellors who will help you.
 - If you have AIDS you might want to tell people like:
 - family
 - friends
 - spouse
 - other sexual partners
- Your nursing sister/P.O. will help you with this.
- If you have AIDS, you don't have to tell your fellow workers.

2. Medical Aid

- If you contract AIDS after you've joined the Medical Aid, you will be covered by Medical Aid. (This includes all employees currently on the Medical Aid).
- If you already have AIDS when you join the Medical Aid, you will not be covered.

3. Salary Continuation (pension fund)

- If you contract AIDS after you've joined the Pension Fund and you become too sick to work, you will qualify for salary continuation.
- If you already have AIDS when you join the Pension Fund and you become too sick to work, you will NOT qualify for salary continuation.

D. REMEMBER (2 minutes)

- If you are a member of the Pension Fund and you die of AIDS whether you had AIDS before you joined the Pension Fund or got it only after you joined the Pension Fund, you qualify for Group Life Cover (Your family receives 4 X your annual salary).
- (The trainer can write this on the flip chart)
AIDS is for life - avoid it for living.
AIDS : Acquire the Infection by Doing Something (Sexually not Safe)
- Repeat "AIDS - sufferer through the door" exercise to see if there is now a greater understanding.

E. QUESTION TIME (10 minutes)

VIGS ONDERSOEK 1989

Hierdie ondersoek na kennis en opvattinge oor VIGS word deur 'n navorser by die Universiteit van Kaapstad gedoen. Probeer asseblief om elke vraag te beantwoord, selfs al is jy nie seker van jou antwoord nie. Ons stel belang in wat jou eie opvattinge is. Onthou dat hierdie ondersoek heeltemal anoniem geskied. Dus: jou naam sal nêrens verskyn nie. Van harte dank vir jou samewerking.

Werknemernommer:.....24..... Geboortedatum:.....19/05/1946.....

Ouderdom Geslag Moedertaal Huidige beroep Winkel waar jy gewoonlik werk
43 V Afrikaans Pakker Parrow

DUI JOU ANTWOORD MET 'N SIRKELTJIE AAN

A. BIOGRAFIESE BESONDERHEDE

Vertel my oor jouself - wat die volgende betref:

1. Aan watter geklassifiseerde rasgroep behoort jy in Suid-Afrika

Blanke Swart Kleurling Indier Asiaties Ander

2. Hoeveel jare se onderrig het jy tot dusver gehad?

tot st 5. tot st. 6 tot st. 8 tot st. 10

Matriek Universiteit/Kollege

Aantal jare op Universiteit/Kollege: ...

3. Wat is jou jaarlikse inkomste om en by?

Laer as 5000 5000-9999 10000-19999 20000-29999 30000-39999

4. Aan watter kerk/geloof behoort jy?A.G.S. Faith Mission.....

T	1
D	2
	3
B	4
	5
A	6
	7
S	8
L	9
O	10
E	11
	12
1	13
2	14
2	15
3	16
4	17

B. PERSONAL DETAILS

5. What is your marital/relationship status?

Married Separated Divorced Single Living with someone

5 18

C. AIDS

Let's move on to some questions about AIDS.

6. What is AIDS?

6 19

7. Have you ever worried about AIDS as a serious health problem.

Yes No

7 20

8. If yes, since when have you been worried about AIDS as a serious health problem that could affect you or people you care about.

Within last few weeks Within last few months For 1 year For over 2 years

8 21

9. On a scale of 1 to 4, where 1= "no risk at all" and 4= "high risk", how much risk do you think you have of ever getting AIDS?

1. No risk 2. A little risk 3. Moderate risk 4. High

9 22

D. KNOWLEDGE ABOUT AIDS

Would you answer yes or no to the following statements?

10. A person can have the AIDS virus without being or looking sick.

Yes No Don't know

10 23

11. A person can transmit the AIDS virus without being or looking sick.

Yes No Don't know

11 24

9 C

B. P E R S O O N L I K E B E S O N D E R H E D E

Kan ons miskien 'n bietjie praat oor die volgende :

5. Wat is jou huwelik- en verhoudingstaat?

Getroud Uitmekaar Geskei Ongetroud Bly saam met iemand

5 18

C. V I G S :

6. Wat is VIGS?

Het nie 'n definitiewe kennis nie, maar iets re doen met bloed.

6 19

7. Het jy al ooit oor VIGS as 'n ernstige gesondheidsprobleem bekommerd geraak?

Ja Nee u weet nie presies waarom dit gaan nie

7 20

8. Indien ja, wanneer het jy die eerste keer bekommerd geraak dat VIGS 'n ernstige gesondheidsprobleem is wat jou persoonlik of die mense vir wie jy lief is, kan raak?

Nooit bekommerd Binne laaste paar weke Binne laaste paar maande Vir 1 of 2 jaar Vir meer as 2 jaar

8 21

9. Teen 'n skaal van 1 tot 4, waar 1= "hoegenaamd geen risiko" en 4="hoe risiko" aandui, dui aan hoe groot 'n risiko jy dink jy loop om ooit VIGS op te doen?

1. Geen risiko 2. Effense risiko 3. Matige risiko 4. Hoe risiko

9 22

D. K E N N I S O O R V I G S

Sal jy die volgende vrae met "ja" of "nee" beantwoord?

10. 'n Persoon kan die VIGS-virus he sonder om siek te wees of siek te lyk

Ja Nee Weet nie

10 23

12. The AIDS virus can be passed on through semen.

Yes No Don't know

12 25

13. The AIDS virus can be passed on through contaminated blood or blood products.

Yes No Don't know

13 26

14. You can catch AIDS like you catch a cold from someone coughing or sneezing because the AIDS virus can be carried in the air.

Yes No Don't know

14 27

15. If a woman with AIDS gets pregnant, her baby is likely to develop AIDS

Yes No Don't know

15 28

16. AIDS can be passed on by shaking hands with someone who has AIDS.

Yes No Don't know

16 29

17. Being monogamous, i.e. in a one partner relationship (with a monogamous partner) reduces the risk of getting AIDS.

Yes No Don't know

17 30

18. Always using condoms (FL's) reduces the risk of getting AIDS.

Yes No Don't know

18 31

19. At present, there is no cure for AIDS

Yes No Don't know

19 32

20. A person can get AIDS sharing intravenous needles with someone who has the virus.

Yes No Don't know

20 33

Q	C	R
12	25	
13	26	
14	27	
15	28	
16	29	
17	30	
18	31	
19	32	
20	33	

11. 'n Persoon kan die VIGS-virus oordra sonder om siek te wees of siek te lyk.
- Ja Nee Weet nie
12. Die VIGS-virus kan deur middel van sperma oorgedra word.
- Ja Nee Weet nie
13. Die VIGS-virus kan deur besmette bloed of bloedprodukte oorgedra word.
- Ja Nee Weet nie
14. 'n Mens kan VIGS opdoen nes jy 'n verkoue kry - wanneer iemand hoës of nies, omdat die VIGS-virus deur die lug versprei kan word.
- Ja Nee Weet nie
15. Indien 'n vrou wat aan VIGS ly, swanger raak, sal haar baba geneig wees om VIGS op te doen.
- Ja Nee Weet nie
16. VIGS kan oorgedra word deur 'n VIGS-lyer se hand te skud.
- Ja Nee Weet nie
17. Deur monogamies te lewe - d.w.s. 'n een-genoot verhouding met 'n monogamiese genoot, verminder die risiko van VIGS
- Ja Nee Weet nie
18. Deur altyd 'n kondoom/"FL" te gebruik, verminder die risiko van VIGS
- Ja Nee Weet nie
19. Op die oomblik is daar geen middel teen VIGS nie.
- Ja Nee Weet nie

0 C

11 24

12 25

13 26

14 27

15 28

16 29

17 30

18 31

19 32

Q C R

21. A person can be infected with the AIDS virus without knowing it.

Yes No Don't know

21 34

22. A person can get AIDS by sharing drinking glasses, forks or spoons with someone who has the virus.

Yes No Don't know

22 35

23. Women with the AIDS virus can transmit it to their male sexual partners

Yes No Don't know

23 36

24. Mosquitoes can transmit the AIDS virus.

Yes No Don't know

24 37

25. Men with the AIDS virus can transmit it to their female sexual partners.

Yes No Don't know

25 38

E. PERSONAL OPINIONS ABOUT AIDS

How do you feel about the following statements. Please indicate on a scale of 1 - 5, whether you:

- 1 = strongly disagree
- 2 = disagree
- 3 = don't know
- 4 = agree
- 5 = strongly agree

26. Children who have the AIDS virus should be allowed to go to school with other children.

1 2 3 4 5

26 39

27. Employers should be allowed to fire workers who have the AIDS virus.

1 2 3 4 5

27 40

20. 'n Persoon kan VIGS opdoen deur binne-aarse spuitnaalde met iemand te deel wat wel VIGS het.

Ja

Nee

Weet nie

20 33

21. 'n Persoon kan met die VIGS-virus aangesteek word sonder om daar van bewus te wees.

Ja

Nee

Weet nie

21 34

22. 'n Persoon kan VIGS opdoen deur glase, vurke of lepels met iemand te deel wat wel VIGS het.

Ja

Nee

Weet nie

22 35

23. 'n Vrou met die VIGS-virus kan haar manlike seksmaat aansteek.

Ja

Nee

Weet nie

23 36

24. Muskiete kan die VIGS-virus oordra

Ja

Nee

Weet nie

24 37

25. 'n Man met die VIGS-virus kan sy vroulike seksmaat aansteek

Ja

Nee

Weet nie

25 38

E. P E R S O O N L I K E M E N I N G S O O R V I G S

Wat dink jy oor die volgende stellings? Dui aan teen 'n skaal van 1 tot 5, soos volg:

1= neem sterk stelling daar teen

2= stem nie saam nie

3= weet nie

4= stem saam

5= stem beslis saam

26. Kinders wat die VIGS-virus het, behoort saam met ander kinders skool toe te gaan.

1

2

3

4

5

26 39

Q C R

28. Co-workers should be allowed to refuse to work near someone who has the AIDS virus.

1 2 3 4 5

28 41

29. AIDS education programmes should be required for teenagers (age 13 - 19).

1 2 3 4 5

29 42

30. AIDS education programmes should be required for children age 12 and under.

1 2 3 4 5

30 43

31. Doctors should notify spouses and sexual partners when a patient is found to have the AIDS virus.

1 2 3 4 5

31 44

32. There should be laws to prevent discrimination against AIDS patients.

1 2 3 4 5

32 45

33. Persons at risk for AIDS should be encouraged to take the AIDS test.

1 2 3 4 5

33 46

34. Persons at risk for AIDS should be required to take the AIDS test.

1 2 3 4 5

34 47

35. All new immigrants (persons coming into a country) should be tested for AIDS.

1 2 3 4 5

35 48

36. Black migrant workers from other African countries should be deported if they are found to have the AIDS virus.

1 2 3 4 5

36 49

27. Werkgewers behoort werkers wat die VIGS-virus het, te kan afdank.

1 2 3 4 5

27 40

28. Medewerkers behoort toegelaat te word om te weier om langs iemand te werk wat die VIGS-virus het.

1 2 3 4 5

28 41

29. VIGS-opvoedingsprogramme behoort vir tienerjariges (ouderdom 13 -19) voorgeskryf te word.

1 2 3 4 5

29 42

30. VIGS-opleidingsprogramme behoort vir kinders van 12 jaar en jonger voorgeskryf te word.

1 2 3 4 5

30 43

31. Dokters behoort eggenote en seksmaats daarvan te verwittig indien gevind word dat 'n pasiënt die VIGS-virus het.

1 2 3 4 5

31 44

32. Daar behoort wette teen diskriminasie teen VIGS-pasiënte te wees.

1 2 3 4 5

32 45

33. Mense met 'n risiko vir VIGS behoort aangemoedig te word om die VIGS-toets te ondergaan.

1 2 3 4 5

33 46

34. Die VIGS-toets behoort voorgeskryf te word vir mense met 'n VIGS-risiko.

1 2 3 4 5

34 47

35. Alle immigrante (persone wat 'n land binnekom) behoort vir VIGS getoets te word.

1 2 3 4 5

35 48

Q	C	R
37	50	
38	51	
39	52	
40	53	
41	54	
42	55	
43	56	
44	57	
45	58	

37. Ambulance drivers, police and firemen should not be expected to assist people they believe have the AIDS virus.

1 2 3 4 5

38. Insurance companies should be allowed to require antibody tests of persons applying for insurance.

1 2 3 4 5

39. AIDS is more easily transmitted than we are currently being told:

1 2 3 4 5

40. There is some information about AIDS that is being withheld from the general public.

1 2 3 4 5

41. People with AIDS should not be allowed to handle food in restaurants.

1 2 3 4 5

42. AIDS is God's punishment for immorality.

1 2 3 4 5

43. The high cost of treating AIDS is unfair to people suffering from other diseases, eg. TB.

1 2 3 4 5

44. People with AIDS should be confined in hospitals -- against their wills, if necessary.

1 2 3 4 5

45. Homosexuals should be quarantined (strictly isolated, excluded or detained) to prevent the spread of AIDS.

1 2 3 4 5

36. Swart trekarbeiders behoort gedeporteer te word indien gevind word dat hulle die VIGS-virus het.

1 2 3 4 5

36 49

37. Van ambulansmanne, polisiemanne en brandweermanne kan nie verwag word dat hulle iemand help wanneer hulle weet dat die persoon die VIGS-virus het nie.

1 2 3 4 5

37 50

38. Verskeringsmaatskappye behoort toegelaat te word om teenliggaam-toetse van mense te eis wat aansoek vir versekering doen.

1 2 3 4 5

38 51

39. Die VIGS-virus word makliker versprei as wat op die oomblik vir ons gese word

1 2 3 4 5

39 52

40. Sekere inligting oor VIGS word van die publiek weerhou

1 2 3 4 5

40 53

41. Mense met VIGS behoort nie toegelaat te word om kos in restaurante te hanteer nie.

1 2 3 4 5

41 54

42. VIGS is God se straf vir immoraliteit

1 2 3 4 5

42 55

43. Die hoe koste verbonde aan VIGS-behandeling is onregverdig teenoor mense wat aan ander siektes ly, bv. TB.

1 2 3 4 5

43 56

44. Mense met VIGS behoort in hospitale opgesluit te word - teen hul wense, indien nodig.

1 2 3 4 5

44 57

Q C R	
46	59
47	60
F. HEALTH - RELATED ISSUES	
Do any of the following statements apply to you?	
48	61
49	62
50	63
51	64
52	65
53	66

46. There is a significant danger of getting AIDS from a blood transfusion in this country.

1 2 3 4 5

47. In order to protect the public, everyone should be required to have a blood test to determine if they have been exposed to AIDS?

1 2 3 4 5

F. HEALTH - RELATED ISSUES

Do any of the following statements apply to you?

48. Since learning about AIDS, I have decreased my use of drugs.

Yes No Not applicable

49. Because of the threat of AIDS, I am limiting my involvement to only one sexual partner or have reduced the number of my sexual partners.

Yes No Not applicable

50. Because of the threat of AIDS, I regularly use or have increased my use of condoms (FL's).

Yes No Not applicable

51. My religious beliefs would prevent my use of condoms (FL's).

Yes No

52. I have changed my diet, exercise, sleep patterns or level of stress to reduce my chances of getting AIDS.

Yes No

53. I have become more concerned about my health since learning about AIDS.

Yes No

9 C 1

45 Homoseksuele mense behoort in kwarantyn (streng geïsoleer, uitgesluit of opgesluit) te word om die verspreiding van vigs te voorkom.

1 2 3 4 5

45 57

46. Daar bestaan 'n ernstige gevaar in hierdie land dat VIGS deur middel van bloedoortappings opgedoen kan word.

1 2 3 4 5

46 57

47. Elkeen behoort voorgesê te word om 'n VIGS-toets te ondergaan om vas te stel of hulle aan VIGS blootgestel is - ten einde die publiek te beskerm?

1 2 3 4 5

47 60

F. VRAE IN VERBAND MET ALGEMENE GESONDHEID

Is die volgende stellings van toepassing op jou?

48. Sedert ek oor VIGS geleer het, het ek my gebruik van dwelmmiddels verminder.

Ja Nee Nie van toepassing nie

48 61

49. Na aanleiding van die VIGS-gevaar het ek my tot net een seksgeselskap beperk of die aantal seksgeselskaps verminder.

Ja Nee Nie van toepassing nie

49 62

50. Na aanleiding van die VIGS-gevaar gebruik ek gereeld of meer dikwels kondome/"FL's"

Ja Nee Nie van toepassing nie

50 63

51. My godsdienstige oortuiging sou my verhoed om kondome/"FL's" te gebruik.

Ja Nee Nie van toepassing nie

51 64

52. Ek het my dieet, oefening- en slaappatrone of vlak van spanning verminder om die kans dat ek VIGS opdoen, te verminder.

Ja Nee doen oefeninge, maar nie om VIGS op te doen te verminder nie

52 65

53. Sedert ek oor VIGS geleer het, is ek meer bekommerd oor my gesondheid.

Ja

Nee

Gesondheid is goed.

53 66

54. Sedert ek oor VIGS geleer het, gaan ek meer gereeld vir mediese ondersoek.

Ja

Nee

Gaan elke 3 maande vir mediese ondersoek.

54 67

55. Ek sou nie bloed skenk nie omdat ek bang is om VIGS deur middel van die spuitnaald op te doen.

Ja

Nee

Kan om mediese redes nie bloed skenk nie

skenk nie bloed nie.

55 68

Wat dink jou gemeenskap oor VIGS?

dag roep in daardie rigting gepraat nie.

Dink jy ook so?

Woot nie.

69

G. ALGEMENE GESONDHEIDSVRAE

Sal jy die volgende vrae met "ja" of "nee" beantwoord?

56. Ek glo mense behoort geen seksuele verhoudings te hê nie mits hulle nie in 'n monogame (enkelgenoot) huwelik is nie - ten einde te verhoed dat hulle VIGS opdoen.

Ja

Nee

wil nie buite huwelike seksuele verhouding hê nie.

56 70

57. Sou daar 'n manier wees waarop ek 'n bloedtoets vir VIGS kan neem sonder om my naam vir enigiemand te gee, sou ek dit waarskynlik doen.

Ja

Nee

Nie van toepassing nie.

57 71

58. Dink jy daar behoort meer geld uitgegee te word om die hele bevolking vir VIGS te toets eerder as vir opvoedingsprogramme wie se doel dit is om VIGS te voorkom.

Alles vir toetse

Meer vir toetse

Albei dieselfde

Meer vir opvoeding

Alles vir opvoeding

58 72

Q	C	R
59	73	
60	74	
61	75	
62	76	
63	77	
64	78	
65	79	
66	80	

H. SOME MORE PERSONAL QUESTIONS ABOUT AIDS:

59. About how many people do you know personally, whether they are friends, or just acquaintances, who have AIDS or who have died from it.

None 1-2 3-5 6-10 Over 10

60. About how many people do you know personally, whether they are friends or just acquaintances, who probably inject (shoot up) illegal drugs by needles?

None 1-2 3-5 6-10 Over 10

61. About how many people do you know personally, whether they are friends or just acquaintances, who are gay (homosexual)?

None 1-2 3-5 6-10 Over 10

62. Do you (or did you ever) use drugs intravenously (shoot or inject drugs)?

Yes Yes, in No
currently the past

63. Do you (or did you ever) have a sexual partner who is gay, bisexual, or an intravenous drug user?

Yes Yes, in No Don't know
currently the past

64. Have you ever had a sexual relationship?

Yes No

65. How many sexual partners do you have currently?

0 1 2 3 4 5 6 7 8 9 10 Over 10 Over 15 Over 20

66. During the past five years, what was the highest number of sexual partners you had during any one year?

0 1 2 3 4 5 6 7 8 9 10 Over 10 Over 15 Over 20

Please check that every question is answered.

This is the end of the survey. Thank you again for your time and co-operation.

Acknowledgements: This questionnaire has been adapted from the original Temoshok (1987) version.

59. Omtrent hoeveel mense ken jy persoonlik - of hulle nou vriende of net kennisse is - wat VIGS het of daaraan gesterf het?

Geneen 1-2 3-5 6-10 Meer as 10

59 73

60. Omtrent hoeveel mense ken jy persoonlik - of hulle nou vriende of net kennisse is - wat waarskynlik onwettige dwelms per inspuiting toedien?

Geneen 1-2 3-5 6-10 Meer as 10

60 74

61. Omtrent hoeveel mense ken jy persoonlik - of hulle nou vriende of net kennisse is - wat homoseksueel (gay) is?

Geneen 1-2 3-5 6-10 Meer as 10

61 75

62. Neem jy (of het jy) dwelms binne-aars (dwelms inspuit of "skiet")

Ja, op die oomblik Ja, in die verlede Nee

62 76

63. Het jy (of het jy ooit gehad) 'n seksmaat wat "gay" (homoseksueel), biseksueel of 'n binne-aarse dwelmgebruiker is?

Ja, op die oomblik Ja, in die verlede Nee Weet nie

63 77

64. Het jy al ooit 'n seksuele verhouding gehad?

Ja Nee

64 78

65. Hoeveel seksmaats het jy op die oomblik?

0 2 3 4 5 6 7 8 9 10 Meer as 10 Meer as 15 Meer as 20

65 79

66. Gedurende die afgelope vyf jaar, wat was die hoogste aantal seksmaats wat jy gedurende enige enkele jaar gehad het?

0 1 2 3 4 5 6 7 8 9 10 Meer as 10 Meer as 15 Meer as 20

66 80

Maak asseblief seker dat elke vraag beantwoord is.

Dit is die einde van die ondersoek. Van harte dank vir jou tyd en samewerking.

Hierdie vraelys is van die oorspronklike Temoshok (1967) uitgawe afgelei.

APPENDIX 3:

APPENDIX

HIV UPDATE - 25.01.91

A total of 771 HIV seropositive persons have been tested in the Western Cape region from 1985 until 25 January 1991. These include some sera originating in the Eastern Cape.

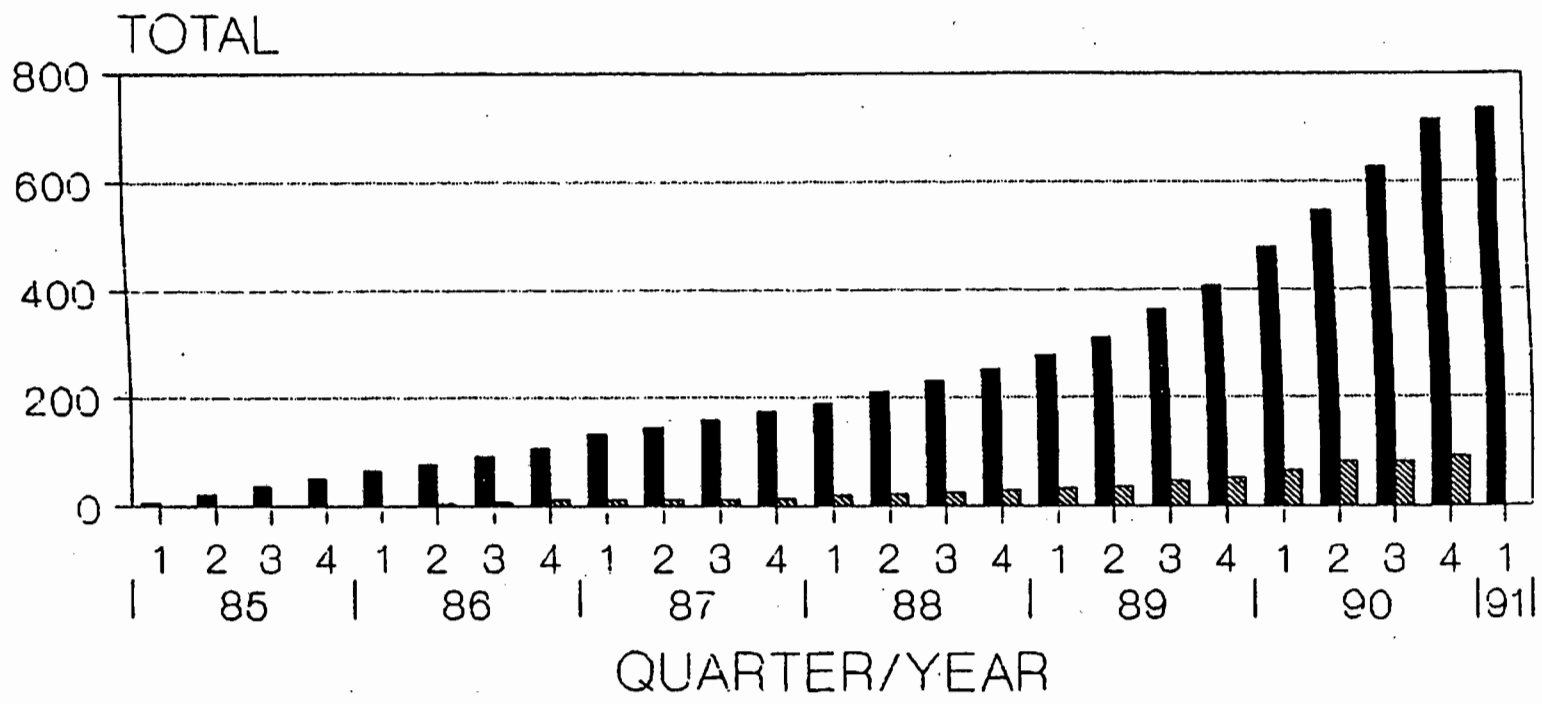
Analysis by risk:

Unknown	: 404
Homosexual	: 148
?Homosexual	: 5
Heterosexual	: 142
Hetero/iv drugs	: 1
Bisexual	: 24
?Bisexual	: 1
Mother to Child	: 12
Haemophiliac	: 22
Blood transfusion	: 3
?Blood transfusion	: 1
Prostitute	: 4
?Prostitute	: 1
IV drugs	: 3
<u>TOTAL</u>	<u>: 771</u>

Analysis by race and sex:

White male	: 194
White female	: 3
Coloured male	: 114
Coloured female	: 25
Black male	: 128
Black female	: 112
Unknown	: 195
<u>TOTAL</u>	<u>: 771</u>

HIV INFECTION CAPE PROVINCE



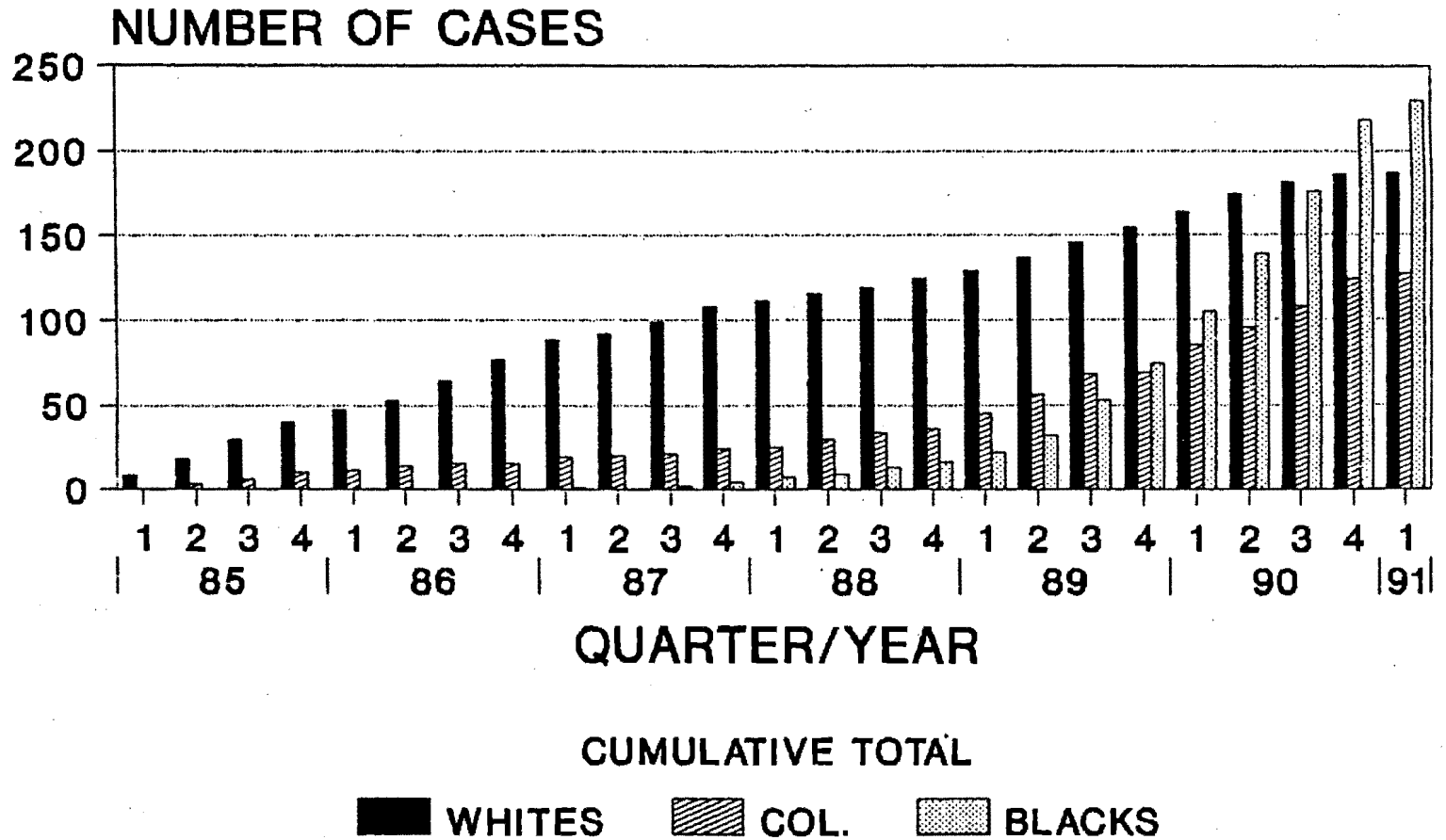
CUMULATIVE TOTAL

HIV POSITIVE
 AIDS CASES

JAN 85-DEC 90 W.CAPE AIDS ADVISORY GROUP

HIV INFECTION

CUMULATIVE TOTAL



JAN 85-JAN 91-W.CAPE AIDS ADVISORY GROUP

Passive Surveillance of HIV seropositive sera: February 1991

Collated under the auspices of the Cape AIDS Advisory group from the reference virus laboratories of Tygerberg and Groote Schuur hospitals.

New Cases HIV positive	White	Coloured	Black	Race Unknown	TOTAL
Quarter/year					
<Dec-84	11	1	2	5	19
Mar-85	8	0	0	0	8
Jun-85	11	3	0	0	14
Sep-85	12	3	0	1	16
Dec-85	10	4	0	1	15
Mar-86	7	4	0	3	14
Jun-86	7	3	0	2	12
Sep-86	11	1	0	2	14
Dec-86	13	0	0	3	16
Mar-87	11	4	1	9	25
Jun-87	4	1	0	9	14
Sep-87	7	1	1	4	13
Dec-87	9	5	2	2	18
Mar-88	3	1	3	9	16
Jun-88	5	5	2	9	21
Sep-88	3	4	4	7	18
Dec-88	6	2	3	11	22
Mar-89	4	10	7	6	27
Jun-89	8	11	10	10	39
Sep-89	6	8	21	11	46
Dec-89	9	7	24	13	53
Mar-90	9	14	28	17	68
Jun-90	10	10	36	9	65
Sep-90	7	13	37	23	80
Dec-90	5	18	44	23	90
Feb-91	2	13	24	33	72
TOTAL	187	145	247	217	796

The following data is presented for the first quarter of 1991 as of the end of February.

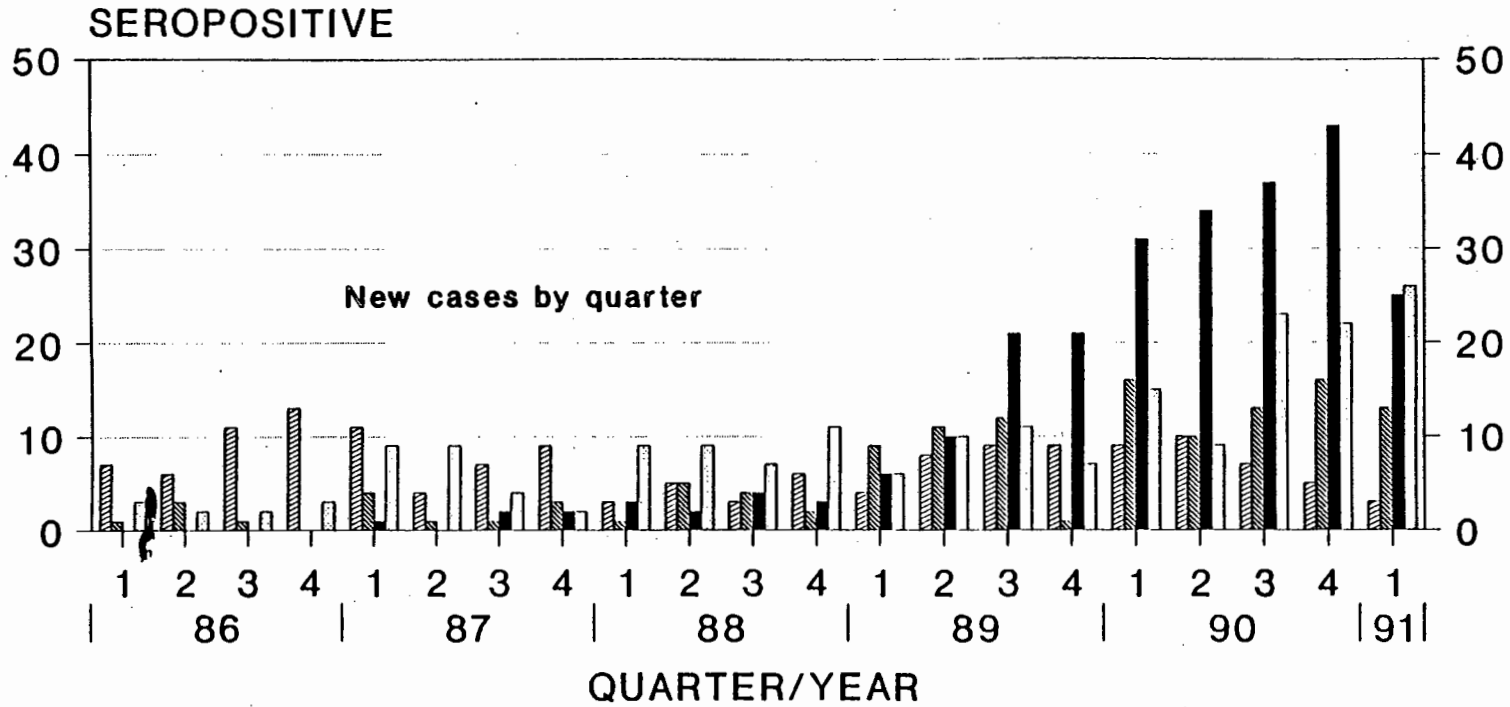
Note that the data represents a simple count of positive sera received in the laboratories and is not intended to provide information of any greater significance than the trend of passive surveillance. There are no denominators and case information supplied is deficient in most parameters including risk factors.

Distribution	R/S	FEB	1991	RISK	FEB	1991	POSTAL CODE	
	0	26	33	Unknown	43	57	0	2
	1	2	2	Homo	1	3	5200	2
	2	0	0	Hetero		3	6570	4
	3	4	6	Paed	8	9	6720	1
	4	6	7				6850	1
	5	0	0				7130	4
	6	0	0				7430	1
	7	5	10				7455	2
	8	9	14				7530	1
TOTAL					52	72	7535	13
							7646	1
							7750	1
							7755	1
							7785	1
							7925	3
							7945	2
							8001	11
							8282	1

Distribution of Risk	1985/9	1990	1991	Total
Unknown	228	187	57	472
Heterosexual	28	111	3	142
Female Prostitution	5			5
Bisexual	24	1		25
Blood or Blood Product	24	2		26
Male homosexual	125		3	128
Paediatric	3	8	9	20
i v Drug use	3	1		4
Total	440	310	72	822

jwm/ml

HIV infection in the Cape Province LABORATORY SURVEILLANCE



JAN 85-FEB 91
W.Cape AIDS Advisory Group

UPDATE: AIDS IN SOUTH AFRICA (as on 14/12/90)

Table 1: Annual number of cases reported in South Africa

Year of diagnosis	Total cases	Deaths	Case-fatality rate (%)
1982	2	2	100
1983	4	3	75
1984	8	8	100
1985	8	8	100
1986	24	23	96
1987	39	32	82
1988	88	53	60
1989	170	82	48
1990	270	59	22
Total	613	270	44

Table 2: Age and sex distribution of AIDS cases

Age group	Sex			Total
	Male	Female	Unknown	
0 - 9	48	33	0	81
10 - 19	6	10	0	16
20 - 29	71	48	1	120
30 - 39	144	33	0	177
40 - 49	64	3	0	67
50 - 59	20	5	0	25
60 - 69	6	2	0	8
70 +	3	0	0	3
UNKNOWN	97	18	1	116
Total	459	152	2	613

Information released by the Department of National Health and Population Development, based on anonymous data supplied by the SAIMR

Table 3: Geographical distribution of AIDS cases

Place	Number of cases	Number of deaths
TRANSVAAL		
BEKKERSDAL	2	2
BENONI	1	1
BOKSBURG	1	0
BUSHBUCKRIDGE	1	0
CARLETONVILLE	1	0
DAVEYTON	1	0
EVATON	2	0
JOHANNESBURG	211	124
KANGWANE	5	4
KATLEHONG	1	1
KLERKSDORP	2	1
KRUGERSDORP	2	1
MESSINA	1	1
NYLSTROOM	1	1
ORKNEY	1	0
PIETERSBURG	2	1
PRETORIA	20	15
RUSTENBURG	1	0
SEBOKENG	3	1
SOWETO	53	19
TZANEEN	1	0
VOSLOO RUS	1	0
Sub-total	314	172
CAPE		
CAPE TOWN	86	46
EAST GRIQUALAND	1	0
EAST LONDON	3	3
GRAHAMSTOWN	1	1
KIMBERLEY	1	0
PAARL	1	1
PORT ELIZABETH	3	3
UITENHAGE	2	2
UPPINGTON	1	0
Sub-total	99	56

continued

Table 3 (cont): Geographical distribution of AIDS cases

Place	Number of cases	Number of deaths

OFS		
BLOEMFONTEIN	12	7
BULTFONTEIN	1	0
KROONSTAD	2	1
LADYBRAND	1	1
NOUPO	1	0
THEUNISKRAAL	1	1
WELKOM	3	2
WINBURG	1	0
Sub-total	22	12
NATAL		
DURBAN	90	21
EDENDALE	3	2
EMPANGENI	10	2
ESHOWE	15	0
ESTCOURT	2	0
KWAZULU	32	0
LADYSMITH	3	1
NATAL	1	1
NEWCASTLE	1	1
NORTHERN NATAL	1	0
PAULPIETERSBURG	1	0
PIETERMARITZBURG	18	1
STANGER	1	1
Sub-total	178	30
TOTAL	613	270

Information released by the Department of National Health and Population Development, based on anonymous data supplied by the SAIMR

Table 4: Transmission category by ethnic group and sex

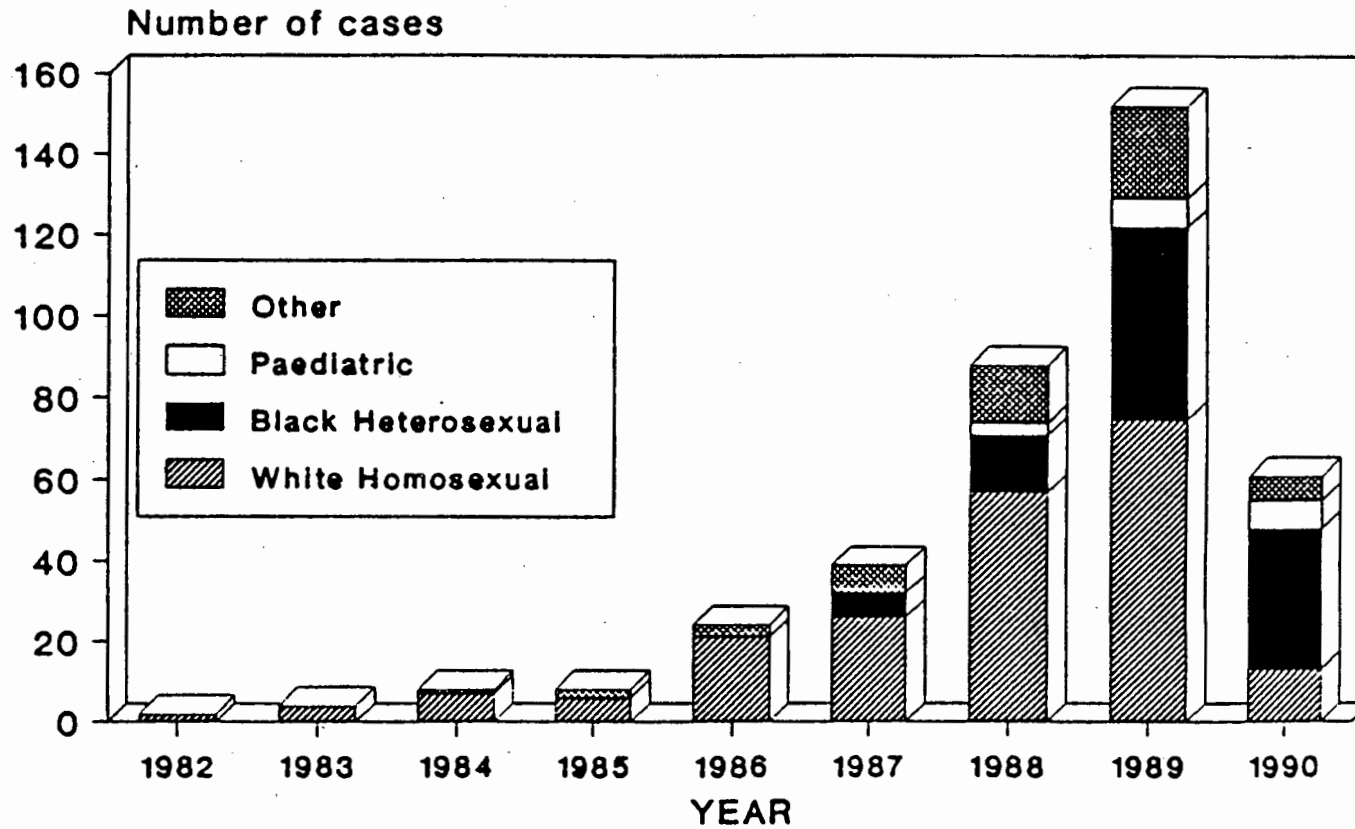
		Homo/bi sexual	Hetero sexual	Haemo philiac	Trans fusion	IVDU	Paed iatric	Total
Asian	M	4	1	0	0	0	0	5
	F	0	0	0	0	0	0	0
Black	M	2	92	3	4	0	45	146
	F	0	107	0	0	0	33	140
	U	0	1	0	0	0	0	1
Coloured	M	10	2	1	1	0	0	14
	F	0	3	0	1	0	0	4
White	M	263	9	12	9	1	0	294
	F	0	4	0	4	0	0	8
	U	0	1	0	0	0	0	1
Total	M	279	104	16	14	1	45	459
	F	0	114	0	5	0	33	152
	U	0	2	0	0	0	0	2
Grand total		279	220	16	19	1	78	613

Table 5: Transmission category by year of diagnosis for selected groups

	Homo/bi sexual	Hetero sexual	Haemo philiac	Trans fusion	IVDU	Paed iatric	Total
Blacks:							
1982-86	0	0	0	0	0	0	0
1987	0	6	0	0	0	0	6
1988	1	14	1	1	0	3	20
1989	1	49	1	3	0	14	68
1990	0	131	1	0	0	61	193
Total	2	200	3	4	0	78	287
Whites:							
1982-86	40	1	2	2	0	0	45
1987	26	1	3	1	0	0	31
1988	57	1	2	3	0	0	63
1989	81	5	2	5	1	0	94
1990	59	6	3	2	0	0	70
Total	263	14	12	13	1	0	303

Information released by the Department of National Health and Population Development, based on anonymous data supplied by the SAIMR

FIGURE 2
AIDS cases:
Main
Transmission
Category by
Year of
Diagnosis



SOURCE: Department of
 National Health and
 Population Development,
 1990

APPENDIX 4:

INTERNATIONAL SURVEY OF BELIEFS ABOUT AIDS

This survey is being conducted by researchers at the University of California, San Francisco School of Medicine, in collaboration with other researchers in the United States and Europe. Please try to answer every question, even if you aren't completely sure of your answer. We are interested in your own beliefs. Remember that this survey is completely anonymous, so please don't write your name anywhere. Please mark your age and sex in the boxes to the right and then continue on with the questions below. Thank you very much for your cooperation.

AGE	SEX	ID NUMBER
<input type="checkbox"/> 18-24	<input type="checkbox"/> Male	1387
<input type="checkbox"/> 25-34	<input type="checkbox"/> Female	
<input type="checkbox"/> 35-44	<input type="checkbox"/> Male	
<input type="checkbox"/> 45-54	<input type="checkbox"/> Female	
<input type="checkbox"/> 55-64	<input type="checkbox"/> Male	
<input type="checkbox"/> 65-74	<input type="checkbox"/> Female	
<input type="checkbox"/> 75-84	<input type="checkbox"/> Male	
<input type="checkbox"/> 85-94	<input type="checkbox"/> Female	
<input type="checkbox"/> 95-104	<input type="checkbox"/> Male	
<input type="checkbox"/> 105-114	<input type="checkbox"/> Female	

	White	Black	Hispanic	Asian	Other
1. Ethnic origin.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. How many years of education do you have?	Less than 10	10-13	14-16	17-20	Over 20
3. What is your approximate yearly salary or income?	Less than 10,000	11,000-19,999	20,000-29,999	30,000-39,999	Over 40,000
4. What is your marital/relationship status?	Married	Separated	Divorced	Single	Living with Someone
5. When did you first become worried that AIDS was a serious health problem that could affect you or people you care about?	Never Worried	Within last few weeks	Within last few months	For 1-2 years	For over 2 years
6. On a scale of 1 to 4, where 1="no risk at all" and 4="high risk", how much risk do you think you have of ever getting AIDS?	No-Risk	A Little Risk	Moderate Risk	High Risk	
7. A person can <u>have</u> the AIDS virus without being or looking sick	Yes	No	Don't Know		
8. A person can <u>transmit</u> the AIDS virus without being or looking sick	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
9. The AIDS virus can be passed on through semen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
10. The AIDS virus can be passed on through contaminated blood or blood products.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
11. You can catch AIDS like you catch a cold from someone coughing or sneezing because the AIDS virus can be carried in the air.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
12. If a woman with AIDS gets pregnant, her baby is likely to develop AIDS.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
13. AIDS can be passed on by shaking hands with someone who has AIDS.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
14. Being monogamous (with a monogamous partner) reduces the risk of getting AIDS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
15. Always using condoms/sheaths reduces the risk of getting AIDS.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
16. At present, there is no cure for AIDS.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
17. A person can get AIDS by sharing needles with someone who has the virus....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
18. A person can be infected with the AIDS virus without knowing it.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

INTERNATIONAL SURVEY OF BELIEFS ABOUT AIDS
(Page 2)

1387

		Yes	No	Don't Know
19. A person can get AIDS by sharing drinking glasses, forks, or spoons with someone who has the virus.....	19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Women with the AIDS virus can transmit it to their male sexual partners....	20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Mosquitoes can transmit the AIDS virus.....	21	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Men with the AIDS virus can transmit it to their female sexual partners....	22	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Do you think children who have the AIDS virus should be allowed to go to school with other children?	23	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Should employers be allowed to fire workers who have the AIDS virus?	24	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Should co-workers be allowed to refuse to work near someone who has the AIDS virus?	25	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Should AIDS education programs be required for teenagers (age 13-19)?.....	26	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Should AIDS education programs be required for children age 12 and under?	27	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Should doctors notify spouses and sexual partners when a patient is found to have the AIDS virus?.....	28	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Should there be laws to prevent the discrimination against AIDS patients?	29	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Should persons at risk for AIDS be <u>encouraged</u> to take the AIDS test?	30	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. Should persons at risk for AIDS be <u>required</u> to take the AIDS test?	31	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. Should all new immigrants (persons coming into a country) be tested for AIDS?	32	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	33	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. Ambulance drivers, police, and firemen should not be expected to assist people they believe have the AIDS virus.....	34	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. Should insurance companies be allowed to require antibody tests of persons applying for insurance?	35	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. Do you think that AIDS is more easily transmitted than we are currently being told?.....	36	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. Do you think there is some information about AIDS that is being kept secret from the general public?.....	37	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. People with AIDS should not be allowed to handle food in restaurants.....	38	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. AIDS is God's punishment for immorality.....	39	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. The high cost of treating AIDS is unfair to other people.....	40	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. People with AIDS should be confined in hospitals--against their wills, if necessary.....	41	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. Homosexuals should be quarantined (strictly isolated, excluded or detained) to prevent the spread of AIDS.....	42	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. There is a significant danger of getting AIDS from a blood transfusion in this country.....	43	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. In order to protect the public, should <u>everyone</u> be encouraged or required to have a blood test to determine if they have been exposed to AIDS?		Yes, encouraged	Yes, required	No, neither

1387

		Yes	No	Not Applicable	
44. Since learning about AIDS, I have decreased my use of drugs.....	44	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
45. Because of the threat of AIDS, I am limiting my involvement to only one sexual partner, or have reduced the number of my sexual partners.....	45	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
46. Because of the threat of AIDS, I regularly use or have increased my use of condoms/sheaths.....	46	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
47. My religion or religious beliefs would prevent my use of condoms/sheaths...	47	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
48. I wouldn't use condoms/sheaths because I don't think they would make much of a difference in preventing AIDS.....	48	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
49. I have changed my diet, exercise, sleep patterns or level of stress to reduce my chances of getting AIDS.....	49	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
50. I have become more concerned about my health since learning about AIDS.....	50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
51. Since learning about AIDS I have had more frequent medical check-ups than I used to.....	51	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
52. I would not give blood for fear of getting AIDS from the needle.....	52	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
53. I believe that people should abstain from sexual intercourse (unless they are in a monogamous marriage) to protect themselves from the AIDS virus..	53	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
54. If there were a way for me to take a blood test to see if I have been exposed to the AIDS virus, <u>without giving anyone my name</u> , I would probably do it.	54	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		All for testing	More for testing	About the same	More for education
55. Do you think money should be directed more toward testing the general population for AIDS or toward education for prevention?	55	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		None	1-2	3-5	6-10 Over 10
56. About how many people do you know personally, whether they are friends or just acquaintances, who have AIDS or who have died from it?.....	56	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57. About how many people do you know personally, whether they are friends or just acquaintances, who probably inject (shoot up) illegal drugs by needles?	57	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		None	1-5	6-15	16-50 Over 50
58. About how many people do you know personally, whether they are friends or just acquaintances, who are gay (homosexual)?.....	58	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Yes, currently	Yes, in the past	No	
59. Do you (or did you ever) use drugs intravenously (shoot or inject drugs)?..	59	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
60. Do you (or did you ever) have a <u>sexual partner</u> who is gay, bisexual, or an intravenous drug user?	60	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		None	ONE	2-4	5-10 Over 10
61. How many sexual partners do you have currently?.....	61	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		0-1	2-4	5-10	11-20 Over 20
62. During the past five years, what was the highest number of sexual partners you had <u>during any one year</u> ?.....	62	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This is the end of the survey. Thank you again for your time and cooperation.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ATTITUDES ABOUT AIDS IN 1988

This survey is being conducted by researchers at the Universities of Utrecht and San Francisco. Please try to answer every question, even if you aren't completely sure of your answer. We are interested in your own beliefs, and there are no right or wrong answers. Remember that this survey is completely anonymous, so don't write your name anywhere. We are only able to survey individuals who are living in The Netherlands, so if you do not live in The Netherlands, please return this questionnaire to the survey worker. If you are living in The Netherlands, we cordially invite you to continue and fill out this survey.

PLEASE NOTE:

The original English version of this questionnaire was developed by L. Temoshok and G. L. Albrecht. The questionnaire was translated into Dutch and adapted for the situation in The Netherlands by R. Tielman, E. de Vroome, and R. Gorter. Please do not use or cite this questionnaire without prior permission from:

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San Francisco, CA 94143-0984
U.S.A.

Please circle the chosen alternative

1. I am

- 1 Male
- 2 Female

2. What is your age in years?

.....

3. What is your monthly household income before taxes?

- 1 Less than fl. 1.000
- 2 Fl. 1.000 - 1.999
- 3 Fl. 2.000 - 2.999
- 4 Fl. 3.000 - 3.999
- 5 Fl. 4.000 - 4.999
- 6 Fl. 5.000 or more

4. What is your present type of job/occupation?

- 1 Retired
- 2 Unemployed
- 3 Student
- 4 Military service
- 5 Small business
- 6 Large business
- 7 Farming
- 8 Clerical
- 9 Industry/professional
- 10 Managerial
- 11 Sales
- 12 Homemaker
- 13 Teacher
- 14 Other,.....

5. What is your ethnic background?

- 1 Dutch
- 2 Surinam
- 3 Antillean
- 4 Dutch with an influence of India
- 5 Chinese
- 6 Turkish
- 7 Moroccan
- 8 Other,.....

6. To what religion do you belong or what life principles do you have?

- 1 No religion (for instance humanism)
- 2 Catholic
- 3 Reformed
- 4 Extreme Protestant
- 5 Protestant
- 6 Jewish
- 7 Islamite
- 8 Buddhist
- 9 Other,.....

7. How important are religion or life principles in helping you deal with problems in your daily life?

- 1 Not at all important
- 2 Not important
- 3 Important nor unimportant
- 4 Important
- 5 Very important

8. How often do you:

	never	less than once a month	less than once a week	more times a week	at least once a day
a. Watch television?	1	2	3	4	5
b. Listen to the radio?	1	2	3	4	5
c. Read newspapers or magazines?	1	2	3	4	5
d. See public posters or billboards?	1	2	3	4	5

9. How accurate do you think the AIDS-information is you get through:

	always correct	mostly correct	sometimes correct/ sometimes incorrect	almost never correct	never correct
a. Television	1	2	3	4	5
b. Radio	1	2	3	4	5
c. Newspapers and/or magazines	1	2	3	4	5
d. Billboards	1	2	3	4	5
e. Handouts, leaflets	1	2	3	4	5
f. Books	1	2	3	4	5
g. Conversations with family and friends	1	2	3	4	5
h. Conversations with colleagues, at work or-at-school	1	2	3	4	5
i. Public health service	1	2	3	4	5
j. AIDS-education	1	2	3	4	5
k. Church or conversations with your minister, priest or rabbi	1	2	3	4	5
l. AIDS-hotline	1	2	3	4	5
m. Government officials or authorities	1	2	3	4	5

10. Do you think the government is holding back AIDS-information?

- 1 Certainly yes
- 2 Probably yes
- 3 Maybe yes/maybey not
- 4 Probably not
- 5 Certainly not

11. For which political party did you vote at the last general elections?

- 1 CDA
- 2 PvdA
- 3 VVD
- 4 D'66
- 5 PSP
- 6 PPR
- 7 CPN
- 8 SGP
- 9 GPV
- 10 RPF
- 11 Other,.....

12. Which newspaper do you read?

- 1 "Algemeen Dagblad"
- 2 "NRC Handelsblad"
- 3 "Telegraaf"
- 4 "Volkskrant"
- 5 Other,.....
- 6 None

13. Which broadcasting company are you a member of?

- 1 AVRO
- 2 TROS
- 3 VERONICA
- 4 VARA
- 5 KRO
- 6 NCRV
- 7 VPRO
- 8 EO
- 9 Other,.....

14 to 38: Please circle the number that applies to the question. The numbers mean:

- 1 Strongly disagree
- 2 Disagree
- 3 Agree, nor disagree
- 4 Agree
- 5 Strongly agree

- 14. AIDS is caused by a virus. 1 2 3 4 5
- 15. AIDS is transmitted by saliva. 1 2 3 4 5
- 16. Scientists predict fewer people will get AIDS next year. 1 2 3 4 5
- 17. A person can become infected with the AIDS virus from insects etc. 1 2 3 4 5
- 18. In The Netherlands a person can become infected with the AIDS virus by having an injection given during medical treatment 1 2 3 4 5
- 19. In The Netherlands pets and other animals can pass the AIDS-virus to people. 1 2 3 4 5
- 20. A person can become infected with the AIDS-virus by not washing one's hands. 1 2 3 4 5
- 21. A person can become infected with the AIDS-virus by touching objects (e.g. toilet seat, utensils, cups) used by a person infected with the AIDS virus. 1 2 3 4 5
- 22. Some people who are infected with the AIDS virus may feel well and not be aware of their infection. 1 2 3 4 5
- 23. A person can become infected with the AIDS virus by witchcraft, black magic, etc. 1 2 3 4 5
- 24. A person can become infected with the AIDS virus by having unprotected sex with someone who is infected with the AIDS virus. 1 2 3 4 5
- 25. A person can become infected with the AIDS virus from bad water. 1 2 3 4 5
- 26. AIDS is always fatal. 1 2 3 4 5

- 1 Strongly disagree
- 2 Disagree
- 3 Agree, nor disagree
- 4 Agree
- 5 Strongly agree

27. A person can become infected with the AIDS virus by using the same needle as someone who is infected with the AIDS virus. 1 2 3 4 5
28. Only men who have unprotected anal sex with other men can become infected with the AIDS virus. 1 2 3 4 5
29. A person can pass on the AIDS virus without being or looking sick. 1 2 3 4 5
30. A woman with the AIDS virus can pass the virus on to her unborn child. 1 2 3 4 5
31. The AIDS virus can be passed on through blood or blood products contaminated with the AIDS virus. 1 2 3 4 5
32. Having unprotected anal or vaginal sex with many different partners increases the risk of becoming infected with the AIDS virus. 1 2 3 4 5
33. Becoming infected with the AIDS virus is just a matter of bad luck or chance. 1 2 3 4 5
34. AIDS was started by experiments on germ warfare which somehow got out of control. 1 2 3 4 5
35. AIDS was deliberately started to wipe out a certain group of people. 1 2 3 4 5
36. It is preordained or Gods will that someone becomes infected with the AIDS virus. 1 2 3 4 5
37. AIDS is a punishment for a person's past sins and transgressions. 1 2 3 4 5
38. People with AIDS usually get very sick and die. 1 2 3 4 5

39 to 50: Though you may not do some of the following, please rate each of these behaviours as to how safe or unsafe you think it is for avoiding AIDS.

- 1 Very unsafe
- 2 Mainly unsafe
- 3 Not safe, not unsafe
- 4 Mainly safe
- 5 Very safe

39. Having vaginal sex without a condom. 1 2 3 4 5
40. Having vaginal sex using a condom. 1 2 3 4 5
41. Getting or giving a massage. 1 2 3 4 5
42. Having anal sex without a condom. 1 2 3 4 5
43. Having anal sex using a condom. 1 2 3 4 5
44. A kiss on the cheek or light peck on the mouth. 1 2 3 4 5
45. French ("deep" or "wet") kissing. 1 2 3 4 5
46. As a man receiving oral sex (fellatio, getting head). 1 2 3 4 5
47. Giving oral sex (head) to a man and stopping before climax (before he comes). 1 2 3 4 5
48. Giving oral sex (head) to a man but not stopping before climax (before he comes). 1 2 3 4 5
49. Giving oral sex to a woman. 1 2 3 4 5
50. Mutual masturbation or playing with each other's genitals. 1 2 3 4 5

51. How effective do you think a condom is against infection with the AIDS virus?

- 1 Not at all effective
- 2 Mainly not effective
- 3 Effective, nor ineffective
- 4 Mainly effective
- 5 Very effective

52 to 69: Please indicate whether you strongly agree or disagree with each of the following statements.

- | | | | | | | |
|---|---------------------|--|--|--|--|--|
| 1 | Strongly disagree | | | | | |
| 2 | Disagree | | | | | |
| 3 | Agree, nor disagree | | | | | |
| 4 | Agree | | | | | |
| 5 | Strongly agree | | | | | |
-
- | | | | | | |
|--|---|---|---|---|---|
| 52. Using a condom interferes with a person's sexual pleasure. | 1 | 2 | 3 | 4 | 5 |
| 53. I should not use condoms for moral or religious reasons. | 1 | 2 | 3 | 4 | 5 |
| 54. I would rather take the risk getting infected with the AIDS virus than wear a condom during sex. | 1 | 2 | 3 | 4 | 5 |
| 55. If a new partner or I didn't have a condom with us, we would have sex without one. | 1 | 2 | 3 | 4 | 5 |
| 56. Using condoms cannot keep you from getting infected with the AIDS virus. | 1 | 2 | 3 | 4 | 5 |
| 57. I don't use condoms because I know people who don't use condoms and who don't have AIDS. | 1 | 2 | 3 | 4 | 5 |
| 58. I wouldn't make myself or a partner use a condom because I can tell if someone has AIDS or not. | 1 | 2 | 3 | 4 | 5 |
| 59. Using condoms during sexual contact reduces the chance of becoming infected with the AIDS virus. | 1 | 2 | 3 | 4 | 5 |
| 60. I wouldn't use condoms because I'd like to have a baby. | 1 | 2 | 3 | 4 | 5 |
| 61. I wouldn't use condoms because sex is not as good that way. | 1 | 2 | 3 | 4 | 5 |
| 62. Condoms are no absolute guarantee against becoming infected with the AIDS virus so why should I use one. | 1 | 2 | 3 | 4 | 5 |
| 63. You don't need to use condoms if you don't have sex that often. | 1 | 2 | 3 | 4 | 5 |

- | | |
|---|---------------------|
| 1 | Strongly disagree |
| 2 | Disagree |
| 3 | Agree, nor disagree |
| 4 | Agree |
| 5 | Strongly agree |

- | | | | | | |
|--|---|---|---|---|---|
| 64. I would also have sex without a condom, even though I prefer to use one, to please my partner and keep our relationship going. | 1 | 2 | 3 | 4 | 5 |
| 65. Sex without condoms shows love. | 1 | 2 | 3 | 4 | 5 |
| 66. I would be suspicious if my partner suggested using condoms. | 1 | 2 | 3 | 4 | 5 |
| 67. If you take the AIDS antibodies test and it comes back negative, it means you don't have to use a condom. | 1 | 2 | 3 | 4 | 5 |
| 68. If I wanted to buy condoms, I would feel embarrassed. | 1 | 2 | 3 | 4 | 5 |
| 69. I am afraid of getting AIDS. | 1 | 2 | 3 | 4 | 5 |

70. What do you think are your chances of becoming infected with the AIDS virus?

- | | |
|---|---------------|
| 1 | None |
| 2 | Low |
| 3 | High, nor low |
| 4 | High |
| 5 | Very high |

71. If you said your chances of getting infected with the AIDS virus were none or low, what reason do you have for thinking so?

- 1 Strongly disagree
- 2 Disagree
- 3 Agree, nor disagree
- 4 Agree
- 5 Strongly agree

- a. I am not sexually active. 1 2 3 4 5
- b. I have a positive or optimistic attitude towards life. 1 2 3 4 5
- c. I am not in a high risk group for AIDS and/or don't engage in high risk behaviours. 1 2 3 4 5
- d. I am in a monogamous relationship. 1 2 3 4 5
- e. I am not a bad person. 1 2 3 4 5
- f. I take good care of myself. 1 2 3 4 5
- g. It just would never happen to me. 1 2 3 4 5

72. If you said your chance of getting infected with the AIDS virus were high nor low to very high, what reasons do you have for thinking so?

- 1 Strongly disagree
- 2 Disagree
- 3 Agree, nor disagree
- 4 Agree
- 5 Strongly agree

- a. I have homosexual or bisexual contacts. 1 2 3 4 5
- b. I am or have been an intravenous drug user. 1 2 3 4 5
- c. I am a hemophiliac or have received a blood transfusion. 1 2 3 4 5
- d. I have had multiple heterosexual partners. 1 2 3 4 5
- e. I am a heterosexual and have a partner who is engaged in homosexual behaviour or is an intravenous drug user. 1 2 3 4 5
- f. I am not a very healthy person and get sick a great deal. 1 2 3 4 5

- 1 Strongly disagree
- 2 Disagree
- 3 Agree, nor disagree
- 4 Agree
- 5 Strongly agree

- g. I am in a profession at risk of getting AIDS. 1 2 3 4 5
- h. My partner has sex with other persons. 1 2 3 4 5
- i. I had or have a partner who had AIDS or was infected with the AIDS virus. 1 2 3 4 5
- j. I have bad luck (I am fated to get AIDS). 1 2 3 4 5
- k. I have done bad (immoral) things; I am bad and will be punished by getting AIDS. 1 2 3 4 5
- l. Many people around me (friends or family) have AIDS. 1 2 3 4 5
- m. I don't take care of my personal health. 1 2 3 4 5
- n. I work with people who have AIDS or who are at risk for getting AIDS. 1 2 3 4 5
- o. Other,.....

73. Now we want to ask you how much you agree or disagree with some general statements about yourself.

- 1 Strongly disagree
- 2 Disagree
- 3 Agree, nor disagree
- 4 Agree
- 5 Strongly agree

- a. If it's meant to be, I will stay healthy. 1 2 3 4 5
- b. When I get sick, I am to blame. 1 2 3 4 5
- c. Luck plays a big part in determining how soon I'll recover from an illness. 1 2 3 4 5
- d. If I take care of myself, I can avoid illness. 1 2 3 4 5

- 1 Strongly disagree
2 Disagree
3 Agree, nor disagree
4 Agree
5 Strongly agree
- e. I tend to think about the future and make plans. 1 2 3 4 5
- f. I don't believe anything doctors say anymore. 1 2 3 4 5
- g. Everybody has to go sometime, so why worry about getting sick. 1 2 3 4 5
74. I think most people in The Netherlands have changed their lifestyle as a result of fearing AIDS. 1 2 3 4 5
75. I think a person can avoid getting AIDS by changing his or her behaviour. 1 2 3 4 5
76. I have changed my behaviour in some way to reduce my chances of getting AIDS. 1 2 3 4 5

77. Please read the following list of behaviours and mark the appropriate column. "Sexual intercourse" is defined as any activity where semen is taken into another person's body.

- 1 True of me now
2 Behaviour decreased or stopped
3 Behaviour never true of me
- a. Sexual intercourse with men who are bisexual or homosexual. 1 2 3
- b. Sexual intercourse with heterosexual men. 1 2 3
- c. Sexual intercourse with someone I suspect is an intravenous drug user. 1 2 3
- d. Sexual intercourse with female prostitutes. 1 2 3
- e. Sexual intercourse with male prostitutes. 1 2 3

- 1 True of me now
2 Behaviour decreased or stopped
3 Behaviour never true of me

- f. Sexual intercourse with strangers. 1 2 3
- g. Sexual intercourse with people who look like they might have AIDS. 1 2 3
- h. Sexual intercourse without condoms. 1 2 3

78. Here are some more behaviours. Please mark only one column for each statement.

- 1 True of me now
2 Behaviour is increasing
3 Behaviour never true of me

- a. I insist on my spouse or partner not having sex with anyone else. 1 2 3
- b. I stopped all sexual contact (celibacy/abstinence). 1 2 3
- c. I (or my partner) use a diaphragm or contraceptive pill during sexual intercourse. 1 2 3
- d. Using a spermicidal jelly, foam, or cream during sexual intercourse. 1 2 3
- e. Using condoms during sexual intercourse. 1 2 3
- f. Seeking divine intervention (prayer, atonement, ritual, sacrifice, etc.) 1 2 3
- g. Avoiding or moving away from areas where there is much AIDS. 1 2 3
- h. Avoiding any kind of contact with people who have AIDS. 1 2 3
- i. Avoiding any kind of contact with people who might have AIDS, even if they look healthy. 1 2 3

- 1 True of me now
- 2 Behaviour is increasing
- 3 Behaviour never true of me

- j. Eating healthier food, exercising more, taking better care of myself. 1 2 3
- k. Washing my hands more, staying clean more. 1 2 3
- l. Avoiding mosquitoes and other biting/stinging insects. 1 2 3
- m. Trying to be a better (moral) person. 1 2 3
- n. Relatively masturbating myself more often instead of practicing sex at risk for AIDS. 1 2 3
- o. Relatively masturbating a partner more often instead of practicing sex at risk for AIDS. 1 2 3
- p. Relatively being masturbated more often instead of practicing sex at risk for AIDS. 1 2 3
- q. Giving or receiving a massage. 1 2 3

How much do you agree or disagree with the following statements.
Circle the appropriate number.

- 1 Strongly disagree
- 2 Disagree
- 3 Agree, nor disagree
- 4 Agree
- 5 Strongly agree

- 79. A child who has AIDS or is infected with the AIDS virus should not be allowed to play with healthy children. 1 2 3 4 5
- 80. Co-workers have the right to refuse to work near or with someone who is infected with the AIDS virus. 1 2 3 4 5
- 81. Laws should be passed to prevent discrimination against persons with AIDS. 1 2 3 4 5

- 1 Strongly disagree
- 2 Disagree
- 3 Agree, nor disagree
- 4 Agree
- 5 Strongly agree

- 82. Specialized clinics should be set up to treat patients with AIDS and related conditions. 1 2 3 4 5
- 83. More social services should be provided for people with AIDS. 1 2 3 4 5
- 84. People with AIDS should (also in the future) be able to get whatever treatment they want, without government restrictions on those treatments. 1 2 3 4 5
- 85. Easy access to new and experimental AIDS treatment should be provided for anyone who is infected with the AIDS virus. 1 2 3 4 5
- 86. People with AIDS should (also in the future) be given the option of voluntary euthanasia (mercy death). 1 2 3 4 5
- 87. Special hospices should be set up to care for terminal AIDS patients who'd like to make use of such hospices. 1 2 3 4 5
- 88. People with AIDS should be confined in hospitals, even against their will, if necessary. 1 2 3 4 5
- 89. Employers should be allowed to fire workers who are infected with the AIDS virus. 1 2 3 4 5
- 90. Officials should close the sex-saunas/bathhouses. 1 2 3 4 5
- 91. People who are infected with the AIDS virus should not be treated differently than people with other illnesses as serious and contagious as AIDS. 1 2 3 4 5
- 92. Prostitution should be banned or strictly punished. 1 2 3 4 5
- 93. Anyone who is infected with the AIDS virus should be quarantined. 1 2 3 4 5

- 1 Strongly disagree
- 2 Disagree
- 3 Agree, nor disagree
- 4 Agree
- 5 Strongly agree

94. Foreigners who want to live here should be tested for AIDS. 1 2 3 4 5
95. Any potential AIDS carrier should be forbidden entry into this country. 1 2 3 4 5
96. The AIDS antibody test should be mandatory of all persons at risk for AIDS. 1 2 3 4 5
97. The AIDS antibody test should be made mandatory of everyone. 1 2 3 4 5
98. Prostitutes should be obliged to have periodic AIDS antibody tests. 1 2 3 4 5
99. Children should be taught how to avoid getting AIDS. 1 2 3 4 5
100. Adolescents should be taught how to avoid getting AIDS. 1 2 3 4 5
101. Sexual abstinence before marriage should be encouraged. 1 2 3 4 5
102. Monogamous (faithful) marriage should be encouraged. 1 2 3 4 5
103. The use of condoms should be encouraged for those who engage in behaviours at risk for AIDS. 1 2 3 4 5
104. Apart from sexual intercourse, other means of sexual expression should be encouraged. If so, such as what?..... 1 2 3 4 5
105. More money and effort should be devoted to treatment and education of intravenous drug users. 1 2 3 4 5

- 1 Strongly disagree
- 2 Disagree
- 3 Agree, nor disagree
- 4 Agree
- 5 Strongly agree

106. Drug use or selling should be strictly punished. 1 2 3 4 5
107. People who are infected with the AIDS virus should be publicly identified somehow. If so, how?..... 1 2 3 4 5
108. Homosexuality should be actively discouraged. 1 2 3 4 5
-
109. Have you ever considered being tested for the AIDS virus?
- 1 I have considered it and have had the test already
 - 2 I have considered it but did not have the test (yet)
 - 3 I have never considered it, yet I have been tested
 - 4 I have never considered it and have not been tested
 - 5 No answer
110. Would you want to know the result of your test for the AIDS virus?
- 1 I already know my test result
 - 2 I took the test but didn't want to know the result
 - 3 I would want to know the result
 - 4 I would not want to know the result
 - 5 I don't know