HIV prevalence and socio-cultural contexts of sexuality among youth in Addis Ababa, Ethiopia

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Abstract

Background: Periodic cross-sectional studies that combine data on HIV/AIDS prevalence with behavioural survey can help assess the extent of disease prevention and control efforts overtime.

Objectives: Estimate the prevalence of HIV infection and examine the contexts of sexuality among youth (15-24 years) in the city of Addis Ababa, Ethiopia.

Methods: Unlinked, anonymous screening of air-dried saliva for HIV-1 IgG antibodies using BionorTM HIV-1&2 rapid ELISA kit and focus group discussions on young people's sexuality.

Results: Of the 677 study subjects, 20 (3.0%) tested positive for HIV-1 antibodies. Of the 319 youth in school, 1 (0.3%) was positive, while of the 358 youth out-of-school, 19 (5.3%) were positive. In the focus groups, parents were blamed for their stereotype attitudes towards young people's sexuality and for failing to provide vital information and support. Young people were faced with enormous pressure to engage in sex, especially from peers, exposure to unlicensed erotic video films and the desire for economic gain. Love relationships lacked adequate romantic period for partners to learn more about each other and negotiate condom use. Cultural shaping of young people's sexuality gave privileges for males to be sexually active, be in control of sexual relationships and be less responsible for precautions to prevent HIV/AIDS. The youth in general sensed their excessive vulnerability to HIV/AIDS but lacked individual motivation and skills to practice safe sex behaviour.

Conclusion: HIV is significantly prevalent among youth in Addis Ababa, particularly out-of-school and female youth. Different socio-cultural contexts of sexuality and gender norms underpin this excess vulnerability. [Ethiop. J. Health Dev. 2002, 16(2):139-145]

Introduction

About 3 million Ethiopian adults and children were estimated to live with HIV/AIDS by the end of 1999 (1). National surveillance reports show that the prevalence of HIV infection in Ethiopia is 7.3%. There is however, a significant urban-rural differential. An HIV sero-survey conducted in 1993 among sexually active people in six rural sites in the country showed that only 0.7% of this population was

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infected. Current Ministry of Health estimate takes rural HIV prevalence at 30% of that in Addis Ababa (2). Estimates from Addis Ababa indicate that the city has around 300,000 people infected with HIV and the prevalence in the adult population is 16.8% (3).

Existing data on young people reveal a falling age at sexual debut, increasing rates of sexual involvement, high morbidity and mortality abortion complications from and prevalence of HIV/AIDS (4-7). Ethiopia, being one of the world's poor nations, has not been able to offer suitable social and economic circumstances for transition into adulthood. A unemployment rate. low enrolment, and widespread child prostitution particularly among urban young people remain

major challenges in the country (8). Religious and social norms play significant roles in people's lives and generally do not encourage the young to develop independence and self-reliance. There are many taboos about sexuality, and sex education is practically non-existent in the school system. Even though no sex before marriage is the general norm, there is a gender imbalance in approving it when it takes place.

Periodic cross-sectional surveys that combine HIV/AIDS prevalence with a behavioural data can help assess the extent of disease prevention and control efforts overtime (9, 10). This form of data triangulation in a community setting on representative population group is a significant shift from the common facility-based limited target-group studies (11). This study therefore aims to simultaneously estimate the prevalence of HIV-1 infection and examine the contexts of sexuality among youth (15-24 years) in the city of Addis Ababa.

Methods

Subjects and design: The study took place in 2 of the 6 administrative zones of Addis Ababa, Ethiopia from February to June 2000. Youth aged 15 to 24 years residing in 13 Kebeles or going to three secondary schools in the area served as the study population. Representative sample size was determined based on selected outcome variables, 80% study power and 95% confidence limit. In-school youth included 9-11th graders and study subjects were obtained using stratified (by class and sex) random sampling technique. Senior class students (12th graders) were not available for the The out-of-school group (not survey. attending school during the daytime) comprised of school dropouts as well as those who had completed their secondary education. Accordingly, the standard EPI (expanded programme on immunization) cluster sampling technique was utilised to obtain study subjects in the households.

The study involved unlinked, anonymous screening of saliva for HIV-1 antibodies. This was complemented by qualitative data (focus group discussion) on issues of sexuality. A

total of 677 subjects were screened for HIV excluding 5 (0.7%) refusals. As the survey was anonymous and unlinked, personal data obtained from the subject was only on age and sex.

Saliva screening for HIV antibodies: The · accuracy of using saliva for detection of HIV antibodies has been shown to be comparable to serum-based tests (12-17). Moreover, there are advantages of using saliva over serum in epidemiological settings because of safety, ease of handling, non-invasiveness and relative low costs. The stability of IgG antibodies in optimum concentration following exposure to environmental changes (drving, temperature) further adds to their suitability for HIV testing in tropical climates (18-20).

Saliva samples were collected using MucoSafeTM MucoSafeTM (Norway) saliva collection devices. The MucoSafe TM collection strip was placed in the mouth between the lower gums and buccal mucosa and left in the cavity for 3 to 5 minutes to absorb oral fluids until the absorbent membrane is saturated. It was then air-dried for 48-72 hours. To prepare the sample, the absorbent pad was removed from the cardboard strip and placed in the pouch that contained the buffer solution. The extract was finally screened for HIV-1 antibodies using Bionor TM HIV-1+2 assay (a rapid EIA) following a modified procedure for saliva specimens. Test results were interpreted according to the manufacturer's protocol.

Focus group discussions (FGDs): A standard and pre-tested discussion guide was used to initiate focus group discussions. Participants of the FGDs from the school or the out-ofschool setting did not take part in the HIV screening test and thus the two data collection methods were unlinked. A total of six FGDs. one for each sex and one mixed sex group were held for both in-school and out-of-school groups. Each discussion group consisted of six to eight participants. The principal investigator moderated most of the discussions with two recorders and the information was tape-recorded. The discussion guide was designed under three major themes pertaining

to the local socio-cultural context of young people's sexuality and HIV/AIDS. The first one focused on sexuality and its determinants people. Accordingly. among voung information on the dynamics involved in learning and practising sex, societal roles in modelling the sexual life of young people and pressures to engage oneself in sex was obtained. The second theme addressed gender relations and influences in young people's The last area concentrated on perceived vulnerability to STDs including HIV/AIDS. Data was analysed for context and meaning under the three themes.

This study underwent Ethical clearance: ethical clearance procedures both in Norway medisinisk (De regionale komite for forskningsetikk region III) and Ethiopia (Ethiopian Science and Technology Commission). Study participants signed consent forms for HIV test prepared in the local language. Pre and post-test counselling was provided in Tikur Anbessa Hospital for 20 subjects who wanted to know their HIV serostatus. None of them tested positive.

Results

HIV prevalence: Of the 677 studied youth, 382 (65.4%) were males and 358 (52.9%) were out-of-school. Twenty (3.0%) of them were found positive for HIV-1 IgG antibodies. Ten cases were found both among males and females, giving HIV-1 rate of 2.6% and 3.4% respectively (P>0.05). Only one positive case (0.3%) was found out of the 319 youth from the schools. This gave an overall prevalence of 5.3% HIV infection among the 358 out-ofschool youth. There was a 60% excess prevalence rate in the out-of-school females with 6.9% (10 out of 147) infection compared to the males, which had 4.2% (9 out of 214). The youth in the school (mean age of 17 ± 1 year) were younger than the ones out-ofschool (mean age 19±2 years) by a mean of two years. Nevertheless, the out-of-school group had a 13 times higher chances (P<0.001, 95% CI=0.0, 0.4) of being HIV infected than youth in the school. There was no significant age difference between male and female HIV positives in out-of-school youth group.

HIV-1 prevalence among 15-19 years old was 9/533 (1.7%) while it was 11/144 (7.6%) among 20-24 years old youth (OR=4.8; 95% CI=1.8, 12.9). The rate for both male (5/292) and females (4/241) aged 15-19 years was 1.7% whereas it was 5.6% (5/90) and 11.1% (6/54) of 20-24 years old group respectively. This rate is twice as much among females.

Sexuality and its determinants: As in many societies, there was a feeling of cultural clash between the society and youth that have been exposed to and influenced by "modernisation" and its ideals. Cultural norms of premarital virginity, emphasised more for the females than the males, is still the rule. Nevertheless, discussants generally agreed that practice of premarital sex is widespread among young people contrary to these norms.

Courtship is a process of seeking the affection of someone for love and marriage. Sexual relationships among young people were reported to lack such process of preparing oneself. Some female discussants (10th and 11th graders) in fact said that the youth do not perceive 'going out' together and having sexual intercourse differently. "It is inconceivable to be in love and avoid sex ... it makes the walls of love."

Unlicensed video films in private homes appeared to be the major shapers of erotic intentions among young people. Khat chewing (an amphetamine-like substance) and alcohol consumption, often in combination, provided a fertile environment for the execution of precontemplated ideas on sex. These practices were reported to be common among groups of themselves people who call voung "modernised."... they (sexual start intercourse) to show-off their experience... if one fails to catch-up with the modern group, she/he is insulted and mocked at as homely and frivolous. (23 years old male out-ofschool)

Sexual relationships for girls were frequently motivated by gain in the form of money, gifts, job position or a promise to send abroad. This mostly happens with much older men and

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there are no cultural sanctions against it. It appears from their description that these men simultaneously satisfy the economic needs of the girl and get the advantage of meeting young and apparently free from disease clients for sex.

Engagement in sexual activity among the youth also involved responding to different pressures facing them as social beings, especially from peers. Peers reportedly forced some of their friends to feel eager to learn the consequences of an action and sexual intercourse was one of these actions. Being jobless was also assumed to limit their "leisure source" to sex because of its relative less cost.

Gender roles in sexual relationships: Gender identities and stereotypes that took root in early childhood continue to solidify in adolescence. Not only did these socialisation processes impart different social images of being a boy and girl, but also determined the relative privilege of premarital sex practice. A 19 years old male in school had this example to say:

I would choose no sex before marriage for my sister rather than for my brother under the prevailing cultural and family sanctions. Because it would be taken as self-humiliating or ruffian for girls if they are discovered doing such acts... A 21 years old girl from school also conformed to the above statement and said ... for the boy of same age, they say, he is a male and thus it is his virtue (to have sex before marriage), whereas the girl will bring shame to her family.

Control over sexual urges was mostly the concern of girls, not boys. Some male colleagues of the discussants in fact felt that sexual tension fills their body to the level of "intoxication" unless relieved in time. But such sense of a sexual urge was reported as uncommon among females. Gender differences influenced care seeking for STDs too:

... a female carries double responsibilities. She doesn't often show signs after catching the disease (AIDS and STDs) or tends to conceal the situation and avoid embarrassments. She

has a chance of becoming pregnant which can't be concealed. Therefore, it is better that the woman takes prime responsibility (Female discussants in the school).

Perceived vulnerability towards STDs/HIV-AIDS: The youth in general were aware of their vulnerability to HIV/AIDS as a group, but had different opinions on whether young people's sexuality had changed in the face of this vulnerability. Majority were of the opinion that sexual activity had actually These fierce exclamations were increased. used among one out-of-school mixed sex group discussants to describe the current situation: Sexuality has increased like a forest fire (out-burst of laughs), ... there is a queue at the brothels for services ... three out-of four girls give birth while living with their parents and we hear this to happen when they are just 14 or 15... I will sleep with AIDS itself if it gets dressed up like a woman.

The availability of condoms itself was also reported to have taken away the fear for the disease and thus resulted in an increase of sexual activity. Sexual debut was reported to take place at the age of 13-14 years for some girls. To have multiple sexual partners was also reported as a common practice among many young people.

Life skills on sexual negotiations and practice of safe sex were found to be largely lacking. Some discussants indicated that sexual acts are unplanned and spontaneous. Others felt that it is either a slowly evolving process or there will be an inviting precedence before it takes place. Some of the reasons for failing to use condoms were blamed on personal weaknesses and being too much driven by emotional desires. Certain groups of young people were described to have depended much on the trust they had on friends (because, they grew up together) to justify their practice unprotected sex. Poor parental involvement in preparing young people for safe sexual life and good reproductive health was part of the blame for the lack of skills on sexual decision-Most discussants pointed out that making. there are taboos of purposeful teen-parent

communication on sexual matters including condom use at home. Their only general and superficial information came from mass media, peers and few anti-AIDS clubs teaching in the schools. The following expression is taken from both in and out-of-school mixed groups discussants -... we don't discuss (sexrelated issues). Even if we want to share what we were taught in the school, they say, can a daughter teach her mom how to behave during labour? ... Since our parents didn't experience it (pre-marital sex) during their time, they assume that we don't need to know about it as well

Discussions

This study came up with a low estimate of occurrence among voung people compared to data made available from different sources. In a larger population survey carried out in 1994 by Fontanet et al (7) in Addis Ababa, young adults aged 15-24 years had 4.8% HIV infection rate. particular, a rate of 5.7% (3.6% in males, 6.9% in females) was seen among young people in the inner city, which had geographic similarity to our study group. A recent review of HIV occurrence in the country stipulated decreasing trends among blood donors and young pregnant women in Addis Ababa (21). Contrasting our result with that of others (7, 21) reveals a general over-estimation of UNAIDS projected figures of 10-15% (1). The disparity in HIV occurrence between in and out-of-school youth could be partly attributable to the age difference. The higher rate of HIV seen among females is consistent with existing knowledge on the relative social and biological vulnerability of this group to HIV/AIDS.

Measuring the occurrence of HIV infection alone is insufficient to make recommendation on health education strategies for this target group. A question remains as to what aspects of disease perception or sexual behaviour explain the finding? What group attitudes, local meanings and contexts determine sexual activity and HIV preventive behaviour among young people (11)? Use of qualitative data is instrumental to identify important research questions and draw possible hypothesis in this regard. Insights obtained on the dynamics of young people's sexuality within the context of selected analytic themes shall be discussed in the following paragraphs.

From the study, it might be hypothesised that parents were against young people's premarital sex for a combination of the following reasons. Some view it as protest against the societal norms (prescribed etiquette). Few may be religiously and morally opinionated. others might have lacked appropriate information on their children's reality of life outside the home environment. Nevertheless, this opposition appeared to have only let sexual activity go underground with greater risk taking (22-24).

Courtship gives potential sexual partners the opportunity to learn more about each other, discuss the risks involved, and agree on the need for self-protection (22-23, 25). It also serves as a platform for possible long-term relationships and commitment. The relevance and effectiveness of such life skills (romantic relationships) in the local cultural context is worth investigating.

The role of unfiltered electronic media in shaping erotic ideals in young people in urban Ethiopia demands a deeper investigation. Introduction of an effective legal system and supportive policies to minimise the unfavourable effect of mass media on young people could be considered but may prove difficult. Selective tackling of behavioural barriers (alcohol/drugs, etc) through equally powerful health education messages might also be rewarding.

The dynamics of gender stereotyping and power relationships begin in the socialisation process of shaping the young person grow up to being a male or female adult in the family. Social norms in the community complement this unbalanced life privilege. Cultural shaping of young people's sexuality also forms parts of this socialisation process. It bestows the boy with a right to have sex before

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marriage, have uncontrollable sexual urges, have multiple partners at the same time and less vulnerable to the unwanted feel consequences of sexuality. Females on the other hand are encouraged to remain virgins, control their sexual feelings, and be loyal to one sex partner (26-31). Educational efforts to close this gender gap should thus start early in life and focus on those groups involved in the socialisation process mainly parents, teachers and elders.

Men (boys) must learn that their failure to protect themselves not only exposes women to HIV but also is the sole reason for sustaining level. of disease transmission. high Nevertheless, it should be acknowledged that they lack information on what it takes to have safe and enjoyable sex. Safe sex education messages have so far been female-oriented and capitalised on the "naughtiness" of men. Therefore, our collective consciousness of masculinity and exercise of power must change to better understand what it means to be a responsible sexual partner (32). The high level of perceived group vulnerability to HIV/AIDS expressed by the discussants must be displayed in individual motivations for safe sex behaviour.

In conclusion, the study indicated significant prevalence of HIV infection, particularly among females and out-of-school youth. It has highlighted on socio-cultural contexts and gender norms influencing sexual risk taking excess vulnerability to HIV/AIDS. Explaining the disparity between in and outof-school youth and substantiating the low HIV occurrence however require further investigation.

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References

- UNAIDS. Epidemic update: Country specific HIV/AIDS estimates and data. June (2000a), Geneva, Switzerland.
- 2. MOH, Disease prevention and Control Department, Ethiopia. AIDS in Ethiopia, June 2000.
- Addis Ababa City Administration Health HIV/AIDS in Addis Ababa: Background, Projections, Impacts and Intervention. January 1999.
- Eyob T. Abate G. Genet M. Survey of adolescent sexuality in Addis Ababa. Ethiopian Journal of Health Development; 1996, 10(1):35-39.
- Fisseha E. Zakus D. Derege K. Attitude of students, parents and teachers towards condom promotion and provision for adolescents in Addis Ababa. Ethiopian Journal of Health Development, 1997, 11(1):7-16.
- Negussie T., Rahel H., Selamu D., Alemayehu T., Kedir M. Do parents and young people communicate on sexual matter? The situation of FLE (Family Life Education) in rural town in Ethiopia. Ethiopian Journal of Health Development; 1999, 13(3):205-210.
- Fontanet A., Tsehaynesh M., Amare D., et al. Age and sex specific HIV1 prevalence in the urban community setting of Addis Ababa, Ethiopia. AIDS Dec. 1998;12,315-322.
- 8. Child and Youth Affairs Organisation, Ethiopia, 1995.
- UNAIDS. Second generation surveillance 9. The HIV: next decade. 2000b, WHO/CDS/CSR/EDC/2000.5, Geneva, Switzerland.
- 10. UNAIDS. Trends in HIV incidence and prevalence: Natural course of the epidemic or results of behavioural change? June 1999, Geneva, Switzerland (UNAIDS/99.12E).
- 11. Wellings K., Cleland J. Surveys on sexual health. recent developments and future Sex Transm. Inf. 2001, directions. 77:238-241.

- NT. Constantine H., Serological diagnosis of HIV infection using oral fluid samples. WHO Bulletin
- 1994, 72:135-143. 13. King A., Marion SA., Cook D., et al. Accuracy of saliva test for HIV antibody.

12. Tamshiro

- J. Acquir. Immune Defic. Syndr. Hum. Retrovirol, 1995, Jun 1;9(2):172-5.
- 14. François-Gerard C., Thortensson Luton P., et al. Multi-center European evaluation of HIV testing on serum and
- saliva samples. Transfus. Clin. Biol.. 1996;3:89-98.
- 15. Malamud D. Oral diagnostic testing for detecting human immunodeficiency virus-1 antibodies: a technology whose time has Am. J. Med, 1997, Apr. 1; come. 102(4A):9-14.
- 16. Ettiegne-Traore V., Ghys PD., Maurice C., et al. Evaluation of an HIV saliva test for the detection of HIV-1 and HIV-2 antibodies in high-risk population in
 - Abidjan, Cote d' Ivoire. Int. J. STD. AIDS, 1998 Mar; 9(3):173-4. Nagashunmugam T. 17. Hodinka RL. Detection of human Malamud D.

immnodeficiency virus antibodies in oral

- Clinical and Diagnostic Lab. Immunology, 1998 July; 5(4):419-426. 18. Vetvik H., Grewal HM., Haugen IL.,
 - Ahren C., Haneberg B. Antibodies can be measured in air-dried samples of saliva and faeces. J. Immunol. Methods, 1998,

215:163-72.

South

MoPeA21141.

N. Stability of saliva for measuring HIV in the tropics. J. Trop. Pediatr. 1999 Oct; 45(5):296-9. 20. Holm-Hansen C., Haugen IL., Sannes M., et al. Antibodies to HIV can be detected

19. Thwe M., Frerichs RR., Ooky ZE., Eskes

- in air-dried saliva. Poster presentation on XIII World Aids Conference, Durban, 2000. [Abstract
- 21. Kebede D, Aklilu M, Sanders E. The HIV

- intercourse. J. Community and Applied Psychology; 1991, 1(2):117-132. 23. Holland J. Ramazanoglu C., Scott S.,
 - , Sharpe S., Thomson R. Risk, power and . possibility of pleasure: young women and safer sex. · AIDS Care, 1992, 4(3):273-
- 24. Lear D. Sexual communication in the age
- of AIDS: The construction of risk and trust among young adults. Soc. Sci. Med.,
- 1995, 41(9):1311-23. 25. Wight D. Impediments to
- heterosexual sex: a review of research with young people. AIDS Care, 1992, 4(1):11-21. 26. Hollway W. Gender difference and
 - production of subjectivity. In: Changing the subject: Psychology, social regulation and subjectivity. Edited by Henriques J. Hollway W. Urwin C. et al. Methuen,
- 27. Campbell AC. Male gender roles and sexuality: Implications for women's AIDS risk prevention. Soc. Sci. Med., 1995, 41(2):197-210. 28. Fulesang M. Lessons for life- past and

London, 1984:227-264.

- present modes of sexuality education in Tanzanian society. Soc. Sci. Med., 1997, 44(8):1245-1254.
- 29. UNAIDS, (1999). Young people and risktaking in sexual relations. In: Sex and the vouth: Contextual factors affecting risk for HIV/AIDS. A comparative analysis of

about STDs and HIV/AIDS in southern

- multi-site studies in developing countries. Geneva, Switzerland. 30. Negussie T. Sexuality of Out-of-School Youth and their Knowledge and Attitude
- Ethiopia. Ethiopian Journal of Health Development, 1998, 12(1):17-22. 31. Bohmer L., Kirumira KE. Socioand the sexual economic context of Ugandan out-of-school behaviour youth. Culture, Health and Sexuality,
- 2000, 2(3):269-285. 32. Mundigo IA. Review Symposium: Reconceptualising the role of men in the post-Cairo era. Culture. Health Sexuality, 2000; 2(3):323-337.
- epidemic and the state of its surveillance in Ethiopia. Ethiopian Medical Journal; 2000, 38: 283-301. 22. Ingham R. Woodcock A. Stenner K. Getting to know you...Young people's knowledge of their partners at first

Africa,