

## CHAPTER 4

### SOCIAL AND ENVIRONMENTAL FACTORS

#### Abstract

Multiple factors act as social precursors for spread of HIV infection. Lack of family life education and ignorance about sexual matters even among educated individuals are also contributory factors. Wars and civil disturbances affect the physical and social security of people, resulting in increased incidence of rape and forced sexual activities. There is a shortage of essential commodities, condoms, and HIV kits. Community leaders may refuse to accept the presence of HIV-infected persons in their communities since the disease is associated with “deviant” sexual behaviour and injecting drug use. Self-appointed “guardians of public morals” may oppose programmes that promote sex education and safer sex. Some religious groups can be mobilised to provide care and support for HIV-infected persons.

#### Key Words

Alcoholism, Armed conflicts, Behavioural factors, Biological factors, Drug use, Family life education, High-risk groups, Jakarta Declaration, Marginalised groups, Men having sex with men, Migration, Myths, Natural calamities, Peer pressure, Religious groups, Social precursors, Socio-political environment, Women having sex with women, Women’s status.

#### 4.1 – SOCIAL FACTORS

The *social precursors* responsible for rapid spread of HIV in India include: (a) social taboo regarding open discussion of sexual matters and learning about sex and sexuality, (b) family pressure to give birth to a male child (heir) and implicit threat to a marriage when a woman is unable to conceive, (c) social acceptability and high prevalence of domestic violence against women, (d) double standards of morality for men and women, and (e) low social status of women (Solomon & Ganesh, 2002). In many cultures, discussion on sexual lifestyle of the client, an integral component of HIV counselling is considered taboo. Persons with high-risk behaviour are regarded as “deviant” (Solomon & Ganesh, 2002).

##### 4.1.1 – Myths

In some parts of the world, it is believed that having sex with a virgin will cure HIV infection. Consequently, many young girls have been infected with HIV. A study in Texas, USA, found that about 30 per cent of persons of Latin American

or African descent believed that HIV was a government conspiracy to kill minorities (Fact Sheet 158, 2006).

#### **4.1.2 – Lack of Family Life Education**

Young adolescents need accurate information about sexuality so that they can make informed decisions. Programmes addressing that need have been called “family life education”, “sexuality education”, “family life skills”, “reproductive health education”, or “responsible parenthood education” in some countries (WHO, 1985). Some programmes provide only biological information, while others include issues such as gender sensitivity and self-esteem.

Family life education for adolescents can result in behaviour changes such as delay in first intercourse or increase in protected sexual intercourse. Almost all of the 250 programmes evaluated and reviewed by the US National Campaign to prevent Teen Pregnancy did not lead to an increase in frequency of sexual activity (Kirby, 2001). HIV prevention programmes were more likely to show a decrease in number of sexual partners and an increase in use of condoms, while sex education programmes had more impact on use of contraceptives by sexually active youth. A review of 47 programmes from developed and developing countries found that sex education programmes had greater impact on behaviour if the courses were imparted before youth became sexually active than after (Gruneit *et al.*, 1997). This finding underscores the importance of starting sexuality education at an early age. A broad-based curriculum for family life education should include structure and function of reproductive system, changes during adolescence, sex and sexuality, factors causing marital harmony and disharmony, sexual health problems, and STIs.

The lack of family life education and ignorance about sexual matters, even among educated individuals, is another factor that contributes to the spread of HIV infection. Family life education helps in initiating intervention measures.

#### **4.1.3 – Vested Interests**

In ancient India, sexually explicit sculptures adorned temples. Rituals covered marriage, sexual intercourse (nuptial nights), pregnancy, and childbirth. But, in present-day Indian society, talking about sex is taboo (Solomon & Ganesh, 2002). Programmes to promote correct scientific information regarding sex, sexuality, and safer sexual behaviour may be opposed by self-appointed “guardians of public morals” and other vested interests having illusory fears about increase in promiscuity (Vas & de Souza, 1991). So far, only half-hearted attempts have been made in India to introduce education on sexual and reproductive issues in schools (Solomon & Ganesh, 2002).

#### **4.1.4 – High-risk Groups**

These groups include commercial sex workers, promiscuous individuals, persons with STIs, recipients of multiple blood transfusions, single migrant males, individuals in certain occupations (transport workers, sailors), asylum inmates,

refugees, prisoners, and marginalised groups in society (NACO, Training Manual for Doctors; UNAIDS, 2000). *Marginalised groups* in society include illegal immigrants, refugees, MSM, commercial sex workers, the *hijra* (a diverse group of castrated males or eunuchs, transvestites, and transsexuals in India and Pakistan), IDUs, and criminals. Their behaviour may be perceived to be socially “deviant” by the rest of the society. They may be unable, or reluctant to utilise the available health services since their presence in the country may be illegal, or because their behaviour is against prevalent social norms, or against the law of the land (NACO, Training Manual for Doctors).

#### 4.1.5 – Womens’ Status

The success of interventions depends on educational status of women and level of women’s empowerment (i.e. role of women in decision-making at family and community levels, and extent of their economic independence). In societies where women have a low status, women with ulcerative STIs would be either reluctant to seek treatment, or unable to seek treatment because their health-seeking behaviour depends on the cooperation of their menfolk. Due to extreme family pressure to bear children, women often choose to conceive in spite of likelihood of HIV infection rather than being childless and HIV-seronegative (Solomon & Ganesh, 2002). Women are often blamed for infecting their husbands or for not controlling their partners’ urges to have sex with other women (Fredriksson-Bass & Kanabus, 2006). In male-dominated societies, there is a thin line between sexual violence and sexual subjugation (De Bruyn, 1992) and women cannot question their husbands about their extramarital encounters, negotiate condom use, or refuse to have sexual intercourse. Female sex workers cannot negotiate safer sexual practices, such as condom use with their customers due to multiple problems such as peer pressure, poor education, and poverty.

#### 4.2 – BIOLOGICAL FACTORS

- AGE – Individuals aged between 20 and 49 are the most affected by HIV infection. Men over the age of 50, who tend to be promiscuous, may also be vulnerable.
- GENDER – Due to anatomical differences in genitalia, many women with other STIs usually do not experience painful or visible clinical symptoms and therefore, may not be aware of the infection.
- HIGHER RISK IN “RECEPTIVE” PARTNER – Larger surface area (vaginal mucosa in heterosexual and anal mucosa in homosexual intercourse) of the “receptive” partner is exposed to HIV. The concentration of HIV in semen is high. The risk is higher during menstruation.
- ADOLESCENT FEMALES – The secretion of vaginal mucus in adolescent girls is less as compared to that in adult women. Consequently, the natural barrier to infection is reduced significantly.
- WOMEN WITH SEXUALLY TRANSMITTED INFECTIONS (STIs) – Ulcerative STIs give rise to few symptoms. Hence, cases among women are not detected.

- **IMMUNITY:** In individuals with a normal immune system, the CD4 cells (T-helper cells) outnumber the CD8 cells (T-suppressor cells). The normal CD4:CD8 ratio in adults varies from 1.2 to 3.5. However, in HIV positive persons, this ratio is reversed since HIV destroys CD4 cells (NACO, Training Manual for Doctors).

### **4.3 – BEHAVIOURAL FACTORS**

#### **4.3.1 – Risky Behaviour**

Use of drugs or alcohol by the male partner may result in faulty use of condoms (due to impaired judgement) and failure to use condoms. Single migrant males and travellers are vulnerable to *high-risk* behaviour. Married males who are temporarily away from their wives are also likely to have multiple sexual partners. More educated individuals have better access to information and are more likely to make well-informed decisions regarding their lifestyle and health. In addition, educated people usually have better jobs and better access to money and other resources, which can help to support healthier lives. In general, as the level of education increases, the prevalence of some types of risky behaviour decreases, while that of other kinds of risky behaviour may increase. Better-educated girls tend to have sexual intercourse later, while the tendency is the reverse in case of boys (UNAIDS, 2000). Poverty and the transmission of STIs or HIV go hand-in-hand. Poverty forces women to opt for commercial sex, despite the knowledge of the risk of acquiring STIs or HIV.

The high-risk behaviour that causes transmission of HIV takes place in private. MSM and bisexual men account for majority cases of HIV/AIDS in North America, Europe, and Australia. However, in many countries of Asia and Africa, the epidemic is driven by heterosexual transmission.

#### **4.3.2 – Personal Hygiene**

Sharing of towels may result in non-sexual contact transmission of STIs, such as gonorrhoea. While washing after defecation, some individuals tend to wash from anal region towards the genitalia. This causes transfer of bacterial flora such as *Escherichia coli* and *Streptococcus faecalis* from the lower gut to the external genitalia, where they act as pathogens. Due to anatomical differences, women are more vulnerable to this type of infection. Breach in continuity of mucosa following infection facilitates entry of organisms causing STI, including HIV.

#### **4.3.3 – Migration and Displacement of Population**

Displacement of population may be due to economic and/or political reasons, armed conflict, or trafficking in women and girls (UNDP, 2006). The rate of migration of population, along with that of urbanisation, is also related to the socio-economic conditions of the population. There is a large migration of males

in the reproductive age groups, from some states of the country to other states, in search of employment. Migration and population mobility *per se*, are not risk factors for HIV infection. The risky behaviours and situations encountered during mobility or migration increase vulnerability and risk of HIV infection (UNAIDS, 2001). There were more than 19.9 million refugees and internally displaced persons worldwide as on 1 January 2005, of which 4.86 million and 6.9 million were in Africa and Asia, respectively (Ramachandran & Gardner, 2005). Afghanistan has the second largest number of refugees in the world, after Palestine. About 3.4 million Afghans have sought refuge in other countries and an additional 200,000 persons are internally displaced. Displaced people have little access to HIV prevention services and are vulnerable to HIV infection due to isolation from their families and widespread poverty (UNDP, 2006).

#### 4.3.4 – Traditionally Institutionalised Sex Work

In India, *devadasis* (meaning slaves of God) are a group of women who have been historically dedicated to the service of gods but in recent times, this has evolved into sanctioned prostitution. Many women from northern Karnataka's "devadasi belt" are sent to major cities for commercial sex work (Fredriksson-Bass & Kanabus, 2006). In Nepal, girls are forced into traditionally institutionalised sex work practices such as *Deuki* and *Badi* (UNDP, 2006).

#### 4.3.5 – Sexual Exposure

Higher difference in the ages of the sexual partners increases the risk of HIV transmission. In some parts of sub-Saharan Africa, young women from poor families enter into sexual relationships (and sometimes cohabit) with ageing wealthy men, for varying periods, in exchange for non-monetary benefits like expensive clothes, jewellery, and better lifestyle. Such men are called "sugar daddies". Anal sex is more risky due to the absence of natural lubricant, lack of elasticity, and comparatively thinner mucosa. This makes peno-anal sex act more traumatic. Thus, the risk of acquiring infection is higher in peno-anal sex than in peno-vaginal sex. Similarly, the risk of transmission in peno-vaginal sex is more than that in peno-oral sex (NACO, Training Manual for Doctors). The risk of transmission is the lowest in any type of sexual activity where quality lubricated condoms are used correctly. Thus, using condoms in any type of sexual act (that involves exchange of body fluids) can prevent HIV transmission. Unprotected sex during menstruation, with an HIV infected male increases the risk of acquiring infection by the female.

#### 4.3.6 – Other Sexually Transmitted Infections

The risk of transmission of HIV is enhanced by the presence of other STIs. Both *ulcerative* and *non-ulcerative* STIs in any of the sexual partners are known to enhance risk of transmission by 10 and 5 times, respectively (Wasserheit,

1992; Laga *et al.*, 1994). HIV has been isolated from genital secretions, tissue, and mononuclear cells in patients with STIs. The lesions in the *genital ulcer syndrome* (chancroid, herpes genitalis, syphilis, and granuloma venereum) disrupt the integrity of the mucosa and provide a raw area through which the entry of HIV is facilitated. HIV has been isolated from genital ulcers (Kreiss *et al.*, 1989). Similarly, in *genital discharge syndrome* (gonorrhoea), there is a higher concentration of HIV in the discharge.

#### **4.3.7 – Women having Sex with Women**

Surveys of behavioural risk factors have been conducted on women having sex with women (WSW) but these surveys differ in definition of WSW, location for recruitment, and intake criteria. Therefore, the findings of these surveys cannot be generalised to all WSW (CDC, 2006). As of March 2005, there were no confirmed reports of female-to-female transmission of HIV in the United States. It is possible that sexual behaviour was not specifically asked for or revealed, or some women may have declined to reveal information on having sex with other women. Some women may have other behavioural risk factors such as injecting drug use and unprotected vaginal intercourse with MSM or men who inject drugs. Health care providers need to remember that sexual identity does not necessarily predict behaviour and that some women who identify themselves as WSW or “lesbian” may be at risk for HIV infection through unprotected sex with men (CDC, 2006).

Vaginal secretions and menstrual blood are potentially infectious and mucous membrane exposure to these secretions has the potential to cause HIV infection. The potential for transmission is greater during early and terminal stages of HIV infection when the viral load in the blood is high. WSW need to know their own and their partner’s HIV sero-status so that uninfected women can change their behaviours and reduce their risk of becoming infected. While for women who are already infected, this knowledge would help them seek early treatment and avoid infecting others. Condoms should be used correctly and consistently during every sexual contact with men or when using sex toys. Sex toys should not be shared. Till date, no barrier method for use during oral sex has been found effective. However, natural rubber latex sheets, dental dams, condoms that have been spread open, or plastic wraps may offer some protection from contact with body fluids during oral sex and thus may reduce the likelihood of HIV transmission (CDC, 2006). Use of alcohol or drugs before or during sexual activity increases the risk of ignoring safer sex guidelines (Fact Sheet 151, 2006).

### **4.4 – SOCIO-POLITICAL FACTORS**

#### **4.4.1 – Political Situation**

Community leaders may refuse to accept the presence of HIV infection in their communities in which they live, since the disease is associated with “deviant” sexual behaviour and injecting drug use. Many fears and misconceptions

associated with HIV epidemic are not supported by scientific facts and have tended to confuse relevant issues. In some countries, the urgency to contain the HIV epidemic has led to rather hasty political decisions such as compulsory HIV testing of foreign students and immigrants, with scant attention given to ethical considerations. It is unethical for lawmakers to consider abrogation of fundamental rights of HIV-infected individuals on the basis of concern for common good, especially when specific measures for containing other communicable diseases, such as vaccination, isolation, and quarantine are not applicable to control of HIV infection (Vas & de Souza, 1991).

#### **4.4.2 – Urbanisation**

Increasing urbanisation leads to disparity in availability of job opportunities and standards of living, thus causing selective migration of rural males to cities. Factors that cause high-risk behaviour among single migrant males include alcoholism and drug addictions, lack of access to counselling and contraceptive services, lack of awareness, lack of traditional constraints in urban areas, long working hours and lack of entertainment, peer pressure, poverty, and relative isolation from their families or single living that provides anonymity. Subsequently, the infected males spread HIV infection among women in rural areas (UNAIDS, 2001).

#### **4.5 – ARMED CONFLICTS AND NATURAL CALAMITIES**

There were more than 19.9 million refugees and internally displaced persons worldwide as on 1 January 2005, of which 4.86 million and 6.9 million were in Africa and Asia, respectively. As of mid-2005, about 45 countries (28 in Africa and 12 in Asia) faced crises related to armed conflicts or natural disasters (Ramachandran & Gardner, 2005). Most of the crisis situations have occurred in developing countries, where health care systems can be quickly overwhelmed by the added burden. Consequently, prevention and treatment of STIs including HIV, family planning, and reproductive health services are neglected (Palmer, 1998; UNHCR, 1999).

Irrespective of their status, people who have been displaced by armed conflicts or natural disasters have similar needs – food, shelter, security, and basic health care (Ramachandran & Gardner, 2005). People living in refugee camps are usually better off, as compared to displaced persons who are dispersed within local communities (Creel, 2003; McGinn, 2000). Relief agencies usually concentrate on providing these basic needs and also emphasise on preventing outbreaks of epidemics of infectious diseases in refugee camps. Where refugees are dispersed, their status and needs are unknown and it is difficult for relief agencies to meet their emergency needs (Creel, 2003; McGinn, 2000). The responsibility for protection of people displaced within their own country is *not* defined by any international treaty, as is the case for international refugees (Deng, 2000; UNFPA, 2002).

#### 4.5.1 – Sexual and Gender-based Violence

*Gender-based violence* refers to acts of violence committed against females because they are female and against males because they are male (Vann, 2002). This includes a wide range of violent acts – sex trafficking, forced prostitution, sexual exploitation, sexual harassment, and harmful traditional practices, such as forced marriages in many parts of Asia and Africa, and female genital mutilation in parts of Africa. Most frequently the victims of sexual and gender-based violence are women and girls, though men and boys may also be victims (WHO, 2000). Sexual violence may occur during escape from place of conflict, in refugee camps, and during repatriation (UNHCR, 1999). The causative factors include breakdown of family and social norms, ethnic tensions, loss of security, overcrowding, predominantly male camp leadership who do not see preventing gender-based violence as a high priority, and psychological trauma (UNHCR, 2003; Ward & Brewer, 2004; WCRWC, 2003).

#### 4.5.2 – Factors Favouring Exposure to Unsafe Sex

- Poverty, powerlessness, food insecurity, and displacement (Spiegel, 2004)
- Disruption of supplies of condoms and family planning services (McGinn *et al.*, 2004)
- Weakening or total collapse of social support networks (Creel, 2003; Krause *et al.*, 2000)
- Increased incidence of rape and other forms of sexual and gender-based violence (Ramachandran & Gardner, 2005)
- Risk of exposure to forced sex in exchange for food, shelter, and protection especially for adolescent girls (UNHCR, 1999; UNFPA, 2001)
- Even in situations where free condoms are available, unsafe sexual behaviour has been found to increase among adolescents (UNHCR, 2004)

While rape and other forms of sexual and gender-based violence take place in all societies at all times, their incidence escalates to a great extent during armed conflicts and natural disasters. The use of rape as a weapon of war has been documented in Algeria, Bangladesh, Bosnia and Herzegovina, Indonesia, Liberia, Rwanda, and Uganda (Ramachandran & Gardner, 2005). The UNHCR has documented some instances where peacemakers and aid workers have been the perpetrators, exchanging food for sex by threatening to withhold food rations (UNHCR, 1995).

In Liberia, the prevalence of HIV infection was estimated at about 8 per cent before the civil war. During the civil war, women and girls were abducted to act as sex slaves for soldiers and there was widespread sexual violence. After the war, screenings for STIs showed that 93 per cent of male combatants and 83 per cent of female combatants had at least one STI. Based on projected estimates from these high rates of STIs, it was estimated that the prevalence of HIV was much higher than before the war (Ramachandran & Gardner, 2005).

#### 4.6 – RELIGION AND HIV/AIDS

In many cultures, religions provide important ethical guidelines for living and for coping with life's events. Religions are thriving in the midst of modernisation because they also provide an anchor in a time of rapid social changes (Tan, 2000). According to religious conservatives, the only way to prevent HIV/AIDS is to return to the demands of religion and faith (Mas'udi, 2000). Some religions have always exerted social control, especially in the area of sexuality. The HIV/AIDS epidemic has posed new challenges to many religions and intensified their indecisive attitudes to sexuality. Ambivalent attitudes continue to exist, often creating hurdles for HIV prevention and care programmes. Religious stigma affects HIV-infected persons and their families, who may be left to fend for themselves. On the other hand, many religions especially in ancient times have respected or even celebrated sexuality, either for reproduction or for eroticism (Tan, 2000). The sculptures in Khajuraho in northern India confirm this fact.

Religious prejudices, in combination with misconceptions about HIV/AIDS may be fatal for HIV-infected persons. The HIV epidemic has also caused ethical dilemmas. Though many orthodox believers contend that condom promotion programmes may encourage sexual transgressions, progressive religious thinkers view the programme as a method of saving lives. Some progressive religious thinkers have also questioned the religious norms that bolster gender inequalities, thus contributing to women's vulnerability to HIV (Tan, 2000).

Some religious groups object to HIV prevention programmes that distribute condoms without educating people on the importance of monogamous sexual relationships. HIV prevention programmes need to deal with people's beliefs and attitudes. For example, if women consider the risk of HIV infection as a part of *karma* (deeds in previous births), then HIV education programmes may not be very effective (Tan, 2000).

##### 4.6.1 – Tapping Religious Groups

Since many religious groups have extraordinary resources and run their own educational institutions, these groups can be tapped for HIV prevention programmes. Though some religious groups may be reluctant to promote condoms, they may be mobilised to provide care and support (Tan, 2000).

In some Asian countries, Christian missionaries provide care for terminally ill AIDS patients (Tan, 2000). In Thailand, Buddhist monks conduct home visits to talk to HIV-infected persons. Besides social, spiritual, and emotional support, monks also provide HIV-infected individuals their basic needs such as food, clothing, and soap (Bayoneta-Leis, 2000). A Buddhist monk's initiative has helped in establishing "Friends for Life", a hospice for people living with HIV/AIDS on the outskirts of Chiang Mai, Thailand (Manning, 1995). The Buddhist AIDS Project ([www.buddhistaidsproject.org](http://www.buddhistaidsproject.org)) is a non-profit project of

the Buddhist Peace Fellowship. The project provides information on HIV/AIDS and alternative health care and is also involved in community service projects in Thailand and Cambodia. The First HIV/AIDS Association of South East Asian Nations (ASEAN) Regional Workshop of Islamic religious leaders held in November–December 1998 prepared the “Jakarta Declaration”, which explored the rationale for involvement of Muslims in the regional response to HIV/AIDS (Mas’udi, 2000).

## REFERENCES

- Bayoneta-Leis N.D., 2000, Buddhist monks: responding to HIV/AIDS. *AIDS Action. Asia-Pacific Edition*. 47: 4–5.
- Centers for Disease Control and Prevention (CDC), 2006, Fact sheet: HIV/AIDS among women who have sex with women, pp 1–2. [www.cdc.gov](http://www.cdc.gov)
- Creel L., 2003, Meeting the reproductive health needs of displaced people (policy brief). Washington DC: Population Reference Bureau, p. 4. [www.dec.org/pdf](http://www.dec.org/pdf)
- De Bruyn M., 1992, Women and AIDS in developing countries. *Soc Sci Med* 34: 249–262.
- Deng F.M., 2000, Introductory note to guiding principles on internal displacement. United Nations Office for Coordination of Humanitarian Affairs (OCHA). [www.reliefweb.int/ocha](http://www.reliefweb.int/ocha)
- Fredriksson-Bass J. and Kanabus A., 2006, HIV/AIDS in India. [www.avert.org](http://www.avert.org). Last updated 19 July.
- Grunseit A., *et al.*, 1997, Sexuality education and young people’s sexual behaviour: a review of studies. *J Adolesc Res* 12(4): 421–453.
- Kirby D., 2001, Emerging answers: Research findings on programs to reduce teen pregnancy. Washington DC: National Campaign to Prevent Teen Pregnancy.
- Krause S.K., Jones R.K., and Purdin S.J., 2000, Programmatic responses to refugees’ reproductive health needs. *Int Fam Plan Perspect* 26(4): 181–187.
- Kreiss J.K., Coombs R., Plummer F.A., *et al.*, 1989, Isolation of HIV from genital ulcers in Nairobi prostitutes. *J Infect Dis* 160: 380–384.
- Laga M., Diallo M.O., Buve A., 1994, Inter-relationship of sexually transmitted diseases and HIV – Where are we now? *AIDS Suppl* 1: S119–S124.
- Manning R., 1995, Friends for life. *AIDS Action. Asia-Pacific Edition* 25: 11.
- Mas’udi M.F., 2000, HIV/AIDS: Between two paradigms. *AIDS Action. Asia-Pacific Edition* 47: 6.
- McGinn T., 2000, Reproductive health of war-affected populations: What do we know? *Int Fam Plan perspect* 26(4): 174–180.
- McGinn T., Casey S., Purdin S., and Marsh M., 2004, Reproductive health for conflict-affected people: policies, research and programmes. Humanitarian Practice Network. [www.rhrc.org/pdf/NACO](http://www.rhrc.org/pdf/NACO). Training manual for doctors. New Delhi: Government of India.
- New Mexico AIDS Education and Training Center, 2006, Fact Sheet 151. Safer sex guidelines. University of New Mexico Health Sciences Center. [www.aidsinfont.org](http://www.aidsinfont.org). Revised 18 July.
- New Mexico AIDS Education and Training Center, 2006, Fact Sheet 158. AIDS myths and misunderstandings. University of New Mexico Health Sciences Center. [www.aidsinfont.org](http://www.aidsinfont.org). Revised 18 April.
- Palmer C., 1998, Reproductive health for displaced populations. London: Overseas Development Institute (ODI). [www.odihpn.org](http://www.odihpn.org)
- Ramachandran D. and Gardner R., 2005, How providers can meet reproductive health needs in crisis situations. *Population Reports Series J. No.53*. Baltimore: Johns Hopkins Bloomberg School of Public Health, pp 3–19.
- Solomon S., and Ganesh A.K., 2002, HIV in India. *Topics in HIV medicine. International AIDS Society – USA*. 10(3): 19–24.

- Spiegel P., 2004, UNHCR, HIV/AIDS, and refugees: lessons learned. *Forced Migration Review* 19: 21–23.
- Tan M.L., 2000, Religion and HIV/AIDS. *AIDS Action. Asia-Pacific Edition* 47: 1–3.
- UNAIDS, 2000, Report on the global HIV/AIDS epidemic, pp 37–51.
- UNAIDS, 2001, Population mobility and AIDS. Technical update. Geneva: UNAIDS, p. 5.
- UNFPA, 2001, Reproductive health for communities in crisis: UNFPA emergency response. New York: UNFPA, pp 38. [www.unfpa.org/](http://www.unfpa.org/)
- UNFPA, 2002, Impact of conflict on women and girls: A UNFPA strategy for gender mainstreaming in areas of conflict and reconstruction. New York: UNFPA, pp 140. [www.unfpa.org/](http://www.unfpa.org/)
- UNHCR, 1995, Sexual violence against refugees: guidelines for prevention and response. Geneva: UNHCR, pp 102. [www.reliefweb.int/](http://www.reliefweb.int/)
- UNHCR, 1999, Reproductive health in refugee situations. An inter-agency field manual. New York: UNHCR. [www.unfpa.org/](http://www.unfpa.org/)
- UNHCR, 2003, Sexual and gender-based violence against refugees, returnees and internally displaced persons: Guidelines for prevention and response. Geneva: UNHCR, pp 158. [www.rhrc.org/resources/gbv/gl\\_sgbv03.html](http://www.rhrc.org/resources/gbv/gl_sgbv03.html)
- UNHCR, 2004, Reproductive health services for refugees and internally displaced persons: Report of an inter-agency global evaluation. Geneva: UNHCR, pp 261. [www.rhrc.org/resources/lawg/](http://www.rhrc.org/resources/lawg/)
- United Nations Development Programme (UNDP), 2006, Asia-Pacific at a glance. [www.youand aids.org](http://www.youand aids.org)
- Vann B., 2002, Gender-based violence: Emerging issues in programs serving displaced populations. Arlington, VA: Reproductive Health for Refugees Consortium, pp 144.
- Vas C.J. and de Souza E.J., 1991, Ethical concerns in AIDS. Mumbai: FIAMC Biomedical Ethics Centre.
- Ward J. and Brewer J., 2004, Gender-based violence in conflict-afflicted settings: Overview of a multi-country research project. *Forced Migration Review*, 19 January 2004, pp 26–28.
- Wasserheit J., 1992, Epidemiological synergy: Inter-relationship between HIV and other STDs. *Sex Trans Dis* 19: 61–77.
- WHO, 1985, Reproductive Health and the Law. *WHO Chronicle*.
- WHO, 2000, Reproductive health during conflict and displacement: a guide for programme managers. Geneva: WHO, pp 175.
- Women's Commission for Refugee Women and Children (WCRWC), 2003, Sexual violence in refugee crises: A synopsis of the UNHCR guidelines for prevention and response. New York: WCRWC. [www.women'scommission.org/projects/P&P/guidelines/](http://www.women'scommission.org/projects/P&P/guidelines/)