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ABSTRACT

This bibliography and review of the literature on sexual behaviors and attitudes toward sexual behavior was developed to contribute to an understanding of changes in attitudes toward sexual behaviors and in community patterns of sexual behaviors, and to assist in the development of Acquired Immune Deficiency Syndrome (AIDS) education programs. It reports on Australian and major overseas studies describing community patterns of sexual behavior, with special reference to the period since 1978. It includes a review and analysis of the results of these studies and reports on the reliability and validity of survey results. Comments are made concerning the implications of the survey results for AIDS prevention and community education strategies and programs for both the general community and specific subgroups (intravenous drug users, bisexual and homosexual males, and adolescents). Sources for the information in this review include commercial polls and sample surveys, work commissioned by governments and their agencies, studies by voluntary agencies, and academic studies. Individual sections of the review focus on: (1) patterns of sexual behavior from the Kinsey reports of 1948 and 1953 to the 1970s; (2) patterns of sexual behavior found in Australia studies between 1980 and 1988; (3) cohabitation; (4) heterosexual adolescents and the risk of human immunodeficiency virus infection; (5) intravenous drug users, AIDS, and behavior change; (6) the arrival of AIDS and patterns of homosexual behavior; (7) behavioral changes in the homosexual community in response to the threat of AIDS; (8) research methodologies; and (9) a summary of findings. A 29-page bibliography is included. (NB)

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Bibliography Series

Sexual Attitudes and Behaviours

A Review of the Literature

compiled by Bruce Rollins

CG

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- *Australian Family & Society Abstracts* compiled by Deborah Whithear, Volume 1, 1984 to Volume 5, 1988. Published annually.

THE BRIEF

The Commonwealth Department of Community Services and Health commissioned this review of the literature on sexual behaviours and attitudes to sexual behaviour of various groups in the community. The intention of this review is to contribute to an understanding of changes in attitudes to sexual behaviours and in community patterns of sexual behaviour. The review was commissioned by the National AIDS Program in order to assist the development of AIDS education programs.

The brief for the review required 'the preparation of a report on Australian and major overseas studies describing community patterns of sexual behaviour, with special reference to the period since 1978; reviewing and analysing the results of these studies, incorporating where available the findings of previous reviewers and commentators; reporting upon the reliability and validity of the survey and poll results; and making comment upon the implications of the survey results for AIDS prevention, community education strategies and programs for the general community, and specific sub-groups, for example, intravenous drug users, bisexual or homosexual men, and adolescents. Sources include commercial polls and sample surveys; work commissioned by governments and their agencies; studies by voluntary agencies; and academic studies'.

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PATTERNS OF SEXUAL BEHAVIOUR: FROM KINSEY TO THE 1970s

Reviewing the research literature on community patterns of sexual behaviour it quickly became apparent that:

1. the Kinsey reports of male (1948) and female (1953) behaviour could not be ignored because they are still viewed by many researchers as a baseline of knowledge regarding the sexual behaviour of Americans (Wyatt *et al.* 1988), but more generally of white Westerners (Schofield 1968), especially in the absence of comparable studies in other western societies; and this in spite of the methodological and statistical procedural weaknesses of Kinsey and his team (Cochran, Mosteller and Tukey 1954; Schofield 1968; Gebhard and Johnson 1979, among others);
2. many of the studies undertaken in the years since Kinsey have also been methodologically flawed, particularly those which have concentrated on relatively small and ethnically homogeneous student populations (Clayton and Bokemeier 1980); have assessed behavioural change through attitudinal change (e.g. Hong 1983); and appear to have been premised on functionalist or normative models of society with a bias towards identification of 'deviant behaviour' (Reiss 1970);
3. because there are few studies of the sexual behaviours of married heterosexual adults, information on behaviours in such populations would have to be extrapolated from Kinsey, and from evidence of behavioural changes found in studies by Wyatt *et al.* 1988; Forrest and Fordyce 1988; from the *Cleo* magazine survey and the 1988 survey published in the Adelaide *Advertiser*.

Accordingly, the literature reviewed is concerned primarily with the sexual behaviours of the young, whether heterosexual, homosexual or bisexual. It is, however, worth noting that, although the young are often seen as 'innovators' in sexual practice, any careful reading of Kinsey, Wyatt or surveys such as that conducted by *Cleo*, will indicate that the young are doing perhaps more overtly what previous generations have already done and are still doing.

To the extent that Australians and Americans share aspects of a common culture, Kinsey's findings indicate what were probably the prevailing patterns of sexual behaviour in Australia through the late thirties, forties and early fifties — a period characterised by 'conservative' or 'restrictive' sexual behaviours compared with the so-called 'permissiveness' of the sixties, seventies and eighties (Reiss 1964, 1967, 1970; Reiss and Miller 1979; Clayton and Bokemeier 1980; Hong 1984). Hunt (1974:148) claims that US college surveys conducted between 1945 and 1965 showed 'little, if any, increase in non-virginity' and supports the belief held by Reiss (1967) and others that:

> there was a major change in [sexual] behavior in the quarter century prior to the mid-1960s, but the spread of permissive sexual attitudes and their gradual incorporation into the psychological mechanisms of the young were laying a groundwork for an abrupt, almost explosive change in behavior.

Herold (1984:26) contends that from the mid-1960s the sexual behaviour of Canadian adolescents has been revolutionised twice. The first revolution occurred with the widespread acceptance of premarital sexual intercourse (PMSI)[1] and the second with the incorporation into behaviour patterns of oral-genital stimulation (Herold and Way 1983). Herold argues that the most significant changes have been in female attitudes and behaviours, which may have been the case in the populations he studied, but there was also a third revolution in sexual behaviours which he does not mention, namely that which accompanied the gay and lesbian liberation movements. (Because this literature review's primary concern is with changes in community patterns of sexual behaviour in conjunction with attempts to control the spread of HIV-related illness and AIDS, only some studies of male homosexual behaviours were selected for review.)

It could be argued that these three 'revolutions' are better viewed as symptoms of the change in social climate from the early to mid-1960s which occurred in Western Europe as well as in North America and Australasia. Writing of the Dutch experience, Tielman (1987:14) has summed up the factors contributing to change:

> the increasing openness about sexuality in general and homosexuality in particular; the social disengagement of sexuality from procreation, marriage and gender roles; the growing influence of the women's liberation movement; and, finally, the fact that, due to the strongly increased secularization of society, Christian political power diminished in favor of liberal/socialist political power.

Pre-marital Sexual Intercourse

To the extent that much of the literature seems to assume that change in the incidence of pre-marital sexual intercourse is an indicator of changes in community patterns of sexual behaviour, and because such change has been so frequently researched from Kinsey through to the 1980s, it makes a useful starting point.

Of Kinsey's sample of white females aged between 2 and 90 years (with the younger and older being inadequately represented and those between 16 and 50 years of age being adequately sampled [Kinsey 1953:31]), 64 per cent of the married females had experienced sexual orgasm[2] before marriage (Kinsey 1953:282).

> Nearly 50 per cent of the females in our sample had had coitus before they were married. A considerable portion of the pre-marital coitus had been in the year or two immediately preceding marriage, with a portion of it confined to the fiance in a period just before marriage (p.286).

Nearly 50 per cent of the females who were married by 20 years of age had had pre-marital coitus, as had 50 per cent of those who married between 21 and 25 years of age and between 40 and 66 per cent of those who married between 26 and 30 years of age. (Kinsey 1953: 287).

Packard (1968) surveyed an American sample of 2100 junior and senior students at 21 colleges and universities. At each of the campuses one hundred students, half of them male and half female, completed the questionnaire. Kinsey had found that 51 per cent of college-educated 'younger generation' males reported being coitally experienced by 21 years of age. Packard's figure was 57 per cent. Among college-educated females Kinsey reported that 27 per cent were coitally experienced by 21 years of age. Packard reported 43 per cent were coitally experienced by that age. Packard claimed that 'our findings support the surmises of a number of observers who have stated that if there has been any change in the sexual behaviour of young people in recent years it has involved primarily females' (Packard 1968:161). He further notes that in his sample of senior and junior college women, all of whom were single, 40 per cent reported that they were non-virgins, and that 53 per cent of the non-virgins had already engaged in intercourse with more than one man, and more than a third of the non-virgins said that they had experienced intercourse with 'several' or 'many' men (p.162).

Schofield (1965) used random sampling to obtain a sample of 934 single boys and 939 single girls in the United Kingdom, living in or near London. They were classified into two age groups according to their year of birth. The older boys and girls had an average age of 18 years, and were not younger than 17 or not older than 19 years of age when interviewed. The younger group had an average age of 16 years and an age range of 15 to 17 years.

Questions used by Schofield were trialled in schools, clubs and with youth workers. The interviewers were young graduates who had been trained for the task. Schofield insists that best results were obtained in the trials when males interviewed boys and females interviewed girls (in contrast to Kinsey who believed the gender of the interviewer was of little consequence).

In the group of 478 younger boys (15–17 years of age), a total of 55 (11%) said they had experienced sexual intercourse at least once; 138 (30%) of the 456 older boys (17–19 years of age) reported similarly. The figures for the girls were much smaller. Of 475 younger girls, 29 (6%) said that they had experienced sexual intercourse at least once, while 73 (16%) of the 464 older girls said the same. Thus 20 per cent of all the boys in the sample and 12 per cent of all the girls had experienced sexual intercourse at least once.

Bell (1974) provides the earliest Australian data on female sexuality which are at all comparable to Kinsey's data of two decades earlier. The 1442 women in his study (mostly resident in Victoria, New South Wales and the Australian Capital Territory) were asked: 'Did you have pre-marital sexual intercourse?' Almost three-quarters (72 per cent) of all the

women in the study said they had had coitus before marriage. Of the married women in the study who were 25 years of age and younger (information regarding how much younger is not given by Bell), 92 per cent had had pre-marital coitus; of those 26 to 30 years of age, 85 per cent ; 31–40 years of age, 70 per cent; 41–50 years of age, 58 per cent; and of those over 50 years of age, 38 per cent. Of the women who had had pre-marital coitus, the average age at first coital experience was 18.5 years.

Data supplied to the Australian Royal Commission on Human Relationships (1977) indicated that among Australian university students and student teachers, 60 per cent of the males had had 'sexual experience' (intercourse?) before 20 years of age and about 10 per cent by the age of 16 years. Fewer girls were said to have had 'sexual experiences' at the same ages (Beighton and Cole 1976).

Zelnik, Kantner and Ford (1981) report findings from two national surveys of American young women conducted in 1971 and 1976. In 1971, 30 per cent of young women aged 15 to 19 years had had pre-marital sexual intercourse; in 1976 the figure was 41 per cent. These percentages include 'once only' as well as 'many times', but in 1976 the 'once only' were only 13 per cent of all pre-maritally sexually active women. Pre-marital sex is more common among those who have married. The differences between the never-married and the ever-married exist at each age between 15 and 19 years. The authors argue that those who are planning to marry are more likely to have had intercourse than those with no definite plans to marry. 'It seems clear that sex often engenders marriage, especially where a pregnancy is involved; at the same time the anticipation of marriage acts to facilitate sex' (p.66). The authors argue that 'patterns of sexual activity among teenage women changed rapidly during the 1970s' (p.95). Contraception was often neglected, although 'a small but growing group' had always used some method; by 1976 about 30 per cent of all sexually active young women used some form of contraception. The authors undertook multivariate analysis of contraceptive use at first intercourse and at last intercourse. The re-analysis of their data is extremely complex and some of the outcomes puzzling even to them. They found that 'variables such as religion and religiosity seem to have little influence on contraceptive use. Variables such as current age, age at first intercourse, previous use, and pregnancy experience are much better predictors of contraceptive use' (p.129). The choice of the pill or intra-uterine device (IUD), rather than condom or withdrawal, had different determinants: the two variables that explain the use of a medical method (pill/IUD) more than others are the type of method used at first intercourse and experience with pregnancy. It would be useful now to have an equally throrough analysis, such as that conducted by Zelnick *et al.*, of the use of contraceptive methods for the prevention of HIV infection rather than for prevention of pregnancy.

Meikle, Peitchinis and Pearce (1985) surveyed Canadian high school students in the city of Calgary in 1979. Their sample comprised a balance of males and females aged 13 to 18 years, with the lower ages slightly over-represented. A total of 810 completed questionnaires were obtained representing 21 per cent of the city's public high school population. Of these, 16.6 per cent claimed to have had sexual intercourse by age 13 and 66.7 per cent by age 18. Of the whole sample 32.4 per cent had had sexual intercourse by their 18th year. The Canadian high school student studies of

Herold and Thomas (1978) found that 38 per cent had experienced coitus; Stennett, Roberts, and West's (1975) study of 2100 Canadian high school students, also found that 38 per cent claimed to have had sexual intercourse.

Meikle, Peitchinis and Pearce point out that 'while the frequency of intercourse increases with age, it does not do so uniformly'. The percentage point increase between 13 and 14 years was 7.2; between 14 and 15 years only 2.6; but between 15 and 16 years, 13.6 and 17.8 between 17 and 18 years of age. These findings suggest that adolescents are most likely to begin coitus between the ages of 15 and 16 years and/or between 17 and 18 years of age. The majority reported a sexual intercourse frequency of less than once a month, with 14 per cent reporting once a month, 8.7 per cent fortnightly, and 9.1 per cent each of once a week and more than once a week. At first experience of sexual intercourse, 53.9 per cent used some form of contraception, and of those, 65 per cent used condoms. Of the sexually active, only 34.2 per cent used a contraceptive method on every occasion of sexual intercourse. The use of contraception is roughly comparable to that found by Zelnik and Kantner (1980) (see Table 1).

Table 1: Contraceptive Use by Sexually-active Teenagers

Meikle et al. (1985) Calgary high-school students interviewed in 1979			*Zelnik and Kantner (1980)* Metropolitan teenagers interviewed 1971–79	
Not at all	26.7		Never used	24.0
Some of time	13.8	39.2	Sometimes used	41.0
Most of time	25.4			
Every time	34.2		Always used	35.0

Oral-genital sex

Another indicator of change in community patterns of sexual behaviour, particularly in Herold and Way's view (1983), is the practice of oral-genital stimulation. Kinsey treated oral-genital sex as a pre-coital technique rather than as an end in itself, but he reported that 54 per cent of the women in his study had received and 49 per cent had given oral-genital stimulation, but he offered no indication of frequency of occurrence. Bell's (1974) study of Australian women suggests that by 1973 the practice was gaining wider acceptance although his self-selected sample was skewed in favor of the better educated and may not be representative of Australian women in general. Of the 1442 women in the study, almost three quarters said that their husband performed oral-genital sex on them and one quarter said it

happened often. Only 29 per cent said they never gave their husband oral-genital stimulation, 48 per cent said that they did 'once in a while', and 23 per cent said that they 'often' did. In each case it was the younger women who reported the most frequent occurrences and who regarded it as 'a highly satisfying end in itself' (Bell 1974: 131-5).

Herold and Way (1983) found that of 200 university women, 61 per cent had performed oral-genital sex on a male and 68 per cent said a male had performed oral-genital sex on them. Moreover, of those who had engaged in coitus, 97 per cent had experienced oral-genital stimulation, while of those who had no coital experience, one third had engaged in oral-genital sex. Within this group, more women had received oral-genital sex (35 per cent) than had given it (26 per cent).

Footnotes

1. Since not all went on to marry their earliest sexual partners, 'non-marital' would seem a more appropriate designation, (as distinct from either pre- or extra-marital). However, pre-marital seems to be the preferred term, often abbreviated to PMSI (pre-marital sexual intercourse). This term is used throughout the literature review.
2. Data in Kinsey's chapter on pre-marital coitus are 'limited to coital activities, meaning heterosexual, vaginal intercourse . . . the data are further limited to the coital activities of females who were past the age at which they began adolescence, but had not yet married. The data do not cover pre-adolescent activities, or the activities of females who were single again because they were widowed or divorced' (Kinsey 1953:286).

PATTERNS OF SEXUAL BEHAVIOUR: AUSTRALIAN STUDIES, 1980–1988

The 1981–82 Australian Family Formation Study of the Australian Institute of Family Studies did not have changing patterns of sexual behaviour as a primary focus. However, data from this national survey of 2544 persons aged between 18 and 34 years of age were used in studies by Khoo (1985) and Carmichael (1986).

Khoo's interest was in the sexual behaviour of youth of ethnic origin resident in Australia compared to those of Australian-born of Anglo-Irish or Old-Australian parentage. She found that while over two-thirds of all the male respondents were sexually experienced by age 18, this was the case with only half the males from South-east Asia who answered the question[3]. Among the female respondents, two-thirds of the respondents born in Australia, the other English-speaking countries, and Western and Eastern Europe, were sexually experienced by age 18, but this was less likely to be true of those from Southern Europe, the Middle East or South-east Asia. Indeed, no sexual intercourse by the age of 18 was reported by two-thirds of the Southern European women and by 80 per cent of women from South-east Asia (Khoo 1985: 31).

A similar pattern held for attitudes to, and experience of living in, de facto unions, although the numbers reported on were small. Only 17 per cent of all respondents had lived in de facto relationships and only eight per cent of men and five per cent of women were living in de facto relationships at the time of the survey (p.32). For both males and females, only two per cent respectively from Southern Europe/Middle East and none from South-east Asia had ever lived in de facto relationships. Of the South-East Asian/Chinese women, 14 per cent had been in de facto relationships, but at the time of the survey none were living in such relationships.

Most of the Australian-born and immigrants from English-speaking countries thought it was acceptable for couples to live together without planning to get married. However, less than half of those from Southern Europe, the Middle East or South-east Asia approved.

In his examination of the same data from the AIFS Australian Family Formation Study, Carmichael (1986) focussed on the marriage intentions of young Australians. Most of the 615 males (87 per cent) and 507 females (85 per cent) who had never married thought that they probably would

marry at some future date. Only 79 males and 76 females claimed they would definitely not marry. Of these, almost a third of both male (31.6 per cent) and female (32.9 per cent) argued that marriage would restrict their social and/or sex lives. Compared with those expecting to marry someday, the non-marriers were slightly more likely to have been sexually active between the ages of 15–17 years (males 62.3 per cent compared to 58.6 per cent; females 39.2 per cent compared to 32.1 per cent) and at age 18 (males 76.6 per cent compared to 75.8 per cent; females 62.2 per cent compared to 56.4 per cent), although the differences were not statistically significant. In terms of age at first coitus these figures are similar to the 1976 survey data of Zelnick, Kantner and Ford for the United States, and the Meikle *et al.* figure of 66.7 per cent by age 18 among Canadian youth.

A survey (Kovacs *et al.* 1986) was conducted between August 1981 to April 1982 of first-time attenders at the Richmond clinic of the Family Planning Association of Victoria, most of whom were single women. Over 2000 women completed the questionnaire. Findings indicate 86 per cent had experienced sexual intercourse prior to attending the clinic. Of these sexually experienced respondents, 50 per cent had intercourse before they turned 18 and 10 per cent before the age of 15. More than half of the respondents had used no contraception during their first coital act. With the exception of those under 15 years of age, of whom only 16.7 per cent used contraception at first sexual intercourse, the percentage of those using contraception at first sexual intercourse declined by age from 50.6 per cent of 15–19 year-olds and 53.3 per cent of 20–24 year-olds to 32.5 per cent of those aged 35–39 years and 17.6 per cent of those aged 40 years and older. These and other data relating to contraceptive practice suggest 'that today's teenagers are more responsible than women of their mother's age' (Kovacs *et al.* 1986: 238).

Of the 1172 women who reported on the first method of contraception they ever used, 43 per cent used the pill, 39 per cent used condoms, 12 per cent relied on withdrawal and the remaining 6 per cent cited various other methods.

From the perspective of sexually transmitted disease (STD) and AIDS prevention these findings are more disturbing than if looked at solely within the context of pregnancy prevention, for only 39 per cent had some protection against infection. It would be interesting to know whether condom usage has increased in this population since the AIDS prevention campaigns.

Rural/Urban Differences

McCabe and Collins (1981) sought to investigate whether Australian adolescent sexual behaviour varied according to rural or urban environments. Kinsey *et al.* (1948; 1953) discovered that premarital masturbation, petting and intercourse were all more common among city youth than among rural youth. His findings were largely supported by Reiss (1967), Light (1970) and Gregg (1972). Abernathy *et al.* (1979) compared the sexual attitudes and behaviours of city, suburban and rural youth. They found urban males (81 per cent) were more sexually active than those from the suburbs (64 per cent) or from the country (47 per cent). On the other hand, suburban

females (40 per cent) were more sexually active than those from either the city (37 per cent) or the country (10 per cent).

McCabe and Collins sampled 2001 male and female 16 to 25 year-olds from urban and rural private and state schools, first year psychology students from Macquarie University, unemployed youth attending Community Youth Support Schemes, and youth attending local government sporting and community groups. The data were collected using an anonymous questionnaire filled in by the voluntary respondents which also included psycho-sexual and psycho-affectional scales. The behavioural analysis was based on data from 1166 respondents who had experienced all stages of dating as spelled out in the questionnaire. The authors did not find that sexual desires were dichotomized urban-rural, although urban youth were more experienced in their sexual behaviours than their country counterparts. Unfortunately the published study provided no statistical incidences of actual sexual behaviours from the psycho-sexual scale (from 1: hand-holding to 12: intercourse), and thus provides no precise impression concerning the range of behaviours measured or how many engaged in them.

Hong (1983, 1984) conducted two surveys, one in 1983 and one in 1984, of 560 college students and 659 members of the public in Toowoomba Queensland, a small provincial city in rural Australia. Contrary to findings by Alston and Tucker (1973), Hong found that attitudes of males and females are converging in the direction of more liberal attitudes towards premarital sex. However, Hong's data shows that liberal views did not universally extend to extra-marital sexual relations where views remained 'distinctly restrictive'.

Hong notes that while the general public overall held more conservative views than students, college students and those in the general public under 30 years of age had 'strikingly similar' attitudes to both premarital and extramarital sexual relations. This appears to be in line with Kelley's (1978) American findings and supports Thompson's (1983) conclusion 'that social background characteristics, such as level of educational attainment, do not influence extramarital permissiveness in any marked way' (Hong 1984: 95). The one variable which acts as a constraint in the development of sexually permissive attitudes remains that of religion defined by regular church attendance (Hong 1983; Chopra and Warren 1980; Bell 1974; Martin and Westbrook 1973; Singh 1980 among others).

Media Surveys of Sexual Mores

Dolly, an Australian magazine directed mainly to teenage female readers, made an attempt to gather information from its readership regarding their sexual attitudes and behaviours by publishing a questionnaire in June 1983. The 47 questions related to sex education, abortion, the age of consent, contraception, sexually transmitted diseases, sex before marriage and sexual activities (Dolly Magazine Promotions 1985). Six and a half thousand girls and women responded, their ages ranging from 11 to 34 years. Their marital status was not reported, but since 96 per cent of the respondents expressed the intention to marry and 100 per cent gave the ages at which they expected to marry (although 2.2 per cent thought they would

never marry and never have children), it could be assumed that the findings relate to a predominantly single and 'never married' sample. Some weight is lent to the assumption by the fact that only 6.7 per cent of the respondents were 20 to 34 years of age, 93.3 per cent being 11 to 19 years old. Male respondents were too few to be worth tabulating. In spite of the methodological deficiencies of such a survey (as pointed out by Wootten 1985)[4], the results constitute the only available approximation to a national survey of what young Australian women are thinking, doing and saying about sex.

The Dolly survey revealed that of the 55.5 per cent of respondents who said they were 'not virgins', 78 per cent claimed to have had their first experience of sexual intercourse between the ages of 14 and 17 years, and only 0.6 per cent in the 20 to 34 age category. Of the sexually initiated, 63.7 per cent said that they were having 'regular sex'; 63.9 per cent said that 'it was a joint decision to make the relationship a sexual one'; 75.4 per cent considered 'sex to be an important part of the relationship' (compared with 65 per cent of all respondents), and 86.5 per cent reported that they used one or more forms of contraception, with the use of condoms being most prevalent among 11–13-year-olds (63.7 per cent) and progressively reducing to be least prevalent among those 20 years of age and over (3.0 per cent). Use of the contraceptive pill is least among 11–13-year-olds with use increasing with age to nearly 90 per cent by age 19. Apparently *Dolly* made no attempt to probe other sexual practices such as oral-genital stimulation which Herold and Way had found to be an accepted behaviour by Canadian youth.

A second *Dolly* survey was conducted in 1988 with respondents numbering 8000. Unfortunately the published results provide no demographic material, but they show that by 17 years of age, 89 per cent of the respondents (all female) had experienced sexual intercourse, with the numbers rising to 95 per cent by the age of 18. At first sexual intercourse, 41 per cent reported condom use which means less than half were protected from STD or HIV infection. Of those who used no contraception the first time they had sexual intercourse (29 per cent), 66 per cent gave as their reason that they didn't know they were going to have sex, 10 per cent didn't think they would get pregnant, 9 per cent 'couldn't be bothered'. Six per cent of those who had their first sexual experience at 14 years of age or under said they were raped the first time and were not contraceptively prepared.

When asked whether contraception was currently used, and what the method was, the respondents revealed that condom use fell from 47 per cent and 58 per cent at ages 14 and 15 respectively, to 42 per cent at 16, 28 per cent at 17, 20 per cent at 18, and 15 per cent at 19 years and over. Moreover, this pattern is linked with multiple sexual partners. Most of the respondents had had one or two sexual partners, but for those aged 18 and over the figures are five to ten sexual partners for 20 per cent of the respondents. Clearly there is a population of young women in this country who allow themselves to be put at risk of sexually transmitted diseases such as herpes, cervical cancer and HIV. One positive and encouraging item in the survey report was that 89 per cent of the respondents said that their boyfriend showed an interest in, and cared about, contraception. What is not known is whether such interest translates into action and whether it reflects concern about sexually transmitted diseases or the risk of

pregnancy. It remains the case that somewhere in the order of 25 per cent of all condoms sold are purchased by women (Chapman and Hodgson 1988).

Another Australian survey, somewhat similar to those run in *Dolly* magazine, was conducted by *Cleo* magazine when a questionnaire was included in the issue for April 1985. A 'cross section' of the 4000 responses from female readers was analysed (*Cleo* September 1985), revealing that 51 per cent had experienced sexual intercourse by 16 years of age, 80 per cent by age 18 and 89 per cent by age 20. Only 2 per cent first experienced sexual intercourse with 'spouse after marriage'.

It is difficult to know how representative of Australian women the *Cleo* readership is. Because the magazine aims to attract readership of women of all ages, it may be assumed to include readers with more sexual experience and with a wider range of attitudes, as well as being older, than the *Dolly* respondents. Of those aged over 30 years at the time they completed the *Cleo* questionnaire, 71 per cent had not had sexual intercourse until they were over 17 years of age and 33 per cent until they were over 19 years placing them among those experiencing the liberalisation of sexual attitudes and behaviours of the early to mid-1970s, just a little younger than respondents to Bell's 1973 survey. The younger of *Cleo*'s respondents, a greater number of whom had experienced coitus at earlier ages, perhaps indicate an even greater rate of change of attitudes and behaviour in the late 1970s and early 1980s.

On the question of oral-genital sexual stimulation, *Cleo* respondents indicated that it is fairly widely practised. Only 10 per cent had never 'tried' it; 12 per cent rarely 'give' it. But of the latter, 25 per cent do receive oral-genital stimulation from their partners. Forty-two per cent give and receive oral sex regularly and 35 per cent occasionally; but closer examination of the responses also indicate that there are those who only give and those who only receive.

In the area of masturbation, 16 per cent of *Cleo* respondents said they regularly masturbate, 23 per cent occasionally, 25 per cent rarely, and 35 per cent never. Of those who had never masturbated, 49 per cent had never had an orgasm. Almost half the women who don't know if they have ever had an orgasm had never masturbated. Kinsey had found that about one third of women had masturbated by age 20. *Cleo* claims that the data show that many young women masturbate, and that those who learn to climax through masturbation have least difficulty reaching orgasm with their partner(s). Unfortunately the *Cleo* survey provides no details of age of respondents in relation to masturbation.

In relation to multiple sexual partners, 47 per cent of the 'sexually experienced' had had more than five lovers, including 28 per cent of the under 18-year-olds. Over half (59 per cent) of the divorced/separated had had more than 10 lovers, and 41 per cent of the over-30s had had more than 10 lovers. Only eight per cent of those 30 years old and over had had only one lover compared with 18 per cent of the under 18-year-olds.

A more recent survey of sexual behaviour and related matters was directed at women in South Australia with a questionnaire printed in August 1988 in the Adelaide newspaper, the *Advertiser*. Although 2343 women responded to the 100-item questionnaire, the findings revealed little about the pre-marital sexual behaviour of women. However, the find-

ings indicated that nearly one third (32.4 per cent) had been unfaithful during a long-term relationship and 19.5 per cent during their current relationship. Seven per cent of the women surveyed had had one-night stands in the past 12 months; 32.4 per cent believed most men were unfaithful and 16 per cent said they knew this was the case with their current partner. Although 67 per cent of the 'married' and 53 per cent of the 'single' said they had sex between one and three times a week, 48 per cent of the respondents agreed that their partner was more interested in 'sex' (presumably meaning sexual intercourse) than they were. Of those without children, 26 per cent said that they never wanted to have children.

In the context of the possibility of the spread of the HIV infection to heterosexuals in the Australian community, the attitude of the all female respondents to this Adelaide newpaper survey to the use of condoms gives cause for concern. Only 27 per cent of those who had one-night stands said they used a condom. For single women, use of condoms increased to 32 per cent, and for cohabiting women to 42 per cent. Presumably some of the women who did not use condoms in one-night stands are among the 32.4 per cent who believed most men were unfaithful. Their attitude, as indicated by these figures, shows either ignorance of the potential for sexually transmitted disease let alone the possibility of HIV infection and the development of AIDS or an astonishing disregard for their own health. Nevertheless, nearly two-thirds of all respondents said their attitudes to sexual encounters had changed because of the publicity about AIDS.

School-Aged Children's Sexual Experience

The trend toward first experience of sexual intercourse at younger ages is reported not only for Australia, but also for Britain, Sweden and the United States (Goldman and Goldman 1988). The Goldmans interviewed almost 1000 children aged 5 to 15 years in five countries in the years 1979 to 1981. In 1985-6 they administered a questionnaire 'to more than 1000 Australian first-year students in tertiary social science courses, asking them to report retrospectively on their childhood and adolescent sexual experiences'.

The Goldmans report that in Sweden over the last forty years the average age of first experience of sexual intercourse has dropped from 19 to 16 years and that a similar trend in Australia is indicated by their data (see Table 2), the period between 14 and 19 years of age being that in which 80 per cent first experience sexual intercourse.

A comparison of the Goldman's 1985–86 findings and those of the Australian Institute of Family Studies 1981–82 national family formation survey indicates differences in sexual experience which cannot be accounted for by the available data. The AIFS survey (N=1426 for this matter) found that 61.9 per cent of young Australians between the ages of 18–34 years had had sexual experience by 18 years of age, and nearly 40 per cent by 17 years. The Goldmans found nearly 40 per cent coitally experienced by the age of 16 but 80 per cent by the age of 19 years. It is a pity that the Goldman survey does not provide a breakdown of coital experience by gender; the overall figures give no indication of whether there are differences between males and females for first sexual intercourse. For example, Parkes *et al.* (1978) reported that in the mid-seventies in France the mean age of first

Table 2: Australian Youth: Age at First Sexual Intercourse

Age	%
10 years	2
11–13	6
14–16	39
17–19	41
20+	12

Source: Goldman and Goldman 1988: 206

coital experience for 30 per cent of females and 55 per cent of males was age 15. The *Dolly* survey, noted earlier, indicated that for Australian girls ages 15 and 16 years were the years of first sexual experience, with 56 per cent of all respondents claiming to be non-virgins. And Needle (1977) noted that pre-marital sexual intercourse is increasing at a greater rate for females than males so that by age 19 the two rates converge.

One United States study (Bernache-Baker 1987) deserves mention in this chapter, because although it is a small study, it touches upon comparisons often made in Australia between the relative benefits of education in private and public schools. Bernache-Baker studied 'preppies', that is students being prepared for tertiary education in privately owned and funded colleges, and college-bound publicly educated students. The study was designed to test the claims made by college preparatory schools in the private sector that they induct their students into value systems superior to those available in public schools. Questionnaires were sent to recent graduates (both male and female) from 16 college preparatory schools in New England and to public schools from around the United States. Follow-up interviews on completion of the questionnaire were conducted with 100 volunteers. The results showed that sexual activity of the students in the private 'prep' schools was greater than that among public school students, in both amount and degree of sophistication. Bernache-Baker found that privately educated students did not compare favourably with the public school students in terms of sex-related drug use, exploitative behaviour, female self-image and sexism, and homophobia. No Australian studies with such a focus were uncovered, but given the hopes of many Australian parents that private secondary school education will set their children on a moral or behavioural course superior to that likely to be provided by state schools, Bernache-Baker may have drawn attention to an area which needs more research in this country.

Footnotes

3. Some men from South-East Asian countries were reluctant to answer the questions. Permission to ask them questions about sexual experience was requested of the respondents in advance. Over 90 per cent of the men and women interviewed were willing to answer the

questions about sex life patterns; however, only three-quarters of the men from the Middle East and South-East Asia and 69 per cent of women from the Middle East were willing to answer these questions (Khoo 1985: 29).

4. See also discussion in Chapter 8.

COHABITATION

Although living together as married without the official sanctions of church or state has a venerable history in western societies, for several reasons contemporary cohabitation can be viewed as an aspect of the general changes in community patterns of sexual behaviour rather than as continuous with the more ancient tradition alluded to.

First, it is not continuous with the earlier tradition. Modern cohabiting began to become accepted sometime in the 1960s, during which decade it increased in the United States by eight-fold, with further increase since then (Macklin 1980). Such large numbers had not cohabited so visibly and with so little public comment at any time this century.

Secondly, many of the cohabitors were middle class, young, often students, and viewed their living arrangements as solving practical and economic problems while at the same time providing social and sexual companionship. One study of 1099 students at Penn State University, for example, found that 33.4 per cent of the males and 32.3 per cent of the females had lived with someone of the opposite sex, and 62 per cent of these men and 41 per cent of the women had had more than one cohabitation experience (Peterman, Ridley and Anderson 1974). It is reasonable to assume that relatively few saw the arrangements as in lieu of marriage or even as a trial marriage. For others, living together is undoubtedly seen as economic good sense, enabling a couple to save toward the home they want for themselves when they do eventually marry.

Economic constraints may help account for the dramatic increase in numbers cohabiting in the 1970s. American figures show a 19 per cent increase between 1977 and 1978 alone (Glick and Spanier 1980). But whatever the economic motivations, the arrival of the contraceptive pill in 1960 and its increasing popularity undoubtedly was a major contributor to the relaxation of traditional mores without which cohabition would not have been so widely accepted.

While very large numbers of Australians would know of at least one couple who are or have been cohabiting, not many Australian studies have documented this aspect of social change. Cotton *et al.* (1983) carried out a questionnaire-based study of opposite-sex relationships, comparing cohabitors with marrieds and daters. The 96 cohabiting, 117 married and 70

dating couples were recruited with the assistance of Sydney radio stations, newspapers and magazines.

Of interest here is that the results of the study were generally supportive of American and Australian findings that cohabitors are more 'liberal' or 'permissive' on a series of ten 'permissive' issues such as homosexuality, cohabitation and censorship (Hasleton 1975), and more pro-feminist than either daters or marrieds.

Cohabitors apparently engage in more frequent sexual intercourse than dating couples (Risman 1981). In the study by Cotton *et al.*, cohabitors desired more sexual intercourse, and had more sexual intercourse, than either daters or marrieds, and 32 per cent of the cohabiting males and 24.5 per cent of the cohabiting females had had sexual intercourse outside the cohabiting relationship compared with 20 per cent of husbands and 14 per cent of wives.

The Australian Institute of Family Studies Family Formation Survey of 1981–82 was a survey of 2544 men and women aged 18–34 years from randomly chosen households scattered throughout Australia. There were 152 persons in the survey sample who were living in de facto relationships when interviewed. The Families Survey conducted in 1982 by the Australian Bureau of Statistics showed that about 169 000 or 5 per cent of all couples living together were unmarried. More significantly, 17 per cent of all couples where the female partner was between 20 and 24 years of age were de facto couples, and 50 per cent of all persons in de facto relationships were aged between 20 and 30 years (Khoo 1986: 5-6)

Khoo points out that although there are no firm figures on numbers of de facto couples before 1982, estimates from various sources suggest that since the early 1970s de facto relationships have been increasing. Khoo and McDonald (1988) demonstrate that there has been a rise in ex-nuptial births in Australia over the last ten years and argue that the increase appears to be related to an increase in the number of de facto couples. They further argue that some couples hesitate to marry because of uncertain economic circumstances. Instead they live together in de facto relationships in which unplanned pregnancies then occur. Indeed they argue that de facto couples with ex-nuptial births are frequently of lower socio-economic status than couples with nuptial births, although they do not differ from married couples in their attitudes to marriage and having children.

If Khoo and McDonald are correct, and they argue a convincing case on strong evidence, then perhaps future researchers should attempt to differentiate between types of cohabitors, for the people they have identified seem to have much in common with those of earlier generations who lived together in common law marriages and raised families without ever being 'formally' married. Students and young business people who cohabit, often in temporary relationships, and who disavow any connotations of 'de facto-ness' in their relationships, appear to be typologically different. Moreover, what is known of the total life-style of this segment of the population suggests that they are more at risk from STD and HIV infection than the 'permanent' cohabitors[5].

Carmichael and others of the Department of Demography at the Australian National University are currently engaged in a national survey of cohabitors, but results have not as yet been published.

Footnotes

5. Sarantakos' (1984) study is not discussed here because it focusses on relatively few couples and on issues not germaine to this review.

HETEROSEXUAL ADOLESCENTS AND THE RISK OF HIV INFECTION

Sexually active teenagers and young adults must be regarded as being at risk from infection with the immunodeficiency virus (HIV), and therefore of developing the acquired immunodeficiency syndrome (AIDS), particularly since various surveys have indicated that first sexual intercourse for young Australians begins as early as 13 years old and well over 60 per cent are active by age 18 (see Tables 3A and 3B). Given adolescents' propensity for either not using, or infrequently using, condom protection during sexual intercourse, the risk is even greater.

Ita Buttrose, former chairperson of the National Advisory Committee on AIDS, has said that 'talk of 'heterosexuals' is slightly misleading, because most people who contract AIDS heterosexually are women' (Buttrose 1987: 35). McEgan (1987) points out that figures from the United States show only three per cent of American men who have died from AIDS contracted the disease through heterosexual intercourse, while of the American women who have died from AIDS, 27 per cent died from AIDS contracted through heterosexual intercourse. Clearly it is imperative that young women and their sexual partners should no longer be satisfied with contraceptive measures against pregnancy only, such as the pill, but should be adopting the only protection available other than abstinence, the condom, against sexually transmitted disease in general, and HIV in particular. But studies and surveys in this country and overseas indicate inadequate and inconsistent condom usage.

Pre-AIDS Studies of Sexual Mores in Australia

A pre-AIDS Australian study of never married 18 to 25 year olds found that only 37 per cent of males and 54 per cent of females 'never take risks', but this risk-taking related to pregnancy (Siedlecky 1979), not to STDs. The 1983 *Dolly* survey of female readers aged between 11 and 34 years found that 55.5 per cent claimed not to be virgins, 63.7 per cent of whom said they were having regular sex. Of those having regular sex, 86.5 per cent said they used some form of contraception. However, while 63.7 per cent of the 11 to 13-year-olds were protected by condom use, that figure declined

progressively to 33 per cent of 16-year-olds, 18 per cent of 17-year-olds, under 10 per cent of 18-year-olds and only 3 per cent of those 20 or over. The 1988 *Dolly* survey indicates the same pattern. Kovacs *et al.* (1986) in their 1981–82 study report that of 1172 respondents only 39 per cent said they had used condoms. These figures indicate very low use of condoms in the two years immediately preceding the identification in 1983 of the first case of AIDS in Australia.

Table 3A: Age at First Sexual Intercourse: Findings from Several Studies

Age years	**AIFS** 1981–2 male/female (N=1426) %	*Dolly* 1 1983 female (N=6500) %	**Goldman** 1985–6 male/female (N=1000) %	**Guttmacher, US** 1987 female (N=10,000) %	*Dolly* 2 1988 female (N=800) %
10			2		4
11					1
12					2
13			6		10
14					19
15					24
16		56	39*		19
17	40			45	10
18	62			76 (18–44 yrs)	6
19			41*		1
20					1
21+					3

*39 per cent for ages 14–16; 41 per cent for ages 17–19.

Table 3B: Proportions Sexually Experienced by Age

Survey	Percentage
AIFS	— 61.9 per cent by 18 years
Goldman	— 80 per cent by 19 years
Dolly 1	— 78 per cent by 17 years
Dolly 2	— 95 per cent by 18 years (89 per cent by 17 years)
Guttmacher	— 45 per cent by 17 years

What then is known of sexual behaviour and contraceptive practices in more recent years and to what extent has knowledge about the HIV or AIDS affected changes in adolescent behaviours? A number of studies have investigated these issues in the United States and to a much lesser extent in Australia.

Post-AIDS Studies in America

Di Clemente *et al.* (1986, 1988) gathered data from 261 white, 226 black, and 141 latino adolescents in the San Francisco Unified School District as part of a needs assessment of knowledge about the cause, transmission, and treatment of AIDS. Their ages ranged from 14 to 18 years, with a mean of 16 years; females comprised 48.2 per cent of the study population. The students completed a self-report questionnaire, the AIDS Information Survey, which required 'True', 'False', 'Don't Know', responses to all items. Details of differences in responses by ethnicity need not detain us here; suffice to note that 71.7 per cent of white adolescents were aware that use of condoms during sexual intercourse reduced the risk of disease transmission, a higher proportion than for either blacks or latinos. In their 1986 paper, Di Clemente and his co-authors argued that because their study population lived in areas with a high incidence of AIDS they had a greater awareness of the modes of transmission of the disease, as well as a greater fear of it, than the Ohio students whose attitudes were reported by Price *et al.* (1985): 66 per cent of the San Franciscans were 'worried' about AIDS as compared with 27 per cent of the Ohio students. In neither case was sexual behaviour reported on, but the differences in attitudes, if they were indeed determined by proximity to major incidence (Wiseman *et al.* 1987), indicate that students or other young people even further removed from an AIDS 'Centre', as are most young Australians, might also have lower awareness of the dangers of unprotected sexual acts (whether vaginal, oral or anal).

A study that did attempt to assess 'changes in attitudes, intentions, and condom use' in a sample of sexually active adolescents also in San Francisco was carried out by Kegeles, Adler and Irwin in 1984–85. Because of the high rates of STDs among teenagers (Cates and Rauh 1985; O'Reilly and Arol 1985; Shafer *et al.* 1984, and 1987; Bell and Holmes 1984), it must be assumed that teenagers are also an AIDS risk (Shafer *et al.*). Kegeles, Adler and Irwin (1988) gathered their data from patients attending a health clinic aged 14 to 19 years. Altogether, 234 females and 91 males who were sexually active at the time of the first survey (1984–85) completed largely self-administered questionnaires. Of these, 151 females and 53 males agreed to participate in the second survey in 1985–86. At the time of the first interview, 53 per cent of the females and 72.2 per cent of the males had previously had more than one sexual partner. During the year between the surveys, 40.3 per cent of the females and 69.4 per cent of the males reported more than one sexual partner. The authors point out that in San Francisco information about AIDS prevention, including condom use, is on television, billboards, and in buses and newspapers. It was included as a one-class segment on AIDS in middle and high schools in 1985–86, with teachers free to discuss AIDS in the lesson plan as they chose. Yet only 2.1

per cent of females and 8.1 per cent of males reported using condoms every time they had had intercourse during the year. There was a consensus among both males and females that condom use is of great importance in the prevention of STDs, and yet at both surveys the females showed 'little intention' to have their partners use condoms and were uncertain about whether the boys wanted to use them. The males, on the other hand, believing their partners wanted them to use condoms were likely to intend to do so, although the strength of this intention declined during the year.

It seems clear that providing information about STD and AIDS prevention by broadside advertising may need to be replaced by more precise targetting if the 'safe sex' message is to get through to a maximum number of young people. Kegeles *et al.* suggest that:

> even if adolescents understand in abstract terms that condoms protect against STDs and believe that this is of value, they may not feel personally vulnerable to contracting diseases from their sex partners. Thus, interventions that target perceptions of personal vulnerability may be a way of increasing adolescents' motivation to use condoms (1988: 461).

Given the nature of the study population this conclusion is the more striking for these students were already in a position to be both well-motivated and assuming responsibility for their own futures. They were a part of a larger study of adolescents' decision-making regarding contraceptive use in heterosexual sex and had met 'inclusion criteria' (English-speaking, single, not pregnant, and without a major psychosocial problem or development disability) before being invited to participate.

American Family recently published the findings of an American national survey conducted by the Alan Guttmacher Institute, based on interviews with more than 7000 adults and 3000 teenagers. The Institute reports that the proportion of girls aged 15 to 17 years engaging in sexual intercourse climbed from 32 per cent in 1982 to 45 per cent in 1987, and that the proportion of sexually active single women aged 18 to 44 years rose from 68 per cent to 76 per cent. Condom use among the male partners of single women almost doubled between 1982 and 1987, but overall use remained low. In 1982, 9 per cent of women's partners used condoms during intercourse; in 1987 the figure was 16 per cent. Forrest of the Guttmacher Institute said that if AIDS has had a marked impact on sexual behaviour, either it is among relatively small sub-groups who would not be affected by a national survey, or it has affected factors other than whether people are engaging in sex or not.

Factors in Condom Use

There may well be another factor militating against the use of condoms by a larger number of adolescents and young adults and one which does not appear to have been researched in the United States: attitudinal barriers to the condom itself.

Chapman and Hodgson (1988) explored this possibility in an interesting study carried out in Adelaide. The sample was selected from persons in hotel bars and discos which had reputations as 'pick-up joints'. Sixty single

or divorced adults aged from 18 to 35 years agreed to attend one of six focus groups for discussions about 'contraceptive practice and attitudes'. In addition, six single-sex discussion groups with 15 to 18 year olds were run by youth workers trained in group leadership. They included groups of Aboriginal boys, Aboriginal girls, and others with boys mainly of Greek and Italian parentage. All were paid $25 to attend; there were no refusals or failures to attend. Being a qualitative study the report contains many excerpts from the discussions, but no quantified results.

Condoms were not favourably regarded; the one factor 'predisposing to condom use, both actual or intended, was concern about sexually transmitted disease, and outstandingly, AIDS'. Negative attitudes to condoms included the view that wearing a condom was effeminate, that condoms 'turn me right off' (adult females), that 'you just don't have the same feeling' (male youth group), that condoms break or are otherwise unreliable, or are too big (they keep slipping off — male youth group) or too small, that putting them on is 'a bit of an interruption', that a guy who carries condoms in his wallet 'is presumptuous', and that the name 'condom' is 'sterile' (adult females), and none of the slang words for condom is satisfactory either.

The authors admit that their methodology does not allow them to evaluate the relative saliency of the various attitudes and beliefs expressed, but believe their findings have important implications for 'health promotion efforts designed to increase the use of condoms'. The following are their main conclusions:

- People need little further convincing that AIDS is a deadly disease for which there is no vaccine or cure (p.103).
- Efforts should be concentrated on lowering complacency about risk throughout the sexually active community (p.104).
- That there is a 'need to conceptually re-position the condom':
  - in marketing, to give the condom a new image
  - to remove the perception that condom sex is inferior sex
  - to give the condom a symbolism of caring and responsibility (p.104).
- That 'females are more likely to cause condoms to be used'
  - thus encouragement is required for female-initiated condom use through the adoption of the position 'no condom — no sex'.
- That there is a 'need for euphemisms for 'condom'' (p.105), for example, apparently in New Zealand 'parachute' is becoming an accepted word for condom — 'let's go parachuting'.

Adolescent Attitudes and Health Education

Another Australian research paper indicates the complexities of the task confronting health educators working in the AIDS prevention field. Moore and Barling (1988) investigated adolescent attitudes toward AIDS using a three-part questionnaire: the Erikson Psychosocial Stage Inventory, the Adolescent Identity Status Questionnaire, and the AIDS questionnaire. The subjects were 260 first and second year students aged between 18 and

25 years in a provincial College of Advanced Education. Most were teacher trainees, but 58 were nursing students. Females comprised 195 and males 65 of the sample. Moore and Barling obtained 250 usable responses. Their intention was to investigate the relationships between adolescent identity formation and the development of mature and responsible attitudes to AIDS prevention, and the link between AIDS attitudes and level of heterosexual intimacy. In regard to the latter, it was assumed that AIDS attitudes may relate to intimacy 'in that the degree of closeness with a partner may allow for more open discussion of precautionary practices and a greater degree of caring for a partner's welfare'.

The results showed that although most respondents were aware that most STDs require treatment even if the symptoms disappear, and that condoms can be used to prevent the spread of AIDS, their attitudes to AIDS and STD precautions were 'disturbingly negative'. Many had not thought about the risk of catching AIDS and had not thought the matter relevant to them. Some were hostile to condom use and only about a third said they would use a condom in their next coital act.

The factor analysis showed that attitudes to AIDS-related issues were more complex than straightforward. This suggests that intervention strategies must also be complex and adjusted to enhance communication with adolescents at different stages of development.

These researchers also investigated the attitudes of 374 volunteer Year 10 students with a median age of 15 years from four secondary schools in the Ballarat region in Victoria. They note that a Morgan Gallup Poll (May 1987) had found that 70 per cent of its sample of 14–19-year-old females regarded AIDS as a serious problem. In the absence of other published studies on Australian adolescent attitudes to problems associated with AIDS, and noting Chilman's (1977) finding that sexually active girls who do not use contraception tend to have feelings of powerlessness and a low sense of personal competence, Barling and Moore (1988) hypothesized that there would be a positive relationship between adolescent self-esteem and a responsible attitude to AIDS precautions. Accordingly, as in the study with tertiary students, they constructed a questionnaire designed to measure knowledge of, and attitudes toward, AIDS and STD prevention from within the framework of identity theory.

The results showed that 38 per cent of respondents agreed that the possibility of catching AIDS was something they had never thought about. About a third thought that AIDS was of no concern to them as their friends were not the types to be carriers. But 63 per cent agreed that in their next sexual encounter (presumably the authors mean 'coitus'), a condom would be used, although 32 per cent were uncertain and five per cent disagreed.

A major finding was that adolescents' responses to AIDS reflect apathy and a rejection of precautionary behaviour, and that these attitudes are related to level of maturity and self-esteem. Accordingly they argue that education programs need to relate AIDS education to maturity levels and evolve strategies to undermine the 'it can't happen to me' syndrome. Specifically, the authors point to further implications of the study and suggest that:

1. Education programs should address the realistic probability of catching AIDS so as to enable a personal relevance to be established. Generalised

fear arousing messages are inadequate in themselves and tend to alienate teenagers and increase levels of apathy as they overstate risks, do not target specific audiences, and do not present useful information or models of safe behaviour;

2. Education programs need to work toward changing attitudes to more realistic and open interpersonal interactions about sex and the use of condoms;

Table 4: Demographic Characteristics of Kinsey and Wyatt *et al.* Samples

	Kinsey (N=3952) %	Wyatt *et al.* (N=122) %
Age		
18–26 years	70	39
27–36 years	30	61
Education		
Never college	16	46
Ever college	84	54
Marital status		
Never married	65	26
Ever married	35	74
Children		
Never had	63	43
Ever had	37	57
Student at time of interview		
Yes	54	5
No	46	95
Age at first marriage		
17 years or younger	4	15
18 years or older	96	85
Number of times married		
Once	90	76
2 or more times	10	24
Current occupation		
Unskilled, clerical, skilled	59	47
Managerial and professional	41	53

Source: Wyatt *et al.* (1988): 210-211

3. Education programs in the area of personal development need to facilitate adolescent identity status development. Such programs could include discussions and values clarification exercises in relation to a wide range of social and ideological issues;
4. Education programs should continue to promote cognitive self-esteem to empower adolescents with a sense of being able to cope in the real world, and access information that is relevant to them;
5. Teachers, teacher educators and trainee teachers need to be inserviced to decrease apathy and facilitate greater community and adolescent awareness of the risk of AIDS and the precautions that can be taken.

Given that the Moore and Barling research was carried out in a provincial centre, and that the references cited by the authors indicate their familiarity with studies in the United States by Di Clemente *et al.* (1986) it is surprising that they did not enter the debate between Di Clemente *et al.* (1987) and Wiseman *et al.* (1987) regarding the relevance of proximity to or distance from 'a high-density AIDS epicenter' to adolescents awareness of AIDS-related problems. Di Clemente *et al.* (1987) argue that 'residing in an AIDS epicenter such as San Francisco may possess greater salience for adolescents with regard to knowledge and attitudes about AIDS than, say, residing in Toledo, Ohio', the locale of Price *et al.*'s (1985) student population. In terms of 'recipe knowledge' (Berger and Luckmann 1966:40), it could be expected that rural youth feel detached from big-city problems like AIDS and from the exotic (gay) communities which are so publicly identified with AIDS and AIDS-related problems. Whether their assumptions regarding their non-involvement in the matter are correct is rather beside the point. But those responsible for communicating on AIDS issues with rural as well as urban and suburban youth may need to take geographic location into account.

If Australian authorities are still confronted by the major task of inducing the young to change their sexual practices and adopt safe sex, so too are the relevant institutions in the United Kingdom where a recent survey has shown that although there is thought to be 50 000 carriers of the HIV, fewer than one in five people between the ages of 16 and 25 years have altered their sexual behaviour to reduce the risk of infection. The survey of 800 young people in the West Midlands revealed that only 22 per cent of young women bought condoms; even a majority of those with three or more partners in the past year had not changed their behaviour (*Women of Europe* 1988).

Women's Sexual Behaviours and Risk

A recent paper by Wyatt, Peters and Guthrie (1988) is of interest because it compares data from the Kinsey 1940s study of women's sexual behaviour with data derived from a study in 1980 of women's sexual behaviour. The age range of the two samples was the same, 18–36 years. The women in each sample were white. There were a number of significant demographic differences between the two samples (see Table 5).

Table 5: Incidence of Selected Sexual Behaviours from Kinsey and Wyatt *et al.* Surveys

	Kinsey %	Wyatt *et al.* %
Ever engaged in cunnilingus	(N=1889)	(N=120)
yes	51	87
no	49	13
Ever engaged in fellatio	(N=1884)	(N=120)
yes	48	93
no	51	7
Ever engaged in anal sex	(N=970)	(N=120)
yes	15	43
no	85	57
Have married women ever had extra-marital relationships	(N=1393)	(N=89)
yes	15	37
no	85	63
Ever engaged in prostitution	(N=1952)	(N=120)
yes	1	8
no	99	92

Source: Wyatt *et al.* 1988: 227

Compared to women in the Kinsey sample, the Wyatt respondents began sexual intercourse earlier, were less likely to have husbands or fiances as ' first partners, reported a higher number of sexual partners, and participated in a broader range of sexual behaviours (see Table 5). The findings are comparable with others already cited elsewhere in this review (Darling and Davidson 1986; Jessor *et al.* 1983; Zelnik, Kantner and Ford 1981). Given the over-riding interest here in behaviours which could place women at risk of HIV infection, some of the findings are worth noting.

For the two types of oral sex, most of the women who engaged in it did so on a regular basis, whereas anal sex was generally an experimental or occasional activity.

In relation to contraceptive practices, 97 per cent in the Wyatt study used contraception (95 per cent Kinsey) and of those, 71 per cent reported partners using condoms (79 per cent Kinsey), and over 40 per cent in both samples used withdrawal at times. In other words, very large numbers of American women must be considered as being at risk of HIV infection.

Incidence of Oral Sex

The dimensions of the problem of unprotected sex among young women in particular are highlighted if the research of Wyatt *et al.* is associated with

the findings of Gagnon and Simon (1987) concerning oral sex. They observe that what:

> we may be [seeing] is the emergence of a historically new set of decisions about various forms of sexual conduct that needed to be made by cohorts of young people in the middle to the later 1960s. Young people in that period were beginning to participate in what might be described as *pre-premarital* sex. For the vast majority of women and for many men such intercourse was truly pre-marital in the sense that it was directly part of the process of getting married (p.19).

However, Wyatt *et al.* observe that:

> more recent research [De Lamater and MacCorquodale 1979; Kantner and Zelnik 1972; Chilman 1979] indicates that the proportion of young people engaging in intercourse has grown, that intercourse is occurring at earlier ages, and that the number of coital partners has increased in the period that predates marriage. As a result of young people having more emotional-erotic relations that do not lead (and which are increasingly *not expected to lead*) to marriage, they are required to make more complex distinctions between sexual partners and what the appropriate sexual techniques might be in differing relationships (p.19).

This is the context in which Wyatt *et al.* see that the motivation for oral genital sex (that is, ongoing social and erotic relationships that no longer serve even covertly traditional goals) may shift from:

> the nurturant and affectionate (he/she wanted it), to the expression of love (I wanted to do it because he/she is special), or to a matter of erotic technique (I wanted to turn him/her on), in differing relationships or even within the same relationship (p.19-20).

Indeed, the De Lamater and MacCorquodale (1979) study found that about 60 per cent of the student males and 57 per cent of student females had had oral sex with the average age at first oral sex about 18.1 years for both genders. Newcomer and Udry (1985), reporting on data collected in 1982, suggested that oral sex had become very common in what Gagnon and Simon describe as the pre-premarital period. They found that 53 per cent of high school boys and 42 per cent of high school girls had had oral sex. Indeed, of the coitally experienced, 81 per cent of the males and 86 per cent of the females had had oral sex, but so had 24 per cent of the males and 16 per cent of the females who were not coitally experienced.

From less systematic interview studies it appears that young males often engage in oral sex without great enjoyment and young females do it because they believe their partner wants it (Haas 1979, cited in Newcomer and Udry 1985; Shostak 1981; Waterman and Chiuzzi 1982). The interactional pattern appears to be for the boy to initiate oral sex in order to induce the girl either into fellatio or coitus, the girl may then engage in fellatio or coitus.

Since HIV infection can be transmitted by oral genital sex, and since condoms are not likely to be used in this practice (who wants a mouth full of rubber, *What I don't like about about condoms* 1988), it is pretty clear that young people need to be hit hard in the next phases of AIDS media campaigns. We do know that students are more likely to use contraceptives if their friends do (Sack, Billingham and Howard 1985).

Given the absence of hard data concerning heterosexual experimentation with anal erotic activity, and assuming that it must be present in the

Australian community since it is documented for the United States, perhaps the kind of information made available by Agnew in his article, 'Hazards Associated with Anal Erotic Activity' (1986), should be made more widely accessible.

INTRAVENOUS DRUG USE: THE AIDS EPIDEMIC AND BEHAVIOURAL CHANGE

Intravenous drug users (IVDUs) are the second largest HIV-risk group after homo/bisexual men (Peterman *et al.* 1985; Goedert and Blattner 1985; Curran 1985; Ginzburg *et al.* 1986; Ginzburg 1987). AIDS statistics for the WHO European region show a sharp increase in the proportion of heterosexual IVDUs among European AIDS cases (Ancella-Park *et al.* 1987) from one per cent in December 1984, seven per cent in December 1985, 14 per cent in December 1986 to 18 per cent in September 1987. At the same date, IVDUs accounted for 62 per cent of all AIDS cases in Italy and 53 per cent in Spain (World Health Organisation 1987).

Reductions in the rates of IVDU transmission of the human immunodeficienty virus will only be achieved if IVDUs modify their drug practices and their sexual behaviours. It is known that needle and syringe sharing is endemic among IVDUs. Accordingly, IVDUs have the options of abstaining from further drug intakes, refusing to share needles and syringes, or sterilizing needles and syringes between uses with the 10 per cent solution of household bleach which has been found to be effective (Rensick *et al.* 1986; Jain *et al.* 1987), as well as adopting the 'safer sex' practices of reducing the number of sexual partners and using condoms and spermicides.

Compared with the male homosexual communities in the United States, more IVDUs are members of minority communities and their average level of education is lower (Becker and Joseph 1988). Communication in this subculture is generally oral rather than written. Whether or not these are characteristics of Australian IVDUs does not appear to have been researched although Drew and Taylor (1988) assert that Australian 'IVDUs come from all classes of society and many continue to function uninterruptedly as [otherwise] normal community members'. However, American research has identified ethnic differences which do not apply in this country. Bakeman *et al.* (1986), for example, found that while the majority of whites with AIDS (78 per cent) are homosexual, the majority of other ethnic groups with AIDS (43 per cent) are IVDUs. But whatever the social class or ethnic composition of IVDUs as a whole, they are not organised and equipped with facilities for communicating with each other and giving each other the mutual support which has been such a feature of involvement of gay communities in the process of changing risk-behaviours.

American Studies

Des Jarlais, Friedman and Hopkins (1985) undertook extensive interviews with 18 IVDUs who were not in treatment or health care of any kind. All had heard of AIDS and believed it was spread through the sharing of needles used for drug injection. They also reported an increased demand for new needles among intravenous drug users as a result of AIDS. However, when asked about whether the increased use of new needles would be sustained, they replied that the critical factors were not only the intentions of the drug users but also the ready availability of new needles. They held that IVDUs typically need to be able to get needles at the same time or soon after obtaining drugs because the period immediately after acquisition of drugs is characterised by an intense desire to use them. If new needles are not available then, whatever is at hand will be used. Thus the use of new needles depends not only on the user's general intention, but also on market supply mechanisms.

The research also discovered that needle sellers reported an increased demand for new needles, although only four of 22 sellers said this was due to AIDS. Knowledge of the link between AIDS and used needles did not prevent needle hawkers from cashing in on the demand for new needles by resealing used needles in plastic bags so they could be passed off as new.

Despite the problems their research uncovered, Des Jarlais *et al.* say they had 'observed a sustained increase in the use of new needles among drug users in New York City. The data clearly contradict the stereotype of intravenous drug users as incapable of modifying their behaviour and as unconcerned with their health'

Friedman *et al.* (1986) fo[illegible]nat as early as 1984 there were AIDS-related behavioural change[illegible]ong some IVDUs. They interviewed 59 patients in Manhattan methadone maintenance treatment programs, 59 per cent of whom reported changes in their behaviour to avoid AIDS. The changes included increased use of clean needles and/or the cleaning of their own needles (31 per cent), and reduced needle sharing (29 per cent). Fifty-one per cent said that their friends had also changed their behaviours.

Friedman *et al.* also describe work done by Selwyn *et al.*[6] in New York City among 145 methadone maintenance patients and 115 incarcerated drug users. Over 50 per cent of their respondents had made one of the following changes in order to avoid AIDS; no longer sharing needles although continuing drug use; decreased needle sharing; stopping IV drug use altogether; number of sex partners reduced and many using condoms, or taking other steps toward the practice of 'safer sex'.

Chaisson *et al.* (1987) report on the San Francisco program, begun in July 1986, to train health outreach workers to work with IVDUs not in treatment. More than 15 000 vials of a 2.5 per cent bleach solution were distributed to addicts, accompanied by instructions on use for the sterilization of needles and syringes. Posters and billboards were used to promote the use of bleach in the prevention of HIV transmission. In 1985 only six per cent of those who shared needles reported that they always or usually sterilised them with bleach. In the 1987 sample, 47 per cent were doing so, while the proportion reporting that they never used bleach fell from 76 to 36 per cent. During the same period, however, the prevalence of

HIV antibodies among IVDUs rose from 10 to 15 per cent, suggesting that other measures, particularly the provision of hypodermic syringes, needed to be set in train.

Ginzburg *et al.* (1986) surveyed 175 IVDUs in a New Jersey drug treatment program in 1984, and 577 IVDUs entering New York City drug treatment programs in 1985. Their purpose was to assess the scale of HIV infection in the two populations. Almost all participants knew that intravenous drug use put them at risk of HIV infection and 93 per cent knew what procedures to adopt to avoid infection. In the 1985 study, 89 per cent correctly identified intravenous drug users as a risk group, and 87 per cent knew that the HIV virus is spread by sharing needles. On the debit side, only 29 per cent knew that a 10 per cent bleach solution would sterilize their equipment; one third did not know the potential for HIV transmission to a heterosexual partner from an IVDU; and 43 per cent did not know that infants born to women who are IV drug users (or whose partners are) are at risk of HIV infection.

Williams (1986) reported on an all-black study population recruited from Detroit methadone maintenance programs. While the respondents had adequate knowledge regarding AIDS and the transmission of HIV among homosexual men, only 62 per cent saw IVDUs as a high-risk group, and only 11 per cent were 'very worried' about developing AIDS, even though they knew that blood and semen were the main means of infection. On the other hand, 67 per cent identified avoidance of intravenous drug users as an effective preventative measure and 67 per cent claimed to be no longer sharing needles.

In a study reported by Lange and others (1988) drug abuse treatment programs in six regions of the United States collaborated to monitor trends in the seroprevalence of HIV antibodies. The geographic disparities in HIV seroprevalence in spite of similarities in drug using behaviours have implications for the development of prevention programs. The differences in HIV seroprevalence the team discovered are marked — New York City area 61 per cent were positive (N=280); Baltimore, Maryland, 29 per cent were positive (N=184); Denver, Colorado, five per cent were positive (N=100); San Antonio, Texas, two per cent (N=106); Southern California 1.5 per cent (N=413); Tampa, Florida, 0 per cent (N=102). That is, programs distant from the Northeast corridor had far lower rates, and yet there was no corresponding difference in reported lifetime needle-sharing experiences, which ranged from 70 per cent in New York to 99 per cent in San Antonio. HIV seropositivity was associated only with geographic location and ethnicity. However, because needle-sharing is practiced by drug abusers in areas where seropositivity is still relatively low, these areas are potentially as vulnerable to the same dissemination as has occurred in the Northeast. The authors argue that 'a window of opportunity exists where prompt, vigorous and aggressive efforts at prevention could have a major impact'.

Australian Data

Estimates of the numbers of intravenous drug users in Australia vary from around 20 000 (Royal Commission of Enquiry into Drugs in Australia 1980) to some hundreds of thousands of users in different categories of use.

As at 31 December 1987, 5735 people were being treated with methadone for opiate dependence. Drew and Taylor estimate that if the 5735 'represent two-thirds of the people being treated for opiate related problems and some 15 per cent of regular users are in treatment, the national regular user population would be in the vicinity of 57 000' (Drew and Taylor 1988: Appendix 1). But they note that the results of a national household interview survey conducted for the Commonwealth Department of Health and NACAIDS in 1986-87 revealed that two per cent of the 1500 adults surveyed stated that they had injected themselves with illegal drugs within the previous 12 months and five per cent had done so at some time in the past. These percentages 'represent 500 000 people having ever injected themselves with illegal drugs and 175 000 having done so in the previous 12 months. On this basis it would seem that an estimate of 30 000 regular IVDU (including amphetamines) would be a conservative figure' (from their Appendix 1).

The same authors (in their Appendix 2) calculate that 'if 50 per cent of the estimated 30 000 regular IVDU were infected with AIDS within two years, then this would result in 3000 AIDS and 6000 AIDS-related complex (ARC) cases occurring within a further five years (Mann 1987)'.

Since Australian experience has been 'that almost all AIDS cases have died within a year of diagnosis and that there is a steady progression from ARC status to established AIDS status. Accordingly, it is likely that all 9000 cases of AIDS and ARC will eventually die from AIDS. In order to avoid overestimation, a figure of 6000 deaths is used. This figure makes no allowance for AIDS amongst the (probably) much larger population of occasional IVDUs who may be as likely as regular IVDUs to become infected' (Drew and Taylor Appendix 2 1988).

Figures such as these leave no doubt about the urgency of the need to facilitate behavioural change in both sexual and drug-related practices among intravenous drug users.

Australian data to date indicate a very much lower incidence of HIV infection among intravenous drug users than has been reported for many countries[7], but also indicate a population of IV drug users who are engaging in behaviours that put them at risk of HIV infection. To December 1985 none of the 118 cases of AIDS reported in Australia had been due to intravenous drug use as a sole factor, although a Sydney survey of 100 IV drug addicts found two persons who were HIV antibody positive (Penington 1985). By September 1988, one thousand cases of AIDS had been reported in Australia — seven (five male, two female) of whom were sole-factor intravenous drug users. Of the 500 deaths resulting from the disease to that date, two were attributed to sole-factor IVDU (AFAO Bulletin October 1988). At the date of writing the latest available figures for IVDUs are four AIDS cases reported and two related deaths[8].

The Albion Street (AIDS) Centre, Sydney, tested 9528 clients for HIV between March 1985 and February 1988. Of those, 541 were IVDUs (only risk-factor); 26 or five per cent were diagnosed HIV positive[9].

The prevention of the transmission of HIV among intravenous drug users depends upon whether or not they modify their behaviour, as noted earlier. Given that an addict lacks the community support available to homosexual and bisexual men, and that he/she often desperately needs a 'fix' whether or not sterile equipment is to hand, it can be expected that

IVDUs could be more recalcitrant about modification of risk-behaviours than the homosexual population.

This supposition is supported by Australian research as well as by the overseas studies cited. Paine *et al.* (1985) used a self-administered anonymous questionnaire with 200 clients attending the two largest rehabilitation centres in Melbourne; 168 (84 per cent) replies were received. Of those (N=162) who admitted to having used intravenous drugs, 91 per cent (N=147) said they had shared needles with other addicts. Their reasons for doing so were:

- lack of an easy supply of clean equipment, 66 per cent;
- overwhelming desire for a 'fix', irrespective of the consequences, 12 per cent;
- apathy and/or convenience, 12 per cent;
- a combined urgent need for a 'fix' and lack of sterile needles, 12 per cent.

The most common source of supply of needles was from chemists (77 per cent) as well as friends, hospitals, and surgical suppliers.

Edgoose and Baillie (1987) point out that to October 1986, the Victorian immunodeficiency virus surveillance program had detected 14 HIV seropositive intravenous drug abusers who were not at risk for any other reason. Their survey of IVDUs in Melbourne in 1986 was designed to obtain details of needle/syringe sharing habits, sexual practices and awareness of the risks of contracting and transmitting HIV. Again an anonymous, self-administered questionnaire was used. It was completed by 136 persons who had used drugs intravenously in the previous six months. The 86 men and 50 women were attending five different drug treatment agencies in Melbourne. Fifteen case studies were completed by interview.

Results showed that 96 per cent had shared needles and syringes in the previous five years, and 71 per cent had shared more than once a week. A third of those surveyed usually shared needles and syringes with three or more persons; 96 per cent said they 'sometimes cleaned' the needles and syringes (it is not clear in the report whether this means 'washing' or 'sterilizing'). Findings included:

- 68 per cent said their needle/syringe sharing habits had not changed since they had learned of AIDS;
- 49 per cent said that AIDS would not affect them, while 35 per cent were 'unsure' and 16 per cent thought it would;
- 95 per cent said that needles/syringes were easy to get.
- asked why they shared equipment, 76 per cent said that they were unable to buy a needle and syringe at the time and place of drug use, 11 per cent 'could not be bothered' to buy the same;
- and yet, astonishingly, fewer than 5 per cent actually wanted to share equipment.

The sample included 14 per cent who had at some time worked as prostitutes. Of these, 84 per cent had used condoms. Forty-six per cent had been imprisoned during the previous five years, 44 per cent of whom had shared

needles/syringes in gaol. And in terms of mobility, 64 per cent had been to Sydney or Adelaide during the previous five years, 46 per cent had travelled out of Melbourne in the previous six months. Forty-seven per cent had had at least one HIV antibody test, although many of the tests were undertaken routinely in prisons or at drug treatment centres.

As Edgoose and Baillie conclude, these results indicate a Melbourne population of IVDUs who are at risk of HIV infection, and this is especially true of all those represented by the 49 per cent in this survey who believed that AIDS would not affect them.

Monheit *et al.* (1987) reported that for the full year of 1986, a total of 25 605 HIV antibody tests was performed in Victoria (excluding those tested at the blood banks). The number of individuals who were confirmed to be seropositive for HIV antibodies for the first time in 1986 was 367. The risk groups of these persons included 308 (84 per cent) homosexual/bisexual men; 13 (4 per cent) intravenous drug abusers; 12 (3.3 per cent) haemophiliac patients; 9 (2.4 per cent) recipients of blood or of blood products; 1 female prostitute; and 24 (6.5 per cent) not specified.

The incidence of HIV antibody positive persons during January to June 1986 totalled 190 (see Table 6).

Table 6: HIV Antibody Positive Persons, Victoria, January–June 1986

Risk Group	Female	Male	Total
Homosexual/bisexual	—	168	168
IV drug abuser	1	5	6
Haemophiliac	—	6	6
Heterosexual trans.	1*	—	1
Blood trans. recipient	2	—	2
None of the above	—	7	7
TOTAL	4	186	190

Note: *Wife of antibody positive bisexual
Source: Monheit *et al.* 1986

It is of some consolation that in 1987, Monheit *et al.* found no increase in the number of IVDU–HIV antibody positive cases, even though Victoria had a dramatic increase in the number of requests for serological HIV antibody testing following the multi-media advertising blitzkreig on AIDS initiated in April of that year. During the first half of 1987, 27 472 tests (other than blood donation tests) were performed compared with 11 815 in the preceding six months (July–December, 1986).

Needle/Syringe Substitution Programs

Marks and Parry (1987) discuss the outcomes of the Liverpool, United Kingdom, program which provides drug users with sterile needles and

syringes in exchange for previously used ones. In the first months of the program, which began in 1986, 3237 syringes and needles had been issued and 2949 had been returned. The ratio of those in treatment to those not in treatment was 1.75 to one. All who attended were encouraged to use condoms which are supplied free on an experimental basis by a manufacturer.

Edinburgh, in contrast to Liverpool where the spreading of HIV infection was being contained, had experienced a leap in HIV infection from 0 per cent to 51 per cent between 1983 and 1985 in 164 intravenous drug users, of whom 72 per cent were male; their average age was 24 years (Population Reports July-Aug, 1986). According to a Scottish report cited by Drew and Taylor (1988), the rapid spread of infection in Edinburgh seemed to be related to the police drives to discourage the sale of syringes and needles, medical opposition to drug maintenance prescribing, and a general low level of investment in the provision of a medical drug dependency service.

In Holland, the public health department in Amsterdam has been working with self-help groups (Junkybond) for intravenous drug users which were in existence before the AIDS epidemic. These groups have been successful in holding the level of HIV infection at about 10 per cent of the intravenous drug using population in the major Dutch cities (Friedland *et al.* 1987).

The Dutch experience of using 'indigenous health workers' (Ginzburg *et al.* 1986) in a program of needle/syringe exchange in conjunction with drug dependency clinics, out-patie it detoxification programs, and other measures has kept the seroprevalence among IVDUs to about 30 per cent to September 1987, in spite of a large homosexual/IVDU population and a constant influx of IVDUs from other European countries (Drew and Taylor 1988). In contrast, New York City has an estimated 200 000 IVDUs with a 60 per cent HIV seropositivity and a police force which refuses to allow the free availability of sterile needles and syringes (CDC 27 July 1987; Weinberg and Murray 1987).

Knowledge of the different outcomes of different approaches to the problem of the spread of HIV infection through intravenous drug users such as the Dutch experience, and that in New York City (discussed above), is perhaps adding to the indecision of authorities in Australia in relation to these issues. As Carr says (1988:27) 'The objectives of repressing intravenous drug use and of stopping HIV infection among its practitioners are in clear conflict, and policy makers will have to decide which objective they wish to follow'. Drew and Taylor (1988: 4) describe the current Australian drug policy in terms of tentativeness and ambivalence, quoting an April statement of the Ministerial Council on Drug Strategy which:

> noted with grave concern the spread of AIDS through intravenous drug use; (and) is gravely concerned to address the broad and compelling public health problems associated with multiple use of contaminated needles, without in any way condoning illicit intravenous drug use.

Drew and Taylor argue that very little positive action has been taken to minimize needle sharing to date. Measures in the form of needle exchange programs or to ensure the availability of sterile needles, have not been widely implemented in Australia. In general, the emphasis is still on drug

education, treatment programs and law enforcement. Accordingly, Drew and Taylor call for the alignment of AIDS and drugs policies and programs so that they can be mutually reinforcing.

Footnotes

6. Selwyn *et al.* does not appear in the bibliography because the article could not be traced.

7. Professor Tony Basten, Australia's chief medical and scientific adviser on AIDS said today that 'Australia had a critical window of opportunity of perhaps six to 24 months to control' the transmission of HIV through IVDUs. Pointing out that high-risk areas like Sydney had an estimated rate of HIV seropositivity among IV drug users of one to three per cent he said: "If you get it right, you get a national prevalence like Holland with one per cent. If you get it wrong, you get a figure like 65 per cent for Edinburgh and 85 per cent for New York." He was speaking to the National Health and Medical Research Council decision that heroin should be prescribed for a group of addicts as part of a study aimed at preventing the spread of AIDS among (IV) drug users. He said that the trial depended upon the availability of single-use syringes so that the heroin could not be shared. Currently the WHO is assessing the single-use syringes produced by several companies. *The Age* 13 November 1988.

8. *The Age* 23 November 1988. Source: NHMRC Special Unit in AIDS Epidemiology and Clinical Research. Figures up to 11 October 1988.

9. The Albion Street (AIDS) Centre, in collaboration with other bodies, is currently investigating the relationship between HIV infection and the IV-drug using populations of New South Wales, Queensland, and the ACT. The study aims to: 1) obtain an estimate of the HIV seroprevalence amongst the intravenous drug-using population; and 2) collect data on the risk-taking behaviours of IVDUs in both their sexual and drug-related activities. The sample size (18 000 syringes returned for analysis by the end of 1988) will far exceed the sample sizes in earlier studies in Australia. *Albion Street (AIDS) Centre Newsletter* April and July 1988.

THE ARRIVAL OF AIDS AND PATTERNS OF HOMOSEXUAL BEHAVIOUR

The story of the first indications of the presence of a new, debilitating disease and the puzzles with which it confronted medical scientists is now well known. Some of the reports which are reasonably accessible to the lay person are noted here because otherwise this account of changing community patterns of sexual behaviour would be seriously deficient.

Between October 1980 and May 1981, five young homosexual men, who had until then been healthy, were treated for biopsy-confirmed *Pneumocystis carinii* pneumonia at three different hospitals in San Fransisco (*MMWR* 1981:30). The occurrence caused a stir because *Pneumocystis carinii* pneumonia had previously been found almost exclusively in immuno-suppressed patients (Walzer *et al.* 1974, cited in Peterman *et al.* 1985). At the same time, Kaposi's sarcoma was being diagnosed with increasing frequency in young men in New York City and in California (*MMWR* 1981:30). By July 1981, 26 cases of Kaposi's sarcoma had been reported and all were young male homosexuals. Seven of these patients also had serious infections, including four patients who had *P.carinii* pneumonia (Peterman *et al.* 1985). These cases announced the onset of an epidemic. By January 1988, 73 747 AIDS cases had been officially reported to the World Health Organisation from 129 countries. However the total number of AIDS cases was then estimated at 150 000 (WHO Update 1988).

The dramatic story of the early puzzlement of medical scientists with the cause of the various symptoms that were being reported is vividly recounted by Shilts (1987). His book has been criticized by various reviewers. For example, the book is condemned by one reviewer for being homophobic, contemptuous of gay leaders, and written in flagrant disregard of the fearful plight of sufferers from AIDS (Crimp 1987); although even Crimp acknowledges that it has some important passages which should be read, albeit critically. Even more, Crimp makes the timely statement that the enthusiastic reception of Shilts' book highlights that:

> the book demonstrates so clearly that cultural conventions rigidly dictate what can and will be said about AIDS. And these cultural conventions exist everywhere the epidemic is constructed: in newspaper stories and magazine articles, in television documentaries and fiction films, in political debate and health

> care policy, in scientific research, in art, in activism and in sexuality. The way AIDS is understood is in large measure predetermined by the forms these discourses take (p.245).

In a long review McCamish (1988) highlights the dramatic structure of the book, with its dramatis personnae of scientific and gay heroes and villains, such as Gaetan Dugas, the famous Patient Zero. He picks up some of the errors (e.g. the Province of Queensland), but concludes that he learned little from the book and wonders who will read it. On the other hand, Gust (1988) regarded the book sufficiently highly to urge that it be read by anyone who wants to understand this epidemic; a view which is endorsed here.

One of Shilts' achievements, and one made possible by the way in which he organized his book as a day-by-day account of the spread of the incidence of infection and the (rather squalid) struggles between research scientists for the glory of being the first to isolate the causal agent, is to clarify how an infection can be reported from say Zaire (Piot, *et al.*, 1984) and Rwanda (Van De Perre *et al.* 1984)[10], at the same time as instances of apparently similar phenomena were being isolated in the United States, France, Haiti and elsewhere (Barre-Sinoussi *et al.* 1983; Gallo *et al.* 1984; Goedert and Blattner 1985; Gallo and Wong-Staal 1985; Goedert, Biggar, Weiss *et al.* 1986; Curran *et al.* 1985; Blattner, Biggar *et al.* 1985; Jaffe, Hardy, Morgan, and Darrow 1985). By 1983-4, the primary causal agent of AIDS was identified as the human retrovirus for which the agreed designation eventually became the human immunodeficiency virus (HIV). It was soon recognised that the primary risk factor for infection by the HIV and the subsequent development of HIV-related illnesses was contact with the blood or semen of an infected person, but contact of such a kind that the infected blood or semen was able to enter the blood stream of the uninfected person.

By 30 August 1985, 12 932 cases of AIDS had been reported to the Centers for Disease Control in the United States, more than half of which were in homosexual or bisexual men, 12 per cent of whom also used intravenous drugs; 17 per cent had occurred in heterosexual men or women who used intravenous drugs; 1.5 per cent (N=195) were patients with no other risk factors than that they had received a transfusion of blood or a blood product; 0.7 per cent (N=86) were haemophiliacs who had received clotting factor concentrates. There were 129 (one per cent) heterosexual partners of AIDS patients or persons at increased risk for AIDS. A group of 814 (6.4 per cent) could not be classified. By March 1985, France had reported 307 cases; the Federal Republic of Germany, 162; Haiti, 340; Canada, 190; and Australia, 95 cases (Curran *et al.* 1985).

Leaving aside the intravenous drug using population and those who had received blood or blood products under clinical conditions, it was clear that changes in patterns of sexual behaviour among homosexual and bisexual men over the previous decade had put many of them at great risk of severe illness. Shilts gives the best, and most readily available, account of some of the influences at work in the period.

The fight against venereal diseases among gay men had already become a massive undertaking in parts of the United States in the 1970s says Shilts. The Howard Brown Memorial Clinic staff were finding that one in ten patients had contracted hepatitis B, and at least half who were tested at the

clinic (which is in Chicago) showed evidence of a past episode of hepatitis B. In San Fransisco two-thirds of the gay population had suffered the disease. Another problem was enteric diseases like amebiasis and giardiasis caused by the organisms which lodged themselves in the intestinal tracts of gay men with, says Shilts, 'alarming frequency'. In New York, 30 per cent of the patients at the New York Gay Men's Health Project suffered from gastrointestinal parasites. In San Fransisco, incidence of 'Gay Bowel Syndrome' had increased by 8000 per cent after 1973. First, what was the precipitator of these problems and later, of AIDS?

Shilts sees the origins in the gay liberation movement of the 1970s which had spawned a business of bath houses and sex clubs. The hundreds of such institutions were a $100 million industry across America and Canada, and bathhouse owners were often gay political leaders as well. The businesses catered to the needs of men who had long been repressed, and says Shilts, 'were now going to the extreme in exploring their new freedom'. The popular bestseller *The Joy of Gay Sex*, for example, called rimming the 'prime taste treat in sex', while a leftist Toronto newspaper called rimming 'a revolutionary act' (p.19).

Underlying the continuity of the gay sex revolution and the heterosexual revolution of the period, was the attribution and estimation of new heterosexual freedoms to Alex Comfort's *Joy of Sex*, not least in his depiction of oral-genital and oral-anal sex. Gagnon and Simon (1987) say that the importance of Comfort's book cannot be overestimated:

> in its influence on the content and style of these textbook discussion of oral sexuality. The illustrations used and the supporting rhetoric are both part of the legitimation of the technique of oral sex as an important part of the skills of the sexually competent person (p.4).

Shilts argues that from a purely medical standpoint the bathhouses 'were a horrible breeding ground for disease' (p.19). People who went to bathhouses simply were more likely to be infected with a disease — and infect others — than a typical homosexual on the street. He quotes Dr Dan Williams who, in a 1980 interview with a New York City gay magazine *Christopher Street*, noted that:

> one effect of gay liberation is that sex has been institutionalised and franchised. Twenty years ago there may have been a thousand men on any one night having sex in New York baths or parks. Now there are ten or twenty thousand — at the baths, the back-room bars, bookstores, porno theaters, the Rambles, and a wide range of other places as well. The plethora of opportunities poses a public health problem that is growing with every new bath in town (p.20).

Bell and Weinberg (1978) found that the gay respondents in their 1970s research were more negative in their attitudes than the gay respondents of almost a decade later, a change they attribute to the gay liberation movement. They trace the reporting and public perceptions of homosexual men's sexual activities. Kinsey (1948) reported that males whose behaviours were predominantly homosexual had less frequent contacts than did heterosexuals. Westwood (actually a pseudonym for Schofield) (1960) confirmed the Kinsey findings. So from a pre-Kinsey stereotype of practically non-stop sexual activity among homosexuals, a post-Kinsey stereotype developed of homosexuals being relatively sexually inactive. But Weinberg and Williams (1974, 1975), and Saghir and Robins (1973) found fairly high

levels of sexual activity, with oral-genital and anal sex being among the preferred practices: a pattern that continued into the late 1970s and early 1980s.

While Shilts was in Melbourne recently he made his position quite clear with regard to the changes in sexual behaviour that the AIDS epidemic had made necessary in an interview where he states:

> I used to be a very big proponent of sexual liberation. But that, I think, had to change at a time of sexually transmitted disease that was killing people. I just felt that it was an inability of gay political leaders to shift gears, to adapt to a new philosophy that would fit. So then you get to the most fundamental question. What is gay liberation about? To these people gay liberation was sexual liberation. I personally don't believe Harvey Milk (an early San Fransiscan gay crusader against bathhouses) caught four bullets in the gut so that we could have unlimited butt fucking and bathhouses (Carr 1988, p.35).

Footnotes

10. A recent study endeavours to "expose the fundamentally flawed nature of the evidence and arguments offered in support of the African (origin) hypothesis, and . . . explode the myth that Africa is at the epicentre of the world AIDS pandemic" (Chirimuuta and Chirimuuta 1987:2).

BEHAVIOURAL CHANGES IN THE HOMOSEXUAL COMMUNITY IN RESPONSE TO THE THREAT OF AIDS

This part of the literature review has been informed by the reviews of Levine (1980), Kaplan *et al.* (1987), Carr (1988) and Becker and Joseph (1988). Becker and Joseph have comprehensively analysed the American and some non-American research on behavioural changes to reduce the risk of the further spread of AIDS. Adam Carr (1988) has similarly reviewed a mass of overseas and Australian material which need not be recapitulated here. However, it is useful to note briefly the factors Carr isolated from the literature as influencing behaviour change among gay/bisexual men. These are age, the use of alcohol and recreational drugs, relationship status, a number of characteristics Carr groups as psychosocial, and a fifth factor, knowledge or lack of knowledge of HIV infection.

Citing many of the papers presented at the NACAIDS Seminar in Sydney in October 1987, and particularly those of Ross of Adelaide and from the researchers involved in the *Social Aspects of Prevention of AIDS Project* at Macquarie University (Connell, Kippax, Dowsett, Baxter and Watson among others), Carr puts forward a number of broad statements about behaviour change among gay/bisexual men:

- that virtually all gay/bisexual men who may be considered to be part of the gay community are aware of the facts of HIV transmission, and that a majority of them have made changes to their sexual practices to reduce or eliminate their risk of HIV infection. The changes are only partial or incomplete and may not be sustained over longer periods of time;
- that these changes are reflected both in reduced promiscuity and in the abandonment of unprotected anal intercourse, either through abstinence or condom use;
- that gay/bisexual men who do not identify as part of the gay community are less likely to be aware of the risk of HIV transmission, and are therefore less likely to have made appropriate changes in their sexual practices;
- that those gay/bisexual men who have not changed their sexual practices are more likely to:

  - use alcohol or other recreational drugs during sex
  - be under the age of 25 or over 45 years
  - have a lower educational and income level
  - not identify as part of the gay community
  - have a poor self-image and lack of peer support
  - identify (not necessarily accurately) as non-promiscuous/monogamous
  - not personally know a person with HIV-related illness;
- that a successful transition to appropriate and sustained behaviour change requires, but does not necessarily follow from, a knowledge of the facts of HIV transmission, but requires in addition some or all of:
  - acceptance of personal risk of HIV infection
  - acceptance that the recommended changes to behaviour will in fact eliminate risk of HIV infection
  - belief that one is capable of making and sustaining appropriate changes
  - belief that one has peer support for making and sustaining changes and that the community with which one identifies is making these changes;
- that knowledge of whether or not one is infected by HIV has some effect on the speed and direction of behaviour change, particularly if accompanied by professional pre- or post-test counselling; but this is not the clear cut effect which is sometimes claimed. Knowledge of HIV infection often produces negative psychological and behavioural changes: depression, alcohol and drug use, social isolation, that may adversely affect longer term ability to sustain change.

A number of papers discuss the level of knowledge about HIV risks among gay/bisexual men and changes to sexual practices (see Calabrese *et al.* 1986; Fox *et al.* 1987; Joseph *et al.* 1987; Klein *et al.* 1987; Martin 1987; McCusker *et al.* 1988; McKusick *et al.* 1985, three studies; Ross 1987 and 1988 - several papers; Baxter *et al.* 1987; Saltzman *et al.* 1987; Saltzman 1988; Valdiserri *et al.* 1988; Winklestein 1987).

Palmer (1988) has documented 21 months of the operation of the Melbourne GAMMALINE (Gay and Married Men's Association) telephone counselling service, from August 1986 to April 1988. The results, based on 235 primary interviews with men counselled by GAMMA, show that 89 per cent were still living with their wives, 76 per cent had children, 76 per cent were sexually active with other men, and 88 per cent were sexually active with their wives. Asked where they obtained sex with men, 33 per cent nominated a relationship, 17 per cent said homosexual 'beats', 16 per cent said saunas and 12 per cent reported casual pick-ups. Although 90 per cent said they were concerned about AIDS, only 52 per cent said that they were aware of safe sex practices. Of the 89 per cent who were living with their wives, 77 per cent of wives were reported as being unaware of their husband's sexual activities.

The type of sexual activity engaged in indicates that wives must be regarded as being at risk of infection with HIV, because many respondents are themselves at risk, thirty-three per cent of whose usual homosexual activity was anal sex and thirty-five per cent oral sex.

Of the 306 men who have ever been homosexually active, 245 appeared to have had sex with more than one male partner. There was a dramatic fall in the number of men using beats: 19 per cent in 1986, 18 per cent in 1987, but only 7 per cent in 1988. Palmer thinks this decline was related to the sticker campaign which had been in operation in Melbourne for some of the months of the period under study.

Commenting on the figure of 52 per cent who said they were aware of safe sex practices, Palmer thought it a disappointing result given the resources committed to education in this area. He notes that 'many callers who begin by saying they are aware of safe sex practices are found by our counsellors to be quite ill-informed'. Moreover, 48 men were positively identified as practising anal sex without using condoms on one or more occasions. This represents 13 per cent of the sample 'and is an unacceptably high level of high risk behaviour'. A number of callers to GAMMA refused to discuss the specifics of their sexual practices so that the number of those at risk may be greater than those identified.

Palmer notes that while 'education initiatives are achieving positive results in the bisexual risk group . . . behaviour modification has not been of a lasting nature' especially with regard to anal sex. He argues that 'non-specific safe sex information is inappropriate for functionally bisexual men'. He recommends that efforts be made to capitalise on bisexual males' concern for the safety of their heterosexual partners and the risk of *in utero* infection as well as targetting women in general, because many wives know or suspect that their husbands are homosexually active. Since it appears that individuals who are comfortable with their sexual identity seem to pose least risk to the community as a whole because they are best able to rationally consider their available sexual options, a comprehensive sexual education program deserves wider community support. Matteson (1985) provides information which supports this claim.

Recurrent themes in GAMMALINE's experience of counselling bisexual men is their fear of being 'exposed to their friends and family and a deep sense of isolation from the community in which they live. They are frequently very lonely and often very frightened by their own behaviour'. Until bisexuality is more openly discussed, it is unlikely that many men will be willing to identify themselves as bisexual, and therefore the community remains at risk. But the risks to which bisexual men may be exposing their wives and families must be publicised. Unsatisfactory as that may be, it may be the only way in which sexual behaviour can be modified in the short term.

Ross (1988) reported on a cross-sectional survey of 172 homosexual men in Adelaide. Respondents were divided into four groups: those who had had both HIV testing and safer sex counselling; those who had had testing only; those who had been counselled only; those who had neither been tested nor counselled. Questions probed testing for HIV infection, counselling history, sexual practices and prophylactic behaviours, condom use and associations with the gay sub-culture.

All but four per cent of the respondents had heard of safer sex. The results imply that some interventions or combinations of interventions are significantly more effective than others. Findings showed that increase in condom use for both oral and anal sex and stopping before ejaculation were associated with the combined testing and counselling group, and occurred

significantly more often than among those who were counselled only and those who were neither counselled nor tested.

In another study, Millan and Ross (1987) report the results of a survey of male homosexuals in Adelaide during June, 1985. An anonymous self-report questionnaire of 47 items was used. Respondents were approached in gay bars and discos (64.2 per cent), a drop-in for young gay people and activity groups including a gay squash club; 24.5 per cent were obtained through a 'phone-in' publicised locally. A total of 217 individuals under 24 years of age (mean age 20.4 years) and 110 over 24 (mean age 30.6 years) returned questionnaires.

The authors note two sets of statistics of particular concern relating to whether respondents had ever been raped or sexually abused, and whether they had ever had sex for money. There were significant differences between the two groups with regard to the first question; 26 per cent of those under 24 years of age as opposed to 15 per cent who were over 24 years of age indicated that they had been raped or sexually abused. The percentage who reported having sex for money was 19 versus 16 per cent, a non-significant difference. The authors comment that 'these data are cause for concern, because they suggest that exposure to risk of infection may be occurring in areas in which the respondents may have little opportunity to exercise 'safe sex' procedures' (p.52).

In a study of attitudes toward condom use among homosexual and bisexual men, Ross (1988) used a modified version of Brown's Attitude Toward Condoms Scale. The scale demonstrated that: 1) dimensions of beliefs and attitudes toward condom use among homosexually active men differ substantially from those among heterosexuals; 2) a reliable and valid scale for measuring such attitudes now exists; 3) factors influencing condom use by this population differ for oral and anal sex; and 4) the scale enables further research on determinants of condom use, and effects of modifying attitudes toward condom use, in homosexually active men.

Complementary to this study, Ross and Gilbert (1988) found that personality factors are involved in the ability to raise the issue of condom use in sexual encounters without fear of rebuff. They recommend that assertiveness training be included in educational campaigns, rather than merely relying on information on the efficacy of condoms for preventing HIV transmission.

McCamish reported on the Operation Vampire research project which is jointly conducted by the University of Queensland and the Queensland AIDS Council. The survey reported here took place from July to November 1986. The participants were recruited by extensive advertising in Brisbane and Gold Coast gay venues, gay organisations and through the Queensland AIDS Council newsletter, as well as through extensive personal networking. Three hundred and eighteen blood samples and questionnaires were collected. Almost half the respondents had regular sexual partners although a third of these regarded their relationships as 'open'. Anal sex was far more common among this group than was the use of condoms. McCamish describes the practice of anal sex as a norm; and shows that there is still a large number of sexually active men participating in high risk behaviour without taking any precautions. They found that the incidence of anal intercourse is significantly less in the lower twenties than

among other age groups. Education strategies must acknowledge this and provide peer support to reinforce this safe sex behaviour as well as concentrating on trying to modify the unsafe sexual practices among others.

A Melbourne study (Campbell *et al.* 1988) reports on a large-scale survey which had among its aims that of establishing 'in a total sample of seropositive and seronegative homosexual and bisexual men if there had been an alteration in sexual practices and attitudes due to exposure to AIDS related information'. Volunteers were sought for the study from advertisements placed in the two major Melbourne gay publications (*Outrage* and *Melbourne Star Observer*), and through the distribution of brochures through the metropolitan gay venues such as hotels, discos and clubs.

The methodological observations of the researchers are important. Since homosexual males are not a single, cohesive community, and homosexual individuals are as dimensionally broad as non-homosexual individuals, they hypothesized that two sub-groups would be of particular interest in research dealing with HIV/AIDS: the 'street people' of the inner suburbs who may or may not be on drugs, and bisexual males. However, in the nature of the case, representative access to all sub-groups of interest was virtually impossible.

A total of 369 gay and bisexual males volunteered, most from the Melbourne area with a small number from the Geelong area and Victorian country districts[1]. The socio-demographic characteristics of the volunteer-respondents are of interest, but the point is firmly made that 'the present group of men can be defined by inclusion (in the study) and no attempt is made to go beyond descriptive data to those excluded'.

Fifty per cent were aged between 18 and 34 years; nearly two-thirds were ethnic Australian; 16 per cent ethnic British; the remainder spread over a range of backgrounds. About 12 per cent were, or had been, married. About 60 per cent had some tertiary studies involvement with 42 per cent holding degrees or diplomas. Fifty per cent earned between $21 000 and $30 000 annually.

One hundred and fifteen men (31.2 per cent) believed that they had been exposed to HIV and nearly half of those believed they had fought it off. More than 50 per cent did not know anyone diagnosed as an AIDS patient. In terms of sexual orientation, 76.2 per cent were exclusively homosexual, 14.9 per cent were almost exclusively homosexual but with a small degree of heterosexual activity, 6.0 per cent were primarily homosexual but with a substantial amount of heterosexual activity, 1.1 per cent equally homosexual and heterosexual, 0.3 per cent primarily heterosexual but with a substantial degree of homosexual activity, 1.4 per cent almost exclusively heterosexual but with a small degree of homosexual activity. Of these, 36 per cent were mostly 'out of the closet', and 37.1 per cent were completely 'out'.

The top five per cent of sexually active men had had between 16 and 45 partners in 'the last month' (p.24), but the median number of different partners in the last month was three for single men and for men in a primary relationship who had sex outside of that relationship, while the top quarter of most sexually active men had had between six and 45 different partners in total. The most frequently occurring activities are those that are

considered to be safe, namely kissing, sucking with no fluid exchange, mutual masturbation and frottage. Of the unsafe activities rimming is undertaken by around 15 per cent, anal intercourse without condoms by 17–18 per cent, sucking with semen exchange by around 10 per cent and fisting (receptive) by less than two per cent.

The report includes very detailed tables regarding changes in sexual behaviours and attitudes to safe sex practices. In sum, just on 60 per cent of the men disagreed or strongly disagreed that 'safe sex' is unsatisfying; while 15 per cent agreed or strongly agreed with that view. Around 50 per cent find sex with condoms satisfactory; oral sex without fluid exchange is fun for a high proportion of the men (87 per cent).

The report states that there seems to be a baseline figure of about 20 per cent of the men who continue with unsafe sexual practices. That number rises to nearly 50 per cent with involvement of drugs and alcohol. About 40 per cent cannot 'always' follow safe sex guidelines for one reason (including being with the right person) or another.

With regard to the use of alcohol or drugs, a number of other studies are informative. Valdiserri *et al.* (1988) reported on the use or non-use of condoms during anal intercourse among a cohort of 328 Pittsburgh homosexual men. They reported that 35 per cent of their study population reported being under the influence of drugs or alcohol during at least half their sexual contacts. Seigel and Gibson (1988) reported on men practising safe sex and men not doing so in a group of 161 gay men in New York. Drug use during sexual acts was the 'greatest relative contribution' to the difference between the safe practitioners and the unsafe practitioners. Alcohol also facilitated unsafe practices. Other studies of note in this regard are Martin and Vance (1984), Stall *et al.* (1986), and an over-view article by Adam Carr (1988).

Carr draws attention to a phenomenon probably first spelled out in Kantor and Strauss (1987) as the 'drunken bum' theory of wife beating. In the context of gay sex, Carr sees this in terms of a general disinhibition theory:

> . . . for most gay men most of the time, the true relationship between drug and alcohol use and unsafe sex is a combination of disinhibition (being drunk allows me to have unsafe sex because drunk people aren't held responsible, even by themselves, for what they do), and social context (I have learned to associate heavy drinking and sexual activities that I now know to be unsafe with social acceptance and personal validation, and these things mean too much for me to give these activities up).

Carr rightly points out that:

> this leaves us with the task of constructing an educational and motivational strategy which, while not easy to design and implement, would not be quite as daunting a prospect as trying to stop gay men from drinking or sniffing amyl, or trying to locate gay men with peculiar personalities and then devising a therapy that might help them.

He suggests starting by mounting a campaign that states the facts:

> that drugs and alcohol do not of themselves override judgement and the ability to stick to decisions; that the excuse that drug and alcohol use lead inexorably to unsafe sex is just that, an excuse, which should not be socially or personally

acceptable; that gay men can (and in most cases do) make decisions about safe sex and stick to them, regardless of the state of their brain-cells; and that those who have a genuine drug or alcohol problem that prevents them from gaining control of their lives should be encouraged to get help.

Much discussion concerning the promotion of safe sex practices rests, in the end, on assumptions about the strength and durability of condoms. Yet given the available studies that touch on the failure rate of condoms, it probably must be concluded that, while condom use must be encouraged, the condom should not be promoted as foolproof.

The Albion Street (AIDS) Centre Newsletter of July 1988 includes the note that further evidence of condom failure and leakage was presented at the fourth International AIDS Conference in Stockholm. Since August 1988 the Albion Street Centre has been surveying condom use, breakage rates and correlates of breakage in both heterosexual and homosexual/bisexual clients attending the Centre over a three months period.

Hearst and Hulley (1988) have pointed out that the risk of HIV infection depends on: 1) the probability that the partner carries the virus; 2) the probability of infection given a single exposure to an infected partner; and 3) the reduction in risk conveyed by using condoms and spermicides.

They argue that the lowest risk is one in five billion for a single sexual encounter using a condom with a low risk partner who is known to be seronegative. The highest is two in three billion for five years of regular unprotected sex with a partner known to be seropositive (p.2428).

It is known that the failure rate of condoms to prevent pregnancy is about 10 per cent per year, although some studies have obtained better results. The frequencies of causes of condom failure (improper use, breakage, slipping off, etc.) are not known but appear to be substantial. Nor can data on effectiveness of condoms to prevent pregnancy be readily adapted to estimating their effectiveness in preventing HIV infection, because pregnancy can only occur at ovulation, while HIV infection is presumably possible at any time. Nevertheless, Hearst and Hulley settle for an estimate that the use of condoms reduces the infectivity of HIV by a factor of ten (p.2430).

They say the best advice they can give is to choose your partner carefully. There is no alternative to mutual trust short of mandatory HIV testing with public posting of results. Having sex 100 times (the number of times most young couples have sex in a year) with a partner who has a one per cent chance of being infected with HIV carries nearly the same risk as having sex one time each with 100 different partners who average a one per cent chance of being infected.

Lest this sound an altogether too gloomy prognosis, a rather more optimistic finding is reported by Guinan *et al.* (1988) who set out to identify factors which discriminate between HIV negative and HIV positive sexual partners of HIV infected homosexual men.

The sexual behaviours of HIV negative subjects which discriminated them ($p<0.01$) from HIV infected subjects were: the use of condoms, absence of other sexual partners, and avoidance of behaviours involving rectal trauma. Subjects who had partners in addition to their regular sexual partner were more likely to be HIV infected ($p<0.01$), particularly if their behaviours involved unprotected anal sex and rectal trauma. Marijuana

use, either with the regular sexual partner or with others, was associated with HIV infection ($p<0.05$). There was no association between prior infection with other sexually transmissable diseases such as herpes, gonnorrhea and syphilis and HIV infection. No demographic variables were found to be associated with HIV infection. It was also found that HIV negative subjects were more likely to have responded to the fear of becoming HIV infected by changing their sexual behaviours. Not surprisingly, they conclude that absence of HIV infection in partners of HIV infected men was associated with avoidance of sexual behaviours involving rectal trauma.

In Study A, Report No.3, of the Social Aspects of the Prevention of AIDS project, the authors report on their own and other studies of the response of homosexual and bisexual men to the AIDS crisis and implications of such responses for AIDS prevention strategies. It is worth rehearsing the findings of earlier studies reported by them so that a comparative picture of the ambiguities can emerge. Feldman (1985) reported a New York questionnaire survey of 1982–83 which showed a 'dramatic' drop in the average number of sexual partners reported by gay men — a decline in both oral and anal sexual contact and an increase in masturbation. A counsellor in Atlanta reported a shift toward couple relationships in response to the AIDS crisis (Carl 1986), while William (1984) claimed there were 'remarkable changes' in sexual behaviours and the emergence of a 'new sexual ethic' among gay men in New York. Bennett in a 1986 survey of Sydney gay sauna patrons reported 84 per cent having changed their sexual activities, but Hirsch and Enlow (1984) offer a much more complicated picture which emerged from their New York clinical experience. They described panicked rejection of sex, and denial of risk (possibly increasing exposure), as well as the 'integrated' response that reduced risky behaviour and supported community efforts against the disease. Kotarba and Lang (1986) in a small Houston study also noted the contrasting responses by gay men to the epidemic: change there is, but it is not all of a piece and may not all be beneficial.

Connell *et al.* (1988) report only 11 per cent who said that AIDS had produced no changes in their own sexual behaviours. There was a minor shift away from casual sex but it was not as marked as some of the overseas literature suggests. Overall, the patterns of 'five years ago' and 'now' are similar. They conclude that the AIDS epidemic has *not* resulted in a major change in the overall framework of relationships, but there are diverse and contradictory changes. For example, 112 of the over 20-year-old respondents had dropped casual sex over the last five years, but 81 had taken it up. The practices that have increased are those that reflect the 'safe sex' message, especially with casual partners. But within regular relationships this has not happened. 'There is less sex, fewer and less various partners, less esoteric sex. If there is a 'new sexual ethic' there is also a newly scaled-down sex life, and it seems distinctly less exciting. Only 24 per cent were 'very happy' with the changes in their sex life; an equal number was, at best, ambivalent' (p.7).

Other early data (Baxter *et al.* 1987) indicate that 77 per cent of their sample say they had changed their sexual relations because of AIDS and 87 per cent said they had changed their sexual practices. Many who said they had not changed are in monogamous relationships.

The change to safe sex was least marked among men not in the workforce, living in the Western suburbs or in the country, who were monogamous, socially identified as heterosexual, did not use drugs and had low frequencies of casual sex. It is precisely the groups most stigmatized by the media as irresponsible or promiscuous, that is, active participants in gay organizations, who had moved most strongly toward safe sex norms. Connell *et al.* (1988) spell out some of the implications of their research findings from the Social Aspects of the Prevention of AIDS Project for future education programs:

1. the Western suburbs and extra-metropolitan populations might be targetted for safe sex work; Oxford Street and extra metropolitan populations for work on drugs-and-sex issues;
2. class and employment: working class and economically marginal groups need work on safe sex, drug use and the issues involved in relationship change;
3. age: young men need work in terms of drugs and sex (p.28).

Most importantly, AIDS prevention work has to take account of the emotional and social dynamics of change. The direct statistical link between knowledge of safe sex procedures and adopting safe sex does not exist in the population which Connell *et al.* surveyed. This is probably best seen in the many reports which indicate that being monogamous is associated with a low propensity to adopt safe sex. That is, there may be a change in the nature of the relationship, but not in the sexual practices.

Footnotes

11. Within the Greater Melbourne Metropolitan Area, the Australian Bureau of Statistics estimates that there are one million men aged 18 years and over (based on the 1981 census). Of that total, Campbell *et al.* say a conservative estimate of self-identifying gay and bisexual men of five per cent -- eight per cent would be in the range of 50 000 to 80 000 persons.

RESEARCH METHODOLOGIES

All research which probes human sexual behaviours has obstacles to surmount. In phenomenological terms the researcher has to be able to approach the respondent — 'the Other' — in such a way as to enable him or her to confront realities which are often suppressed, if not repressed. And the researcher must present him or herself neither as counsellor, therapist nor voyeur, nor as an exploiter or pedlar of other peoples' frailties. Moreover, a researcher may carry into the field the burden of his/her own unresolved, sexually-suffused relationships with parents, siblings, partners and others, residues from which could interpose themselves between interviewer and interviewee. Such subtle influences could even be at work at an earlier stage of the research — the selection of research areas and populations, the design and construction of instruments, the choice of vocabulary and the general tone of an interview schedule or questionnaire.

Awareness of these and other problems has undoubtedly been so daunting for some that projects have been still-born. Others have proceeded but the euphemisms used for sexual behaviours have lent ambiguities to the end product, the published report. And perhaps the surfeit of studies of high school and college student populations is not only to be attributed to convenience, proximity or cost, but also to a perception that educated young people are biddable and resilient, fairly open concerning their sex lives compared with an older population, even proud of either their conquests or maturity and, in the main, non-threatening when approached by any reasonably well trained sex researcher.

Interviewer and Respondent Effects

Many published reports then, understandably, allude to the 'sensitive information regarding sexual practices' which they seek (Darrow *et al.* 1986) and point out that the manner of data collection can seriously distort research findings (Cannell *et al.* 1977; Sudman and Bradburn 1974). Darrow *et al.* point out that although many writers have expressed opinions about sex of interviewer and respondent effect, in fact the relation-

ships among sex of interviewer and place of interview and responses regarding sexual behaviours have hardly been explored. Kinsey thought it unnecessary to match the attributes of interviewers with those of the interviewees (Pomeroy 1972). Johnson and De Lamater (1976) researched that issue of methodology and found that sex of a student interviewer had little influence on the responses of male and female students about their sexual experiences, but De Lamater and MacCorquodale (1979) found that female subjects under-report 'current' behaviour when interviewed by a male. Darrow *et al.* (op. cit) studied the effects of the sex of interviewer and place of interview on the responses of 57 AIDS patients and 145 other homosexual men. Their interviewers were five male and three female medical officers, and places of interview were as varied as hospital wards and hotel rooms. They concluded that sex of interviewer and place of interview seemed to have little influence on the responses obtained (Martin and Vance 1984).

Darrow *et al.* do not seem to have considered that medical officers would be perceived differently from lay interviewers by their respondents, although they do acknowledge that AIDS is a 'highly visible life-threatening medical problem of particular concern to homosexual men in the United States', and that 'those who formally consented to give provide laboratory specimens and personal histories should have been highly motivated to give truthful answers to medical officers seeking clues as to the cause of the outbreak, even though these medical officers were not considered to be members of the gay community' (p.87).

Sampling

Sampling is another problem area. Clayton and Bokemeier note the studies of premarital sex which are based on a probability sample of a known population such as Zelnik and Kantner's (1972, 1977), but most continue to be based on student populations and share a clutch of weaknesses. First, they are generally homogeneous with regard to age, gender and social class. Secondly, they are usually drawn from a pool of volunteers attending only one institution or similar institutions in the same locale, and tend to be limited by sample size and attrition. As a result, little is known of the premarital sexual behaviours of other populations, such as pre-high school and post-college populations. Then again, most studies of premarital sexual behaviour have taken no account of other phenomena which are inseparable from the process of growing-up in a social environment subject to diverse and often confusing changes. Even the highly valued study by De Lamater and MacCorquodale (1979) scarcely locates the respondents in any more complex social context than is attempted by lesser studies, although it does offer a comparative analysis of a non-college and college sexual attitudes and behaviours.

Among research projects which have been undertaken in response to the threat of the further transmission of HIV infection in Australia, most are characterized by the ingenuity and persistence needed to obtain a study population and, it seems, considerable success in gaining the confidence of respondents (Ross 1987, 1988; Chapman and Hodgson 1988; Campbell *et al.* 1988; Connell *et al.* 1988 and McCamish 1987). Apart from Chapman and Hodgson who studied heterosexual behaviours, each of the research

projects cited above eventually obtained their sample populations in the cities of Adelaide, Melbourne, Sydney and Brisbane through the co-operation of gay/bi-sexual individuals and organizations, through advertising in gay journals (for example *Outrage*), through contacts established at hotels, discos and saunas known as gay venues, and through the technique of snowballing. Each recognizes that the sample obtained lacks the degree of diversity that a truly representative sample would have. Specifically, the under-represented include low socio-economic status males from the less privileged suburbs (for example the Western suburbs of Sydney; the northern and western suburbs of Melbourne), those from provincial cities and rural areas. There has also been a more noticeable under-representation of Australians of Asian and of middle-eastern and southern European origin.

It is understandable that these latter groups are more difficult to contact not only because of the more strict heterosexual mores of their ethnic groups of origin, but also because so few read materials published in English. Nevertheless, the immigrant communities pose an enormous challenge because they tend to see homosexuality as a Western or Anglo-Australian phenomenon (Rigby 1988 p.31; for incidence of male homosexualty in contemporary China see Ruan and Tsai 1988). Refusal to use condoms or to recognize the risk that may be present in their ethnic communities is mitigated by the very low incidence of intravenous drug use, scarcely any use of prostitutes, and the greater practice of chastity among some of them (for example, the Vietnamese, Rigby, 1987).

The point here also is that if social researchers are to reach homosexual/bisexual men in ethnic, working class or rural communities, they will need not only even greater ingenuity, but a level of funding adequate to the task.

Having said that, it needs to be acknowledged that much research in Australia is still handicapped by limited resources, including often tiny budgets, and by commissioning authorities who want information quickly produced concerning a limited number of issues. And indeed there is a need for such studies because there are still large gaps in our understanding of the kind of society we live in and the attitudes and practices of fellow Australians.

Descriptive, Cross-Sectional or Longitudinal Survey Methods

Jessor *et al.* (1983) have attempted to bridge other methodological gaps in premarital sexual intercourse research. They are critical of much research for remaining descriptive and tending to focus on variables specific to the sexual domain rather than rely on a more general social psychology of adolescent sexuality. Moreover, most studies are cross-sectional, to which their longitudinal study is meant to be a corrective. They are able to argue that their data show that the occurence of a complex social behaviour, such as initial sexual intercourse, is systematically linked with personality variation and demonstrates strong support for the continuity perspective on the nature and role of personality in behaviour and development.

Clayton and Bokemeier (1980) argue that during the 1970s premarital sex research advanced in both conceptual clarity and methodological rigour. For example, Reiss's (1964) 12-item Guttman scale of premarital sexual permissiveness at the attitudinal level has always met the minimum reliability criteria of Guttman scaling. Nevertheless, it is at times used uncritically by those who ignore its limitations, and those limitations point to the methodological questions about scaling procedures which remain unresolved.

If methodological and theoretical lacunae characterise much North American research into changes in patterns of sexual behaviour, homosexual and adult heterosexual as well as premarital, they are even more characteristic of the relatively few Australian studies of community patterns of sexual behaviour. Indeed, among those mentioned earlier in this report, none is a longitudinal study (with the exception of the two studies of family formation by the Australian National University and by the Australian Institute of Family Studies which are only tangentially concerned with sexual behaviours *per se*); all have small study populations; and none test important theoretical propositions, other than Moore and Barling (1988) who aimed to 'test empirically the extrapolation of adolescent identity status theory to the realm of adolescent attitudes to AIDS and STD prevention'; all are descriptive and while most give a passing nod to the turbulent times in which the behavioural changes are taking place (for example Finlayson *et al.* 1987), all in the end reveal that kind of methodological individualism which, unable to bridge the gulf between the individual and society, has little of sociological significance to say.

Journalistic Surveys of Australian Female Sexual Behaviour

In the absence of an Australian 'Kinsey', the surveys of sexual practices conducted by and published in the print media have helped fill out our understanding of changes in the sexual behaviours of considerable numbers of girls and women in our society. It would be quite inappropriate to criticize the *Dolly*, *Cleo* and Adelaide *Advertiser* studies for failing to satisfy criteria to which they never aspired, for example, random sampling, but there are some features of the questionnaires, especially of the first *Dolly* survey and the *Advertiser* survey, which may be commented upon.

Wootten (1985) has published a critique of the first *Dolly* survey. She noted that the questions often included undefined, difficult and ambiguous terms. The seriousness of this problem arose in part from the age range of the readership of *Dolly*: the youngest respondents were 11 to 13 years old. For example: Who initiated sex? instead of the more easily understood: Who first suggested having sex? More importantly, 'sex' is used for everything to do with sex generally, as well as for 'sexual intercourse'. It is true that contexts frequently define words for us, but in this case it is not known whether having sex was interpreted and answered in terms of mutual masturbation, oral-genital sex or vaginal sex, especially since this was a self-administered questionnaire.

In this connection, it is worth noting that the Hornsby/Ku-ring-gai study asked the student respondents whether they had had 'full sex' at some time with a member of the opposite sex and whether they were involved in a relationship where 'full sex' occurred (Finlayson *et al.* 1987). And the questionnaires were administered under examination conditions. How many of the respondents may have wondered about, but were unable to have clarified, what exactly 'full sex' is? Perhaps they had missed out on something after all!

The *Dolly* survey also failed to provide categories, such as *Other*, but *Not applicable* was often included inappropriately. And questions relating to approving of sex before marriage and abortion failed 'to distinguish between approval for oneself and approval for others', an important distinction for many women.

The second *Dolly* questionnaire (June 1988) was altogether a superior document. Some problems remained. For example, in the light of other studies which indicate the wide practice of oral-genital sex, it is not at all self-evident that 'sex' will denote only vaginal intercourse. And given the range of practices that children today can observe on video, there is a case for such a survey trying to establish the extent of unsafe sex, not only vaginal entry without a condom, but oral-genital and anal as well.

That 8000 girls/women responded to the second *Dolly* survey suggests that there is among this population a deeply-felt need to communicate with someone about this area of personal experience. Perhaps these surveys say something about our failures as parents, family, friends or partners: 88 per cent of 15 year olds don't tell their parents they have had sexual intercourse (should they be expected to do so?), although 52 per cent said they can discuss sex with their parents.

The *Cleo* (1985) questionnaire was robust and straightforward; it provoked 4000 women into mailing their responses. The *Advertiser* survey of 1988, while it elicited over 2000 responses from South Australian women, was strangely negative in wording, to the extent that the questions convey an air of disenchantment, even cynicism, which may have been attractive to some women (who responded) but rejected by some who may otherwise have replied to a survey on the topic. In other words, the *Advertiser* questionnaire seems characterised by an element of bias toward negative heterosexual experience.

For example, of the fifteen statements in the Section G: *SEX*, ten are negative, even bitter: 'Sex is over-rated'; 'I often feel pressured by my partner to have sex'; 'Men are more interested in quantity of sex rather than the quality'; 'My partner is selfish in bed'. Each of the fifteen statements requires the respondent to *agree* or *disagree* thereby encouraging a polarized, black and white, rather than a graduated response. Similarly, the only two questions in Section F: *Children* seem to invite negative responses: 'Do you ever want children'? (Response: Yes/No, already have children). 'If you are married, do you feel pressured to have children?' (Response: Yes/No).

It may be that the designers of this questionnaire tried to tap the undoubted hurt and anger of women who have suffered at the hand of spouses or partners, and indeed a headline inviting women to complete the questionnaire read: 'Discovering what South Australian women are really thinking' (*Advertiser* 16 Aug 1988 p.25). And Mrs Gray, the *Advertiser's*

marketing research manager, is quoted as saying that 'We are now finally talking openly about sex and marriage, but have things really changed that much for women? Have we really made progress in the area of relationships? This is a serious attempt to provide South Australia with the real story'. It is difficult to escape the impression that the designer(s) of the questionnaire knew the responses they wanted and succeeded in evoking them.

Question 86 for example, asked 'What penalty should convicted rapists and child molesters be given?' The choices were: life sentence; death sentence; penalty at the discretion of judge; castrated; other (specify). Thirty per cent of respondents advocated castration. But what response would an open-ended question have provoked? Given that rape and child molesting are horrific behaviours about which many people feel strongly, and that the respondents were offered only four choices (excluding Other), it is perhaps not surprising that 30 per cent opted for castration[12].

This is not to say that the *Advertiser* survey should be rejected in toto. A newspaper has to capture the interest of its readers and, in this case, encourage them to take the time and make the effort to respond. However the weaknesses of the approach and the distortions that can occur in surveys such as the *Advertiser's* could be avoided by the exclusion of leading questions and by the publication of correlations between demographic characteristics of the respondents with the views they hold and the activities they report. In this case, the South Australian Woman might then be more elusive, but the thoughts and behaviours of identifiable sub-groups of South Australian women might be better understood.

Footnotes

12. For a study which contends that surgical castration is not justified by post-castration behaviour see N. Heim, 'Sexual behaviour of castrated offenders', *Archives of Sexual Behaviour*, Vol.10, No.1, Feb 1981, pp.11–19.

SUMMARY

The research and other literature reviewed in this report demonstrate that community patterns of sexual behaviours have been changing since the 1950s and particularly since the marketing of the contraceptive pill in 1960 and the sexual liberation movement of the early 1970s. Whether it is useful or accurate to describe the changes as a sexual revolution is moot, not least because they are continuous with the shifts in sexual mores which occurred in the 1920s and 1930s. Moreover, such changes in sexual behaviours cannot be separated from the other vast changes in social relationships which were an accompaniment of the industrial, and the more recent, technological revolutions.

However, with the advent of the human immunodeficiency virus and the acquired immunodeficiency syndrome in epidemic proportions in the 1980s, earlier studies of changes in community patterns of sexual behaviour acquired a new urgency. The question confronting a Western democratic society like Australia is how to withdraw the permission we have given ourselves and others to experiment with behaviours or adopt lifestyles which threaten the lives of thousands of persons, including even the unborn.

This literature review indicates which broad segments of the Australian population are most at risk of HIV infection and some of the complexities which confront policy makers and educators as they attempt to target the at-risk members of our society with behaviour changing propaganda.

Australians Most at Risk of HIV Infection

Homosexual and bisexual youths and men remain the most at-risk members of the community. Those who are actively associated with gay organizations are more likely than others to have succeeded in adopting 'safe sex' activities thereby reducing the risks to which they were exposing themselves and others. However, for safe sex practices to be sustained over a long period of time, their behaviour modifications will need sustained peer support as well as the continued expenditure of public moneys on advertising campaigns, appropriate medical services and counselling.

More at risk are the bisexual and homosexual men who are not associated with any gay organization, who are less well educated and reside in the less affluent suburbs, particularly of Sydney and Melbourne, or who are geographically remote from gay support groups. Other characteristics of these men include:

- the use of alcohol or drugs during sex
- being under the age of 25 or over 45 years
- having a poor self-image and lack of peer support
- seeing themselves, not necessarily accurately, as non-promiscuous and/or monogamous
- not having known a person with an HIV-related illness.

The research reports of Connell *et al.* (1987), Campbell *et al.* (1988), Palmer (1988), and Ross (several papers) all point to the need to reach such men with information, HIV testing and counselling. How to reach such a scattered population, especially given the fear of many of being publicly identified as gay, is an unresolved problem.

McCamish's (1987) study identified another aspect of the need for specific educational and support strategies. In an area (Brisbane and the Gold Coast) where anal sex among homosexuals is the norm, the incidence of this practice was significantly lower amongst men aged in their lower-twenties. McCamish points to the need for strategies to provide peer support to reinforce this safe sex practice as well as to change the unsafe behaviour of the rest of the gay population.

Palmer (1988) focusses on another specific problem, that of bisexual spouses and partners. He urges capitalising on the bisexual male's concern for the safety of his heterosexual spouse/partner and the risk of *in utero* infection, as well as targetting women in general since many wives suspect their husbands of being homosexually active.

Yet another set of specific educational and motivational strategies is needed to help those gays with alcohol or drug-dependence problems to regain control of their lives and abandon the excuse that alcohol or drugs caused them to relax safe sex practices (Carr 1988).

It is generally agreed that intravenous drug users (IVDUs) are the second largest HIV-risk group after homo/bisexual men (Peterman *et al.* 1985; Goedert and Blattner 1985; Curran 1985; Ginzburg *et al.* 1987; Ginzburg 1986). Australian data indicate a much lower incidence of HIV infection among IVDUs than has been reported for many countries. By September 1988, one thousand cases of AIDS had been reported, of whom only seven (five male, two female) were sole-factor intravenous drug users. However, with the frequent sharing of unsterilized needles and syringes (Paine *et al.* 1985; Edgoose and Baillie 1987) and the geographic dispersal and mobility of IVDUs, together with their presumed sexual behavioural similarities to other Australians, Drew and Taylor (1988) have called for the alignment of AIDS and drug policies and programs so that they can be mutually reinforcing.

Women who are sexually active with more than one partner must be regarded as being at risk of HIV infection. Nor are their numbers small. The *Cleo* (1985) survey found that 59 per cent of the divorced/separated respondents had had more than ten lovers and 41 per cent of the over-30s had had more than ten lovers. The Adelaide *Advertiser* (1988) survey indi-

cated that of the 2343 female respondents, 32.4 per cent had been unfaithful during a relationship and 19.5 per cent were unfaithful during their current relationship. Moreover, only 25 per cent said they would use a condom during a 'one-night-stand', a figure which increased to 32 per cent among single women and 42 per cent among cohabiting women.

These attitudes toward condom use were consistent with the attitudes of women in Chapman and Hodgson's (1988) Adelaide study who said that condoms 'turn me off', that the guy who carries condoms in his wallet 'is presumptuous' and that the word 'condom' is 'sterile'.

If these studies indicate behaviours and attitudes typical of a percentage of women throughout Australia, then vast numbers must be regarded as being likely to be infected with the HIV.

Sexually active, heterosexual adolescents seem especially resistant to the notion that they could contract HIV infection. Even in San Francisco amidst intensive advertising and school programs about AIDS, only 2.1 per cent of adolescent females and 8.1 per cent of adolescent males reported using condoms every time they had sexual intercourse during a 12 month period (Kegeles *et al.* 1988). As it happens, adolescents represent less than one per cent of all diagnosed AIDS cases in the United States and the presence of HIV among teenagers has never been reported. Nevertheless, they may be at high risk because of their sexual activities and their high rates of sexually transmitted diseases.

Moore and Barling's (1988) Ballarat study showed that while young people know that condom usage can prevent the spread of STDs and AIDS, most had not thought the matter relevant to them. The authors argue that education programs need to relate AIDS education to maturity levels and evolve strategies to undermine the 'it can't happen to me' syndrome.

Given the North American evidence concerning the increase in oral-genital sex among the young, and given that the HIV infection can be spread by oral sex, and assuming, in the absence of relevant research, that Australian young people also experiment with oral (and possibly anal) sex, there is a case for educators finding ways and means to alert girls, in particular, concerning the risks to which oral, and anal, sex can expose them (Jaffe *et al.* 1988; Lorain 1988).

Advertising and Educational Policy and Programs

The findings of the Lievers and Donovan surveys (1986 and 1988) indicate how successful public education campaigns can be, at least at the level of information dispersal. What is much less clear is the success of such campaigns in affecting permanent behavioural change as is evident, for example, in the ability of many, and young women in particular, to withstand the anti-smoking campaigns.

As noted earlier, in a democratic society such as ours, the trick is to have people refuse permission to themselves to engage in undesirable behaviours. In the case of sexual behaviours which threaten HIV infection, those most easily persuaded are bound to be those who have never indulged in the risky behaviours and those who have, for one reason or another, no desire to persist in them.

Neither do those who are most at risk comprise a unified and homogenous sub-community (Campbell *et al.* 1988; McCamish 1987). The homosexual and bisexual men of Australia are as heterogeneous in education, type of employment, socio-economic status and place of residence as other Australian males. It is generally recognised that to date it is primarily those associated with gay organisations who are known to have attempted some modification of their sexual practices, and they are concentrated in the major capital cities (Connell *et al.* 1987; Carr 1988). Ross' (1988) view that some interventions or combinations of interventions are more effective than others, and Palmer's (1988) suggestion that women be targetted as allies in securing behaviour changes among bisexual men, indicate some of the complexities which any advertising campaign, educational program or counselling service must confront.

Indeed, available knowledge suggests that centrally designed programs such as the 'Grim Reaper' television advertisement, or its rather gentler successor, have a worthwhile but limited value: they awaken large numbers of people to important issues at the same moment in time, thereby encouraging discussion and debate, in small groups and large, across the country.

However, the more difficult, long-term behaviour changing programs will probably have to be undertaken as locality or regional initiatives. Schools, if appropriately supported with curriculum materials by central authorities and morally by their communities, are well placed in both suburbs and country towns to tailor programs to local teenage sexual experiences and problems, and to bring about a local convergence of drug and AIDS educational aims. As Lievers and Donovan state, it is not satisfactory, because the information provided cannot be sufficiently specific, that most people continue to receive most of their information about AIDS via the mass media with little input from doctors, workshops, pamphlets or by word-of-mouth.

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This bibliography and review of the literature of sexual behaviour and attitudes provides information for designers of educational materials for the campaign to prevent the further spread of AIDS. The bibliography identifies the major changes in patterns of community behaviour, and the groups which are most at risk of HIV infection. It highlights some of the complexities which confront policy makers and educators as they attempt to target the at-risk members of our society with behaviour changing programs.