SEX EDUCATION, A STRATEGY FOR SEXUALLY TRANSMITTED INFECTIONS (STIS) REDUCTION IN IBADAN, NIGERIA

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Abstract:

This study examined sex education as a strategy for the reduction of sexually transmitted infections (STIs) among adolescents. Adolescents today are faced with modernisation which has impacted negative on their lives. It highlighted what sex education entailed to avoid high percentage of sexually -transmitted diseases(STDs) among adolescents, under-aged mothers dying at child-birth and high rate of deaths among female youths due to abortion. Sex education for the awareness of adolescents to guide them against the risks attached to unquarded sexual activities is required. A structured survey instrument was used in collecting data from a sample of 484 respondents for the study. Data generated were analysed using frequency distribution and Pearson coefficient correlation analysis. The findings revealed that there was significant relationship between sex education / awareness and knowledge of STIs reduction. It was also established that there was no significant relationship between sex education / awareness and attitude towards the reduction of STIs. The findings also revealed that there was a significant relationship between sex education / awareness of STIs reduction and reproductive behaviour of the adolescents. It is, therefore, recommended that the media should be used as a medium of campaign to educate adolescents about risky behaviours and to embrace the use of condoms, educating parents about reproductive health and encouraging communication with adolescents, training medical providers in low-cost diagnosis and treatment techniques, and establishing youth-friendly services that emphasise sensitivity and confidentiality. This would be helpful in reducing high-risk sexual

behaviour and controlling the spread of STDs (including HIV and AIDs) among adolescents in Nigeria.

Key words: Sex education, strategy, reduction, sexually transmitted infections, adolescents, Nigeria

Introduction

Sex education also known as sexuality education or sex and relationship education, is the process of acquiring information and forming attitudes and beliefs about sex, sexuality identity, relationship, and intimacy. Sex education is also about developing skills in adolescents' skills so that they make informed choices about their behavior and feel confident and competent about acting on these choices.

Historically, the task of instructing adolescents about sex was seen as the responsibility of the parents but parent-child communication in sexual matters may be hindered by parental inhibitions, religious beliefs or by various inter-generational gaps. Most adolescents' had first discussion on sex education was in school or among peers. This avenue often brings misinformation which may be grievous. The inadequacy of parents and even religious leaders to educate these adolescents on this issue has made social workers to take it upon themselves to help the urban adolescents (Parwej, Kumar, and Aggarwal 2005). As a result, social workers have come up with means of helping parents on how to educate their adolescents on how to maintain a relationship with the opposite sex.

Sex education may be taught informally such as when a youth receives information from a conversation with his/her parents, friends, religious leaders, billboards or through the media. It could also be through reading magazines, advice from columnists or through sex education websites. These days, youths have more access to uncensored websites, thereby increasing their hunger to practice what they watch on these sites (Homles, Levine and Weaver, 2004).

Many adolescents who are sexually active did not have adequate sex education before they ventured into sex which led them to making poor and uniformed choices Experimentation is a normal part of adolescents development and this exposes them to risks. Their budding sexual urge and hormonal surge often make them susceptible to risky sexual behaviour which in-turn makes them vulnerable to

sexually transmitted infections(Santelli, Brener, Lowry, Bhatt and Zabin, 1998).

Sexual relations are usually initiated or commenced at a period when the adolescents are not yet emotionally equipped for self – protection. They indulge in sex without adequate information about sexual transmitted diseases (STDs) and they have access to health services and supplies (Parwej, Kumar, and Aggarwal 2005). Given that most parents or guardians are uncomfortable with the sex education of their wards when they reach puberty, makes these adolescents vulnerable to STDs. Another factor responsible for the prevalence of (STIs) among adolescents is lack of parental care, control and supervision. They do not have any guide as to acceptable behaviour or standards, they lack role models who can discipline or provide positive influence, inevitably they fall prey to outside and bad influences (Solorio, Milburn, Rotheram-Borus, Higgins and Gelberg, 2006).

There is also dearth of positive mentoring and / or a monitoring programme for adolescents in the society. There is also the problem of societal decadence and decline in cultural and moral values. Thus, many adolescents are clueless on who to look up to what standards are acceptable and whose advice should be sought on sexuality and morality (Eteike, 2007). There is a general atmosphere of permissiveness in the Nigerian society.

Another factor for the vulnerability of young person's to STIs is the inadequacy of programmes with appropriate interventions addressing the reproductive health needs of adolescents. In order words, no well-articulated programme that addresses the sexual and the reproductive health rights of adolescents (Luke and Kurz, 2002).

Peer pressure is also a paramount contributory factor to the prevalence of STIs amongst adolescents. This is because period of adolescence is a period when many are impressionable and seek to belong to a group. Many adolescents will do all that it takes to have a sense of belonging and if they perceive that engaging in sexual activities will provide them this, they will engage in sex, even when they are not ready or well -prepared (Shetty and Kowli, 2001). There is also the issue of belonging to a gang, whereby people are initiated and made to share blades or other sharp objects during initiation. Peer pressure may also make adolescents use, alcohol which may lead to intoxication and

ultimately engagment in risky sexual encounter (Solorio, Milburn, Rotheram-Borus, Higgins and Gelberg, 2006).

Nigeria's birth rate of adolescence is one of the highest in the world and the prevalence of STIs, including HIV, among female adolescents in Nigeria is rising rapidly (UNAIDS and WHO, 2001). Poverty is also a key factor for the prevalence of STIs among adolescents. Others poor adolescents, who are engaged in street trading and hawking easily fall prey to sexual violations and exploitations. Many adolescents commercial sex workers or casual sex workers have resorted to sex because of poverty. A lot of people who have been exploited sexually were not in any position to insist or negotiate for protected sex and were therefore exposed to STIs.

Majority of people with HIV- approximately 95% of the global total- now live in the developing countries (Luke, and Kurz, 2002). Sub-Saharan Africa is the most severely affected with prevalence rates among adults in the order of 20 to 30% (WHO, 2006). The situation in developing countries is worsened by urbanisation (with cultural evolution), poverty and illiteracy (Eteike, 2007).

There are far reaching consequences and implications of the prevalence of STIs amongst adolescents. Some adolescents who have been infected with STIs have had traumatic, emotional and physical experiences. Others have experienced a sense of isolation and lack of self-worth. STIs have infertility and loss of life. Some infected youths have been denied the opportunity of contributing their quota to the development of the society. The social implication of sex education of our adolescents is the downturn in the value system , poor decision-making and permissiveness that seem to support or justify the poor choices among adolescents.

This attitude is likely to encourage more adolescents to indulge in risky sexual behaviour arising from poor choices, and which might lead to contracting STIs. The morbidity rate of adolescents is likely to increase given the health challenges that STIs engender (Solorio, Milburn, Rotheram-Borus, Higgins and Gelberg, 2006). There is also the likelihood of reduction in productive man hours, which might be from the health implication of STIs. A fallout of this is that the few health facilities and meager allocation to health are likely to be over stretched owing to the prevalence of STIs amongst youths.

Prevention is the key word in addressing incurable STIs such as HIV and the herpes virus. Sexual health clinics fight to promote the use of condom and provide outreach on sex education awareness for at-risk communities. Ideally, both partners should get tested for STIs before initiating sexual contact. Many infections are not detected immediately after exposure, so enough time must be allowed between possible exposures and testing for accuracy. STIs caused by bacteria are generally easy to treat. Viral infections can only be managed. A pregnant woman with STI, who have accesses to prompt treatment can prevent the passing infection to her baby. Treatment usually consists of one of the following on the infection (WHO,/UNAIDS, 2001):

Antibiotics often in a single dose can cure many sexually transmitted bacterials and parasitic infections, including gonorrhea, syphilis, chlamydia and trichomoniasis. Antiviral drugs can keep HIV infections in check for years, although the virus persists and can still be transmitted (Santelli, Brener, Lowry, Bhatt, and Zabin, 1998). The sooner the treatment starts, the more effective it is. The most effective way to avoid STIs is to abstain from sex. Another reliable way to avoid STIs is to stay in a long-term mutually monogamous relationship with a partner who is not infected and faithful one (Allan Guttmacher Institute, 2001).

Getting vaccinated early, before sexual exposure, is also effective in preventing certain types of STIs. Vaccines are available to prevent two viral infections that can cause cancer human papilloma virus (HPV) and hepatitis B. The HPV vaccine is recommended for all girls between ages nine and twenty six, and the hepatitis B vaccine is usually given to newborn. Other preventive measures include the use of condoms consistently and correctly. Partners should use a new latex condom for each act whether oral, vaginal or anal and they should never use oil-based lubricant, such as petroleum jelly with a latex condom. They should keep in mind that contraception, such as oral contraceptives or intrauterine devices do not protect STIs (Baetem, Nyange, and Richardson, 2001).

The precise age at which information should be provided depends on the physical, emotional and intellectual development of the adolescents as well as their level of understanding. What is covered and also how, depends on who is providing the sex education, when they are providing it, and in what context, as well as what the individual

adolescent wants to know about. Providing effective sex education is daunting because it entails tackling potentially sensitive issues and involving a variety of people – parents, schools, community groups and health service providers(WHO,/UNAIDS, 2001). Observably, because sex education comprises many individual activities which take place across a wide range of settings and periods there are lots of opportunities to explore.

The nature of a person's contribution depends on their relationship, role and expertise in relation to adolescents. For example, parents are best placed in relation to adolescents to provide sustained support and education starting early in their children's lives. School-based education programmes are particularly good at providing information and opportunities for skills development and attitude clarification in more formal ways, through lessons premised in a curriculum.

Community based projects provide opportunities for adolescents to access advice and information in less formal ways. Sexual health and other health and welfare related services can provide access to specific information, support and advice (Holmes, and Waver, 2004). Sex education through the mass media, often supported by local, regional and / or national governments and non-governmental agencies and departments can help to raise public awareness of sex health issues (Baetem, Nyange, and Richardson, 2001)

Parents are to be sensitive to spend quality time with their children, especially their adolescents. The parents are also to be trained to develop good listening and parenting habits that are accommodative of the views of their children, but not negatively permissive (Jejebhoy and Bott, 2003). Parents should be sensitised to identify the friends their children keep and to allow those friends to be brought home. It is important to make parents realise the need to lead their children by good examples and to be positive role models. It is also important to educate parents to encourage their children that abstinence is the best preventive method. The programme design should also encourage parents to supervise their children's access to the Internet and television.

Community members should be empowered, so that poverty will be combated. Parents should be discouraged from sending their children out on the streets to beg or hawk. Empowerment programmes

like farming trade should be embarked upon so that parents could feed their family(Parwej, Kumar, and Aggarwal 2005). Families also should be encouraged to undertake family planning and child spacing which will help them to curb the scourge of poverty.

Adolescents may be subject to peer pressure on the need to have sex, consume alcoholic beverages, use drugs and defy their parental figure on a number of issues. Peer pressure is a common experience among adolescents. (Baetem, Nyange, and Richardson, 2001). Struggles with identity and depression usually set in when adolescents experience a loss. The most important loss in their lives is the changing relationship between them and their parents. They may also experience strife in their relationship with friends. Teen depression can be extremely intense at times because of physical and hormonal changes instable emotional instability is part of adolescence. Their changing mind, body and relationships often present themselves as stressful and change, they assume they are mature (Solorio, Milburn, Rotheran-Borus, Higgins and Gelberg, 2006).

Reproductive health includes sexual health which according to the International Conference on Population and Development (ICPD) programme of action has the purpose of changing life and personal relationships and not merely counselling and care-related to reproductive and STIs (Eteike, 2007). ICPD programme of action drew attention to the needs of the adolescents, the document specifically noted that countries with the support of the international community should protect and promote the rights of adolescents in reproductive health education, information and care which will greatly reduce adolescent pregnancies (Eteike, 2007). This study, therefore, examined sex education as a strategy for reducing STIs among adolescents.

This study was conducted with the broad objective of identifying and investigating sex education as a strategy for reducing STIs reduction among adolescents in the society. The specific objectives are to: determine the awareness of the adolescents about sex education; to determine the attitudes of adolescents towards sexuality infections reduction; and establish the reproductive behaviour of adolescents exposed to sex education / awareness.

Research Hypotheses

- H₁ There is no significant relationship between sex education / awareness and of reduction of sexually transmitted infection among adolescents.
- H₂ There is no significant relationship between sex education / awareness and attitude of adolescents to reduction of STIs
- H_3 There is no significant relationship between the time sex education / awareness is given to adolescents and their reproductive behaviour.

Methodology

Research Design

The descriptive survey research design was adopted generate data on sex education as a strategy of reducing STIs among adolescents.

Population of the Study

Adolescents (male and female) from ages of 10 to 20 years, from secondary schools in Ibadan constituted the target population for the study.

Sample and Sampling Techniques

The study was limited to two Local Government Areas LGAs; namely Ibadan North West LGA and Ibadan North LGA within Ibadan metropolis. The multi-stage sampling procedure was used to select the sample from the population. In doing this, urban areas in Ibadan were stratified along the axis of existing four L.G.As namely; Ibadan North West, Ibadan South West, Ibadan North East and Ibadan North. One secondary school from each of the local government areas was used for the study namely Anwar ul Islam grammar School, Eleyele in IB N. W. St Louis Grammar School, Mokola in IB. N. St Patrick Grammar School, Bashorun in IB. N E. L.G.A and Comprehensive High School Oke-Bola in IB. S.W L.G.A. The stratified random sampling technique was used to select one hundred and twenty one respondents from each secondary school and LGA selected for the study. Thus, four hundred and eighty four respondents were selected.

Research Instrument

The main instrument used for data generation was a structurally designed questionnaire adapted from previous works related to this study tagged "Sex Education as a Strategy of Sexuality Infections Reduction among Adolescents (SESRSIAQ)" The questionnaire was structured to generate data from adolescents about their knowledge, attitude, behaviour and perception on infectious diseases after exposure to sex education and awareness programmes.

Validity and Reliability of the Study

Prior to its being administered, the questions were scrutinised by experts in community development, social work, guidance and counselling, rural and extension services. Based on their comments, some items were reworded to ensure that there were no ambiguities. Cronbach Alpha and Kuder Richardson (KR21) were used to provide reliability estimate of the instrument. KR21 was used for items that were dichotomously scored, while Cronbach Alpha was used for 3, 4 and 5-point items' scales. In order to achieve this, a pilot study was carried out with a sample of 50 subjects in Ido LGA, Oyo State, Nigeria. The result of reliability coefficient was r = 0.83. This result indicates that the instrument used for data generation is reliable.

Analysis of the Data

Frequency distribution (%) and Pearson Coefficient Correlation Analysis was used to analyse the data to measure the relationship at 0.05 level of significance.

Table: Analysis of the Demographic Characteristics of Respondents

Items	Frequency	Percentage (%)		
Sex				
Male	240	49.6		
Female	244	50.4		
Total	484	100		
Items	Frequency	Percentage		
Age				
10-14 years	86	17.8		
15-20 years	398	82.2		
Total	484	100		
Item	Frequency	Percentage		
Religion				
Christianity	289	59.7		
Islam	192	39.7		
Traditional Religion	3	0.60		
Total	484	100		
Items	Frequency	Percentage		
Class of the respondent				
JSS 1-3	89	18.4		
SSS 1-3	395	81.6		
Total	484	100		
Educational level of the				
respondent parents				
Did not go to school	42	8.6		
Primary	58	11.9		
Secondary	178	36.7		
Grade II / Technical	101	20.8		
school	93	19.2		
Polytechnic / University	12	2.4		
Don't know	484	100		
Total				

Table 1 above shows that 49.6% were male while 50.4% were female. This indicates a balance in the number of male against female. Table 1 establishes that 17.8% of the sampled population are between the ages of 10 and 14 years and 82.2% are between the ages of 15 and 20 years. Some 59.7% of the participants practice christianity, 39.7% practice Islam while 0.6 practice traditional religion. 18.4% of the

respondents are in junior secondary schools while 81.6% are in senior secondary schools.

Table 1 also indicates that 8.6% of the respondents' parents did not go to school, 11.9% completed primary education, 36.7% had secondary education, 20.8% had grade II / technical education and 19.2% had tertiary education while 2.4% of the respondents did not know the educational level of their parents.

Table 2: Pearson Moment Correlation Analysis of Relationship between Sex Education / Awareness and Knowledge of Sexually Transmitted Infections Reduction

Variable	Mean	Std				Remark
		Dev.	N	R	Р	
Sex						
education/Awareness	15.0887	1.3445				
Knowledge of			484	.142	.001	Sig
sexually transmitted	61.6240	7.6922				
infections						

It is shown in Table 2 that there was significant relationship between sex education / awareness and knowledge of STIs reduction (r=.142, N=484, P< .05. This implies that sex education/ awareness had influenced the adolescents' knowledge about STIs reduction. Thus, the null hypothesis is rejected. Some 89% of the respondents agreed that they have had heard about sex education from their parents, schools, on television and radio programmes.

On the other hand, 64.3% of the respondents indicated that they did not hear about sex education in schools. 22.5% of the respondents agree that their parents discuss STIs with them at home while 62.2% of the participants indicate that there is nothing like sex education discussion at home. This implies that the sex education level which is low affected the knowledge which is equally low.

Table 3: Pearson Moment Correlation Analysis of Relationship between Sex Education / Awareness and Attitude of Adolescents to Sexually Transmitted Infections Reduction

Variable	Mean	Std				Remark
		Dev.	N	R	Р	
Sex						
education/Awareness	15.0887	1.3445				
Attitude towards			484	.020	.665	n.s
sexually transmitted	25.2685	5.8065				
infections						

Table 3 shows that there is no significant relationship between sex education / awareness and attitude towards STIs reduction (r=.020, N=484, P>.05). This indicates that sex education awareness had not influenced their attitude to STIs. The null hypothesis is therefore accepted.

Table 4: Pearson Moment Correlation Analysis of Relationship between Sex Education / Awareness to STIs reduction and Reproductive Behaviour of Adolescents

Variable	Mean	Std				Remark
		Dev.	N	R	Р	
Sex						
education/Awareness	15.0887	1.3445				
Reproductive			484	.140	.001	Sig.
Behaviour of the	61.6240	7.6921				
Adolescents						

Table 4 shows that there is significant relationship between sex education / awareness to STIs reduction and reproductive behaviour of the adolescents (r=.140, N=484, P < .05). This implies that respondents' awareness level had influenced their reproductive behaviour. The null hypothesis is therefore rejected. Some 38% of the participants agree that they have had sex before while 31.4% indicate that they had a boyfriend or girl friend that they have sex with. Out of those who are currently having sex, 59% used condom. However, 65.9% were willing to abstain from sexual intercourse until they get marry.

Discussions

From research hypothesis one, it observed that there was significant relationship between sex education / awareness and knowledge of STIs reduction (r=.142, N=484, P< .05. This implies that sex education/ awareness influenced the adolescents' knowledge about STIs reduction. Thus, the null hypothesis is rejected.

This finding is supported by the findings of Parwei, Kumar, and Aggarwal (2005) who assert that sexual relations are usually initiated or commenced at a period when adolescents are not yet emotionally equipped to negotiate self protection, and before they have acquired adequate information about STDs, and before they can get access to health services and supplies. The fact that most parents or guardians are uncomfortable with the issues of educating their children about sex, especially when the children reach the stage of puberty, makes young people especially vulnerable to STDs The finding is also corroborated by the work of Solorio, Milburn, Rotheram-Borus, Gelberg and Higgins (2006), who view lack of parental care, control and supervision as another factor responsible for the prevalence of STIs among adolescents. They do not have any guide as to acceptable behaviour or standards, they lack role models in their lives who can discipline or provide positive influence, inevitably they fall prey to outside and unhealthy influence.

The result in hypothesis two indicates that there is no significant relationship between sex education / awareness and attitude to sexually-transmitted infections reduction (r=.020, N=484, P>.05). This indicates that sex education awareness had not influenced their attitude to STIs. The null hypothesis is therefore accepted.

This finding is in line with the findings of Shetty and Kowli (2001) who assert that peer pressure is a paramount contributory factor to the STIs amongst adolescents. This is because the period of adolescents are when many are very impressionable and seek to belong to the in-group. Solorio et al (2006), see many adolescents doing all that it takes to have a sense of belonging and if they perceive that engaging in sexual activities will give them a sense of belonging, they go ahead to do so, even when they are not ready or well-prepared. There is also the issue of belonging to a gang whereby people are initiated and made to share blades during initiation. Another resultant effect of

peer pressure is the use of alcohol, which may lead to intoxication and thus indulge in risky sexual behaviour.

Hypothesis three reveals that there is significant relationship between sex education / awareness of STIs reduction and reproductive behaviour of the adolescents (r=.140, N=484, P < .05). This implies that respondents' awareness level had influenced their reproductive behaviour. The null hypothesis is therefore rejected. Some 38% of the participants agreed that they had had sex before while 31.4% indicated that they had a boy-friend or girl-friend that they have sex with. Out of those who are currently having sex, 59% used condom. However, 65.9% were willing to abstain from sexual intercourse until they get marry.

The above finding corroborates the findings of Holmes, and Waver (2004), that community based project provides opportunities for adolescents to access advice and information in less formal ways. Sexual health and other health and welfare related services can provide access to specific information, support and advice. This finding supports Baetem, Nyange, and Richardson (2001) that sex education through the mass media, often supported by local, regional and / or national governments and non-governmental agencies and departments can help to raise public awareness on sex health issues.

Implications of the Study

The findings of this study indicate that carrying youths along on pertinent issues concerning them is central to their empowerment as a strategy for reducing crime in the society. The findings have implications for community development planners, policy-makers, nongovernmental agencies, health providers, counsellors and other stakeholders participating in development planning and design, and service delivery system. This can be done by educating these communities how to reduce pre-marital sex among the adolescents. Further, it will sensitive adolescents to develop the ability to link up with their peer groups, and other communities or agencies for assistance in their sex education.

Conclusion and Recommendations

A viable programme on sex education at home, schools, in hospitals, in religious institutions and by the media should also be put in place. This will afford young person's the opportunity of making informed choices

about sex, even though the programme design should encourage abstinence and faithfulness in relationship as much as possible. The young shall be properly enlightened on the use of condoms and limitations attached to its usage The adolescents should be encouraged to go for voluntary testing and counselling, before they commence sexual activities and urge their partners to do the same.

- ❖ Educational activities should target parents which would enable them play a more beneficial role in the sexual and reproductive health of their children.
- There is the need to increase STDs awareness, knowledge, prevention and treatment among adolescents in Nigeria.
- ❖ The media should be used as a medium of campaign to educate adolescents about risky behaviour and condom use, educating parents about reproductive health and help in communicating with adolescents training medical providers in low cost diagnosis and treatment techniques and establishing youth-friendly services that emphasis sensitivity and confidentiality]
- ❖ All these would be helpful in reducing high-risk sexual behaviour and controlling the spread of STDs (including HIV and AIDs) among adolescents in Nigeria.

References

- Allan Guttmacher Institute, 2001. Can more progress be made?

 Teenage sexual and reproductive behaviour in developed countries (executive summary). Allan Guttmacher Institute:

 Washington, DC.
- Baetem, J.M., Nyange, P.M and Richard, B.A. (2001. Hormonal contraception and risk of sexually transmitted acquisition result from a study. *American Journal of Obsterics Gynaecology.* 185: 380-385.
- Eteike, P.O. 2007. Poverty, disease and ignorance: the vicious cycle. ABSUMSAJ. 4(1): 5.
- Holmes, K. and Waver, M. 2004. Effectiveness of condoms in preventing sexually transmitted infections. *Bulletin of the World Health Organization*. Geneva.
- Jejebhoy, S.J. and Bott, S. 2003. Non-consensual sexual experiences of young people: A review of the evidence from developing countries. Regional working papers;

- Population Council: New Delhi, India pp 6.
- Luke, N. and Kurz, K. 2002. Cross-generational and transactional sexual relations in Sub-Saharan African: prevalence of behaviour and implications for negotiating safer sexual practices. ICRW and PSI: Washington DC.
- Parwej, S., Kumar, R., Walia, I.and Aggarwal, A. K. 2005. Reproductive health education intervention trial. *Indian J. Pediatrics.* 72 (4): 287-291.
- Santelli, J.S. Brener, N.D. Lowry, R., Bhatt, A. and Zabin, L. S. 1998. Multiple sexual partners among United State adolescents and young adults. Family planning perspective. 30: 271-275.
- Shetty, P. Kowli, S. 2001 Family life education for non-school going adolescents: An experience in an urban slum. *The Journal of Family Welfare*. 47. (2): 51-58.
- Solorio, M. R., Milburn, NG., Rotheram-Borus, M. J., and Higgins, C.Gelberg, L(2006) Predictors of sexually transmitted infection testing among sexually active homeless youth. *AIDs Behaviour* . 10: 179-184.
- WHO/UNAIDS 2001. Information note on effective of condoms in preventing Sexually transmitted infections including HIV. WHO, Geneva.
- WHO 2006. Health Statistics, 2006. WHO, France.