A. Incidence and Prevalence of Infection

The first Maldivian with HIV was identified in late 1991. In 2003, the reported number of people with HIV was 135, of which 123 (91.1%) were foreigners. A total of 12 cases of HIV positive Maldivians was detected in 1991-2003. The age range of these cases was from 23 to 42 years. As a result, six died of AIDS-related diseases and two appeared to have contracted the disease while working at tourists resorts.

The country had estimated <0.1 HIV prevalence rate in 2002. Majority of the infections were acquired through heterosexual transmission. Although Maldives is a low prevalence country, it is potentially at high risk given the preoccupation with tourism. The predisposing factors are:

- High mobility of migrant workers, students, businessmen, seamen and tourists
- High rates of divorce and remarriage with exposure to large sexual networks capable of transmitting HIV and other STIs. Since HIV symptoms often do not appear for many years, people who are unaware of the presence of infection may infect many of their serial spouses and casual sex partners.
- High percentage of population under 15 years of age (41%). An estimated 26,000 young people will enter the labor force in the next five years, with anticipated high rates of unemployment.
- A rise in drug use among adolescents and young people.
- Large number of people who seek medical services in neighboring countries, with attendant risk of infection from blood transfusions.
- Maldivians are dispersed over 190 islands. This creates barriers to educating people on HIV/AIDS, distributing condoms, and treating people for STIs that increase transmission of HIV. A UN study in 2000 showed that in smaller islands, 55 percent of the population had no radio, and 86 percent had no television in their homes. Many small islands did not have a bookstore, and access to newspapers was irregular.
- In 1998, almost 400,000 tourists visited the country, one and a half times the entire population of Maldives. Although sex tourism is not present, the influx of people from all over the world suggests a potential route of HIV infection and high-risk behavior such as injecting drug use and unsafe sexual practices.

Moreover, the following also contributes to HIV prevalence:

- Workers away from families
- Large number of expatriates in the country
- Serial monogamy
- Sexual experimentation, particularly among adolescents and youth.

According to the Department of Public Health, the country has less than 200 people living with HIV/AIDS (PLWHA). No HIV infected cases was identified in sero-surveys conducted between 1997 and 2002 among 785 laboratory service attenders, 1,258 pregnant women, 3,378 travellers and 31,251, blood donors.

The rise in HIV prevalence in Maldives depends on the proportion of people engaging in unprotected sex with infected partners, spread to pregnant women and their babies, and exposure to unsafe blood-related procedures. Despite strict religious principles, the risk of an epidemic cannot be perceived in terms of socially approved sexual behavior. Rather it must
be assessed in relation to frequency of sexual partner change and the sexual networks created.\textsuperscript{118}

The prevalence levels of STIs indicate the likelihood of enhanced HIV transmission. All STIs are reportable diseases. As there is fear of being discovered (since government workers are obligated to report the disease and illicit sex is a definitive cause, leading to shame and possibly punishment), rarely a person visits a government facility. This is especially true in Malé where private health facilities offer more options. The extent of treatment through traditional medicine, over-the-counter drugs or pharmacist-given prescriptions is not known.

In 1997, at one regional health center, there were five pelvic inflammatory disease (PID) cases and STIs were reported among women. Syndromic management was introduced in the reproductive health program. Where STI levels are low, syndromic management was not appropriate for women with a high proportion of over-treatment and many missed asymptomatic cases.

In 2002, DPH reported that the STI prevalence rate among women aged 15-49 years was 0.9 percent. In the same year, an STI survey conducted among antenatal care attendees found the prevalence of various infections as follows: Candida (11.5%), Gonorrhea (4.1%), HSV2 (3.4%), Chlamydia (2.9%) and Hepatitis B (1.3%).\textsuperscript{119}

\section*{B. Knowledge on HIV/AIDS and STIs\textsuperscript{120}}

In the RHS 2004, almost all (97%) of the unmarried youth heard of HIV/AIDS. Ten percent of young men and women indicated that HIV/AIDS cannot be avoided, while four percent did not know how to avoid it.

The perceptions of HIV/AIDS of young people are shown in Table 34. About a third (34\%) of the respondents did not know if people with HIV can look healthy. However, almost half (46\%) said that people with HIV could look healthy. There were 13 percent of the respondents who mentioned that a person can get HIV from eating with someone who has AIDS. Half of the respondents (50\%) indicated that condoms can protect against HIV/AIDS.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|}
\hline
Statement & True & False & Don’t Know \\
\hline
People with HIV can look healthy & 46 & 21 & 34 \\
\hline
You can get HIV from eating with someone with AIDS & 13 & 63 & 24 \\
\hline
Condoms can protect against HIV/AIDS & 50 & 15 & 35 \\
\hline
\end{tabular}
\caption{Percentage of Youth Reporting Perceptions of HIV/AIDS (%), 2004}
\end{table}

Source: RHS, 2004

During the focus group discussions with unmarried young men and women, many participants reported that the risk of contracting HIV/AIDS is very low. Generally, HIV/AIDS is associated with foreigners, Maldivians working abroad, and those working in resorts.

Moreover, three percent said that STIs cannot be avoided and four percent did not know how to protect themselves from the infections. The most popular method mentioned was avoiding people with STIs (67\%). When asked to identify the signs and symptoms of STIs, 26 percent did not know of any. Of the people who knew the symptoms, the most frequently mentioned were urination problems (51\%), itchiness or soreness (50\%), and discharge (45\%).


C. Risk Factors in HIV/AIDS Transmission

a) Economic Factors

- Income

Personal incomes rose in Maldives over the past decades as tourism and fishing became lucrative sources of national wealth. The Vulnerability and Poverty Assessment in 1998 showed that about 15 percent of the population lived with less than Rf 7.5 (US$0.65) each person per day, with the highest concentration of low incomes in Malé. Over one third of the population live in Malé’ (35% in 2006), with crowding and high prices. Income differences have unfavorable social effects, particularly on youth. Combined exposure to consumerism, mass media, and over-reliance on formal education raise expectations of material well-being to unrealistic levels. Income disparity and a sense of deprivation produce changes in social behavior that detract from religious beliefs, family cohesiveness and authority of community leaders. These factors stem from an economic situation of vulnerability and insecurity. This leads to a predictable increase in risk-taking behavior, particularly among adolescents and youth.

- Mobility

In 2000, there were about 24,000 foreign workers in the country (90% males) where about 10,000 lived and worked in Malé. Workers were mostly employed at resorts and in construction and garment factories scattered in the islands. A large number of expatriate workers filled the employment sector of the country. In 1998, lower level domestic service jobs, mostly in Malé, were filled by Indian and Sri Lankan maid servants; and jobs in shops, restaurants and construction were occupied by Bangladeshi, Indian and Sri Lankan men. Also, garment factories employed a number of local women and women from China and other countries with known skills in the industry. Expatriate workers also filled positions in teaching and medicine. This type of migrant labor predisposes to the growth of prostitution. Migrant feMale domestic workers may also be vulnerable to either coerced or commercial sex. Evidence shows that such trade exists, especially in Malé where a floating population of thousands contributes to the anonymity necessary for an illicit trade. Many go to Malé from the atolls to attend school or for other short- and long-term purposes. Moreover, due to the lack of educational facilities, numerous Maldivian students go abroad for higher education. Many Maldivians also go abroad for business or to seek health care and other services not available in the country. This constant movement of people implies a certain level of risk for STI/HIV/AIDS.

- Tourism

Tourism is the main source of national income. The main factors that relate to risks in contracting STI/HIV/AIDS are the exposure of the Maldivians to lifestyles outside their own and the long separation of men from their families. There are at least 84 designated tourist islands that are separated from inhabited islands. Men working at resorts make frequent visits to their families if the distance is not great, though this commonly takes place quarterly within the year or even less. Foreign men on contract may return to their home only once every two years. Such migratory conditions create vulnerability to sexual transmission of HIV/AIDS. Long periods of separation also strain marriage relationships. The stress and isolation of living far from home contribute to HIV risk between males, and between male workers and female tourists. Recourse to commercial sex was reported for a certain proportion of men, particularly in Malé.
b) Social Factors

- Gender Violence

While gender discrimination is less pronounced in Maldives, unreported cases of violence and sexual abuse among girls and women occur. Recent attention to child abuse resulted in rising numbers of reported cases, including sexual abuse. Social or cultural factors create power differentials between sexes such that a woman has difficulty protecting herself which contributes to the risks and rising proportion of infection among them.

- Serial Monogamy

The level of divorce is high in the country, which creates a pattern of serial monogamy. In monogamous societies, the most frequent cause of marital dissolution is the death of a spouse. Serial monogamy, on the other hand, is distinguished by high levels of divorce and remarriage. In 1970, statistics showed 85 divorces for every 100 marriages, dropping to 70 per 100 in 1990.

A high proportion of remarriage takes place among the same couples who faced divorce. Thus women have three to four marriages to two to three men. Divorced women are not stigmatised, which fosters a high frequency of sexual partner change. As HIV has a long silent period, one infected man or woman may infect several spouses before showing signs of AIDS. Although extra-marital sex is not accepted under social and religious norms, divorce and remarriages or serial monogamy are common, leaving the Maldivians susceptible to STIs including HIV.

Other factors are: a) with increased education and modernization, divorce rates diminish; b) marriage patterns remain endogamous (among persons from the same island) for the first marriage but become increasingly less with subsequent marriages; c) women generally marry men older than themselves with the age gap increasing in subsequent marriages. Overall, the rate of sexual partner change is the most important determinant of HIV epidemic. If the HIV infection rate is to rise by two to five percent in a group of women selling sex to divorced or separated men (or conversely, if divorced or separated women are to sell sex), then the pattern of serial monogamy may be a feature contributing to the spread of HIV. At present, without knowing the rate of casual sex that accompanies such a pattern, it is difficult to assess the extent of risks as well as the high risk groups involved.

- Sexual Behavior

Dhivehi society has a rigid legalistic attitude towards sex at the ideal level, with a remarkably open attitude at the behavioral level. Sexual behaviors that encourage the spread of HIV are present, though the frequency and numbers of persons involved are unknown. Key informants indicated that sexual networks among men who have sex with men (MSM) may be far larger than between men and women practicing casual sex. Fear of discovery and legal prosecution limit these practices; though do not diminish them entirely. Since ease of access to women appears to be more common in the country than elsewhere in the South Asia, dependence on sex workers, particularly among the young and unmarried, is less frequent than in some neighboring countries. This may be a protective factor in HIV transmission in which few men may likely be exposed to women where HIV could reach high levels of prevalence such as sex workers. If HIV becomes concentrated among those who sell sex, the spread from their clients to other women increases.

Moreover, the important fact is that the majority of MSM are married, in keeping with the South Asian pattern. Anal intercourse, whether practiced by males and females or males and males pose a greater risk of HIV transmission than does vaginal intercourse. If HIV is to enter this sub-group of men, transmission to feMale spouses would likely be high.
Adolescents aged 10-19 years (28%) and youth aged 15-24 years (21%) comprise a particularly vulnerable group for HIV. Young people experimenting sex is known as a high risk to HIV transmission.

- Existing Information

Parents and relatives do not teach the young about sex, sexual relationships, marriage, reproduction, STIs and related issues. While television brings the messages of commodified or casual sex, and pornography is readily accessed on the Internet, no effort is made to provide alternate or complementary information on healthy, responsible sexuality. The lack of accurate information for the public may lead to a situation where HIV is not taken as a serious threat with the belief that caution is not necessary.

The RHS 1999 revealed inadequate knowledge about STIs among health workers. About 31 percent named a symptom of STIs, though none mentioned that most STIs are asymptomatic, associated with infertility, ectopic pregnancies or pelvic inflammatory diseases (PID). More than half (68%) reported that STIs are rare in their communities. Knowledge of the symptoms and consequences of STIs was low among the general population. Many admit that such diseases exists in their community and that people go abroad for treatment. Due to widespread awareness campaigns and TV exposure, most of the public knew of HIV. Few doctors knew the clinical manifestation of AIDS in men and women, treatment guidelines available for HIV/AIDS, and means of reduction of perinatal transmission.

The School Health Programme provides information and educational materials on HIV/AIDS prevention as well as access to counseling services in HIV/AIDS. The Ministry of Education (MOE) identified that lack of trained teachers hinders the incorporation of ARSH into existing education programs in schools.

- Drug Abuse

Given the lack of accurate information, drug abuse associated with sexual behavior can be a potential risk factor for HIV. This is because the exchange of sex for drugs can bring about frequent partner change and HIV infections. The street price of a single dose of heroin in Malé is high at 100Rf, five times the price in Bangladesh and India. Depending on the financial status of a young person, several doses per day can be taken. It is not known to what extent young female drug users in Maldives are engaging in frequent partner change, however, there was a continuous rising of drug related offences between 1977 and 1995.

The first drug arrest was for possession of marijuana, which was introduced via a tourist. Most access of heroin was in Malé. In 1993, brown sugar, a highly adulterated form of heroin for inhaling when heated, entered the country. While expatriates brought it from sources in Pakistan and Afghanistan via Colombo, these were neither tourists nor linked to the sex trade directly. It was reported that the spread of heroin into the islands was facilitated by safari boats. Drug rehabilitation officers said that the average age of first heroin use was at about 12-14 years of age.

Although injection is not the main form of drug administration, the threat of drug injectables spreading requires vigilant monitoring. There is the risk of increasing sale of sex for drug money as the price of drugs is high compared to other countries in the region.

Current drug control measures include the establishment of the Narcotics Control Board in 1997, life imprisonment for drug dealers (i.e. 25 years) and three-year imprisonment or institutional rehabilitation for first offenders. Several psychiatrists serve the program where the addict is rehabilitated for 4-15 months. In 2000, there were about 120 people in the program, nine of whom were females.
Condom Accessibility and Condom Use

Condoms are accessible through family planning registration, where registered married couples can access them, if travelling. The NGO, Society for Health Education (SHE) and government facilities provide free condoms. Accessibility of condoms is not seen by young people as a problem since they can be bought in pharmacies. Condom supply is made to the islands every six months. UNFPA purchases different brands for the reproductive health program.

Female condoms are known by some, though there is little experience with their use in the country and they are not available.\textsuperscript{125}

c) Biological Factors

Blood-related Transmission

Where blood transfusions are common due to high prevalence of thalassaemia, thorough screening of blood donations was instituted early in HIV control programs. Efforts were made to establish universal precautions for infection control in health facilities, reducing the risk of spread of the disease. Disposable needles and syringes are used throughout the health system. Although materials such as latex gloves are available, not all health workers use them consistently. Also, some laboratory workers are not aware that re-capping needles is not recommended to avoid needle-stick injuries. The behavioral aspects of infection control among health workers require repeated inspection and monitoring for prevention of iatrogenic spread of blood-borne infections. The possible exposure of Maldivians to HIV through medical procedures can not be ruled out, but the number of such cases is likely to be few. \textit{Foolhumas} or traditional birth attendants are advised to use latex gloves. In 2003, all blood units transfused were adequately screened for HIV according to national or WHO guidelines.\textsuperscript{126}

Measures to prevent mother-to-child transmission (MTCT) are also observed nationwide. In 2003, 67 percent of women were counselled during antenatal care (for most recent pregnancy), accepted an offer of testing, and received test results.\textsuperscript{127}
D. Surveillance System

The surveillance system is based on mandatory screening of identified high risks. This is carried out at six sentinel hospitals throughout Maldives. The target group for surveillance include:

- Persons who seek medical check up including those required for renewal of work permit for expatriates
- Those who came for surgery
- Persons with TB
- Antenatal clients
- Blood donors
- Persons having Urinary Tract Infections or Sexually Transmitted Infections

Surveillance is also carried out at ports for nationals returning from living for more than one year abroad. In 2004, there were two centers providing HIV testing and counseling services located in Malé.

E. Programs

The National AIDS Council periodically monitors the National HIV/AIDS control program. The following activities were undertaken:

- Surveillance based screening initiated in early 1989 for high risk groups.
- A seminar on AIDS for policy makers was conducted in 1992 where the existing policies were reviewed and strategies were developed.
- A “Medium Term Plan for 993-1995” was developed in late 1992.
- In 1995 new directions and strategies were proposed in Health Master Plan (HMP) 1996-2005

The surveillance system was reviewed in 1997 by a WHO consultant after the development of HMP. However, no significant action was taken based on the recommendations to revamp the surveillance system. This is due to non-availability of epidemiological expertise.

The last situation analysis was conducted in 2000 by a UNDP consultant, Dr. Carol Jenkins, for the Department of Public Health and the UN Theme Group. The situational analysis identified the following needs:

- Development of new HIV prevention policy
- Review and revision of the surveillance system
- Protection in the tourism industry
- Development of AIDS related expertise
- Improvement of the knowledge of health care workers and school teachers

In response to this analysis, a seminar for policy makers was held in 2001 to identify future directions and strategies proposed in the situation analysis of 2000, which led to the development of the Strategic Plan for Prevention and Control of HIV/AIDS 2002-2006.
References


124 MOH. 2006. Maldives Strategic Plan for Prevention and Control of HIV/AIDS. Loc. Cit


126 Ibid

127 Ibid


130 MOH. 2006. Maldives Strategic Plan for Prevention and Control of HIV/AIDS. Loc. cit