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***Condom Dilemmas: Dynamics of Protected Sex in High Risk Groups in South Africa***

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**Introduction**

Young people and commercial sex workers are among those at greatest risk for HIV/AIDS infection and transmission. This paper examines parallels and differences in the dynamics of condom use between these two groups in South Africa, a country with one of the fastest growing HIV epidemics worldwide. The socio-behavioural determinants of condom use between urban female commercial sex workers (CSWs) and their partners, both in professional sexual relations with clients and in personal relationships with domestic partners are explored, and compared with urban Zulu youth<sup>1</sup> and their partners. The extent to which HIV/AIDS awareness or perception of infection risk influences condom use in these groups is also addressed. These data illustrate the pivotal influence socio-cultural, conceptual, ideological, and economic factors have on condom use and in determining (sexual) behavior in general. These observations also reinforce the importance of considering such elements in the design - and ultimate success - of HIV intervention programs.

**HIV/AIDS in South Africa**

By the end of 1999, an estimated 34.3 million adults and children were living with HIV/AIDS (UNAIDS 2000). The vast majority of these individuals live in sub-Saharan Africa. HIV/AIDS figures for the region provide a shocking portrait of the state of the

<sup>1</sup> There are differing definitions of “youth”. One widely accepted definition is that of the World Health Organization. Individuals aged 10-19 are considered “adolescents”, with sub-categories of “early adolescence” (10-14) and late adolescence (15-19). Those up to the age of 24 years are considered “youth” or “young people”. In this paper individuals aged 24 years or less are referred to as “youth”

pandemic. At the turn of the millenium, the continent contained over seventy percent (24.5 million individuals) of the total number of HIV infections and over eighty percent of total estimated deaths worldwide attributable to HIV/AIDS. Sub-saharan Africa also has the unwelcome distinction of being the leader in vertical or mother-to-child HIV transmission and having witnessed the most precipitous drop in life expectancy due to HIV/AIDS.<sup>2</sup> Moreover, the epidemic has not affected all members of the population equally; women and young people are at greatest risk for HIV infection (MAP 2000, UNAIDS 2000).

In recent years, South Africa has witnessed a staggering increase in HIV infection rates. While HIV was first observed in the early 1980's, by 1990 – the year national antenatal surveillance began – seroprevalence among pregnant women attending public antenatal clinics was below one percent (0.76%). However by 1995, this figure had increased to 10.4 percent. The most recent antenatal survey in late 1999 revealed a national antenatal seroprevalence rate of 22.4%. In KwaZulu-Natal Province, both the rate of increase and seroprevalence levels themselves are cause for even greater concern. Between 1990 and 1995, provincial seroprevalence underwent an eleven-fold increase, from 1.6 to 18.2 percent, and since then has consistently remained approximately 10 percent higher than national levels. The 1999 figures indicate 32.5 percent antenatal seroprevalence, with some areas of KwaZulu/Natal up to 35 percent. A potentially optimistic trend is the fact that the provincial figure is the same as 1998. Some have suggested the epidemic in KwaZulu/Natal has peaked and that the prevalence will remain between 35 and 45 percent (Smith 2000).

South African youth and adolescents are particularly at risk for HIV infection. The 1998 antenatal survey found 21 percent seroprevalence among 15-19 year-olds, a 65 percent increase over the previous year's 12.7 percent. In 1999 seroprevalence for this group dropped to 16.5 percent, though this may be an artifact of small sample size (Smith 2000). HIV rates are also high for young adult women. The 1999 survey revealed 25.6 percent seroprevalence among women aged 20-24 years. In KwaZulu/Natal 32.5 percent of pregnant women under the age of 25 were HIV positive. Moreover, infection trends

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<sup>2</sup> In Southern Africa, it is estimated that within the next five years life expectancy will drop from 59 years to 45 years due to AIDS. In South Africa, it is expected to drop from 60 to 40 years by 2010 (HST 1999).

over the previous five years both nationally and provincially clearly suggest that South African women in their teens and early 20's are at highest risk for HIV infection.

Unlike youth, while it is generally accepted that sex workers are at increased risk for HIV infection and transmission, there is little accurate information available on HIV prevalence among women in the South African sex industry. No large-scale or national studies have been undertaken, and existing statistics are derived primarily from clinical trials and baseline research conducted in conjunction with intervention programs. With regard to the former, close to half the sex workers involved in a recent microbicide trial in Gauteng Province were found to be HIV positive (Nairne 2000). A recent small-scale survey of sex workers involved in an HIV intervention program targeting a gold mining community revealed 69 percent of women tested were HIV positive (Williams 1999, cited in Campbell 2000). Furthermore, research among sex workers in other African countries has revealed some of the highest seroprevalence rates in the world (McKeganey 1994, Mann et al. 1988). Thus there is little doubt that commercial sex workers in sub-Saharan Africa are at increased risk for HIV infection.

### **African Sex Workers and HIV/AIDS**

African sex workers have received considerable attention in connection with the HIV/AIDS epidemic. Many researchers have emphasized the increased risk of HIV acquisition and transmission specifically among African CSWs, their clients, and others in their sexual networks (Wilson et al. 1990, McKeganey and Barnard 1992, Spina et al. 1992). There appears to be a certain amount of justification for such claims. Studies with African CSWs have revealed some of the highest recorded seroprevalence rates anywhere in the world (Mann et al. 1988, McKeganey 1994, HIV/AIDS Surveillance Database 1996). Nonetheless, interpretation of variation in HIV patterns among CSWs must be undertaken cautiously.

Lower seroprevalence in some areas may reflect the later introduction of HIV, not necessarily decreased risk for infection (Estebanez et al. 1993). In addition, many seroprevalence studies among CSWs are clinic-based, decreasing the generalizability of results to the commercial sex industry as a whole. Plant cites research findings from work with European and Indian CSWs which defy expected trends and bring into question the

strength of geographically based associations between intravenous drug use and HIV (Plant 1990). Moreover, Gillies and Parker point out that HIV seroprevalence among non-drug injecting female CSWs is consistently higher than among childbearing women in the general population in *both* Pattern I and Pattern II areas (Gillies and Parker 1994).<sup>3</sup> At the very least, this finding suggests that the link between HIV and commercial sex work must be explored more carefully among CSWs in Pattern I regions and among those that are IVDUs. Moreover, the “directionality” of HIV transmission in the commercial sex community must also be carefully examined. Drawing on data from the study discussed in this paper, Varga (2000) suggests that it may not be CSWs themselves who serve as so-called “bridge populations” for HIV transmission, but rather, their private/personal partners, whose sexual networks are likely as broad or broader than those of CSWs.

Despite - and in some cases due to - variation in HIV seroprevalence patterns, there is ample reason for examining sexual behaviour and sexuality related issues among members of the commercial sex industry (Rosenberg et al. 1988). By definition, CSWs have multiple sex partners who may themselves have many partners. Commercial sex often takes place under risky circumstances (anally, without protection, in the presence of genital lesions, without access to adequate health care). Finally, it is well known that the most common mode of HIV transmission is through sexual intercourse, responsible for 86 percent of HIV infections. The majority of these infections (71%) are through heterosexual relations (Mann et al. 1992).

Africa in particular appears to merit close attention in exploring the link between commercial sex work and HIV/AIDS. Not only does the continent bear the majority of HIV/AIDS cases worldwide, but its commercial sex industry appears to be strongly associated with HIV infection. Although prostitution is illegal in South Africa, those providing commercial sex services have by various means succeeded in circumventing the law, and a thriving industry exists throughout the country. For CSWs on the streets of Durban, extortion, incarceration, rape, and other forms of violence from police are daily threats. Most women in the study reported on here had been arrested or experienced

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<sup>3</sup> Pattern I HIV transmission is found primarily in developed countries (North America, Europe, parts of Latin America). Male homosexuals and intravenous drug users are those most affected by the disease. In Pattern II, characteristic of developing countries, heterosexual transmission is the primary means of HIV infection.

violence from local law enforcement officers at some point during their working lives. However, such repercussions appear to provide little deterrent for CSWs, who view such occurrences as job hazards. Thus, focusing on HIV/AIDS-related issues such as condom dynamics in Durban's commercial sex industry is certainly timely and necessary.

### **African Youth and HIV/AIDS**

In sub-Saharan Africa, the rate of newly acquired HIV infections is highest among individuals between the ages of 15 and 24 years (UNAIDS 1996). The basis of such high risk is complex, and derives from a combination of biological factors such as cervical immaturity and other STD infection, poverty and unstable economy, poor infrastructure and social services, lack of access to health care and education, institutional breakdown and rapid socio-cultural and economic change. However, at a proximate level, African youth and adolescents are at increased risk for HIV infection and transmission due to risky sexual practices. Such behavior patterns include early initiation of intercourse, low contraceptive use rates, and multiple sex partners, and poor sexual negotiation skills. This profile is true for youth throughout sub-Saharan Africa in countries as disparate as Liberia (Nichols et al. 1987), Burkina Faso (Gorgen et al. 1993), Nigeria (Nichols et al. 1986), Kenya (Ajayi et al. 1991), Uganda (Agyei et al. 1994), Tanzania (Tumbo-Masabo and Liljestrom 1994), Zimbabwe (Boohene et al. 1991), and South Africa (Nash 1990, Boulton and Cunningham 1991, Flisher et al. 1999). As with commercial sex workers, there is a pressing and unarguable need to gain a better understanding of condom use determinants among African young people.

### **Condom Use Patterns**

With no cure on the horizon and therapeutic measures against HIV/AIDS which may not be viable for developing country settings, emphasising sexual behaviour change is one of the few potentially practicable intervention options (Ulin 1992, Orubuloye et al. 1993, LeFranc et al. 1996). A major focus of many intervention efforts - both in the commercial sex industry and among young people - has been the promotion of condom use as an effective means of protection against HIV infection. In both these groups,

however, condom use is a complex issue which is dictated by multiple - and often conflicting - factors.

### *African Sex Workers*

The frequency of condom use among CSWs varies considerably, and appears to follow a largely geographic pattern. Studies have revealed the highest condom use rates to be among CSWs in European countries and the United States (Plant 1990, Estebanez et al. 1993, McKeganey 1994). Work in Scotland (McKeganey and Barnard 1992, Green et al. 1993), England (Faugier and Cranfield 1995, Jesson et al. 1994) Germany (Hedrich 1990), the Netherlands (Hooykas et al. 1989) Greece (Papaevangelou et al. 1988) Italy (Spina et al. 1992) and the United States (Campbell 1991, CDC 1990) has confirmed this trend. Financial gain (particularly among those CSWs using drugs), client refusal, and avoidance of physical abuse from clients appear to be the primary reasons for waiving condom use (McKeganey and Barnard 1992, Green et al. 1993, Estebanez et al. 1993, Jesson et al. 1994).

By comparison, the frequency of condom use between CSWs and their clients in developing countries is generally much lower.<sup>4</sup> Most studies from African countries reveal low condom use rates between sex workers and their partners. Abdool Karim et al. (1995) discovered condom use to be a rarity among South African sex workers. Similarly, Campbell (2000) describes sex workers' inability to enforce condom use among clients in a South African gold mine. According to the author, "the principle of selling sex was that 'the customer is always right'" (Campbell 2000:487). Working with CSWs in Kinshasa, Zaire, Mann et al. (1988) found that two percent of women reported "frequent" use of condoms with clients. Fischbacher and Njeru (1994) reported a 23 percent use rate among CSWs in an intervention study in Kenya.

Wilson et al. (1990) recorded low condom use rates among sex workers in Bulawayo. In another study among CSWs in Harare, they found just over half of the CSWs in the study reported consistent condom use with clients (Wilson et al. 1989) Finally, Pickering et al. (1992) found varying condom use rates among Gambian CSWs (53-80%). The primary reasons that CSWs engaged in unprotected sex with clients

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<sup>4</sup> See findings from India (Natraj 1995), Nicaragua (Gorter et al. 1993), and Indonesia (Wirawan et al. 1993).

included limited access to condoms, financial incentive, clients' objections and physical abuse, and low self-perceived risk for HIV infection (Pickering et al. 1992, Abdool-Karim et al. 1995, Wilson et al. 1989, Wilson et al. 1990, Fischbacher et al. 1994, Esu-Williams 1995).

Patterns of condom use in sexual relations between CSWs and their personal partners appear far more uniform than in commercial sex situations. Studies which have addressed this aspect of sex workers' sexual behaviour have found a nearly universal avoidance of condoms (Carovano 1991, McKeganey et al. 1992, Jackson et al. 1992, Spina et al. 1992, McKeganey 1994, Campbell 1991, Gillies and Parker 1994, Jesson et al. 1994, Worth 1989). The primary obstacles to condom use in personal sex situations appear to be a perceived violation of trust and intimacy connected with requesting condom use, and sex workers' need to disassociate themselves with professional (i.e., protected) sexual behaviour. Among African sex workers, little research has focused upon issues related to personal sex situations. Instead, available studies focus almost exclusively on CSWs' professional sexual behaviour.

Intervention efforts frequently rely on education and heightened HIV/AIDS awareness as a means of effecting behavioural change among CSWs and their partners. The assumption underlying such approaches appears to be that provision of information about HIV/AIDS and its consequences is sufficient for individuals to make informed, rational, and ultimately safe choices regarding their sexual behaviour. Several studies cited here undertook surveys to establish a baseline of HIV/AIDS knowledge or emphasised HIV/ AIDS education as part of intervention strategies (Green et al. 1993, Jackson et al. 1992, Wirawan et al. 1993, Wilson et al. 1989, Campbell 1991, Gillies and Parker 1994, Jesson et al. 1994, Esu-Williams 1995). In most cases, HIV/AIDS-related knowledge regarding means of avoiding HIV infection and the health consequences of risky behaviour appeared to be sufficient. However, a common finding was a minimal relationship between HIV/AIDS awareness and CSWs' (high risk) sexual practices (Carovano 1991, McKeganey and Barnard 1992, Wirawan et al. 1993). Condom use rates remained low or erratic, particularly among African sex workers and in CSWs' personal sexual relationships.

Though armed with the facts regarding HIV/ AIDS risk, African CSWs use condoms inconsistently, especially within personal sexual relationships. Two questions then arise. What factors *are* influencing CSWs' condom use? How - if at all *does* HIV/AIDS fit into decisions concerning condom use? There is a pressing need for research aimed at answering such questions and identifying contextual and socio-cultural factors which influence sexual behaviour (Worth 1989, Ford et al. 1991, Moore and Rosenthal 1992, Schopper et al. 1993, Romero-Daza 1994, Burke 1995, Nyamongo 1996). Such an approach may shed light on the dynamics influencing sex workers' decisions to use (or not use) condoms both on the job and in personal relationships. It may also be a crucial step toward sustainable HIV/AIDS interventions in the commercial sex industry.

### *Young People*

Particularly with the advent of HIV/AIDS, condom use among adolescents and young adults has fallen under increasing scrutiny. Most published work comes from developed countries such as the United States (Kegeles et al. 1989, Plichta et al. 1992, Gilmore et al. 1994, Lear 1995, 1997), Canada, (Nguyen et al. 1994) and Australia (Moore and Rosenthal 1991, Moore and Rosenthal 1992, Moore et al. 1996, Hillier et al. 1998). There is considerably less information available concerning condom use among youth in sub-Saharan Africa. Existing studies of African youths' condom use – including those in South Africa - are limited in several respects. The vast majority of work is descriptive, relies on quantitative (survey) methodologies, and adopts a so-called KAP (knowledge-attitudes-practices) format (Agyei et al. 1994, Agyei and Epema 1992, Ajayi et al. 1991, Nichols et al. 1987, Boohene et al. 1991, Flisher et al. 1999). Within such frameworks condoms are often treated as an additional contraceptive method not as an explicit focus, making it difficult to distinguish factors related specifically to condom use or tease out dynamics behind the practice. Moreover, variation in sampling, protocol format and content makes comparability across studies problematic. This is particularly the case when attempting to ascertain condom use frequency or the conditions under which condoms are most likely to be used. However despite these limitations, such research provides important basic information on condom use among African youth.



The general picture arising from these studies suggests African youth are characterised by a varied and often superficial knowledge of condom-related issues. General HIV/AIDS awareness among young people, including condom use, appears to differ widely across the continent (Ingham 1995, Mehryar 1995). However, it is particularly high in countries most heavily affected by HIV/AIDS, such as Zimbabwe (Gregson et al. 1998), Zambia (Feldman et al. 1997) and Kenya (Nyamongo 1996). In South Africa, as a result of recent widespread AIDS education efforts, a very large proportion of young people know about and have seen condoms (Attawell 1998, Varga and Jones 1997 & 1998, Flisher et al. 1999). Nonetheless, while many young people are familiar with basic general facts surrounding protected sex, the quality of their understanding and awareness varies greatly. This is reflected in misconceptions concerning many condom-related issues, including dual protection, the mechanics of condom use (such as reuse of condoms or ensuring a correct fit), the importance of consistent use to ensure maximum protection, and a poor understanding of elements of reproductive biology such as female fertile periods. Further, some young people still question the efficacy of condoms as a means of protecting against HIV infection (Feldman et al. 1997). Thus, though most African young people are not *uninformed*, they are frequently *misinformed* about how and when to use condoms.

This weak knowledge base is combined with low and erratic condom use. Throughout sub-Saharan Africa, reported condom use rates remain low overall, and evidence is mixed concerning whether boys or girls are more likely to engage in protected sex (Richter 1996, Feldman et al. 1997, Flisher et al. 1999). Moreover, for many African youth, obstacles related to both condom availability and acceptability hamper practicing safe sex. This includes factors such as lack of supply, cost, negative provider attitudes, low self-perceived risk for conception or infection, poor decision-making and negotiation skills, decreased physical pleasure during sex with a condom, and beliefs surrounding the appropriateness of and circumstances under which protected sex should be practiced. With regard to the latter, studies in Zambia, Zimbabwe and South Africa have revealed that youth commonly believe condoms should only be used before marriage, or that (particularly for girls) their use is synonymous with promiscuity and

infidelity (NPPHCN 1996, Feldman et al. 1997, Gage 1998, Nielsen 1999, Flisher et al. 1999, Varga 1999).

Many issues surrounding African young people's condom-related practices remain misunderstood. Of particular importance is the need for clarification regarding how the use of condoms fits into young people's sexual and reproductive discourse, as well as the social and cultural implications of practicing safe sex (Worth 1989). Other issues affecting African youths' ability to negotiate condom use have only recently begun receiving attention. In South Africa, some work has focused on accessibility issues concerning adolescents' condom use. Research in Durban revealed that it was difficult for teenagers to obtain condoms at public clinics for reasons related to health care providers' attitudes and the location of the facilities (Abdool-Karim et al. 1992a). Conversely, health professionals found it difficult to provide youth with condoms due to lack of time to counsel youth appropriately, beliefs that condoms were an unreliable contraceptive method for young people, and disapproval of young people using condoms (Abdool-Karim et al. 1992b).

Understanding the determinants of African youths' condom use entails attention to many other aspects of condom dynamics. This includes exploring the relationship between youths' condom use and factors such as gender dynamics and stereotypes concerning appropriate sexual comportment, the threat of physical violence, financial and material constraints, the lack of skills to challenge scripted sexual dynamics and partner expectations, and self-perceived risk for pregnancy or HIV infection (Gage 1998, Nyamongo et al. 1999, Awusabo-Asare et al. 1999, Varga 1997 & 1999). With regard to HIV threat and condom use, while several studies suggest the presence of HIV/AIDS has had little effect on African young people's motivation to change their sexual practices (Feldman et al. 1997, Swart-Kruger & Richter 1997, LeClerc-Madlala 1997, Varga 1997, Awusabo-Asare 1999), other work suggests that in high seroprevalence areas such as South Africa fear of infection may have begun to foster behavior change (Varga 1999).

Finally, we have yet to understand what determines the conditions under which protected sex is deemed (in)appropriate and what factors encourage consistent and long-term condom use among African young people. Parallel to the partner-specific condom use patterns observed among sex workers, some research among youth in the U.S. and

Australia suggests that condom use is inversely related to the intensity or seriousness of a relationship (Plichta et al. 1992, Lear 1995, Hillier et al. 1998). That is, the more trustworthy the partner and intimate the relationship, the less likely it is that condom use is regarded as necessary. However, these situation-specific condom use patterns have yet to be described among African young people. Such condom dynamics have potentially significant implications for HIV infection and transmission because while protected sex in itself is a goal to strive toward, occasional and irregular condom use can lead to increased risk for HIV infection (Ray et al. 1998).

### **An Anthropological Approach**

Anthropology offers an important alternative perspective in finding solutions to problematic HIV/ AIDS-related issues such as condom use. An anthropological approach is significant for at least two distinct but inter-related reasons. First, it can provide an understanding of socio-cultural reactions to HIV/AIDS; that is, how societies conceptualise aetiology, symptoms, and treatment, and these factors' potential impact upon behaviours surrounding HIV/AIDS. Research by Farmer on Haitians' reactions to AIDS and AIDS victims (Farmer and Kleinman 1989, Farmer 1992). Green's work on African traditional healers' roles in dealing with AIDS-related issues and on local conceptions regarding STDs and AIDS (Green 1992, Green et al. 1993, Green 1994) and research conducted by Schoepf among Zairian women at high risk for HIV infection (Schoepf 1992a) are only a few excellent examples in this regard (Romero-Daza 1994, Bolton and Singer 1992, McGrath 1992, LeClerc-Madlala 1997). All these works illustrate the potential health impact of socio-cultural responses to HIV/ AIDS.

Second, qualitative anthropological studies are a vital complement to quantitative survey methodologies often employed in research on health-related issues (Hingson and Strunin 1993, Konings et al. 1995). In many cases surveys provide a necessary descriptive baseline for understanding *what* people know and do with regard to sexual relations. However, anthropology can be instrumental in elucidating *why* people behave the way they do, and why adequate knowledge of potential negative health consequences appears to have little impact on reducing risky sexual behaviour. Using an example that foreshadows data presented in this paper, the dynamics surrounding and

determinants of condom use cannot adequately be captured through quantitative survey methods. Even the best worded questionnaire items focused on condom use would have difficulty in accurately characterising the symbolism and dyadic factors which determine why people use condoms with some partners but not others despite knowing the potential risks associated with unprotected sex (Worth 1989, Lear 1995, Gage 1998). Given its characteristic holistic and ecological approach to the study of the human condition, anthropology is ideally suited to the purpose of elucidating the social and inter-personal dynamics which in large part determine human sexual behaviour (Swedlund 1978, Bongaarts and Potter 1983, Mosley and Chen 1984, Trussell et al. 1989, Caldwell 1993). In the case of HIV/AIDS, understanding the "whys" of human behaviour could be the key to the difference between life and death.

### **Anthropological Studies of Condom Use**

Anthropologists have recently begun exploring socio-cultural and ideological factors influencing condom use in the context of HIV/AIDS. Several recent studies have focused on condom use among American women considered at increased risk for HIV infection (Worth 1989, Sobo 1993, Pivnick 1993, Sibthorpe 1992) Some research has also examined condom use in an African context (Taylor 1990, Schoepf 1992a, Schoepf 1992b, Varga 1997).

Sobo (1993) explored risk denial for HIV infection and the self-perceived benefits of unprotected sex among impoverished urban African-American women. Women's avoidance of condoms was interpreted as a psycho-social and economic strategy to maintain self-esteem and domestic economic stability. By denying risk for HIV infection and shunning protected sex, women created both a public and personal image of monogamous, secure, trustworthy sexual relationships. Admission of the necessity for condoms would require acknowledgment of steady partners' infidelity, leading to women's personal humiliation and loss of dignity.

Studies by Worth (1989) Sibthorpe (1992), and Pivnick (1993) with intravenous drug users revealed similar conceptual and socio-cultural obstacles to condom use. Despite acknowledgment of their high risk for HIV infection, many women made a deliberate decision *not* to use condoms. Condoms threatened trust, intimacy, sexual

satisfaction of both partners, and domestic and economic stability. Condom use also presented a barrier to fertility and childbearing, a practice contrary to the cultural value placed on motherhood (Worth 1989, Pivnick 1993). Due to these negative associations, protected sex was appropriate only in casual sex situations and strictly avoided with personal partners (Sibthorpe 1992).

In Pivnick's (1993) study, the bonding associated with unprotected sex was so important that condoms were avoided even within relationships where one partner was a suspected or confirmed HIV carrier. Men and women judged the emotional benefits of unprotected sex as more important than the risk of infection. HIV was viewed as a potential, and in some cases unavoidable, cost incurred when entering into an intimate sexual relationship; risk was part of the commitment made in what the author described as "conjugal bonding."

Anthropological studies have also begun to examine socio-cultural factors influencing condom use in an African setting. According to Taylor (1990), Rwandan women's resistance to condom use was related to cultural notions of fulfilling personhood and social cohesion through the mixing of bodily fluids. Condoms represented a polluting "blockage" to Rwandan men and women. Thus, protected sex was an obstacle to the reciprocity necessary to maintain social stability.

Schoepf (1992a, b) examined cultural barriers to condom use in Zaire. Among these were the value placed on fertility and polygyny, and men having multiple sex partners as a culturally sanctioned means of achieving status and gender superiority. In another study, Schoepf examined the potential role of involving Zairian traditional healers in promotion of HIV awareness and safe sex practices (1992b). By virtue of their respected status in the community, and being "legitimate interpreters of customary rules of conduct, traditional healers' advocacy of condom use could be a culturally appropriate means of effecting behaviour change.

In South Africa, anthropological research among adolescents has revealed condom use to be a problematic aspect of sexual negotiation among sex partners (Varga and Makubalo 1996, Varga 1997). Adolescent females avoided discussion of or attempts to use condoms out of fear of emotional rejection or physical abuse from partners, or of being branded promiscuous or HIV positive. Adolescent males refused condoms due to

the belief that they interfere with male control in a relationship. The need for condoms was also seen as a reflection of the *female* partner's status: untrustworthy, uncommitted, "dirty" (promiscuous and a carrier of sexually transmitted diseases). These insights can be helpful in understanding the dynamics behind condom use among Durban commercial sex workers and (urban youth).

## **Methods**

The data presented here are drawn from two different studies, the first among commercial sex workers and the second among Zulu youth, conducted in KwaZulu/Natal Province. Located in the northeastern corner of the country, KwaZulu/Natal is the third smallest of South Africa's nine provinces, but is densely populated (83.9 persons per square kilometer). According to the preliminary results of the 1996 census, the province has approximately 8 million inhabitants, constituting one fifth of the country's population (CSS 1997). The largest city in the province is Durban, with a population of between three and four million. It lies on the Indian Ocean coast and is the site of the largest port in sub-Saharan Africa.

Research among urban commercial sex workers was conducted over a period of 18 months between mid-1995 and 1997. The broad aim of the work was to create an "ethnography of HIV" within the commercial sex industry. The objectives were to collect basic descriptive information on CSWs' professional and personal lives as well as to explore the impact of HIV/AIDS on their lifestyles. Research was undertaken in two sites. The first was an inner city section of Durban known to be frequented by commercial sex workers. The area was near the central business district, recreational areas, and hotels on the beachfront and Durban harbour. Women in this group are referred to as *central city* sex workers. The second venue was an industrialised suburb approximately 15 kilometres from the city centre. The area was characterised by a large truck depot, serving as the endpoint and way-station for truck routes from throughout southern Africa, and several hotels and bars where CSWs met their clients. Women in this group are referred to as *suburban* sex workers.

Participants were black African, female, self-identified CSWs. The majority were Zulu-speakers. All women worked independently, either on the street or frequenting bars

or nightclubs. The snowballing technique was used for selection of study participants. Data were collected using in-depth interviews (n=45), semi-structured questionnaires (n=100; 50 per venue), focus group discussions (FGDs, n=2, with 8-12 participants each), and participant observation.

The second study focused on Zulu young people, and was undertaken between February and December of 1999. The overall aims of the work among Zulu youth was to explore sexual decision-making and negotiation and the dynamics surrounding contraceptive use. Research was conducted in a former Black “township” in Durban. Selection of study participants was stratified by age. Data were collected using focus group discussions ( n=6, 10-15 participants per FGD), narrative research method<sup>5</sup> which included a semi-structured questionnaire component (two youth workshops with 15 participants each, questionnaire n=340), and eighteen in-depth interviews. Among the primary features of the narrative research method are its reliance youth participation in developing research questions and the use of role plays (narrative) and vignettes in the data collection process.

### **Sex Workers and Youth in Durban: Condom Dynamics within Two Risk Groups**

Before proceeding further, a brief comment is necessary concerning youths’ and sex workers’ knowledge of HIV/AIDS and related issues such as condoms. Knowledge is an essential, albeit not sufficient, component of (sexual) behavior dynamics. Among commercial sex workers, from both the qualitative and questionnaire components it was clear that women were well-versed in most aspects of HIV acquisition and transmission. Moreover, as apparent in the information presented below, for these women HIV infection, condom use and the possibility of AIDS as a result of their lifestyle were issues that they grappled with on a daily basis.

A similar situation presented itself among participants in the youth study. From their conversations during focus group discussions and in-depth interviews, HIV/AIDS awareness – and the realization of both the community-level personal threat posed by the disease – was very high among these young people. While younger participants (roughly those aged below 14 years) presented a less sophisticated understanding of the sexual

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<sup>5</sup> The narrative research method used was a modification of the published WHO protocol (1993).

dynamics surrounding HIV infection, the connection between condom use and HIV prevention was well-entrenched among all those in the study.

### *Determinants of Condom Use*

Most CSWs in both venues viewed condom use as a rule to be enforced whenever possible. Several CSWs noted their personal partners encouraged and even monitored their condom use with clients. One central city CSW described how her boyfriend counted the number of condoms missing from her purse and the amount of money brought home each night in an attempt to monitor the consistency with which she used condoms during working hours.

Structured questionnaire data revealed low condom use rates among both groups. Among central city CSWs, 29 percent described themselves as "always" using condoms with clients; 14 percent of suburban CSWs similarly responded. A further 71 percent of central city and 80 percent of suburban sex workers "usually" used condoms with paying partners (n=100, p<0.001)

Several obstacles to consistent condom use were articulated in structured questionnaires. These included: threat of physical violence from clients (4%), clean and trustworthy appearance of prospective clients (8%), and financial incentives for unprotected sex (67%).

In both groups, financial problems appeared to be the primary reason for waiving the condom rule. Most CSWs calculated daily earnings, and many aspects of their finances-food, rent, or transportation-were dependent upon making a certain quota each evening. In the course of a night's work, a sex worker might become increasingly likely to accept an offer of extra payment for unprotected sex if the financial quota had not been achieved. Several women also described steady clients with whom they did not insist upon condom use in fear of losing the regular income.

Finally, in focus groups and in-depth interviews, many women identified high alcohol consumption and frequent use of *dagga* (marijuana) or mandrax as significant impediments to their ability to make decisions and enforce condom use with clients. Questionnaire responses revealed that 98 percent of sex workers in the study used alcohol (usually beer) on a regular basis, with an average 7.7 drinks consumed daily. Twenty



percent of study participants reported regular (daily or weekly) use of *dagga* or mandrax.<sup>6</sup> CSWs who used drugs and alcohol described substance use as necessary in order to muster courage to solicit clients and face other unpleasant working conditions.

A different set of factors presented themselves as barriers to and determinants of condom use among urban youth. When questionnaire respondents were asked to reasons for young people's avoidance of condoms, the most common factors listed were the physical discomfort of condom use (36.7%), social and inter-personal stigma associated with the practice (31.3%), beliefs that condoms are not completely safe or effective (10.7%), and ignorance or lack of information concerning condom use (10.3%).

Qualitative data reinforced these factors in condom use dynamics among Zulu youth. Many study participants spoke of the need for "flesh to flesh" (Zulu, *inyama enyameni*) contact or unprotected sex for reasons related to enhanced physical pleasure primarily for male partner.<sup>7</sup> Commenting on condom use during an in-depth interview, a 23 year-old young man observed, "I don't even want to see them! Condoms are nonsense. They are too tight and uncomfortable". In contrast, girls tended to see condom use as synonymous with lack of trust or fidelity. Noted one 23 year-old female narrative workshop participant, "...[B]oys want *inyama enyameni* while girls think their boyfriends don't trust them if the boys want to use condoms.....".

Beliefs that condoms are not safe or that they may malfunction were articulated primarily by those in younger age groups. This is illustrated by a comment of a 14 year-old female FGD participant in noting, "I heard that some condoms burst if you are not familiar with them. They can burst inside your womb and get stuck there." Later in the discussion she returned to this issue as reason to avoid condom use, "I would refuse to use a condom [because] I would not want it to burst inside of my womb!" Noted a 15 year-old girl during an indepth interview, "I don't have a problem with condom use. It is just the fact that condoms are not 100% safe. That worries me. It makes me hesitate to use them". Others were simply dumbfounded by the idea of a condom. A 23 year-old

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<sup>6</sup> Mandrax is a stimulant available in powder form, and smoked to gain the effect of the drug. At the time this work was conducted, intravenous drug use (IVDU) was not an obvious part of the South African commercial sex industry. While other drugs, namely crack cocaine, have become quite common, IVDU is still relatively rare.

<sup>7</sup> Sex workers in Campbell's (2000) study related similar problems in attempting to enforce condom use among clients.

young man offered this opinion, “You know, condoms are a new thing to us [Blacks] and what I can say is that they are not well-accepted. If they can educate us more about what they are for and why we should use them maybe I would understand [their importance], because I really don’t understand...”

### *Condom Symbolism*

In general, both sex workers and Zulu youth associated condoms with negative attributes such as lack of trust, infidelity and promiscuity. Among the former, negative symbolism of condoms was clearly demonstrated in reasons provided for the necessity of condom use with clients. Clients were considered "dirty," "untrustworthy," "promiscuous," and suspected carriers of "diseases" (AIDS or other STDs). Professional sex was viewed as undesirable for both personal and health reasons. Clients were assumed to have had multiple sex partners, and as a result to harbour STDs or HIV. In addition, the professional sex act was viewed by CSWs as impersonal and even morally repugnant. Thus CSWs felt it imperative to use condoms as a means of physical and emotional protection against intercourse with clients.

Condoms' negative image was also demonstrated in reasons CSWs provided for the rejection of protected sex in personal relationships. Personal partners were viewed as "clean" and "trustworthy." Condoms were also seen as a threat to intimacy and commitment, in that requesting protected sex would introduce an element of distrust and suspicion into partner dynamics. Regarding condom use, the association between love, trust, cleanliness, and unprotected intercourse was cited in nearly half (46%) of CSWs' questionnaire responses and all in-depth interviews.

Trust in a personal partner was also the primary reason for not fearing AIDS from unprotected sex with personal partners. When asked about the degree to which HIV/AIDS influenced her choice of personal partners, a CSW retorted, "I only sleep with guys who are clean and trustworthy. So why should I be afraid of AIDS?" Such views are also articulated as follows:

Condoms take the trust away. How do I say to my boyfriend that I do not trust him? How would I feel if he didn't trust me?

It would be better to die of AIDS from someone you love than lose a loving guy for the sake of a condom.

Another prevalent theme was that requests for condom use with domestic partners suggest infidelity or the possibility of carrying HIV/AIDS. One young central city CSW noted:

Because I am a CSW if I asked my boyfriend to start using condoms he would accuse me of having had unprotected sex with clients and say that I have AIDS. Or he might think that I suspect him of having it [AIDS].

Young people had similar associations with condom use. Two primary themes emerged in this regard. The first was general association of condom use with infidelity, lack of trust, disease and promiscuity. During a discussion among young women of how they would feel if a boyfriend wanted to use a condom during sex, one 17 year-old focus group participant noted, "I would think he has many girlfriends and that is why he wants to use a condom with me." This is reflected in a role play during one of the urban narrative workshops. The scene being played was of a teenage couple discussing contraceptive use. The young man's vehement response to his girlfriend's suggestion to use condoms shows how antithetical protected sex is to an intimate relationship and being in love. In his words, "You mean we should use condoms as if we don't love each other, when in fact we are very much in love? There is no need for [either of] us to use a condom, my love...". During an in-depth interview, 21 year-old young man made the following observation about men who use condoms, "He is clever because he is trying to protect himself from getting AIDS. But he might also be cheating on his partner. It is hard to know which one is the case for him carrying condoms." A 15 year-old woman expressed concern over the meaning behind condom use in the following way, "The TV and radio tells us we should use condoms, but I don't think it should be that way. It means that every man that asks a woman for sex will get it just like that." Finally, an excerpt from a focus group discussion held among urban girls in the 20-24 year age group illustrates multiple layers of condom symbolism, including threatening trust and the implication of HIV/AIDS infection.

Moderator: How would you feel if your boyfriend wanted to use condoms with you?

No: You would think that he does not trust you. The issue of condoms is sensitive.

T: I agree with her.

No: Even if I were to ask him to use condoms, he will think the same thing, that I don't trust him.

Nt: I agree with her.

D: This thing of condoms is difficult because you do think if a person says, "Let's use condoms", you think he doesn't love you anymore. You think he has other girlfriends that he doesn't use condoms with. So he is not serious about you....

No: Or you think that your partner is suggesting you have AIDS.

A second theme was the specific stereotyping of women using or carrying condoms as being promiscuous, loose or diseased. Both quantitative and qualitative data illustrate this categorization. Questionnaire respondents were asked what they would think of a girl who carries condoms. While most provided positive or neutral images such as "she is being responsible for her life" (37.4%) or "she is sexually active" (7.1%), ten percent (10%) of participants would condemn such a girl as "bad, promiscuous, cheating on her boyfriend, has AIDS, is [an] *isifebe* (Zulu, whore)". In contrast, when the same question was posed concerning boys carrying condoms, only half as many (5.1%) respondents would view them as negatively as they would girls.....(p<0.001, n=350). The words of three urban youth – two of them female - during in-depth interviews also embody prejudice against girls who carry or use condoms.

"The first thing that comes to my mind is that this girl [who has condoms] is a bitch (*ugodoba*), a very untrustworthy woman. She is unfaithful even though she is saving her life.... [A] woman who carries a condom is a disgrace...." (male, aged 23 years)

"If she carries a condom it means she is jolling [partying].... [A] boy can ask her for sex anytime and she will agree..." (female, aged 13 years)

“Girls carry condoms because they know they are not faithful to their partners. So they know they need to hide their diseases.” (male, aged 21 years)

Finally, the negative symbolism of condom use seemed to pose a formidable barrier to youths’ – particularly females’ - ability to negotiate condom use in the context of a relationship. A 14 year-old urban girl phrased her problems with negotiating safe sex in the following way. Her words also hint at the threat of physical violence as a deterrent to condom use.

“I am talking from experience because ever since I have been with my [boyfriend] we have never used condoms. So now if I say today that we should use condoms, he will think I am [sleeping with someone else]. And that might result in him beating me....”

#### *Condoms as a Means of Defining Partner Risk Categories*

Both sex workers and Zulu youth used condoms selectively as a way to group sex partners into high and low risk categories. For CSWs condoms were a means of maintaining the ideological barrier between (perceived high disease risk) professional sex with clients and (perceived low disease risk) personal sex with private partners. Most women described the psychological necessity of dividing work and personal life, and of reaffirming their place in conventional society outside of working hours. A central city sex worker described selective condom use in the following way:

When I sleep with a client I use a condom because then I am not an ordinary person but a professional sex worker. There are no feelings or love involved and you don't expect to get any pleasure out of it. The pleasure is when you get money. That is *ukubhepha* when you [have sex with] a client you are not a full human being. But you cannot be a sex object 24 hours a day. You have to become a full, emotional, loving girlfriend ... You have to make love (*ukulala*)<sup>8</sup>.

Sex workers from the suburban group reaffirmed this viewpoint. One woman noted, "Condoms were made to keep flesh apart that isn't supposed to mingle". The use of condoms as a symbolic divider between personal and professional life among suburban CSWs was illustrated in yet another way. Many women described becoming personally involved with longtime trucker clients. The transition from client to personal partner was

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<sup>8</sup> *Ukubhepha* is a vulgar Zulu term referring to sexual intercourse. *Ukulala* means “to make love”, and has a positive, loving connotation.

marked by a lapse in condom use as the relationship went from an impersonal, professional, high risk form of sexual contact into a personal, emotional one without perceived health risk. In this respect, a suburban sex worker whose boyfriend had at one time been her client noted, "Once he became my lover, I forgot to use condoms. I felt at home and safe."

Such partner categories and the use of condoms to delineate them were also evident among Zulu youth. Such categorization is evident in responses to a questionnaire item probing the circumstances under which youth would be most likely to use a condom. They were least likely to use a condom with a trusted or steady partner (1.7%), and most likely to use it with someone considered untrustworthy (26.5%) or or casual (18.7%), or who was "dirty" or a disease risk (14.4%). Only one-third (36.5%) stated they would use a condom under any circumstances; the implication being that they would use condoms with any kind of partner.

During an in-depth interview, a 22 year-old young woman was very vocal on the terms and circumstances under which condom use is appropriate. Commenting on a hypothetical situation concerning a partner offering to use a condom, she noted, "He might sleep with me with a condom [casually], but with another woman without a condom because he regards her as his future wife....". Later, she described her own means of deciding when to forego condom use, "The only person I would sleep with without a condom is the [man] who comes to my house and discusses [marriage] with my parents. It has to be a person who thinks about [our] future and my life. To put condoms aside, we need to have plans [together]." Men expressed the same sentiments. In an in-depth interview, 19 year-old young man stated simply, "I would use a condom if I don't trust her, or in a new relationship."

Finally, an excerpt from an in-depth interview with a 17 year-old urban girl reflects her partner categorization strategy through condom use. Moreover, her words once again bring into play the concept of trust when deciding when to use or not use a condom.

Interviewer: With whom would you not be willing to use a condom?

Res: I would be really in love with that one. I think it will be somebody I trust that he is not using me.

Interviewer: With whom would you want to use a condom?

Res: I know how I feel about that.... [People] usually use condoms when [they] sleep with someone they don't trust. Or people use a condom when they have sex with a stranger."

### *The Role of HIV/AIDS in Condom Use Dynamics*

Sex workers were aware of HIV/ AIDS, high risk sexual practices associated with it, and the potential consequences of HIV infection. However, this appeared to have limited impact upon their condom use, particularly in personal sex situations. In both professional and private sex situations women were resigned to the risk of HIV infection from unprotected sex. The priority in personal sexual relationships was to maintain closeness and domestic stability. A popular sentiment was that the risk of AIDS is a responsibility which must be shouldered in a personal relationship. The cost of HIV risk did not outweigh the benefits of personal intimacy gained through unprotected sex.

Regarding professional sex situations, immediate concerns, such as financial gain, appeared to override any fear of contracting HIV/AIDS. Also, the threat of infection may not have been taken seriously due to the virus' long period of dormancy and AIDS' current lack of visibility in South Africa.<sup>9</sup> The following are comments by central city CSWs which express this commonly held sentiment.

I would rather die of AIDS in ten years' time than die of hunger next week.

Why should I care about a sickness [AIDS] that will only attack me years in the future? By that time I will be too old to do sex work anyway.

A very different dynamic regarding condom use and HIV/AIDS was evident among Zulu youth. For one thing, Zulu youth were not dependent on sex as a means of livelihood; or at least not to the same extent as commercial sex workers.<sup>10</sup> Furthermore, it

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<sup>9</sup> HIV/AIDS has only recently begun to reach a level of public visibility due to increasing AIDS-related mortality. In this study, conducted in the mid-1990's, only one sex worker reported knowing a co-worker who died of what she suspected was AIDS-related complications.

<sup>10</sup> There is often an element of "exchange" in young people's sexual relationships; particularly in that girls rely on boyfriends to provide them with gifts and sometimes even spending money or school fees. However, unlike CSWs and their clients, the material aspects of sex are not necessarily the primary motivating factors behind becoming sexually involved.

was very clear that the threat of HIV/AIDS was a significant force in motivating young people to begin seriously considering safe sex even in their intimate personal relationships.<sup>11</sup> This is not to say that young people are comfortable with condom use, as illustrated above. One 21 year-old young man explained his mixed feelings about women using condoms, “There can be two sides of this situation. I think she is probably very clever because she does not want to be infected with AIDS. Then again, she might know she herself has many partners and that she is cheating on her boyfriend. She might actually be a whore...”.

However, when weighing the possibility of HIV infection against the drawbacks of condom use, it appears that many youth would be willing to (consider) put(ting) aside their discomfort in exchange for knowing they were safe. In the questionnaire, respondents were asked, “How would you feel if your partner asked you to use a condom?”. Over two-thirds (69.7%) described their reaction as “happy, glad, or relieved”. The reason for this being that “my partner is looking out for my well-being and health” (69.0%). During an in-depth interview 20 year-old man stated simply, “I always use a condom because I am afraid of AIDS.” Another insightful comment from a 19 year-old man illustrates the sentiment that trust is not enough to guarantee safety, “I use condoms now because they [make a person] safe. You do not have to trust your partner, because no one has it written all over her that she has not go AIDS.” A 23 year-old male echoed this position, “You know when you look around and see that the situation is bad [in terms of AIDS]. I just cannot take any chances. I make sure I am on the safe side [by using a condom].”

Finally, an excerpt from an interview with a 21 year-old male township resident further illustrates the growing sentiment that condoms are increasingly viewed by urban youth as a requirement due to the threat of HIV/AIDS.

Interviewer: How do you feel about using condoms?

P: I always use a condom now. I use it to prevent infection because now things are bad due to AIDS. It is not that I do not trust her [girlfriend], but these days you cannot tell who is safe and who is not.

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<sup>11</sup> By the time this study was conducted in 1999, HIV/AIDS had become a major public health problem and the social and personal ramifications of spiraling infection rates were starting to be felt.



Interviewer: So, under what circumstance would you be most likely to use a condom?

P: I use a condom with every woman I am involved with, Black or White. It is just the same. As I said before, is not written that just because a person looks a certain way she does not have some sexual disease....

Another clear indication of how HIV/AIDS has impacted upon urban Zulu youths' socio-sexual culture is through shifts in norms of male sexual comportment. Traditionally, one way in which a Zulu male could achieve social success and respect in the community was to have many sex partners; thus giving a man *isoka* status (Vilakazi 1962, Varga 1997, 1999). Here, it was very clear that as a result of fear of HIV infection, the popularity of *isoka* as an ideal for young urban men to strive toward was (rapidly) diminishing.<sup>12</sup> Questionnaire respondents were asked if (the traditional concept of) *isoka* was a role model for young men in the community. Only slightly more than one fifth (22.5%) felt that *isoka* was still a guiding principle for young urban Zulu men. Qualitative data illustrate the fact that the threat of HIV/AIDS infection was a significant harbinger of change in this respect/with respect to the *isoka* male ideal. In one narrative workshop, a 24 year-old male participant noted, "I was an *isoka*, but these days it is [too] scary to be [an] *isoka* any more... because of AIDS." During an in-depth interview, 24 year-old woman summed up such shifts in *isoka* status in the following way:

"It is because of diseases like HIV/AIDS that [young people ] have changed [their] minds. They realize what is the use of being *isoka* and dying compared to having one girlfriend and living longer....If you are *isoka* you know you are not safe [free of HIV]. That is why most boys have decided to have just one partner."

## Discussion

This research illustrates the complex dynamics involved in condom use among sex workers and urban Zulu youth, and the critical role emotional, socio-cultural and economic factors play in determining their sexual behaviour. Thus, we may begin formulating answers to questions surrounding sex workers' and young people's

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<sup>12</sup> Some youth in the study suggested that while the sexual component of *isoka* is falling away, it is being replaced with greater emphasis on financial achievement and trappings such as expensive clothes and cars.

condom-related decision-making and the role of HIV/ AIDS in this process. Moreover, comparing and contrasting condom dynamics between two high risk groups illustrates the importance of considering community and environment-specific factors in designing sexual health and HIV intervention programs. While sex workers and Zulu youth had much in common concerning the manner in which they approached condom use, they also demonstrated fundamental differences; elements which must be factored into behavior modification approaches.

What factors influenced condom use for sex workers? In professional sex situations, study participants preferred protected sex. The primary barriers to CSWs' condom use with clients were practical and economic ones. Poverty, and thus the financial incentive to engage in unprotected sex, appeared to be the greatest obstacle. In addition, threat of physical abuse from clients and the debilitating effects of substance use were also factors hindering sex workers' ability to successfully negotiate condom use with clients. Barriers to CSWs' condom use in personal relationships were much more complex. In this context, conceptual and symbolic issues determined (un)safe sex practices. Condoms' ugly connotations were an overwhelming component in women's decisions to avoid condoms. The negative symbolism of condoms was a significant deterrent to their use, and stood in direct opposition to what these women sought from personal sexual relationships. Condoms were associated with disease, infidelity, and impersonal, illicit, professional sexual acts. In stark opposition to such imagery, women looked to personal sex for purification, trust, intimacy, and affirmation of love. Thus, by definition, condoms were excluded from personal sexual relations.

Young people shared some of these barriers, but not all of them. For Zulu youth, the matter of protected sex was determined primarily by social environment, peer pressure and fear of partner stigmatization. In this respect, to some extent they paralleled sex workers' concerns over condom use in personal sexual situations. Furthermore, a surprisingly large proportion appeared loathe to practice protected sex for reasons related to knowledge and beliefs that condoms are unsafe or unreliable; though such beliefs were generally held by younger teenagers among whom immaturity or lack of sexual experience likely influenced their opinions about condom use. Ironically, the fact that youth were so concerned about condom malfunction indicates a heightened awareness of

and concern about the ability to engage in safe sex; certainly a solid basis for behavioral intervention.

Among both sex workers and Zulu young people, condom use was also conditioned by the conceptual categories into which individuals placed their partners. For CSWs, sex with clients was seen as dirty, illicit, and impersonal. Such interactions warranted the protection of a condom to avoid unwanted and potentially dangerous contact. From this perspective, lack of skin contact might make the impersonal, unclean professional sex act physically, conceptually and emotionally invisible. Personal partners were viewed as clean, intimate, trustworthy, and offering invited physical acts of love and affection. In these situations condoms were anathema.

Similarly, though Zulu youth appeared more supportive than sex workers of the broad concept of condom use, to a large extent they also categorized partners according to a social-symbolic profile which was either suggestive of disease which included condom use or trust and intimacy which did not necessitate protected sex. Despite often advocating condom use on a community level, this classification system seemed to heavily influence young people's personal (unprotected) sexual behavior. Thus for both sex workers and youth, within such a conceptual framework, it is unsurprising that condoms were used as a logical divider between professional, illicit or foreign interactions and more personal experiences in their sex lives.

Such condom categorization has begun to receive increasing attention. It has been noted among sex workers in countries such as Great Britain (Green et al. 1993, Gillies and Parker 1994, Jesson et al. 1994, McKeaganey 1994), the Netherlands (Hooykas et al. 1989, de Graaf et al. 1995), Australia (Waddell 1996) and Brazil (Gillies and Parker 1994). In sub-Saharan Africa this dynamic has been observed in Senegal (Renaud 1997) and the Gambia (Pickering et al. 1992).<sup>13</sup> While very little work - and none in Africa - has demonstrated this phenomenon among youth and adolescents, work among American university students (Lear 1995) shows striking similarities to the dynamics revealed among urban Zulu youth. Lear's descriptions of "categories of relationships" are also very reminiscent of Durban sex workers and their (professional and private) partners

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<sup>13</sup> While Campbell does not articulate these exact dynamics among sex workers and miner clients, she does suggest that trust and "emotional attachment" played a significant role in women's interactions with men (2000:486).

(Lear 1995:1320). Finally, emotional and personal involvement is increasingly recognized as a determinant of condom use across a broad range of geographic and social groups (Worth 1989, Sibthorpe 1992, Dixon-Mueller 1993, Pivnick 1993, Detzer et al. 1995, Varga 1997). Thus, the need for considering partner-specific sexual context in the design of HIV and sexual health interventions is self-evident.

What role did HIV/AIDS play in sex workers' and Zulu youths' condom-related decision-making? For CSWs, in both personal and professional sex the risk of HIV/AIDS appeared to have little bearing on women's condom use, but for very different reasons. In personal situations, sex workers looked to their relationships to fulfil personal needs crucial in maintaining successful equilibrium between professional and personal life. So strong were these needs that study participants preferred to overlook personal partners' high risk behaviour and maintain their relationships. The emotional benefits of unprotected sex with personal partners outweighed the risks of HIV infection.

In contrast, Durban sex workers' views on condom use and HIV/AIDS in professional sex situations were tied to poverty and powerlessness. Despite women's fears of infection from clients and their desire to use condoms during professional intercourse, dire financial circumstances rendered them unable to enforce condom use. As a result of their dependence on sex work as a means of income generation, women approached the risk of HIV infection from professional sex somewhat fatalistically. It was considered an unavoidable job-related hazard, and the risk of infection was subsumed by day-to-day worries. In view of their immediate concerns and constraints, Durban sex workers saw HIV/AIDS as a remote danger which had little bearing on their daily professional or personal lives.

By comparison, in general young people appeared to treat HIV/AIDS as a serious personal risk. While for many trust in an intimate personal partner may have been enough to dispell fears of potential HIV infection, an increasing minority of Zulu youth seemed reconciled to condom use as a necessary part of their sex lives; regardless of the situation in which they found themselves. This is in marked contrast to sex workers' selective risk perception and emotion or trust-based cost-benefit analysis with regard to the threat of HIV/AIDS from their personal sexual relationships.

There are at least two possible explanations for this difference. First, research among youth was conducted over three years (1999) after the sex worker study (1995-96). During this period, HIV has gone from being seen as a silent danger to one which is a very real part of South Africans' lives. The country has begun to enter a period in the epidemic in which AIDS-related deaths are increasingly common and socially visible. Thus it is possible that township youth in 1999 have had a more real and personal experience of the disease and its consequences than Durban sex workers in the mid-1990's. Another possible reason is an environmentally conditioned difference in the parameters of sex workers' and youths' cost-benefit analysis. Quite simply, youth may have more to lose than sex workers by becoming infected with HIV. While life in the New South Africa is difficult during a tenuous transition process, it is only now that young people are able to reap the full benefits of independence. Probably due to the continuing illegality of sex work in South Africa, life for Durban CSWs' likely remains very much a short-term or proximate vision; one in which the drawbacks of AIDS is much too far away to seriously contemplate.

The fact that sex workers were unwilling to use condoms in personal sex relationships has significant ramifications for the progression of the HIV epidemic. It suggests that sex workers are at potentially greater risk for HIV infection from personal sexual behaviour than from professional intercourse. However, this study appears to be among the first to explore the differences between sex workers' personal and professional condom use, and the dynamics behind such contrasting behavior, in an African context. Most published works concerning African CSWs focus exclusively on HIV risk surrounding sex worker-client relationships (Mann et al. 1988, Wilson et al. 1989, Wilson et al. 1990, Esu-Williams 1995, Renaud 1997, Campbell 2000). Further it appears to be one of the first to demonstrate such (parallel) dynamics among African young people.

## **Conclusions**

Perhaps the most important message in this paper is the documentation of the seemingly widespread nature of partner conceptual categories as a determinant of condom use. Among commercial sex workers, the differences between professional and personal sexual relationships have significant ramifications for the structuring of

HIV/AIDS intervention efforts focused on the commercial sex industry. In commercial sex, barriers to condom use are practical, environmental ones, external to sex workers' motivation to practice safe sex. Their preferences for condom use and the modifiable nature of barriers to protected sex are important characteristics to be considered in intervention frameworks. Women need not be convinced about the necessity of safe sex with clients, they need only be enabled to practice it. Environmental (political, legal, economic) change is the key.

Condom-related dynamics in sex workers' personal sex lives present a very different scenario. With intimate partners, barriers to condom use are deep-seated socio-cultural and ideological issues. Such obstacles to safe sex practices are likely to be more difficult to overcome than those in professional sex situations. Unprotected intercourse serves an important function both emotionally and in terms of self-esteem; condoms symbolise everything that is the opposite. For the women in this study, the well-being they derived from intimate unprotected sex actually allowed them to function more successfully in their commercial sex roles.

Given the HIV-related implications of sex workers' condom use with personal partners, intervention programs must begin focusing on the broader aspects of their lives. This means centering on women's personal lives and personal partners. Men are frequently overlooked in HIV/AIDS intervention programs targeting the commercial sex industry (see Varga 2000). Moreover, intervention efforts taking into consideration high risk groups' personal situations must adopt an approach centred on socio-cultural and ideological factors, not only practical, environmental ones.

Similarly for youth, the greatest risk of HIV infection appears to lie in intimate personal sexual relationships for exactly the same reasons. As among CSWs, they need not be convinced of the need to use condoms with those considered suspect. Ironically however, relationships characterized by familiarity and emotional involvement are those which are potentially most dangerous. Thus a prudent approach to encouraging condom use among African youth is one which stresses the *positive* aspects of protected sex in *every relationship in every sexual encounter*. As with sex workers, intervention programs must take into emotional factors not necessarily practical ones.<sup>14</sup>

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<sup>14</sup> This by no means discounts the fact that specific and correct information concerning condom use is an important component of youth-focused safe sex campaigns. As demonstrated among the Zulu youth in this

This study illustrates the importance of examining socio-cultural, ideological, and economic factors influencing sexual dynamics and condom use. The work also demonstrates the significance of an anthropological approach in unravelling the inconsistencies between HIV-related knowledge, attitudes, and behaviour. Given that Africa bears the burden of the HIV epidemic, more qualitative work is needed to identify intervention strategies which reach beyond education and awareness to touch deep-seated socio-cultural and economic factors that influence sexual decision-making.

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study, there appears to be some need for improving knowledge and understanding of condom-related issues. However, in addition to factual input, programs must take into consideration the personal and emotional factors driving sexual decision-making.

## References

- Abdool Karim Q., Preston-Whyte E, Abdool Karim SS. 1992a. Teenagers seeking condoms at family planning services. Part 1: a user's perspective. *South African Medical Journal* 82(5):356-59.
- Abdool Karim Q. Abdool Karim SS, Preston-Whyte E. 1992b. Teenagers seeking condoms at family planning services. Part 2: a provider's perspective. *South African Medical Journal* 82(5):360-62.
- Abdool Karim Q, Abdool Karim SS, Soldan K, Zondi M. 1995. Reducing the risk of HIV infection among South African sex workers: socio-economic and gender barriers. *Am J Public Health* 85(11):1521-5.
- Agyei W. and E. Epema. 1994. Sexual behavior and contraceptive use among 15-24 year-olds in Uganda. *International Journal of Family Planning Perspectives* 18(1):13-17.
- Agyei W. K.A., J. Mukiza-Gapere and E.J. Epema 1994. Sexual behavior, reproductive health and contraceptive use among adolescents and young adults in Mbale District. *Journal of Tropical Medicine and Hygiene* 97:219-227.
- Ajayi A., Marangu L.T., Miller J., and Paxman J. 1991. Adolescent sexuality and fertility in Kenya: a survey of knowledge, perceptions and practices *Studies in Family Planning*. 22(4):205-15.
- Attawell K. (1998) Literature Review: HIV / AIDS knowledge, attitudes, beliefs and behaviours in South Africa. Commissioned for the National HIV/AIDS and STD Directorate, Department of Health. Pretoria, South Africa
- Awusabo-Asare, K., Abane A., Badasu D., Anarfi J. 1999. 'All die be die': obstacles to change in the face of HIV infection in Ghana. In *Resistances to Behavioural Change to Reduce HIV/AIDS Infection in Predominant Heterosexual Epidemics in the Third World*. J.C. Caldwell, P Caldwell, J. Ntozi et al., eds. Pp. 125-32. Health Transition Centre, National Centre for Epidemiology and Population Health, The Australian National University, Canberra.
- Bolton R, Singer M. 1992. Rethinking AIDS prevention: cultural approaches. *Med Anthropol* (special issue) 14:2-4.
- Bongaarts J, Potter R. 1983. *Fertility, Biology, and Behavior*. New York: Academic Press.



- Boohene E., Tsodzai J., Hardee-Cleveland K., Weir S., and Janowitz B, 1991. Fertility and contraceptive use among young adults in Harare, Zimbabwe. *Studies in Family Planning* 22(4):264-71.
- Boult BE and PW. Cunningham 1991. Black teenage pregnancy in Port Elizabeth. *Early Childhood Development and Care* 75:1-70.
- Burke P. Self-esteem is essential. 1995. In: Reid E, ed. *HIV & AIDS - The Global Inter-Connection*. Pp. 157-65. West Hartford: Kumarian Press.
- Caldwell JC. 1993. Health transition: the cultural, social, and behavioural determinants of health in the third world. *Soc Sci Med* 36(2):125-35.
- Campbell CA. 1991. Prostitution, AIDS, and preventive health behavior. *Soc Sci Med* 32(12):1367-78.
- Campbell CA. 2000. Selling sex in the time of AIDS: the psycho-social context of condom use by sex workers on a Southern African mine. *Soc.Sci.Med.* 50:479-494.
- Carovano K. 1991. More than mothers and whores: redefining the AIDS prevention needs of women. *Inter J Health Serv* 21(1):131-42.
- CDC Collaborative Group for the Study of HIV-1 in Selected Women. 1990. Prostitution, intravenous drug use, and HIV-1 in the United States. In: Plant M, ed. *AIDS, Drugs, and Prostitution*. Pp. 112-26. London: Tavistock.
- (CSS) Central Statistical Services. 1997. *Preliminary South African Census Report*. Central Statistica Services, Pretoria.
- Detzer M.J, Wendt S. J., Solomon L.J., Dorsch E., Geller B.M, Friedman J., Hauser H., Flynn B.S., Dorwaldt A.L. 1995. Barriers to condom use among women attending planned parenthood clinics. *Women and Health* 23(1): 91-102.
- Dixon-Mueller R. (1993) The sexuality connection in reproductive health. *Studies in Family Planning* 24(5):269-82
- Estebanez P, Fitch K, Najera R. 1993. HIV and female sex workers. *Bulletin of the World Health Organization* 71(3/4):397-412.
- Esu-Williams E. Clients and commercial sex work. 1995. In: Reid E, ed. *HIV & AIDS - The Global Interconnection*. Pp. 95-101. West Hartford: Kumarian Press.
- Farmer P, Kleinman A. 1989. Living with AIDS, part I. *Daedalus, J Am Acad Arts Sci* 118(2):263-71.

- Farmer P 1992. New disorder, old dilemmas: AIDS and anthropology in Haiti. In: Herdt G, Lindenbaum S, eds. *The Time of AIDS: Social Analysis, Theory, and Method*. Pp. 287-318. Newbury Park, California: Sage.
- Faugier J, Cranfield S. 1995. Reaching male clients of female prostitutes: the challenge for HIV prevention. *AIDS Care* 7(suppl):S21-S32. .
- Feldman, D. O'Hara, P., Baboo K.S., Chitalu N.D, and Lu Y. 1997. HIV prevention among Zambian adolescents: developing a value utilization/norm change model. *Soc. Sci. Med.* 44(4):455-468.
- Fischbacher CM, Njeru JM. 1994. Impact of improved condom supply on condom use by prostitute women. *AIDS* 8(6):856-7.
- Flisher A.J., Cruz C., Eaton L., Makoma W. and Pillay Y. 1999 Review of Research Involving Health of South African Youth: Report submitted to the Youth Development Trust. Department of Psychiatry: University of Cape Town.
- Gage A. 1998. Decisionmaking regarding sexual activity and contraceptive use. *Studies in Family Planning* 29(2):154-166.
- Gillies P, Parker R. 1994. Cross-cultural perspectives on sexual behaviour and prostitution. *Health Transition Rev* 4(suppl):257-71.
- Gilmore, M., Morrison, D. M., Lowery C, and Baker S. 1994. Beliefs about condoms and their association with intentions to use condoms among youths in detention. *Journal of Adolescent Health* 15:228-237.
- Gorgen R. Maier B., and Diesfeld H.J. 1993. Problems related to school-girl pregnancies in Burkina Faso. *Studies in Family Planning* 24(5):283-94.
- Gorter A, Esperanza M, Davey-Smith G, Octells P, Low N. How many people actually use condoms? An investigation of motel clients in Managua. 1993. *Soc Sci Med* 36:1645-7.
- Green E. 1992. Sexually transmitted disease, ethnomedicine and health policy in Africa. *Soc Sci Med* 35(2):121-30.
- Green E, Jurg A, Dgedge A. Sexually transmitted diseases, AIDS and traditional healers in Mozambique. *Med An th ropol* 1993;15:261-81.
- Green E. 1994. *AIDS and STDs in Africa - Bridging the Gap Between Traditional Healing and Modern Medicine*. San Francisco: Westview Press.
- Green ST, Goldberg DJ, Christie PR. 1993. Female streetworker-prostitutes in Glasgow: a descriptive study of their lifestyles. *AIDS Care* 5(3):32135.

- Gregson S., Zhuwau T., Anderson R., Chandiwana S. 1998. Is there evidence for behaviour change in response to AIDS in rural Zimbabwe? *Soc. Sci. Med.* 46(3):321-330.
- Hedrich D. 1990. Prostitution and AIDS risks among female drug users in Frankfurt. In: Plant M, ed. *AIDS, Drugs, and Prostitution*. Pp. 64-79. London: Tavistock.
- Health Systems Trust (HST). 1999. *The South African Health Review 1999*. Health Systems Trust, Durban, South Africa.
- Hingson R, Strunin L. 1993. Commentary: validity, reliability, and generalizability in studies of AIDS knowledge, attitudes, and behavioral risks based on subject self-report. *Am J Prev Med* 9(1):62-4.
- Hillier L, Harrison L. Warr D. 1998. 'When you carry condoms all the boys think you want it': negotiating competing discourses about safe sex. *Journal of Adolescence* 21:15-29.
- HIV/AIDS Surveillance Database*. 1996. Washington, DC: U.S. Department of Commerce, Bureau of the Census, May.
- Hooykas C, van der Pligt J, van Doorman GJ, van der Linden M, Coutinho RA. 1989. Heterosexuals at risk for HIV: differences between private and commercial partners in sexual behaviour and condom use. *AIDS* 3:525-32.
- Ingham R. 1995. AIDS: knowledge, awareness, attitudes. In *Sexual Behaviour and AIDS in the Developing World*. Pp. 43-74. J.C. Cleland and B. Ferry, eds. London: Taylor and Francis.
- Jackson L, Highcrest A, Coates RA. 1992. Varied potential risks of HIV infection among prostitutes. *Soc Sci Med* 35(3):281-6.
- Jesson J, Luck M, Taylor J. 1994. Working women in the sex industry and their perception of the risk from HIV/AIDS. *Health Care for Women International* 15: 1-9.
- Kegeles S, Adler N, Irwin C. 1989. Adolescents and condoms: associations of beliefs with intentions to use. *American Journal of Diseases of Children (AJDC)* 143:911-915.
- Konings E, Bantebya G, Carael M, 1995. Validating population surveys for the measurement of HIV/STD prevention indicators. *AIDS* 9:375-82.
- Lear D. 1995. Sexual communication in the age of AIDS: the construction of risk and trust among young adults. *Social Science and Medicine*. 41(9):1311-1323.

- Lear D. 1997. *Sex and Sexuality: Risk and Relationships in the Age of AIDS*. London: Sage Publications.
- LeClerc-Madlala S. 1997. Infect one, infect all: psychosocial responses and impact of the AIDS epidemic on Zulu youth in South Africa. *Med Anthropol* 363-380..
- LeFranc E, Wyatt GE, Chambers C, et al. 1996. Working women's sexual risk-taking in Jamaica. *Soc Sci Med* 42(10):1411-17.
- Monitoring the AIDS Pandemic (MAP). 2000. *The Status and Trends of The HIV/AIDS Epidemic in the World*. MAP Consortium, Durban, South Africa
- Mann JL, Nzilambi N, Piot P. 1988. HIV infection and associated risk factors among female prostitutes in Kinshasa, Zaire. *AIDS* 2:249-54.
- Mann JM, Tarantola D, Netter TW, eds. 1992. *AIDS in the World*. Cambridge: Harvard University Press.
- McGrath JW. 1992. The biological impact of social responses to the AIDS epidemic. *Med Anthropol* 15:63-79.
- McKeganey NP. 1994. Prostitution and HIV: what do we know and where might research be targeted in the future? *AIDS* 8:1215-26.
- McKeganey N, Barnard M. 1992. Selling sex: female street prostitution and HIV risk behaviour in Glasgow. *AIDS Care* 4(4):395-407.
- Mehryar A. 1995. Condoms: awareness, attitudes and use. In *Sexual Behaviour and AIDS in the Developing World*. Pp. 124-156. J.C. Cleland and B. Ferry, eds. London: Taylor and Francis.
- Moore S., Rosenthal D. 1991. Condoms and coitus: adolescents attitudes to AIDS and safe sex. *Journal of Adolescence* 14:211-227.
- Moore S, Rosenthal D. 1992. The social context of adolescent sexuality: safe sex implications. *J Adolescence* 15:415-35.
- Moore S., Rosenthal D., Mitchell A. 1996. *Youth, AIDS and Sexually Transmitted Diseases*. New York: Routledge.
- Mosley WH, Chen L. 1984. An analytical framework for the study of child survival in developing countries. *Popul Dev Rev* 10:25-32.
- Nairne, D. 2000. Reproductive Health Research Unit, Johannesburg, South Africa. *Personal communication*.

- Nash ES. 1990. Teenage pregnancy - need a child bear a child? *South African Medical Journal* 77: 147-51.
- Nataraj S. In the epidemic's shadow. 1995. In: Reid E, ed. HIV & AIDS-the global inter-connection. Pp. 35-44. West Hartford: Kumarian Press
- Neilsen AC. Market Research Africa. 1999. *Management Report on Youth*. KAP study report prepared for The Society for Family Health, Johannesburg, South Africa.
- Nichols D, Ladipo O.A., Paxman J. M., and Otolorin E.O. 1986. Sexual behavior, contraceptive practice, and reproductive health among Nigerian adolescents. *Studies in Family Planning* 17(2):100-106.
- Nichols D., Woods E., Gates D, Sherman J. 1987. Sexual behavior, contraceptive practice, and reproductive health among Liberian adolescents. *Studies in Family Planning* 18(3):169-76.
- Nguyen M., Saucier J., Pica L.A. 1994. Influence of attitudes on the intention to use condoms in Quebec sexually active male adolescents. *Journal of Adolescent Health* 15:269-74.
- (NPPHCN) National Progressive Primary Health Care Network. 1996. *Youth Speak Out For a Healthy Future*. UNICEF, Braamfontein, South Africa.
- Nyamongo I. 1996. Sexual behavior: a comparative study of secondary school adolescents from rural and urban Kenya. Paper presented to the *Pan African Association of Anthropologists/Association of Anthropologists in Southern Africa* Conference. Pretoria: University of South Africa, 9-13 September.
- Orubuloye IO, Caldwell JC, Caldwell P. 1993. African women's control over their sexuality in an era of AIDS-a study of the Yoruba of Nigeria. *Soc Sci Med* 37(7):859-72.
- Papaevangelou G. Roumeliotou A. Kallinikos G, 1988. Education in preventing HIV infection in Greek registered prostitutes. *JAcquir Immune Defic Syndr* 1:386-9.
- Plichta S.B., Weisman C.S., Nathanson C.A., Ensminger M.E., Robinson J.C. 1992. Partner-specific condom use among adolescent women clients of a family planning clinic. *Journal of Adolescent Health* 13:506-511.
- Pickering H, Dodd JT, Dunn D, Pepin J, Wilkins A. 1992. Prostitutes and their clients: a Gambian survey. *Soc Sci Med* 34(1):75-88.
- Pivnick A. HIV infection and the meaning of condoms. 1993. *Cult Med Psychiatry* 17:431-53.

- Plant M, ed. 1990. *AIDS, Drugs, and Prostitution*. London:Tavistock.
- Ray, S., Latif A., Machekano R., and Katzenstein D. 1998. Sexual behaviour and risk assessment of HIV seroconverters among urban male factory workers in Zimbabwe. *Soc. Sci. Med.* 47:1431-45.
- Renaud, M.W. 1997. *Women at the Crossroads: A Prostitute Community's Responses to AIDS in Urban Senegal*. Amsterdam: Gordon and Breach Press.
- Richter, L. 1996. *A Survey of Reproductive Health Issues Among Urban Black Youth in South Africa*. Final grant report to Society for Family Health – South Africa.
- Romero-Daza N. 1994. Multiple sex partners, migrant labor, and the makings for an epidemic: knowledge and beliefs about AIDS among women in Highland Lesotho. *Human Organization* 53(2):192-205.
- Rosenberg MJ, Weiner JM.1988. Prostitutes and AIDS: a health department priority. *Am J Public Health* 78:418-23.
- Schoepf B.G. Women at risk: case studies from Zaire. 1992a In: Herdt G, Lindenbaum S, eds. *The Time of AIDS: Social Analysis, Theory, and Method*. Pp. 259-86. Newbury Park, California: Sage.
- Schoepf BG. 1992b AIDS, sex and condoms: African healers and the reinvention of tradition in Zaire. *Med Anthropol* 14:225-42.
- Schopper D, Doussantousse S, Orav J. Sexual behaviors relevant to HIV transmission in a rural African population-how much can a KAP survey tell us? 1993. *Soc Sci Med* 37(3):401-12.
- Sibthorpe B. 1992. The social construction of sexual relationships as a determinant of HIV risk perception and condom use among injection drug users. *Med Anthropol Q* 6(3):255-70.
- Smith, A. 2000. Department of Virology, University of Natal, Durban, South Africa. *Personal communication*.
- Sobo EJ. 1993. Inner-city women and AIDS: the psychosocial benefits of unsafe sex. *Cul Med Psychiatry* 17:455-85.
- Spina M, Serraino D, Tirelli U. 1992. Condom use and high-risk sexual practices of female prostitutes in Italy. *AIDS* 6(6):601-2.

- Swart-Kruger J., Richter L.M. 1997. AIDS-Related Knowledge, attitudes and behaviour among South African street youth: reflections on power, sexuality and the autonomous self. *Soc. Sci. Med.* 45(6):957-66.
- Swedlund A. 1978. Historical demography as population ecology. *Annu Rev Anthropol* 7:137-73.
- Taylor CC. 1990. Condoms and cosmology: the 'fractal' person and sexual risk in Rwanda. *Soc Sci Med* 31(9):1023-8.
- Trussell J, van de Walle E, van de Walle F. 1989. Norms and behavior in Burkinabe fertility. *Popul Stud* 43:429-54.
- Ulin P. 1992. African women and AIDS: negotiating behavioral change. *Soc Sci Med* 34(1):63-73.
- UNAIDS. 1996. *The HIV/AIDS Situation in mid-1996 – Global and Regional Highlights*. UNAIDS, Geneva.
- UNAIDS. 2000. *Report on the Global HIV/AIDS Epidemic – June 2000*. UNAIDS, Geneva.
- Varga CA, Makubalo EL. 1996. Sexual non-negotiation among black African teenagers. *Agenda* 28:308.
- Varga CA. 1997. Sexual negotiation and decision-making in the midst of AIDS: youth in KwaZulu-Natal, South Africa. *Health Transition Review* 7(suppl. 3):45-68.
- Varga CA. 1999. South African young people's sexual dynamics: implications for behavioural change. In *Resistances to Behavioural Change to Reduce HIV/AIDS Infection in Predominantly Heterosexual Epidemics in the Third World*. J.C. Caldwell, P Caldwell, J. Ntozi et al., eds. Pp. 13-34. Health Transition Centre, National Centre for Epidemiology and Population Health, The Australian National University, Canberra.
- Varga CA and Jones S. 1997. *Increasing Donor Self-Exclusion Rates: Report on Phase I Study*. Mid-term grant report to KwaZulu/Natal Blood Transfusion Services, Durban, South Africa.
- Varga CA and Jones S. 1998. *Increasing Self-Exclusion Rates Among Adolescent Blood Donors: Final Working Report on the KAP Study*. Final grant report to KwaZulu/Natal Blood Transfusion Services, Durban, South Africa.
- Varga CA. 2000. Coping with HIV/AIDS in Durban's commercial sex industry. In press.

- Waddell C. 1996. HIV and the social world of female commercial sex workers. *Medical Anthropology Quarterly* 10(1): 75-82.
- Wilson D, Chiroro P, Lavelle S, Mutero C. 1989. Sex worker, client sex behaviour and condom use in Harare, Zimbabwe. *AIDS Care* 1(3):269-80.
- Wilson D, Sibanda B, Mboyi L, Msimanga S, Dube G. 1990. A pilot study for an HIV prevention programme among commercial sex workers in Bulawayo, Zimbabwe. *Soc Sci Med* 31(5):609-18.
- Wirawan DN, Fajans P, Ford K. 1993. AIDS and STDs: risk behaviour patterns among female sex workers in Bali, Indonesia. *AIDS Care* 5(3):289-303.
- World Health Organization (WHO) 1993. *The Narrative Research Method: Studying Behaviour Patterns of Young People – By Young People: A Guide to its Use* WHO, Geneva, WHO/ADH/93.4.
- Worth D. 1989. Sexual decision-making and AIDS: why condom promotion among vulnerable women is likely to fail. *Stud Fam Plann* 20(6):297-307.