Chapter II
THE PAST, PRESENT & THE CHALLENGE
IN HIV/AIDS SCENARIO

2.1 Introduction

2.2 A New Disease of The Twentieth Century –
   A Historical Perspective

2.3 The State of the HIV / AIDS pandemic

2.4 AIDS - A Social Disease

2.5 Impact on the Health of Family.

2.6 Impact on the economic front

2.7 Gender Issues

2.8 Individual risk and societal vulnerability

2.9 Issues in migration
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2.1 Introduction

HIV / AIDS is a new disease. More than a disease, it is a phenomenon, which parallels no known incident in human history. Even though a new occurrence, in a short span of a few years, it has made lots of headlines and history. The past history of human civilization has taught us much about human relationships and diseases and the present is a complex entity of all related issues. The future holds promises in most spheres of human activity. Man has always learnt from mistakes and this instance is no exception. The only problem is that it comes with a huge cost attached to it. These issues are discussed in this chapter. The social and economic implications of this global disaster are also discussed.

2.2 AIDS - A New Disease of The Twentieth Century - A Historical Perspective

The year was 1981. The site, a general hospital in Los Angeles, United States. The general duty residents working there were puzzled by what was going in a group of patients. They were all young aged
between 20 and 30 years. They were all healthy before, doing their normal chorus of work. Now they were admitted with severe breathlessness and mild fever. The usual clinical examination did not reveal much except cyanosis, the bluish discolouration on the skin and mucous membranes (the tongue, eyes etc.). The chest X-ray picture was just normal as reported by expert radiologists. The puzzle was partly solved when a junior doctor thought and confirmed that they were having a reduction in a type of cells responsible for immunity. Immunity is the ability of our body to stand against and protect us from the millennium of infecting microorganisms. No evidence of a defect in immunodeficiency was present before the onset of this short-term illness which clarified that they were not suffering from this illness from birth onwards.¹

Putting all the evidence together the junior doctors coined a term hitherto unheard of. And the term was ....YES ! the most commonly discussed term all over the world now ie. Acquired Immuno Deficiency Syndrome. The words – Gay Related Immuno Deficiency, Slim Disease, Wasting Disease etc. were the other synonyms that refused to stay and the phrase AIDS was here to stay, even though the word became very unpopular after a few years. Thus
this is a group of disorders (syndrome) in humans acquired through an infection (the result of a microorganism entering the body). The paradox was that the disease was discovered in the same year the UN had accepted the Alma Ata motto of “Health for All by 2000 AD”. And the ironic fact remains that the first few reports about a new disease was ignored by the international medical community at large saying this is only a localised problem.

That time detailed investigations were held into the lifestyles of these patients to find out any variations from normal. And there were many. It was soon revealed that they were men having sex with men and were all using IV drugs as a habit. This was followed by a large number of reports from different parts of US where doctors identified large numbers of men with similar illness. And they were all homosexuals or IV drug users. And then came reports from Africa and slowly from Europe too.²

During all this time, most of the world’s nations were complacent about the whole issue. People started putting the blame on the homosexual behaviour- mostly unacceptable to the moralistic society. It was at this juncture that children started developing the disease in small numbers. They were mostly children suffering from
blood disorders like Hemophilia, Thalassemia, Sickle cell anemia etc. These children invariably had multiple blood transfusions in their lives. Next came the turn of women in smaller numbers in the west becoming infected. That too was traced either to a habit of IV drug abuse or a close relation with a homosexual man who once in a while had a sexual relation with women also. Soon the disease got attention of the public too. Till now all modalities of transmission were related to blood in one or another way. Naturally hospitals where blood spilling, sharing etc. takes place caught the attention of everybody. Persons working in hospitals were the first to make cries and refused to attend to the diseased, even in developed nations.

The stage to follow was one where epidemiologists took over and a usual analysis of sex and age patterns revealed this to be a disease with two important peaks, the major one in adulthood i.e. between 15 and 45 years and a minor peak below four years of age. The inferences were becoming clearer. This was soon identified as due to an infection transmitted through an act related to adulthood and childbirth and SEX became the first choice. Thus it was soon established that this is an infection spreading through various forms of sex and exchange of blood / body fluids. Even though there were
lot of worries about in hospital and casual spread of the disease, soon it became evident that these are NOT in fact the most serious routes.³,⁴,⁵

Research and science were progressing at a faster pace. Unlike many diseases where the causative organisms evaded us for centuries, the causative organism was identified or suspected in about two years time. Dr. Luc Montagnier of France and Dr. Robert Gallo of US identified an infective organism, later recognised as a virus, a very small infective being. After a lot of confusions and names like Lymphadenopathy Associated Virus, Gay Virus, Human T Cell Lymphotropic Virus HTLV III, this virus is now labeled as the “Human Immunodeficiency Virus” (HIV). This virus is supposed to have originated sometime in the past and has assumed epidemic proportions affecting almost all countries in the world. Within a couple of years, tests were developed which could detect the remnants of infection in one’s blood and the HIV tests came into being.⁶

Many nations including India were in a false world of hope thinking this disease is a curse thrown upon the westerners for their deviation from moral values. Thoughts were even rampant that ours
is a nation where this cannot take root as we had a very high moralistic society. But when our national government took upon the issue of screening the “risky” population of female commercial sex workers in Chennai and Mumbai, all hopes were shattered. The disease was found in Chennai in 1986 and in Mumbai a few weeks later. Now everybody started accusing the foreign hand and what not, only to realise at a later stage that this has become a disease of the poor in India too. And one after another, state by state, city by city one started seeing the epidemic first as a trickle, later as a shower and now storms have started raging in different parts of our country too. No state in India, no district in Kerala or no village literally is free from the grip of this disease and the social class identification is also disappearing fast, cases being reported from all social, economic and education levels.

2.3 The State of the HIV / AIDS pandemic

Today, 8,000 people will lose their lives to HIV/AIDS and another 14,000—10 people every single minute—will become newly infected. The realities of today’s global epidemic are graver than even the worst-case predictions of 10 years ago. AIDS killed more than 3 million people in 2003 and an estimated 5 million more became
infected—bringing to some 40 million the number currently living with the virus. More than 20 million have already died since the first clinical evidence of the disease was reported in 1981.8 (Fig.1 Page 41)

Sub-Saharan Africa remains the worst-affected region of the world, with one in five adults across southern Africa now HIV-infected. In countries such as Botswana and Swaziland, adult prevalence is approaching 40%. In many areas, AIDS is erasing decades of progress made in human development as young, productive people die, households fall into poverty, and the costs of the epidemic mount. Average life expectancy in the region has declined from 62 years to 47, and continues to fall.

In other parts of the world, the epidemic also shows no sign of abating. Eastern Europe and Central Asia are experiencing exponential expansions in levels of HIV infection, especially among the young. More than 1 million people in Asia and the Pacific became HIV-positive last year, while, in Latin America and the Caribbean, the epidemic is well entrenched; HIV/AIDS is a leading cause of death in a number of countries in the Caribbean Basin. Even in resource-rich nations such as the United States, where overall infection rates are relatively low, there has been no decrease in the number of new
Fig. 1
Adults and children estimated to be living with HIV/AIDS as of end 2003

North America
1 million
Caribbean
470 000
Latin America
1.6 million

Western Europe
600 000
North Africa & Middle East
600 000
Sub-Saharan Africa
26.6 million

Eastern Europe & Central Asia
1.5 million
South & South-East Asia
6.4 million

East Asia & Pacific
1 million

Total: 40 million
infections in over a decade and, among certain populations, HIV prevalence is increasing. A trend towards growing infection rates is also evident in the Middle East and North Africa, challenging the notion that any region has sidestepped the epidemic. UNAIDS and WHO estimate that, without dramatic increases in HIV-prevention efforts, some 45 million new infections will occur worldwide by 2010.9

Over 1 million people in Asia and the Pacific acquired HIV in 2003, bringing to an estimated 7.4 million the number of people now living with the virus. A further 500,000 people are estimated to have died of AIDS in 2003. National adult HIV prevalence is still under 1% in the majority of this region’s countries. That figure, though, can be deceptive. Several countries in the region are so large and populous that national aggregations can obscure serious epidemics in some provinces and states. Although national HIV prevalence in India, is below 1%, five states have an estimated prevalence of over 1% among adults. Moreover, there are increasing warning signals that serious HIV outbreaks threaten in several countries. IDU and sex work are so pervasive in some areas that even countries with currently low infection levels could see epidemics surge suddenly.
The HIV/AIDS picture in South Asia remains dominated by the epidemic in India, where between 3.82 and 4.58 million people were infected nationally by the end of 2002. In the past year, at least 300,000 people acquired HIV, and serious epidemics are now under way in several states—including Maharashtra and Tamil Nadu (where HIV prevalence of over 50% has been found in sex workers in some cities), and in Manipur (with HIV prevalence among injecting drug users ranging between 60% and 75%). According to India's National AIDS Control Organization (NACO), HIV/AIDS is not confined to vulnerable groups or to urban areas, but is gradually spreading into rural areas and the wider population. In states such as Andhra Pradesh, Karnataka, Maharashtra, Manipur and Nagaland, HIV prevalence rates among pregnant women have crossed the 1% threshold, while, in Gujarat and Goa, HIV prevalence among populations with high-risk behaviour is above 5% (though below 1% among pregnant women). Worryingly, not enough is known about HIV spread in the vast populous interior of Uttar Pradesh and other northern Indian states, where current HIV surveillance is providing an incomplete picture of the epidemic. Elsewhere, Maharashtra and Tamil Nadu offer localized examples of where prevention efforts
appear to be making some headway, but there is not yet persuasive evidence that the epidemic is being curbed in individual states, let alone in the country as a whole.

In all affected countries with either high or low HIV prevalence, AIDS hinders development, exacting a devastating toll on individuals and families. In the hardest-hit countries, it is erasing decades of health, economic and social progress – reducing life expectancy by years, deepening poverty, and contributing to and exacerbating food shortages.

Sub-Saharan Africa has the world’s highest prevalence and faces the greatest demographic impact. In the worst-affected countries of eastern and southern Africa, if current infection rates continue and there is no large-scale treatment programme, up to 60% of today’s 15-year-olds will not reach their 60th birthday. The stark differences in access to antiretroviral treatment are reflected in mortality rates. In low- and middle-income countries, such rates among 15-49 year olds are now up to 20 times greater than death rates for people living with HIV in industrialized countries. In seven African countries where HIV prevalence is more than 20%, the average life expectancy of a person born between 1995 and 2000 is
now 49 years – 13 years lower than in the absence of AIDS. In Swaziland, Zambia and Zimbabwe, without antiretroviral programmes, average life expectancy is predicted to drop below 35.⁹

The epidemic’s impact is particularly hard on women and girls as the burden of care usually falls on them. Girls drop out of school to care for sick parents or for younger siblings. Older women often take on the burden of caring for ailing adult children and later, when they die, adopt the parental role for the orphaned children. They are often also responsible for producing an income or food crops. Older women caring for orphans and sick children may be isolated socially because of AIDS-related stigma and discrimination. Stigma also means that family support is not a certainty when women become HIV-positive; they are too often rejected, and may have their property seized when their husband dies.

In some of the worst-affected countries, the living standards of many poor people were already deteriorating before they experienced the full impact of the epidemic. In general, AIDS-affected households are more likely to suffer severe poverty than non-affected households; this is true for countries with low prevalence as well as those with high rates. AIDS takes away the income and production
capacity of family members that are sick, at the same time as creating extraordinary care needs and rising household expenditure on medical and other costs, such as funeral expenses.

On average, AIDS care-related expenses can absorb one-third of a household’s monthly income. Families may have to use their savings, sell assets such as land and livestock, borrow money or seek support from their extended family. They also have to reduce spending on housing and clothing. In South Africa and Zambia, studies of AIDS-affected households – most of them already poor – found that their monthly income fell by 66%-80% because of coping with AIDS-related sickness. AIDS is intensifying chronic food shortages in many countries where large numbers of people are already undernourished. The epidemic is significantly reducing countries’ agricultural workforce and families’ income with which to buy food. This is especially damaging for people living with AIDS who need more calories than uninfected individuals. 10

A healthy agricultural sector is essential for the well-being and self-sufficiency of developing countries. It accounts for 24% of Africa’s gross domestic product, 40% of its foreign exchange earnings and 70% of its employment. But the epidemic is attacking the
agricultural base of many countries, especially those most affected; it is estimated that AIDS will have claimed the lives of one-fifth or more of agricultural workers in southern Africa by 2020.

Globally, AIDS is a significant obstacle to children achieving universal access to primary education by 2015 (a key target of UNESCO’s Education for All Initiative and the UN’s Millennium Development Goals). An estimated US$1 billion per year is the net additional cost to offset the results of AIDS – the loss and absenteeism of teachers and demand incentives to keep orphans and other vulnerable children in school. In many countries – for example, Kenya, Uganda, Swaziland, Zambia and Zimbabwe – the epidemic is expected to significantly contribute to future shortages of primary teachers. Without forward planning, there will be great difficulty for these countries meeting their school enrolment targets and an acceptable pupil-to-teacher ratio. As skilled teachers fall sick and die, the quality of education suffers. Many affected countries cannot afford to train more teachers. Children, especially girls, from AIDS-affected families are often withdrawn from schools to compensate for loss of income through a parent’s sickness and related expenses, to care for sick relatives and look after the home. These families may
also take their children out of school because they cannot afford school fees.\textsuperscript{11}

The epidemic has created a need for robust, flexible health systems at a time when many affected countries have been reducing public service spending to repay debt and conform to international finance institutions’ requirements. So already weakened systems are being forced to cope with the extra burden of sickness and the loss of essential staff through sickness and death related to AIDS. In African countries, studies estimate that between 19\% and 53\% of all government health employee deaths are caused by AIDS. The epidemic is quickly outstripping growth in the supply of health sector workers.\textsuperscript{9}

In India the HIV / AIDS epidemic is now a decade old. Within this short period, it has emerged as one of the most serious public health problems. The initial cases were reported among commercial sex workers in Mumbai & Chennai and injecting drug users in the Manipur. The disease rapidly spread in these areas and the three states together account for over 3/4\textsuperscript{th} of AIDS cases and over 2/3\textsuperscript{rd} of HIV infections. The actual number of HIV infections in India is not known. Even though the reported cases run into a few
thousands, the estimate is that we have around 4-5 million HIV cases now.

Population in India is now above the one billion mark. About half of this is in the sexually active age group of 15-49 years. From 1995 onwards the surveillance system tested around 35,000,000 persons of whom 1,85,321 were tested positive. 70453 cases of AIDS were also reported. This is constituted by 51492 males and 18961 females. Contrasting this with the reality of 4.8 million cases is astonishing. But the fact remains that due to the large digits, India happens to be the country with the largest number of HIV infected people in the world. Estimates reveal a prevalence of 0.5 – 0.7 percent, but clearly the distribution is not uniform through out the country. During the recent years, the country has witnessed the following trends and shift in paradigm regarding the occurrence and spread.

- HIV is prevalent in almost all parts of the country.
- HIV / AIDS is spreading from Urban to rural areas
- HIV / AIDS is extending from high risk behaviour groups to general population.
- One in every four reported cases is a woman.
• More and more women of reproductive age group becoming infected leads to more and more children born with HIV infection adding to the childhood HIV epidemic.

• Highest percentage of infections is occurring through sexual contact.

• 90% of reported cases are from sexually active and economically productive age groups.

2.4 AIDS - A Social Disease

Perhaps no other disease in the history of humanity had been linked to the social life of human beings as AIDS has. Much more than pointing to the medical cause of the ailments, society is worried about the social causes and consequences of the illness, be it in an individual or group of people. The moment a person is diagnosed or even suspected as having HIV infection, the peeping eyes look into all possibilities and end up usually in a very uncomfortable situation. Much more than looking at what the future needs of the person concerned, everybody is worried about why and how it occurred. Apart from the shortened life-span and death seen as imminent, serious illnesses, disability, disfigurement etc., what HIV infected persons are worried about most is the revelations and misgivings the
disease is likely to generate amongst the kith and kin as well as among the many following generations.

HIV infection gives rise to uncertainty about hopes and expectations about life in general, but it may be felt mainly about family and job. An even more fundamental uncertainty may concern the quality and length of life, effect of treatment and the response of the society, all of which are relatively unpredictable. Some people will go into a stage of shock and a state of crisis, and then come around to acceptance, with care and counselling. Others may develop a denial and face the condition only when they become ill or weak to keep up the pretence.

This being an illness so common among the young, active members of the population, produces lot of effects in the society. The major issue could be one related to the recognition that the social and moral values are deteriorating. This was the problem with us in the early nineteen nineties. Large number of young men coming down with illness meant a major drain on the working manpower. This got easily translated to less and less persons in industry, defenses, agriculture, activities in the society like youth movements etc.. This will aggravate the poverty which initiates the vicious cycle.
leading to more and more persons getting infected. This has happened in many societies in the African continent and gradually in Thailand, Myanmar, Cambodia etc..

When the young generation suffers from the disease, and the couples die, they leave behind a generation of elderly and one of orphaned children who lack the backing from the youth. This affects the social stratification and when the grand parents die the fate of these orphaned children is anybody’s guess.

Some nations have already started feeling the pinch on the resources because of the epidemic. Industries are collapsing. One good example comes from the transport industry in Thailand. When large numbers of young drivers become ill, their sickness benefits, and death benefits alone run into millions of dollars. The cost of medical care is enormous. Indirect costs like loss of production, training costs for another generation of drivers, and reduction in output by the newly experienced drivers amounts to large losses to the industry. The need to provide the family benefits is inbuilt in many economies and this is definite to be another drain. As this is likely to be recognised as risky occupation fresh recruits may ask for more wages. All this is likely collapse the industry like anything.
Such changes occurring in various fields of agriculture could translate into great crush in the food scenario and the market impacts likely to occur across societies could be worked out to near collapse of all economies.

HIV / AIDS has produced not one, but three related epidemics that must be controlled. The first epidemic of asymptomatic HIV infection was followed by the second of the disease of AIDS. The third is that of the social, cultural, economic and political reaction and response to the first two epidemics. The third epidemic – the intense global reaction to HIV / AIDS – is just being visualised. Fear and ignorance are having severe effects at the personal, family and social level. The diagnosis of HIV / AIDS or a suspicion of the same or even a recognition of the possibility of infection brings with it profound emotional, social, behavioural and medical consequences. The subsequent individual and societal adjustments required often have serious implications for family life, sexual and social relations, work, education, spiritual needs, legal status and civil rights. Adjustment to HIV infection necessarily involves constant stress management and adaptation.
2.5 Impact on the Health Sector.

The most obvious impact of AIDS is on Life expectancy. Available evidence suggests that in the most severely affected countries, AIDS threatens to reverse a century of progress in the fight against infectious diseases.

Life expectancy is a basic measure of human welfare and of the impact of AIDS. From 1900 to 1990, dramatic progress in the fight against infectious diseases raised life expectancy from 40 to 64 years in developing countries, narrowing the gap between these and industrialized countries from 25 to 13 years. AIDS has slowed down and reversed the trend in many. For example, life expectancy in Botswana a mere 46 years is 11 years shorter than it would have been without AIDS. The impact in many developing countries is less because other diseases are killing a large number there already.\textsuperscript{13}

Disability Adjusted Life Years (DALY) is a new concept introduced to measure the impact of any event. A DALY includes the disability as well as the mortality effects of the disease. In 1990, poor health resulted in the loss of about 265 DALYs per thousand persons per year in developing countries, almost twice the 124 dALYs in industrialized countries. Murray & Lopez (1996)\textsuperscript{14} predicted that
AIDS will account for 3% of all DALYs lost in developing countries by the year 2010, up from 0.8% in 1990. Moreover, since other diseases like Tuberculosis contributes to loss of DALYs in AIDS patients, the effects are going to be amplified. But for this epidemic, Tuberculosis cases should have been on the decline now.

Because HIV/AIDS affects prime age adults, a shadow is created on their own health and that of the family dependent on them. Without AIDS, this 15 to 50 year olds account for only 10-15% of the deaths in a developing country. The effect it can have on the increasing rate of orphans is astonishing. The impact can be seen in countries in Africa. In the absence of AIDS, gradual improvements in maternal health would have reduced maternal orphan rates. Instead we see that this rate increased to 3 to 5% in Kenya, Tanzania and Uganda. Losing a parent can have profound consequences for any child, and these are likely to be worse in poor households. A consideration of the impact of the epidemic must also recognise that AIDS Orphans often face unique problems. Very young orphans whose mothers have died have higher mortality rates. AIDS orphans are likely to be two parent orphans too. They suffer the stigma
amongst many other family adjustment problems like lack of guardians, schooling problems etc. to name a few.\textsuperscript{15}

AIDS will affect the health sector in two ways: by increasing the demand and by reducing the supply of given quality of care at a given price. As a result, some HIV negative persons - who would have obtained care had there been no epidemic- will be unable to access care and total national expenditure on health will rise, both in absolute terms and as a proportion of national product.

Several studies suggest that adults with AIDS uses more health care prior to death, than those who die of other diseases, the percentage increase in the demand for care by adults is likely to exceed the percentage share in their mortality due to AIDS. In addition to this, there will be a reduction in the supply of care too. The first and the largest effect will be on the cost of maintaining a given level of safety for medical procedures. Even without HIV, many hospitals do pose a risk to health in many developing countries. Needles and other instruments are not always sterilized, rooms are overcrowded and care givers may lack rubber gloves and water. In such situations all types of infections spread. Before HIV however, infections picked up in a hospital were rarely fatal to persons. Even in
middle income countries, where blood screening in blood banks and sterilization of needles are the norm, the incremental costs of adding HIV test to existing tests and using masks, gloves etc. could be substantial. The second factor reducing the supply of medical care is the increased attrition of health care workers who become infected with HIV as a result of sexual contact or use of unsterile equipment inside the hospital. The third way in which AIDS reduces supply of care is through the additional risk it imposes on health care workers. This might lead to reduction in the quality of care. In many countries, members of the younger generation are turning away from this profession. Some would choose other occupations, unless they are compensated with higher pay for the increased risk, which again leads to increased costs. A recent survey in the United States has found that AIDS had reduced the attractiveness of certain specialties in which contact with HIV positive persons was more likely. Taken together, these lead to health care becoming scarcer and thus more expensive and national health care expenditure rises.  

2.6 Impacts on the economic front

The HIV epidemic poses an unprecedented challenge to communities, nations and to international community: a challenge to
human survival, human rights and human development. It is difficult to visualise the devastating effect of the HIV epidemic within our lifetimes and beyond. The impact of the HIV epidemic in developing countries must be understood in the context of the critical social and economic problems already experienced by many countries: poverty, famine and food shortage, inadequate sanitation, and health care, the subordination of women and adjustments of policies that reallocate the insufficient resources to social sectors. The setting of the HIV epidemic in developing countries creates a downward spiral whereby existing social, economic and human deprivation produces a particularly fertile environment for the spread of HIV and in turn, the HIV epidemic compounds and intensifies the deprivation already experienced by people in these countries.

In contrast to many health problems which affect either the very young or the elderly, AIDS strikes mainly those in the age group of 15 – 49 years. By depriving people in the most productive years, AIDS poses a serious threat to the economic situation of any country. As the cases rise steeply over the next few years, the economic, social, political and cultural effects will be dramatic. The time of initiation of an effective prevention program could be of extreme
economic significance as well. AIDS can hinder the social and economic development by reducing the supply of skilled workers, and reducing the actual labour force. It can also have an adverse effect by reducing the level of domestic savings as both private and public sectors use more funds to cope with the impact of the disease. Foreign savings in the form of direct investment are likely to decline. An important determinant of the latter is the host country's economic performance, which is likely to deteriorate because of shortage of skilled workers and drop in domestic savings.

Any program to increase economic growth and to upgrade the industrial sector, or just to maintain the existing level of economic growth could be adversely affected, as AIDS slows down social and economic development by reducing the quantity and quality of labour force and reduced savings. The reduction in labour force is an extreme case but will be amplified by the increasing the child mortality rate and reverse the reduction in the adult mortality rates we were striving to maintain. The more likely and early impact will be a decline in the labour quality. Given the characteristics of AIDS, it can accentuate the problem by reducing the overall skills of the industrial labour force. First, it is fatal, with a reduced average survival time.
Second, the treatment of HIV positive and AIDS patients has a high opportunity cost. Not only will patients with curable diseases miss out on treatment, but other important activities such as educational spending will also lose out. Families with an AIDS patient will also be forced to spend less on education and nutrition. These will combine to produce two adverse effects: losses in the most expensively trained group of workers in their most productive period and losses in the new labour force most needed for economic and industrial growth. Not only that this will have a negative impact on national output but also may force the country to solicit foreign labour, which could exacerbate the situation. The ‘transient’ labourers have a higher incidence of sexually transmitted diseases and risky behaviour paving an easy way for the epidemic to be maintained. If these migrant labourers marry into the local population the virus will establish further. The business sector will also need to spend more as labour costs increase with decrease in labour productivity and increase in labour turnover leading to additional training costs. The state is also confronted with the problems of looking after increased number of disabled persons, orphans and those pushed below the poverty line. The net effect will be lowering of investment and hence economic
growth. The epidemic's cost also includes the cost of running the control and prevention measures.\textsuperscript{17,18}

Lots of international agencies are funding many HIV intervention projects. One explanation for this is altruism. Just as famine and flood can elicit an outpouring of generous assistance, devastation by this epidemic also attracts lot of generosity. It is also in the self interest of higher income countries too. The current and future magnitude of HIV's contribution to the infectious diseases burden within industrialized countries provide them with two reasons for contributing to less developed countries. First, any lessons learnt about how to slow down the epidemic, whether through behavioural modification or technological advances, are potentially applicable at home. Second, because HIV is infectious and the higher income countries exchange thousands of tourists and attract thousands of immigrants, a reduction in the HIV prevalence of such countries has the secondary effect of protecting the citizens of higher income countries.\textsuperscript{14}

2.7 Gender Issues

Since the development of a global response to the HIV/AIDS pandemic began more than a decade ago, remarkable strides have
been made in our understanding of the nature, scope and impact of HIV/AIDS on individuals, communities and societies around the world. The most striking development is the recognition of the role that gender plays in fuelling the pandemic and influencing its impact. “Gender” is defined as the widely shared expectations and norms within a society about appropriate male and female behaviour, characteristics and roles, which ascribe to men and women differential access to power, including productive resources and decision making authority.

A broader definition of gender as defined by UNAIDS is that it is “what it means to be a male or female and how that defines one’s opportunities, roles, behaviours and responsibilities”.

Gender roles vary over time and by class, caste, religion, ethnicity and age.19 Research on gender was examined as it relates to women’s and men’s different vulnerabilities to HIV infection, and their different abilities to access resources for care and support in order to cope with the impact of the epidemic. The paper also reviews programmatic responses that have sought to address gender-specific concerns and constraints in an attempt to contain the pandemic and alleviate its impact. There are also biological
differences between men and women, which have an impact on their vulnerability and access to care. For example, young women are particularly vulnerable to HIV due to fragile vaginal and anal epithelia. HIV-positive women face a particular set of problems associated with pregnancy, delivery and breast-feeding. They may suffer undue discrimination through being counselled not to proceed with their pregnancy, or because their HIV status is diagnosed through a sick child. These are some of the biological factors that do not affect men and adversely impact women. Although they are not explicitly the subject of this paper, some of them may be addressed implicitly in discussion of the vulnerabilities caused by gender differences.

Since the early years of the HIV/AIDS epidemic, the public health model of disease prevention has remained central to efforts to reduce the spread of infection. Epidemiological models have identified routes of transmission (sexual, perinatal, parenteral) and patterns of spread. By and large, the public health response to epidemiological data has relied on individual behaviour change interventions to control the transmission of HIV, given the lack of a vaccine or cure. From the mid-1980s until the early 1990s, the risk
reduction model became central to these efforts, as evidenced by the creation of a three-tiered approach within national AIDS programmes supported through the Global Programme on AIDS of the World Health Organization (WHO/GPA). This approach involved the provision of information and education; programmes to deliver services (HIV testing and counselling, needle exchanges, condoms, drug treatment, provision of safe blood and blood products); and promotion of non-discrimination regarding people with HIV/AIDS. This last feature was new to public health, but there was sufficient evidence to prove that HIV/AIDS-related stigmatization and discrimination were instrumental in thwarting efforts to reduce risk through education and service delivery. Throughout this period, prevention of HIV/AIDS and provision of care/treatment for those already infected were treated as separate goals.20

Since the early 1990s, HIV prevention has been concerned with two main objectives: implementation of the risk reduction model to ever-wider sectors of society and improvement of the delivery of services to those at risk; and the development of more strategic approaches to HIV/AIDS through consideration of the contextual
factors that foster vulnerability, including integrating care and support with prevention. The first of these objectives focuses primarily on the individual and on promotion of changes in behaviour to reduce risk of HIV transmission. The second stems from the development of the concept of vulnerability to HIV/AIDS, which is influenced by sociocultural, economic and political factors that constitute the context of individual behaviour. These contextual factors also create barriers or otherwise constrain a person’s ability to protect himself / herself from HIV infection and to cope with the consequences of HIV/AIDS.

Violence against women

Violence against women and girls occurs on a vast scale, and specifically sexually violent acts figure prominently. Available evidence suggests that at least one in five of the world’s female population has been physically or sexually abused at some time in their lives. Violence is as significant a cause of death and incapacity among women of reproductive age as cancer, and a greater cause of death than traffic accidents and malaria combined.21

Some data exists in relation to sexual violence against men and boys, suggesting the vulnerability of specific groups of men and boys
(i.e. those who occupy subordinate positions in relation to other men), of specific settings (all-male institutions such as prisons and the military) and of specific contexts (conflict situations). Women are most likely to be assaulted within the confines of their own family and household, and are more likely to be injured, raped or killed by a current or former intimate partner than by anyone else.

Available data\textsuperscript{22,23} suggest that:

- Between 16-52\% of women throughout the world have been assaulted by an intimate partner.
- In the USA, ten women are killed every day by their partners with 74\% of these deaths occurring after the women have left the relationship.
- A study of court records in Zimbabwe revealed that 59\% of homicides of women were committed by the victim’s intimae partner. In Russia nearly half of all murder victims were women murdered by their male partners.
- In Papua New Guinea, 18\% of all urban married women had to seek hospital treatment following domestic violence.
• In India, between 1988 and 1993 more than 20,000 women were murdered or committed "suicide" because they were unable to meet demands for increased dowry.\textsuperscript{22}

• Seventy percent of the 22,000 divorces in Vietnam during 1991 were sought because of violence.

• In rural China, suicide is thought to account for 30% of healthy years of life lost and in Sri Lanka death from suicide is five times the rate of death from infectious diseases.

• In urban Maharashtra and Greater Mumbai, one in every five deaths among women aged between 15-44 is from "accidental burns" and for younger women this figure is one in four.\textsuperscript{22}

• Globally, at least 10-15% of all women report being forced to have sex and that considerable proportions of the victims of sexual assault are less than 15 years old.\textsuperscript{24}
2.8 Individual risk and societal vulnerability:

The concepts of individual risk and societal vulnerability are inextricably intertwined. The societal context of vulnerability includes the individual— whose behaviours, experience, knowledge and attitudes have often been the primary concern of HIV/AIDS programmes—since groups of individuals make up societies and define their norms regarding gender. 

At least three types of factors influence individual risk: cognitive, attitudinal and behavioural. Cognitive factors are those that relate to how and what individuals know about sex and sexuality, and their ability to identify risk and understand information vital to risk reduction. Attitudinal factors include people's feelings about situations, others and themselves. Behavioural factors are those that emerge from the cognitive and attitudinal—how people act and what they do in light of what they know and feel. The behavioural aspect of individual risk also includes the skills of individuals regarding HIV risk and risk reduction, such as the ability to use condoms consistently and correctly and/or to negotiate their use with a sexual partner.
Societal vulnerability stems from the confluence of sociocultural, economic and political factors and realities that compound individual risk by significantly limiting individuals’ choices and options for risk reduction. These include discrimination and marginalization of certain groups of people, illiteracy and lack of educational opportunity, poverty and in-come disparity, lack of work or economic opportunities, law and the legal environment, political will to mount effective responses to the epidemic, and the state's willingness to protect and promote the full range of political, economic and social human rights.

Gender norms significantly affect an individual’s risk and societal vulnerability to HIV/AIDS because they ascribe distinct productive and reproductive roles to women and men, and because they differentially influence women’s and men’s access to such key resources as information, education, employment, income, land, property and credit. Insofar as gender permeates all aspects of society and social relations, any accurate analysis of personal and societal vulnerability to HIV/AIDS must examine these factors from a gender perspective.
As described earlier, three key factors influence individual risk of contracting HIV. Cognitive factors include men’s and women’s knowledge and beliefs regarding sex and sexuality, HIV risk and risk-taking, and HIV/AIDS-related care. They include women’s and men’s ability to understand HIV risk and the information that would allow them to reduce their risk. Attitudinal factors are those linked more closely to people’s evaluation of situations, themselves and others. They include feelings about HIV and AIDS, attitudes towards those infected, and views about the culpability (or otherwise) of social groups. They also include attitudes regarding gender roles and relations, including the role and function of virginity, motherhood, and power over sexual interactions. They can trigger support, companionship and understanding or lead to discrimination, stigmatization and denial. The behavioural component of individual risk is defined by the practices, behaviours and skills that are related to HIV risk and risk reduction, care and support. These include sexual behaviours and practices and skills to use preventative options or negotiate their use, and behaviours and practices in the realm of care and of alleviating the impact of the epidemic.
Research has shown that gender defines the differences between women and men in terms of what they know, what they believe, how they feel, and how they behave. Gender determinants are deeply rooted in social norms that ascribe to women and men a distinct set of productive and reproductive roles and responsibilities. Gender, therefore, influences how women and men seek out and understand information about reproduction, sexuality and HIV risk; the sexual behaviours and practices that foster HIV risk; and how men and women cope with HIV/AIDS-related illness once infected or affected.

In most societies, gender determines how and what men and women are expected to know about sexual matters, including behaviours, pregnancy and sexually transmitted diseases (STDs). Research has revealed that societal constructions of ideal feminine attributes and roles typically emphasize sexual innocence, virginity and motherhood, and that many cultures consider female ignorance of sexual matters a sign of purity and, conversely, knowledge of sexual matters and reproductive physiology a sign of easy virtue. Data also show that a remarkably different set of cultural definitions are applied to men, who are often expected to be more knowledgeable
and experienced and therefore take the lead as sexual decision-makers.

Research has also shown how these gender ideals are part and parcel of children’s socialization process, and how pervasively entrenched these expectations about sexual knowledge are among adolescent boys and girls. For example, young women’s ability to seek information or talk about sex is greatly constrained by strong cultural norms that emphasize the value of virginity. Data from Brazil, Mauritius and Thailand reveal that young women fear that seeking information on sex or condoms will label them as sexually active regardless of the true extent of their sexual activity. Low income young people from Recife, Brazil, for example, feared that if their families should find out that they sought sexual health services, their virginity would come into question. As a result of these gender norms, girls and women are poorly informed about reproduction and sex. For example, recent studies carried out in Brazil, India, Mauritius and Thailand found that young women knew little about their bodies, pregnancy, contraception and STDs. Poor married women from Bombay, India, said they had received no information about sex prior to their own experience. This lack of information limits women’s
ability to protect themselves from HIV, contributing, for example, to fears among women about condom use. In studies conducted in Brazil, India, Jamaica and South Africa, some women reported not liking condoms because they feared that if the condom fell off inside the vagina it could get lost or travel to the throat, or that a woman’s reproductive organs would come out when the condom was removed. Other studies show that lack of information about their bodies limits women’s ability to identify abnormal gynaecological symptoms that could signify an STD.²⁸

On the other hand, gender norms dictate that males should know more about sex than females. For example, studies in Latin America among youth who had not undergone formal sex education showed that adolescent boys were more likely than adolescent girls to know how to use a condom properly, and to recognize the symptoms of STDs. However, despite these expectations, other research shows that many men are ill-informed. Because ignorance is construed as a sign of weakness, male gender norms often prevent men from admitting their lack of knowledge and seeking out correct information regarding HIV/STD prevention. Although there are no data on how gender influences differences in men’s and women’s
knowledge of HIV/AIDS care and treatment, there are data that suggest gender differences in attitudes towards ill-health in general. For example, a study in India demonstrated that many women accept the itching, burning, discharge, discomfort, and abdominal and back pain associated with STDs as an inevitable part of their womanhood.

Research also shows a generalized gender-based attitude toward health care that seems to favour boys over girls. For example, a recent review of the literature on gender differences in health and nutrition among children under five years of age revealed that girls tend not to be taken for health care as often or as early in their illness as boys. 20

In order to facilitate a more comprehensive understanding of how gender influences women's and men's risk of HIV, this section departs from traditional analyses which treat attitudes and behaviours separately. It is precisely an analysis of gender-related attitudes about a wide range of issues—including virginity, sexuality, STDs, motherhood and power—that brings the issue of risk-related behaviours into much clearer focus in terms of interventions necessary to reduce individual risk. The following section is based on the premise that behaviour change cannot be achieved without a
concerted effort to change women’s and men’s attitudes about gender roles as they relate to sexuality and sexual risk of HIV.

Gender norms and expectations that interfere with women’s and men’s knowledge about sexual risk and HIV/STD prevention are inextricably linked to attitudes and behaviours that contribute to their individual risk to HIV and interfere with their ability to alleviate the impact of the disease. For example, in cultures where virginity is highly valued, research has shown that some young women practice alternative sexual behaviours in order to preserve their virginity, although these behaviours may place them at risk for HIV. Anecdotal reports from Latin America suggest that anal sex is practiced among unmarried couples to prevent pregnancy and safe-guard virginity. In another study, young, unmarried women working in export processing zones in Mauritius report a practice referred to as “light sex”, which is not construed as being sexual intercourse. However, in-depth questioning revealed that “light sex” involved rubbing the penis against the vagina and penetration up to the point of pain. Women who practiced “light sex” felt they were protecting their virginity, and did not perceive themselves to be at risk for pregnancy nor HIV infection. The literature also suggests that some young girls
who are virgins are placed at high risk due to the notion that female virginity symbolizes an innocence and passivity that some men find erotic. In the age of HIV/AIDS, virginity also signifies cleanliness and purity, and thus freedom from disease. In areas of high seroprevalence, it has been reported that older men are seeking out ever younger girls in the belief that, as virgins, they are free from HIV, and may offer them money or gifts in exchange for sex. For example, one study in the Democratic Republic of Congo (formerly Zaire) reported that men choose young and/or plump girls for sex, assuming they are HIV-negative. Other studies have shown that some men believe that they can rid themselves of HIV or STDs by having sex with a virgin. The phenomenon of older men’s pursuit of younger women is borne out in epidemiological evidence on HIV infection, when disaggregated for age. Currently, seroprevalence among women is highest in the 15-25 age group, whereas most men are infected 10 years later, between the ages of 25 and 35. In many societies urban young women begin sexual intercourse before they are 14 years of age, and marriages at a young age are common in rural areas. In cultures where women are socialized to please men and defer to male authority—particularly in sexual interactions—research has shown
that women sometimes engage in high-risk sexual behaviour which they believe is pleasurable for their male partners. For example, in parts of west, central and southern Africa, many women insert external agents into the vagina to tighten their vaginal passages, which is seen to enhance male pleasure during inter-course. These agents include herbs and roots as well as scouring powders which may cause inflammation, lacerations and abrasions that could significantly increase the efficiency of HIV transmission. In South Africa, women reportedly used such external agents not only to increase their partners’ pleasure, but to dry out their vaginal secretions that they believed could be construed by their partners as a sign of an STD, which would indicate previous infidelity.\textsuperscript{30,31}

Anal sex is another example of a sexual behaviour in which women are placed at risk of infection in an effort to please their male partners. Survey data indicate that anal sex is practised to varying degrees on women around the world. Once again, women often engage in this practice not for their own pleasure but to satisfy their male sexual partners or, in the case of unmarried couples, to protect the virginity of the woman. In individual interviews with female factory workers in Rio de Janeiro and São Paulo, women reported
that their partners pressure them to engage in anal sex despite their reluctance. The same study showed that, for some Brazilian men, anal sex implies the conquering of a second virginity and symbolizes their power and control over women.\textsuperscript{32}

Other manifestation of male power and control is nonconsensual sex, which research has shown to be a pervasive reality of adolescent girls’ and women’s lives and which is increasingly being recognized as a barrier to reducing their risk of HIV infection. Elias and Heise highlight the growing body of evidence which shows that many woman are frequently denied the freedom to control their sexual behaviour and are forced to have intercourse against their will both within and outside of consensual unions. In these circumstances, partner reduction and condom use are unrealistic preventive options for women. For adolescent women, sexual coercion is highly correlated with teen pregnancy. For adult women, it is associated in general with chronic pelvic pain and unspecific gynaecological and psychological problems. In a study of female youth in South Africa, it was found that 30\% of girls’ first intercourse was forced, 71\% had experienced sex against their will, and 11\% had been raped.\textsuperscript{31}
In recent years, a concerted focus on the incidence and consequences of violence against women has emerged as a gender-related concern in women’s health. Research on this topic has revealed that, in some cultures, violence against women is central to maintaining political relations at home, at work and in public spheres. Analyses of the determinants of gender-related violence have concluded that the situational factors that provoke violence against women are vast. They include: male dominance and histories of family violence; male control of family wealth; divorce restrictions on women; verbal marital conflict; heavy alcohol consumption; economic stress and unemployment; isolation of women and the family from community support; delinquent peer associations; notions of masculinity linked to toughness and honour; rigid gender roles; a sense of male entitlement and ownership of women; approval of physical chastisement of women; and a cultural ethos that violence is a valid means of solving inter-personal disputes.

The pervasiveness of violence has consequences for HIV prevention. Research conducted in countries as diverse as Guatemala, India, Jamaica and Papua New Guinea yielded similar findings: women often avoid bringing up condom use for fear of triggering a
violent male response. Furthermore, threats or fears of violence control women’s minds as much as do acts of violence, “making women their own jailers”. Violence is also a reality of women living with HIV/AIDS. In one study among women drug users living with HIV/AIDS, 96% had experienced violent contacts. In many cultures, motherhood, like virginity, is considered to be a feminine ideal. Data from around the world point to the economic realities and social pressures which reinforce the value of motherhood for women and contribute to high fertility rates. Children are viewed as sources of labour for the family and of security for the parents in their old age. In polygamous societies, they maintain the balance among co-wives, bring in status via schooling and employment, build stable ties to men and maintain a resource network of money, clothes and medical expenses. For men, there is an accumulation of resource networks in the number of children they father. Other studies have shown that children represent a definition of self-worth and social identity for many women around the world.28,29,30,33.

It is in this context that behavioural options to prevent HIV infection, such as non-penetrative sex and use of barrier methods, present difficult and often insurmountable challenges for women
and men in balancing fertility against HIV prevention. Research has shown how the value of fertility can contribute to women’s vulnerability to HIV in two ways. First, although condoms may be effective in preventing STD/HIV infection, they also prevent conception which, for many, interferes with familial sources of economic security and support, and women’s social value. Second, infertility in many societies is sanctioned as a reason for a man to divorce his wife, or to acquire a subsequent wife. If she is not remarried, she may be compelled to engage in high-risk sexual transactions for economic security or protection. Although gender analyses have been employed in the past to describe women’s vulnerability to HIV, gender norms also contribute substantially to men’s vulnerability. Results from sexual behaviour studies around the world indicate that heterosexual men, both single and married, as well as homosexual and bisexual men, have higher reported rates of partner change than women. Multiple sexual partnerships for men are condoned implicitly or explicitly in perhaps the majority of societies. This finding is supported by research that reveals how both men and women believe that variety in sexual partners and sexual variation is essential to men’s nature, and that “real men take risks”. For example,
men from rural and peri-urban communities in South Africa felt they needed to maintain the tradition of their fathers and grandfathers by having more than one sexual partner; for young men in particular, having many relationships was equated with being popular and important in the community.²⁴,²⁵.

Recognition and condoning of multiple partner relationships for men but not for women begin during adolescence. This is illustrated by the observations of male Zimbabwean high school students in focus group discussions; they pointed out that boys can have many girlfriends but girls should stick to one boy. In such cultures, therefore, expecting women to discuss mutual monogamy with their partners directly conflicts with the very definition of masculinity. Focus group discussions with Jamaican working women revealed that they were very concerned about infidelity on the part of their male partners, but felt that the notion of male monogamy was “pie in the sky.”²⁴

Another gender-related factor that contributes to men’s vulnerability to HIV the stigma associated with men who have sex with men. A recent review of programmes addressing sexual behaviour and sexuality in developing countries concludes that sex
between men occurs all countries and societies but that social and cultural norms and epidemiological categorizations of sexuality can hide the true extent to which it occurs.\textsuperscript{35}

As a gender issue, the fact that sex between men is socially stigmatizing (and, in many cases, illegal) contributes to inability to reach those men with information and services to reduce their individual risk of infection. Furthermore, research shows that in many societies many men who have sex with men also have sex with women, and that many bisexual behaviours are often accompanied by a wide range of sexual identities, homosexuality being one of them. For example, a study in India revealed that 90\% of male clients of male sex workers reportedly were married. Sexual behaviours that are not recognized as a valid form of sexuality, therefore, contribute to both men’s and women’s vulnerability to HIV.

The use of drugs and alcohol have been identified as contributing substantially to men’s vulnerability to HIV, insofar as they impair judgment and can lead to high-risk behaviour and unprotected sex. Although research shows that substance use is typically a male problem, the gender determinants have only recently begun to be explored. Nevertheless, men are often expected to use
alcohol more than women, and even to excess. The role of alcohol has often been cited in reference to violence against women, although recent research into the role of alcohol in domestic violence points out that alcohol is a contributing factor and not the actual cause of violence. Beyond the well-documented risk to women and men who are injecting drug users (IDUs), gender factors further increase female IDUs’ risk of infection, including unprotected sex with male sexual partners who also inject drugs and general sexual networking within IDU circles. One study carried out in New York, USA, among 326 women in a methadone maintenance programme revealed that 35% had had unprotected vaginal sex within the preceding 30 days, and the data suggest that most of those sexual acts were with male IDUs. Furthermore, 28% of those women had had sex with more than one partner, and 18% had sex with a partner who was HIV-positive. Further evidence comes from a study in Canada among women IDUs, where 56% of the women enrolled in the study reported never using condoms with their regular sex partner, 81% of whom were reported to be male IDUs. Furthermore, the study revealed that 31% of the women shared needles, and 70% obtained those needles from their regular sex partner. In addition, both
female and male substance users may resort to selling sex in order to finance their habit.\textsuperscript{36}

These data show how men’s and women’s knowledge, attitudes and related sexual behaviour are highly influenced by gender norms and expectations, and how gender roles contribute to an individual’s risk of HIV infection. Despite efforts to understand individual risk of HIV from a gender perspective, most of the focus has been on women. There are far fewer data available on how gender roles and societal pressure foster behaviours that place men at risk, and thwart their ability to seek information, services and technologies to protect themselves from HIV. According to Mane\textsuperscript{37}, even though sexuality education for women in many societies is generally ignored, they often receive at least some information in order to prepare them for their reproductive role. For men, however, there is an almost total absence of reliable information on sex. These are among the many gender-related gaps that will need to be filled as the next generation of HIV prevention programmes is designed and implemented.

In recent years, social science research has sought to enrich the literature on gender and sexual behaviour by exploring the context in which sexual behaviour take place. Social, economic and political
factors foster the conditions that facilitate risk behaviour and further create obstacles to women's and men's ability to protect themselves from HIV and effectively cope with the impact of the epidemic. Many of the sociocultural norms and expectations that define gender roles and relations have been examined in terms of influencing individual risk. The following section reviews and analyses broader economic and political realities as part and parcel of an analysis of vulnerability to HIV and the impact of AIDS.

Economic factors, gender and vulnerability to HIV

Research has shown that economic factors contribute to vulnerability to HIV in two ways: first, macroeconomic pressures can contribute to men's and women's vulnerability to infection by disrupting stable social relationships, thus increasing the likelihood that unprotected sexual behaviour will take place. Second, gender-related sociocultural norms create barriers to women's full participation in, and ability to benefit from, the productive economy, thereby increasing the likelihood that women will be dependent on a male partner. In an economically and socially dependent relationship, a woman's ability to leave a high-risk sexual relationship is limited, as is her ability to successfully negotiate safer sex with a non-
monogamous sexual partner. In both instances, economic factors contextualize the gender-related factors that contribute to individual risk that have been previously discussed.  

2.9 Issues in Migration

Research has shown how rural-to-urban labour migration of men contributes to their vulnerability. It appears to disrupt marital and familial ties and leads to sexual networks in urban areas where there is an unequal ratio of men to women and seroprevalence is likely to be high. Women’s vulnerability is also influenced by male labour migration as a result of men returning to their rural households where they reestablish sexual relationships and increase the possibility that HIV/AIDS will be transmitted to rural women. As for women who seek employment, a growing body of data on labour market segmentation shows that women are entering manufacturing sectors of the economy due to macroeconomic policies that drive export promotion in developing countries. For example, in Bangladesh, Mauritius and Thailand, where women now make up a large majority of workers in the manufacturing sector, migration is pervasive and village families rely on the remittances sent back by adolescent daughters. Here new peer networks, including sexual
networks, are formed. Research among these populations has shown that without the protective features of their families and villages, young women are becoming sexually active at an earlier age and are often unaware of the risk of HIV and STDs.

Patterns of migration fostered by economic conditions have also contributed to a dramatic increase in the number of female-headed households throughout the world. Research has shown that, in up to one-third of these households, women are the sole income earners. Female heads of households must balance the twin demands of family and economic survival in a context where they have less access to agricultural support, have smaller land holdings, lower income, fewer assets and less access to training and support for agricultural work than do men. For many of these women, transactional sex has become a rational means of making ends meet.  

**Forced migration**

Another form of migration that has been well documented is the sex trade in south-east Asia. A report issued by Human Rights Watch-Asia revealed how economic necessity compels Burmese families to send daughters to work in Thailand through a broker or agent, often not realizing they are essentially being “sold” into sexual
slavery. Further-more, though Thailand has laws and is a signatory to several international and regional treaties which outlaw the practice, the report described in great detail how public officials at many levels are involved in the practice by accepting money and favours in return for their non-interference. Women and girls are trafficked for the sex trade not only through abductions and false promises of good jobs or marriages but also through the argument that women can earn more through prostitution. Nowadays there is also an increasing demand for younger sex workers due to clients' fear of HIV infection.

Economic dependency:

Women who are not otherwise affected by economically-motivated migration are also vulnerable to HIV, but in a different way. Despite the fact that women are productively engaged in both the formal and informal sectors of the economy, re-search from around the world shows that there are gender-related differentials in women's and men's access to productive resources, such as land, property, credit, employment, training and education. This is a consequence not only of laws and policies that, for example, prohibit women from owning land or inheriting property, but also of the reality that these laws and policies fail to provide women with the
opportunities to realize the full benefits of economic and social development. Evidence reveals that different income-levels of families do not seem to reduce women’s vulnerability to HIV. Research from Uganda, for example, revealed that seroprevalence among women with high-income partners was almost twice that among women with low-income partners. Although this data may seem to be incongruent with other research which has highlighted the relationship between poverty and vulnerability to HIV, the research from Uganda reinforces the overall conclusion that women’s vulnerability is associated with factors that are not necessarily within their control. Given the fact that sociocultural norms condone multiple sexual partnerships for men and place an emphasis on male pleasure and control in sexual interactions—both of which have been shown to influence men’s and women’s individual risk of HIV—many monogamous, married women find themselves vulnerable to HIV despite the seemingly protective features of marriage or a steady sexual relationship. One study in Senegal, for example, revealed that 50% of women living with HIV/AIDS had no risk factors other than being in a monogamous union.
Furthermore, young girls may face an added risk of being vulnerable to HIV because of economic factors. In Uganda it is has been reported that girls from low-income families are particularly vulnerable to the enticements of older men or “sugar daddies” who offer money or gifts in exchange for sex. In a study conducted in Zimbabwe, high school girls acknowledged the “sugar daddy” phenomenon in their communities and reported that having sex with these men was largely motivated by economic factors, including paying for school fees and books. Research has also explored the circumstances under which some women are able to reduce their individual risk in a variety of ways. An analysis of research conducted by Elias and Heise found that in instances where women are financially independent, they are more likely to be in a position to reduce their risk of infection. For example, Omubuloye et al. found that Yoruba women from south-west Nigeria were able to refuse sex without violent consequences if their partner had a sexually transmitted infection. A study of African-American and Hispanic women from New Jersey (USA) reported that the women were able to exert considerable power by withholding sex if their partner did not agree to use a condom. For most other women in monogamous
relationships who are vulnerable to HIV, research shows that they perceive the negative economic consequences of leaving high-risk relationships to be far more serious than the health risks of staying in the relationship. For example, despite the fact that 97% of female respondents in an STD study in Zimbabwe cited their husband as the source of their infection, only 7% considered divorce or separation as an option. For women who lack economic independence and therefore are not able to leave or avoid situations in which they are at risk, the only other option available is to attempt to negotiate changes in the behaviour of their male partners. However, data from research projects conducted in Brazil, Guatemala, India, Papua New Guinea and South Africa reveal that many women who are aware of their partner’s sexual behaviour feel helpless about their inability to change it, and have cited their fear that trying to do so could result in disruption of the partnership and even jeopardize the physical safety of the woman. Other research has demonstrated that women who raise the issue of condom use run the risk of conflict, loss of support, and violence. Studies conducted in Rio de Janeiro and São Paulo, Brazil, found that women from low-income communities perceived that they would incriminate themselves as unfaithful and have to
suffer the consequences of a male partner's anger and violence if they were to ask their partners to use a condom. Additionally, research has shown that, in many instances, sex takes place under conditions of poverty and overcrowding which make it difficult for women to communicate freely with their partners, let alone negotiate. Moreover, low-income women from situations as diverse as Bombay, Guatemala City and the highlands of Papua New Guinea report that men often demand sex under the influence of alcohol, making negotiation an unrealistic option. In addition, for many couples negotiation is not the usual style of communication. In many instances women are not able to determine when or whether to have sex.\textsuperscript{29,33,42}

Gender also plays a significant role in determining how men and women are able to cope with the impact of the epidemic in terms of economic effects, access to care and support, and as a result of gender-related discrimination. The term “impact” refers to both the macro-economic and microeconomic effects of lost productivity and income (such as selling off assets), as well as household-level impact in terms of household labour distribution, family and social structures, and support systems. In a 1992 study of the economic impact of AIDS, Ainsworth and Over\textsuperscript{44} concluded that “at the
microeconomic level, researchers have done a much better job of characterizing the nature of the impact of AIDS rather than of measuring it”. Whereas data collected on the impact of HIV/AIDS at the household level has improved to meet this need, few studies have examined gender as a variable in measuring the household and community-level effects of the epidemic. For example, a recent review of socioeconomic impact studies exemplifies the extent to which gender analysis of the impact of HIV/AIDS is lacking. Although the review examined the macroeconomic impact of HIV/AIDS vis-à-vis the agriculture, education, health, public and informal sectors, and the microeconomic impact at the level of the household, the only specific references to gender-related impact data in this analysis are passing references to girls and women resorting to sex work, and widows who find it difficult to re-marry and establish new family networks for the care of their paternally orphaned children.

Similarly, a study of the household-level economic impact of HIV/AIDS-related mortality in the Rakai District of Uganda—undoubtedly one of the most affected areas in the world in terms of HIV/AIDS—concludes that households that have experienced an
adult death due to HIV/AIDS cope by altering in size and composition, and incur economic losses through a depletion of durable goods. The data were not analysed from a gender perspective to determine the extent to which the effects of these coping strategies differently affect men and women. Household coping studies reveal that households are likely to spend more on funeral expenses than medical expenses for both men and women whether the cause is AIDS-related or not, though for men who had AIDS the funeral expenses were over-shadowed by medical expenses. In general, the households tended to spend more on both medical and funeral expenses for men than for women.\footnote{45}

Despite the lack of solid, gender-disaggregated data on impact, there is ample evidence from research conducted in the field of development to suggest that women are likely to be affected disproportionately by HIV/AIDS. For example, a woman living in an agricultural community where women are responsible for subsistence farming becomes infected and falls ill, the cultivation of subsistence crops will fail, resulting in an overall reduction in food availability in the household. Given the available evidence from the field of education which shows that girls are often pulled out of school
before boys to fulfil house-hold duties when the need arises, girl children are likely to be pulled out of school to fill the gaps in food production in instances where outside workers can-not be hired due to the depletion of household economic resources. Women are also likely to be disproportionately affected by the impact of HIV/ AIDS when a male head of household falls ill. As a result of the loss of income from a male income-earner, women and children may be required to seek other sources of income. Research has shown that adolescent girls may be particularly vulnerable as a result of bartering sex for cash or other resources. Other evidence suggests that the epidemic is contributing to a downward trend in the age of marriage for young women as men seek younger wives to protect themselves from infection, and families seek the economic security of marrying off their daughters to economically stable adult men. This phenomenon has far reaching consequences in terms of young women’s education, the health consequences of early childbearing, diminished access to productive resources, and economic dependency on a male partner-all of which have been identified as factors contributing to vulnerability to HIV.
Since traditional gender norms support the primary role of women in child welfare, the burden of caring for children orphaned as a result of the epidemic is borne disproportionately by women in many parts of the world. UNAIDS/WHO estimates show that at the end of 1997 the cumulative number of children under 15 years of age orphaned by AIDS since the beginning of the pandemic was 8.2 million. In high-prevalence settings, research has shown that if relatives take in orphans this creates stresses on household economic and food security, especially for families that are already caring for more than one ill or dying family member. Moreover, as the number of persons with HIV/AIDS within a household grows, women are required to spend ever increasing amounts of time on care-giving. The combined physical and emotional burdens of caring for sick family members (including orphans and members of extended families who have been affected by the disease), ensuring an adequate food supply, and replacing lost income inevitably forces women to neglect their own health and well-being. Research has begun to document how gender-related discrimination, coupled with coping with the burdens of the impact of the epidemic, have conspired to further contribute to women’s and adolescent girls’ overall
vulnerability to HIV and the consequences of AIDS. In instances
where a male head of household has died, studies show how some
women face a tragic set of circumstances in terms of loss of social
support from family members, ostracism by the community, and lack
of legal protection to inherit land and property. Furthermore, in many
areas of Africa a woman is inherited by the husband’s brother when
the husband dies. Instances have been cited where a husband’s family
may blame a widow for the death, and refuse to accept her or her
children into their family support system. In regions such as Africa,
where orphaned children go to the paternal family, one study revealed
that the paternal family typically maintains control over the inherited
property of the orphaned children. In societies where children lack
property rights, ostracism within the family can lead to exploitation,
depprivation of their rights, abuse and neglect. Furthermore, girl
children who are orphans of the epidemic are often less welcomed
into the extended family than boys, especially if no dowry has been
provided for a future marriage. As a result, they may be used by the
family as economic objects, and may be coerced into sex work.
Finally, in interaction with broader economic conditions, gender
plays a significant role in determining women’s and men’s relative
access to care and social support, often exacerbating the already
desperate and dire consequences of HIV/AIDS. Research has shown
that women face proportionally more barriers than men in seeking
and accessing care and support due to: overall economic constraints
in accessing formal health care services, lack of infrastructure such as
roads and transportation, lack of money to pay for treatment,
religious and cultural norms, and the perception by women that the
care they receive is inappropriate. Another constraint that has been
identified is the vertical arrangement of care services, whereby
women are exposed to stigmatization in seeking out treatment and
care at separate facilities. Additionally, women who can not afford to
seek care at private facilities resort to public services which often
have poorly trained staff and lack treatment regimes. Men may also
face barriers in seeking care if they perceive the services to be
directed at women only.

Since the early years of the HIV/AIDS pandemic, researchers
(and especially activists and proponents of human rights) have
pointed out the political and governmental factors that play a role in
perpetuating the pandemic, including political and policy responses
(or non-responses) directly dealing with the pandemic, those
indirectly related to the pandemic, and broader policy areas not typically associated with the pandemic but which play a role in creating a context of societal vulnerability to HIV/AIDS⁴⁶. The broadest set of analyses are those examining fear-driven policy responses to the epidemic itself, such as mandatory and compulsory testing, quarantine, discrimination in the areas of employment, housing, and health care, and limitations on the mobility of people living with HIV/AIDS, including immigration and other travel-related restrictions. Not only have such policies been criticized for their ineffectiveness in slowing the epidemic, but they have also been examined as potential violations of international human rights standards and law. As a result of gender roles and social norms, the impact of these political factors is borne unequally by men and women. For example, men and women who are HIV-positive often face severe discrimination in the household and the community, yet women living with HIV/AIDS face “double jeopardy” as a result of gender-and health-related discrimination. Instances have been cited where family members encourage a husband who is asymptptomatically HIV-positive to leave his wife with AIDS and find another one. Often her children are forced out of the home as well. This is the first
step in cycle of abandonment by family members, friends and neighbours that is compounded by economic powerlessness and lack of legal rights to property and other productive resources. The result is poverty in addition to lack of access to care and treatment. In communities that have been particularly devastated by HIV/AIDS, such as those in Tanzania, there is anecdotal evidence that stigma leading to abandonment of women living with HIV/AIDS is on the decline. In other situations where the impact of HIV/AIDS has not yet been felt, the opposite may be the case. In India, Mane suggests that women with HIV are likely to be viewed as vectors of infection and therefore “guilty” of having transgressed “goodness” and deserving of their fate. Although they are fewer in number, other analyses have examined policies indirectly related to the epidemic, including the criminalization of certain behaviours and activities (such as homo-sexuality, injecting drug use, and sex work), legal restrictions and other barriers to the free flow of information about sexuality, and restrictions on the provision of services, such as access to clinics and the provision of condoms. The most obvious area where women can be disproportionately affected by these policies is in the area of sex work, where its illegality may make information and service provision
to women sex workers difficult. Similarly, women and adolescents are disproportionately affected by governments’ efforts to curb information and services relating to sexuality and HIV prevention for reasons of protecting “social mores” and public morality. For example, many countries do not allow the distribution of condoms to adolescents. In those instances, there is a critical break-down in prevention efforts, given that a critical option for HIV prevention has been eliminated from the choices that sexually active adolescents have. A newer body of research and analysis has begun to examine even broader political and policy realities that create a context of societal vulnerability to HIV/AIDS. These include gender- and age-related discrimination and the role that state-sanctioned violence plays in fuelling the epidemic. Gender-related discrimination is often supported by laws and policies that prevent women from owning land, property and other productive resources; research has shown that this contributes to the feminization of poverty, promotes women’s economic vulnerability to HIV infection, and creates particularly significant barriers to women’s ability to seek and receive care and support when they themselves are infected. Gender-based
sexual violence in often condoned through light sentences or the absence of prosecution.

Other forms of discrimination in the areas of employment, education and access to health care services and information further exacerbate women’s vulnerability. Research has also demonstrated the impact of war on women and young girls. For example, research carried out in Bosnia, Croatia and Rwanda revealed the horror that many women faced as a result of policies whereby rape and other forms of sexual abuse were utilized as weapons of war. There were brutal reports of gang rapes and of subsequent establishment of brothel networks for women who had suffered this atrocity. Although seroprevalence data are limited (especially in the former Yugoslavia), it is likely that many women were exposed to HIV as a result of rape and their subsequent exile into what has been called sexual slavery.

Consequences have started manifesting. They radiate out over time and will continue to spread. Various types of repercussions have become apparent. The first wave of consequence follows directly from the infection: those affected fall ill and die. The second wave of consequence arises from those who are infected who are at a
stage with maximum number of dependents who ill be left with few or no means of support The third wave of consequence is related to loss of productive working force.

The first wave, centred on the infected person, his/her family, partners and carers. It includes the trauma of diagnosis, community reactions, economic and emotional impact on the households, reaction of health workers, illness and death. Our women are also faced with the probability of their being detected when their child is clinically diagnosed as HIV infected. The lack of confidentiality in which is too frequent in such settings often leads to the mother being blamed and singled out. Fear and denial on the part of the father can lead to women’s rejection and repudiation. The family may be torn apart. The immediate concern in such situations is often the care and future of uninfected children who may be left to themselves or supervised by immediate extended family. As more and more adults and children become ill, the demand for hospital care too increases – in quantity and quality -. The increasing burden of care will have to be shared by new modes of care including collaborative and complimentary home based care programs. The increasing burden of care will be borne on an individual level by family and friends, but
probably disproportionately by women and girls. In this case, women’s other roles and responsibilities will be seriously affected. Household income and provisioning is getting affected. Mortgaging of savings, gold, home etc. occurs. Serious impoverishment is the only end available.

The second wave occurs as more adults die. Increasing numbers of children without support and increasing number of single headed households increases the number of dependants. Poverty spreads, households disintegrate, children scatter, and the people who are not aware feel helpless. So many lives lost, of parents, siblings, relatives, friends and neighbours dead leaves a major psychological impact on individuals and communities. Grand mothers and grandfathers are bearing a crippling burden of care. Too often we find that the only person who has a human emotion comes from this group only. Just like many outsiders, other members of the family are not too familiar or compassionate with the affected.

The third wave centres along loss of workforce. The epidemic will cause a reduction in the quantity and quality of labour available to produce output in both the formal and informal sectors. Women’s labour is disproportionately unmeasured, both productive and
domestic. The patterns of labour supply and demand are changing. People are becoming reluctant to send children to high risk jobs. The sectors and areas highly vulnerable are those that depend on a critical number of trained personnel for whom replacements are difficult to find. Examples are pilots, engineers, transport sectors, construction workers, etc. A slow down in these will definitely have extensive economic, social and political repercussions. Farming sector is one in which labor demands peak at certain times and with a strict gender division of labour. They become vulnerable. Significant changes in the patterns of production will adversely affect the household nutrition and income levels as well as urban food supplies and foreign exchange earnings. With growing numbers of women falling ill, and dying, and with women taking up care of the ill, they will have less time for caring for and socialising their own children or for productive work.

The fourth wave has not started becoming manifest in our area. Failure to contain the above three situations will lead to the survival of communities to be in jeopardy. The survival tactics of destitute children could lead to terrorisation of populations. Strategic vulnerability will increase with the morbidity rates in the military.
Basic services will be impaired. Price increase and service defects will breed discontent and unrest. Households, communities and countries will disintegrate.

*These consequences are not inevitable.* The extent and seriousness will depend on the timeliness and effectiveness of behaviour and attitudinal changes of the programs, communities and individuals. There is often a time lag before the problems become visible. The proportional costs escalate in each of these phases.
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