



# RESEARCH IN REPRODUCTIVE HEALTH IN KENYA:

## An Annotated Bibliography

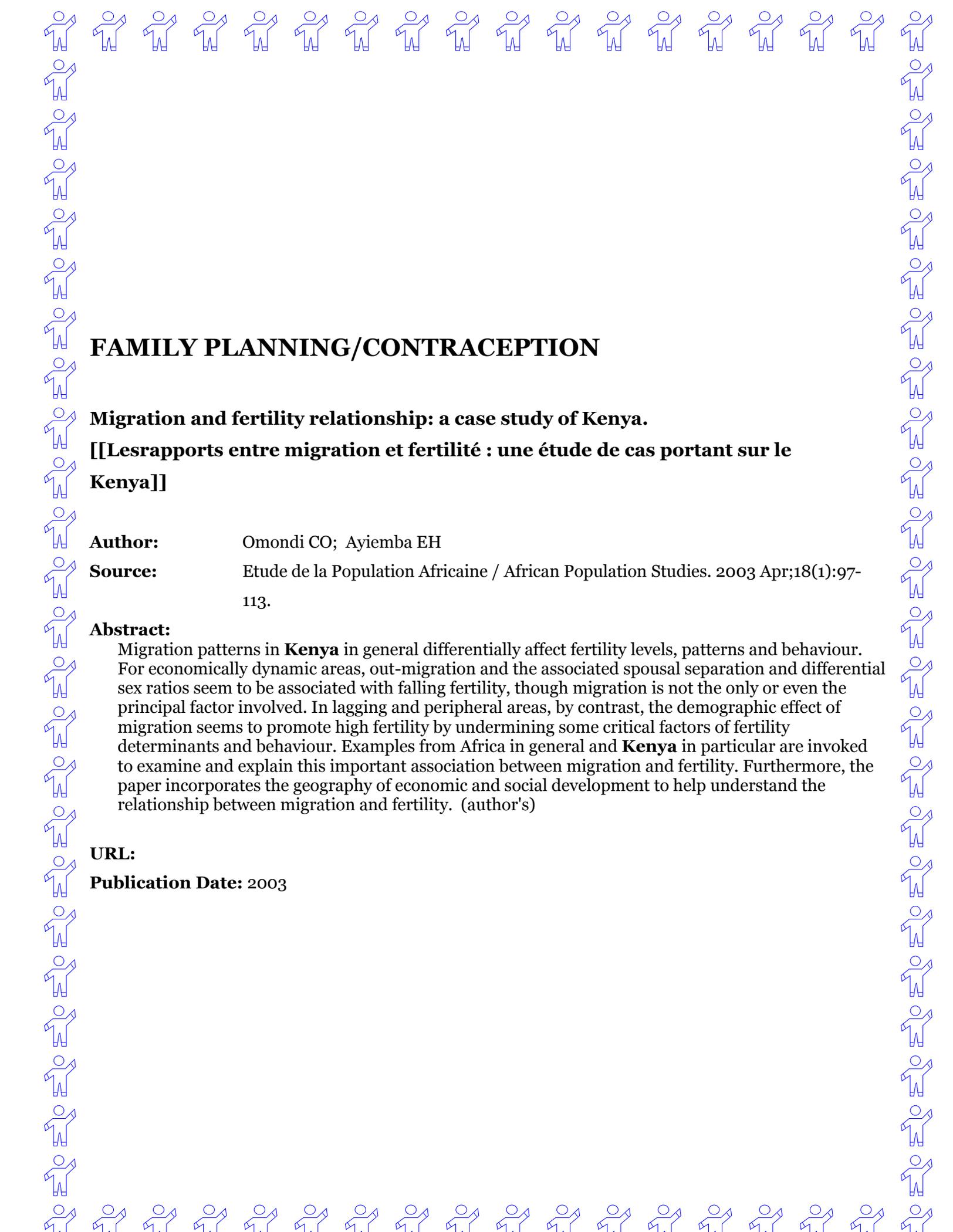
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## **FAMILY PLANNING/CONTRACEPTION**

**Migration and fertility relationship: a case study of Kenya.**

**[[Lesrapports entre migration et fertilité : une étude de cas portant sur le Kenya]]**

**Author:** Omondi CO; Ayiemba EH

**Source:** Etude de la Population Africaine / African Population Studies. 2003 Apr;18(1):97-113.

**Abstract:**

Migration patterns in **Kenya** in general differentially affect fertility levels, patterns and behaviour. For economically dynamic areas, out-migration and the associated spousal separation and differential sex ratios seem to be associated with falling fertility, though migration is not the only or even the principal factor involved. In lagging and peripheral areas, by contrast, the demographic effect of migration seems to promote high fertility by undermining some critical factors of fertility determinants and behaviour. Examples from Africa in general and **Kenya** in particular are invoked to examine and explain this important association between migration and fertility. Furthermore, the paper incorporates the geography of economic and social development to help understand the relationship between migration and fertility. (author's)

**URL:**

**Publication Date:** 2003

**The low acceptability and use of condoms within marriage: evidence from Nakuru district, Kenya.**

**[[Le faible niveau d'acceptation et d'utilisation des préservatifs dans le cadre d'une relation matrimoniale : témoignages recueillis dans la région de Nakuru, Kenya]]**

**Author:** Bauni EK; Jarabi BO

**Source:** Etude de la Population Africaine / African Population Studies. 2003 Apr;18(1):51-65.

**Abstract:**

In the last two decades, there has been an increase in the prevalence of contraceptive use in **Kenya**. While use of modern contraceptives has been successful in preventing unwanted pregnancy, it has not been so successful in preventing HIV/AIDS. The twin risk of unwanted pregnancy and HIV/AIDS infection is a central concern of reproductive health programmes. Condoms are considered an effective barrier method because they can be used for the dual purpose of protecting against pregnancy and disease transmission. But will married couples and those in stable sexual relations accept and use them? This paper attempts to answer this question using data from Nakuru district, **Kenya**. From both quantitative and qualitative results, this study concludes that, not only, is the use of condoms to prevent STIs including HIV low within married and stable sexual relations, but, also, future prospects of condom use in such relations is rather bleak. Apart from using a condom for preventing a pregnancy in sexual relations, the only other reason for using it is because one does not trust the sexual partner. Majority of married couples will therefore not ask their partners to use a condom because they dread straining or breaking their relationship. This fear is amplified by the religious view of condom use being a sin. The study calls for appropriate interventions which should aim at providing married couples and those in stable sexual relations (including men) with targeted counseling services to strengthen mutual trust, a feeling they all cherish. Such services will not only facilitate the prevention of HIV/AIDS but will also minimize intracouple tensions by enhancing mutual trust. (author's)

**URL:**

**Publication Date:** 2003

### **Provider resistance to advance provision of oral contraceptives in Africa.**

**Author:** Stanback J; Janowitz B

**Source:** Journal of Family Planning and Reproductive Health Care. 2003 Jan;29(1):35-36.

**Abstract:**

Context: In Africa, many new family planning clients are not menstruating at the time they present for services. Where pregnancy tests are unavailable, clients are often denied their method of choice and sent home to await menses. For pill clients, one obvious solution is "advance provision" of oral contraceptives for later use. However, this practice is rare in Africa. Objective: To assess the level of provider resistance to advance provision of oral contraceptives. Design: We added questions about advance provision of pills to five provider surveys in three African countries. We also used simulated clients in Ghana to assess provider resistance to the practice. Results: In **Kenya**, only 16% of providers thought it safe to give women oral contraceptives to be started at a later date. In Ghana and Senegal, fewer than 5% of providers mentioned advance provision as a way to manage non-menstruating pill clients, Conclusion: Training programmes and service delivery guidelines in developing countries should provide for advance provision of pills to appropriate clients. (author's)

**URL:**

**Publication Date:** 2003

### **Teenagers turning to contraceptives.**

**Author:** Gethin H

**Source:** East African Standard. 2003 Jun 2;:[2] p.

**Abstract:**

Teenagers can today walk into a pharmacy and ask for contraceptives without feeling uncomfortable. According to Ann Kirega of Pentapharm Chemist in Nairobi, teenagers frequent chemists to buy contraceptives. The youth mostly use condoms, emergency pills and norplant and birth control pills for the slightly older ones. "Half of Nairobi youth engage in sex before completing high school," Kirega observes. She says an approximate 20 emergency contraceptives are purchased by the youth everyday per chemist in Nairobi. "A lot of people as young as 14 come to purchase contraceptives, but majority range between 20 and 26 years of age," she says. The rate at which the contraceptives are purchased increases during holidays and weekends. (excerpt)

**URL:**

**Publication Date:** 2003

**Advance provision of oral contraceptives to family planning clients in Kenya.**

**Author:** Stanback J; Qureshi ZP; Sekkade-Kigonda C

**Source:** East African Medical Journal. 2002 May;79(5):257-258.

**Abstract:**

In sub-Saharan Africa, many family planning (FP) programs do not encourage advance provision of oral contraceptives to clients who must wait until menses to initiate pill use. Since some resistance to advance provision of pills is due to provider fears that the practice may be harmful, the authors conducted a prospective observational study in six FP clinics in Central and western **Kenya** in 1997 to compare pill-taking outcomes between 20 "advance provision" clients and 280 "standard clients". Study participants include women presented as new clients at Ministry of Health FP clinics. Researchers used prospective tracking to compare indicators of pill-taking success between non-menstruating clients given pills to carry home for later use and menstruating clients who began pill use immediately. Pill-taking outcomes such as side effects, compliance, knowledge, satisfaction, and a continuation proxy. Among clients returning for re-supply, those receiving advance provision of pills did no worse than, often had superior outcomes to, their counterparts who started taking pills immediately after the clinic visit. Advance provision of pills, already practiced worldwide, is safe and feasible. Explicit mention should be made of advance provision of pills in national FP guidance documents and training curricula in **Kenya** and throughout sub-Saharan Africa. (author's)

**URL:**

**Publication Date:** 2002

**Clients of female sex workers in Nyanza province, Kenya. A core group in STD / HIV transmission.**

**Author:** Voeten HA; Egesah OB; Ondiege MY; Varkevisser CM; Habbema JD

**Source:** Sexually Transmitted Diseases. 2002 Aug;29(8):444-452.

**Abstract:**

Commercial sex plays an important role in the spread of HIV and AIDS in Africa, especially in beginning epidemics. The goal was to study the sociodemographic characteristics and sexual risk behavior of clients of female sex workers (FSWs) in Nyanza province, **Kenya**. In the town of Kisumu and the rural districts Siaya and Bondo, male clients of FSWs were identified in bars, nightclubs, and lodges. An informal conversation was held with 64 clients. The majority of clients were between 25 and 36 years old, were married, and had extramarital partners in addition to FSWs. Most clients had visited several (3-5) different FSWs in the previous year, of whom at least 2 were in long-term, steady client-FSW relationships. Clients visited FSWs an average of once or twice a week. Most clients were not consistently using condoms with FSWs; the main reason given was that they "trusted" their steady FSWs. Commercial sex in Nyanza frequently involves multiple steady relationships instead of rapidly changing one-time contacts. Information, education, and communication campaigns aimed at risk reduction in commercial sex should promote condom use in steady FSW-client relationships. (author's)

**URL:**

**Publication Date:** 2002

**Population and health dynamics in Nairobi's informal settlements. Report of the Nairobi Cross sectional Slums Survey (NCSS) 2000.**

**Author:** African Population and Health Research Center

**Source:** Nairobi, Kenya, African Population and Health Research Center, 2002 Apr. xxi, 256 p.

**Abstract:**

This report documents demographic characteristics and health conditions of Nairobi City's slum residents based on a representative sample survey of urban informal settlement residents carried out from February to June 2000. The aims of the "Nairobi Cross-sectional Slums Survey (NCSS)" were to determine the magnitude of the general and health problems facing slum residents, and to compare the demographic and health profiles of slum residents to those of residents of other areas in **Kenya**. Modeled after the Demographic and Health Surveys (DHS), which have been conducted in **Kenya** and many other developing countries, the study was designed to provide comparable data to the 1998 **Kenya** DHS so that health indicators in the slums could be contrasted with estimates for Nairobi as a whole, rural areas, and other urban settlements. In addition to general indicators measured in the DHS, the NCSS obtained information on a range of other issues including general, health, and reproductive health problems faced by slum residents. (author's)

**URL:**

**Publication Date:** 2002

**Contraception should be available to non-menstruating women.**

**Author:** Best K

**Source:** Network. 2002;21(3):9.

**Abstract:**

Throughout the world, many family planning providers send women away without **contraception** unless they are menstruating. This practice arises from concerns that contraceptive use during pregnancy could harm a fetus. Turning non- menstruating women away puts women at risk for an unplanned pregnancy and discourages many from returning for **contraception** services. It is noted that some providers are reluctant to provide non-menstruating clients in advance with oral contraceptives (OCs) for use at the onset of menses. But a small Family Health International (FHI) study in **Kenya** revealed that 20 non-menstruating clients given pills to use at the onset of menses were no more likely to report problems due to pill-taking than 200 menstruating clients who were allowed to use the pill immediately. In addition, rather than induce menstrual bleeding in non-menstruating women through the use of high doses of OCs, as is commonly done in parts of Africa, it is recommended that providers determine pregnancy with the use of a simple, effective verbal checklist that is available from FHI at <http://www.fhi.org/en/fp/checklists/chkfstfpe/index.html>.

**URL:**

**Publication Date:** 2002

**Evaluation of an emergency contraception introduction project in Kenya.**

**Author:** Muia E; Blanchard K; Lukhando M; Olenja J; Liambila W

**Source:** Contraception. 2002 Oct;66(4):255-260.

**Abstract:**

The Consortium for Emergency **Contraception** introduced Postinor-2, a progestin-only EC product, into **Kenya** as part of its work to expand access to EC in developing countries. Introduction activities included registering Postinor-2, training providers, and developing provider and client materials. We surveyed family planning clients and providers to assess the impact of these activities. Knowledge of EC among clients and providers improved between the baseline and evaluation surveys. More women and providers had heard of EC and more providers were distributing it. Support for access to EC in **Kenya** also improved. The results indicate, though, that further information is needed. Only one-fifth of women at the evaluation had heard of EC and almost half of the women expressed concerns about EC at baseline and evaluation. More research and experience using novel ways of informing women about EC in Africa is needed, and information needs to address women's concerns. (author's)

**URL:**

**Publication Date:** 2002

**Using men as community-based distributors of condoms. [[Utilización de los hombres**

**Como distribuidores de preservativos basados en la comunidad] [Utilisation des hommes comme distributeurs de préservatifs basés dans la communauté]]**

**Author:** Population Council. Frontiers in Reproductive Health

**Source:** Washington, D.C., Population Council, Frontiers in Reproductive Health, 2002 Jan. [2] p. Program Brief Summary No. 2

**Abstract:**

This research summary highlights the key findings of reports that discuss the effectiveness of male agents. Three controlled operations research studies conducted in Congo, **Kenya**, and Peru suggest that the inclusion of male distributors in CBD programs should be considered an element of best practices.

**URL:**

**Publication Date:** 2002

### **Condom gap in sub-Saharan Africa.**

**Source:** Reproductive Health Matters. 2001 Nov;9(18):181.

**Abstract:**

An assessment of condom provision in sub-Saharan Africa found that provision by donor agencies has not increased but remained constant over the past 5 years at 400-500 million condoms per year. In addition, by 1999, countries were themselves purchasing a total of roughly 210 million condoms per year, amounting to a total of about 724 million condoms. This represents just 4.6 condoms per man aged 15-59 per year in sub-Saharan Africa. Distribution, however, is varied. In the highest providing countries--Botswana, South Africa, Zimbabwe, Togo, Congo and **Kenya**--the average was 17 condoms per man aged 15-59 per year. If this number was replicated through the region, the annual provision would need to rise to 2.65 billion condoms. This demonstrates a current 'condom gap' of approximately 1.9 billion condoms in countries with lower levels of distribution. This gap may be overestimated, however, as the commercial sector was omitted from the survey and some government or donor support could also have been missed. Alternatively, the estimated gap could be much larger as the need could easily exceed 17 condoms per man per year and population growth also needs to be taken into account. It would cost an estimated US \$47.5 million to supply enough condoms to fill the gap, although service delivery and promotional costs would raise this amount even more. As with any health programming initiative, meeting sub-Saharan Africa's need for condoms requires more concerted effort and resources. Condoms remain the mainstay of prevention, and access to condoms, especially among high-risk groups, is a crucial component of any country's response to the epidemic. Relative to the enormity of the HIV/AIDS pandemic in Africa, providing condoms is cheap and cost effective. (full text)

**URL:**

**Publication Date:** 2001

### **The density of social networks and fertility decisions: evidence from South Nyanza District, Kenya.**

**Author:** Kohler HP; Behrman JR; Watkins SC

**Source:** DEMOGRAPHY. 2001 Feb;38(1):43-58.

**Abstract:**

Demographers have argued increasingly that social interaction is an important mechanism for understanding fertility behavior. Yet it is still quite uncertain whether social learning or social influence is the dominant mechanism through which social networks affect individuals' contraceptive decisions. In this paper the authors argue that these mechanisms can be distinguished by analyzing the density of the social network and its interaction with the proportion of contraceptive users among network partners. The authors' analyses indicate that social learning is most relevant with high market activity; in regions with only modest market activity, however, social influence is the dominant means by which social networks affect women's contraceptive use. (author's)

**URL:**

**Publication Date:** 2001

**Disobedient distributors: street-level bureaucrats and would-be patrons in Community based family planning programs in rural Kenya.**

**Author:** Kaler A; Watkins SC

**Source:** Studies in Family Planning. 2001 Sep;32(3):254-69.

**Abstract:**

The implementation of social welfare programs, including family planning (FP) programs, is strongly conditioned by the needs, desires, and agendas of those who carry them out, known as "street-level bureaucrats". In this study, the strategies of community-based distribution (CBD) agents in western **Kenya** are examined in order to understand how they use their job as a means to achieve their own personal goals. The concept of clientelism, borrowed from the field of political science, can help to explain what the CBD agents are trying to achieve for themselves in their communities, at the same time as they promote the use of contraceptive pills and injections. CBD agents are concerned with building up their own stocks of prestige and respect from their community members, while avoiding blame for any possible negative outcomes of FP. (author's)

**URL:**

**Publication Date:** 2001

**Evaluation of a low-dose nonoxynol-9 gel for the prevention of sexually Transmitted diseases. A randomized clinical trial.**

**Author:** Richardson BA; Lavreys L; Martin HL Jr; Stevens CE; Ngugi E

**Source:** Sexually Transmitted Diseases. 2001 Jul;28(7):394-400.

**Abstract:**

Low-dose nonoxynol-9 products have a potential advantage of reduced toxicity. However, little is known about their efficacy in reducing the incidence of sexually transmitted diseases (STDs). The aim was to determine the effect that an intravaginal gel containing 52.5 mg of nonoxynol-9 has on the acquisition of STDs in a cohort of HIV-1-seronegative female sex workers in Mombasa, **Kenya**. A randomized double-blind placebo controlled trial was performed. In this study, 139 women were randomized to the nonoxynol-9 group and 139 to the placebo group. No significant differences were found between the two study groups in terms of safety outcomes and reported symptoms, except for a lower incidence of vaginal erythema in the nonoxynol-9 group. There was a significantly higher incidence of gonorrhea in the nonoxynol-9 group than in the placebo group. No significant differences were observed between the groups for acquisition of Candida, trichomonas, bacterial vaginosis, C. trachomatis, syphilis, or HIV-1, although the statistical power to detect differences for some of these STDs was limited. In this randomized placebo-controlled trial of a low-dose nonoxynol-9 gel, a significantly higher incidence of gonorrhea was found in the nonoxynol-9 group, but no significant differences between the groups were found for Candida, trichomonas, bacterial vaginosis, C. trachomatis, syphilis, or HIV-1. (author's)

**URL:**

**Publication Date:** 2001

**The evolution of the family planning programme and its role in influencing Fertility change in Kenya.**

**Author:** Toroitich-Ruto C

**Source:** Journal of Biosocial Science. 2001 Apr;33(2):245-60.

**Abstract:**

**Kenya** was one of the first sub-Saharan countries to enter the fertility transition, and analysts have suggested various explanations for this. This paper examines the growth in contraceptive availability in **Kenya** by looking at the **Kenya** family planning program and its association with the fertility transition. This is of critical programmatic importance because the fertility transition is not yet underway in many sub-Saharan countries. Policymakers will find the information from this study helpful in evaluating the efficacy of current programs and replicating the Kenyan program in areas where fertility decline has not yet occurred. For researchers, the study attempts to highlight some of the major factors driving **Kenya's** fertility decline, apart from the conventional arguments about social and economic development. (author's)

**URL:**

**Publication Date:** 2001

**Hormonal pregnancy tests in sub-Saharan Africa.**

**Author:** Stanback J; Raymond E

**Source:** American Journal of Public Health. 2001 Oct;91(10):1614-5.

**Abstract:**

Reproductive steroids were used until the mid-1970s to rule out or confirm pregnancy. However, in the advent of fast, accurate pregnancy tests, this practice has nearly disappeared. Researchers surveyed family planning (FP) providers in Ghana, **Kenya**, and Zambia from May to July 2000 to follow-up on anecdotal reports of the use of combined oral contraceptives to induce menses. Data collected in sub-Saharan Africa suggest that the practice of inducing menses to rule out pregnancy is still widespread. 13% of the Kenyan providers and 22% of the Ghanaian providers reported that they had induced menses in their clients in the previous 6 months. Use of this practice appears to be most common with postpartum FP clients whose lactational amenorrhea makes it difficult for providers to rule out pregnancy with certainty.

**URL:**

**Publication Date:** 2001

### **Is the intrauterine device appropriate contraception for HIV-1-infected women?**

**Author:** Morrison CS; Sekadde-Kigonda C; Sinei SK; Weiner DH; Kwok C

**Source:** BJOG. British Journal of Obstetrics and Gynaecology. 2001 Aug;108(8):784-90.

**Abstract:**

The aim was to assess whether the risk of complications is higher in HIV-1-infected women compared with non-infected women in the 2 years following insertion of the IUD. A prospective cohort study was conducted with 649 women (156 HIV-1-infected, 493 non-infected) in Nairobi, **Kenya**, who requested an IUD and met local eligibility criteria. The authors gathered information on complications related to the use of the IUD, including pelvic inflammatory disease, removals due to infection, pain or bleeding, expulsions, and pregnancies at 1, 4, and 24 months after insertion by study physicians masked to participants' HIV-1 status. Cox regression was used to estimate hazard ratios. Complications were identified in 94 of 636 women returning for follow up (14.7% of HIV-1-infected, 14.8% of non-infected). The incidence of pelvic inflammatory disease was rare in both infected (2.0%) and non-infected (0.4%) groups. Multivariate analyses suggested no association between HIV-1 infection and increased risk of overall complications (hazard ratio = 1.0; 95% confidence interval (CI) 0.6-1.6). Infection-related complications (e.g., any pelvic tenderness, removal for infection or pain) were also similar between groups (10.7% of HIV-1-infected, 8.8% of non-infected; P = 0.50), although there was a non-significant increase in infection-related complications among HIV-1-infected women with use of the IUD longer than 5 months (hazard ratio = 1.8; 95% CI 0.8-4.4). Neither overall nor infection-related complications differed by CD4 (immune) status. HIV-1-infected women often have a critical need for safe and effective **contraception**. The IUD may be an appropriate contraceptive method for HIV-1-infected women with ongoing access to medical services. (author's)

**URL:**

**Publication Date:** 2001

### **Lessons from a female condom community intervention trial in rural Kenya.**

**Author:** Family Health International [FHI]

**Source:** Research Triangle Park, North Carolina, FHI, 2001. [2] p. FHI Research Briefs on Female Condom No. 7

**Abstract:**

Family Health International conducted a community intervention trial and follow-up service delivery assessment in rural **Kenya** to address the impact of distributing female condom on sexually transmitted infection (STI) rates. The community intervention trial was conducted in six matched pairs of tea, coffee and flower plantations, each served by at least one primary health care clinic. Overall, the researchers concluded that the availability of the female condom did not reduce STI rates, relative to the reductions achieved by distribution of the male condom alone. It was found that female condom users generally liked the device, recognized its dual protection properties and appreciated its advantages over the male condom. Finally, it is suggested that when introducing the female condom in rural areas, program planners need to take into consideration the local culture and address the negative influence that traditional gender roles can have on female condom use.

**URL:**

**Publication Date:** 2001

### **Norplant expansion in Kenya.**

**Author:** Bradley JE; Dwyer J; Levin KJ

**Source:** African Journal of Reproductive Health / Revue Africaine de la Sante Reproductive.  
2001 Dec;5(3):89-98.

**Abstract:**

Norplant is a long-acting contraceptive that has been introduced into family planning programs all over the world. Its efficacy, safety, and acceptability in the introductory phases have been widely tested, and most studies point to the need for good provider training in insertion and removal; good client counseling on side effects, suitable client selection to limit early removal, and attention to client access to removal services. Some problems with the method in the developed world, and a belief that it is too costly for developing countries, have led to a waning of support by international donors. Few studies have examined how service delivery expansion in the developing world can minimize and address potential problems as well as maintain Norplant's cost-effective edge against other methods. The authors examine the expansion of Norplant services in **Kenya** between 1992 and 1996, specifically in relation to client access to services, removal issues, and cost. Well-supervised and careful expansion has resulted in quality services being provided at more than 70 sites in the country. Early removal is limited, removals seem to have posed few problems, and Norplant offers a welcome and cost-effective addition to the family planning method mix. (author's)

**URL:**

**Publication Date:** 2001

### **Revealing the "secrets" of emergency contraception. [[Revelación de los "secretos" de la anticoncepción de emergencia]]**

**Author:** Best K

**Source:** Network. 2001;21(1):13-5, 17.

**Abstract:**

Surveys conducted among a number of prospective users of emergency **contraception** (EC) in **Kenya**, Mexico, Indonesia and Sri Lanka revealed that majority of women who have a need for the services do not use it. Usually, the women simply do not know that it exists or, if they know, they do not know where to get it or how and when to use it. In this perspective, the Consortium for Emergency **Contraception** has set a goal of making emergency contraceptive pills a standard part of reproductive health care worldwide. Efforts of member organizations of the Consortium to introduce EC in settings as diverse as the countries mentioned above have been comprehensive. They include assessing user needs and service capabilities; building support for the method; selecting and sometimes registering products; developing distribution plans; informing prospective clients; training providers; and monitoring and evaluating EC services. Some of the specific techniques applied include media and educational campaigns, telephone hotlines, innovative marketing projects for women, and training for providers.

**URL:**

**Publication Date:**

### **Antibiotics before IUD insertion**

**Author:** Best K

**Source:** NETWORK. 2000;20(1):14.

**Abstract:**

In general, giving women antibiotics before IUD insertion has little impact on the rate of pelvic inflammatory disease (PID), although such antibiotic use may be justified in some populations with high sexually transmitted disease (STD) prevalence. Further research is needed to resolve the question of whether to offer antibiotics prophylactically to certain IUD recipients. Dr. David Grimes and Dr. Ken Schulz of Family Health International (FHI) recently analyzed four randomized, controlled trials of antibiotic use before IUD insertion that were conducted in **Kenya**, Nigeria, the US and Turkey. "A uniform finding of these trials," they wrote, "was the low risk of IUD-associated infection, with or without the use of antibiotic prophylaxis. However, in populations with a high prevalence of STDs, antibiotic prophylaxis may offer modest protection against PID". In the FHI-sponsored study in **Kenya**, where the prevalences of gonorrhea and chlamydial infections were high (3% and 11%, respectively, among all women in the trial), the rate of PID was about a third lower among women receiving 200 mg of doxycycline orally at the time of IUD insertion, compared with women receiving a placebo. This difference, however, was not statistically significant. In a similar FHI-sponsored trial in Nigeria, where the prevalences of gonorrhea and chlamydial infections were lower than in **Kenya** (1% and 7%, respectively, among all women in the trial), the rate of PID was no different among women receiving doxycycline than among those receiving placebo. The US and Turkish studies found no significant overall benefit of using the antibiotics doxycycline or azithromycin before IUD insertion to reduce risk of PID. (full text)

**URL:**

**Publication Date:** 2000

### **Empirical assessments of social networks, fertility and family planning programs: nonlinearities and their implications.**

**Author:** Kohler HP; Behrman JR; Watkins SC

**Source:** DEMOGRAPHIC RESEARCH. 2000 Sep 20;3:[37] p.

**Abstract:**

Empirical studies of the diffusion of modern methods of family planning have increasingly incorporated social interaction within nonlinear models such as logits. But they have not considered the full implications of these nonlinear specifications. This paper considers the implications of using nonlinear models in empirical analyses of the impact of family programs, modulated by social interaction, on reproductive behavior. Three implications of nonlinear models, in comparison with linear models, are developed. 1) With nonlinear models, there may be both low and high contraceptive-use equilibria (i.e., the ultimate level of use of modern family planning that a population can be expected to reach after the effects of a sustained change in a family planning program have worked through the population) rather than just one equilibrium as in linear models. If there are multiple equilibria, then one striking and important result is that a transitory large program effort may move a community from sustained low- to high-level contraceptive use. 2) With nonlinear models, the extent to which a social interaction multiplies program efforts depends on whether the community is at a low or high level of contraceptive use rather than being independent of the level of contraceptive use as in linear models. 3) With nonlinear models, intensified social interaction can retard or enhance the diffusion of family planning, in contrast to only enhancing diffusion as within linear models. To clarify these implications, for comparison a simple and more transparent linear model is also discussed. Illustrative estimates are presented of simple linear and nonlinear models for rural **Kenya** that demonstrate that some of these effects may be considerable. (author's)

**URL:**

**Publication Date:** 2000

**Gossypol blood levels and inhibition of spermatogenesis in men taking gossypol as a contraceptive. A multicenter, international, dose-finding study.**

**Author:** Coutinho EM; Athayde C; Atta G; Gu ZP; Chen ZW; Sang GW; Emuveyan E; Adekunle AO; Mati J; Otubu J

**Source:** Contraception. 2000 Jan;61(1):61-7.

**Abstract:**

The safety and efficacy of gossypol continues to be controversial. The aim of this study was to evaluate gossypol as a contraceptive pill for men at doses lower than those previously prescribed and in men from various ethnic origin. A total of 151 men from Brazil, Nigeria, **Kenya**, and China were divided into two groups. Both groups received 15 mg gossypol/day for 12 or 16 weeks to reach spermatogenesis suppression. Subjects were then randomized to either 7.5 or 10 mg/day for 40 weeks. In addition, 51 men were enrolled as a control group. In all, 81 subjects attained spermatogenesis suppression. Only 1 man discontinued treatment because of tiredness. Potassium levels fluctuated within the normal range. FSH increased consistently. Testicular volume decreased, but after discontinuation, values returned to levels not statistically different from admission. Of 19 subjects in the 7.5 mg/day dose group, 12 recovered sperm counts higher than 20 million/ml within 12 months of discontinuing gossypol. In the 10 mg/day group, sperm counts recovered in only 10 of 24 subjects. 8 of the 43 patients remained azoospermic 1 year after stopping gossypol. All men diagnosed with varicocele failed to reverse spermatogenesis suppression. Gossypol blood levels indicated that sperm suppression occurs independently of concentration, whereas spermatogenesis recovery appears to be concentration-dependent. Gossypol may become a medical alternative to surgical vasectomy when the delay in onset of infertility is acceptable. When taken for 1 year, gossypol causes no reduction in sexual desire or frequency of intercourse. The possibility of reversal, occurring in 51% of the men on this regimen within 1 year after stopping gossypol, is an advantage of this compound as compared with surgical sterilization in many parts of the world. (author's)

**URL:**

**Publication Date:** 2000

**Implications of health sector reform for contraceptive logistics: a preliminary assessment for sub Saharan Africa.**

**Author:** Bates J; Chandani Y; Crowley K; Durgavich J; Rao S

**Source:** Arlington, Virginia, John Snow [JSI], Family Planning Logistics Management [FPLM], 2000. xii, 132 p. USAID Contract No. CCP-C-00-95-00028-00

**Abstract:**

This study assessed the impact of health sector reform (HSR) programs on contraceptive logistics and product availability in four sub-Saharan countries: Zambia, Ghana, **Kenya**, and Tanzania. Using both quantitative and qualitative methods, the study analysis tested two hypotheses: 1) vertically, contraceptive logistics systems are effective means for improving service to clients by improving product availability; 2) health sector reform programs can disrupt contraceptive logistics operations. Overall, analysis results confirm that both hypotheses are valid. However, the relationships between HSR and public sector logistics operations are complex, since they are also associated with positive changes. In conclusion, 25 recommendations for policy-makers and health sector reform planners and implementers are presented. The purpose of these recommendations is to help governments and donors involved in developing HSR programs to plan the details of implementation with a specific focus on logistics.

**URL:**

**Publication Date:** 2000

**IUD not recommended for increased STD risk. Recent research, however, suggests some at risk of infection may be appropriate users.**

**Author:** Best K

**Source:** NETWORK. 2000;20(1):12-5.

**Abstract:**

IUDs are contraindicated or considered undesirable for women at risk of sexually transmitted diseases (STDs), including HIV. Yet, for some of these women and their partners, IUDs may be effective, safe, and desirable as long as the women have access to appropriate medical tests or services. WHO medical eligibility criteria for safe use of contraceptives state that insertion of a Copper T IUD in an HIV-infected woman or one who is at high risk of infection is not usually recommended. Moreover, safety concerns for HIV-positive women using IUDs include the fear that a woman's immune system may be weakened and unable to fight off infections, such as other STDs that could lead to pelvic inflammatory disease (PID). However, recent research conducted in **Kenya** by investigators at the University of Nairobi and Family Health International found that 156 HIV-infected women had no more overall complications at 1, 4 and 24 months following insertion than did 493 uninfected women. Overall complications were defined as PID; removal due to infection, bleeding or pain; and pregnancy.

**URL:**

**Publication Date:** 2000

**Kenya 1998: results from the Demographic and Health Survey.**

**Author:** Population Council; Macro International. Demographic and Health Surveys [DHS]

**Source:** Studies in Family Planning. 2000 Sep;31(3):252-6.

**Abstract:**

This document presents the results of the 1998 **Kenya** Demographic and Health Survey (DHS) conducted by the National Council for Population and Development and the Central Bureau of Statistics, Nairobi, **Kenya**, within the framework of the DHS Program of Macro International. Data for the nationally representative survey were collected from 8380 households and complete interviews were conducted with 7881 women aged 15-49 and 3407 men aged 15-54. The information collected included the following: 1) general characteristics of the population, 2) fertility, 3) fertility preferences, 4) current contraceptive use, 5) **contraception**, 6) marital and contraceptive status, 7) postpartum variables, 8) infant mortality, 9) health: disease prevention and treatment, and 10) nutritional status: anthropometric measures.

**URL:**

**Publication Date:** 2000

### **Is the intrauterine device appropriate contraception for HIV-1-infected women?**

**Author:** Morrison CS; Sekadde-Kigonda C; Sinei SK; Weiner DH; Kwok C

**Source:** BJOG. British Journal of Obstetrics and Gynaecology. 2001 Aug;108(8):784-90.

**Abstract:**

The aim was to assess whether the risk of complications is higher in HIV-1-infected women compared with non-infected women in the 2 years following insertion of the IUD. A prospective cohort study was conducted with 649 women (156 HIV-1-infected, 493 non-infected) in Nairobi, **Kenya**, who requested an IUD and met local eligibility criteria. The authors gathered information on complications related to the use of the IUD, including pelvic inflammatory disease, removals due to infection, pain or bleeding, expulsions, and pregnancies at 1, 4, and 24 months after insertion by study physicians masked to participants' HIV-1 status. Cox regression was used to estimate hazard ratios. Complications were identified in 94 of 636 women returning for follow up (14.7% of HIV-1-infected, 14.8% of non-infected). The incidence of pelvic inflammatory disease was rare in both infected (2.0%) and non-infected (0.4%) groups. Multivariate analyses suggested no association between **HIV-1 infection** and increased risk of overall complications (hazard ratio = 1.0; 95% confidence interval (CI) 0.6-1.6). Infection-related complications (e.g., any pelvic tenderness, removal for infection or pain) were also similar between groups (10.7% of HIV-1-infected, 8.8% of non-infected; P = 0.50), although there was a non-significant increase in infection-related complications among HIV-1-infected women with use of the IUD longer than 5 months (hazard ratio = 1.8; 95% CI 0.8-4.4). Neither overall nor infection-related complications differed by CD4 (immune) status. HIV-1-infected women often have a critical need for safe and effective contraception. The IUD may be an appropriate contraceptive method for HIV-1-infected women with ongoing access to medical services. (author's)

**URL:**

**Publication Date:** 2001

### **The role of MCH and family planning services in HIV / STD control: is integration the answer?**

**Author:** Lush L; Walt G; Cleland J; Mayhew S

**Source:** African Journal of Reproductive Health / Revue Africaine de la Sante Reproductive. 2001 Dec;5(3):29-46.

**Abstract:**

During the mid 1990s, high HIV and sexually transmitted disease (STD) prevalence led to calls for the integration of effective services with maternal and child health and family planning (MCH/FP) programs. There are advantages and disadvantages to integration, but little evidence existed to assess the practicalities of implementing this policy. Analysis of policy development for integration was conducted in Ghana, **Kenya**, South Africa, and Zambia. Semi- structured interviews were conducted with policymakers at national, provincial, and district levels and a survey of facilities was undertaken to identify gaps between policy intent and implementation. Significant advances had been made at the national level to formulate policies to integrate reproductive health and primary health care. However, barriers to implementation included entrenched HIV/STD and MCH/FP vertical programs; diverse demands on district managers and providers, such as on-going institutional reform; and conflicting objectives of international donors. Policymakers need to address conflicting objectives between the needs for vertical accountability and the reality of providing integrated services. More careful consideration of implementation is required at earlier stages of policy design. Increased consultation with those who are to implement and provide integrated services is recommended. (author's)

**URL:**

**Publication Date:** 2001

**Family planning and sexual behavior in the era of HIV / AIDS: the case of Nakuru district, Kenya.**

**Author:** Bauni EK; Jarabi BO

**Source:** STUDIES IN FAMILY PLANNING. 2000 Mar;31(1):69-80.

**Abstract:**

Recently the prevalence of contraceptive use has increased in **Kenya**. The twin risks of unwanted pregnancy and HIV/AIDS infection remain central concerns of reproductive health programs. However, the authors do not know how sexually active men and women perceive these risks, nor the strategies they consider appropriate to cope with these risks, nor the difficulties they face in trying to adopt appropriate sexual behaviors to minimize them. This study seeks to provide insights into perceptions, coping strategies, and constraints in the changing behavior of sexually active people in Nakuru District, **Kenya**. 12 focus-group discussions were conducted, the results of which show that people in the study area consider the two risks to be serious problems, but that they neither use condoms within marriage nor refuse their partners sex even if they perceive a risk of acquiring HIV. These findings call for serious efforts toward fostering behavioral change in this area. (author's)

**URL:**

**Publication Date:** 1980

**Implementing the integration of component services for reproductive health.**

**Author:** Mayhew SH; Lush L; Cleland J; Walt G

**Source:** Studies in Family Planning. 2000 Jun;31(2):151-62.

**Abstract:**

In the wake of the 1994 International Conference on Population and Development in Cairo, considerable activity has occurred in national policy-making for reproductive health and in research on the implementation of the Cairo Program of Action. This report considers how effectively a key component of the Cairo agenda--integration of the management of sexually transmitted infections, including HIV, with maternal and child health--family planning services--has been implemented. Quantitative and qualitative data are used to illuminate the difficulties faced by implementers of reproductive health programs in Ghana, **Kenya**, South Africa, and Zambia. In these countries, clear evidence is found of a critical need to re-examine the continuing focus on family planning services and the nature of the processes by which managers implement reproductive health policies. Implications of findings for policy and program direction are discussed. (author's)

**URL:**

**Publication Date:** 2000

**IUD not recommended for increased STD risk. Recent research, however, suggests some at risk of infection may be appropriate users.**

**Author:** Best K

**Source:** NETWORK. 2000;20(1):12-5.

**Abstract:**

IUDs are contraindicated or considered undesirable for women at risk of sexually transmitted diseases (STDs), including HIV. Yet, for some of these women and their partners, IUDs may be effective, safe, and desirable as long as the women have access to appropriate medical tests or services. WHO medical eligibility criteria for safe use of contraceptives state that insertion of a Copper T IUD in an HIV-infected woman or one who is at high risk of infection is not usually recommended. Moreover, safety concerns for HIV-positive women using IUDs include the fear that a woman's immune system may be weakened and unable to fight off infections, such as other STDs that could lead to pelvic inflammatory disease (PID). However, recent research conducted in **Kenya** by investigators at the University of Nairobi and Family Health International found that 156 HIV-infected women had no more overall complications at 1, 4 and 24 months following insertion than did 493 uninfected women. Overall complications were defined as PID; removal due to infection, bleeding or pain; and pregnancy.

**URL:**

**Publication Date:** 2000

**Population and health dynamics in Nairobi's informal settlements. Report of the Nairobi**

**Cross sectional Slums Survey (NCSS) 2000.**

**Author:** African Population and Health Research Center

**Source:** Nairobi, Kenya, African Population and Health Research Center, 2002 Apr. xxi, 256 p.

**Abstract:**

This report documents demographic characteristics and health conditions of Nairobi City's slum residents based on a representative sample survey of urban informal settlement residents carried out from February to June 2000. The aims of the "Nairobi Cross-sectional Slums Survey (NCSS)" were to determine the magnitude of the general and health problems facing slum residents, and to compare the demographic and health profiles of slum residents to those of residents of other areas in **Kenya**. Modeled after the Demographic and Health Surveys (DHS), which have been conducted in **Kenya** and many other developing countries, the study was designed to provide comparable data to the 1998 **Kenya** DHS so that health indicators in the slums could be contrasted with estimates for Nairobi as a whole, rural areas, and other urban settlements. In addition to general indicators measured in the DHS, the NCSS obtained information on a range of other issues including general, health, and reproductive health problems faced by slum residents. (author's)

**URL:**

**Publication Date:** 2000

### **Implementing the integration of component services for reproductive health.**

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**URL:**

**Publication Date:** 2000

### **Survey looks at service delivery in Kenya's health facilities.**

**Source:** DHS+ DIMENSIONS. 2000 Fall;2(2):4-5.

**Abstract:**

Findings from the 1999 **Kenya** Service Provision Assessment provide a comprehensive picture of the reproductive and child health services in the country. The national-level facility-based survey specifically examined the availability and quality of services for clients seeking services for family planning, sexually transmitted infections (STIs), or maternal and child health. Results revealed a contraceptive prevalence rate of almost 40% among currently married women. However, a considerable unmet need for family planning among married and unmarried women was also found. Poor compliance with infection control procedures and failure to discuss the full range of options to clients are among the areas of concern in **Kenya's** family planning services. While >90% of facilities offer treatment for STIs, only slightly more than half offer testing, and <60% offer HIV/AIDS services. Stockouts of the primary drugs, and lack of training among health providers are major problems. Antenatal care is provided by 86% of facilities, delivery care is provided in one-third. However, most facilities are not prepared to deal with obstetric complications, and training of maternal and newborn care is lacking. Finally, while >85% facilities offer immunization services, the survey also revealed several limitations in the delivery of child health services including the quality of sick-child consultations and treatment.

**URL:**

**Publication Date:** 2000

**Adolescent fertility and reproductive health in four sub-Saharan African countries. [[Fertilité Des adolescents et santé reproductive dans quatre pays africain sub-sahariens]]**

**Author:** Tawiah EO

**Source:** Etude de la Population Africaine / African Population Studies. 2002 Oct;17(2):81-98.

**Abstract:**

Using Demographic and Health Survey (DHS) data for Ghana (1998), **Kenya** (1998), Tanzania (1996), and Zambia (1996), the paper has examined **adolescent** fertility and reproductive health in the four sub-Saharan African countries. **Adolescent** fertility is highest in Zambia and lowest in Ghana. Age specific fertility rate for **adolescent** females (15-19 years) ranges from 90% Ghanaian female **adolescents** to 158% Zambia **adolescent** females. **Adolescent** females' contribution to total births ranges from 10% in Ghana to 13% in Zambia. At age 19 years, the percentages of **adolescent** females who have started childbearing were 61 in Tanzania, 59 in Zambia, 45 in **Kenya** and 32 in Ghana. In Ghana and Tanzania, a larger percentage of **adolescent** females than males have had sexual intercourse, while the reverse holds for **Kenya** and Zambia. Contraceptive knowledge is high but its use is low among **adolescent** males and females. **Adolescent** females have low levels of knowledge about some aspects of reproductive health. The proportions of **adolescent** females who correctly mentioned that a woman who is most likely to conceive in the middle of ovulatory cycle were 6.9% in Tanzania, 7.4% in Zambia and 13.4% in **Kenya**. The knowledge base in reproductive physiology of in and out-of-school **adolescents** should be strengthened. Sexuality education and other emerging issues such as human rights, harmful practices and violence should be integrated into population education and reproductive health programmes. (author's)

**URL:**

**Publication Date:** 2002

**Population and health dynamics in Nairobi's informal settlements. Report of the Nairobi Cross sectional Slums Survey (NCSS) 2000.**

**Author:** African Population and Health Research Center

**Source:** Nairobi, Kenya, African Population and Health Research Center, 2002 Apr. xxi, 256 p.

**Abstract:**

This report documents demographic characteristics and health conditions of Nairobi City's slum residents based on a representative sample survey of urban informal settlement residents carried out from February to June 2000. The aims of the "Nairobi Cross-sectional Slums Survey (NCSS)" were to determine the magnitude of the general and health problems facing slum residents, and to compare the demographic and health profiles of slum residents to those of residents of other areas in **Kenya**. Modeled after the Demographic and Health Surveys (DHS), which have been conducted in **Kenya** and many other developing countries, the study was designed to provide comparable data to the 1998 **Kenya** DHS so that health indicators in the slums could be contrasted with estimates for Nairobi as a whole, rural areas, and other urban settlements. In addition to general indicators measured in the DHS, the NCSS obtained information on a range of other issues including general, health, and reproductive health problems faced by slum residents. (author's)

**URL:**

**Publication Date:** 2002

**Socio-economic status, fertility preferences and contraceptive change in sub Saharan Africa.**

**Author:** Feyisetan B; Casterline JB

**Source:** Etude de la Population Africaine / African Population Studies. 2000 Dec;15(2):1-24.

**Abstract:**

Fertility has declined in several sub-Saharan African countries since the 1970s, primarily (but not exclusively) as a result of the increased practice of contraception. Although this is highly probable, there is considerable uncertainty about the forces underlying the increase in contraception. Among the unresolved issues are the causal contributions of changes in fertility desires and of changes in socio-economic factors such as schooling and rural-urban residence. In this paper, we analyze the sources of increase in contraceptive prevalence in seven sub-Saharan African countries in the period from the 1970s to the 1990s, using World Fertility Survey and Demographic and Health Survey data. Using a regression decomposition and change in prevalence is attributed to change in explanatory variables (composition component) and change in rates of contraceptive use within subgroups defined by the explanatory variables (rates component). The explanatory variables consist of two fertility preference indicators and measures of schooling (female and male), type of place of residence, and occupation. The rates component dominates in six countries - Cote d'Ivoire, **Kenya**, Senegal, Tanzania, Uganda and Zambia - whereas in Ghana the composition component dominates. Some of the effects of the socioeconomic variables operate through changes **infertility** preferences, and after taking these indirect effects into account, the independent contribution of changing preferences falls far short of the contribution of the socio-economic variables in all seven countries. The results provide some support to the argument that a precondition for fertility decline in Africa is a transformation of fertility demand, and that changes in socio-economic factors (such as schooling and urban-rural residence) are likely to be driving forces. But the analysis also reveals that significant increases in contraceptive prevalence can occur through satisfying existing demand for fertility control, in the absence of changes in either fertility desires or major socio-economic factors. These findings lend support to the broad-based social development policy as well as more focused reproductive health programmes. (author's)

**URL:**

**Publication Date:** 2000

## **SAFE MOTHER HOOD**

### **Behavioural effects of infant and child mortality on fertility in Kenya.**

**Author:** Kimani M

**Source:** African Journal of Reproductive Health / Revue Africaine de la Sante Reproductive.  
2001 Dec;5(3):63-72.

**Abstract:**

This paper analyzes the behavioral effects of infant and child mortality on birth intervals in **Kenya**. Analyzing the behavioral effects of infant and child mortality on fertility independent of its biological effects has been considered a difficult task. In this paper, a procedure for analyzing these effects separately is developed and applied to the 1989 **Kenya** Demographic and Health Survey data. The results of the analysis suggests that women in **Kenya** adopt various strategies such as curtailing the duration of breast-feeding, increasing the frequency of coitus, and to a lesser extent use of **contraception** in order to replace infant or children who have died or to insure against those who are likely to die. These findings suggest the existence of behavioral effects of infant and child mortality on fertility in **Kenya**. (author's)

**URL:**

**Publication Date:** 2001

### **Gap between preferred and actual birth intervals in sub-Saharan Africa :**

**Implications for fertility and child health. [[Ecart entre espacement préféré et espacement réel des naissances en Afrique sub saharienne : implications pour la fertilité et la santé de l'enfant]]**

**Author:** Rafalimanana H; Westoff CF

**Source:** Calverton, Maryland, ORC Macro, MEASURE DHS+, 2001 Mar. vii, 21 p. DHS  
Analytical Studies No. 2

**Abstract:**

This paper reports the findings of the Demographic and Health Survey analytical studies carried out in 20 sub-Saharan countries. This study compares women's actual lengths of birth intervals to preferred lengths and assesses the implications of the difference for selected demographic and health indicators. These studies have collected extensive information on fertility, fertility preferences, child mortality, and maternal and child health indicators from nationally representative samples of women of reproductive age (15-49 years old). In general, the results indicate that among the sub-Saharan countries studied, birth spacing preferences have potential demographic and health implications in Comoros, Ghana, **Kenya** Rwanda, and Zimbabwe, compared with women in the other 15 countries studied. The major characteristic shared by the women in these five countries is the sharp decline in fertility, which has been associated with significant increases in the use of **contraception**. In the context of the covariates of preferred birth interval lengths, women who know, approve of, discuss, and use family planning prefer longer intervals. Moreover, the educational attainment of husbands matters more than that of female respondents in determining spacing references. The policy and program relevance of these results is discussed.

**URL:**

**Publication Date:** 2001

## **A checklist for ruling out pregnancy in women seeking contraception in Kenya.**

**Source:** Reproductive Health Matters. 2000 May;8(15):180.

**Abstract:**

In **Kenya**, about one-third of new family planning clients are turned away without receiving services because they are not menstruating and therefore might be pregnant. A simple checklist for ruling out pregnancy was developed and tested with 1852 non-menstruating clients, and the results were compared with those from dipstick pregnancy tests. The accuracy of the checklist in ruling out pregnancy was >99%. Its use could increase the number of clients who are offered **contraception** at first visit. The questions asked are: 1) Have you given birth in the past 4 weeks? 2) Are you <6 months postpartum and fully breast-feeding and free from menstrual bleeding since you had your child? 3) Did your last menstrual period start within the past 7 days? 4) Have you had a miscarriage or an abortion in the past 7 days? 5) Have you abstained from sexual intercourse since your last menses? 6) Have you been using a reliable contraceptive method consistently and correctly? If a woman answers "no" to all of the questions, pregnancy cannot be ruled out. She should await menses or have a pregnancy test. If she answers "yes" to any of the questions and is free of signs and symptoms of pregnancy, she can be provided with her method of choice. (full text, modified)

**URL:**

**Publication Date:** 2000

## **The effect of dual infection with HIV and malaria on pregnancy outcome in western**

### **Kenya.**

**Author:** Ayisi JG; van Eijk AM; ter Kuile FO; Kolczak MS; Otieno JA

**Source:** AIDS. 2003 Mar 7;17(4):585-594.

**Abstract:**

**Objective:** To determine the effect of dual infection with HIV and malaria on birth outcomes and maternal anaemia among women delivering at a large public hospital in Kisumu, western **Kenya**.  
**Subjects and methods:** Data on obstetric and neonatal characteristics, maternal and placental parasitaemia, and postpartum haemoglobin levels were collected from women enrolled in a cohort study of the interaction between malaria and HIV during pregnancy. **Results:** Between 1996 and 1999, data were available from 2466 singleton deliveries. The maternal HIV seroprevalence was 24.3%, and at delivery 22.0% of the women had evidence of malaria. Low birthweight, preterm delivery (PTD), intrauterine growth retardation (IUGR) and maternal anaemia (haemoglobin, <8 g/dl) occurred in 4.6, 6.7, 9.8 and 13.8% of deliveries, respectively. Maternal HIV, in the absence of malaria, was associated with a 99 g (95% CI 52-145) reduction in mean birthweight among all gravidae. Malaria was associated with both IUGR and PTD, resulting in a reduction in mean birthweight of 145 g (95% CI 82-209) among HIV-seronegative and 206 g (95% CI 115-298) among HIV-seropositive primigravidae, but not among multigravidae. Both HIV and malaria were significant risk factors for postpartum maternal anaemia, and HIV-seropositive women with malaria were twice as likely to have anaemia than HIV-seronegative women with or without malaria.  
**Conclusion:** Women with dual infection are at particular risk of adverse birth outcomes. In areas with a moderate or high prevalence of HIV and malaria, all pregnant women should be the focus of malaria and anaemia control efforts to improve birth outcomes. (author's)

**URL:**

**Publication Date:** 2003

**The effect of rapid HIV-1 testing on uptake of perinatal HIV-1 interventions: a randomized clinical trial.**

**Author:** Malonza IM; Richardson BA; Kreiss JK; Bwayo JJ; Stewart GC

**Source:** AIDS. 2003 Jan 3;17(1):113-118.

**Abstract:**

Objective: We examined whether HIV-1 testing using a rapid assay increases the proportion of pregnant women obtaining HIV-1 results and the uptake of perinatal HIV-1 interventions. Methods: Pregnant women attending public health clinics in Nairobi were offered voluntary counselling and testing for HIV-1. Consenting women were randomly assigned to receive either rapid or conventional HIV-1 testing. Women randomly assigned to rapid testing were allowed to receive same-day results or to return later. The results for women randomly assigned to conventional enzyme-linked immunosorbent assay (ELISA) testing were available after 7 days. HIV-1-infected women were referred for antiretroviral prophylaxis to prevent mother-to-child transmission of HIV-1. Results: Among 1282 women offered voluntary HIV-1 testing and counselling, 1249 accepted testing, of whom 627 were randomly assigned to rapid testing and 622 to conventional testing. The median duration between testing and obtaining results was 0 days for women who received rapid testing compared with 11 days for women who received conventional testing. The percentage receiving HIV-1 results was significantly higher among women who received rapid testing compared with conventional testing. Of 161 HIV-1-seropositive women, only 24 received antiretroviral prophylaxis. The uptake of perinatal HIV-1 interventions did not differ between HIV-1-seropositive women randomly assigned to rapid testing or conventional ELISA testing. Conclusion: Rapid HIV-1 testing significantly increased the proportion of women receiving HIV-1 results, which is important for sexual and perinatal HIV-1 prevention. The challenge remains to improve the uptake of perinatal HIV-1 interventions among HIV-1-seropositive women. (author's)

**URL:**

**Publication Date:** 2003

**HIV increases the risk of malaria in women of all gravidities in Kisumu, Kenya.**

**Author:** van Eijk AM; Ayisi JG; ter Kuile FO; Misore AO; Otieno JA

**Source:** AIDS. 2003 Mar 7;17(4):595-603.

**Abstract:**

Objective: To study the importance of **HIV infection** for malaria in pregnancy in Kisumu, **Kenya**. Subjects and methods: Healthy women with an uncomplicated pregnancy of 32 weeks or more attending the prenatal clinic in the Provincial Hospital between June 1996 and March 1999 were tested for HIV and malaria after consent had been obtained. For participating women who delivered in the same hospital, a blood smear of the mother and the placenta were obtained. Results: In the third trimester, 5093 women consented to testing; the prevalence of malaria and HIV was 20.1 and 24.9%, respectively. Among the 2502 screened women who delivered in the hospital, the prevalence of HIV, peripheral parasitaemia and placental malaria was 24.5, 15.2, and 19.0%, respectively. Compared with HIV-seronegative women, HIV-seropositive women were more likely to be parasitaemic, to have higher parasite densities, and to be febrile when parasitaemic. Placental **infections** in HIV-seropositive women were more likely to be chronic, as indicated by the presence of moderate to heavy pigment depositions. When adjusted by age, the typical gravidity-specific pattern of malaria in pregnancy disappeared in HIV-seropositive women; HIV-seropositive primigravidae had a similar risk of malaria as HIV-seropositive multigravidae. The excess malaria attributable to HIV in the third trimester increased from 34.6% among HIV-seropositive primigravidae, to 41.5% among HIV-seropositive secundigravidae, and 50.7% among HIV-seropositive gravidae with three or more pregnancies. Conclusion: **HIV infection** alters patterns of malaria in pregnant women; in areas with both infections, all pregnant women should use malaria prevention. (author's)

**URL:**

**Publication Date:** 2003

**Labour complications remain the most important risk factors for perinatal mortality in rural Kenya.**

**Author:** Weiner R; Ronsmans C; Dorman E; Jilo H; Muhoro A

**Source:** Bulletin of the World Health Organization. 2003 Aug;81(8):1-6.

**Abstract:**

Objectives: To identify and quantify risk factors for perinatal mortality in a Kenyan district hospital and to assess the proportion of perinatal deaths attributable to labour complications, maternal undernutrition, malaria, anaemia and human immunodeficiency virus (HIV). Methods: A cross-sectional study of 910 births was conducted between January 1996 and July 1997 and risk factors for perinatal mortality were analysed. Findings: The perinatal mortality rate was 118 per 1000 births. Complications of labour such as haemorrhage, premature rupture of membranes/premature labour, and obstructed labour/ malpresentation increased the risk of death between 8- and 62-fold, and 53% of all perinatal deaths were attributable to labour complications. Placental malaria and maternal HIV, on the other hand, were not associated with perinatal mortality. Conclusions: Greater attention needs to be given to the quality of obstetric care provided in the rural district-hospital setting. (author's)

**URL:**

**Publication Date:** 2003

**Mother-to-child HIV transmission in resource poor settings: how to improve coverage?**

**Author:** Temmerman M; Quaghebeur A; Mwanyumba F; Mandaliya K

**Source:** AIDS. 2003 May 23;17(8):1239-1242.

**Abstract:**

Objectives: To review coverage of the current nevirapine prevention model in Coast Provincial General Hospital (CPGH) in Mombasa, **Kenya**, and to reflect on alternative models to reduce mother-to-child transmission (MTCT) of HIV. Methods: At the antenatal clinic, health information is provided, followed by pre-test HIV voluntary counselling and testing (VCT). Because many women deliver at home, HIV-infected women are provided with a tablet of 200 mg nevirapine for themselves, and with 0.6 ml (6 mg) nevirapine in a luer lock syringe for the baby. Data on coverage are provided from antenatal records and delivery registers. Results: Out of 3564 first-visit pregnant women receiving health education, 2516 were counselled (71%) and 2483 were tested (97%); 348 were HIV positive (14%), and 106 women took nevirapine in labour, resulting in an overall coverage rate of 20%. In the same period, approximately 6000 women gave birth in CPGH, of whom 21% had attended a facility with VCT services. Assuming an overall HIV prevalence of 14%, 840 mother-infant pairs could have received a preventative intervention with a hospital policy of antepartum as well as intrapartum testing and treatment in place. Conclusion: The coverage of perinatal MTCT was low as a result of a variety of programme elements requiring urgent improvement at different levels. Alternative models, including intrapartum testing, should be considered as a safety net for women without access to VCT before delivery, and recommendations for nevirapine should be considered in the light of home deliveries. (author's)

**URL:**

**Publication Date:** 2003

**Combination of HIV / malaria increases complications during pregnancy.**

**Author:** Nederlandse Organisatie voor Wetenschappelijk Onderzoek

**Source:** [The Hague], Netherlands, Nederlandse Organisatie voor Wetenschappelijk Onderzoek, 2002 Oct 23. 2 p.

**Abstract:**

Women with a combined HIV/malaria infection more frequently experience complications during pregnancy than healthy women. This is revealed in research from **Kenya**. However, to their surprise the researchers established that HIV-infected mothers with a mild malaria infection less frequently transmit the **HIV infection** to their children than HIV-infected mothers without malaria. (author's)

**URL:**

**Publication Date:** 2002

**Title:** Does breastfeeding affect the health of HIV-positive women? Studies disagree.

**Author:** Remez L

**Source:** International Family Planning Perspectives. 2002 Mar;28(1):50-2.

**Abstract:**

This article highlights two studies with contradictory findings on whether the decision to breastfeed affects the health of HIV-infected women. In the Kenyan study, a secondary analysis of data was conducted from 397 seropositive new mothers who were randomly assigned to breastfeeding. It was found that the women were three times as likely to die within 24 months of delivery as were those assigned to formula-feed. Moreover, infants born to HIV-infected women who died had an elevated risk of dying before the age of 2 years, even after the researchers controlled for whether the infant was infected with HIV. In a similar study conducted in Durban, South Africa, it was noted that no significant difference at the univariate level in mortality by 15 months postpartum between women who choose to breastfeed and those who elected to give their infant formula. Furthermore, multivariate logistic regression found no significant difference in morbidity, even after baseline CD4 counts and hemoglobin levels were controlled for.

**URL:**

**Publication Date:** 2002

**Feeding method does not affect mortality of infants of HIV-infected women.**

**Author:** Rosenberg J

**Source:** International Family Planning Perspectives. 2002 Jun;28(2):129-30.

**Abstract:**

A sample of HIV-infected women were recruited from antenatal clinics in Nairobi, **Kenya**, between 1992 and 1998 to compare the effects of breastfeeding and formula-feeding on mortality, morbidity, and nutrition among infants. 425 HIV- infected women participated in the study: 212 were assigned to breastfeed and 213 to formula-feed. Overall, the study showed that of infants born to HIV-infected women, those assigned to be formula-fed were no more likely than those assigned to be breastfed to die before their second birthday, even when infection with HIV was taken into account. However, HIV-free survival at 2 years was significantly more frequent among infants in the formula-fed group than among those in the breastfeeding group. It notes that diarrhea, pneumonia and malnutrition were the most common causes of death, but none occurred more often in one feeding group than in the other. The researchers conclude that the use of formula to prevent HIV-1 transmission can be a viable option even in resource poor settings, if maternal education, clean water, a supply of formula and access to health care are available.

**URL:**

**Publication Date:**

**Immunity to placental malaria. IV. Placental malaria is associated with up regulation of Macrophage migration inhibitory factor in intervillous blood.**

**Author:** Chaisavaneeyakorn S; Moore JM; Othoro C; Otieno J; Chaiyaraj SC; Shi YP

**Source:** Journal of Infectious Diseases. 2002 Nov 1;186(9):1371-1375.

**Abstract:**

Macrophage migration inhibitory factor (MIF) may play a role in immune responses to malaria during pregnancy by virtue of its ability to activate macrophages and to overcome the immunosuppressive effect of glucocorticoids. The present study investigated whether plasma MIF levels are altered in pregnant women with placental malaria (PM) and/or human immunodeficiency virus (**HIV infection**). For the first time it is demonstrated that MIF levels in the intervillous blood (IVB) plasma were significantly elevated, compared with that in both peripheral plasma (~500-fold) and cord plasma (4.6-fold;  $P < .01$ ). IVB mononuclear cells also produced significantly higher levels of MIF, compared with that of peripheral blood mononuclear cells. PM was associated with increased levels of MIF in the IVB plasma ( $P < .02$ ). Primigravid and secundigravid women had significantly higher levels of MIF in their IVB plasma than did multigravid women ( $P < .05$ ). **HIV infection** did not significantly alter MIF levels in any site examined. (author's)

**URL:**

**Publication Date:**

**Integrating HIV prevention and care into maternal and child health care settings: Lessons learned from Horizons studies, July 23-27, 2001, Maasai Mara and Nairobi, Kenya. Consultation report.**

**Author:** Rutenberg N; Kalibala S; Mwai C; Rosen J

**Source:** Washington, D.C., Population Council, Horizons, 2002 Feb. 41 p. USAID Award No. HRN-A-00-97-00012-00

**Abstract:**

Horizons, a global operations research program based in the US, has undertaken operations research to examine the integration of HIV-related care in the maternal-child health (MCH) setting in several African countries. This was conducted in response to the continuing problem of inadequate access to high- quality HIV/AIDS prevention and care services among many women in the developing world. At a workshop held in **Kenya** in July 2001, participants discussed the experience and formulated practical strategies for improving this integration. This report summarizes that discussion according to seven key program components: training and motivation to improve the performance of health workers, supervision of HIV services and quality assurance of HIV testing, caring for mothers, voluntary counseling and testing services, counseling on infant feeding, provision of antiretroviral drugs to reduce mother-to-child transmission, and involving male partners. Overall, it is noted that success in integrating elements of HIV-related care into the MCH setting has been mixed, and many challenges remain before such care becomes routine. Obstacles include the shortcomings of health systems, pervasive stigma attached to HIV-infected women, and varied nature of HIV-related services. Several strategies to overcome these barriers are cited.

**URL:**

**Publication Date:** 2002

**Kenya. Linking family planning with postabortion care.**

**Author:** University of North Carolina at Chapel Hill. School of Medicine. Program for International Training in Health [INTRAH]. PRIME Project

**Source:** Chapel Hill, North Carolina, INTRAH, PRIME, 2002 Aug 20. [2] p. Prime Voices No. 1; USAID Grant No. HRN-A-00-99-00022-00

**Abstract:**

For Milka Mathea, a nurse-midwife at the Jamii Medical Clinic in Namanga, **Kenya**, offering family planning counseling and methods to the women she treats for complications of unsafe or incomplete abortion has become a normal part of interacting with her clients. By providing family planning services she can help women prevent future unwanted pregnancies, practice birth spacing, and reduce the risk of maternal mortality and morbidity. Mathea is one of 230 private-sector nurse-midwives trained in postabortion care (PAC) by the PRIME II Project since 1999. Working in primary-level clinics, health centers and dispensaries in three of **Kenya's** seven provinces, these nurse-midwives reach underserved Kenyan women from rural marketplaces to the densely populated outskirts of Nairobi. Sponsored by **Kenya's** Ministry of Health, the program is funded by USAID and supported by the Nursing Council of **Kenya**, which licenses the nurse-midwives, and the National Nursing Association of **Kenya**, a professional organization. (excerpt)

**URL:**

**Publication Date:** 2002

**Maternal immune responses and risk of infant infection with HIV-1 after a short course**

**zidovudine in a cohort of HIV-1 infected pregnant women in rural Kenya.**

**Author:** Makokha EP; Songok EM; Orago AA; Koech DK; Chemtai AK

**Source:** East African Medical Journal. 2002 Nov;79(11):567-573.

**Abstract:**

Objective: To investigate the effects of short-course nucleoside reverse transcriptase inhibitor (Zidovudine, ZDW/AZT) on maternal immune responses and risk of infant infection with HIV-1 among rural-based mothers in western **Kenya**. Design: A prospective cohort study involving HIV-1 seropositive pregnant mothers and their infants. Subjects: One hundred and seven HIV-1 seropositive asymptomatic pregnant women and their infants. Methods: After informed consent, the women were enrolled at gestation age between 16-24 weeks. For cultural and economic reasons, all mothers were allowed to breast feed their infants. Short-course antepartum regime of AZT was administered to all mothers starting at 36 weeks gestation until start of labour. Maternal absolute CD4+ T cell subset assays were performed before 3rd trimester (about 36 weeks gestation) and after a 4-week therapy of AZT (at least one month post-nuptially). Infant HIV-1 status was determined by HIV-1 DNA polymerase chain reaction (PCR) on samples sequentially taken at 1, 2, 3, 4, 6 and 9 months and confirmed by serology at 18 months of age. Interventions: Antepartum short-course orally administered AZT: 300mg twice-daily starting at 36 weeks gestation until start of labour, 300mg at labour onset and 300mg every three hours during labour until delivery. Main Outcome Measures: Maternal CD4+ T cell counts before and after AZT treatment. Determination of infant **HIV-1 infection** status. Results: Among 107 women sampled, only 59 received full dose of AZT and thus qualified for present analysis. Of these, 12 infected their children with HIV, while 47 did not. Comparison of CD4+ T cells before and after AZT treatment scored a significant rise in all mothers (P = 0.01). This increase in CD4+ T cells was not significant among mothers who infected their infants with HIV-1 (P = 0.474). However, a significant rise in CD4+ T cells following AZT therapy was observed only in mothers who did not transmit HIV-1 to their infants (P=0.014). Conclusion: These data suggest that a rise in the CD4+ T cell counts following short AZT regimen, now widely in use in resource-weak countries, may be evidence of the active suppression of the replication of HIV. However, further studies to examine the multi-factorial effect of CD4+ lymphocytes and pregnancy on MTCT of HIV need to be carried out to help fully explain the effect of AZT on immune response and whether the CD4+T cell count can be used as a true test of immunological normalisation during antiretroviral therapy. (author's)

**URL:**

**Publication Date:** 2002

### **Placental inflammation and perinatal transmission of HIV-1.**

**Author:** Mwanyumba F; Gaillard P; Inion I; Verhofstede C; Claeys P

**Source:** JAIDS. Journal of Acquired Immune Deficiency Syndromes. 2002 Mar 1;29(3):262-9.

**Abstract:**

The effect of placental membrane inflammation on mother-to-child transmission (MTCT) of HIV-1 is reported. Placentas from HIV-1-infected women were examined as part of a perinatal HIV-1 project in Mombasa, **Kenya**. Polymerase chain reaction (PCR) analysis was used to test for HIV-1 in the infants at birth and at 6 weeks. The maternal HIV-1 seroprevalence was 13.3% (298 of 2,235). The overall rate of MTCT of HIV-1 was 25.4%; PCR analysis revealed that of the 201 infants 6.0% (12) were already HIV-1 positive at birth (intrauterine transmission) and 19.4% (39) were infected during the peripartum period or in early neonatal life (perinatal transmission). The prevalence of acute chorioamnionitis was 8.8%, that of deciduitis was 10.8% and that of villitis was 1.6%. Acute chorioamnionitis was independently associated with peripartum HIV-1 transmission but not with in utero MTCT (17.9% versus 6.7% respectively; adjusted odds ratio, 3.9; 95% confidence interval [CI], 1.2-12.5;  $p = .025$ ). Other correlates of perinatal MTCT were presence of HIV in the genital tract and in the baby's oral cavity and a high maternal vital load in peripheral blood. The adjusted population attributable fraction of 12.8% (95% CI, 1.5%-22.8%) indicated that approximately 3% of MTCT could be prevented if acute chorioamnionitis was eliminated. The authors suggest that further research on the role of antimicrobial treatment in the prevention of chorioamnionitis and the reduction of peripartum MTCT needs to be performed. (author's)

**URL:**

**Publication Date:**

**Title:** Are HIV-infected women who breastfeed at increased risk of mortality?

**Author:** Coutsooudis A; Coovadia H; Pillay K; Kuhn L

**Source:** AIDS. 2001;15(5):653-5.

**Abstract:**

Although breastfeeding has been known to bring multiple benefits to both infants and mothers, the recognition that breastfeeding transmits HIV-1 to the infant has resulted in the avoidance of this feeding method by HIV- infected women in the industrialized world. However, the majority of seropositive women in developing countries continue to breastfeed even after counseling. Accordingly, research workers have focused on making breastfeeding by HIV-infected women safe for babies. In this context, the authors note that a report from **Kenya** that breastfeeding by HIV-infected women was associated with a higher maternal mortality rate than that observed in mothers who formula fed required urgent consideration. This paper presents the results of morbidity, mortality, and CD4 cell counts for mothers in a vitamin A intervention trial, in which women self-selected the feeding method, and careful records were kept of breastfeeding and formula feeding practices. Overall, results detected no deleterious effects of breastfeeding on the health of HIV-infected women.

**URL:**

**Publication Date:** 2001

**Breastfeeding. HIV-1+ mothers and their children at increased risk of death in Less Developed countries. [[Allaitement. Risque accru de mortalité chez les Mères séropositives VIH-1+ et leurs enfants dans les pays les moins développés]]**

**Source:** AIDS WEEKLY. 2001 Jun 11;;5-6.

**Abstract:**

A study by pediatricians found that HIV-1-infected mothers in less developed countries who breastfeed their infants are more likely to die within 2 years of childbirth compared to those utilizing formula milk. To examine the effects of breastfeeding on maternal death rates, pregnant women attending city council clinics in Nairobi, **Kenya**, were offered HIV tests. The study revealed that deaths among mothers were higher in the breastfeeding group than in the formula-feeding group (18 deaths in the former compared with 6 in the latter). The cumulative probability of a maternal death 2 years after delivery was 10.5% in the breastfeeding group and 3.8% in the formula-feeding group. The study also noted that infants were at an increased mortality risk if their mothers died in the first 2 years after childbirth. Marie-Louise Newell from the Institute of Child Health recommends further studies to confirm this and to understand the underlying mechanism. If the life of a woman with AIDS who breastfeeds her child is shortened, this finding has to be taken into account in any recommendations issued.

**URL:**

**Publication Date:**

**Title:** Breastfeeding. Study cites danger for HIV+ mothers and their children.

**Source:** AIDS Weekly. 2001 Jul 9-16;;3-4.

**Abstract:**

Between 1992 and 1998, Ruth Nduati and colleagues conducted a study in **Kenya** to measure the risk of HIV transmission to infants after breastfeeding by infected mothers. They also analyzed data from this trial to examine the effect of breastfeeding on maternal death rates during 2 years after delivery. The researchers examined 425 HIV-positive mothers attending 4 different health clinics in Nairobi. They found that the women who breastfed their children were almost 3 times as likely to die than mothers who used formula to feed their infants. During the 2-year period after delivery, the maternal mortality rate was 10.5% in the breastfeeding cohort compared with 3.8% among women who used formula. Data also showed that almost 70% of the mortality risk faced by mothers who breastfed their children were attributable to this practice. Moreover, children whose mothers succumbed to HIV had a subsequent mortality risk almost 8 times higher than that of children with surviving mothers. Overall, the findings suggest that breastfeeding by HIV-1-infected women might result in adverse outcomes for both mother and infant.

**URL:**

**Publication Date:**

### **Characteristics of mother, child linked to postnatal HIV transmission risk.**

**Author:** Brochert A

**Source:** International Family Planning Perspectives. 2001 Jun;27(2):103-4.

**Abstract:**

The large majority of childhood cases of **HIV-1 infection** are acquired from the child's mother, whether before, during, or after birth. This paper presents the results of a study identifying the risk factors in mothers and children that place a child at particularly high risk for contracting HIV after birth and that are amenable to intervention. Researchers in Nairobi, **Kenya**, followed 412 children born to seropositive mothers at a large maternity hospital, with 871 infants born to seronegative women forming a control group. The HIV status of the mother and child were determined at the time of delivery; at frequent follow-up clinic visits, clinicians rechecked HIV status, performed CD4 cell counts, and examined both mother and baby. Overall, findings reveal that the effects of low maternal CD4 cell count, infant oral thrush before 6 months of age, breast feeding for more than 15 months, and maternal mastitis or breast lesions are significantly linked to postnatal HIV transmission risk. The analysis indicated, however, that children who are breast fed for more than 15 months did not have the same increased risk of infection from maternal nipple or breast lesions as did those who were weaned before that point. Based on the findings, researchers suggest that treating infants against thrush at birth and counseling mothers on ways to prevent nipple cracking and to seek prompt treatment for the condition could lower the risk of **HIV infection**. Moreover, researchers stress that the most effective means is the prevention of maternal infection.

**URL:**

**Publication Date:** 2001

### **Effect of breastfeeding on mortality among HIV-1 infected women: a randomised trial.**

**Author:** Nduati R; Richardson BA; John G; Mbori-Ngacha D; Mwatha A

**Source:** Lancet. 2001 May 26;357(9269):1651-5.

**Abstract:**

The authors have completed a randomized clinical trial of breast-feeding and formula feeding to identify the frequency of breast milk transmission of HIV-1 to infants. However, the authors also analyzed data from this trial to examine the effect of breast-feeding on maternal death rates during 2 years after delivery. The authors also report the findings from this secondary analysis. Pregnant women attending four Nairobi city council clinics were offered HIV tests. At about 32 weeks' gestation, 425 HIV-1 seropositive women were randomly allocated to either breastfeed or formula feed their infants. After delivery, mother-infant pairs were followed up monthly during the 1st year and quarterly during the 2nd year until death, or 2 years after delivery, or end of study. Mortality among mothers was higher in the breast-feeding group than in the formula group (18 vs. 6 deaths, log rank test,  $p = 0.009$ ). The cumulative probability of maternal death at 24 months after delivery was 10.5% in the breast-feeding group and 3.8% in the formula group ( $p = 0.02$ ). The relative risk of death for breast-feeding mothers vs. formula-feeding mothers was 3.2 (95% confidence interval [CI] 1.3-8.1,  $p = 0.01$ ). The attributable risk of maternal death due to breast-feeding was 69%. There was an association between maternal death and subsequent infant death, even after infant **HIV-1 infection** status was controlled for (relative risk 7.9, 95% CI 3.3-18.6,  $p < 0.001$ ). The authors' findings suggest that breast-feeding by HIV-1 infected women might result in adverse outcomes for both mother and infant. (author's)

**URL:**

**Publication Date:** 2001

**Factors influencing the difference in HIV prevalence between antenatal clinic  
And general population in sub-Saharan Africa.**

**Author:** Glynn JR; Buve A; Carael M; Musonda RM; Kahindo M

**Source:** AIDS. 2001;15(13):1717-25.

**Abstract:**

The objective was to compare HIV prevalence in antenatal clinics (ANC) and the general population and to identify factors in determining the differences that were found. Cross-sectional surveys were conducted in the general population and in ANC in three cities. HIV prevalence measured in adults in the community was compared with that measured by sentinel surveillance in the ANC in Yaounde, Cameroon, Kisumu, **Kenya**, and Ndola, Zambia. In Yaounde and Ndola, the HIV prevalence in ANC attenders was lower than in women in the population overall, and for age groups over 20 years. In Kisumu, the HIV prevalence in ANC attenders was similar to that in women in the population at all ages. The only factors identified that influenced the results were age, marital status, parity, schooling, and contraceptive use. The HIV prevalence in women in ANC was similar to that in the combined male and female population aged 15-40 years in Yaounde and Ndola, but overestimated it in Kisumu. In Yaounde and Ndola, the overall HIV prevalence in men was approximated by using the age of the father of the child reported by ANC attenders, but this method overestimated the HIV prevalence in Kisumu, and did not give good age-specific estimates. Few factors influenced the difference in HIV prevalence between ANC and the population, which could aid the development of adjustment procedures to estimate population HIV prevalence. However, the differences between cities were considerable, making standard adjustments difficult. The method of estimating male HIV prevalence should be tested in other sites. (author's)

**URL:**

**Publication Date:** 2001

**Human immunodeficiency virus seropositivity and malaria as risk factors for  
Third trimester anemia in asymptomatic pregnant women in western Kenya.**

**Author:** van Eijk AM; Ayisi JG; ter Kuile FO; Misore A; Otieno JA

**Source:** American Journal of Tropical Medicine and Hygiene. 2001 Nov;65(5):623-630.

**Abstract:**

To assess risk factors for anemia in late pregnancy, we studied healthy pregnant women with a singleton uncomplicated pregnancy of  $\geq 32$  weeks attending the prenatal clinic in the Provincial Hospital in Kisumu, **Kenya**. Between June 1996 and December 1998, 4,608 pregnant women had a blood sample collected for hemoglobin (Hb) measurement, malaria smear, and testing for human immunodeficiency virus (HIV). The mean  $\pm$  standard deviation of Hb was  $9.58 \pm 1.8$  g/dL; 21% had malaria in their blood; and 25% of the women were HIV seropositive. Plasmodium falciparum parasitemia was more common among HIV-seropositive women in all gravidities compared with HIV-seronegative women (risk ratio, 1.71; 95% confidence interval, 1.53-1.92). In a multivariate analysis, for primi- and secundigravidae women, the factors malaria, belonging to the Luo tribe, and HIV seropositivity were significantly associated with any anemia (Hb  $< 11$  g/dL), and HIV seropositivity and documented fever were associated with severe anemia (Hb  $< 7$  g/dL). In women of higher gravidities, HIV seropositivity was the only statistically significant factor associated with any anemia or with severe anemia. Asymptomatic HIV seropositivity is an important risk factor to be considered in the differential diagnosis of maternal anemia, independent of P. falciparum parasitemia. (author's)

**URL:**

**Publication Date:** 2001

**Is breast not best? Feeding babies born to HIV-positive mothers: bringing balance to a complex issue.**

**Author:** Humphrey J; Iliff P

**Source:** Nutrition Reviews. 2001 Apr;59(4):119-127.

**Abstract:**

Breastfeeding prevents millions of infant deaths each year throughout the world but causes at least one-third of all pediatric HN infections. The first randomized trial of breastfeeding versus formula feeding, reported from Nairobi in March 2000, demonstrated an improved outcome for babies of highly selected HN-positive mothers assigned to formula feed. However, several conditions must be in place and accepted before such replacement feeding can increase HIV-free survival. The proportion of sub-Saharan African women who have access to and will accept these conditions is small. In the short term, efforts to make breastfeeding safer will probably benefit a greater number of African babies. (author's)

**URL:**

**Publication Date: 2001**

**Decreased fertility among HIV-1-infected women attending antenatal clinics in Three African cities.**

**Author:** Glynn JR; Buve A; Carael M; Kahindo M; Macauley IB; Musonda RM; Jungmann E; Tembo F; Zekeng L

**Source:** JAIDS. JOURNAL OF ACQUIRED IMMUNE DEFICIENCY SYNDROMES. 2000 Dec 1;25(4):345-52.

**Abstract:**

Population HIV prevalence estimates rely heavily on sentinel surveillance in antenatal clinics (ANCs), but because HIV reduces fertility, these estimates are biased. To aid interpretation of such data, the authors estimated HIV-associated fertility reduction among pregnant women in ANCs in Yaounde (Cameroon), Kisumu (**Kenya**), and Ndola (Zambia). Data collection followed existing HIV sentinel surveillance procedures as far as possible. HIV prevalence among the women was 5.5% in Yaounde, 30.6% in Kisumu, and 27.3% in Ndola. The birth interval was prolonged in HIV-positive multiparous women compared with HIV-negative multiparous women in all three sites: adjusted hazard ratios of pregnancy were 0.84 (95% CI: 0.62-1.1) in Yaounde, 0.82 (95% CI: 0.70-0.96) in Kisumu, and 0.74 (95% CI: 0.61-0.90) in Ndola, implying estimated reductions in the risk of pregnancy in HIV-positive women of between 16% and 26%. For primiparous women, the interval between sexual debut and birth was longer in HIV-positive women than in HIV-negative women in all sites, although the association was lost in Ndola after adjusting for age and other factors.

Consistent results in different study sites help in the development of standard methods for improving ANC-based surveillance estimates of HIV prevalence. These may be easier to devise for multiparous women than for primiparous women. (author's)

**URL:**

**Publication Date: 2000**

### **Difficulty identifying HIV risk factors among pregnant women, Kenya.**

**Source:** Reproductive Health Matters. 2000 Nov;8(16):175.

**Abstract:**

This study evaluated HIV prevalence and attempted to identify risk factors for **HIV infection** among women attending antenatal services in western **Kenya**. The prevalence of **HIV infection** among 2844 women with uncomplicated pregnancies of 32 weeks gestation was 26.1%. Regression analysis identified five significant factors associated with **HIV infection**: anemia, malarial parasitemia, a history of being treated for vaginal discharge, fever and reported alcohol consumption. However, the predictive value of these factors for **HIV infection** was poor; while 74% of truly positive women were correctly predicted positive by the model, over half (52%) of the truly negative women would be misclassified as positive. This inability to identify a subgroup at risk of **HIV infection** accurately indicates the need for universal access to voluntary HIV counseling and testing rather than targeted screening. (full text)

**URL:**

**Publication Date:**

### **The impact of HIV / AIDS on child survival and development in Kenya. [[Impact du**

### **VIH/SIDA sur la survie et le développement de l'enfant au Kenya]]**

**Author:** Wekesa E

**Source:** AIDS ANALYSIS AFRICA. 2000 Jan;10(4):12-4.

**Abstract:**

This paper focuses on the impact of HIV/AIDS on child survival and development in **Kenya**. The rapid spread of HIV, mainly through heterosexual contact and mother-to child transmission, contributes to the increasing rates of infant and under-five mortality in Kenyan provinces. Moreover, the impact of AIDS on the well-being of children is likely to worsen, as preliminary findings of the 1999 sentinel surveillance data indicate that HIV prevalence among the adult population is still rising. Poverty increases the vulnerability of children to HIV/AIDS. In addition, it may increase the likelihood that women become commercial sex workers as an alternative source of income. Poverty also increases the risk of illness and death through poor access to basic services. Poor environmental sanitation and lack of access to safe water sources increase the vulnerability of children to the impact of the infection. As a consequence, more and more children will be infected and affected by HIV/AIDS, and the ability of HIV-positive parents to care for their children will be impaired, while the number of orphans will continue to increase dramatically as parents die within a short period. Recommended strategies in combating the epidemic and improving the well-being of children are outlined.

**URL:**

**Publication Date:** 2000

**Most infant HIV infection from breast milk occurs within six weeks of birth.**

**Author:** Hollander D

**Source:** International Family Planning Perspectives. 2000 Sep;26(3):141.

**Abstract:**

In a randomized, clinical trial conducted in **Kenya**, a total of 401 HIV-positive women and their infants were recruited from the prenatal clinics in Nairobi between November 1992 and July 1998. Among the 401 participants, 197 were assigned to the breast-feeding group and 204 to the formula-feeding group. Overall, analyses of data indicate that 92 infants acquired HIV by the age of 2, where 61 were breast-fed and 31 were formula-fed. Cumulative probability of infection was 37% among breast-fed babies and 21% among those given formulas. By comparing the cumulative probabilities of infection, it was discovered that most breast-feeding-related HIV transmission occurred shortly after birth. 75% of the cumulative difference was accounted for by 6 months of age and 87% by 1 year. In addition, it was noted that breast-fed and formula-fed infants had similar mortality rates. However, the rate of infection-free survival was higher among the formula-fed infants than among those who were given breast milk. While the findings suggest that the exclusive use of formula could substantially reduce the rate of mother-to-infant HIV transmission, it should be noted that risks associated with formula are community-specific. Hence, making interventions that prevent infant **HIV-1 infection** widely available should be prioritized.

**URL:**

**Publication Date:** 2000

**Preventing HIV transmission from mother to child.**

**Author:** Rutenberg N

**Source:** Front Lines. 2000 Apr-May;40(3):4.

**Abstract:**

Preventing transmission of the HIV/AIDS virus from mother to child is critical in Africa, where 9 out of 10 HIV-positive babies in the world are born. A multisite study of services aimed at preventing mother-to-child-transmission (MTCT) of the HIV/AIDS virus is being conducted in **Kenya** and Zambia by the Horizons Project. The study assesses the acceptability, operational concerns, cost and impact on MTCT, and child morbidity and mortality of a package of services offered in antenatal clinics. The research is examining several interventions, including voluntary HIV counseling and testing and provision of anti-retroviral drugs and breast milk substitutes to HIV-infected mothers. In partnership with other health agencies, Horizons has also developed a training curriculum, which addresses the roles of clinics and communities in preventing MTCT. Targeting health workers and supervisors, community leaders, people- living-with-HIV/AIDS groups and government program managers, the curriculum covers MTCT concerns including prevention, integration of transmission interventions in maternal and child settings, counseling and community mobilization, and assistance to HIV-infected mothers.

**URL:**

**Publication Date:** 2000

**Risk factors for HIV infection among asymptomatic pregnant women attending an antenatal clinic in western Kenya.**

**Author:** Ayisi JG; van Eijk AM; ter Kuile FO; Kolczak MS; Otieno JA; Misore AO; Kager PA; Steketee RW; Nahlen BL

**Source:** INTERNATIONAL JOURNAL OF STD AND AIDS. 2000 Jun;11(6):393-401.

**Abstract:**

This study evaluated the HIV prevalence and identified the risk factors for **HIV infection** among women attending the antenatal clinic at a public hospital in Kisumu, western **Kenya**. Also, the effect of placental malaria on vertical HIV transmission were determined using structured interviews and HIV-1 antibody testing and hemoglobin malaria smears were offered to the respondents. Overall, HIV seroprevalence was 26.1% (743/2844) (95% confidence interval [CI]: 24.5-27.7) and in bivariate evaluation was significantly associated with anemia (risk ratio [RR] 1.8), malarial parasitemia (RR 1.6), fever (RR 1.6), a history of being treated for either vaginal discharge (RR 1.5) or tuberculosis (RR 1.6), alcohol consumption (RR 1.6), being an unmarried multigravida (RR 2.2), or a history of the most recent child having died (RR 2.0). Using the Poisson regression analysis, 5 significant factors associated with HIV seropositivity were identified: anemia, malarial parasitemia, and history of being treated for vaginal discharge, fever, and reported alcohol consumption. Among the pregnant women, the researchers were unable to identify a subgroup at risk of **HIV infection** using nonserological information, indicating that universal access to voluntary HIV counseling and testing would be preferable to targeted screening.

**URL:**

**Publication Date:** 2000

**Sociodemographic characteristics, care, feeding practices, and growth of cohorts of children born to HIV-1 seropositive and seronegative mothers in Nairobi, Kenya.**

**Author:** Sherry B; Embree JE; Mei Z; Ndinya-Achola JO; Njenga S; Muchunga ER; Bett J; Plummer FA

**Source:** Tropical Medicine and International Health. 2000 Oct;5(10):678-86.

**Abstract:**

The aim was to compare sociodemographic profiles, child care, child feeding practices, and growth indices of children born to HIV-1 seropositive and seronegative mothers. A cohort study of 234 children (seropositive and seronegative) born to HIV-1 seropositive mothers and 139 children born to seronegative mothers in Pumwani Maternity Hospital which serves a low-income population in Nairobi, **Kenya**, from December 1991 and January 1994. With few exceptions, at the time of their birth children in all three cohorts had parents with similar characteristics, lived in similar housing in similar geographical areas, had their mothers as their primary care givers, had similar feeding practices, and similar growth status and patterns. However, the HIV-1 seropositive mothers were slightly younger (23.8 years vs. 25.0 years,  $P < 0.01$ ); if married, they were less likely to be their husband's first wife (79% vs. 91%,  $P = 0.02$ ) and more likely to have a one-room house (75% vs. 63%,  $P = 0.04$ ). All three cohorts had mean Z-scores in length-for-age and in weight-for-height within the normal range ( $\geq 2.0$  Z-scores) from birth to 21 months with the exception of the length-for-age of the seropositive children at the 18-month visit. In all cohorts length-for-age became more compromised than weight-for-length, dropping to about -1.45 Z-score by 21 months; in contrast, weight-for-length dropped to about -0.5 Z-score by this age. The only statistically significant differences in growth indices among the three cohorts were between the two cohorts of seronegative children: those with seronegative mothers were less compromised in length-for-age at 1.5 months (mean Z-score = -0.19 vs. -0.48,  $P < 0.05$ ) and more compromised in weight-for-length at 6 months (mean Z-score = 0.10 vs. 0.45,  $P < 0.05$ ) and at 18 months (mean Z-score = -0.73 vs. -0.16,  $P < 0.05$ ). 27-34% were exclusively breast-fed at 1.5 months; 52-61% consumed solid foods in addition to breast milk by 2.5 months. Low-income HIV-1 seropositive- and seronegative-born children were from families with similar characteristics and similar housing environments. Similar growth patterns in the cohorts suggest that the challenging environment and the choice of weaning foods had an impact on all three cohorts. The aggressive care given the children with HIV-1 seropositive mothers and their children may have reduced the progression and impact of HIV-1 disease on the growth of the seropositive children. Further research is needed to corroborate the authors' findings to be certain that their results are not affected by loss to follow-up bias: the authors lost the same proportion in all three cohorts but cannot verify that the children they lost had the same growth patterns as those who remained in the study. (author's)

**URL:**

**Publication Date:** 2000

**Chlamydia as a cause of late neonatal pneumonia at Kenyatta National Hospital, Nairobi.**

**Author:** Were FN; Govedi AF; Revathi G; Wambani JS

**Source:** East African Medical Journal. 2002 Sep;79(9):476-479.

**Abstract:**

**Background:** Neonatal pneumonia is a common cause of morbidity and mortality all over the world. The problem is known to be higher in resource poor third world countries. Organisms (such as chlamydia) not covered by routine laboratory tests and regular antibiotic regimes may frequently contribute towards the causation of late neonatal pneumonia. It is therefore useful to gather epidemiological evidence to guide in the routine diagnosis and treatment of such infections.

**Objective:** To determine the prevalence of chlamydia associated pneumonia among infants developing the disease between the 7th and 30th days of life (late neonatal pneumonia). **Design:** Cross sectional survey. **Setting:** Newborn Unit, Kenyatta National Hospital. **Subjects:** Fifty-two newborns clinically diagnosed as having late neonatal pneumonia. They were all subjected to chest X-rays to confirm the clinical diagnosis. Nasopharyngeal aspirates for chlamydia antigen detection tests were then performed on all patients. The study was undertaken during the months of September through to November 2000. **Main outcome measures:** The proportion of newborns with late neonatal pneumonia that have chlamydia trachomatis as the sole or contributory causative agent. **Results:** Fifty-two newborns of postnatal age between seven and 30 days were recruited. Their sex distribution was about 1:1. Thirty-three (63.5%) of these infants were found with chlamydia in their upper airways. Thirty out of 47 available chest X-rays, representing 63.8% had evidence of interstitial pneumonitis. Chlamydia associated pneumonia indicated by the presence of both interstitial pneumonia and colonization of the upper air ways was present in 24 out of 47 patients, 51% of the total cases of late neonatal pneumonia. When X-rays alone were compared with our gold standard for the diagnosis of chlamydia pneumonia (radiology and colonization), we computed a sensitivity of 100%, specificity 73%, negative predictive value 100% and positive predictive value of 80%. Mode of delivery, birth weight and gestation had no association with nasopharyngeal colonization by chlamydia or actual diagnosis of chlamydia pneumonia. **Conclusion:** The prevalence of chlamydia associated infection among newborns with late neonatal pneumonia at Kenyatta National Hospital is 51%, eight times more than that reported elsewhere. Chest X-rays appear to be a reliable diagnostic tool in this group. The use of antichlamydial drugs in addition to the regular antibiotics whenever a diagnosis of late neonatal pneumonia is made is justifiable. (author's)

**URL:**

**Publication Date:**

**Kenya: postabortion care / adolescent reproductive health. Linking PAC with FP. Successful scaleup at the primary level. Results review.**

**Author:** Nelson D

**Source:** Chapel Hill, North Carolina, University of North Carolina at Chapel Hill, Program for International Training in Health [INTRAH], PRIME Project, 2002 Oct. [2] p. PRIME Pages RR-1; USAID Grant No. HRN-A-00-99-00022-00

**Abstract:**

PRIME II scaled-up a primary-level postabortion care (PAC) program in three of **Kenya's** seven provinces, demonstrating on a broad scale that trained private-sector nurse-midwives can provide quality PAC services and handle a wide variety of complications and emergencies. A high percentage of the PAC clients receive family planning counseling and services, linking PAC with FP as an effective strategy to reduce unwanted pregnancies and prevent unsafe abortion. (excerpt)

**URL:**

**Publication Date:** 2002

**Improving reproductive health for refugee women through post-abortion care.**

**Author:** Otsea K

**Source:** SEXUAL HEALTH EXCHANGE. 2000;(2):7-9.

**Abstract:**

Globally, the WHO estimates that at least 80,000 maternal deaths each year are caused by unsafe abortions as those provided by unskilled persons or under unhygienic conditions, or self-induced. The UN Population Fund estimated that 25-50% of this rate is in refugee settings and thousands more women experience complications due to unsafe abortions and suffer crippling injuries, life-long chronic pain or **infertility**. It is noted that most of these deaths and complications are preventable if women have access to contraceptives and post-abortion care (PAC). In view of this, the Inter-Agency Working Group was created to strengthen reproductive health for refugees. Its recommendations have been implemented by the **Kenya** Refugee Project, carried out in two refugee camps. Overall, the **Kenya** Project demonstrated support for PAC services among clinicians, administrators and clients, and the feasibility of providing high-quality, low-technology, decentralized PAC services for women in refugee camps. Evaluation results also showed the effectiveness of offering these services at the health delivery sites where women normally seek care, resulting in the use of fewer resources and faster life-saving services.

**URL:**

**Publication Date:** 2000

## **STD's /HIV/AIDS**

### **Human herpesvirus 8: seroprevalence and correlates in prostitutes in Mombasa, Kenya.**

**Author:** Lavreys L; Chohan B; Ashley R; Richardson BA; Corey L

**Source:** Journal of Infectious Diseases. 2003 Feb 1;187:359-363.

**Abstract:**

Human herpesvirus 8 (HHV-8) infection is very prevalent in sub-Saharan Africa, but the role of sexual transmission has not been well characterized. HHV-8 seroprevalence and correlates were evaluated in a cohort of female prostitutes in Mombasa, **Kenya**. Between February 1993 and January 2000, stored plasma samples taken from 736 women were tested, by whole-virus ELISA assay, for the presence of HHV-8 antibodies; of these 736 women, 633 were included in the analysis of correlates of HHV-8 infection; and, of these 633, 44.1% were seropositive for HHV-8 antibodies. In univariate analysis, age, years of education, years of prostitution, workplace, hormonal **contraception**, intrauterine-device use, alcohol consumption, syphilis, and gonorrhea were all significantly associated with the presence of HHV-8 antibodies. In a multivariate model, older age, fewer years of education, and 2 markers of high-risk sexual behavior—namely, alcohol consumption and gonorrhea—were each independently associated with HHV-8 seropositivity. These results suggest that heterosexual transmission may contribute to acquisition of HHV-8 infections in this African population of prostitutes. (author's)

**URL:**

**Publication Date:** 2003

**Condom use and its association with HIV / sexually transmitted diseases in four Urban communities of sub-Saharan Africa. [[L'usage du préservatif et son association avec le VIH et les maladies sexuellement transmissibles dans quatre communautés urbaines d'Afrique sub-saharienne]]**

**Author:** Lagarde E; Auvert B; Chege J; Sukwa T; Glynn JR

**Source:** AIDS. 2001 Aug;15 Suppl 4:S71-8.

**Abstract:**

The objective of this study was to estimate rates of condom use in four urban populations in sub-Saharan Africa and to assess their association with levels of HIV infection and other sexually transmitted diseases (STDs). Data were obtained from multicenter study of factors that determine the differences in rate of spread of HIV in four African cities. Consenting participants were interviewed on sexual behavior, and also provided blood and urine samples for testing for HIV infections and other STDs. Data on sexual behavior included information on condom use during all reported spousal and non-spousal partnerships in the past 12 months. A total of 2116 adults aged 15-49 years were interviewed in Cotonou (Benin), 2089 in Yaounde (Cameroon), 1889 in Kisumu (Kenya) and 1730 in Ndola (Zambia). Prevalence rates of HIV infection were 3.4% in Cotonou, 5.9% in Yaounde, 25.9% in Kisumu and 28.4% in Ndola. Reported condom use was low, with the proportions of men and women who reported frequent condom use with all non-spousal partners being 21-25% for men and 11-24% for women. A higher level of condom use by city was not associated with lower aggregate level of HIV infection. The proportions of men reporting genital pain or discharge during the past 12 months were significantly lower among those reporting frequent condom use in all sites except Yaounde; in Cotonou, adjusted odds ratio (OR) = 0.28, 95% confidence interval (CI) = 0.09-0.94; in Kisumu, adjusted OR = 0.34, 95% CI = 0.14-0.83; and in Ndola, adjusted OR = 0.33, 95% CI = 0.12-0.90. The same association was found for reported genital ulcers in two sites only: in Cotonou, adjusted OR = 0.14, 95% CI = 0.02-1.02; and in Kisumu, adjusted OR = 0.18, 95% CI = 0.04-0.75. There were few statistically significant associations between condom use and biological indicators of HIV infection or other STDs in any of the cities. Similar levels of condom use were found in all four populations, and aggregate levels of condom use by city could not discriminate between cities with high and low level of HIV infection. It seems that rates of condom use may not have been high enough to have strong impact on HIV/STD levels in four cities. At an individual level, only a male history of reported STD symptoms was found to be consistently associated with lower rates of reported condom use. (author's)

**URL:**

**Publication Date:** 2001

### **Educational level is associated with condom use within non-spousal partnerships in four cities of sub Saharan Africa.**

**Author:** Lagarde E; Carael M; Glynn JR; Kanhonou L; Abega SC

**Source:** AIDS. 2001;15(11):1399-408.

**Abstract:**

Rates of condom use in sub-Saharan Africa have remained too low to curb HIV/sexually transmitted disease (STD) epidemics. A better understanding of the main determinants of condom use would aid promotion. Cross-sectional population surveys were conducted in four cities in sub-Saharan Africa: Yaounde, Cameroon; Cotonou, Benin; Ndola, Zambia; and Kisumu, **Kenya**. In each city, the aim was to interview a random sample of 1000 men and 1000 women aged 15-49 years, including questions on characteristics of non-spousal partnerships in the past 12 months. Data on condom use were available for 4624 non-spousal partnerships. In the four cities, the proportion of partnerships in which condoms were used always or most of the time ranged from 23.8-33.5% when reported by men and from 10.7-25.9% when reported by women. Based on the reports from men, condom use was associated with higher educational level of the male partner in Yaounde [adjusted odds ratio (aOR) = 1.76] and Ndola (aOR = 2.94) and with higher educational level of the female partner in Cotonou (aOR = 2.36) and Kisumu (aOR = 2.76). Based on the reports from women, condom use was associated with higher educational level of the female partner in Kisumu (aOR = 2.60) and Ndola (aOR = 4.50) and with higher educational level of the male partner in Yaounde (aOR = 3.32). Associations with other determinants varied across cities and for men and women. Education was found to be a key determinant of condom use in all four cities. This suggests that educational level increases response to condom promotion and highlights the need for special efforts to reach men and women with low educational attainment. (author's)

**URL:**

**Publication Date:** 2001

### **Factors associated with condom use in Kenya: a test of the Health Belief Model.**

**Author:** Volk JE; Koopman C

**Source:** AIDS Education and Prevention. 2001 Dec;13(6):495-508.

**Abstract:**

This study examined specific cultural beliefs and knowledge about HIV as well as tested components of the Health Belief Model in relation to condom use in Kisumu, **Kenya**. Interviews were conducted with 223 participants at six governmental and private clinics. Although 75% had engaged in intercourse during the preceding month, fewer than 20% had used a condom. For both men and women, perceived barriers was the only component of the Health Belief Model significantly associated with condom use, with greater perceived barriers being associated with lower frequency of condom use ( $p < 0.05$ ). Additionally, individuals with more education and HIV/AIDS knowledge were less likely to endorse these stigmatizing beliefs toward HIV/AIDS ( $p < 0.001$ ), whereas people who believe that HIV originated in the US were more likely to endorse these stigmatizing beliefs ( $p < 0.002$ ). Nearly everyone (97%) reported that AIDS is the disease that scares them most, suggesting that educational efforts have successfully communicated the severity of this disease. Future intervention efforts must now focus more extensively on addressing stigmatizing beliefs and providing education to overcome barriers to condom use. (author's)

**URL:**

**Publication Date:** 2001

**Female condom introduction and sexually transmitted infection prevalence: results of a community intervention trial in Kenya.**

**Author:** Feldblum PJ; Kuyoh MA; Bwayo JJ; Omari M; Wong EL

**Source:** AIDS. 2001;15(8):1037-44.

**Abstract:**

The objective was to measure the impact on sexually transmitted infection (STI) prevalence of a female condom introduction and risk-reduction program at Kenyan agricultural sites. The authors conducted a cluster-randomized trial to determine whether a replicable, community-level intervention would reduce STI prevalence. Six matched pairs of tea, coffee, and flower plantations were identified. The six intervention sites received an information/motivation program with free distribution of female and male condoms, and six control sites received only male condoms and related information. Participants were tested for cervical gonorrhea and chlamydia by ligase chain reaction on urine specimens, and vaginal trichomoniasis by culture, at baseline, 6 and 12 months. Participants at intervention (n = 969) and control sites (n = 960) were similar; baseline STI prevalence was 23.9%. Consistent male condom use was more than 20% at 12 months. Consistent female condom use was reported by 11 and 7% of intervention site women at 6 and 12 months. Unadjusted STI prevalence was 16.5 and 17.4% at 6 months, and 18.3 and 18.5% at 12 months, at the intervention and control sites, respectively. Logistic regression models confirmed the null effect of the female condom intervention. Female condom introduction did not enhance STI prevention at these sites. It is unclear which aspects of the intervention--STI education, condom promotion, case management-- were associated with decreased STI prevalence from baseline to follow-up. (author's)

**URL:**

**Publication Date:** 2001

**Hormonal contraception and risk of sexually transmitted disease acquisition: Results from a prospective study.**

**Author:** Baeten JM; Nyange PM; Richardson BA; Lavreys L; Chohan B

**Source:** American Journal of Obstetrics and Gynecology. 2001 Aug;185(2):380-5.

**Abstract:**

The objective was to examine the relationship between use of oral contraceptive pills (OCPs) or depot medroxyprogesterone acetate (DMPA) and sexually transmitted disease (STD) acquisition. A prospective cohort included 948 Kenyan prostitutes. Multivariate Andersen-Gill proportional hazards models were constructed, adjusting for sexual behavior and demographic variables. When compared with women who were using no **contraception**, users of OCPs were at increased risk for acquisition of chlamydia (hazard ratio [HR], 1.8; 95% confidence interval [CI], 1.1-2.9) and vaginal candidiasis (HR, 1.5; 95% CI, 1.2-1.9) and at decreased risk for bacterial vaginosis (HR, 0.8; 95% CI, 0.7-1.0). Women using DMPA had significantly increased risk of chlamydia infection (HR, 1.6; 95% CI, 1.1-2.4) and significantly decreased risk of bacterial vaginosis (HR, 0.7; 95% CI, 0.5-0.8), trichomoniasis (HR, 0.6; 95% CI, 0.4-1.0), and pelvic inflammatory disease (HR, 0.4; 95% CI, 0.2-0.7). Consistent condom use was associated with significantly decreased risk of gonorrhea, chlamydia, genital ulcer disease, bacterial vaginosis, and pelvic inflammatory disease. The use of oral or injectable hormonal **contraception** altered susceptibility to STDs, which may in turn influence transmission of HIV type 1. Consistent condom use was protective with regards to STD and should be encouraged for the prevention of STD and HIV type 1 among women who use hormonal **contraception**. (author's)

**URL:**

**Publication Date:** 2001

**The impact of the Kenya social marketing program on personal risk perception, perceived self efficacy and on other behavioral predictors.**

**Author:** Agha S

**Source:** Washington, D.C., Population Services International [PSI], Research Division, 2001.  
23 p. PSI Research Division Working Paper No. 45

**Abstract:**

This study aims to determine whether a mass media HIV/AIDS prevention campaign had an impact on personal risk perception, perceived self-efficacy, and positive attitudes towards condoms. The authors used household survey data collected from 2213 sexually experienced male and female Kenyans aged 15-39. Respondents were administered a questionnaire asking them about their exposure to branded and generic mass media messages concerning HIV/AIDS and condom use. They were asked questions about their perceived self-efficacy, perceived risk awareness, embarrassment in obtaining condoms and openness in acknowledging that they knew someone with HIV. Logistic regression analysis was used to determine the impact of exposure to mass media messages on these predictors of behavior change. Exposure to branded advertising messages was associated with respondents' higher level of personal self-efficacy, their greater belief in the efficacy of condoms, a lower level of perceived difficulty obtaining condoms and a greater openness in acknowledging that they knew someone who had HIV or had died of AIDS. Those exposed to branded messages were also more likely to consider themselves at higher risk of acquiring HIV and to believe in the severity of AIDS. Moreover, there was a dose-response relationship: a higher intensity of exposure to advertising was associated with more positive health beliefs. The majority of positive health beliefs were associated with exposure to generic messages, although those relationships were somewhat weaker. Mass media campaigns that promote condom use as an attractive behavior are likely to encourage positive health beliefs. In **Kenya**, the social marketing campaign helped create an environment in which there was a greater recognition of personal risk for acquiring HIV, a stronger belief in the efficacy of condoms and a higher level of personal self-efficacy. (author's)

**URL:**

**Publication Date:** 2001

**Smart decisions: education and condom use in Africa.**

**Author:** Glynn J

**Source:** [Unpublished] 2001 Sep 19 2 p.

**Abstract:**

Since more than 70% of the world's HIV-infected individuals live in sub-Saharan Africa, an increase in condom use is required to reduce these levels. However, massive efforts to promote condoms and make them available have failed since condom use remains low. In this context, factors such as age, gender and occupation may all help to determine whether people use condoms. Data from Yaounde in Cameroon, Cotonou in Benin, Ndolo in Zambia, and Kisumu in **Kenya** were analyzed to discover which factors are the most influential. A random sample of 1000 men and 1000 women aged 15- 49 years were interviewed about their sexual contacts over the last 12 months with people other than their spouse. Overall, results show that people with more education are more likely to use condoms. It is noted, however, those people over- or under- reported their sexual contacts and condom use or gave socially desirable answers. These findings suggest that condom promotion will be a considerable challenge in this country; programs must overcome communication and targeting problems; and the improvement of education systems will form an important part of the overall public health strategy to combat HIV.

**URL:**

**Publication Date:** 2001

**Baseline STD prevalence in a community intervention trial of the female condom in Kenya.**

**Author:** Feldblum PJ; Kuyoh M; Omari M; Ryan KA; Bwayo JJ

**Source:** Sexually Transmitted Infections. 2000;76(6):454-456.

**Abstract:**

Objective: We present baseline sexually transmitted disease (STD) prevalence rates from an ongoing intervention trial at Kenyan agricultural sites. Methods: After gaining the cooperation of management, we identified six matched pairs of tea, coffee, and flower plantations and enrolled approximately 160 women at each site. Six intervention sites received an information program and distributed female and male condoms, while six control sites received male condoms only and similar information about them. At clinic visits, we tested participants for cervical gonorrhoea (GC) and Chlamydia trachomatis (CT) by ligase chain reaction on urine specimens, and Trichomonas vaginalis (TV) by culture. The study has 80% power to detect a 10% prevalence difference during follow up, assuming a combined STD prevalence of 20%, 25% loss to follow up and intracluster correlation coefficient (ICC) of 0.03. Results: Participants at intervention and control sites (total 1929) were similar at baseline. Mean age was 33 years, the majority were married, more than half currently used family planning, 78% had never used male condoms, and 9% reported more than one sexual partner in the 3 months before the study. Prevalences of GC, CT, and TV were 2.6%, 3.2%, and 20.4% respectively (23.9% overall), and were similar at intervention and control sites. The ICC for STD prevalence was 0.0011. Baseline STD was associated with unmarried status, non-use of family planning, alcohol use, and more than one recent sexual partner, but the highest odds ratio was 1.5. Conclusions: Baseline results confirm a high prevalence of trichomoniasis and bacterial STD at these Kenyan rural sites. Improved STD management is urgently needed there. Our ongoing female condom intervention trial is feasible as designed. (author's)

**URL:**

**Publication Date:** 2000

**Efficacy of voluntary counselling and testing for HIV in reducing risk.**

**Source:** REPRODUCTIVE HEALTH MATTERS. 2000 Nov;8(16):176-7.

**Abstract:**

To examine the efficacy of Voluntary HIV-1 Counseling and Testing (VCT) in reducing unprotected intercourse, this paper presents an efficacy study conducted in Nairobi (**Kenya**), Dar es Salaam (Tanzania), and Port of Spain (Trinidad) during 1995-98. A total of 3120 individuals and 586 couples, who were randomly assigned to receive either HIV VCT or basic health information, were supplied with 25 condoms. Two follow-up periods were conducted: 1) at a mean of 7.3 months after baseline and 2) at 13.9 months. Findings showed that VCT is more efficient compared with health information, both among individuals and couples and both men and women. Significant reductions in unprotected intercourse among couples receiving VCT compared with those who received health information was also observed. The authors point out the need for incorporating social, physical, and financial support into VCT strategies to ensure that people who find out they are infected, especially women, have the necessary protection and resources to cope with their disease.

**URL:**

**Publication Date:** 2000

**Pattern of sexually transmitted diseases and risk factors among women attending an STD referral clinic in Nairobi, Kenya.**

**Author:** Fonck K; Kidula N; Kirui P; Ndinya-Achola J; Bwayo J; Claeys P; Temmerman M

**Source:** Sexually Transmitted Diseases. 2000 Aug;27(7):417-23.

**Abstract:**

In **Kenya**, sexually transmitted disease (STD) clinics care for large numbers of patients with STD-related signs and symptoms. Yet, the etiologic fraction of the different STD pathogens remains to be determined, particularly in women. The aim of the study was to determine the prevalence of STDs and of cervical dysplasia and their risk markers among women attending the STD clinic in Nairobi. A cross-section of women were interviewed and examined; samples were taken. The mean age of 520 women was 26 years, 54% had a stable relationship, 38% were pregnant, 47% had ever used condoms (1% as a method of **contraception**), 11% reported multiple partners in the previous 3 months, and 32% had a history of STDs. The prevalence of STDs was 29% for HIV type 1, 35% for candidiasis, 25% for trichomoniasis, 16% for bacterial vaginosis, 6% for gonorrhea, 4% for chlamydia, 6% for a positive syphilis serology, 6% for genital warts, 12% for genital ulcers, and 13% for cervical dysplasia. Factors related to sexual behavior, especially the number of sex partners, were associated with several STDs. Gonorrhea, bacterial vaginosis, cervical dysplasia, and genital warts or ulcers were independently associated with HIV infection. Partners of circumcised men had less-prevalent HIV infection. Most women reported low-risk sexual behavior and were likely to be infected by their regular partner. HIV and STD prevention campaigns will not have a significant impact if the transmission between partners is not addressed. (author's)

**URL:**

**Publication Date:** 2000

**Title:** Providers, clients okay emergency **contraception** in Nairobi and Mexico City.

**Author:** Gerstein L

**Source:** International Family Planning Perspectives. 2000 Jun;26(2):95-6.

**Abstract:**

This article reports results of studies that examined the knowledge, attitudes and practices concerning emergency **contraception** among health providers and clients in Mexico City and Nairobi. In Mexico, interviews were conducted with 40 health care providers and 1127 clients at three family planning clinics and a university health clinic between January and June 1997. While in Nairobi, data were collected through interviews of private and public health care providers and family planning clients, review of policy documents and service guidelines dealing with or mentioning emergency **contraception**. Overall, these studies found that although clients in both cities lacked accurate information about the Yuzpe method, the overwhelming majority (84% in each) said that they would use the method or recommend it to friends. However, a large proportion of providers and clients in both cities cited concerns about emergency **contraception**'s side effects.

**URL:**

**Publication Date:** 2000

**Back to basics in HIV prevention: focus on exposure.**

**Author:** Pisani E; Garnett GP; Brown T; Stover J; Grassly NC

**Source:** BMJ. British Medical Journal. 2003 Jun 21;326:1384-1387.

**Abstract:**

We examined current levels and trends in patterns of prevalence and incidence of HIV in five countries that differ by level, category, and age of epidemic: Cambodia, Indonesia, Honduras, Russia, and **Kenya**. We obtained information on prevalence of HIV and sexually transmitted infections from recent surveys completed in the five countries.<sup>7-17</sup> The description of the analytical approaches and the software used for the analyses presented here are available at [www.epidem.org](http://www.epidem.org). (excerpt)

**URL:**

**Publication Date:** 2003

**Breast-milk infectivity in human immunodeficiency virus type 1-infected mothers.**

**Author:** Richardson BA; John-Stewart GC; Hughes JP; Nduati R; Mbori-Ngacha D

**Source:** Journal of Infectious Diseases. 2003 Mar 1;187:[5] p.

**Abstract:**

Human immunodeficiency virus type 1 (HIV-1) is transmitted through blood, genital secretions, and breast milk. The probability of heterosexual transmission of HIV-1 per sex act is .0003-.0015, but little is known regarding the risk of transmission per breast-milk exposure. We evaluated the probability of breast-milk transmission of HIV-1 per liter of breast milk ingested and per day of breast-feeding in a study of children born to HIV-1-infected mothers. The probability of breast-milk transmission of HIV-1 was .00064 per liter ingested and .00028 per day of breast-feeding. Breast-milk infectivity was significantly higher for mothers with more-advanced disease, as measured by prenatal HIV-1 RNA plasma levels and CD4 cell counts. The probability of **HIV-1 infection** per liter of breast milk ingested by an infant is similar in magnitude to the probability of heterosexual transmission of HIV-1 per unprotected sex act in adults. (author's)

**URL:**

**Publication Date:** 2003

**Compliance with antiretroviral regimens to prevent perinatal HIV-1 transmission in Kenya.**

**Author:** Kiarie JN; Kreiss JK; Richardson BA; John-Stewart GC

**Source:** AIDS. 2003 Jan 3;17(1):65-71.

**Abstract:**

Objective: To compare compliance and infant **HIV-1 infection** risk at 6 weeks with the Thai-CDC and HIVNET-012 antiretroviral regimens in a field setting. Design: Randomized clinical trial. Setting: Tertiary hospital antenatal clinic in Nairobi, **Kenya**. Participants: HIV-1 infected women referred from primary care clinics. Interventions: Thai-CDC zidovudine regimen or HIVNET-012 nevirapine regimen. Main outcome measures: Women were considered compliant if they used > 80% of the doses. Infants were tested for HIV-1 at 6 weeks. Results: Seventy women were randomized to Thai-CDC and 69 to HIVNET-012 regimens. More women were compliant with the antenatal (86%) than the intrapartum (44%) Thai-CDC regimen doses ( $P=0.001$ ). Ninety-seven per cent took the maternal and 91% gave the infant dose of the HIVNET-012 regimen ( $P=0.2$ ). Overall, 41% were compliant with the Thai-CDC regimen and 87% with the HIVNET-012 regimen ( $P<0.001$ ). Compliance with the Thai-CDC regimen was associated with partner support of antiretroviral use [odds ratio (OR), 3.0; 95% confidence interval (CI), 1.0-9.1] and knowledge at recruitment that antiretroviral drugs could prevent infant HIV-1 (OR, 2.9; 95% CI, 1.0-8.1). Compliance with the HIVNET-012 regimen was associated with partner notification (OR, 8.0; 95% CI, 1.5-50) and partner willingness to have HIV-1 testing (OR, 7.5; 95% CI, 1.4-40). There was a trend for a higher risk of transmission with the HIVNET-012 regimen than with the Thai-CDC regimen (22% versus 9%;  $P=0.07$ ). Conclusion: Compliance with the Thai-CDC and HIVNET-012 regimens was comparable to that in efficacy trials. Partner involvement, support and education on perinatal HIV-1 prevention may improve compliance and increase the number of infants protected from **HIV-1 infection**. (author's)

**URL:**

**Publication Date:** 2003

**Dangerous liaisons. People in cross-generational relationships underestimate risk.**

**Author:** Population Services International [PSI]

**Source:** Washington, D.C., PSI, 2003 Feb. [2] p. Research Brief No. 2

**Abstract:**

A PSI study of Kenyan women's and men's motivations for entering into cross-generational relationships<sup>1</sup> and their risk perceptions of such relationships has found that most participants underestimate the risk of sexually-transmitted infections (STIs) and HIV. HIV/AIDS disproportionately affects young African women as compared to older men. Studies have found that **HIV infection** in women 15-24 is significantly higher than for men in the same age group. Researchers believe that both young women's physiological susceptibility and sexual relationships with older partners contribute to their increased risk of infection. Cross-generational relationships are reportedly quite common. A comprehensive literature review of quantitative studies in sub-Saharan Africa revealed that 12% to among men over the age of 30 who reported non-marital partners, 25% had a partner at least 10 years younger. Data were collected in June 2000 as part of a behavior change communication strategy for young women in **Kenya** that addressed crossgenerational relationships and their risk for STIs and HIV/AIDS. Eight focus groups were conducted with women aged 15-19 and 28 in-depth interviews were carried out with men aged 30 years and older in Nairobi, Mombassa, Kisumu and Meru. Participants discussed motivations for entering into cross-generational relationships, perceived risks and relationship dynamics. (author's)

**URL:**

**Publication Date:** 2003

**Differential of HIV prevalence in women and men who attended sexually transmitted disease clinics at HIV sentinel surveillance sites in Kenya, 1990-2001.**

**Author:** Joesoef MR; Cheluget B; Marum LH; Wandera C; Ryan CA

**Source:** International Journal of STD and AIDS. 2003 Mar;14(3):193-196.

**Abstract:**

Several studies in sub-Saharan Africa have reported that HIV prevalence in young women is higher than in young men. We used data from **Kenya** HIV sentinel surveillance conducted from 1990 to 2001 among sexually transmitted disease (STD) patients (15± 49 years old) to investigate consistency of gender differentials over time and their risk factors. Of the 15,889 STD patients, the HIV prevalence ranged from 16.0% in 1990 to 41.8% in 1997. The odds ratios (ORs) of **HIV infection** for women compared to men decreased by age; women 15± 24 years were nearly twice as likely as men of the same ages to be HIV infected (OR 1.7 [1.5± 2.0]), but risk in those <44 years was almost equal (OR 0.8 [95% CI 0.7± 1.2]). The odds of **HIV infection** for women compared to men were twice in unmarried patients (OR 2.1 [95% CI 1.8± 2.3]). This association persisted after controlling for age groups or marital status, residence, level of education, and presence of STD syndromes. This pattern had been consistent over 12 years. Adolescent women with symptoms of STDs should be a focus for the HIV/STD intervention programmes because of their high risk for HIV. (author's)

**URL:**

**Publication Date:** 2003

**Title:** Dimensions of the emerging orphan crisis in sub-Saharan Africa.

**Author:** Bicego G; Rutstein S; Johnson K

**Source:** Social Science and Medicine. 2003 Mar;56(6):1235-1247.

**Abstract:**

This study uses recent Demographic and Health Survey (DHS) data to examine levels, trends, and differentials in orphan prevalence in sub-Saharan Africa. The first part of the analysis presents direct estimates of orphan prevalence in 17 countries during the period 1995-2000. We find a strong correlation between orphanhood prevalence and national adult HIV prevalence estimates lending support to the interpretation of the orphan crisis as, in large part, AIDS-related. The second part of the analysis consists of an in-depth study of trends and age-patterns in orphan prevalence and welfare in the 1990s for five countries that have had widely divergent HIV prevalence levels (Zimbabwe, **Kenya**, Tanzania, Ghana, and Niger). The vulnerability of orphans with respect to their situation in households and educational opportunities is evaluated in relation to non-orphans' experience. The results of the analysis indicate that losing one or both parents is significantly associated with diminished chances of being at the appropriate grade level for age. Our results are interpreted in the context of societal responses to the crisis, and potential recommendations for intervention. (author's)

**URL:**

**Publication Date:** 2003

**The effect of dual infection with HIV and malaria on pregnancy outcome in western Kenya.**

**Author:** Ayisi JG; van Eijk AM; ter Kuile FO; Kolczak MS; Otieno JA

**Source:** AIDS. 2003 Mar 7;17(4):585-594.

**Abstract:**

**Objective:** To determine the effect of dual infection with HIV and malaria on birth outcomes and maternal anaemia among women delivering at a large public hospital in Kisumu, western Kenya. **Subjects and methods:** Data on obstetric and neonatal characteristics, maternal and placental parasitaemia, and postpartum haemoglobin levels were collected from women enrolled in a cohort study of the interaction between malaria and HIV during pregnancy. **Results:** Between 1996 and 1999, data were available from 2466 singleton deliveries. The maternal HIV seroprevalence was 24.3%, and at delivery 22.0% of the women had evidence of malaria. Low birthweight, preterm delivery (PTD), intrauterine growth retardation (IUGR) and maternal anaemia (haemoglobin, <8 g/dl) occurred in 4.6, 6.7, 9.8 and 13.8% of deliveries, respectively. Maternal HIV, in the absence of malaria, was associated with a 99 g (95% CI 52-145) reduction in mean birthweight among all gravidae. Malaria was associated with both IUGR and PTD, resulting in a reduction in mean birthweight of 145 g (95% CI 82-209) among HIV-seronegative and 206 g (95% CI 115-298) among HIV-seropositive primigravidae, but not among multigravidae. Both HIV and malaria were significant risk factors for postpartum maternal anaemia, and HIV-seropositive women with malaria were twice as likely to have anaemia than HIV-seronegative women with or without malaria. **Conclusion:** Women with dual infection are at particular risk of adverse birth outcomes. In areas with a moderate or high prevalence of HIV and malaria, all pregnant women should be the focus of malaria and anaemia control efforts to improve birth outcomes. (author's)

**URL:**

**Publication Date:** 2003

**The effect of rapid HIV-1 testing on uptake of perinatal HIV-1 interventions: a randomized clinical trial.**

**Author:** Malonza IM; Richardson BA; Kreiss JK; Bwayo JJ; Stewart GC

**Source:** AIDS. 2003 Jan 3;17(1):113-118.

**Abstract:**

**Objective:** We examined whether HIV-1 testing using a rapid assay increases the proportion of pregnant women obtaining HIV-1 results and the uptake of perinatal HIV-1 interventions. **Methods:** Pregnant women attending public health clinics in Nairobi were offered voluntary counselling and testing for HIV-1. Consenting women were randomly assigned to receive either rapid or conventional HIV-1 testing. Women randomly assigned to rapid testing were allowed to receive same-day results or to return later. The results for women randomly assigned to conventional enzyme-linked immunosorbent assay (ELISA) testing were available after 7 days. HIV-1-infected women were referred for antiretroviral prophylaxis to prevent mother-to-child transmission of HIV-1. **Results:** Among 1282 women offered voluntary HIV-1 testing and counselling, 1249 accepted testing, of whom 627 were randomly assigned to rapid testing and 622 to conventional testing. The median duration between testing and obtaining results was 0 days for women who received rapid testing compared with 11 days for women who received conventional testing. The percentage receiving HIV-1 results was significantly higher among women who received rapid testing compared with conventional testing. Of 161 HIV-1-seropositive women, only 24 received antiretroviral prophylaxis. The uptake of perinatal HIV-1 interventions did not differ between HIV-1-seropositive women randomly assigned to rapid testing or conventional ELISA testing. **Conclusion:** Rapid HIV-1 testing significantly increased the proportion of women receiving HIV-1 results, which is important for sexual and perinatal HIV-1 prevention. The challenge remains to improve the uptake of perinatal HIV-1 interventions among HIV-1-seropositive women. (author's)

**URL:**

**Publication Date:** 2003

### **Health and nutritional status of orphans less than 6 years old cared for by relatives in western Kenya.**

**Author:** Lindblade KA; Odhiambo F; Rosen DH; DeCock KM

**Source:** Tropical Medicine and International Health. 2003 Jan;8(1):67-72.

**Abstract:**

One of the consequences of the HIV/AIDS epidemic in sub-Saharan Africa is the increase in the number of orphans, estimated to have reached 6-11% of children <15 years old in 2000. Orphans who stay in their communities may be at increased risk for poor health due to reduced circumstances and loss of parental care. We have used data from a population-based study in rural western **Kenya** to compare basic health and nutritional indicators between non-orphaned children <6 years old and children who lost either or both of their parents. In June 2000, all children <6 years old who had been recruited for a cross-sectional survey in 60 villages of Rarieda Division, western **Kenya**, in June 1999 were invited to return for a follow-up survey. Basic demographic characteristics, including the vital status of the child's parents, and health histories were requested from all 1190 participants of the follow-up survey, along with a finger-prick blood sample for determination of malaria parasite status and haemoglobin (Hb) levels. Height-for-age (H/A) and weight-for-height (W/H) Z-scores were also calculated from anthropometric measurements. Overall, 7.9% of the children had lost one or both their parents (6.4% had lost their father, 0.8% had lost their mother and 0.7% had lost both parents). While there was no difference between orphans and non-orphans regarding most of the key health indicators (prevalence of fever and malaria parasitaemia, history of illness, Hb levels, H/A Z scores), W/H Z-scores in orphans were almost 0.3 standard deviations lower than those of non-orphans. This association was more pronounced among paternal orphans and those who had lost a parent more than 1 year ago. These results suggest that the health status of surviving orphans living in their community is similar to that of the non-orphan population, but longitudinal cohort studies should be conducted to determine better the overall impact of orphanhood on child health. (author's)

**URL:**

**Publication Date:** 2003

### **HIV increases the risk of malaria in women of all gravidities in Kisumu, Kenya.**

**Author:** van Eijk AM; Ayisi JG; ter Kuile FO; Misore AO; Otieno JA

**Source:** AIDS. 2003 Mar 7;17(4):595-603.

**Abstract:**

**Objective:** To study the importance of **HIV infection** for malaria in pregnancy in Kisumu, **Kenya**. **Subjects and methods:** Healthy women with an uncomplicated pregnancy of 32 weeks or more attending the prenatal clinic in the Provincial Hospital between June 1996 and March 1999 were tested for HIV and malaria after consent had been obtained. For participating women who delivered in the same hospital, a blood smear of the mother and the placenta were obtained. **Results:** In the third trimester, 5093 women consented to testing: the prevalence of malaria and HIV was 20.1 and 24.9%, respectively. Among the 2502 screened women who delivered in the hospital, the prevalence of HIV, peripheral parasitaemia and placental malaria was 24.5, 15.2, and 19.0%, respectively. Compared with HIV-seronegative women, HIV-seropositive women were more likely to be parasitaemic, to have higher parasite densities, and to be febrile when parasitaemic. Placental **infections** in HIV-seropositive women were more likely to be chronic, as indicated by the presence of moderate to heavy pigment depositions. When adjusted by age, the typical gravidity-specific pattern of malaria in pregnancy disappeared in HIV-seropositive women; HIV-seropositive primigravidae had a similar risk of malaria as HIV-seropositive multigravidae. The excess malaria attributable to HIV in the third trimester increased from 34.6% among HIV-seropositive primigravidae, to 41.5% among HIV-seropositive secundigravidae, and 50.7% among HIV-seropositive gravidae with three or more pregnancies. **Conclusion:** **HIV infection** alters patterns of malaria in pregnant women; in areas with both infections, all pregnant women should use malaria prevention. (author's)

**URL:**

**Publication Date:** 2003

**HIV risk in relation to marriage in areas with high prevalence of HIV infection.**

**Author:** Glynn JR; Carael M; Buve A; Musonda RM; Kahindo M

**Source:** JAIDS. Journal of Acquired Immune Deficiency Syndromes. 2003 Aug 1;33(4):526-535.

**Abstract:**

In sub-Saharan Africa, the prevalence of **HIV infection** among young women is much higher than that among young men. Many women enter marriage HIV-infected, suggesting that men may be predominantly infected by their wives. Using data from cross-sectional surveys in Kisumu, **Kenya**, and Ndola, Zambia, in 1997, the prevalence of **HIV infection** at marriage was estimated from age at marriage and age- and sex-specific prevalence of **HIV infection** among unmarried individuals. Using a deterministic model, this prevalence was compared with measured concordance of **HIV infection** among recently married couples to estimate transmission probabilities within marriage and extramarital incidence of **HIV infection**. Over a wide range of assumptions, we estimated that at least one quarter of cases of **HIV infection** in recently married men were acquired from extramarital partnerships, and for both men and women, less than one half of cases of **HIV infection** were acquired from their spouse. In these sites, many infections in married men, even in those with HIV-infected wives, may be acquired from outside the marriage. (author's)

**URL:**

**Publication Date:** 2003

**Impact of HIV infection on invasive cervical cancer in Kenyan women.**

**Author:** Gichangi PB; Bwayo J; Estambale B; De Vuyst H; Ojwang S

**Source:** AIDS. 2003 Sep;17(13):1963-1968.

**Abstract:**

**Objectives:** To determine the association between invasive cervical cancer (ICC) and **HIV infection** in Kenyan women. **Study design:** Case-control, with ICC patients as cases, and women with uterine fibroids as controls. **Methods:** Medical and socio-demographic data were collected from 367 ICC patients, and 226 women with fibroids. After informed consent, HIV testing was done. **Results:** ICC patients were older than fibroid patients (48 versus 41 years;  $P < 0.001$ ), with an HIV seroprevalence of 15% and 12% respectively ( $P > 0.05$ ). However, cases younger than 35 years were 2.6-times more likely to be HIV positive than controls of similar age [35% versus 17%; odds ratio (OR), 2.6;  $P = 0.043$ ]. ICC HIV-seropositive patients were, on average, 10 years younger than HIV-seronegative patients (40 versus 50 years;  $P < 0.001$ ). Eighty per cent of HIV-seropositive and 77% of HIV-seronegative ICC patients were in FIGO stage IIb or above. However, the odds of having poorly differentiated tumours was three times higher for HIV-seropositive than for HIV-seronegative ICC patients (77% versus 52%; OR, 3.1;  $P = 0.038$ ) after adjusting for histological cell type and clinical stage. Mean CD4 cell count was  $833 \times 10^6$  cells/l in ICC and  $1025 \times 10^6$  cells/l in fibroid patients ( $P = 0.001$ ). **Conclusion:** Young women with ICC were more often HIV infected than women with fibroids of the same age groups. **HIV infection** was associated with poor histological differentiation of the tumours. These findings suggest an accelerated clinical progression of premalignant cervical lesions to ICC in HIV-infected women. (author's)

**URL:**

**Publication Date:** 2003

**Male circumcision: current epidemiological and field evidence. Program and policy implications for HIV prevention and reproductive health, September 18 and 19, 2002. Conference report.**

**Author:** Clark S; Fua I

**Source:** Washington, D.C., USAID, 2003 May. [46] p. USAID Subaward No. HRN-A-00-97-00021-00-PATH-1

**Abstract:**

Final Recommendations from the Day 2 Meeting: Facilitate rapid assessment of male circumcision (MC) through sharing of existing protocols and data collection instruments. Carry out a prospective, multisite study of complication rates for MC (both traditional and clinical) among adults and neonates. Priority should be given to the three countries with RCTs (**Kenya**, South Africa, Uganda). Convene a MC Technical Working Group meeting to review and compare surgical and other medical procedures, medical devices, and guidelines for adolescent/adult and possibly neonatal MC. JHPIEGO would host, and Dr. Dipo Otolorin would chair, the meeting. Conduct a cost-effectiveness study to assess the cost of scaling-up and sustainability, perhaps based in part on the experience of the Siaya, **Kenya**, MC introduction project. Work with the media, i.e., be more proactive in providing balanced and accurate information to the press and possibly in responding to internet websites that may spread misinformation (such as materials posted by the more extremist anti-MC groups). Implement MC assessment and introduction studies in Zambia, Haiti, and possibly Kwa-Zulu/ Natal, South Africa. Along the lines of the three clinical trials in **Kenya**, Uganda, and South Africa, there should be multiple sites for introducing MC as a voluntary aspect of male RH services. The sites should communicate with one another to ensure some degree of comparability. Cameroon was also mentioned as a possible site. Possibly assess different types of MC practices regarding their relative efficacy against HIV. Some forms of MC may only have a partial effect if the receptor cells are not removed to the same degree. A multisite study of complications could also look at different practices and styles of MC, but needs to be carried out as a non-intervention so as not to influence the practices under study. Encourage WHO to co-host with JHPIEGO a technical consultation on MC in traditional and informal medical sectors. The meeting would help develop a consensus on standards of practice, medical and educational issues with regard to HIV prevention, adolescent RH, etc. Such a consultation could take place before the results of the RCTs are known, not to form policies in advance of the evidence, but to discuss traditional MC practices, standards of care, integration of RH/HIV prevention into traditional rites of passage, etc. Disseminate the results of this meeting, via a three-page brief, to key government officials and other stakeholders. (excerpt)

**URL:**

**Publication Date:** 2003

**Mother-to-child HIV transmission in resource poor settings: how to improve coverage?**

**Author:** Temmerman M; Quaghebeur A; Mwanyumba F; Mandaliya K

**Source:** AIDS. 2003 May 23;17(8):1239-1242.

**Abstract:**

Objectives: To review coverage of the current nevirapine prevention model in Coast Provincial General Hospital (CPGH) in Mombasa, **Kenya**, and to reflect on alternative models to reduce mother-to-child transmission (MTCT) of HIV. Methods: At the antenatal clinic, health information is provided, followed by pre-test HIV voluntary counselling and testing (VCT). Because many women deliver at home, HIV-infected women are provided with a tablet of 200 mg nevirapine for themselves, and with 0.6 ml (6 mg) nevirapine in a luer lock syringe for the baby. Data on coverage are provided from antenatal records and delivery registers. Results: Out of 3564 first-visit pregnant women receiving health education, 2516 were counselled (71%) and 2483 were tested (97%); 348 were HIV positive (14%), and 106 women took nevirapine in labour, resulting in an overall coverage rate of 20%. In the same period, approximately 6000 women gave birth in CPGH, of whom 21% had attended a facility with VCT services. Assuming an overall HIV prevalence of 14%, 840 mother-infant pairs could have received a preventative intervention with a hospital policy of antepartum as well as intrapartum testing and treatment in place. Conclusion: The coverage of perinatal MTCT was low as a result of a variety of programme elements requiring urgent improvement at different levels. Alternative models, including intrapartum testing, should be considered as a safety net for women without access to VCT before delivery, and recommendations for nevirapine should be considered in the light of home deliveries. (author's)

**URL:**

**Publication Date:** 2003

**Nairobi's poorest women have highest level of risky sexual behavior, least knowledge of HIV prevention.**

**Author:** Hollander D

**Source:** International Family Planning Perspectives. 2003 Jun;29(2):[4] p.

**Abstract:**

Women living in the slums of Nairobi engage in riskier sexual behavior than women living in less-deprived areas of the city. They began having intercourse at a younger age and are more likely to have had multiple partners in the recent past. Residents of slums and other women are equally familiar with basic facts about HIV and AIDS, but knowledge of how to prevent **HIV infection** is markedly lower among the most disadvantaged group. These are among the key findings of an analysis pooling data from the 1989, 1993 and 1998 **Kenya** Demographic and Health Surveys. (excerpt)

**URL:**

**Publication Date:** 2003

**Perception of risk of HIV / AIDS and sexual behaviour in Kenya.**

**Author:** Akwara PA; Madise NJ; Hinde A

**Source:** Journal of Biosocial Science. 2003 Jul;35(3):385-411.

**Abstract:**

The association between perception of risk of **HIV infection** and sexual behaviour remains poorly understood, although perception of risk is considered to be the first stage towards behavioural change from risk-taking to safer behaviour. Using data from the 1998 **Kenya** Demographic and Health Survey, logistic regression models were fitted to examine the direction and the strength of the association between perceived risk of HIV/AIDS and risky sexual behaviour in the last 12 months before the survey. The findings indicate a strong positive association between perceived risk of HIV/AIDS and risky sexual behaviour for both women and men. Controlling for sociodemographic, sexual exposure and knowledge factors such as age, marital status, education, work status, residence, ethnicity, source of AIDS information, specific knowledge of AIDS, and condom use to avoid AIDS did not change the direction of the association, but altered its strength slightly. Young and unmarried women and men were more likely than older and married ones to report risky sexual behaviour. Ethnicity was significantly associated with risky sexual behaviour, suggesting a need to identify the contextual and social factors that influence behaviour among Kenyan people. (author's)

**URL:**

**Publication Date: 2003**

**Title:** The acceptability of male circumcision to reduce **HIV infections** in Nyanza province, **Kenya**.

**Author:** Bailey RC; Muga R; Poulussen R; Abicht H

**Source:** AIDS Care. 2002;14(1):27-40.

**Abstract:**

Compelling epidemiological evidence showing a significant association between lack of male circumcision and **HIV infection** has prompted calls for consideration of male circumcision interventions as a strategy for reducing HIV prevalence in highly affected areas where circumcision is little practiced and transmission is predominantly heterosexual. Little is known about whether male circumcision interventions would be acceptable or feasible in traditionally non-circumcising areas of Africa. This study assesses the acceptability of male circumcision in the Luo, a large, traditionally non-circumcising ethnic group in western **Kenya**. Separate focused group discussions with adult Luo men and women and semi- structured interviews with clinicians were conducted in Nyanza Province, **Kenya**. The primary barriers to acceptance of male circumcision were cultural identification, fear of pain and excessive bleeding and cost. The main facilitators were association of male circumcision with better hygiene and reduced risk of infection. Both men and women were eager for promotion of genital hygiene and male circumcision, and they desired availability of circumcision clinical services in the Province's health facilities. Clinicians lacked the knowledge and resources to offer safe circumcision counseling and services. If results from this study are valid for other areas of sub-Saharan Africa, acceptability of male circumcision as a means to reduce sexually transmitted diseases and HIV is higher than previously suspected. Further studies are needed in other regions to assess the feasibility of introducing acceptable male circumcision information and services to reduce HIV transmission. (author's)

**URL:**

**Publication Date: 2002**

**Adolescent boys and unsafe sex in Kenya. [[Les adolescents kenyans et les rapports sexuels peu sûrs]]**

**Source:** Progress in Reproductive Health Research. 2002;(58):4.

**Abstract:**

This paper presents the findings of a qualitative study that examined the dual risks of unwanted pregnancy and sexually transmitted infections (STIs)/HIV among young schoolboys aged 15-19 in **Kenya**. Data were drawn from eight focus group discussions with a total of 90 boys. Overall, findings provide rich insights into the perceptions, behaviors and motivations of young males with regard to sexual activity and vulnerability to STIs, including **HIV infection**. They highlight the fact that despite considerable awareness of sexual risks, modes of transmission of infection and protective value of condoms, young men continue to exhibit high-risk behaviors. Based on the findings, it points to the need to promote communication skills and sexual responsibility among adolescents and provide condoms to young people (free or at affordable prices) through outlets acceptable to them.

**URL:**

**Publication Date:** 2002

**Assessing the cost and willingness to pay for voluntary HIV counselling and testing in Kenya.**

**Author:** Forsythe S; Arthur G; Ngatia G; Mutemi R; Odhiambo J

**Source:** Health Policy and Planning. 2002 Jun;17(2):187-95.

**Abstract:**

Voluntary counseling and testing (VCT) should be an important component in a country's HIV/AIDS prevention and care strategy. However, the high cost of VCT raises concerns about the affordability of VCT in low-income countries. This study was designed to assess the costs of VCT and to identify potential ways of introducing VCT more affordably. An economic evaluation was performed of VCT services in two rural health centers in Thika District and an urban health center in Nairobi, **Kenya**. A contingent valuation study was also performed among VCT clients. Estimates were developed regarding the national cost of offering VCT services in **Kenya**. VCT added US\$6800 per year to the average cost of providing services at each of these three health centers. The evaluation revealed that the incremental cost, from the government's perspective, of adding VCT is approximately US\$16 per client. The estimated incremental cost per client is significantly less than a previous cost estimate in **Kenya**, which estimated a cost per client of US\$26. The difference in cost estimates is in part attributable to the emphasis of this project on integrating VCT services into existing health centers, rather than creating stand-alone sites. The cost of VCT services might be further reduced to as little as US\$8 per client if a government health worker could perform the counseling. A contingent valuation study indicated that most VCT clients would be willing to pay at least US\$2 for the service. However, if the full cost of the service were charged to the client, less than 5% of clients indicated they were willing and able to pay for the service. Integrating services into existing health centers can significantly reduce the cost of VCT. Additional cost reductions may be feasible if health center staff are hired to perform the counseling. Furthermore, it appears that some level of cost recovery from VCT clients is feasible and can contribute to sustainability, although it is very unlikely that the full cost of the service could be recovered from the clients. The national provision of VCT in all Kenyan health centers is likely to be an affordable option, although additional operational research is required to determine the most appropriate way of scaling up VCT services throughout the country. (author's)

**URL:**

**Publication Date:** 2002

**Association between cervical shedding of herpes simplex virus and HIV-1.**

**Author:** McClelland RS; Wang CC; Overbaugh J; Richardson BA; Corey L

**Source:** AIDS. 2002 Dec 6;16(18):2425-2430.

**Abstract:**

Objective: To investigate the association between the cervical shedding of herpes simplex virus (HSV) and HIV-1. Design: A cross-sectional study on 200 women seropositive for both HSV-2 and HIV-1 was conducted in a family planning clinic at the Coast Provincial General Hospital, Mombasa, **Kenya**. Main outcome measures: Quantities of HSV DNA (types 1 and 2) and HIV-1 RNA as well as the presence or absence of HIV-1 proviral DNA in cervical secretions were determined and compared. Results: There was a significant correlation between the quantities of HSV DNA and HIV-1 RNA in the cervical secretions of HSV-shedding women (Pearson's  $r=0.24$ ,  $P=0.05$ ). A 10-fold increase in the quantity of cervical HSV DNA was associated with 1.35-fold higher cervical HIV-1-RNA levels (95% CI 1.00-1.81;  $P=0.05$ ), and with 1.36-fold greater odds of detection of HIV-1 proviral DNA (95% CI 1.05-1.75;  $P=0.02$ ). Conclusion: Higher levels of cervical HSV were associated with higher levels of expressed HIV-1 and with the more frequent detection of HIV-1-infected cells in cervical secretions. Prospective studies are needed to explore further the association between non-ulcerative cervical HSV reactivation and HIV-1 shedding. Such a relationship may have important implications for interventions designed to slow the spread of HIV-1. (author's)

**URL:**

**Publication Date:** 2002

**Combination of HIV / malaria increases complications during pregnancy.**

**Author:** Nederlandse Organisatie voor Wetenschappelijk Onderzoek

**Source:** [The Hague], Netherlands, Nederlandse Organisatie voor Wetenschappelijk Onderzoek, 2002 Oct 23. 2 p.

**Abstract:**

Women with a combined HIV/malaria infection more frequently experience complications during pregnancy than healthy women. This is revealed in research from **Kenya**. However, to their surprise the researchers established that HIV-infected mothers with a mild malaria infection less frequently transmit the **HIV infection** to their children than HIV-infected mothers without malaria. (author's)

**URL:**

**Publication Date:** 2002

**Correlates of human herpesvirus 8 seropositivity among heterosexual men in**

**Kenya.**

**Author:** Baeten JM; Chohan BH; Lavreys L; Rakwar JP; Ashley R

**Source:** AIDS. 2002 Oct 18;16(15):2073-2078.

**Abstract:**

Background: Several studies have suggested that sexual transmission of human herpesvirus 8 (HHV-8) occurs among homosexual men in developed countries. However, few studies have examined heterosexual HHV-8 transmission, especially among African populations in which HHV-8 is endemic. Objectives: To determine the seroprevalence and correlates of HHV-8 infection among heterosexual African men. Design: Cross-sectional study. Methods: Participants were 1061 men enrolled in a prospective cohort study of risk factors for HIV-1 acquisition among trucking company employees in Mombasa, **Kenya**. Stored frozen sera from the study baseline visit were tested for antibodies to HHV-8 by whole-virus lysate ELISA. Results: HHV-8 seroprevalence was 43%. In multivariate logistic regression analysis, HHV-8 infection was independently associated with older age [for men aged 30-39 years: odds ratio (OR), 1.5; 95% confidence interval (CI), 1.1-2.0; for men aged  $\geq$  40 years: OR, 1.7; 95% CI, 1.1-2.7, compared with men aged <30 years], Christian religion (OR, 1.6; 95% CI, 1.2-2.1), being uncircumcised (OR, 1.5; 95% CI, 1.0-2.2), and ever having syphilis (OR, 2.2; 95% CI, 1.4-3.5). Ever having used condoms was associated with decreased likelihood of infection (OR, 0.7; 95% CI, 0.6-1.0). Seropositivity was not significantly related to other sexual behaviors characterized or to HIV-1 status. Conclusions: HHV-8 seropositivity is common in this population and increases with age, suggesting on-going transmission during adulthood. Infection was more common among men who were uncircumcised or who had ever had syphilis and was less common among those who had ever used condoms, suggesting that sexual factors may play a role in HHV-8 transmission. Prospective studies of HHV-8 acquisition in heterosexual African populations are needed to demonstrate whether safer sexual practices can reduce transmission. (author's)

**URL:**

**Publication Date:** 2002

**Title:** Counseling of couples facilitates HIV disclosure.

**Author:** Best K

**Source:** Network. 2002;21(4):25-7.

**Abstract:**

Reproductive health professionals have the responsibility to protect the confidentiality of their clients, even those who are HIV-positive. Disclosing the HIV status of an infected woman may lead to violence or abandonment by a partner. Such involuntary disclosure may also discourage both men and women from seeking HIV voluntary counseling and testing (VCT) services, which have been shown in a randomized controlled trial involving some 4000 participants in **Kenya**, Tanzania, and Trinidad to be highly effective in reducing sexual risk behavior. However, offering VCT to couples is one way to facilitate such communication. Thus, researchers who have studied the effectiveness of VCT services generally recommend that: VCT programs recruit couples or partners of individuals who come for HIV testing services; counseling sessions address sexual communication and decision-making, stigmatization of HIV-positive partners, and negative reactions leading to violence; counselors be specifically trained to conduct couple counseling; provision of additional support and counseling services to couples be encouraged; and VCT counselor be attentive to youth.

**URL:**

**Publication Date:** 2002

**Does breastfeeding affect the health of HIV-positive women? Studies disagree.**

**Author:** Remez L

**Source:** International Family Planning Perspectives. 2002 Mar;28(1):50-2.

**Abstract:**

This article highlights two studies with contradictory findings on whether the decision to breastfeed affects the health of HIV-infected women. In the Kenyan study, a secondary analysis of data was conducted from 397 seropositive new mothers who were randomly assigned to breastfeeding. It was found that the women were three times as likely to die within 24 months of delivery as were those assigned to formula-feed. Moreover, infants born to HIV-infected women who died had an elevated risk of dying before the age of 2 years, even after the researchers controlled for whether the infant was infected with HIV. In a similar study conducted in Durban, South Africa, it was noted that no significant difference at the univariate level in mortality by 15 months postpartum between women who choose to breastfeed and those who elected to give their infant formula. Furthermore, multivariate logistic regression found no significant difference in morbidity, even after baseline CD4 counts and hemoglobin levels were controlled for.

**URL:**

**Publication Date:** 2002

**Feeding method does not affect mortality of infants of HIV-infected women.**

**Author:** Rosenberg J

**Source:** International Family Planning Perspectives. 2002 Jun;28(2):129-30.

**Abstract:**

A sample of HIV-infected women were recruited from antenatal clinics in Nairobi, **Kenya**, between 1992 and 1998 to compare the effects of breastfeeding and formula-feeding on mortality, morbidity, and nutrition among infants. 425 HIV- infected women participated in the study: 212 were assigned to breastfeed and 213 to formula-feed. Overall, the study showed that of infants born to HIV-infected women, those assigned to be formula-fed were no more likely than those assigned to be breastfed to die before their second birthday, even when infection with HIV was taken into account. However, HIV-free survival at 2 years was significantly more frequent among infants in the formula-fed group than among those in the breastfeeding group. It notes that diarrhea, pneumonia and malnutrition were the most common causes of death, but none occurred more often in one feeding group than in the other. The researchers conclude that the use of formula to prevent HIV-1 transmission can be a viable option even in resource poor settings, if maternal education, clean water, a supply of formula and access to health care are available.

**URL:**

**Publication Date:** 2002

**HIV and cervical cancer in Kenya. [[VIH et cancer du col de l'utérus au Kenya]]**

**Author:** Gichangi P; De Vuyst H; Estambale B; Rogo K; Bwayo J

**Source:** International Journal of Gynecology and Obstetrics. 2002;76:55-63.

**Abstract:**

The aim was to determine the effect of the HIV epidemic on invasive cervical cancer in **Kenya**. Of the 3902 women who were diagnosed with reproductive tract malignancies at Kenyatta National Hospital (KNH) from 1989-98, 85% had invasive cervical cancer. Age at presentation and severity of cervical cancer were studied for a 9-year period when national HIV prevalence went from 5% to 5-10%, to 10-15%. There was no significant change in either age at presentation or severity of cervical cancer. Of 118 (5%) women who were tested for HIV, 36 (31%) were seropositive. These women were 5 years younger at presentation than HIV-negative women. A two to three-fold increase in HIV prevalence in **Kenya** did not seem to have a proportional effect on the incidence of cervical cancer. Yet, HIV-positive women who presented with cervical cancer were significantly younger than HIV-negative women. (author's)

**URL:**

**Publication Date:** 2002

**Immunity to placental malaria. IV. Placental malaria is associated with up regulation of macrophage migration inhibitory factor in intervillous blood.**

**Author:** Chaisavaneeyakorn S; Moore JM; Othoro C; Otieno J; Chaiyaroj SC; Shi YP

**Source:** Journal of Infectious Diseases. 2002 Nov 1;186(9):1371-1375.

**Abstract:**

Macrophage migration inhibitory factor (MIF) may play a role in immune responses to malaria during pregnancy by virtue of its ability to activate macrophages and to overcome the immunosuppressive effect of glucocorticoids. The present study investigated whether plasma MIF levels are altered in pregnant women with placental malaria (PM) and/or human immunodeficiency virus (**HIV**) **infection**. For the first time it is demonstrated that MIF levels in the intervillous blood (IVB) plasma were significantly elevated, compared with that in both peripheral plasma (~500-fold) and cord plasma (4.6-fold;  $P < .01$ ). IVB mononuclear cells also produced significantly higher levels of MIF, compared with that of peripheral blood mononuclear cells. PM was associated with increased levels of MIF in the IVB plasma ( $P < .02$ ). Primigravid and secundigravid women had significantly higher levels of MIF in their IVB plasma than did multigravid women ( $P < .05$ ). **HIV infection** did not significantly alter MIF levels in any site examined. (author's)

**URL:**

**Publication Date:** 2002

**Integrating HIV prevention and care into maternal and child health care**

**settings: lessons learned from Horizons studies, July 23-27, 2001, Maasai Mara and Nairobi, Kenya. Consultation report.**

**Author:** Rutenberg N; Kalibala S; Mwai C; Rosen J

**Source:** Washington, D.C., Population Council, Horizons, 2002 Feb. 41 p. USAID Award No. HRN-A-00-97-00012-00

**Abstract:**

Horizons, a global operations research program based in the US, has undertaken operations research to examine the integration of HIV-related care in the maternal-child health (MCH) setting in several African countries. This was conducted in response to the continuing problem of inadequate access to high- quality HIV/AIDS prevention and care services among many women in the developing world. At a workshop held in **Kenya** in July 2001, participants discussed the experience and formulated practical strategies for improving this integration. This report summarizes that discussion according to seven key program components: training and motivation to improve the performance of health workers, supervision of HIV services and quality assurance of HIV testing, caring for mothers, voluntary counseling and testing services, counseling on infant feeding, provision of antiretroviral drugs to reduce mother-to-child transmission, and involving male partners. Overall, it is noted that success in integrating elements of HIV-related care into the MCH setting has been mixed, and many challenges remain before such care becomes routine. Obstacles include the shortcomings of health systems, pervasive stigma attached to HIV-infected women, and varied nature of HIV-related services. Several strategies to overcome these barriers are cited.

**URL:**

**Publication Date:** 2002

**Part time female sex workers in a suburban community in Kenya: a vulnerable hidden population.**

**Author:** Hawken MP; Melis RD; Ngombo DT; Mandaliya K; Ng'ang'a LW

**Source:** Sexually Transmitted Infections. 2002;78(4):271-273.

**Abstract:**

**Background:** In sub-Saharan Africa, female sex workers (FSWs) are a vulnerable high risk group for the acquisition and transmission of sexually transmitted infections (STI) and HIV. **Objectives:** To study parameters of sexual behavior and knowledge of STI and HIV, to describe health seeking behavior related to STI, and to measure the prevalence of gonorrhoea, chlamydia, syphilis, and HIV-1, to provide baseline data for targeted STI and HIV prevention interventions. **Methods:** In a cross sectional survey with snowballing recruitment, between February and March 2000, 503 self identified FSWs in a suburb in Mombasa, **Kenya**, were interviewed with a structured questionnaire and screened for gonorrhoea, chlamydia, syphilis, and HIV-1. **Results:** The mean number of sexual partners in the previous week was 2.8 (SD 1.6). The mean number of non-regular clients and regular clients in the previous week was 1.5 (1.0) and 1.0 (0.9) respectively. The median weekly income from sex work was \$US15. A total of 337 (67%) women had an alternative income in the informal sector. 146 (29%) and 145 (45%) never used a condom with a client and non-paying partner respectively. The prevalence of gonorrhoea, chlamydia, and syphilis was 1.8%, 4.2%, and 2.0% respectively. The overall HIV-1 seroprevalence was 30.6%. **Conclusions:** There is a large need for intensive STI and HIV prevention interventions in part time FSW. (author's)

**URL:**

**Publication Date:** 2002

**Maternal immune responses and risk of infant infection with HIV-1 after a short course zidovudine in a cohort of HIV-1 infected pregnant women in rural Kenya.**

**Author:** Makokha EP; Songok EM; Orago AA; Koech DK; Chemtai AK

**Source:** East African Medical Journal. 2002 Nov;79(11):567-573.

**Abstract:**

Objective: To investigate the effects of short-course nucleoside reverse transcriptase inhibitor (Zidovudine, ZDW/AZT) on maternal immune responses and risk of infant infection with HIV-1 among rural-based mothers in western **Kenya**. Design: A prospective cohort study involving HIV-1 seropositive pregnant mothers and their infants. Subjects: One hundred and seven HIV-1 seropositive asymptomatic pregnant women and their infants. Methods: After informed consent, the women were enrolled at gestation age between 16-24 weeks. For cultural and economic reasons, all mothers were allowed to breast feed their infants. Short-course antepartum regime of AZT was administered to all mothers starting at 36 weeks gestation until start of labour. Maternal absolute CD4+ T cell subset assays were performed before 3rd trimester (about 36 weeks gestation) and after a 4-week therapy of AZT (at least one month post-nuptially). Infant HIV-1 status was determined by HIV-1 DNA polymerase chain reaction (PCR) on samples sequentially taken at 1, 2, 3, 4, 6 and 9 months and confirmed by serology at 18 months of age. Interventions: Antepartum short-course orally administered AZT: 300mg twice-daily starting at 36 weeks gestation until start of labour, 300mg at labour onset and 300mg every three hours during labour until delivery. Main Outcome Measures: Maternal CD4+ T cell counts before and after AZT treatment. Determination of infant **HIV-1 infection** status. Results: Among 107 women sampled, only 59 received full dose of AZT and thus qualified for present analysis. Of these, 12 infected their children with HIV, while 47 did not. Comparison of CD4+ T cells before and after AZT treatment scored a significant rise in all mothers ( $P = 0.01$ ). This increase in CD4+ T cells was not significant among mothers who infected their infants with HIV-1 ( $P = 0.474$ ). However, a significant rise in CD4+ T cells following AZT therapy was observed only in mothers who did not transmit HIV-1 to their infants ( $P=0.014$ ). Conclusion: These data suggest that a rise in the CD4+ T cell counts following short AZT regimen, now widely in use in resource-weak countries, may be evidence of the active suppression of the replication of HIV. However, further studies to examine the multi-factorial effect of CD4+ lymphocytes and pregnancy on MTCT of HIV need to be carried out to help fully explain the effect of AZT on immune response and whether the CD4+T cell count can be used as a true test of immunological normalisation during antiretroviral therapy. (author's)

**URL:**

**Publication Date:** 2002

**Opportunity for prevention of HIV and sexually transmitted infections in Kenyan youth: results of a population-based survey.**

**Author:** Hawken MP; Melis RD; Ngombo DT; Mandaliya KN; Ng'ang'a LW

**Source:** JAIDS. Journal of Acquired Immune Deficiency Syndromes. 2002 Dec 15;31(5):529-535.

**Abstract:**

Background: Data from sentinel serosurveillance are useful to estimate **HIV infection** in populations but may not be representative of the general population. General population-based surveys attempt to avoid selection bias and are the most appropriate for tracking changes in exposure to risk of **HIV infection** over time and assessing changes in behavior following prevention campaigns. Objectives: To provide baseline data for targeted sexually transmitted infection (STI) and **HIV infection** prevention interventions by studying parameters of sexual behavior and knowledge of **HIV infection** and STIs, measuring health-seeking behavior related to STIs, and measuring gonorrhea, Chlamydia, syphilis, and HIV-1 prevalences. Design: Population-based survey with stratified sampling by age group from randomly selected households in a suburb of Mombasa, **Kenya**. Methods: A standard questionnaire was administered to 1497 consenting adults between the ages of 15 and 49 years who lived in randomly selected households. Urine and blood samples were obtained for the estimation of gonorrhea, chlamydial infection, syphilis, and **HIV-1 infection** prevalences. Results: Sexual activity in the past 12 months was limited to one partner in all age groups for most sexually active men (68%) and women (88%). More men than women reported two or more partners in the past 12 months (23% vs. 5%, respectively). Almost one half of those persons in the 15- to 19-year-old age group (56% of boys and 48% of girls) were sexually active. Condom use was low with all sexual partners, more so for women than for men. Reported STI symptoms in the past 12 months were high for both men and women. Knowledge of STI symptoms and **HIV infection** was present but incomplete. Overall HIV seroprevalence was 10.8%, with significantly higher rates among women (13.7%) than among men (8.0%). HIV seroprevalence in the 15- to 19-year-old age group was 3.2%. Female gender, Protestant religion, Catholic religion, and being divorced, separated, and widowed were significantly associated with HIV seroprevalence. Prevalences of gonorrhea, chlamydial infection, and syphilis were 0.9%, 1.5%, and 1.3%, respectively. Conclusions: This study emphasizes the vulnerability of young adults, in particular young women, to **HIV infection** and the need for intensive interventions in this group. The low use of condoms, incomplete knowledge of **HIV infection** and STIs, the high number of reported STIs, and the relatively low HIV-1 seroprevalence among the 15- to 19-year-old group indicate a large need for intensive STI and **HIV infection** prevention programs, especially for the 15- to 19-year-old age group. (author's)

**URL:**

**Publication Date:** 2002

### **Placental inflammation and perinatal transmission of HIV-1.**

**Author:** Mwanyumba F; Gaillard P; Inion I; Verhofstede C; Claeys P

**Source:** JAIDS. Journal of Acquired Immune Deficiency Syndromes. 2002 Mar 1;29(3):262-9.

**Abstract:**

The effect of placental membrane inflammation on mother-to-child transmission (MTCT) of HIV-1 is reported. Placentas from HIV-1-infected women were examined as part of a perinatal HIV-1 project in Mombasa, **Kenya**. Polymerase chain reaction (PCR) analysis was used to test for HIV-1 in the infants at birth and at 6 weeks. The maternal HIV-1 seroprevalence was 13.3% (298 of 2,235). The overall rate of MTCT of HIV-1 was 25.4%; PCR analysis revealed that of the 201 infants 6.0% (12) were already HIV-1 positive at birth (intrauterine transmission) and 19.4% (39) were infected during the peripartum period or in early neonatal life (perinatal transmission). The prevalence of acute chorioamnionitis was 8.8%, that of deciduitis was 10.8% and that of villitis was 1.6%. Acute chorioamnionitis was independently associated with peripartum HIV-1 transmission but not with in utero MTCT (17.9% versus 6.7% respectively; adjusted odds ratio, 3.9; 95% confidence interval [CI], 1.2-12.5;  $p = .025$ ). Other correlates of perinatal MTCT were presence of HIV in the genital tract and in the baby's oral cavity and a high maternal vital load in peripheral blood. The adjusted population attributable fraction of 12.8% (95% CI, 1.5%-22.8%) indicated that approximately 3% of MTCT could be prevented if acute chorioamnionitis was eliminated. The authors suggest that further research on the role of antimicrobial treatment in the prevention of chorioamnionitis and the reduction of peripartum MTCT needs to be performed. (author's)

**URL:**

**Publication Date:** 2002

**Title:** Response of a sexually transmitted infection epidemic to a treatment and prevention programme in Nairobi, **Kenya**.

**Author:** Moses S; Ngugi EN; Costigan A; Kariuki C; Maclean I

**Source:** Sexually Transmitted Infections. 2002 Apr;78 Suppl 1:i114-i120.

**Abstract:**

Although it seems possible in a developing country context such as **Kenya**, given appropriate inputs and a sound approach, to shift a sexually transmitted disease (STI) epidemic from phase II to III, it is not entirely clear how to go beyond this stage, to low levels of endemicity or even elimination. Perhaps the most important challenge now is to expand STI treatment and community STI/HIV prevention programs to a much larger scale. Although successful programs have been implemented in many areas of sub-Saharan Africa on a small scale, a significant impact in reducing the STI/HIV burden will not occur until program reach is expanded to district, provincial, and national levels. (author's)

**URL:**

**Publication Date:**

### **Sexual risk-taking in the slums of Nairobi, Kenya, 1993-98.**

**Author:** Zulu EM; Dodoo FN; Chika-Ezeh A

**Source:** Population Studies. 2002 Nov;56(3):311-323.

**Abstract:**

Relatively less attention has been paid to reproductive health problems facing deprived urban residents than to those facing rural residents in sub-Saharan Africa. This is probably because the majority of Africans live in rural areas, where they are presumed to have poorer medical, educational, and other social services. Yet, the unprecedented rate of urbanization and the accompanying disproportionate growth in the proportion of poor city residents pose new challenges for health care in the region. This study examines differences in sexual behaviour between slum residents and non-slum residents in Nairobi city. The results show that slum residents start sexual intercourse at earlier ages, have more sexual partners, and are less likely than other city residents to know of or adopt preventive measures against contracting HIV/AIDS. The findings highlight the need to treat slum residents as a subpopulation uniquely vulnerable to reproductive health problems, and to expend more resources in slum settings. (author's)

**URL:**

**Publication Date:** 2002

### **Socioeconomic status and risk of HIV infection in an urban population in Kenya.**

**Author:** Hargreaves JR; Morison LA; Chege J; Rutenburg N; Kahindo M

**Source:** Tropical Medicine and International Health. 2002 Sep;7(9):793-802.

**Abstract:**

This study aims to examine the relationship between socioeconomic status (SES), risk factors for **HIV infection** and HIV status in an urban population with high prevalence of **HIV infection** in sub-Saharan Africa. A cross-sectional population survey was conducted among adults from the city of Kisumu, **Kenya**, in 1996. Around 1000 men and 1000 women aged 15-49 years were interviewed using a structured questionnaire, and most gave a venous blood sample for HIV testing. SES was represented by a composite variable of educational status, occupation and household utilities. Multiple regression was used to examine whether SES was associated with **HIV infection** or with risk factors for **HIV infection**. **HIV** prevalence was 19.8% in males and 30.2% in females. Higher SES was associated with a more mobile lifestyle, later sexual debut and marriage among both sexes, and with circumcision among men aged 25-49 and condom use among women aged 25-49. Higher levels of alcohol consumption were associated with an increased risk of **HIV infection** and were more common among those of higher SES. Herpes simplex virus-2 infection was strongly associated with an increased risk of **HIV infection** and was more common among those of lower SES. HIV was associated with a lower SES among females aged 15-24 whereas in males aged 15-24 and females aged 25-49 there was some indication that it was associated with higher SES. Among males aged 25-49 there was no association between **HIV infection** and SES. Risk of infection was high among groups of all SES. Risk profiles suggested men and women of lower SES maybe at greater risk of newly acquired **HIV infection**. New infections may now be occurring fastest among young women of the lowest SES. (author's)

**URL:**

**Publication Date:** 2002

**Vulnerability of women in an African setting: lessons for mother-to-child HIV Transmission prevention programmes.**

**Author:** Gaillard P; Melis R; Mwanyumba F; Claeys P; Muigai E

**Source:** AIDS. 2002 Apr 12;16(6):937-939.

**Abstract:**

After discussing advantages and risks, only a third of the 290 HIV-infected women included in an intervention study to reduce mother-to-child transmission of HIV in Mombasa, **Kenya**, informed their partners of their results. Despite careful counseling, 10% subsequently experienced violence or disruption of their relationship. To increase the uptake of interventions to reduce perinatal HIV transmission safely, we recommend the involvement of partners in HIV testing. In addition, the counseling of women has to address methods and skills to deal with violence. (author's)

**URL:**

**Publication Date:** 2002

**Addressing HIV / AIDS stigma in the media: a forum for Kenya editors.**

**Author:** Stally A

**Source:** AIDS Analysis Africa. 2001 Oct-Nov;12(3):3, 9.

**Abstract:**

In line with its role to serve society, the media can play an important role in the dissemination of information on HIV/AIDS. As a key information channel, media practitioners can influence public attitudes and shape perceptions towards HIV/AIDS. To this effect, the Southern Africa AIDS Information Dissemination Service (SAfAIDS) conducted a 3-day workshop for Kenyan media practitioners on August 3-5, 2001. The aim of the workshop was to explore the extent of stigma in HIV/AIDS media coverage and to examine the media's role in influencing or reducing HIV/AIDS-related stigma. Its objectives were to explore the role of media practitioners; to discuss methods to reduce stigma related to HIV/AIDS in media and to identify the links and initiatives aimed at improving the dissemination of information on HIV/AIDS. Furthermore, key issues were raised impacting HIV/AIDS coverage in east Africa with the use of a participatory methodology. Consequently, participants developed three recommendations as a way of reducing HIV/AIDS stigma in the media. These include training for media practitioners; development of a resource base; and develop media policy on HIV/AIDS.

**URL:**

**Publication Date:** 2001

**AIDS in Kenya: background, projections, impact, interventions and policy. 6th ed.**

**Author:** Kenya. Ministry of Health

**Source:** Nairobi, Kenya, Ministry of Health, National AIDS and STD Control Programme [NASCO], 2001. viii, 52 p.

**Abstract:**

This sixth edition of "AIDS in **Kenya** provides" current information on the scale of the epidemic in **Kenya** and serves to reinforce the government's commitment to fight against HIV/AIDS. It provides in-depth analysis of the epidemiology, and the social and economic impacts of the virus. Furthermore, it highlights the existing programs and activities all over the country. Also presented is the "Sessional Paper No. 4 of 1997 on AIDS in **Kenya** (Ministry of Health 1997), which reviews the challenges imposed by the epidemic and describes the strategies and interventions that the government has adopted.

**URL:**

**Publication Date:** 2001

**AIDS vaccine research riding high.**

**Author:** Walgate R

**Source:** Bulletin of the World Health Organization. 2001;79(5):484-5.

**Abstract:**

In March 2000, it was announced that the first AIDS vaccine candidate designed primarily for use in East Africa is entering human trials in **Kenya**. The **Kenya** vaccine was developed by a team of researchers from the University of Oxford in the UK and the University of Nairobi in **Kenya**. It is based on the "clade A" variety of HIV, which is responsible for about 60% of **HIV infections** in East Africa. The **Kenya** trial is in the first stage of human tests and aims to determine the vaccine's safety. Work on the vaccine is being coordinated and funded by the New York-based International AIDS Vaccine Initiative (IAVI). Meanwhile, the European Union has launched an AIDS vaccine initiative, Eurovac, and France and Japan have their own programs, along with the National Institute of Allergy and Infectious Diseases (NIAID), IAVI, the Centers for Disease Control and Prevention, and the Walter Reed Army Institute of Research in the US, plus several groups in developing countries. Considering the burgeoning of AIDS vaccine research, there is a growing need for coordination, especially on developing common trial sites, while encouraging healthy competition amongst agencies and vaccine concepts.

**URL:**

**Publication Date:** 2001

**Are HIV-infected women who breastfeed at increased risk of mortality?**

**Author:** Coutsoudis A; Coovadia H; Pillay K; Kuhn L

**Source:** AIDS. 2001;15(5):653-5.

**Abstract:**

Although breastfeeding has been known to bring multiple benefits to both infants and mothers, the recognition that breastfeeding transmits HIV-1 to the infant has resulted in the avoidance of this feeding method by HIV- infected women in the industrialized world. However, the majority of seropositive women in developing countries continue to breastfeed even after counseling. Accordingly, research workers have focused on making breastfeeding by HIV-infected women safe for babies. In this context, the authors note that a report from **Kenya** that breastfeeding by HIV-infected women was associated with a higher maternal mortality rate than that observed in mothers who formula fed required urgent consideration. This paper presents the results of morbidity, mortality, and CD4 cell counts for mothers in a vitamin A intervention trial, in which women self-selected the feeding method, and careful records were kept of breastfeeding and formula feeding practices. Overall, results detected no deleterious effects of breastfeeding on the health of HIV-infected women.

**URL:**

**Publication Date:** 2001

**Assessing differential item validity of the AIDS-Related Social Skills questionnaire among African adolescents.**

**Author:** Masse LC; Ross MW

**Source:** Social Science Research. 2001;30(1):50-61.

**Abstract:**

Using differential item validity (DIV) methodology, this study investigated whether the items of the AIDS-Related Social Skills (ASAS) questionnaire had the same interpretation by gender and country. Polytomous logistic regression was used to test if the coefficients for individual items were the same by gender and country. The subjects (n = 1133) were Black Anglophone African 10th-grade students from Nigeria (n = 396), **Kenya** (n = 280), Zimbabwe (n = 319), and Sierra Leone (n = 138). The analyses showed that many items had significant DIV. Because 12 of the 30 test items (i.e., 40%) showed significant DIV, it suggested that the ASAS may not be internally valid by gender and across countries. Further qualitative work is needed to understand the extensive DIV that was statistically found in this study. (author's)

**URL:**

**Publication Date:** 2001

**Break the Silence: Talk about AIDS, Nairobi, Kenya, October 23 - December 1, 1999.**

**Author:** Awasum D; Sienche C; Obwaka E

**Source:** [Baltimore, Maryland], Johns Hopkins School of Public Health, Center for Communication Programs, Population Communication Services [PCS], 2001. 15 p.

**Abstract:**

The 1999 "Break the Silence: Talk About AIDS" campaign, launched under the Caring and Understanding Partners Initiative, was designed to engage and promote men as partners in family and reproductive health issues through sports. It was held during the Confederation of East and Central African Football Association's Under-20 Youth Football Tournament in **Kenya** since players can serve as role models to motivate fans to learn more about how to protect themselves and their families from HIV/AIDS. They can bridge the credibility gap that exists between the message and the messenger in Africa and make football tournaments an ideal forum for delivering public health messages. From October 23 to December 1, 1999, AIDS prevention messages were delivered primarily through counselors and a mobile video van, and calls to action were delivered through advocacy speeches by leaders and print materials. Other activities included fundraising and building partnerships, preparatory activities before the launching, community mobilization, training and orientation, campaign interventions at the football stadium, media coverage, and follow-up interventions. The impact of the campaign was measured through more than 750 exit interviews with players and fans, noting that the use of football to promote HIV/AIDS in the East and Central African region is an effective and timely strategy. Recommendations for a sports event HIV/AIDS prevention campaign were presented to further improve its effectiveness.

**URL:**

**Publication Date:** 2001

**Breastfeeding. HIV-1+ mothers and their children at increased risk of death in less-developed countries. [[Allaitement. Risque accru de mortalité chez les mères séropositives VIH-1+ et leurs enfants dans les pays les moins développés]]**

**Source:** AIDS WEEKLY. 2001 Jun 11;;5-6.

**Abstract:**

A study by pediatricians found that HIV-1-infected mothers in less developed countries who breastfeed their infants are more likely to die within 2 years of childbirth compared to those utilizing formula milk. To examine the effects of breastfeeding on maternal death rates, pregnant women attending city council clinics in Nairobi, **Kenya**, were offered HIV tests. The study revealed that deaths among mothers were higher in the breastfeeding group than in the formula-feeding group (18 deaths in the former compared with 6 in the latter). The cumulative probability of a maternal death 2 years after delivery was 10.5% in the breastfeeding group and 3.8% in the formula-feeding group. The study also noted that infants were at an increased mortality risk if their mothers died in the first 2 years after childbirth. Marie-Louise Newell from the Institute of Child Health recommends further studies to confirm this and to understand the underlying mechanism. If the life of a woman with AIDS who breastfeeds her child is shortened, this finding has to be taken into account in any recommendations issued.

**URL:**

**Publication Date:** 2001

**Breastfeeding. Study cites danger for HIV+ mothers and their children.**

**Source:** AIDS Weekly. 2001 Jul 9-16;;3-4.

**Abstract:**

Between 1992 and 1998, Ruth Nduati and colleagues conducted a study in **Kenya** to measure the risk of HIV transmission to infants after breastfeeding by infected mothers. They also analyzed data from this trial to examine the effect of breastfeeding on maternal death rates during 2 years after delivery. The researchers examined 425 HIV-positive mothers attending 4 different health clinics in Nairobi. They found that the women who breastfed their children were almost 3 times as likely to die than mothers who used formula to feed their infants. During the 2-year period after delivery, the maternal mortality rate was 10.5% in the breastfeeding cohort compared with 3.8% among women who used formula. Data also showed that almost 70% of the mortality risk faced by mothers who breastfed their children were attributable to this practice. Moreover, children whose mothers succumbed to HIV had a subsequent mortality risk almost 8 times higher than that of children with surviving mothers. Overall, the findings suggest that breastfeeding by HIV-1-infected women might result in adverse outcomes for both mother and infant.

**URL:**

**Publication Date:** 2001

**Challenging the challenger: understanding and expanding the response of universities in Africa to HIV/ AIDS. A synthesis report for the Working Group on Higher Education, Association for the Development of Education in Africa [ADEA]**

**Author:** Kelly MJ

**Source:** Washington, D.C., Association for the Development of Education in Africa [ADEA], Working Group on Higher Education, 2001 Mar. 83 p.

**Abstract:**

This report draws upon case study reports commissioned by the Working Group on Higher Education at seven universities in six countries (Benin, Ghana, **Kenya**, Namibia, South Africa, and Zambia) on the impact of HIV/AIDS. The purpose was to generate understanding of the way the disease is affecting African universities and to identify responses and coping mechanisms that might profitably be shared with sister institutions in similar circumstances. It compares, analyzes, and summarizes the findings of these case studies.

**URL:**

**Publication Date:** 2001

**Characteristics of mother, child linked to postnatal HIV transmission risk.**

**Author:** Brochert A

**Source:** International Family Planning Perspectives. 2001 Jun;27(2):103-4.

**Abstract:**

The large majority of childhood cases of **HIV-1 infection** are acquired from the child's mother, whether before, during, or after birth. This paper presents the results of a study identifying the risk factors in mothers and children that place a child at particularly high risk for contracting HIV after birth and that are amenable to intervention. Researchers in Nairobi, **Kenya**, followed 412 children born to seropositive mothers at a large maternity hospital, with 871 infants born to seronegative women forming a control group. The HIV status of the mother and child were determined at the time of delivery; at frequent follow-up clinic visits, clinicians rechecked HIV status, performed CD4 cell counts, and examined both mother and baby. Overall, findings reveal that the effects of low maternal CD4 cell count, infant oral thrush before 6 months of age, breast feeding for more than 15 months, and maternal mastitis or breast lesions are significantly linked to postnatal HIV transmission risk. The analysis indicated, however, that children who are breast fed for more than 15 months did not have the same increased risk of infection from maternal nipple or breast lesions as did those who were weaned before that point. Based on the findings, researchers suggest that treating infants against thrush at birth and counseling mothers on ways to prevent nipple cracking and to seek prompt treatment for the condition could lower the risk of **HIV infection**. Moreover, researchers stress that the most effective means is the prevention of maternal infection.

**URL:**

**Publication Date:** 2001

**Commercial sex and the spread of HIV in four cities in sub-Saharan Africa. [[Commerce du sexe et diffusion du VIH dans quatre villes d'Afrique sub saharienne]]**

**Author:** Morison L; Weiss HA; Buve A; Carael M; Abega SC

**Source:** AIDS. 2001 Aug;15 Suppl 4:S61-9.

**Abstract:**

The objective of this study was to examine whether commercial sex transactions were more common and/or transmission between sex workers and clients more efficient in two African cities with high HIV prevalence (Kisumu, **Kenya** and Ndola, Zambia) compared with two relatively low HIV prevalence (Cotonou, Benin, Yaounde, Cameroon). Data on sexual behavior, HIV and sexually transmitted infections (STIs) were collected from representative samples of around 300 female sex workers in each city. Sexual behavior data from a population-based study of around 1000 men aged 15-49 in each city were used to estimate the extent of contact with sex workers. Overall, the number of sex workers per 1000 males was highest in Kisumu and Ndola, but other estimates of the extent or characteristics of sex work contact showed no consistent differences between high or low prevalence cities. HIV prevalence among sex workers was 75% in Kisumu, 69% in Ndola, 55% in Cotonou and 34% in Yaounde. The prevalence of genital ulceration and trichomoniasis was higher among sex workers in Kisumu and Ndola but no clear pattern was seen for other STIs. Around 70% of sex workers in Cotonou reported use of a condom with the last client, markedly higher than in the other cities. Although sex work is likely to have played an important role in the spread of HIV in all four cities, differences in present patterns of sex work do not appear to explain the differential spread of HIV. However, high levels of condom use among sex workers may have slowed the spread from sex workers to the general population in Cotonou, highlighting the importance of interventions among sex workers and their clients. (author's)

**URL:**

**Publication Date:** 2001

**Comparison of key parameters of sexual behaviour in four African urban populations with different levels of HIV infection. [[Comparaison des paramètres clés du comportement sexuel au sein de quatre populations urbaines africaines présentant des niveaux différents d'infection au VIH]]**

**Author:** Ferry B; Carael M; Buve A; Auvert B; Laourou M

**Source:** AIDS. 2001 Aug;15 Suppl 4:S41-50.

**Abstract:**

The objective of this study was to explore whether differences in sexual behavior could explain differences in the rate of spread of HIV in four urban populations in Africa. A cross-sectional, population-based study was conducted in two cities where the prevalence of HIV among adults exceeded 20% (Kisumu, **Kenya** and Ndola, Zambia) and two cities with a much lower HIV prevalence among adults (Cotonou, Benin and Yaounde, Cameroon). In each of these cities, approximately 1000 men and 1000 women, aged 15-49 years, were randomly selected from the general population. Consenting men and women were interviewed about their sociodemographic and non-spousal partners. Key parameters of sexual behavior were compared the four cities. On average, women in the high HIV prevalence cities had their sexual debut earlier than in the other cities. Men and women in Kisumu and Ndola got married earlier than men and women in Cotonou and Yaounde. High rates of partner change, contacts with sex workers, concurrent partnerships and large age differences between partners were no more common in the two high HIV prevalence cities than in the two low HIV prevalence cities. In these four African populations, differences in reported sexual behavior could not explain the differences in the rate of spread of HIV. In all four cities, high-risk sexual behavior patterns were identified. (author's)

**URL:**

**Publication Date:** 2001

### **Concurrent sexual partnerships and HIV prevalence in five urban communities of sub-Saharan Africa.**

**Author:** Lagarde E; Auvert B; Carael M; Laourou M; Ferry B

**Source:** AIDS. 2001;15(7):877-84.

**Abstract:**

The objective was to estimate parameters of concurrent sexual partnerships in five urban populations in sub-Saharan Africa and to assess their association with levels of **HIV infection** and other sexually transmitted infections (STIs). Data were obtained from a multicenter study of factors which determine the differences in rate of spread of HIV in five African cities. Consenting participants were interviewed on sexual behavior and at four of the five sites also provided a blood and a urine sample for testing for HIV and other STI. Data on sexual behavior included the number of partnerships in the 12 months preceding the interview as well as the dates of the start and end of each partnership. Summary indices of concurrent sexual partnerships-- some of which were taken from the literature, while others were newly developed--were computed for each city and compared to HIV and STI prevalence rates. A total of 1819 adults aged 15-49 years were interviewed in Dakar (Senegal), 2116 in Cotonou (Benin), 2089 in Yaounde (Cameroon), 1889 in Kisumu (**Kenya**) and 1730 in Ndola (Zambia). Prevalence rates of **HIV infection** were 3.4% for Cotonou, 5.9% for Yaounde, 25.9% for Kisumu and 28.4% for Ndola, and around 1% for Dakar. The estimated fraction of sexual partnerships that were concurrent at the time of interview (index k) was relatively high in Yaounde (0.98), intermediate in Kisumu (0.44) and Cotonou (0.33) and low in Ndola (0.26) and in Dakar (0.18). An individual indicator of concurrency (IIC) was developed which depend neither on the number of partners nor on the length of the partnerships and estimates the individual propensity to keep (positive values) or to dissolve (negative values) on-going partnership before engaging in another one. This measure IIC did not discriminate between cities with high **HIV infection** levels and cities with low **HIV infection** levels. In addition, IIC did not differ significantly between HIV-infected and uninfected people in the four cities where data on HIV status were collected. The authors could not find evidence that concurrent sexual partnerships were a major determinant of the rate of spread of HIV in five cities in sub-Saharan Africa. HIV epidemics are the result of many factors, behavioral as well as biological, of which concurrent sexual partnerships are only one. (author's)

**URL:**

**Publication Date:** 2001

### **Debate over male circumcision and HIV prompts more research.**

**Author:** Collymore Y

**Source:** Population Today. 2001 Oct;29(7):1, 4.

**Abstract:**

Studies have correlated the tendency not to practice male circumcision and high rates of HIV in some areas of sub-Saharan Africa. The studies note that in some West African countries where male circumcision is widespread, **HIV infection** rates among adults are less than 3%. Although the correlation appears straightforward in Africa, the focus of most studies is not so in more developed countries. On the other hand, Robert Bailey, professor of epidemiology and anthropology at the University of Illinois, is preparing to take the research a step further with a rigorous study involving the Luo of western **Kenya**. However, there is a concern over the possibility that male circumcision could encourage risky behavior if it were viewed as a protection against HIV. Bailey points out that assessment of the risks is an important part of the upcoming trial in **Kenya**. At a meeting organized by the Population Council's Horizons Project, a group of researchers suggested that such researches could answer many additional important questions.

**URL:**

**Publication Date:** 2001

**Condom use and its association with HIV / sexually transmitted diseases in four urban communities of sub-Saharan Africa. [[L'usage du préservatif et son association avec le VIH et les maladies sexuellement transmissibles dans quatre communautés urbaines d'Afrique sub-saharienne]]**

**Author:** Lagarde E; Auvert B; Chege J; Sukwa T; Glynn JR

**Source:** AIDS. 2001 Aug;15 Suppl 4:S71-8.

**Abstract:**

The objective of this study was to estimate rates of condom use in four urban populations in sub-Saharan Africa and to assess their association with levels of **HIV infection** and other sexually transmitted diseases (STDs). Data were obtained from multicenter study of factors that determine the differences in rate of spread of HIV in four African cities. Consenting participants were interviewed on sexual behavior, and also provided blood and urine samples for testing for **HIV infections** and other STDs. Data on sexual behavior included information on condom use during all reported spousal and non-spousal partnerships in the past 12 months. A total of 2116 adults aged 15-49 years were interviewed in Cotonou (Benin), 2089 in Yaounde (Cameroon), 1889 in Kisumu (Kenya) and 1730 in Ndola (Zambia). Prevalence rates of **HIV infection** were 3.4% in Cotonou, 5.9% in Yaounde, 25.9% in Kisumu and 28.4% in Ndola. Reported condom use was low, with the proportions of men and women who reported frequent condom use with all non-spousal partners being 21-25% for men and 11-24% for women. A higher level of condom use by city was not associated with lower aggregate level of **HIV infection**. The proportions of men reporting genital pain or discharge during the past 12 months were significantly lower among those reporting frequent condom use in all sites except Yaounde; in Cotonou, adjusted odds ratio (OR) = 0.28, 95% confidence interval (CI) = 0.09-0.94; in Kisumu, adjusted OR = 0.34, 95% CI = 0.14-0.83; and in Ndola, adjusted OR = 0.33, 95% CI = 0.12-0.90. The same association was found for reported genital ulcers in two sites only: in Cotonou, adjusted OR = 0.14, 95% CI = 0.02-1.02; and in Kisumu, adjusted OR = 0.18, 95% CI = 0.04-0.75. There were few statistically significant associations between condom use and biological indicators of **HIV infection** or other STDs in any of the cities. Similar levels of condom use were found in all four populations, and aggregate levels of condom use by city could not discriminate between cities with high and low level of **HIV infection**. It seems that rates of condom use may not have been high enough to have strong impact on HIV/STD levels in four cities. At an individual level, only a male history of reported STD symptoms was found to be consistently associated with lower rates of reported condom use. (author's)

**URL:**

**Publication Date:** 2001

**Douching is indirectly linked to HIV infection in female sex workers.**

**Author:** Rosenberg J

**Source:** International Family Planning Perspectives. 2001 Dec;27(4):215.

**Abstract:**

Researchers analyzed data from 540 sex workers in Nairobi, **Kenya**, who were screened to determine whether an association exists between vaginal douching and sexually transmitted infections. 30% of the women screened tested positive for HIV, while 49% tested positive for bacterial vaginosis, 16% for trichomoniasis, 10% for candidiasis, 10% for gonorrhea, 6% for syphilis and 1% for genital ulcers. 72% of the women surveyed reported having practiced vaginal douching. Researchers found a significant relationship between douching and condom use. Women who practiced vaginal douching were more likely than those who did not to have ever engaged in anal sex. They also had more sexual partners per day. A significantly higher incidence of bacterial vaginosis was found among the female sex workers who douched. The researchers did not find a significant association between douching and **HIV infection**, however, a result that the researchers attribute to greater condom use among sex workers who douche.

**URL:**

**Publication Date:** 2001

**Ecological and individual level analysis of risk factors for HIV infection in four urban populations in sub-Saharan Africa with different levels of HIV infection.**

**[[Analyse des niveaux écologique et individuel des facteurs de risque de l'infection au VIH au sein de quatre populations urbaines d'Afrique subsaharienne présentant des niveaux différents d'infection au VIH]]**

**Author:** Auvert B; Buve A; Ferry B; Carael M; Morison L

**Source:** AIDS. 2001 Aug;15 Suppl 4:S15-30.

**Abstract:**

This cross-sectional study identified factors that could explain differences in rate of spread of HIV between different regions in sub-Saharan Africa. The study took place in two cities with a relatively low HIV prevalence (Cotonou, Benin and Yaounde, Cameroon), and two cities with a high HIV prevalence (Kisumu, **Kenya** and Ndola, Zambia). In each of these cities, a representative sample was taken of about 1000 men and 1000 women aged 15-49 years. Consenting men and women were interviewed about their sociodemographic background and sexual behavior; and were tested for HIV, herpes simplex virus type 2 (HSV-2), syphilis, Chlamydia trachomatis and Neisseria gonorrhoea infection, and (women only) Trichomonas vaginalis. Analysis of risk factors for **HIV infection** was carried out for each city and each sex separately. Adjusted odds ratios (aOR) were obtained by multivariate logistic regression. The prevalence of **HIV infection** in sexually active men was 3.9% in Cotonou, 4.4% in Yaounde, 21.1% in Kisumu, and 25.4% in Ndola. For women, the corresponding figures were 4.0, 8.4, 31.6 and 35.1%. High-risk sexual behavior was not more common in the high HIV prevalence cities than in the low HIV prevalence cities, but HSV-2 infection and lack of circumcision were consistently more prevalent in the high HIV prevalence cities than in the low HIV prevalence cities. In multivariate analysis, the association between **HIV infection** and sexual behavioral factors was variable across the four cities. Syphilis was associated with **HIV infection** in Ndola in men [aOR = 2.7, 95% confidence interval (CI) = 1.5-4.9] and in women (aOR = 1.7, 95% CI = 1.1-2.6). HSV-2 infection was strongly associated with **HIV infection** in all four cities and in both sexes (aOR ranging between 4.4 and 8.0). Circumcision had a strong protective effect against the acquisition of HIV by men in Kisumu (aOR = 0.25, 95% CI = 0.12-0.52). In Ndola, no association was found between circumcision and **HIV infection** but sample sizes were too small to fully adjust for confounding. The strong association between HIV and HSV-2 and male circumcision, and the distribution of the risk factors, led the authors to conclude that differences in efficiency of HIV transmission as mediated by biological factors outweigh differences in sexual behavior in explaining the variation in rate of spread of HIV between the four cities. (author's)

**URL:**

**Publication Date:** 2001

**Effect of breastfeeding on mortality among HIV-1 infected women: a randomised trial.**

**Author:** Nduati R; Richardson BA; John G; Mbori-Ngacha D; Mwatha A

**Source:** Lancet. 2001 May 26;357(9269):1651-5.

**Abstract:**

The authors have completed a randomized clinical trial of breast-feeding and formula feeding to identify the frequency of breast milk transmission of HIV-1 to infants. However, the authors also analyzed data from this trial to examine the effect of breast-feeding on maternal death rates during 2 years after delivery. The authors also report the findings from this secondary analysis. Pregnant women attending four Nairobi city council clinics were offered HIV tests. At about 32 weeks' gestation, 425 HIV-1 seropositive women were randomly allocated to either breastfeed or formula feed their infants. After delivery, mother-infant pairs were followed up monthly during the 1st year and quarterly during the 2nd year until death, or 2 years after delivery, or end of study. Mortality among mothers was higher in the breast-feeding group than in the formula group (18 vs. 6 deaths, log rank test,  $p = 0.009$ ). The cumulative probability of maternal death at 24 months after delivery was 10.5% in the breast-feeding group and 3.8% in the formula group ( $p = 0.02$ ). The relative risk of death for breast-feeding mothers vs. formula-feeding mothers was 3.2 (95% confidence interval [CI] 1.3-8.1,  $p = 0.01$ ). The attributable risk of maternal death due to breast-feeding was 69%. There was an association between maternal death and subsequent infant death, even after infant **HIV-1 infection** status was controlled for (relative risk 7.9, 95% CI 3.3-18.6,  $p < 0.001$ ). The authors' findings suggest that breast-feeding by HIV-1 infected women might result in adverse outcomes for both mother and infant. (author's)

**URL:**

**Publication Date:** 2001

**The effect of health education programmes on adolescent sexual behaviour: a case study of Nairobi city adolescents.**

**Author:** Ayiemba EH

**Source:** Etude de la Population Africaine / African Population Studies. 2001 Jun;16(1):87-103.

**Abstract:**

The aim of this study is to examine the effectiveness of health education programmes in **Kenya** by identifying the type of knowledge or awareness adolescents have regarding STDs/HIV/AIDS, their symptoms and prevention methods. It also aims at bringing out evidence of insufficient information or ignorance on matters relating to adolescent sexuality and showing whether adolescent sexual behaviour patterns are congruent with health education goals. The study is based on a pilot study of a randomly sampled 250 adolescents aged between 14-24 years in Nairobi City. The major findings are that adolescents are becoming more sexually active despite vigorous health education programmes launched in this country; and that some 25% of women aged between 12-24 years lost their virginity through forced sex (NASCOP, 1999). In other words, cases of sex abuse, harassment and violence on adolescent girls are increasing in educational institutions. The study also reveals that adolescents lack accurate information on key aspects of HIV/AIDS. It was further revealed that majority of adolescents lack accurate knowledge on symptoms of common STDs, rising to 98% for chlamydia. Knowledge of prevention methods was found to be grossly inadequate. Adolescents' beliefs and misconceptions on sexual matters are more perplexing. This suggests that either their knowledge of sex education is insufficient, or they harbour certain beliefs or misconceptions about sex. All these findings suggest that health education programmes on STDs/HIV/AIDS are making little impact on changes in sexual behaviour. There is need, therefore, to carry out more research to find the most rewarding approach. (author's)

**URL:**

**Publication Date:**

**The epidemiology of gonorrhoea, chlamydial infection and syphilis in four African cities. [[Epidémiologie de l'infection de gonorrhée, de chlamyde et de syphilis dans quatre villes africaines]]**

**Author:** Buve A; Weiss HA; Laga M; Van Dyck E; Musonda R

**Source:** AIDS. 2001 Aug;15 Suppl 4:S79-88.

**Abstract:**

This cross-sectional study, using standardized methods, including a standardized questionnaire and standardized laboratory tests was conducted to compare the epidemiology of gonorrhoea, chlamydia infection and syphilis in four cities in sub-Saharan Africa; two with high prevalence of **HIV infection** (Kisumu, **Kenya** and Ndola, Zambia), and two with a relatively low HIV prevalence (Cotonou, Benin and Yaounde, Cameroon). In each city, a random sample of about 2000 adults aged 15- 49 years was taken. Consenting men and women were interviewed about their sociodemographic characteristics and their sexual behavior, and were tested for HIV, syphilis, herpes simplex virus type 2 (HSV-2), gonorrhoea, chlamydia infection, and (women only) *Trichomonas vaginalis* infection. Risk factor analyses were carried out for chlamydial infection and syphilis seroreactivity. The prevalence of gonorrhoea ranged between 0% in men in Kisumu and 2.7% in women in Yaounde. Men and women in Yaounde had the highest prevalence of chlamydial infection (5.9 and 9.4%, respectively). In the other cities, the prevalence of chlamydial infection ranged between 1.3% in women in Cotonou and 4.5% in women in Kisumu. In Ndola, the prevalence of syphilis seroreactivity was over 10% in both men and women; it was around 6% in Yaounde, 3-4% in Kisumu, and 1-2% in Cotonou. Chlamydial infection was associated with rate of partner change for both men and women, and with young age for women. At the population level, the prevalence of chlamydial infection correlated well with reported rates of partner change. Positive syphilis serology was associated with rate of partner change and with HSV-2 infection. The latter association could be due to biological interaction between syphilis and HSV-2 or to residual confounding by sexual behavior. At the population level, there was no correlation between prevalence of syphilis seroreactivity and reported rates of partner change. Differences in prevalence of chlamydial infection could be explained by differences in reported sexual behavior, but the variations in prevalence of syphilis seroreactivity remained unexplained. More research is needed to better understand the epidemiology of sexually transmitted infections in Africa. (author's)

**URL:**

**Publication Date: 2001**

**The epidemiology of HSV-2 infection and its association with HIV infection in four urban African populations. [[Epidémiologie de l'infection au HSV-2 et son association avec l'infection au VIH dans quatre populations urbaines africaines]]**

**Author:** Weiss HA; Buve A; Robinson NJ; Van Dyck E; Kahindo M

**Source:** AIDS. 2001 Aug;15 Suppl 4:S97-108.

**Abstract:**

The objective of this study is to estimate age and sex-specific herpes simplex virus type-2 (HSV-2) prevalence in urban African adult populations and to identify factors associated with infection. Cross-sectional, population-based samples of about 2000 adults were interviewed in each of the following cities: Cotonou, Benin; Yaounde, Cameroon; Kisumu, **Kenya** and Ndola, Zambia. Consenting study participants were tested for HIV, HSV-2 and other sexually transmitted infections. HSV-2 prevalence was over 50% among women and over 25% among men in Yaounde, Kisumu, Ndola, with notably high rates of infection among young women in Kisumu and Ndola (39% and 23%, respectively, among women aged 15-19 years). The prevalence in Cotonou was lower (30% in women and 12% in men). Multivariate analysis showed that HSV-2 prevalence was significantly associated with older age, ever being married, and number of lifetime sexual partners, in almost all cities and both sexes. There was also a strong, consistent association with **HIV infection**. Among women, the adjusted odds ratios for the association between HSV-2 and **HIV infection** ranged from 4.0 [95% confidence interval (CI) = 2.0-8.0] in Kisumu to 5.5 (95% CI = 1.7-18) in Yaounde, and those among men ranged from 4.6 (95% CI = 2.7-7.7) in Ndola to 7.9 (95% CI = 4.1-15) in Kisumu. HSV-2 infection is highly prevalent in these populations, even at young ages, and is strongly associated with HIV at an individual level. At a population level, HSV-2 prevalence was highest in Kisumu and Ndola, the cities with the highest HIV rates, although rates were also high among women in Yaounde, where there are high rates of partner change but relatively little **HIV infection**. The high prevalence of both infections among young people underlines the need for education and counseling among adolescents. (author's)

**URL:**

**Publication Date:** 2001

**The epidemiology of trichomoniasis in women in four African cities.  
[[Epidémiologie de la trichomoniose chez les femmes dans quatre villes  
africaines]]**

**Author:** Buve A; Weiss HA; Laga M; Van Dyck E; Musonda R

**Source:** AIDS. 2001 Aug;15 Suppl 4:S89-96.

**Abstract:**

A cross-sectional study, using a standardized questionnaire and standardized laboratory tests, was conducted to describe the epidemiology of *Trichomonas* (T.) vaginalis infection and its association with **HIV infection**, in women in four African cities with different levels of **HIV infection**: two with high prevalence of **HIV infection** (Kisumu, **Kenya** and Ndola, Zambia), and two with relatively low prevalence of HIV (Cotonou, Benin and Yaounde, Cameroon). In each city, a random sample of about 2000 adults aged 15-49 years was taken. Consenting men and women were interviewed about their sociodemographic characteristics and their sexual behavior, and were tested for HIV, syphilis, herpes simplex virus type 2, gonorrhea, chlamydial infection, and (women only) T. vaginalis infection. Risk factor analyses were carried out for trichomoniasis for each city separately. Multivariate analysis, however, was only possible for Yaounde, Kisumu and Ndola. The prevalence of trichomoniasis was significantly higher in the high HIV prevalence cities (29.3% in Kisumu and 34.3% in Ndola) than in Cotonou (3.2%) and Yaounde (17.6%). Risk of trichomoniasis was increased in women who reported more lifetime sex partners. **HIV infection** was independent risk factor for trichomonas infection in Yaounde [adjusted odds ratio (OR) = 1.8, 95% confidence interval (CI) = 0.9-3.7] and Kisumu (adjusted OR = 1.7, 95% CI = 1.1-2.7), but not in Ndola. A striking finding was a high prevalence (40%) of trichomonas infection in women in Ndola who denied that they had ever sex. Trichomoniasis may have played a role in spread of HIV in sub-Saharan Africa and may be one of the factors explaining the differences in levels of **HIV infection** between different regions in Africa. The differences in prevalence of trichomoniasis between the four cities remain unexplained, but the authors lack data on the epidemiology of trichomoniasis in men. More research is required on the interaction between trichomoniasis and **HIV infection**, the epidemiology of trichomoniasis in men, and trichomonas infections in women who deny sexual activity. (author's)

**URL:**

**Publication Date:** 2001

**Factors associated with condom use in Kenya: a test of the Health Belief Model.**

**Author:** Volk JE; Koopman C

**Source:** AIDS Education and Prevention. 2001 Dec;13(6):495-508.

**Abstract:**

This study examined specific cultural beliefs and knowledge about HIV as well as tested components of the Health Belief Model in relation to condom use in Kisumu, **Kenya**. Interviews were conducted with 223 participants at six governmental and private clinics. Although 75% had engaged in intercourse during the preceding month, fewer than 20% had used a condom. For both men and women, perceived barriers was the only component of the Health Belief Model significantly associated with condom use, with greater perceived barriers being associated with lower frequency of condom use ( $p < 0.05$ ). Additionally, individuals with more education and HIV/AIDS knowledge were less likely to endorse these stigmatizing beliefs toward HIV/AIDS ( $p < 0.001$ ), whereas people who believe that HIV originated in the US were more likely to endorse these stigmatizing beliefs ( $p < 0.002$ ). Nearly everyone (97%) reported that AIDS is the disease that scares them most, suggesting that educational efforts have successfully communicated the severity of this disease. Future intervention efforts must now focus more extensively on addressing stigmatizing beliefs and providing education to overcome barriers to condom use. (author's)

**URL:**

**Publication Date:** 2001

**Factors influencing the difference in HIV prevalence between antenatal clinic and general population in sub-Saharan Africa.**

**Author:** Glynn JR; Buve A; Carael M; Musonda RM; Kahindo M

**Source:** AIDS. 2001;15(13):1717-25.

**Abstract:**

The objective was to compare HIV prevalence in antenatal clinics (ANC) and the general population and to identify factors in determining the differences that were found. Cross-sectional surveys were conducted in the general population and in ANC in three cities. HIV prevalence measured in adults in the community was compared with that measured by sentinel surveillance in the ANC in Yaounde, Cameroon, Kisumu, **Kenya**, and Ndola, Zambia. In Yaounde and Ndola, the HIV prevalence in ANC attenders was lower than in women in the population overall, and for age groups over 20 years. In Kisumu, the HIV prevalence in ANC attenders was similar to that in women in the population at all ages. The only factors identified that influenced the results were age, marital status, parity, schooling, and contraceptive use. The HIV prevalence in women in ANC was similar to that in the combined male and female population aged 15-40 years in Yaounde and Ndola, but overestimated it in Kisumu. In Yaounde and Ndola, the overall HIV prevalence in men was approximated by using the age of the father of the child reported by ANC attenders, but this method overestimated the HIV prevalence in Kisumu, and did not give good age-specific estimates. Few factors influenced the difference in HIV prevalence between ANC and the population, which could aid the development of adjustment procedures to estimate population HIV prevalence. However, the differences between cities were considerable, making standard adjustments difficult. The method of estimating male HIV prevalence should be tested in other sites. (author's)

**URL:**

**Publication Date: 2001**

**Factors related to condom use among young people in Kenya.**

**Author:** Stoskopf CH; Kim YK; Richter DL

**Source:** International Quarterly of Community Health Education. 2001;20(2):193-208.

**Abstract:**

Survey questionnaires were provided to a convenience sample of 197 students in four educational settings. When regressing the knowledge score on the independent variables, it was found that the knowledge score increased with years of education, the practice of Islam, getting HIV/AIDS information from a radio, worrying about contracting HIV/AIDS, and receiving AIDS education or family life education in school. The knowledge score was negatively related with age. When regressing condom use on the independent variables, including the knowledge score, the likelihood that a respondent would use a condom significantly increased when the respondent was willing to use a condom, when a sexual partner requested it, when the respondent knew where to purchase condoms, and when the respondent had received education in school on FP and AIDS education. The likelihood of using condoms was negatively related with age and the statement "real men do not wear condoms". (author's)

**URL:**

**Publication Date: 2001**

**Gendered construction of sexual risks: implications for safer sex among young people in Kenya and Sweden.**

**Author:** Ahlberg BM; Jylkas E; Krantz I

**Source:** Reproductive Health Matters. 2001 May;9(17):26-36.

**Abstract:**

This study compared perceptions of sexual risk and sexual practices among youth in **Kenya** and Sweden. Self-generated questions on the body, perceptions of sexual risk and sexual practices were collected in **Kenya** while focus group discussions and individual interviews on these same issues were used in Sweden. The most striking differences between the two countries were in the level of knowledge on matters of sexuality and the ability to talk with ease on these matters. The refusal in **Kenya** to provide adolescents with information and services has left the 'safe period' as their only protective option and pregnancy as the overriding concern. Communication at the partner level and lack of condom use are problematic in both countries and even where access to information and preventive services exist, these may not be used optimally. In both countries, boys had more sexual freedom, while girls were controlled through labeling and rumors, and girls were assigned responsibility for safer sex. The authors conclude that sexual education should be based more broadly on an understanding of the social norms defining sexual behavior. It is at the level of sexual relations that the tensions between culturally-defined sexual and gender norms and public health assumptions should be addressed, a level at which health policy and education are silent in both countries. (author's)

**URL:**

**Publication Date:** 2001

**HIV epitopes found in persistently seronegative sex workers could aid vaccine development.**

**Source:** AIDS Weekly. 2001 May 21-28;;3.

**Abstract:**

An ideal AIDS vaccine might be one that stimulates the cellular immune system so efficiently that, despite repeated exposure to HIV, an individual never shows signs of viremia or even seroconverts against HIV epitopes. It is still far from clear how to provide anyone this level of protection, but accumulating data from a cohort of at-risk women--sex workers in the AIDS-ravaged community of Nairobi--hint at some of the properties of an immune system that can apparently repel the virus despite on-going exposure. Rupert Kaul at the University of Nairobi and the Weatherall Institute of Molecular Medicine at John Radcliffe Hospital, Oxford, UK, along with colleagues at those institutions and in Canada, have followed this group for some years, and they have found that persistently seronegative women seem to be protected by a vigorous T-cell-mediated response to infected cells, while those who have seroconverted eventually succumb to the disease. These authors now report on the HIV epitopes recognized by cytotoxic T lymphocytes from presymptomatic but seropositive women and from persistently seronegative women ("CD8+ lymphocytes respond to different HIV epitopes in seronegative and infected subjects," Journal of Clinical Investigation, May 2001). The authors previously identified several class I major histocompatibility complex alleles that are associated with this protected status, suggesting a genetic basis for the difference in disease progression. Following up on this work, they now show that the protective alleles present a distinct set of HIV epitopes in the two groups of women. Those epitopes that are exclusively or preferentially recognized in persistently seronegative women could provide the basis of a vaccine that can activate T-cell responses that block progression of the disease. Rupert Kaul can be contacted by e-mail: rupertkaul@hotmail.com. (full text)

**URL:**

**Publication Date:** 2001

**HIV resistance. Reduced sexual exposure may cause infection in resistant prostitutes.**

**Author:** Greer M

**Source:** AIDS WEEKLY. 2001 Apr 2;;17-8.

**Abstract:**

A study conducted among Kenyan prostitutes by R. Kaul and colleagues found that reduced workloads may result in late **HIV infection** for seemingly resistant prostitutes. According to the researchers, "resistance to **HIV infection** in a small group of Kenyan sex workers is associated with CD8+ lymphocyte responses to HIV cytotoxic T-lymphocyte (CTL) epitopes." However, 11 prostitutes meeting criteria for HIV resistance seroconverted between 1996 and 1999. Comparing medical and behavioral measures from continuously resistant and late seroconverting sex workers, the researchers found that the only significant variable was a reduction in workloads in the last 12 months. Reducing or eliminating occupational exposure to HIV led to a significant loss of HIV-specific CD8+ lymphocyte responses. Overall, the researchers concluded that late seroconversion may occur in HIV-1 resistant sex workers in the absence of detectable CTL escape mutations, which may relate to the waning of HIV-specific CD8+ responses due to reduced antigenic exposure.

**URL:**

**Publication Date:** 2001

**HIV voluntary counseling and testing among youth ages 14 to 21: results from an exploratory study in Nairobi, Kenya, and Kampala and Masaka, Uganda.**

**Author:** Population Council. Horizons; International Center for Research on Women [ICRW]; Kenya Association of Professional Counselors; Kibera Community Self-Help Programme; Kenyatta National Hospital

**Source:** Washington, D.C., Population Council, Horizons, 2001 Oct. 31 p. USAID Cooperative Agreement No. HRN-A-00-97-00012-00

**Abstract:**

Voluntary counseling and testing (VCT) programs have increased the adoption of safe sexual behavior and the use of care and support services among adults. This paper contains the results of an exploratory research study conducted in Nairobi, **Kenya**, and in Kampala and Masaka, Uganda. The aim is to identify opportunities for and barriers to providing VCT for youth. Focus group discussions and in-depth interviews were conducted with youth, parents, service providers, and community members and a survey was administered among young people aged 14-21. The first phase of the study was completed in May 2000. Overall, it is noted that most tested youth intend to practice safer sex. When asked to name the satisfactory aspects of their testing experience, clients mentioned the counseling more than any other component. It was also noted that most youth disclose their HIV test results while majority of the untested youth would like to take an HIV test. On the other hand, service providers are not equipped to respond to youth issues thus, there is a need for more support services for counseled youth in Uganda. Finally, in Uganda, service delivery organizations design VCT programs that are youth-friendly and provide high-quality VCT. Moreover, in **Kenya**, project partners are planning to develop and implement special services for youth.

**URL:**

**Publication Date:** 2001

**Human immunodeficiency virus seropositivity and malaria as risk factors for third-trimester anemia in asymptomatic pregnant women in western Kenya.**

**Author:** van Eijk AM; Ayisi JG; ter Kuile FO; Misore A; Otieno JA

**Source:** American Journal of Tropical Medicine and Hygiene. 2001 Nov;65(5):623-630.

**Abstract:**

To assess risk factors for anemia in late pregnancy, we studied healthy pregnant women with a singleton uncomplicated pregnancy of  $\geq 32$  weeks attending the prenatal clinic in the Provincial Hospital in Kisumu, **Kenya**. Between June 1996 and December 1998, 4,608 pregnant women had a blood sample collected for hemoglobin (Hb) measurement, malaria smear, and testing for human immunodeficiency virus (HIV). The mean  $\pm$  standard deviation of Hb was  $9.58 \pm 1.8$  g/dL; 21% had malaria in their blood; and 25% of the women were HIV seropositive. *Plasmodium falciparum* parasitemia was more common among HIV-seropositive women in all gravidities compared with HIV-seronegative women (risk ratio, 1.71; 95% confidence interval, 1.53-1.92). In a multivariate analysis, for primi- and secundigravidae women, the factors malaria, belonging to the Luo tribe, and HIV seropositivity were significantly associated with any anemia (Hb  $< 11$  g/dL), and HIV seropositivity and documented fever were associated with severe anemia (Hb  $< 7$  g/dL). In women of higher gravidities, HIV seropositivity was the only statistically significant factor associated with any anemia or with severe anemia. Asymptomatic HIV seropositivity is an important risk factor to be considered in the differential diagnosis of maternal anemia, independent of *P. falciparum* parasitemia. (author's)

**URL:**

**Publication Date:** 2001

**The impact of the Kenya social marketing program on personal risk perception, perceived self-efficacy and on other behavioral predictors.**

**Author:** Agha S

**Source:** Washington, D.C., Population Services International [PSI], Research Division, 2001.  
23 p. PSI Research Division Working Paper No. 45

**Abstract:**

This study aims to determine whether a mass media HIV/AIDS prevention campaign had an impact on personal risk perception, perceived self-efficacy, and positive attitudes towards condoms. The authors used household survey data collected from 2213 sexually experienced male and female Kenyans aged 15-39. Respondents were administered a questionnaire asking them about their exposure to branded and generic mass media messages concerning HIV/AIDS and condom use. They were asked questions about their perceived self-efficacy, perceived risk awareness, embarrassment in obtaining condoms and openness in acknowledging that they knew someone with HIV. Logistic regression analysis was used to determine the impact of exposure to mass media messages on these predictors of behavior change. Exposure to branded advertising messages was associated with respondents' higher level of personal self-efficacy, their greater belief in the efficacy of condoms, a lower level of perceived difficulty obtaining condoms and a greater openness in acknowledging that they knew someone who had HIV or had died of AIDS. Those exposed to branded messages were also more likely to consider themselves at higher risk of acquiring HIV and to believe in the severity of AIDS. Moreover, there was a dose-response relationship: a higher intensity of exposure to advertising was associated with more positive health beliefs. The majority of positive health beliefs were associated with exposure to generic messages, although those relationships were somewhat weaker. Mass media campaigns that promote condom use as an attractive behavior are likely to encourage positive health beliefs. In **Kenya**, the social marketing campaign helped create an environment in which there was a greater recognition of personal risk for acquiring HIV, a stronger belief in the efficacy of condoms and a higher level of personal self-efficacy. (author's)

**URL:**

**Publication Date:**

**Integrating women into HIV programs in Africa: a personal story.**

**Author:** Mason N

**Source:** In: Reproductive health, gender and human rights: a dialogue, edited by Elaine Murphy and Karin Ringheim. Washington, D.C., Program for Appropriate Technology in Health [PATH], 2001. :67-9.

**Abstract:**

This paper relates the personal story of the author, an African woman infected with HIV. As a wife and a mother to her two children, she exhibited "good" behavior according to cultural traditions. However, her husband's extramarital sexual encounters not only caused problems in their marriage, it also led to her HIV+ status. Due to lack of knowledge and resources concerning HIV/AIDS, she could not access necessary medical care. In addition, the stigma associated with the disease prevented her from disclosing her status and seeking assistance. After being fired from her job when her status was discovered, the author became involved with Women Fighting AIDS in **Kenya**, an affiliate of Society of Women and AIDS in Africa (SWAA). The group's objective is to mobilize women in Africa against HIV/AIDS and to act as a voice for women with HIV/AIDS. The organization, which also promotes AIDS issues in the political arena, works on a variety of advocacy, service and training projects that include widows, orphans, men and students. Finally, the author lists program and policy recommendations that will help protect African women, and all people, against AIDS.

**URL:**

**Publication Date:** 2001

**Is breast not best? Feeding babies born to HIV-positive mothers: bringing balance to a complex issue.**

**Author:** Humphrey J; Iliff P

**Source:** Nutrition Reviews. 2001 Apr;59(4):119-127.

**Abstract:**

Breastfeeding prevents millions of infant deaths each year throughout the world but causes at least one-third of all pediatric HN infections. The first randomized trial of breastfeeding versus formula feeding, reported from Nairobi in March 2000, demonstrated an improved outcome for babies of highly selected HN-positive mothers assigned to formula feed. However, several conditions must be in place and accepted before such replacement feeding can increase HIV-free survival. The proportion of sub-Saharan African women who have access to and will accept these conditions is small. In the short term, efforts to make breastfeeding safer will probably benefit a greater number of African babies. (author's)

**URL:**

**Publication Date:** 2001

## Is the intrauterine device appropriate contraception for HIV-1-infected women?

**Author:** Morrison CS; Sekadde-Kigundu C; Sinei SK; Weiner DH; Kwok C

**Source:** BJOG. British Journal of Obstetrics and Gynaecology. 2001 Aug;108(8):784-90.

### Abstract:

The aim was to assess whether the risk of complications is higher in HIV-1-infected women compared with non-infected women in the 2 years following insertion of the IUD. A prospective cohort study was conducted with 649 women (156 HIV-1-infected, 493 non-infected) in Nairobi, **Kenya**, who requested an IUD and met local eligibility criteria. The authors gathered information on complications related to the use of the IUD, including pelvic inflammatory disease, removals due to infection, pain or bleeding, expulsions, and pregnancies at 1, 4, and 24 months after insertion by study physicians masked to participants' HIV-1 status. Cox regression was used to estimate hazard ratios. Complications were identified in 94 of 636 women returning for follow up (14.7% of HIV-1-infected, 14.8% of non-infected). The incidence of pelvic inflammatory disease was rare in both infected (2.0%) and non-infected (0.4%) groups. Multivariate analyses suggested no association between **HIV-1 infection** and increased risk of overall complications (hazard ratio = 1.0; 95% confidence interval (CI) 0.6-1.6). Infection-related complications (e.g., any pelvic tenderness, removal for infection or pain) were also similar between groups (10.7% of HIV-1-infected, 8.8% of non-infected;  $P = 0.50$ ), although there was a non-significant increase in infection-related complications among HIV-1-infected women with use of the IUD longer than 5 months (hazard ratio = 1.8; 95% CI 0.8-4.4). Neither overall nor infection-related complications differed by CD4 (immune) status. HIV-1-infected women often have a critical need for safe and effective contraception. The IUD may be an appropriate contraceptive method for HIV-1-infected women with ongoing access to medical services. (author's)

### URL:

**Publication Date:** 2001

**Title:** "It's not what you know, but who you knew": examining the relationship between behavior change and AIDS mortality in Africa.

**Author:** Macintyre K; Brown L; Sosler S

**Source:** AIDS Education and Prevention. 2001 Apr;13(2):160-74.

### Abstract:

Until there is an effective vaccine, changing sexual behavior (e.g., use of condoms or fewer partners) is still the only course of action that can slow the spread of HIV for most Africans. But exactly which factors influence behavior change and how are still debated. This article examines the notion that as the HIV/AIDS epidemic strengthens and spreads through communities in Africa, and mortality mounts, behaviors that prevent transmission should be changing. The authors focus on men in three countries--Uganda, **Kenya**, and Zambia--examining determinants of their behavior change, and analyze the relative importance of knowing someone who has died of AIDS as compared with other factors such as age, education level, knowledge of HIV/AIDS, economic status, and marital status. Data from three Demographic and Health Surveys in Uganda (1995), Zambia (1996), and **Kenya** (1998) are fitted to a model predicting a behavior change. Results from this cross-sectional, multinational study suggest that married and working men aged 20-40 are significantly more likely to have changed their behavior. Personal experience of AIDS is a significant predictor of behavior change in Uganda and Zambia, and is marginally significant in **Kenya**. One implication in the context of the epidemic is that behavior change is partly determined by the high level of mortality experienced by African communities. A second implication is that higher levels of disclosure, or lower levels of denial of AIDS as a cause of death, may help individuals change their behavior. (author's)

### URL:

**Publication Date:** 2001

## **Kenya: Teenage pregnancies continue to increase.**

### **Making VCT more youth-friendly. Designing services to reach young people.**

**Author:** MacQuarrie K

**Source:** Horizons Report. 2001 Spring;;5-7.

**Abstract:**

A study using focus groups, in-depth interviews and surveys was undertaken by researchers from Makerere University, the AIDS Information Centre, and the University of Nairobi. The study was conducted in **Kenya** and Uganda among youths, parents, service providers, community members, and policy-makers, and it aimed to find out about young people's experiences with and attitudes about voluntary counseling and testing (VCT). It also aimed to determine how VCT services can become more youth-friendly. The findings showed that most tested youths intend to practice safer sex, such as abstaining from sexual intercourse, practicing monogamy, using condoms, or reducing the number of sexual partners. It was noted that young people who received counseling greatly appreciated the information and advice. However, only half of the counselors received training on how to counsel youths, indicating that problems will likely arise due to the counselors' lack of training. Moreover, tested youths were seldom referred to any type of follow-up service for either prevention or support after they received their HIV test results. Affordability, privacy and confidentiality are criteria considered by youths in determining whether or where to go for testing.

**URL:**

**Publication Date:** 2001

### **Male circumcision and HIV infection in four cities in sub-Saharan Africa.**

#### **[[Circoncision masculine et infection au VIH dans quatre villes d'Afrique sub saharienne]]**

**Author:** Auvert B; Buve A; Lagarde E; Kahindo M; Chege J

**Source:** AIDS. 2001 Aug;15 Suppl 4:S31-40.

**Abstract:**

The objective of this study was to explore the role of male circumcision in the spread of **HIV infection** in four urban populations in sub-Saharan Africa. A cross-sectional population based study was conducted in four cities in sub-Saharan Africa with different levels of **HIV infection**. **HIV** prevalence among adults was relatively low in Cotonou (Benin) and in Yaounde (Cameroon), and exceeded 25% in Kisumu (**Kenya**) and in Ndola (Zambia). In each city, a random sample was taken of men and women aged 15-49 years from the general population. Consenting study participants were interviewed about their sociodemographic characteristics and their sexual behavior, and were tested for HIV, herpes simplex virus type 2, syphilis, gonorrhea and chlamydial infection. Men underwent a genital examination. In Cotonou and in Yaounde, the two low HIV prevalence cities, 99% of men were circumcised. In Kisumu 27.5% of men were circumcised, and in Ndola this proportion was 9%. In Kisumu, the prevalence of **HIV infection** was 9.9% among circumcised men and 26.6% among uncircumcised men. After controlling for sociodemographic characteristics, sexual behavior and other sexually transmitted infections, the protective effect of male circumcision remained with an adjusted odds ratio of 0.26 (95% confidence interval = 0.12-0.56). In Ndola, the prevalence of **HIV infection** was 25.0% in circumcised men and 26.0% in uncircumcised men. The power was insufficient to adjust for any differences in sexual behavior. The differences in epidemic spread of HIV are likely to be due to differences in the probability of transmission of HIV during sexual exposure as well as differences in sexual behavior. Male circumcision is one of the factors influencing the transmission of HIV during sexual intercourse, and this study confirms the population level association between HIV and lack of male circumcision, as well as a strong individual level association in Kisumu, the only city with sufficient power to analyze this association. (author's)

**URL:**

**Publication Date:** 2001

**Morbidity and mortality in breastfed and formula-fed infants of HIV-1-infected women. A randomized clinical trial.**

**Author:** Mbori-Ngacha D; Nduati R; John G; Reilly M; Richardson B

**Source:** JAMA. 2001 Nov 21;286(19):2413-20.

**Abstract:**

Between 1992 and 1998, a randomized clinical trial on breast-fed and formula-fed infants of 371 HIV-1-seropositive women was conducted in four antenatal clinics in Nairobi, **Kenya** to determine the frequency of breast milk transmission of HIV-1. It also aimed to compare the morbidity, and mortality according to the randomized feeding modality. Overall, the study notes no significant difference in 2-year mortality rates between infants randomly assigned to be formula-fed or breast-fed, even after adjusting for **HIV-1 infection** status. Incidence of diarrhea, pneumonia and other recorded illnesses was also similar in 2 groups. In addition, the major causes of death in the study were infections, and there was no difference in cause-specific infection mortality between the 2 study arms with the exception of increased frequency in sepsis as cause of death in the formula arm. Since HIV-1-free survival is determined with the combined risks of feeding modality and **HIV-1 infection**, the HIV-1-free survival at 2 years was significantly higher in the formula arm. As such, the high mortality risk was attributed to infant **HIV-1 infection**, which was associated with a 9.0-fold increased risk. Furthermore, the study noted better nutritional status of infants in the breast-feeding group.

**URL:**

**Publication Date:** 2001

**Multicentre study on factors determining differences in rate of spread of HIV in sub-Saharan Africa : methods and prevalence of HIV infection. [[Etude multi centrée sur les facteurs déterminants des différences dans le taux de diffusion du VIH en Afrique sub-saharienne : méthodes et prévalence de l'infection au VIH]]**

**Author:** Buve A; Carael M; Hayes RJ; Auvert B; Ferry B

**Source:** AIDS. 2001 Aug;15 Suppl 4:S5-14.

**Abstract:**

The objective of this study was to explore whether the differences in rate of spread of HIV in different regions in sub-Saharan Africa could be explained by differences in sexual behavior and/or factors influencing the probability of HIV transmission during sexual intercourse. A cross-sectional, population-based study was conducted in two cities with a high HIV prevalence (Kisumu in **Kenya** and Ndola in Zambia) and two cities with a relatively low HIV prevalence (Cotonou in Benin and Yaounde in Cameroon). In each of these cities, approximately 1000 men and 1000 women, aged 15-49 years were randomly selected from the general population. Consenting men and women were interviewed and were tested for HIV, syphilis, herpes simplex virus type 2 (HSV-2), gonorrhea, chlamydial infection and trichomoniasis (the latter for women only). In addition, a survey was conducted on a random sample of 300 sex workers in each city. The research instruments, including the questionnaires and the laboratory procedures, were standardized to permit comparison of results. The prevalence of **HIV infection** in men was 3.3% in Cotonou, 4.1% in Yaounde, 19.8% in Kisumu and 23.2% in Ndola. For women, the respective figures were 3.4, 7.8, 30.1, and 31.9%. The prevalence of **HIV infection** among women aged 15-19 years was 23.0% in Kisumu and 15.4% in Ndola. Among women in Kisumu who had their sexual debut 5 years before the interview, the prevalence of **HIV infection** as 46%; in Ndola, it as 59%. Among sex workers, the prevalence of **HIV infection** was 57.5% in Cotonou, 34.4% in Yaounde, 74.7% in Kisumu and 68.7% in Ndola. The HIV prevalence rates in the general population confirmed the authors' preliminary assessment of the level of **HIV infection** in the four cities, which was based on estimates of HIV prevalence from sentinel surveillance among pregnant women. The very high prevalence of **HIV infection** among young women in Kisumu and Ndola calls for urgent intervention. (author's, modified)

**URL:**

**Publication Date:** 2001

**The multicentre study on factors determining the differential spread of HIV in four African cities : summary and conclusions. [[Etude multi-centrée sur les facteurs déterminants de la diffusion différentielle du VIH dans quatre villes africaines : résumé et conclusions]]**

**Author:** Buve A; Carael M; Hayes RJ; Auvert B; Ferry B

**Source:** AIDS. 2001 Aug;15 Suppl 4:S127-31.

**Abstract:**

In all regions of sub-Saharan Africa, the predominant mode of transmission of HIV is through heterosexual intercourse, however, there are large variations in the rate and extent of the spread of HIV in different populations. This study was conducted to identify the factors that influence the rapid spread of HIV in four African cities, namely Cotonou (Benin), Yaounde (Cameroon), Kisumu (**Kenya**), and Ndola (Zambia). Results demonstrated that high rates of partner change and being married are risk factors for **HIV infection** in men in at least one city but are risk factors for women in all four cities. In addition, condom use among sex workers did not show a difference between the low and high prevalence cities. Furthermore, no evidence of changes towards safer sexual behavior was identified in the high HIV prevalence cities. The only factors that were more common in the two high HIV prevalence cities than in the two low HIV prevalence cities were young age at first intercourse for women, young age at first marriage, and large age difference between the spouses. It was also noted that the high levels of **HIV infection** among young people, especially among female adolescents in Kisumu and Ndola highlight the importance of interventions targeted at young people and their partners.

**URL:**

**Publication Date:** 2001

**National condom policy and strategy, 2001-2005, Republic of Kenya.**

**Author:** Kenya. Ministry of Health; Kenya. National AIDS Control Council

**Source:** [Nairobi], Kenya, National AIDS and STD Control Programme, 2001 Sep. 27 p.

**Abstract:**

The National AIDS Control Council's **Kenya** National HIV/AIDS Strategic Plan identifies the two principal goals for reducing the spread of HIV as 1) increasing infection risk perception and 2) enhancing condom use. This document is designed to ensure adequate national supply of and access to condoms, coupled with public education and advocacy to increase use among target individuals. Organized into 12 sections, this document is the product of a review of key policy and strategy documents and interviews with stakeholders at the national, provincial and district levels. The policy and strategy gaps were identified in the areas of overall coordination, demand creation, supply and distribution of condoms, as well as meeting the cost of condoms by users and financing them. The four principles that guide the new policy and strategy are also presented.

**URL:**

**Publication Date:** 2001

**Personalized HIV counseling and testing show promise in reducing risk behaviors.**

**Author:** Hollander D

**Source:** International Family Planning Perspectives. 2001 Mar;27(1):49-50.

**Abstract:**

According to findings from a multicenter study, personalized voluntary HIV counseling and testing can reduce risk behaviors among men and women in developing countries. The effectiveness study was conducted at clinics in **Kenya**, Tanzania and Trinidad in 1995-98, with a total of 3120 individuals and 586 couples enrolled. Participants were randomly assigned to receive either personalized counseling and testing or a group education intervention. Follow-up interviews indicated that the proportion of participants who had unprotected intercourse with someone other than a primary partner dropped by about 35-39% among men and women receiving individualized services, but by only 17% among those receiving group education. It is noted that patterns of behavior change differed by participants' **HIV infection** status. In a related analysis, researchers assessed the cost-effectiveness of providing voluntary HIV counseling and testing in **Kenya** and Tanzania. Results demonstrate the voluntary counseling and testing is highly cost-effective, particularly when offered to couples and to HIV-infected people.

**URL:**

**Publication Date:** 2001

**Perspectives of adolescent boys on the risks of unwanted pregnancy and sexually transmitted infections: Kenya.**

**Author:** Nzioka C

**Source:** Reproductive Health Matters. 2001 May;9(17):108-17.

**Abstract:**

Sexual debut for boys in **Kenya** occurs mostly by mid-adolescence. This study looks at the perspectives of adolescent boys aged 15-19 attending schools in rural, eastern **Kenya** on the dual risks of unwanted pregnancy, sexually transmitted diseases (STDs) and HIV, based on qualitative data from eight focus group discussions with 90 boys. Despite a high knowledge of sexual risks, fear of HIV and awareness of the protective value of condoms, the young men exhibit high risk behavior. They feel the need to conform to social prescriptions of male prowess, early sexual experience, and having more than one partner, yet their feelings about this behavior are ambiguous and contradictory. They consider getting girls pregnant and having had a treatable STD as marks of masculinity, blame girls for not protecting themselves (and girls' parents), and want to boast about their sexual conquests to their peers. Yet they feel embarrassed and reticent about discussing sexual issues with adults, and are unwilling to get condoms from places where anonymity is not assured as they know their sexual activity is not sanctioned. There is a clear need for educational programs that confront male sexual norms, address issues of gender power relations, promote communication skills, informed choice and sexual responsibility among boys as well as girls, and provide a consistent supply of good quality condoms free or at affordable prices. (author's)

**URL:**

**Publication Date:** 2001

**The plight of women and the girl-child in Africa in the age of HIV / AIDS.**

**Author:** Nasimiyu-Wasike A

**Source:** Conscience. 2001 Autumn;22(3):21.

**Abstract:**

In African societies, women experience many forms of discrimination in the cultural, legal, political, economic, religious, and social spheres. **Kenya**, in particular, has 22% of young girls between 15-19 years of age who are HIV positive and only 6% of infected young boys in the same age group. These HIV- infected women are looked upon as loose women whose sexual promiscuity has been justly punished, though it has been established that more than 50% of women contract HIV/AIDS from their husbands or their only boyfriends. To this effect, women and young girls are challenged to fight against the traditional sociocultural impediments which give them no rights over their reproduction. It is recommended that the vulnerability of women to AIDS be addressed; that all cultural practices be examined objectively; that men and boys be educated about sexual exploitation of women; that women be empowered economically; and that health services for women be provided in rural and urban settings.

**URL:**

**Publication Date:** 2001

**Resistance to HIV-1 infection among African sex workers is associated with global Hyporesponsiveness in interleukin 4 production.**

**Author:** Trivedi HN; Plummer FA; Anzala AO; Njagi E; Bwayo JJ

**Source:** FASEB Journal. 2001 Aug;15(10):1795-7.

**Abstract:**

This paper presents findings of the study on the nature of HIV-1- specific and recall antigen responses in resistant vs. susceptible sex workers compared with healthy (non-sex worker) controls in Nairobi, **Kenya**. Principal findings revealed that: resistant sex workers exhibit significantly enhanced interferon and lower interleukin 4 (IL-4) HIV-1-specific responses independent of changes in type 2 cytokines; polyclonal stimuli fail to reveal alterations in HIV-1-specific type 1 vs. type 2 cytokine responses; and recall antigen-mediated stimulation shows a global deficiency in the capacity of HIV-1-resistant women to mount IL-4 responses. Overall, the findings suggest that a key differentiator of resistant subjects from the population in general is the nature of the cytokine response elicited upon HIV exposure. Specifically, difference between resistance and susceptibility to **HIV-1 infection** can be distinguished by reciprocal differences in the intensity of HIV-1-driven interferon-gamma and IL-4 cytokine production, which is independent of alterations in IL responses.

**URL:**

**Publication Date:** 2001

## **The role of MCH and family planning services in HIV / STD control: is integration the answer?**

**Author:** Lush L; Walt G; Cleland J; Mayhew S

**Source:** African Journal of Reproductive Health / Revue Africaine de la Sante Reproductive. 2001 Dec;5(3):29-46.

### **Abstract:**

During the mid 1990s, high HIV and sexually transmitted disease (STD) prevalence led to calls for the integration of effective services with maternal and child health and family planning (MCH/FP) programs. There are advantages and disadvantages to integration, but little evidence existed to assess the practicalities of implementing this policy. Analysis of policy development for integration was conducted in Ghana, **Kenya**, South Africa, and Zambia. Semi- structured interviews were conducted with policymakers at national, provincial, and district levels and a survey of facilities was undertaken to identify gaps between policy intent and implementation. Significant advances had been made at the national level to formulate policies to integrate reproductive health and primary health care. However, barriers to implementation included entrenched HIV/STD and MCH/FP vertical programs; diverse demands on district managers and providers, such as on-going institutional reform; and conflicting objectives of international donors. Policymakers need to address conflicting objectives between the needs for vertical accountability and the reality of providing integrated services. More careful consideration of implementation is required at earlier stages of policy design. Increased consultation with those who are to implement and provide integrated services is recommended. (author's)

### **URL:**

**Publication Date:** 2001

## **Selenium deficiency is associated with shedding of HIV-1-infected cells in the female genital tract.**

**Author:** Baeten JM; Mostad SB; Hughes MP; Overbaugh J; Bankson DD; Mandaliya K; Ndinya-Achola JO; Bwayo JJ; Kreiss JK

**Source:** JAIDS. JOURNAL OF ACQUIRED IMMUNE DEFICIENCY SYNDROMES. 2001 Apr 1;26(4):360-4.

### **Abstract:**

The aim was to assess the relation between selenium deficiency and vaginal or cervical shedding of HIV-1-infected cells. A cross-sectional study of 318 HIV-1 seropositive women in Mombasa, **Kenya**, was carried out. Vaginal and cervical swab specimens were tested for the presence of HIV-1 DNA by polymerase chain reaction. Multivariate logistic regression models, adjusting for CD4 count and vitamin A deficiency, were used. Selenium deficiency (defined as levels <85 mcg/l) was observed in 11% of the study population. In unstratified multivariate analyses, there was no significant association between selenium deficiency and vaginal or cervical shedding. In stratified analyses, however, significant associations became apparent after excluding women with predictors of shedding with strong local effects on the genital tract mucosa. Among women who did not use oral contraceptives and who did not have vaginal candidiasis, selenium deficiency was significantly associated with vaginal shedding (adjusted odds ratio [AOR], 2.9; 95% confidence interval [CI], 1.0-8.8; p = 0.05). Effect modification was also observed in the relation between selenium deficiency and cervical shedding, with a significant association seen among those women who were not using oral contraceptive pills or depot medroxyprogesterone acetate and who did not have Neisseria gonorrhoea infection (AOR, 2.8; 95% CI, 1.1-7.0; p = 0.02). The authors found selenium deficiency to be associated with a nearly three-fold higher likelihood of genital mucosal shedding of HIV-1-infected cells, suggesting that deficiency may increase the infectiousness of women with HIV-1. Nutritional interventions to prevent HIV-1 transmission warrant investigation. (author's)

### **URL:**

**Publication Date:** 2001

### **Sexually transmitted infections and vaginal douching in a population of female sex workers in Nairobi, Kenya.**

**Author:** Fonck K; Kaul R; Keli F; Bwayo JJ; Ngugi EN; Moses S

**Source:** Sexually Transmitted Infections. 2001;77(4):271-275.

**Abstract:**

Objective: To assess the association between vaginal douching and sexually transmitted infections (STI) among a group of female sex workers (FSWs) in Nairobi, **Kenya**. Methods: This study was part of a randomised, placebo controlled trial of monthly prophylaxis with 1 g of azithromycin to prevent STIs and **HIV infection** in a cohort of Nairobi FSWs. Consenting women were administered a questionnaire and screened for STIs. Results: The seroprevalence of HIV-1 among 543 FSWs screened was 30%. **HIV infection** was significantly associated with bacterial vaginosis (BV), trichomoniasis, gonorrhoea, and the presence of a genital ulcer. Regular douching was reported by 72% of the women, of whom the majority inserted fluids in the vagina, generally after each sexual intercourse. Water with soap was the fluid most often used (81%), followed by salty water (18%), water alone (9%), and a commercial antiseptic (5%). Douching in general and douching with soap and water were significantly associated with bacterial vaginosis ( $p = 0.05$  and  $p = 0.04$  respectively). There was a significant trend for increased frequency of douching and higher prevalence of BV. There was no direct relation observed between douching and risk for **HIV infection** or other STIs. Conclusion: The widespread habit of douching among African female sex workers was confirmed. The association between vaginal douching and BV is of concern, given the increased risk of **HIV infection** with BV, which has now been shown in several studies. It is unclear why we could not demonstrate a direct association between douching and **HIV infection**. Further research is required to better understand the complex relation between douching, risk for bacterial vaginosis, and risk for HIV and other STIs. (author's)

**URL:**

**Publication Date:**

### **Study examines package of services for prevention of mother-to-child HIV transmission.**

**Author:** Dadian MJ

**Source:** Horizons Report. 2001 Spring;:8-10.

**Abstract:**

Antiretroviral drugs have been proven to significantly reduce mother-to-child transmission of HIV. In the US, nevirapine has been used in the prevention of mother-to-child transmission (PMCT). However, few nations in sub-Saharan Africa and other poor regions have access to affordable, effective, and acceptable PMCT services. In **Kenya** and Zambia, health personnel implemented a comprehensive package of services to deal with the complexity of the problem and to study its impact. The study focused on the reasons for use and nonuse of services, the effects of intervention on morbidity and mortality of infants and the health of mothers, cost-effectiveness and quality of care. It aimed to find out the effects of intervention on the rate of transmission and the impact of voluntary counseling and testing on mothers' plans for the future. It is noted that widespread scale-up efforts on the early results from the studies in **Kenya** and Zambia are underway.

**URL:**

**Publication Date:** 2001

### **Vaginal lavage with chlorhexidine during labour to reduce mother-to-child HIV transmission: clinical trial in Mombasa, Kenya.**

**Author:** Gaillard P; Mwanyumba F; Verhofstede C; Claeys P; Chohan V

**Source:** AIDS. 2001;15(3):389-96.

**Abstract:**

The aim was to evaluate the effect of vaginal lavage with diluted chlorhexidine on mother-to-child transmission of HIV (MTCT) in a breast-feeding population. This prospective clinical trial was conducted in a governmental hospital in Mombasa, **Kenya**. On alternating weeks, women were allocated to non-intervention or to intervention consisting of vaginal lavage with 120 ml 0.2% chlorhexidine, later increased to 0.4%, repeated every 3 hours from admission to delivery. Infants were tested for HIV by deoxyribonucleic polymerase chain reaction within 48 hours and at 6 and 14 weeks of life. Enrollment and follow-up data were available for 297 and 309 HIV-positive women, respectively, in the non-lavage and the lavage groups. There was no evidence of a difference in intrapartum MTCT (17.2% vs. 15.9%, odds ratio (OR) 0.9, 95% confidence interval 0.6-1.4) between the groups. Lavage solely before rupture of the membranes tended towards lower MTCT with chlorhexidine 0.2% (OR 0.6, 95% CI 0.3-1.1), and even more with chlorhexidine 0.4% (OR 0.1, 95% CI 0.0-0.9). The need remains for interventions reducing MTCT without HIV testing often unavailable in countries with a high prevalence of HIV. Vaginal lavage with diluted chlorhexidine during delivery did not show a global effect on MTCT in the authors' study. However, the data suggest that lavage before the membranes are ruptured might be associated with a reduction of MTCT, especially with higher concentrations of chlorhexidine. (author's)

**URL:**

**Publication Date:** 2001

### **Varieties of male circumcision. A study from Kenya.**

**Author:** Brown JE; Micheni KD; Grant EM; Mwenda JM; Muthiri FM

**Source:** Sexually Transmitted Diseases. 2001 Oct;28(10):608-12.

**Abstract:**

Because male circumcision has been linked to a lower risk of **HIV infection**, it is advocated tentatively as a possible preventive intervention. Most studies, however, have relied on men's self-reports of their circumcision status. The goal was to document varied techniques of male circumcision in one area of **Kenya** and the visible results. Researchers interviewed men who had performed or undergone various forms of circumcision. They also did genital observations on a subsample of respondents. All the men reported undergoing circumcision during adolescence, and most were able to tell which technique was used. According to the circumcisers, in type A, approximately 4 cm of the prepuce is removed; in type B, 1-2 cm of the prepuce and some of its inner surface are removed. Types A and B result in the same genital appearance. In type C, 1-2 cm of the prepuce and some of the inner surface are removed. The remaining prepuce is slit and suspended below the penile shaft. Asking a man "Are you circumcised?" is not sufficient. Classifying his circumcision status requires both a genital examination and an understanding of the precise local surgical techniques used. Even in a small geographic area, considerable variety may exist in the techniques of cutting, removing, altering, or leaving different portions of the foreskin. Each variation may affect the transmission of HIV and other infections. (author's)

**URL:**

**Publication Date:** 2001

**Vitamin A and risk of HIV-1 seroconversion among Kenyan men with genital ulcers.**

**Author:** MacDonald KS; Malonza I; Chen DK; Nagelkerke NJ; Nasio JM

**Source:** AIDS. 2001;15(5):635-9.

**Abstract:**

Vitamin A is involved in normal immune function and the maintenance of mucosal integrity through complex effects on cellular differentiation. The authors sought to determine whether serum vitamin A levels were associated with altered susceptibility to primary infection with HIV-1 in men with high-risk sexual behavior and genital ulcers who presented for treatment at a sexually transmitted disease (STD) clinic in Nairobi, **Kenya**. HIV-1 seronegative men were prospectively followed. Vitamin A levels at study entry were compared among 38 men who HIV-1 seroconverted versus 94 controls who remained HIV seronegative. Vitamin deficiency (retinol <20 mcg/dl) was very common and was present in 50% of HIV-1 seroconverters versus 76% of persistent seronegatives. Seroconversion was independently associated with a retinol level >20 mcg/dl (hazard ratio [HR] 2.43, 95% confidence interval [CI] 1.25-4.70, P = 0.009), and a genital ulcer etiology caused by *Haemophilus ducreyi* (HR 3.49, 95% CI 1.03-11.67, P = 0.04). Circumcision was independently associated with protection (HR 0.46, 95% CI 0.23-0.93, P = 0.03). Vitamin A deficiency was not associated with an increased risk of **HIV-1 infection** among men with concurrent STD. A decreased risk of HIV-1 seroconversion was independently associated with lower retinol levels. The effects of vitamin A on macrophage and lymphoid cell differentiation may paradoxically increase mucosal susceptibility to HIV-1 in some vulnerable individuals, such as men with genital ulcers. Lack of circumcision and chancroid are confirmed as important co-factors for heterosexual HIV-1 transmission. The role of vitamin A in heterosexual HIV-1 transmission requires further study. (author's)

**URL:**

**Publication Date:** 2001

**Why do young women have a much higher prevalence of HIV than young men? A study in Kisumu, Kenya and Ndola, Zambia.**

**Author:** Glynn JR; Carael M; Auvert B; Kahindo M; Chege J

**Source:** AIDS. 2001 Aug;15 Suppl 4:S51-60.

**Abstract:**

This study aimed to examine the factors for the disparity in HIV prevalence between young men and women in two urban populations in Africa with high HIV prevalence. It used a cross-sectional survey, aiming to include 1000 men and 1000 women aged 15-49 years in Kisumu, **Kenya** and Ndola, Zambia. Participants were interviewed and tested for HIV and other sexually transmitted infections. Analyses compared the marital and non-marital partnership patterns in young men and women, and estimated the likelihood of having an HIV-infected partner. Overall, 26% of individuals in Kisumu and 28% in Ndola were HIV-positive. In both sites, HIV prevalence in women was six times that in men among sexually active 15-19 year olds, three times in men among 20-24 year olds, and equal to that in men among 25-49 year olds. Age at sexual debut was similar in men and women, and men had more partners than women. Women married younger than men and marriage was a risk factor for HIV, but the disparity in HIV prevalence was present in both married and unmarried individuals. Women often had older partners, and men rarely had partners much older than themselves. Nevertheless, the estimated prevalence of HIV in the partners of unmarried men aged under 20 was as high as that for unmarried women. HIV prevalence was very high even among women reporting one lifetime partner and few episodes of sexual intercourse. Behavioral factors could not fully explain the discrepancy in HIV prevalence between men and women. Despite the tendency for women to have older partners, young men were at least as likely to encounter an HIV-infected partner as young as women. It is likely that the greater susceptibility of women to **HIV infection** is an important factor both in explaining the male-female discrepancy in HIV prevalence and in driving the epidemic. Herpes simplex virus type 2 infection, which is more prevalent in young women than in young men, is probably one of the factors that increases women's susceptibility to **HIV infection**. (author's)

**URL:**

**Publication Date:** 2001

**Youth in sub-Saharan Africa : a chartbook on sexual experience and reproductive health. [[Jeunesse d'Afrique sub-saharienne : cahier des expériences sexuelles et de santé reproductive]]**

**Author:** Carr D; Way A; Smith R

**Source:** Washington, D.C., Population Reference Bureau [PRB], 2001 Apr. 44 p.

**Abstract:**

This chartbook examines factors that are important to young people's healthy transition, including education and exposure to information, sexual experience and marriage, HIV/AIDS, child-bearing, contraception, and maternal health, using survey data collected through the global Demographic and Health Survey Program. The survey profiles adolescents aged 15-19 years in 11 sub-Saharan countries, namely, Cote d'Ivoire, Ghana, **Kenya**, Madagascar, Mali, Mozambique, Senegal, Tanzania, Uganda, Zambia, and Zimbabwe. Some of the key findings from this chartbook show that education levels have increased dramatically in most countries surveyed. In 9 out of 11 countries surveyed, at least one-third of young women marry before age 18 years and at least half have sex before age 18. In a number of settings teenage women are more vulnerable to AIDS/HIV than teenage men. Modern contraceptive use among single, sexually active women ranges from 5% in Mozambique to 23% in Ghana. In 8 out of 11 countries, at least 10% of 16-year-olds have started childbearing. Although many adolescent mothers received antenatal care, access to professional delivery care remains limited. In 10 out of 11 countries, less than 55% of young women reported receiving professional delivery care.

**URL:**

**Publication Date:** 2001

**The adolescent AIDS epidemic in Kenya: a briefing book.**

**Author:** Johnston T

**Source:** Nairobi, Kenya, Population Communication Africa, [2000]. 50 p. Population Communication Africa and Pathfinder International Briefing Book No. 1.

**Abstract:**

This briefing book provides a wider understanding of the nature and extent of the adolescent AIDS epidemic in **Kenya**. It emphasizes that at the millennium, some one-third of Kenyan teenage girls in AIDS high prevalence areas of **Kenya** are HIV-positive. This proportion is projected to steadily become more commonplace as the infection spreads. Another epidemic experienced by this group of people, while less deadly in terms of its consequences is much more prevalent, is that of accidental mostly premarital pregnancy. Estimates show that nearly 45% of Kenyan girls aged 19 years are already mothers or are pregnant. It is noted that the two epidemics are related: they both stem from the behavior of unprotected sexual intercourse too often perpetrated by older men and too frequently cash or gift induced or worse. To this effect, the need for a provision of youth relevant information, education and communication activities devised to prevent risk behavior and the provision of youth relevant health services to protect behavior from risk is highlighted.

**URL:**

**Publication Date:** 2000

**Care and support for people with HIV / AIDS. Summary of research. [Soins et soutien. Le point de la recherche.]**

**Author:** Réseau Africain de Recherche sur le SIDA. Zone Afrique Occidentale et Centrale; Population Council. Horizons  
**Source:** Dakar, Senegal, Réseau Africain de Recherche sur le SIDA, Zone Afrique Occidentale et Centrale, 2000 Jul. 2 p.

**Abstract:**

While HIV/AIDS prevention remains a major priority, developing countries must nonetheless confront the challenge of responding to the needs of populations already living with **HIV infection** and AIDS. Increasingly, organizations traditionally focused upon prevention or other concerns have turned to patient care and support as needed by the populations they serve. The Horizons Program research strategy focuses upon developing and evaluating the impact of different innovative health and support interventions designed to respond to the clinical, social, and economic needs of people living with HIV/AIDS (PWA), as well as their families. Few such interventions have thus far been studied. 8 Horizons Program projects focus upon the clinical management of cases, programs targeted to benefit HIV-infected children, the roles of various sectors, cost and sustainability, and improving program quality. One of the Program's main themes regarding patient care and support addresses the social stigmatization barring PWAs' access to appropriate care and support services. Research activities are described in Uganda, Zambia, India, **Kenya**, Burkina Faso, and Ecuador.

**URL:**

**Publication Date:** 2000

**Cervical shedding of herpes simplex virus and cytomegalovirus throughout the menstrual cycle in women infected with human immunodeficiency virus type 1.**

**Author:** Mostad SB; Kreiss JK; Ryncarz A; Chohan B; Mandaliya K; Ndinya-Achola J; Bwayo JJ; Corey L  
**Source:** American Journal of Obstetrics and Gynecology. 2000 Oct;183(4):948-55.

**Abstract:**

The aim was to evaluate the frequency and patterns of the shedding of herpes simplex virus and cytomegalovirus in the female genital tract throughout the menstrual cycle. 17 women, all seropositive for herpes simplex virus type 1 and 2, cytomegalovirus, and HIV type 1, underwent daily evaluation of cervical viral shedding for the duration of 1 menstrual cycle (21-31 visits per woman). Serum estradiol and progesterone levels were monitored 3 times weekly. Overall, herpes simplex virus deoxyribonucleic acid (DNA) was detected in 43 (10%) of 450 cervical swabs, and cytomegalovirus DNA was detected in 232 (52%) of 450 cervical swabs. For individual women there was considerable variability in the percentage of days on which virus was detected, ranging from 0% to 33% for herpes simplex virus and from 20% to 97% for cytomegalovirus. Shedding of herpes simplex virus did not vary significantly with menstrual cycle; however, shedding of cytomegalovirus was significantly more frequent in the luteal phase (odds ratio (OR), 1.9; 95% confidence interval (CI), 1.1-3.4). A CD4+ lymphocyte count of <200/mcl was associated with increased frequency of the detection of herpes simplex virus (OR, 5.7; 95% CI, 1.1-29.4). Asymptomatic cervical shedding of both herpes simplex virus and cytomegalovirus occurs very frequently in women infected with HIV type 1. The risk of transmitting these viruses to sexual partners and neonates may be higher than previously recognized. (author's)

**URL:**

**Publication Date:** 2000

**Characteristics of individuals and couples seeking HIV-1 prevention services in Nairobi, Kenya: the Voluntary HIV-1 Counseling and Testing Efficacy Study.**

**Author:** Balmer D; Grinstead OA; Kihuhho F; Gregorich SE; Sweat MD

**Source:** AIDS and Behavior. 2000;4(1):15-23.

**Abstract:**

This paper describes the recruitment and baseline characteristics of men, women, and couples who enrolled in the Voluntary Counseling and Testing Efficacy Study at the study site in Nairobi, **Kenya**. The purpose of this study was to test the effectiveness of Voluntary HIV Counseling and Testing (HIV VCT) to reduce sexual risk behavior. Between June 1995 and March 1996, 500 individual men, 500 individual women, and 515 couple members were recruited for a total sample of 1515 participants. Participants were young (average age 29 years) and of low income. High levels of risk behavior and self-reported sexually transmitted disease (STD) symptoms and a high rate of HIV seropositivity among those tested at baseline (15% of men and 27% of women) indicate that an at-risk sample was recruited. Women and participants reporting symptoms of a sexually transmitted infection were significantly more likely to be infected with HIV. Findings suggest that HIV VCT services combined with STD diagnosis and treatment and economic development services could motivate more at-risk individuals and couples to receive counseling and testing. (author's)

**URL:**

**Publication Date:** 2000

**Cost-effectiveness of voluntary HIV-1 counselling and testing in reducing sexual transmission of HIV-1 in Kenya and Tanzania.**

**Author:** Sweat M; Gregorich S; Sangiwa G; Furlonge C; Balmer D; Kamenga C; Grinstead O; Coates T

**Source:** Lancet. 2000 Jul 8;356(9224):113-21.

**Abstract:**

Access to HIV-1 voluntary counseling and testing (VCT) is severely limited in less-developed countries. The authors undertook a multi-site trial of HIV-1 VCT to assess its impact, cost, and cost-effectiveness in less-developed country settings. The cost-effectiveness of HIV-1 VCT was estimated for a hypothetical cohort of 10,000 people seeking VCT in urban east Africa. Outcomes were modeled based on results from a randomized controlled trial of HIV-1 VCT in Tanzania and **Kenya**. The authors' main outcome measures included program cost, number of **HIV-1 infections** averted, cost per **HIV-1 infection** averted, and cost per disability-adjusted life-year (DALY) saved. The authors also modeled the impact of targeting VCT by HIV-1 prevalence of the client population, and the proportion of clients who receive VCT as a couple compared with as individuals. Sensitivity analysis was done on all model parameters. HIV-1 VCT was estimated to avert 1104 **HIV-1 infections in Kenya** and 895 in Tanzania during the subsequent year. The cost per **HIV-1 infection** averted was US\$249 and US\$349, respectively, and the cost per DALY saved was US\$12.77 and US\$17.78. The intervention was most cost-effective for HIV-1-infected people and those who received VCT as a couple. The cost-effectiveness of VCT was robust, with a range for the average cost per DALY saved of US\$5.16-27.36 in **Kenya** and US\$6.58-45.03 in Tanzania. Analysis of targeting showed that increasing the proportion of couples to 70% reduces the cost per DALY saved to US\$10.71 in **Kenya** and US\$13.39 in Tanzania, and that targeting a population with HIV-1 prevalence of 45% decreased the cost per DALY saved to US\$8.36 in **Kenya** and US\$11.74 in Tanzania. HIV-1 VCT is highly cost-effective in urban east African settings, but slightly less so than interventions such as improvement of sexually transmitted disease services and universal provision of nevirapine to pregnant women in high-prevalence settings. With the targeting of VCT to populations with high HIV-1 prevalence and couples the cost-effectiveness of VCT is improved significantly. (author's)

**URL:**

**Publication Date:** 2000

### **Counsellors' perspectives on the experience of providing HIV counselling in Kenya and Tanzania: the Voluntary HIV-1 Counselling and Testing Efficacy Study.**

**Author:** Grinstead OA; van der Straten A

**Source:** AIDS Care. 2000 Oct;12(5):625-42.

**Abstract:**

Demand for HIV counseling services is increasing in developing countries, but there have been few previous studies that describe counselor's roles and experiences providing HIV-related counseling in developing countries. Such information can be used to better supervise and support counselors and thereby improve counseling services. As a sub-study of the Voluntary Counseling and Testing Efficacy Study, the authors conducted focus groups and individual interviews with 11 counselors and counseling supervisors providing HIV counseling services in **Kenya** and Tanzania. Counselors told the authors that their jobs were both rewarding and stressful. In addition to their obligations in the counseling relationship (providing information, protecting confidentiality and being non-judgmental), they perceived pressure to provide information and be good role models in their communities. Additional stresses were related to external (economic and political) conditions, "spill-over" of HIV issues from their personal lives and providing counseling in a research setting. Counselor stress might be reduced and their effectiveness and retention improved by 1) allowing work flexibility; 2) providing supportive, nonevaluative supervision; 3) offering alternatives to client behavior change as the indication of counselor performance; 4) acknowledging and educating about "emotional labor" in counseling; 5) providing frequent information updates and intensive training; and 6) encouraging counselor participation in the development of research protocols. (author's)

**Document Number:** PIP 152505

### **Pattern of sexually transmitted diseases and risk factors among women attending an STD referral clinic in Nairobi, Kenya.**

**Author:** Fonck K; Kidula N; Kirui P; Ndinya-Achola J; Bwayo J; Claeys P; Temmerman M

**Source:** Sexually Transmitted Diseases. 2000 Aug;27(7):417-23.

**Abstract:**

In **Kenya**, sexually transmitted disease (STD) clinics care for large numbers of patients with STD-related signs and symptoms. Yet, the etiologic fraction of the different STD pathogens remains to be determined, particularly in women. The aim of the study was to determine the prevalence of STDs and of cervical dysplasia and their risk markers among women attending the STD clinic in Nairobi. A cross-section of women were interviewed and examined; samples were taken. The mean age of 520 women was 26 years, 54% had a stable relationship, 38% were pregnant, 47% had ever used condoms (1% as a method of contraception), 11% reported multiple partners in the previous 3 months, and 32% had a history of STDs. The prevalence of STDs was 29% for HIV type 1, 35% for candidiasis, 25% for trichomoniasis, 16% for bacterial vaginosis, 6% for gonorrhea, 4% for chlamydia, 6% for a positive syphilis serology, 6% for genital warts, 12% for genital ulcers, and 13% for cervical dysplasia. Factors related to sexual behavior, especially the number of sex partners, were associated with several STDs. Gonorrhea, bacterial vaginosis, cervical dysplasia, and genital warts or ulcers were independently associated with **HIV infection**. Partners of circumcised men had less-prevalent **HIV infection**. Most women reported low-risk sexual behavior and were likely to be infected by their regular partner. HIV and STD prevention campaigns will not have a significant impact if the transmission between partners is not addressed. (author's)

**URL:**

**Publication Date:** 2000

**Project appraisal document on a proposed credit in the amount of SDR 38.8 million (US\$ 50 million equivalent) to the Republic of Kenya for the decentralized reproductive health and HIV / AIDS project.**

**Author:** World Bank. Africa Region

**Source:** Washington, D.C., World Bank, Africa Region, 2000 Nov 16. [10], 84 p. Report No. 21300-KE

**Abstract:**

This project appraisal document presents the proposed credit in the amount of SDR 38.8 million to the Republic of **Kenya** for the decentralized reproductive health (RH) and HIV/AIDS project. The project development aimed 1) to improve mother and child health through more integrated delivery of child survival, RH and HIV/AIDS services, increasing efficiency of the Government in delivering these services and maintaining the accomplishments of **Kenya's** population program; 2) slow the increase of HIV prevalence rates; and 3) create an enabling environment for decentralized managed delivery of child survival, RH and HIV/AIDS services to and within districts. This document is divided into nine sections. Each section addresses the strategic context, project description summary, project rationale, summary project analysis, sustainability and risks, main loan conditions, readiness for implementation and compliance with bank policies. Annexes included encompass on project design summary; detailed project description; estimated project costs; cost benefit analysis summary; financial summary; procurement and disbursement arrangements; project processing schedule; document in the project file; statement of loans and credits; and country at a glance.

**URL:**

**Publication Date:** 2000

**A randomized, placebo-controlled trial of monthly azithromycin prophylaxis to prevent sexually transmitted infections and HIV-1 in Kenyan sex workers: study design and baseline findings.**

**Author:** Fonck K; Kaul R; Kimani J; Keli F; MacDonald KS; Ronald AR; Plummer FA; Kirui P; Bwayo JJ; Ngugi EN

**Source:** International Journal of STD and AIDS. 2000 Dec;11(12):804-11.

**Abstract:**

The objective was to describe the baseline findings of a trial of antibiotic prophylaxis to prevent sexually transmitted infections (STIs) and HIV-1 in a cohort of Nairobi female sex workers (FSWs). A questionnaire was administered and a medical examination was performed. HIV-negative women were randomly assigned to receive either 1 g azithromycin or placebo monthly. Mean age of the 318 women was 32 years, mean duration of sex work was 7 years, and mean number of clients was 4 per day. High-risk behavior was frequent: 14% practiced anal intercourse, 23% had sex during menses, and 3% used intravenous drugs. While 20% reported condom use with all clients, 37% never used condoms. However, STI prevalence was relatively low: HIV-1, 27%; bacterial vaginosis, 46%; *Trichomonas vaginalis*, 13%; *Neisseria gonorrhoeae*, 8%; *Chlamydia trachomatis*, 7%; syphilis, 6%; and cervical intraepithelial neoplasia, 3%. It appears feasible to access a population of high-risk FSWs in Nairobi with prevention programs, including a proposed trial of HIV prevention through STI chemoprophylaxis. (author's, modified)

**URL:**

**Publication Date:** 2000

**Realizing the HIV prevention-to-care continuum in Kenya.**

**Author:** Obanyi G; Pyne-Mercier L

**Source:** IMPACT ON HIV. 2000 Dec;2(2):11-5.

**Abstract:**

A program that combines intensive behavior change interventions with community-based care and support for individuals and families affected by HIV/AIDS is being implemented in **Kenya**. The Family Health International's Implementing AIDS Prevention and Care (FHI/IMPACT) program aims to make the prevention-to-care continuum a reality in Kenyan communities. It provides technical assistance to establish 12 HIV voluntary counseling and testing centers in the country. Through these centers, FHI/IMPACT will link interventions to reduce the risk of HIV/AIDS among vulnerable populations with community-based care and support for those already infected or affected by the virus. The program involves outreach workers and volunteer-peer-educators in referring people to the centers to help them change the behaviors that put them at risk of infection. Those tested positive for HIV and their families will be referred to community-based teams of caregivers and other nearby sources of support. According to the FHI country director in **Kenya**, John McWilliam, such linkages are one of the hallmarks of a new generation of programs responding to the challenges of HIV/AIDS prevention and care in areas with high HIV prevalence.

**URL:**

**Publication Date:**

**Reducing HIV-1 in Kenya and Tanzania** [letter]

**Author:** Muller O

**Source:** Lancet. 2000 Nov 4;356(9241):1604.

**Abstract:**

The result from the Voluntary HIV-1 Counseling and Testing Efficacy Study Group are very convincing. As a young physician and consultant to the Red Cross Society in the 1980s, I participated in the development of the national AIDS control program in Uganda. The number of AIDS cases in the country increased continually, whereas control activities were still in their infancy. I was shocked by the obvious discrepancy between a high public awareness of the AIDS epidemic in Uganda resulting from a well designed information, education, and communication program, and the proportion of AIDS cases in almost every family, in contrast to the virtual absence of VCT services. Since I was accustomed to such services being widely available in Europe and convinced about their effect on promoting behavior change, I and my colleagues started a VCT center in Uganda. Although the idea was initially met with some reservations about its feasibility and sustainability, we successfully set up the service in a busy street of central Kampala in early 1990. Our first experiences showed the demand for and the feasibility of VCT in Uganda and that such an intervention effectively achieves behavior change. The center finally developed into a countrywide network which provided its services to about 500,000 Ugandans. The availability of VCT services has probably substantially contributed to the overall success of the Ugandan AIDS control program. Overwhelming evidence shows benefits of providing VCT services in less developed countries at all stages of the epidemic, and their contribution to HIV prevention. (full text)

**URL:**

**Publication Date:** 2000

### **The social meanings of death from HIV / AIDS: an African interpretative view.**

**Author:** Nzioka C

**Source:** Culture Health and Sexuality. 2000 Jan-Mar;2(1):1-14.

**Abstract:**

Death from HIV/AIDS is increasingly common in **Kenya**. However, the ways in which people diagnosed with HIV/AIDS and society more generally make sense of this kind of death has been little investigated. By analyzing accounts from a sample of 14 heterosexual people diagnosed HIV positive and presented for treatment in 4 specialized clinics in Nairobi, and other accounts elicited from members of the clergy and lay persons, this paper examines how people make sense of death from HIV/AIDS. To be infected by HIV equates to death, and because AIDS acts as a metaphor for moral and physical contamination, **HIV infection** confers on the individual a spoilt image and identity. This image and identity is projected into life beyond physical death, and is reinforced, popularized and legitimized by Christian and African religious schema in such a way that death from HIV/AIDS is now constructed and experienced as 'permanent'. This kind of death has implications for the way in which people living with HIV/AIDS seek treatment and manage an HIV seropositive status. It is also relevant to an understanding of the ways in which funerals and burials for people dying of HIV/AIDS are now being organized in **Kenya**. (author's)

**URL:**

**Publication Date:** 2000

### **Trends in HIV-1 incidence in a cohort of prostitutes in Kenya: implications for HIV-1 vaccine efficacy trials.**

**Author:** Baeten JM; Richardson BA; Martin HL Jr; Nyange PM; Lavreys L; Ngugi EN; Mandaliya K; Ndinya-Achola JO; Bwayo JJ; Kreiss JK

**Source:** JAIDS. JOURNAL OF ACQUIRED IMMUNE DEFICIENCY SYNDROMES. 2000 Aug 15;24(5):458-64.

**Abstract:**

Accurate predictions of HIV-1 incidence in potential study populations are essential for designing HIV-1 vaccine efficacy trials. Little information is available on the estimated incidence of HIV-1 in such populations, especially information on incidence over time and incidence while participating in risk-reduction programs. The aim was to examine time trends in HIV-1 incidence in a vaccine preparedness cohort. A prospective cohort study of female prostitutes in Mombasa, **Kenya** was carried out. HIV-1 incidence was determined using open and closed cohort designs. Generalized estimating equations were used to model HIV-1 and sexually transmitted disease (STD) incidence and sexual risk behaviors over time. When analyzed as a closed cohort, HIV-1 incidence declined 10-fold during 3 years of follow-up (from 17.4 to 1.7 cases/100 person-years;  $p < 0.001$ ). More than 50% of the cases of HIV-1 occurred during the first 6 months after enrollment, and 73% during the first 12 months. When analyzed as an open cohort, HIV-1 incidence density fell during the first 4 calendar years, influenced by accumulation of lower risk participants and variations in study recruitment. Significant declines occurred in both STD incidence and high-risk sexual behaviors during follow-up. This study documents a dramatic decline in the risk of **HIV-1 infection** while participating in a prospective cohort, with most seroconversions occurring within 1 year of enrollment. Variations in HIV-1 incidence within high-risk population should be anticipated during the design of vaccine trials. (author's)

**URL:**

**Publication Date:** 2000

**Voluntary counseling and testing for HIV. Summary of research. [Le counseling et Le Depistage volontaires en matiere de VIH. Le point de la recherche.]**

**Author:** Reseau Africain de Recherche sur le SIDA. Zone Afrique Occidentale et Centrale; Population Council. Horizons

**Source:** Dakar, Senegal, Reseau Africain de Recherche sur le SIDA, Zone Afrique Occidentale et Centrale, 2000 Jul. 2 p.

**Abstract:**

HIV-related counseling and voluntary testing (CVT) allows HIV-infected individuals to learn their HIV serostatus and seek appropriate medical care and support. Counseling and education measures can then be taken to encourage these individuals to adopt behavior designed to prevent HIV transmission to their sex partners and future children. For those who test negative for **HIV infection**, CVT can help encourage the adoption and maintenance of risk reduction behavior to prevent potential future infection. Many questions nonetheless persist about the provision and impact of CVT. 6 Horizons Program studies explore a range of concerns about CVT, including the identification of the best contexts and models of CVT service provision, the positive or negative impact of learning one's HIV serostatus, and the role of community-based counseling services in encouraging HIV screening uptake. Research efforts are described in Uganda, Zambia, **Kenya**, and Tanzania.

**URL:**

**Publication Date:** 2000

**The voluntary HIV-1 counseling and testing efficacy study: design and methods.**

**Author:** Kamenga MC; Sweat MD; De Zoysa I; Dallabetta G; Coates TJ

**Source:** AIDS and Behavior. 2000;4(1):5-14.

**Abstract:**

While HIV counseling and testing has been promoted as potentially effective for prevention, few controlled studies have been conducted. The Voluntary HIV Counseling and Testing Efficacy Study was a randomized clinical trial of the effectiveness of HIV counseling and testing in reducing sexual risk behavior in three developing countries: Tanzania, **Kenya**, and Trinidad. The trial will provide crucial information regarding the effectiveness, cost, and consequences of HIV counseling and testing for prevention. This paper describes the design and methods of the Voluntary HIV Counseling and Testing Efficacy Study. Following a discussion of the study objectives, the design and methods of the study are presented. Recruitment, consent, randomization, intervention, assessment, follow-up, training, and quality assurance procedures are described. Issues raised in the design and anticipated in the interpretation of the study outcomes are discussed, as well as potential policy and service delivery implications of the study findings. (author's)

**URL:**

**Publication Date:** 2000

**Traditional healers and the management of sexually transmitted diseases in Nairobi, Kenya.**

**Author:** Kusimba J; Voeten HA; O'Hara HB; Otido JM; Habbema JD

**Source:** International Journal of STD and AIDS. 2003 Mar;14(3):197-201.

**Abstract:**

To describe the role of traditional healers in STD case management, in-depth interviews were held with 16 healers (seven witchdoctors, five herbalists and four spiritual healers) in four slum areas in Nairobi, **Kenya**. All healers believed that STDs are sexually transmitted and recognized the main symptoms. The STD-caseload varied largely, with a median of one patient per week. Witchdoctors and herbalists dispensed herbal medication for an average of seven days, whereas spiritual healers prayed. Thirteen healers gave advice on sexual abstinence during treatment, 11 on contact treatment, four on faithfulness and three on condom use. All healers asked patients to return for review and 13 reported referring patients whose conditions persist to public or private health care facilities. Thus, traditional healers in Nairobi play a modest but significant role in STD management. Their contribution to STD health education could be strengthened, especially regarding the promotion of condoms and faithfulness. (author's)

**URL:**

**Publication Date:** 2003

**Childcare practices of commercial sex workers.**

**Author:** Chege MN; Kabiru EW; Mbithi JN; Bwayo JJ

**Source:** East African Medical Journal. 2002 Jul;79(7):382-389.

**Abstract:**

This descriptive cross-sectional survey was conducted between July and December 2000 in Kibera slum, Nairobi, **Kenya**, during which a structured questionnaire was administered to determine the childcare practices of commercial sex workers (CSWs). Four focus group discussions (FDGs) were held with 385 CSWs. Health cards from 126 under-5 years old children belonging to the respondents were reviewed for immunization status and regularity of growth monitoring. Results show that the mean age of the 385 CSWs surveyed was 32 +or- 7 years and mean duration of sex work was 6 +or- 4 years. The mean number of living children was 3.4 +or- 2 and 81.2% of the mothers lived with their children. Three-quarters of the CSWs practiced prostitution at home. The most common daily childcare activities by the mothers were food preparation (96.2%) and washing children's clothes (91.3%). Overall 96.8% of their under-5 years old children were fully immunized and 80% of their under 1 year old children had their growth monitored monthly. About three-quarters of the mothers with adolescent children educated them on HIV/**sexually transmitted diseases** (STDs). Health seeking behavior for the children was hampered by health care cost (71.4%) and consumption of alcohol by the mothers. Like other mothers, the CSWs encouraged their adolescent children to take up some adult roles such as maintaining a clean house (93.3%). However, only 2.0% took time to converse or counsel the children. FDGs with the CSWs showed that children were left unattended at night while the mothers went out in search of clients. Efforts to provide better education for the children were undermined by lack of funds (52.2%) and truancy (46.6%). One-third of the study population had invested for the future maintenance of their children. In conclusion, there was more emphasis on physical, rather than psychological aspect of childcare. The practice of living with the children ensured that earnings from the sex trade were used for the immediate needs of the children such as food. However, this practice had a negative influence on the children as the majority of the respondents conducted their sexual business at home with little or no privacy. Health seeking behavior for the children was hampered by lack of funds and to some extent alcohol consumption by the mothers. Efforts to invest in the education of their children were undermined by lack of funds and truancy. (author's)

**URL:**

**Publication Date:** 2002

**Part time female sex workers in a suburban community in Kenya: a vulnerable hidden population.**

**Author:** Hawken MP; Melis RD; Ngombo DT; Mandaliya K; Ng'ang'a LW

**Source:** Sexually Transmitted Infections. 2002;78(4):271-273.

**Abstract:**

Background: In sub-Saharan Africa, female sex workers (FSWs) are a vulnerable high risk group for the acquisition and transmission of sexually transmitted infections (STI) and HIV. Objectives: To study parameters of sexual behavior and knowledge of STI and HIV, to describe health seeking behavior related to STI, and to measure the prevalence of gonorrhoea, chlamydia, syphilis, and HIV-1, to provide baseline data for targeted STI and HIV prevention interventions. Methods: In a cross sectional survey with snowballing recruitment, between February and March 2000, 503 self identified FSWs in a suburb in Mombasa, **Kenya**, were interviewed with a structured questionnaire and screened for gonorrhoea, chlamydia, syphilis, and HIV-1. Results: The mean number of sexual partners in the previous week was 2.8 (SD 1.6). The mean number of non-regular clients and regular clients in the previous week was 1.5 (1.0) and 1.0 (0.9) respectively. The median weekly income from sex work was \$US15. A total of 337 (67%) women had an alternative income in the informal sector. 146 (29%) and 145 (45%) never used a condom with a client and non-paying partner respectively. The prevalence of gonorrhoea, chlamydia, and syphilis was 1.8%, 4.2%, and 2.0% respectively. The overall HIV-1 seroprevalence was 30.6%. Conclusions: There is a large need for intensive STI and HIV prevention interventions in part time FSW. (author's)

**URL:**

**Publication Date:** 2002

**A case study of Nairobi City Council's decentralised syphilis screening programme in antenatal clinics.**

**Author:** Maggwa BN; Askew I; Mugwe E; Hagembe B; Homan R

**Source:** Washington, D.C., Population Council, *Frontiers in Reproductive Health*, 2001 Jan. vi, 32 p. UNAIDS Technical Services Agreement HQ/99/46725; USAID Cooperative Agreement No. HRN-A-00-98-00012-00

**Abstract:**

In response to the renewed interest in syphilis control and prevention, the Nairobi City Council (NCC) pilot-tested a decentralized approach to syphilis screening and management in a sample of their antenatal clinics. This document presents a case study assessing the effectiveness, readiness and cost of the antenatal care program of NCC, with a particular focus on the decentralized syphilis screening and treatment service. Data from 11 clinics using the decentralized model and 7 standard clinics were collected through observations, exit interviews, focus group discussions and in-depth interviews, a patient-flow analysis and a cost analysis. Overall, findings indicate that decentralization of maternal syphilis screening and management is feasible in a public sector and urban program. It is also noted that when implemented properly, decentralization of services leads to more antenatal clients and their partners being screened and treated. However, the NCC clinics are observed to be insufficiently prepared to offer good quality antenatal services and to ensure that syphilis screening and treatment are available for all antenatal clients because of poorly trained staff and a lack of basic supplies.

**URL:**

**Publication Date:** 2001

**Despite symptoms, many Kenyans delay treatment for STDs, have unsafe sex.**

**Author:** Brown B

**Source:** International Family Planning Perspectives. 2001 Dec;27(4):211.

**Abstract:**

In Nairobi, **Kenya**, men and women delay treatment for **sexually transmitted diseases** (STDs) despite the emergence of symptoms. 234 men and 237 women attending a public STD clinic from February to May 1998 were interviewed, including questions about demographic characteristics, health-seeking behavior and sexual behavior. The results showed that women and men reported first seeking treatment a median of 7 days following the appearance of STD symptoms. Men delayed attending the STD clinic for a median of 23 days and women delayed for a median of 29 days. For genital ulcer disease, the delay was shorter--a median of 14 days for men and 16 days for women. In the case of vaginitis, women waited a median of 46 days before attending the STD clinic. However, there was no significant difference between the proportions of men and women who said they had used condoms while they had STD symptoms. The investigators suggest that men's and women's lack of awareness about the need to receive prompt treatment, the lack of STD services in the Nairobi area and the lack of financial resources are all possible reasons why people in the study delayed seeking treatment. The researchers stress that interventions should extend beyond the high-risk groups and recommend expanding STD treatment to more primary health care clinics in Nairobi.

**URL:**

**Publication Date:** 2001

**Healthcare-seeking behavior and sexual behavior of patients with sexually transmitted diseases in Nairobi, Kenya.**

**Author:** Fonck K; Mwai C; Rakwar J; Kirui P; Ndinya-Achola JO

**Source:** Sexually Transmitted Diseases. 2001 Jul;28(7):367-71.

**Abstract:**

Sexual and health-seeking behaviors are important components of sexually transmitted disease (STD) control. The aim was to generate data for improved STD prevention and care, and to assess sexual behavior and relevant health-seeking behavior. A questionnaire to elicit social, demographic, healthcare-seeking, and sexual behavior information was administered to 471 patients attending the referral clinic for STDs in Nairobi, **Kenya**. A large proportion of the patients had sought treatment in public and private sectors before attending the clinic for STDs. Women waited longer than men to seek medical care. In addition, women more than men engaged in sex while symptomatic, mostly with their regular partner. Condoms were used rarely during illness. In their self-reports, 68% of the men admitted to having extramarital affairs, and 30% to paying for sex, yet they blamed their wives for their STDs. Health education messages in **Kenya** need adaptation to improve health-seeking behavior and safe sex practices. (author's)

**URL:**

**Publication Date:** 2001

**Intimate partner violence and condom use in Kenya.**

**Author:** Family Health International [FHI]

**Source:** [Unpublished] [2001]. [4] p.

**Abstract:**

Results of the Intimate Partner Violence and Condom Use study suggest that women who have tested positive for a sexually transmitted infection (STI) should not be expected to facilitate partner treatment. In-depth interviews with study participants also revealed that condom use (both male and female condoms) is associated with unfaithfulness and could cause conflict between partners. The study is a follow-up to the 1998-99 Female Condom Community Intervention Trial (FCCIT) and was designed to determine if other women experienced intimate partner violence (IPV) as a result of their participation in the FCCIT. Overall, findings indicate that: 1) IPV is a reality for many women and many compromise their ability to participate in condom and STI studies, adhere to study protocols, and involve their partners in research; 2) condom use (both male and female) is associated with unfaithfulness and may cause potential conflict between partners; 3) for some women, asking their partners to use a condom could lead to violence; and 4) asking women with an STI to facilitate their partner's treatment may be problematic for some women.

**URL:**

**Publication Date:** 2001

**Kenya: reproductive tract infections. On-site antenatal syphilis services are cost effective.**

**Author:** Population Council. Frontiers in Reproductive Health

**Source:** Washington, D.C., Population Council, Frontiers in Reproductive Health, 2001 Nov. [2] p. OR Summary 2; USAID Contract No. CCP-3030-C-3008-00

**Abstract:**

An on-site model that provides antenatal clients with same-day screening and treatment for syphilis resulted in higher treatment rates for positive clients and their partners at an affordable cost to the system. Services could be sustained by training all nurses in syphilis screening and treatment, and ensuring a steady supply of essential supplies for testing and treatment. (author's)

**URL:**

**Publication Date:** 2001

**The multicentre study on factors determining the differential spread of HIV in four African cities : summary and conclusions. [[Etude multi-centrée sur les facteurs déterminants de la diffusion différentielle du VIH dans quatre villes africaines : résumé et conclusions]]**

**Author:** Buve A; Carael M; Hayes RJ; Auvert B; Ferry B

**Source:** AIDS. 2001 Aug;15 Suppl 4:S127-31.

**Abstract:**

In all regions of sub-Saharan Africa, the predominant mode of transmission of HIV is through heterosexual intercourse, however, there are large variations in the rate and extent of the spread of HIV in different populations. This study was conducted to identify the factors that influence the rapid spread of HIV in four African cities, namely Cotonou (Benin), Yaounde (Cameroon), Kisumu (Kenya), and Ndola (Zambia). Results demonstrated that high rates of partner change and being married are risk factors for HIV infection in men in at least one city but are risk factors for women in all four cities. In addition, condom use among sex workers did not show a difference between the low and high prevalence cities. Furthermore, no evidence of changes towards safer sexual behavior was identified in the high HIV prevalence cities. The only factors that were more common in the two high HIV prevalence cities than in the two low HIV prevalence cities were young age at first intercourse for women, young age at first marriage, and large age difference between the spouses. It was also noted that the high levels of HIV infection among young people, especially among female adolescents in Kisumu and Ndola highlight the importance of interventions targeted at young people and their partners.

**URL:**

**Publication Date:**

**Quality of health education during STD case management in Nairobi, Kenya.**

**[[Qualité de l'éducation à la santé au cours de la gestion des cas de MST à Nairobi, au Kenya]]**

**Author:** O'Hara HB; Voeten HA; Kuperus AG; Otido JM; Kusimba J

**Source:** International Journal of STD and AIDS. 2001 May;12(5):315-23.

**Abstract:**

Quality of health education during sexually transmitted disease (STD) case management in Nairobi was assessed in 142 health care facilities, through interviews of 165 providers, observation of 441 STD patients managed by these providers, and 165 visits of simulated patients. For observations, scores were high for education on contact treatment (74-80%) and compliance (83%), but unsatisfactory for counseling (52%) and condom promotion (20-41%). The WHO indicator for STD case management Prevention Indicator 7 (PI7) (condom promotion plus contact treatment) was poor (38%). Public clinics strengthened for STD care generally performed best, whereas pharmacies and mission clinics performed worst. Compared with observations, scores were higher during interviews and lower during simulated patient visits, indicating that knowledge was not fully translated into practice. Interventions to improve the presently unsatisfactory service quality would be wide distribution of health education materials, ongoing training and supervision of providers, implementation of STD management checklists, and the introduction of pre-packaged kits for STD management. (author's)

**URL:**

**Publication Date:** 2001

**Quality of sexually transmitted disease case management in Nairobi, Kenya. A comparison among different types of healthcare facilities.**

**Author:** Voeten HA; Otido JM; O'Hara HB; Kuperus AG; Borsboom GJ

**Source:** Sexually Transmitted Diseases. 2001 Nov;28(11):633-42.

**Abstract:**

In Nairobi, the prevalence for **sexually transmitted diseases** (STDs) among attenders at antenatal and family planning clinics is substantial, but knowledge about the quality of STD case management is scarce. The goal was to assess quality of STD case management in Nairobi health care facilities. All the facilities in five sublocations were enumerated. In 142 facilities, 165 providers were interviewed, observed during 441 interactions with patients who had STDs, and visited by a simulated patient. For observations of patients with STDs, correct history-taking ranged from 60% to 92% among the various types of facilities, correct examination from 31% to 66%, and correct treatment from 30% to 75%. The percentage of correctness for all three aspects (WHO prevention indicator 6) varied between 14% and 48%. Public clinics equipped for STD care performed best in all aspects, whereas treatment was poorest in pharmacies and private clinics. The providers trained in STD management performed better than those without training. Quality of STD case management was unsatisfactory except in public STD-equipped clinics. This indicates the need for improvement by interventions such as further training in syndromic management, improved supervision, and the introduction of prepackaged syndromic management kits. (author's)

**URL:**

**Publication Date:** 2001

**Sexually transmitted infections and vaginal douching in a population of female sex workers in Nairobi, Kenya.**

**Author:** Fonck K; Kaul R; Keli F; Bwayo JJ; Ngugi EN; Moses S

**Source:** Sexually Transmitted Infections. 2001;77(4):271-275.

**Abstract:**

Objective: To assess the association between vaginal douching and sexually transmitted infections (STI) among a group of female sex workers (FSWs) in Nairobi, **Kenya**. Methods: This study was part of a randomised, placebo controlled trial of monthly prophylaxis with 1 g of azithromycin to prevent STIs and HIV infection in a cohort of Nairobi FSWs. Consenting women were administered a questionnaire and screened for STIs. Results: The seroprevalence of HIV-1 among 543 FSWs screened was 30%. HIV infection was significantly associated with bacterial vaginosis (BV), trichomoniasis, gonorrhoea, and the presence of a genital ulcer. Regular douching was reported by 72% of the women, of whom the majority inserted fluids in the vagina, generally after each sexual intercourse. Water with soap was the fluid most often used (81%), followed by salty water (18%), water alone (9%), and a commercial antiseptic (5%). Douching in general and douching with soap and water were significantly associated with bacterial vaginosis ( $p = 0.05$  and  $p = 0.04$  respectively). There was a significant trend for increased frequency of douching and higher prevalence of BV. There was no direct relation observed between douching and risk for HIV infection or other STIs.

Conclusion: The widespread habit of douching among African female sex workers was confirmed. The association between vaginal douching and BV is of concern, given the increased risk of HIV infection with BV, which has now been shown in several studies. It is unclear why we could not demonstrate a direct association between douching and HIV infection. Further research is required to better understand the complex relation between douching, risk for bacterial vaginosis, and risk for HIV and other STIs. (author's)

**URL:**

**Publication Date:** 2001

**Syphilis control during pregnancy: effectiveness and sustainability of a decentralized program.**

**Author:** Fonck K; Claeys P; Bashir F; Bwayo J; Fransen L; Temmerman M

**Source:** American Journal of Public Health. 2001 May;91(5):705-7.

**Abstract:**

This study sought to assess the performance, effectiveness, and costs of a decentralized antenatal syphilis screening program in Nairobi, **Kenya**. Health clinic data, quality control data, and costs were analyzed. The rapid plasma reagin (RPR) seroprevalence was 3.4%. In terms of screening, treatment, and partner notification, the program's performance was adequate. The program's effectiveness was problematic because of false-negative and false-positive RPR results. The cost per averted case was calculated to be \$95-112. The sustainability of this labor-intensive program is threatened by costs and logistic constraints. Alternative strategies, such as the mass epidemiologic treatment of pregnant women in high-prevalence areas, should be considered. (author's)

**URL:**

**Publication Date:** 2001

**Effect of a syphilis control programme on pregnancy outcome in Nairobi, Kenya.**

**Author:** Temmerman M; Gichangi P; Fonck K; Apers L; Claeys P

**Source:** Sexually Transmitted Infections. 2000;76(2):117-121.

**Abstract:**

Objectives: To assess the impact of a syphilis control program of pregnant women on pregnancy outcome in **Kenya**. Method: Women who came to deliver to Pumwani Maternity Hospital (PMH) between April 1997 and March 1998 were tested for syphilis. Reactive rapid plasma reagin (RPR) tests were titrated and confirmed with treponema haemagglutination test (TPHA). Equal numbers of RPR and TPHA negative women were enrolled. Antenatal syphilis screening and treatment history were examined from the antenatal cards. Results: Of 22466 women giving birth, 12 414 (55%) were tested for syphilis. Out of these, 377 (3%) were RPR reactive of whom 296 were confirmed by TPHA. Syphilis seroreactive women had a more risky sexual behavior and coexistent HIV antibody positivity; 26% were HIV seropositive compared with 11% among syphilis negative mothers. The incidence of adverse obstetric outcome defined as low birth weight and stillbirth, was 9.5%. Syphilis seropositive women had a higher risk for adverse obstetric outcome (OR 4.1, 95% CI 2.4-7.2). Antenatal treatment of RPR reactive women significantly improved pregnancy outcome but the risk of adverse outcome remained 2.5-fold higher than the risk observed in uninfected mothers. Conclusions: These data confirm the adverse effect of syphilis on pregnancy outcome. This study also shows the efficacy of antenatal testing and prompt treatment of RPR reactive mothers on pregnancy outcome. (author's)

**URL:**

**Publication Date:** 2000

**Partner notification of pregnant women infected with syphilis in Nairobi, Kenya.**

**Author:** Gichangi P; Fonck K; Sekande-Kigundu C; Ndinya-Achola J; Bwayo J; Kiragu D; Claeys P; Temmerman M

**Source:** INTERNATIONAL JOURNAL OF STD AND AIDS. 2000 Apr;11(4):257-61.

**Abstract:**

The authors examined partner notification among syphilitic pregnant women in Nairobi. At delivery, 377 women were found to be rapid plasma reagin reactive. Data were available for 94% of the partners of women who were tested during pregnancy; over 67% of the partners had received syphilis treatment while 23% had not sought treatment mainly because they felt healthy. 6% of the women had not informed their partners as they feared blame and/or violence. Adverse pregnancy outcome was related to lack of partner treatment during pregnancy (7% vs. 19%; odds ratio, 3.0; 95% confidence interval, 0.9-10.0). The authors' data suggest that messages focusing on the health of the unborn child have a positive effect on partner notification and innovative and locally adapted strategies for partner notification need more attention. (author's)

**URL:**

**Publication Date:** 2000

**Pattern of sexually transmitted diseases and risk factors among women attending an STD referral clinic in Nairobi, Kenya.**

**Author:** Fonck K; Kidula N; Kirui P; Ndinya-Achola J; Bwayo J; Claeys P; Temmerman M

**Source:** Sexually Transmitted Diseases. 2000 Aug;27(7):417-23.

**Abstract:**

In **Kenya**, sexually transmitted disease (STD) clinics care for large numbers of patients with STD-related signs and symptoms. Yet, the etiologic fraction of the different STD pathogens remains to be determined, particularly in women. The aim of the study was to determine the prevalence of STDs and of cervical dysplasia and their risk markers among women attending the STD clinic in Nairobi. A cross-section of women were interviewed and examined; samples were taken. The mean age of 520 women was 26 years, 54% had a stable relationship, 38% were pregnant, 47% had ever used condoms (1% as a method of contraception), 11% reported multiple partners in the previous 3 months, and 32% had a history of STDs. The prevalence of STDs was 29% for HIV type 1, 35% for candidiasis, 25% for trichomoniasis, 16% for bacterial vaginosis, 6% for gonorrhea, 4% for chlamydia, 6% for a positive syphilis serology, 6% for genital warts, 12% for genital ulcers, and 13% for cervical dysplasia. Factors related to sexual behavior, especially the number of sex partners, were associated with several STDs. Gonorrhea, bacterial vaginosis, cervical dysplasia, and genital warts or ulcers were independently associated with HIV infection. Partners of circumcised men had less-prevalent HIV infection. Most women reported low-risk sexual behavior and were likely to be infected by their regular partner. HIV and STD prevention campaigns will not have a significant impact if the transmission between partners is not addressed. (author's)

**URL:**

**Publication Date:** 2000

**Trends in HIV-1 incidence in a cohort of prostitutes in Kenya: implications for HIV-1 vaccine efficacy trials.**

**Author:** Baeten JM; Richardson BA; Martin HL Jr; Nyange PM; Lavreys L; Ngugi EN; Mandaliya K; Ndinya-Achola JO; Bwayo JJ; Kreiss JK

**Source:** JAIDS. JOURNAL OF ACQUIRED IMMUNE DEFICIENCY SYNDROMES. 2000 Aug 15;24(5):458-64.

**Abstract:**

Accurate predictions of HIV-1 incidence in potential study populations are essential for designing HIV-1 vaccine efficacy trials. Little information is available on the estimated incidence of HIV-1 in such populations, especially information on incidence over time and incidence while participating in risk-reduction programs. The aim was to examine time trends in HIV-1 incidence in a vaccine preparedness cohort. A prospective cohort study of female prostitutes in Mombasa, **Kenya** was carried out. HIV-1 incidence was determined using open and closed cohort designs. Generalized estimating equations were used to model HIV-1 and sexually transmitted disease (STD) incidence and sexual risk behaviors over time. When analyzed as a closed cohort, HIV-1 incidence declined 10-fold during 3 years of follow-up (from 17.4 to 1.7 cases/100 person-years;  $p < 0.001$ ). More than 50% of the cases of HIV-1 occurred during the first 6 months after enrollment, and 73% during the first 12 months. When analyzed as an open cohort, HIV-1 incidence density fell during the first 4 calendar years, influenced by accumulation of lower risk participants and variations in study recruitment. Significant declines occurred in both STD incidence and high-risk sexual behaviors during follow-up. This study documents a dramatic decline in the risk of HIV-1 infection while participating in a prospective cohort, with most seroconversions occurring within 1 year of enrollment. Variations in HIV-1 incidence within high-risk population should be anticipated during the design of vaccine trials. (author's)

**URL:**

**Publication Date:** 2000

**Validity of the vaginal discharge algorithm among pregnant and non-pregnant women in Nairobi, Kenya.**

**Author:** Fonck K; Kidula N; Jaoko W; Estambale B; Claeys P

**Source:** Sexually Transmitted Infections. 2000;76(1):33-38.

**Abstract:**

Objective: To evaluate the validity of different algorithms for the diagnosis of gonococcal and chlamydial infections among pregnant and non-pregnant women consulting health services for vaginal discharge in Nairobi, **Kenya**. Methods: Cross sectional study among 621 women with complaints of vaginal discharge in three city council clinics between April and August 1997. Women were interviewed and examined for symptoms and signs of sexually transmitted infections (STIs). Specimens were obtained for laboratory diagnosis of genital infections, HIV, and syphilis. The data were used to evaluate the Kenyan flow chart as well as several other generated algorithms. Results: The mean age was 24 years and 334 (54%) were pregnant. The overall prevalence rates were: 50% candidiasis, 23% trichomoniasis, 9% bacterial vaginosis, 7% gonorrhoea, 9% chlamydia, 7% syphilis, and 22% HIV. In non-pregnant women, gonococcal and chlamydial infection was significantly associated with (1) demographic and behavioral risk markers such as being single, younger than 20 years, multiple sex partners in the previous 3 months; (2) symptom fever; and (3) signs including presence of yellow or bloody vaginal discharge, cervical mucopus, cervical erythema, and friability. Among pregnant women only young age, dysuria, and fever were significantly associated with cervical infection. However, none of these variables was either sensitive or specific enough for the diagnosis of cervical infection. Several algorithms were generated and applied to the study data. The algorithm including risk markers performed slightly better than the current Kenyan algorithm. Conclusion: STIs form a major problem in the Nairobi area and should be addressed accordingly. None of the tested algorithms for the treatment of vaginal discharge would constitute a marked improvement of the existing flow chart. Hence, better detection tools for the specific etiology of vaginal discharge are urgently needed. (author's)

**URL:**

**Publication Date:**

## **REPRODUCTIVE HEALTH AND GENDER ISSUES**

### **Gender relations: husband-wife fertility and family planning decisions in Kenya.**

**Author:** Kimuna SR; Adamchak DJ

**Source:** Journal of Biosocial Science. 2001 Jan;33(1):13-23.

**Abstract:**

Although **Kenya's** fertility rate has declined from 6.7 births per woman in the mid-1980s to 5.4 births per woman in 1993, population growth is still high, yielding a doubling time of 35 years. This study uses the 1993 **Kenya** Demographic Health Survey data collected from 1257 couples to examine the socioeconomic and sociodemographic characteristics of married men and women and their communication with their spouses over fertility and family planning decision-making practices. The logistic regression analysis shows that education for both men and women, discussion of fertility and family planning between spouses, male approval of use of **contraception** and male family size desires are important factors that influence ever-use of family planning. (author's)

**URL:**

**Publication Date:** 2001

### **"It's some kind of women's empowerment": the ambiguity of the female condom as a marker of female empowerment.**

**Author:** Kaler A

**Source:** Social Science and Medicine. 2001 Mar;52(5):783-96.

**Abstract:**

The female condom is the latest in a series of sexual and reproductive technologies to be imported into the third world, following the contraceptive pill, the Depo-Provera injection, the latex male condom, and others. It is an example of "traveling technology", which accrues different meanings and connotations in the different settings into which it is introduced in its journey through the circuits of international technological diffusion, from the headquarters of international nongovernmental organizations and bilateral aid programs, through the bureaucracies of national ministries of health to the communities in urban and rural settings where the condoms are distributed. The female condom almost always carries connotations of women's empowerment, and the possibility of greater sexual autonomy for women. This association is a result of the female condom being the first new "post-Cairo" technology, the diffusion of which was spurred by the consensus reached at the 1994 International Conference on Population and Development in Cairo, at which the need to promote women's empowerment was moved to the center of international family planning and population movements. However, the author demonstrates that "empowerment" is an ambiguous term, interpreted in different ways in different contexts. The author illustrates this through interviews conducted in 1998 and 1999 with stakeholders in the female condom in Cape Town, Nairobi, and in rural western **Kenya**. These stakeholders range from directors of US-based development programs to heads of national AIDS-prevention efforts to community-based distributors and primary health care nurses at the village level. The author argues that three different notions of empowerment are being articulated with respect to the female condom--two of which correspond to Maxine Molyneux's typology of strategic and practical gender interests, and a third in which women's empowerment is conceived of as something which diminished the power of men. The author argues further that the disjunctures between these three different notions of what "empowerment" means will pose a challenge for people at all levels which are seeking to make the female condom more widely accessible to women at risk of HIV/AIDS. (author's)

**URL:**

**Publication Date:** 2001

**Spouses' socioeconomic characteristics and fertility differences in sub-Saharan Africa: does spouse's education matter?**

**Author:** Uchudi JM

**Source:** Journal of Biosocial Science. 2001 Oct;33(4):481-502.

**Abstract:**

Although the general objective of this study is to examine the extent to which spouses' socioeconomic characteristics determine whether modern **contraception** is used and whether family limitation (the demand for no more children) is desired, its central goal is to evaluate the degree to which the net effect of a woman's education on those fertility decisions is altered once a control is made for the level of schooling of the husband. Individual characteristics of spouses included as controls in this analysis are on the one hand women's attributes relating to employment, age, parity, ethnic identity, and urban residence and, on the other hand, the occupation of the husband. Data used in this research are provided by Demographic and Health Surveys (DHS) conducted in 14 sub-Saharan countries: Mali, Burkina Faso, Niger, Nigeria, Cameroon, Benin, Senegal, Ghana, Central African Republic, **Kenya**, Zambia, Zimbabwe, Namibia, and Rwanda. With two dichotomous outcome variables, logistic regression was used to estimate two nested models for each dependent variable and for each country covered by the study. DHS respondents used as units of analysis in this study are women who were married (any kind of union) and non-pregnant at the time when each national survey was conducted. The findings suggest that, while an educated wife needs the support of an educated husband to state a preference for family limitation in contemporary sub-Saharan Africa, controlling for husband's education and other relevant covariates does little to undermine the evidence that woman's advanced education and the adoption of modern family planning are positively related in the developing world. (author's)

**URL:**

**Publication Date:**

**Couples' reports of their contraceptive use: do husbands in Africa overstate the case?**

**Author:** Hollander D

**Source:** International Family Planning Perspectives. 2000 Dec;26(4):203-4.

**Abstract:**

To explore patterns of contraceptive reporting, data on 1055 matched married couples from the 1993 **Kenya** Demographic and Health Survey (DHS) who said that they were monogamous and 592 such couples from the 1994 Zimbabwe DHS were examined using bivariate analyses. In **Kenya**, two-thirds of the couples gave consistent responses about their contraceptive use: in 38% both partners said that they were not currently using a method, while in 28% both said that they were. When spouses disagreed, the husband was more likely than the wife to report using a method (29% vs. 6% overall). On the other hand, in four-fifths of Zimbabwean couples, both spouses gave the same answer when asked about their contraceptive use: 30% were consistent in reporting that no method was being used and 47% that they were using a contraceptive. Overall, women's reports of contraceptive use received greater corroboration from their husbands than men's reports received from their wives. Furthermore, most of the significant multivariate findings were associated with increased odds that only wives would report contraceptive use or decreased odds that only husbands would do so.

**URL:**

**Publication Date:**

**Introduction to special issue: Sexuality and generational identities in sub-Saharan Africa.**

**Author:** Renne EP

**Source:** Africa Today. 2000 Summer-Autumn;47(3-4):vii-xii.

**Abstract:**

This special issue of the Africa Today publication focuses on the topic of sexuality and generational identities in sub-Saharan Africa. The papers presented here examine particular perspectives on the past with respect to the aspect of sexuality, focusing on people's comparisons of their own behavior with that of others. They draw broadly on various aspects of sexuality, including partner choice, **contraception**, childbearing, and disease prevention in Guinea, **Kenya**, Nigeria, Tanzania, and Uganda. Several methods were used to analyze views of sexuality, including life histories, interviews, focus group discussions, materials from the popular press and media, and archival documents. Overall, sexuality and the locus of power are considered to be associated with the special knowledge of elders, educators, and colonial/postcolonial state officials. This knowledge, as well as the practices and things controlled by these dominant social groups, gives them considerable influence over the actions of others. Moreover, the papers explore the ways that sexuality has been reinterpreted over time, as well as the implications of shifts in the moral authority of elders, relating these changes to the sexual behavior of young men and women. Finally, they consider how new constructions of sexuality are associated with changing gender relations.

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**URL:**

**Publication Date:** 2000

### **Local and foreign models of reproduction in Nyanza province, Kenya.**

**Author:** Watkins SC

**Source:** POPULATION AND DEVELOPMENT REVIEW. 2000 Dec;26(4):725-59.

**Abstract:**

The article focuses on the local and foreign models of reproduction among the Luo people of Nyanza province, **Kenya**. Data were obtained from the archival records, 1960 surveys, a systematic review of the Nairobi press in the 1970s and 1980s, secondary literature, and qualitative and quantitative interviews conducted in four sublocations in rural South Nyanza District between 1994 and 2000. The first cultural model is a large family model of children as the route to riches. It is described by Luos as traditional and is associated with a past of supposed abundance. The second is a small-family model formulated by Luos in response to the changes during the colonial period, particularly the introduction of attractive consumer goods and desirable jobs that required education. This small-family model is indigenous and is associated with the progress expected to accompany development. Finally, the third model is a deliberate limitation of family size through the use of clinic-based methods of **contraception**. This is called the "wazungu" model ("wazungu" means both white and foreign and has connotations of trickiness or cleverness); it was introduced and broadcast by the international population movement and is considered the key factor in fertility declines. Eventually, it was appropriated as a local model by the Luo as women came to discuss family planning with their peers rather than with those on a higher social scale.

**URL:**

**Publication Date:** 2000

### **Socio-economic status, fertility preferences and contraceptive change in sub Saharan Africa.**

**Author:** Feyisetan B; Casterline JB

**Source:** Etude de la Population Africaine / African Population Studies. 2000 Dec;15(2):1-24.

**Abstract:**

Fertility has declined in several sub-Saharan African countries since the 1970s, primarily (but not exclusively) as a result of the increased practice of **contraception**. Although this is highly probable, there is considerable uncertainty about the forces underlying the increase in **contraception**. Among the unresolved issues are the causal contributions of changes in fertility desires and of changes in socio-economic factors such as schooling and rural-urban residence. In this paper, we analyze the sources of increase in contraceptive prevalence in seven sub-Saharan African countries in the period from the 1970s to the 1990s, using World Fertility Survey and Demographic and Health Survey data. Using a regression decomposition and change in prevalence is attributed to change in explanatory variables (composition component) and change in rates of contraceptive use within subgroups defined by the explanatory variables (rates component). The explanatory variables consist of two fertility preference indicators and measures of schooling (female and male), type of place of residence, and occupation. The rates component dominates in six countries - Cote d'Ivoire, **Kenya**, Senegal, Tanzania, Uganda and Zambia - whereas in Ghana the composition component dominates. Some of the effects of the socioeconomic variables operate through changes in fertility preferences, and after taking these indirect effects into account, the independent contribution of changing preferences falls far short of the contribution of the socio-economic variables in all seven countries. The results provide some support to the argument that a precondition for fertility decline in Africa is a transformation of fertility demand, and that changes in socio-economic factors (such as schooling and urban-rural residence) are likely to be driving forces. But the analysis also reveals that significant increases in contraceptive prevalence can occur through satisfying existing demand for fertility control, in the absence of changes in either fertility desires or major socio-economic factors. These findings lend support to the broad-based social development policy as well as more focused reproductive health programmes. (author's)

**URL:**

**Publication Date:** 2000

### **What Kenyan men think about family planning.**

**Source:** SAFE MOTHERHOOD. 2000;(28):10.

**Abstract:**

Men in **Kenya** tend to leave family planning to their wives but recent research shows that may be changing. A study shows that 20% of Kenyan men say they would have a vasectomy if it were available, and a majority of men who currently do not use contraceptives say they plan to do so in the future. Over two-thirds of men in the study said they had discussed contraceptive use with their wives. The research was conducted by Dr. Charles Nzioka of the sociology department of the University of Nairobi. It was sponsored by the UN Development Project/UN Population Fund/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP) and was reported in the first of the Programme's Social science research policy briefs which was issued in June 1999. The study focused on men in two communities in **Kenya's** Eastern and Nyanza provinces. Many men were negative about using contraceptives. Discussion of condom use provoked statements such as "Using a condom is like taking a shower with your clothes on" and "It's ungodly to use condoms", while vasectomy was greeted with comments such as "How will I be a man if I am castrated?" and "A vasectomized man would be ridiculed by everybody in the village". Nevertheless, the researchers felt that the number of men expressing positive views about family planning showed that there is a sizeable market for male contraceptive use. **Kenya's** total fertility rate has gone down from 8.1 in 1997 and 5.4 in 1993 to 4.7 in 1998. However, HRP feels that much of the reduction is due to the use of contraceptives by women rather than men. (full text)

**URL:**

**Publication Date:** 2000

### **Socio-economic status, fertility preferences and contraceptive change in sub Saharan Africa.**

**Author:** Feyisetan B; Casterline JB

**Source:** Etude de la Population Africaine / African Population Studies. 2000 Dec;15(2):1-24.

**Abstract:**

Fertility has declined in several sub-Saharan African countries since the 1970s, primarily (but not exclusively) as a result of the increased practice of **contraception**. Although this is highly probable, there is considerable uncertainty about the forces underlying the increase in **contraception**. Among the unresolved issues are the causal contributions of changes in fertility desires and of changes in socio-economic factors such as schooling and rural-urban residence. In this paper, we analyze the sources of increase in contraceptive prevalence in seven sub-Saharan African countries in the period from the 1970s to the 1990s, using World Fertility Survey and Demographic and Health Survey data. Using a regression decomposition and change in prevalence is attributed to change in explanatory variables (composition component) and change in rates of contraceptive use within subgroups defined by the explanatory variables (rates component). The explanatory variables consist of two fertility preference indicators and measures of schooling (female and male), type of place of residence, and occupation. The rates component dominates in six countries - Cote d'Ivoire, **Kenya**, Senegal, Tanzania, Uganda and Zambia - whereas in Ghana the composition component dominates. Some of the effects of the socioeconomic variables operate through changes in fertility preferences, and after taking these indirect effects into account, the independent contribution of changing preferences falls far short of the contribution of the socio-economic variables in all seven countries. The results provide some support to the argument that a precondition for fertility decline in Africa is a transformation of fertility demand, and that changes in socio-economic factors (such as schooling and urban-rural residence) are likely to be driving forces. But the analysis also reveals that significant increases in contraceptive prevalence can occur through satisfying existing demand for fertility control, in the absence of changes in either fertility desires or major socio-economic factors. These findings lend support to the broad-based social development policy as well as more focused reproductive health programmes. (author's)

**URL:**

**Publication Date:** 2000

**Dangerous liaisons. People in cross-generational relationships underestimate risk.**

**Author:** Population Services International [PSI]

**Source:** Washington, D.C., PSI, 2003 Feb. [2] p. Research Brief No. 2

**Abstract:**

A PSI study of Kenyan women's and men's motivations for entering into cross-generational relationships<sup>1</sup> and their risk perceptions of such relationships has found that most participants underestimate the risk of sexually-transmitted infections (STIs) and HIV. HIV/AIDS disproportionately affects young African women as compared to older men. Studies have found that **HIV infection** in women 15-24 is significantly higher than for men in the same age group. Researchers believe that both young women's physiological susceptibility and sexual relationships with older partners contribute to their increased risk of infection. Cross-generational relationships are reportedly quite common. A comprehensive literature review of quantitative studies in sub-Saharan Africa revealed that 12% to among men over the age of 30 who reported non-marital partners, 25% had a partner at least 10 years younger. Data were collected in June 2000 as part of a behavior change communication strategy for young women in **Kenya** that addressed crossgenerational relationships and their risk for STIs and HIV/AIDS. Eight focus groups were conducted with women aged 15-19 and 28 in-depth interviews were carried out with men aged 30 years and older in Nairobi, Mombassa, Kisumu and Meru. Participants discussed motivations for entering into cross-generational relationships, perceived risks and relationship dynamics. (author's)

**URL:**

**Publication Date:** 2003

**Differential of HIV prevalence in women and men who attended sexually transmitted disease clinics at HIV sentinel surveillance sites in Kenya, 1990-2001.**

**Author:** Joesoef MR; Cheluget B; Marum LH; Wandera C; Ryan CA

**Source:** International Journal of STD and AIDS. 2003 Mar;14(3):193-196.

**Abstract:**

Several studies in sub-Saharan Africa have reported that HIV prevalence in young women is higher than in young men. We used data from **Kenya** HIV sentinel surveillance conducted from 1990 to 2001 among sexually transmitted disease (STD) patients (15± 49 years old) to investigate consistency of gender differentials over time and their risk factors. Of the 15,889 STD patients, the HIV prevalence ranged from 16.0% in 1990 to 41.8% in 1997. The odds ratios (ORs) of **HIV infection** for women compared to men decreased by age; women 15± 24 years were nearly twice as likely as men of the same ages to be HIV infected (OR 1.7 [1.5± 2.0]), but risk in those <44 years was almost equal (OR 0.8 [95% CI 0.7± 1.2]). The odds of **HIV infection** for women compared to men were twice in unmarried patients (OR 2.1 [95% CI 1.8± 2.3]). This association persisted after controlling for age groups or marital status, residence, level of education, and presence of STD syndromes. This pattern had been consistent over 12 years. Adolescent women with symptoms of STDs should be a focus for the HIV/STD intervention programmes because of their high risk for HIV. (author's)

**URL:**

**Publication Date:** 2003

**HIV risk in relation to marriage in areas with high prevalence of HIV infection.**

**Author:** Glynn JR; Carael M; Buve A; Musonda RM; Kahindo M

**Source:** JAIDS. Journal of Acquired Immune Deficiency Syndromes. 2003 Aug 1;33(4):526-535.

**Abstract:**

In sub-Saharan Africa, the prevalence of **HIV infection** among young women is much higher than that among young men. Many women enter marriage HIV-infected, suggesting that men may be predominantly infected by their wives. Using data from cross-sectional surveys in Kisumu, **Kenya**, and Ndola, Zambia, in 1997, the prevalence of **HIV infection** at marriage was estimated from age at marriage and age- and sex-specific prevalence of **HIV infection** among unmarried individuals. Using a deterministic model, this prevalence was compared with measured concordance of **HIV infection** among recently married couples to estimate transmission probabilities within marriage and extramarital incidence of **HIV infection**. Over a wide range of assumptions, we estimated that at least one quarter of cases of **HIV infection** in recently married men were acquired from extramarital partnerships, and for both men and women, less than one half of cases of **HIV infection** were acquired from their spouse. In these sites, many infections in married men, even in those with HIV-infected wives, may be acquired from outside the marriage. (author's)

**URL:**

**Publication Date:** 2003

**The low acceptability and use of condoms within marriage: evidence from Nakuru district, Kenya. [[Le faible niveau d'acceptation et d'utilisation des préservatifs dans le cadre d'une relation matrimoniale :témoignages recueillis dans la region de Nakuru, Kenya]]**

**Author:** Bauni EK; Jarabi BO

**Source:** Etude de la Population Africaine / African Population Studies. 2003 Apr;18(1):51-65.

**Abstract:**

In the last two decades, there has been an increase in the prevalence of contraceptive use in **Kenya**. While use of modern contraceptives has been successful in preventing unwanted pregnancy, it has not been so successful in preventing HIV/AIDS. The twin risk of unwanted pregnancy and HIV/AIDS infection is a central concern of reproductive health programmes. Condoms are considered an effective barrier method because they can be used for the dual purpose of protecting against pregnancy and disease transmission. But will married couples and those in stable sexual relations accept and use them? This paper attempts to answer this question using data from Nakuru district, **Kenya**. From both quantitative and qualitative results, this study concludes that, not only, is the use of condoms to prevent STIs including HIV low within married and stable sexual relations, but, also, future prospects of condom use in such relations is rather bleak. Apart from using a condom for preventing a pregnancy in sexual relations, the only other reason for using it is because one does not trust the sexual partner. Majority of married couples will therefore not ask their partners to use a condom because they dread straining or breaking their relationship. This fear is amplified by the religious view of condom use being a sin. The study calls for appropriate interventions which should aim at providing married couples and those in stable sexual relations (including men) with targeted counseling services to strengthen mutual trust, a feeling they all cherish. Such services will not only facilitate the prevention of HIV/AIDS but will also minimize intracouple tensions by enhancing mutual trust. (author's)

**URL:**

**Publication Date:** 2003

**Nairobi's poorest women have highest level of risky sexual behavior, least knowledge of HIV prevention.**

**Author:** Hollander D

**Source:** International Family Planning Perspectives. 2003 Jun;29(2):[4] p.

**Abstract:**

Women living in the slums of Nairobi engage in riskier sexual behavior than women living in less-deprived areas of the city. They began having intercourse at a younger age and are more likely to have had multiple partners in the recent past. Residents of slums and other women are equally familiar with basic facts about HIV and AIDS, but knowledge of how to prevent **HIV infection** is markedly lower among the most disadvantaged group. These are among the key findings of an analysis pooling data from the 1989, 1993 and 1998 **Kenya** Demographic and Health Surveys. (excerpt)

**URL:**

**Publication Date:** 2003

**Perception of risk of HIV / AIDS and sexual behaviour in Kenya.**

**Author:** Akwara PA; Madise NJ; Hinde A

**Source:** Journal of Biosocial Science. 2003 Jul;35(3):385-411.

**Abstract:**

The association between perception of risk of **HIV infection** and sexual behaviour remains poorly understood, although perception of risk is considered to be the first stage towards behavioural change from risk-taking to safer behaviour. Using data from the 1998 **Kenya** Demographic and Health Survey, logistic regression models were fitted to examine the direction and the strength of the association between perceived risk of HIV/AIDS and risky sexual behaviour in the last 12 months before the survey. The findings indicate a strong positive association between perceived risk of HIV/AIDS and risky sexual behaviour for both women and men. Controlling for sociodemographic, sexual exposure and knowledge factors such as age, marital status, education, work status, residence, ethnicity, source of AIDS information, specific knowledge of AIDS, and condom use to avoid AIDS did not change the direction of the association, but altered its strength slightly. Young and unmarried women and men were more likely than older and married ones to report risky sexual behaviour. Ethnicity was significantly associated with risky sexual behaviour, suggesting a need to identify the contextual and social factors that influence behaviour among Kenyan people. (author's)

**URL:**

**Publication Date:** 2003

**Counseling of couples facilitates HIV disclosure.**

**Author:** Best K

**Source:** Network. 2002;21(4):25-7.

**Abstract:**

Reproductive health professionals have the responsibility to protect the confidentiality of their clients, even those who are HIV-positive. Disclosing the HIV status of an infected woman may lead to violence or abandonment by a partner. Such involuntary disclosure may also discourage both men and women from seeking HIV voluntary counseling and testing (VCT) services, which have been shown in a randomized controlled trial involving some 4000 participants in **Kenya**, Tanzania, and Trinidad to be highly effective in reducing sexual risk behavior. However, offering VCT to couples is one way to facilitate such communication. Thus, researchers who have studied the effectiveness of VCT services generally recommend that: VCT programs recruit couples or partners of individuals who come for HIV testing services; counseling sessions address sexual communication and decision-making, stigmatization of HIV-positive partners, and negative reactions leading to violence; counselors be specifically trained to conduct couple counseling; provision of additional support and counseling services to couples be encouraged; and VCT counselor be attentive to youth.

**URL:**

**Publication Date:** 2002

**Population and health dynamics in Nairobi's informal settlements. Report of the Nairobi Cross-sectional Slums Survey (NCSS) 2000.**

**Author:** African Population and Health Research Center

**Source:** Nairobi, Kenya, African Population and Health Research Center, 2002 Apr. xxi, 256 p.

**Abstract:**

This report documents demographic characteristics and health conditions of Nairobi City's slum residents based on a representative sample survey of urban informal settlement residents carried out from February to June 2000. The aims of the "Nairobi Cross-sectional Slums Survey (NCSS)" were to determine the magnitude of the general and health problems facing slum residents, and to compare the demographic and health profiles of slum residents to those of residents of other areas in **Kenya**. Modeled after the Demographic and Health Surveys (DHS), which have been conducted in **Kenya** and many other developing countries, the study was designed to provide comparable data to the 1998 **Kenya** DHS so that health indicators in the slums could be contrasted with estimates for Nairobi as a whole, rural areas, and other urban settlements. In addition to general indicators measured in the DHS, the NCSS obtained information on a range of other issues including general, health, and reproductive health problems faced by slum residents. (author's)

**URL:**

**Publication Date:** 2002

**Vulnerability of women in an African setting: lessons for mother-to-child HIV transmission prevention programmes.**

**Author:** Gaillard P; Melis R; Mwanyumba F; Claeys P; Muigai E

**Source:** AIDS. 2002 Apr 12;16(6):937-939.

**Abstract:**

After discussing advantages and risks, only a third of the 290 HIV-infected women included in an intervention study to reduce mother-to-child transmission of HIV in Mombasa, **Kenya**, informed their partners of their results. Despite careful counseling, 10% subsequently experienced violence or disruption of their relationship. To increase the uptake of interventions to reduce perinatal HIV transmission safely, we recommend the involvement of partners in HIV testing. In addition, the counseling of women has to address methods and skills to deal with violence. (author's)

**URL:**

**Publication Date:** 2002

**Perspectives of adolescent boys on the risks of unwanted pregnancy and sexually transmitted infections: Kenya.**

**Author:** Nzioka C

**Source:** Reproductive Health Matters. 2001 May;9(17):108-17.

**Abstract:**

Sexual debut for boys in **Kenya** occurs mostly by mid-adolescence. This study looks at the perspectives of adolescent boys aged 15-19 attending schools in rural, eastern **Kenya** on the dual risks of unwanted pregnancy, sexually transmitted diseases (STDs) and HIV, based on qualitative data from eight focus group discussions with 90 boys. Despite a high knowledge of sexual risks, fear of HIV and awareness of the protective value of condoms, the young men exhibit high risk behavior. They feel the need to conform to social prescriptions of male prowess, early sexual experience, and having more than one partner, yet their feelings about this behavior are ambiguous and contradictory. They consider getting girls pregnant and having had a treatable STD as marks of masculinity, blame girls for not protecting themselves (and girls' parents), and want to boast about their sexual conquests to their peers. Yet they feel embarrassed and reticent about discussing sexual issues with adults, and are unwilling to get condoms from places where anonymity is not assured as they know their sexual activity is not sanctioned. There is a clear need for educational programs that confront male sexual norms, address issues of gender power relations, promote communication skills, informed choice and sexual responsibility among boys as well as girls, and provide a consistent supply of good quality condoms free or at affordable prices. (author's)

**URL:**

**Publication Date:** 2001

### **The plight of women and the girl-child in Africa in the age of HIV / AIDS.**

**Author:** Nasimiyu-Wasike A

**Source:** Conscience. 2001 Autumn;22(3):21.

**Abstract:**

In African societies, women experience many forms of discrimination in the cultural, legal, political, economic, religious, and social spheres. **Kenya**, in particular, has 22% of young girls between 15-19 years of age who are HIV positive and only 6% of infected young boys in the same age group. These HIV- infected women are looked upon as loose women whose sexual promiscuity has been justly punished, though it has been established that more than 50% of women contract HIV/AIDS from their husbands or their only boyfriends. To this effect, women and young girls are challenged to fight against the traditional sociocultural impediments which give them no rights over their reproduction. It is recommended that the vulnerability of women to AIDS be addressed; that all cultural practices be examined objectively; that men and boys be educated about sexual exploitation of women; that women be empowered economically; and that health services for women be provided in rural and urban settings.

**URL:**

**Publication Date:** 2001

### **Why do young women have a much higher prevalence of HIV than young men? A study in Kisumu, Kenya and Ndola, Zambia.**

**Author:** Glynn JR; Carael M; Auvert B; Kahindo M; Chege J

**Source:** AIDS. 2001 Aug;15 Suppl 4:S51-60.

**Abstract:**

This study aimed to examine the factors for the disparity in HIV prevalence between young men and women in two urban populations in Africa with high HIV prevalence. It used a cross-sectional survey, aiming to include 1000 men and 1000 women aged 15-49 years in Kisumu, **Kenya** and Ndola, Zambia. Participants were interviewed and tested for HIV and other sexually transmitted infections. Analyses compared the marital and non-marital partnership patterns in young men and women, and estimated the likelihood of having an HIV-infected partner. Overall, 26% of individuals in Kisumu and 28% in Ndola were HIV-positive. In both sites, HIV prevalence in women was six times that in men among sexually active 15-19 year olds, three times in men among 20-24 year olds, and equal to that in men among 25-49 year olds. Age at sexual debut was similar in men and women, and men had more partners than women. Women married younger than men and marriage was a risk factor for HIV, but the disparity in HIV prevalence was present in both married and unmarried individuals. Women often had older partners, and men rarely had partners much older than themselves. Nevertheless, the estimated prevalence of HIV in the partners of unmarried men aged under 20 was as high as that for unmarried women. HIV prevalence was very high even among women reporting one lifetime partner and few episodes of sexual intercourse. Behavioral factors could not fully explain the discrepancy in HIV prevalence between men and women. Despite the tendency for women to have older partners, young men were at least as likely to encounter an HIV-infected partner as young as women. It is likely that the greater susceptibility of women to **HIV infection** is an important factor both in explaining the male-female discrepancy in HIV prevalence and in driving the epidemic. Herpes simplex virus type 2 infection, which is more prevalent in young women than in young men, is probably one of the factors that increases women's susceptibility to **HIV infection**. (author's)

**URL:**

**Publication Date:** 2001

**Gender differences in HIV-1 diversity at time of infection.**

**Author:** Long EM; Martin HL; Kreiss JK; Rainwater SM; Lavreys L

**Source:** Nature Medicine. 2000 Jan;6(1):71-75.

**Abstract:**

To develop an HIV-1 vaccine with global efficacy, it is important to identify and characterize the viruses that are transmitted, particularly to individuals living in areas of high incidence. Several studies have shown that virus from the blood of acutely infected adults was homogenous, even when the virus population in the index case was genetically diverse. In contrast to those results with mainly male cohorts in America and Europe, in several cases a heterogenous virus population has been found early in infection in women in Africa. Thus, the authors more closely compared the diversity of transmitted HIV-1 in men and women who became infected through heterosexual contact. The authors found that women from **Kenya** were often infected by multiple virus variants, whereas men from **Kenya** were not. Moreover, a heterogenous virus was present in the women before their seroconversion, and in each woman it was derived from a single index case, indicating that diversity was most likely to be the result of transmission of multiple variants. The authors' data indicate that there are important differences in the transmitted virus populations in women and men, even when cohorts from the same geographic region who are infected with the same subtypes of HIV-1 are compared. (author's)

**URL:**

**Publication Date:** 2000

**Working with men. Peer education. Peer networks.**

**Author:** Asiamah G

**Source:** AIDS Action. 2000 Apr-Jun;(48):4.

**Abstract:**

This article presents two brief case studies about HIV prevention efforts targeted at men's peer networks. The Ghana case study notes the nature and status of police and guard work provides many opportunities for high-risk sexual behavior. Thus the Ghana Police Service AIDS control program was started in 1998 to research HIV prevalence in the police force, improve services for treating sexually transmitted infections and implement activities to encourage behavior change. It is noted that peer education is the most successful aspect of the project. The same is true for the project in the Kenyan case study, which profiles a peer education group of men living with HIV/AIDS. That group, called the Association of People with AIDS in **Kenya**, counsels people living with the virus and also speaks at schools, churches and communities.

**URL:**

**Publication Date:** 2000

**Women's status in reproductive health decision-making: a communications perspective.**

**Author:** Muturi N

**Source:** Journal of Development Communication. 2003 Jun;14(1):32-50.

**Abstract:**

The purpose of this paper is to examine some of the factors that impede Kenyan women's reproductive health decision to use (or not to use) contraceptives for prevention of unwanted pregnancies. Despite much effort and resources by international agencies to persuade women to accept family planning contraceptives and advocated behavior change, the majority of rural women continue to have large families while suffering from numerous reproductive health problems associated with lack of contraceptive use. (excerpt)

**URL:**

**Publication Date:** 2003

**Differential of HIV prevalence in women and men who attended sexually transmitted disease clinics at HIV sentinel surveillance sites in Kenya, 1990-2001.**

**Author:** Joesoef MR; Cheluget B; Marum LH; Wandera C; Ryan CA

**Source:** International Journal of STD and AIDS. 2003 Mar;14(3):193-196.

**Abstract:**

Several studies in sub-Saharan Africa have reported that HIV prevalence in young women is higher than in young men. We used data from **Kenya** HIV sentinel surveillance conducted from 1990 to 2001 among sexually transmitted disease (STD) patients (15± 49 years old) to investigate consistency of gender differentials over time and their risk factors. Of the 15,889 STD patients, the HIV prevalence ranged from 16.0% in 1990 to 41.8% in 1997. The odds ratios (ORs) of HIV infection for women compared to men decreased by age; women 15± 24 years were nearly twice as likely as men of the same ages to be HIV infected (OR 1.7 [1.5± 2.0]), but risk in those <44 years was almost equal (OR 0.8 [95% CI 0.7± 1.2]). The odds of HIV infection for women compared to men were twice in unmarried patients (OR 2.1 [95% CI 1.8± 2.3]). This association persisted after controlling for age groups or marital status, residence, level of education, and presence of STD syndromes. This pattern had been consistent over 12 years. **Adolescent** women with symptoms of STDs should be a focus for the HIV/STD intervention programmes because of their high risk for HIV. (author's)

**URL:**

**Publication Date:** 2003

**New ritual replaces female genital mutilation.**

**Author:** Nzwili F

**Source:** Women's E News. 2003 Apr 15;:[4] p.

**Abstract:**

But the prospects of ending the rite in **Kenya** are higher as some communities adopt an alternative rite of passage in which they "circumcise" their girls through words. Known as "Ntanira na Mugambo" in the local language of the Ameru, a community on the eastern slopes of Mount **Kenya**, "Cutting Through Words" is a joint effort of rural families and the Kenyan national women's group, Maendeleo ya Wanawake Organization. The rite brings willing young girls together for a week in seclusion where they get traditional lessons about their future roles as women, parents and adults in the community. They are also taught about their personal health, reproduction, hygiene, communications skills, self-esteem and dealing with peer pressure. It is just like the traditional ritual, except that there is no cutting of their genitals. (excerpt)

**URL:**

**Publication Date:** 2003

**Protecting and empowering girls: confronting the roots of female genital cutting in Kenya.**

**Author:** Mohamud A; Radeny S; Yinger N; Kittony Z; Ringheim K

**Source:** In: Responding to Cairo. Case studies of changing practice in reproductive health and family planning, edited by Nicole Haberland, Diana Measham. New York, New York, Population Council, 2002. :434-58.

**Abstract:**

This chapter documents the collaboration in **Kenya** between Maendeleo Ya Wanawake Organization and the Program for Appropriate Technology in Health to eradicate female genital cutting (FGC). The authors describe how the project evolved from a focus on the health consequences of FGC to an emphasis on gender-based power and women's rights. They also detail community efforts to develop and offer an alternative rite of passage for girls and young women.

**URL:**

**Publication Date:** 2002

**Women of the world: laws and policies affecting their reproductive lives, Anglophone Africa, 2001 progress report.**

**Author:** Center for Reproductive Law and Policy

**Source:** New York, New York, Center for Reproductive Law and Policy, 2001 Jul. 175 p.

**Abstract:**

In 1997, the Center for Reproductive Law and Policy in collaboration with the International Federation of Women Lawyers, **Kenya** Chapter, published a document entitled "Women of the World: Laws and Policies Affecting their Reproductive Lives--Anglophone Africa." The publication aims to respond to the need of governments and nongovernmental organizations (NGOs) for information concerning laws and policies affecting reproductive rights at the national and regional levels. Divided into nine chapters, this document details the factual content of national laws and policies in key areas of reproductive health (RH) and women's empowerment and examines the government- and NGO-sponsored programs that provide services to areas critical to women's health. The first chapter provides an overview of changes that have occurred in the 1990s. The next seven chapters discuss country reports in Ethiopia, Ghana, **Kenya**, Nigeria, South Africa, Tanzania, and Zimbabwe, respectively. Each country chapter is organized into four main sections that detail national and political frameworks, RH and rights issues, women's legal status, and **adolescent** health and rights issues. Throughout the chapters, the roles of NGOs and private-sector national and international organizations in the advancement of women's RH and rights are discussed. Finally, the ninth chapter compares the regional trends in laws, policies and programs affecting reproductive rights.

**URL:**

**Publication Date:** 2001

**Baseline survey on female genital mutilation practices in Trans Mara district, Rift Valley province of Kenya. Final report.**

**Author:** Bwana S; Beckmann S; Kamau J; Makumi M; Mbugua M

**Source:** [Nairobi], Kenya, Ministry of Health, 2000 Oct. 50 p.

**Abstract:**

This cross-sectional study examined the formative and stimulus variables on the practice of female genital mutilation (FGM) in the Trans Mara district, **Kenya**, with a view of establishing interventions to improve the health status of girls and women. A total of 1203 respondents were interviewed, 47% of which were illiterate with 75% of this proportion being mothers. Overall, the study established very high prevalence rates of FGM (74%). The decision to circumcise is a parental matter, with the father as the main decision-maker. Circumcision is predominantly done at the homes of the initiates (87%). Of all the reported circumcisions, 4% were done within health facilities. Traditional circumcisers perform the majority of circumcisions (94%), while another 3.6% are done by health staff. Literacy, availability of information and religion are the most significant contextual factors on knowledge of FGM, attitude and practice of FGM in the district. Meanwhile, majority of the parents (56%) observed that FGM should continue while the majority of the youth (53%) would like FGM to stop. The study concludes that FGM has serious negative effects on the education, health, and social life of the girl child. The study recommends that community awareness through the creation of information, education, and communication (IEC) should be a priority and health workers need to be targeted as they play a substantial role in the practice as well as in IEC.

**URL:**

**Publication Date:** 2000

## ADOLESCENT REPRODUCTIVE HEALTH

### **Pregnancy among Kenyan adolescents: implications for social development.**

**Author:** Pratt CB; Okigbo C

**Source:** Journal of Development Communication. 2002 Jun;13(1):1-14.

**Abstract:**

This study was undertaken to assess Kenyan adolescents' familiarity with teenage pregnancy, **contraception**, and similar issues associated with sexual behavior. An important question addressed the adolescents' recommendations on teenage pregnancies. The results showed that many of the respondents were familiar with teenage pregnancy because they knew classmates who had become pregnancy. Many of such unfortunate girls usually resorted to abortion. (excerpt).

**URL:**

**Publication Date:** 2002

### **Sexual and reproductive health of adolescents.**

**Source:** Progress in Reproductive Health Research. 2002;(58):1.

**Abstract:**

Since the late 1980s, the UN Development Program/UN Population Fund, World Bank Special Program of Research, Development and Research Training in Human Reproduction has supported social science research on the needs and perceptions of young people. The initiative aimed to support research that addresses factors that contribute to positive sexual and reproductive health outcomes, especially those that can be influenced by appropriate interventions in developing countries. This editorial introduces issue 58 of "Progress in Reproductive Health Research" is based on research supported under this special research initiative on adolescents and constitutes summaries of papers published in Reproductive Health Matters (May 2001). While focused on the situation of young people in different settings (China, **Kenya**, Nigeria), these studies highlight that adolescents engage in unsafe sex and are frequently victims of coercion and few use contraceptives. In addition, these studies highlight the need for reliable information, counseling and reproductive health services. There is also a need to identify best practices and develop evidence-based youth friendly policies and programs.

**URL:**

**Publication Date:** 2002

**Dealing with the risks of unwanted pregnancy and sexually transmitted infections among adolescents: some experiences from Kenya.**

**Author:** Nzioka C

**Source:** African Journal of Reproductive Health / Revue Africaine de la Sante Reproductive. 2001 Dec;5(3):132-49.

**Abstract:**

Studies have suggested the persistence of risky sexual practices among adolescents in **Kenya** but relatively less is known about the perceptions, norms, and gender relations that govern the sexual behavior of adolescent females and males, or the strategies they use to deal with the twin risks of unwanted pregnancy and sexually transmitted infection/HIV infection. This study was, therefore, conducted to explore these issues through data drawn from 16 focus group discussions among 184 rural male and female adolescents aged 15-19 years in Makueni District of eastern **Kenya**. Findings suggest that adolescents are quite aware of risky behaviors and the protective role of abstinence, faithfulness to one uninfected partner, and condom use. However, adolescents face a number of obstacles in translating this knowledge into safer sex practices. Misinformation concerning ways to protect themselves abound. Both females and males report reticence in communicating about sexual matters and **contraception** with their partners. At the same time, they are reluctant to seek condoms in public places for fear of disclosure and reproach. Females face difficulties in negotiating safe sex, in reconciling the desire for condom use with norms demanding submissiveness and lack of assertiveness in contraceptive decision-making. Findings suggest the need for programs that promote communication skills among young male and especially female adolescents, and that seek to change masculine and feminine gender ideologies and redress gender double standards. (author's)

**URL:**

**Publication Date:** 2001

**Youth in sub-Saharan Africa : a chartbook on sexual experience and reproductive health. [[Jeunesse d'Afrique sub-saharienne : cahier des expériences sexuelles et de santé reproductive]]**

**Author:** Carr D; Way A; Smith R

**Source:** Washington, D.C., Population Reference Bureau [PRB], 2001 Apr. 44 p.

**Abstract:**

This chartbook examines factors that are important to young people's healthy transition, including education and exposure to information, sexual experience and marriage, HIV/AIDS, child-bearing, **contraception**, and maternal health, using survey data collected through the global Demographic and Health Survey Program. The survey profiles adolescents aged 15-19 years in 11 sub-Saharan countries, namely, Cote d'Ivoire, Ghana, **Kenya**, Madagascar, Mali, Mozambique, Senegal, Tanzania, Uganda, Zambia, and Zimbabwe. Some of the key findings from this chartbook show that education levels have increased dramatically in most countries surveyed. In 9 out of 11 countries surveyed, at least one-third of young women marry before age 18 years and at least half have sex before age 18. In a number of settings teenage women are more vulnerable to AIDS/HIV than teenage men. Modern contraceptive use among single, sexually active women ranges from 5% in Mozambique to 23% in Ghana. In 8 out of 11 countries, at least 10% of 16-year-olds have started childbearing. Although many adolescent mothers received antenatal care, access to professional delivery care remains limited. In 10 out of 11 countries, less than 55% of young women reported receiving professional delivery care.

**URL:**

**Publication Date:** 2001

### **Kenyan adolescents at risk.**

**Author:** Kiragu J

**Source:** INITIATIVES IN REPRODUCTIVE HEALTH POLICY. 2000 Jul;3(2):11-2.

**Abstract:**

In **Kenya**, population policy is unclear regarding adolescent rights to sexual and reproductive health education and services. Consequently, many Kenyan adolescents who are sexually active, with little information or protection against unwanted pregnancies and sexually transmitted diseases, resort to unsafe abortion and suffer disproportionately from abortion-related mortality. It is also noted that the laws restricting abortion discriminate most against the young and the poor because they have the least access to safe abortion services. Hospital records of women seeking unsafe abortions show that abortion is mainly sought by women who are young, unmarried, either in school or unemployed, and not using any method of **contraception**. In view of this, it is suggested that access to safe abortion within the existing law regardless of age or social class should be enhanced to reduce the number of abortion-related deaths and the number of cases of incomplete abortion.

**URL:**

**Publication Date:** 2000

### **Knowledge and belief: information that guides young people's sexual relations.**

**Source:** PROGRESS IN REPRODUCTIVE HEALTH RESEARCH. 2000;(53):4-6.

**Abstract:**

This paper presents findings of case studies that examined the levels of sexual reproductive knowledge among the youth in developing countries and the source of such knowledge. Results suggest that while youth are generally well informed, in-depth knowledge, particularly of conception and fertility, tends to be poor, and misconceptions are widespread. A study in **Kenya** reports that, while most were aware of condoms, the misperceptions that they were porous and often came off or were ineffective dissuade the youth from using them. Furthermore, the studies indicate that although majority were aware of AIDS, only a few young people reported working knowledge of modes of transmission, and many believed that infected persons reveal outward evidence of their condition. Only among rural youth in North and Northeast Thailand did most respondents recognize the asymptomatic nature of sexually transmitted infections (STIs), and only 5% of male students in Illorin, Nigeria, and 7-12% of students in Vietnam knew that carriers of STIs and HIV show no outward evidence of their condition. A further misperception is that STI symptoms go away of their own accord, and that women are responsible for transmitting STIs and HIV. A number of case studies highlight how young people underestimate their risks for contracting AIDS. Teachers, health professionals or parents rarely impart information on sexuality, conception, pregnancy, **contraception**, and disease. The main sources of information are friends and the media.

**URL:**

**Publication Date:** 2000

### **Adolescent boys and unsafe sex in Kenya. [[Les adolescents kenyans et les rapports sexuels peu sûrs]]**

**Source:** Progress in Reproductive Health Research. 2002;(58):4.

**Abstract:**

This paper presents the findings of a qualitative study that examined the dual risks of unwanted pregnancy and sexually transmitted infections (STIs)/HIV among young schoolboys aged 15-19 in **Kenya**. Data were drawn from eight focus group discussions with a total of 90 boys. Overall, findings provide rich insights into the perceptions, behaviors and motivations of young males with regard to sexual activity and vulnerability to STIs, including **HIV infection**. They highlight the fact that despite considerable awareness of sexual risks, modes of transmission of infection and protective value of condoms, young men continue to exhibit high-risk behaviors. Based on the findings, it points to the need to promote communication skills and sexual responsibility among adolescents and provide condoms to young people (free or at affordable prices) through outlets acceptable to them.

**URL:**

**Publication Date:** 2002

**Assessing differential item validity of the AIDS-Related Social Skills questionnaire among African adolescents.**

**Author:** Masse LC; Ross MW

**Source:** Social Science Research. 2001;30(1):50-61.

**Abstract:**

Using differential item validity (DIV) methodology, this study investigated whether the items of the AIDS-Related Social Skills (ASAS) questionnaire had the same interpretation by gender and country. Polytomous logistic regression was used to test if the coefficients for individual items were the same by gender and country. The subjects (n = 1133) were Black Anglophone African 10th-grade students from Nigeria (n = 396), **Kenya** (n = 280), Zimbabwe (n = 319), and Sierra Leone (n = 138). The analyses showed that many items had significant DIV. Because 12 of the 30 test items (i.e., 40%) showed significant DIV, it suggested that the ASAS may not be internally valid by gender and across countries. Further qualitative work is needed to understand the extensive DIV that was statistically found in this study. (author's)

**URL:**

**Publication Date:** 2001

**The effect of health education programmes on adolescent sexual behaviour: a case study of Nairobi city adolescents.**

**Author:** Ayiamba EH

**Source:** Etude de la Population Africaine / African Population Studies. 2001 Jun;16(1):87-103.

**Abstract:**

The aim of this study is to examine the effectiveness of health education programmes in **Kenya** by identifying the type of knowledge or awareness adolescents have regarding STDs/HIV/AIDS, their symptoms and prevention methods. It also aims at bringing out evidence of insufficient information or ignorance on matters relating to adolescent sexuality and showing whether adolescent sexual behaviour patterns are congruent with health education goals. The study is based on a pilot study of a randomly sampled 250 adolescents aged between 14-24 years in Nairobi City. The major findings are that adolescents are becoming more sexually active despite vigorous health education programmes launched in this country; and that some 25% of women aged between 12-24 years lost their virginity through forced sex (NASCOP, 1999). In other words, cases of sex abuse, harassment and violence on adolescent girls are increasing in educational institutions. The study also reveals that adolescents lack accurate information on key aspects of HIV/AIDS. It was further revealed that majority of adolescents lack accurate knowledge on symptoms of common STDs, rising to 98% for chlamydia. Knowledge of prevention methods was found to be grossly inadequate. Adolescents' beliefs and misconceptions on sexual matters are more perplexing. This suggests that either their knowledge of sex education is insufficient, or they harbour certain beliefs or misconceptions about sex. All these findings suggest that health education programmes on STDs/HIV/AIDS are making little impact on changes in sexual behaviour. There is need, therefore, to carry out more research to find the most rewarding approach. (author's)

**URL:**

**Publication Date:** 2001

**Factors related to condom use among young people in Kenya.**

**Author:** Stoskopf CH; Kim YK; Richter DL

**Source:** International Quarterly of Community Health Education. 2001;20(2):193-208.

**Abstract:**

Survey questionnaires were provided to a convenience sample of 197 students in four educational settings. When regressing the knowledge score on the independent variables, it was found that the knowledge score increased with years of education, the practice of Islam, getting HIV/AIDS information from a radio, worrying about contracting HIV/AIDS, and receiving AIDS education or family life education in school. The knowledge score was negatively related with age. When regressing condom use on the independent variables, including the knowledge score, the likelihood that a respondent would use a condom significantly increased when the respondent was willing to use a condom, when a sexual partner requested it, when the respondent knew where to purchase condoms, and when the respondent had received education in school on FP and AIDS education. The likelihood of using condoms was negatively related with age and the statement "real men do not wear condoms". (author's)

**URL:**

**Publication Date:** 2001

**Gendered construction of sexual risks: implications for safer sex among young people in Kenya and Sweden.**

**Author:** Ahlberg BM; Jylkas E; Krantz I

**Source:** Reproductive Health Matters. 2001 May;9(17):26-36.

**Abstract:**

This study compared perceptions of sexual risk and sexual practices among youth in **Kenya** and Sweden. Self-generated questions on the body, perceptions of sexual risk and sexual practices were collected in **Kenya** while focus group discussions and individual interviews on these same issues were used in Sweden. The most striking differences between the two countries were in the level of knowledge on matters of sexuality and the ability to talk with ease on these matters. The refusal in **Kenya** to provide adolescents with information and services has left the 'safe period' as their only protective option and pregnancy as the overriding concern. Communication at the partner level and lack of condom use are problematic in both countries and even where access to information and preventive services exist, these may not be used optimally. In both countries, boys had more sexual freedom, while girls were controlled through labeling and rumors, and girls were assigned responsibility for safer sex. The authors conclude that sexual education should be based more broadly on an understanding of the social norms defining sexual behavior. It is at the level of sexual relations that the tensions between culturally-defined sexual and gender norms and public health assumptions should be addressed, a level at which health policy and education are silent in both countries. (author's)

**URL:**

**Publication Date:** 2001

**HIV voluntary counseling and testing among youth ages 14 to 21: results from an exploratory study in Nairobi, Kenya, and Kampala and Masaka, Uganda.**

**Author:** Population Council. Horizons; International Center for Research on Women [ICRW]; Kenya Association of Professional Counselors; Kibera Community Self-Help Programme; Kenyatta National Hospital

**Source:** Washington, D.C., Population Council, Horizons, 2001 Oct. 31 p. USAID Cooperative Agreement No. HRN-A-00-97-00012-00

**Abstract:**

Voluntary counseling and testing (VCT) programs have increased the adoption of safe sexual behavior and the use of care and support services among adults. This paper contains the results of an exploratory research study conducted in Nairobi, **Kenya**, and in Kampala and Masaka, Uganda. The aim is to identify opportunities for and barriers to providing VCT for youth. Focus group discussions and in-depth interviews were conducted with youth, parents, service providers, and community members and a survey was administered among young people aged 14-21. The first phase of the study was completed in May 2000. Overall, it is noted that most tested youth intend to practice safer sex. When asked to name the satisfactory aspects of their testing experience, clients mentioned the counseling more than any other component. It was also noted that most youth disclose their HIV test results while majority of the untested youth would like to take an HIV test. On the other hand, service providers are not equipped to respond to youth issues thus, there is a need for more support services for counseled youth in Uganda. Finally, in Uganda, service delivery organizations design VCT programs that are youth-friendly and provide high-quality VCT. Moreover, in **Kenya**, project partners are planning to develop and implement special services for youth.

**URL:**

**Publication Date:** 2001

**Kenya: Teenage pregnancies continue to increase.**

**Source:** WIN. WOMEN'S INTERNATIONAL NETWORK NEWS. 2001 Spring;27(2):75.

**Notes:**

From: Daily Nation, February 24, 2001.

**Abstract:**

"Teenage pregnancies are a big burden on the government," Public Health Minister Sam Ongeri has said. He said teenage pregnancies accounted for almost half of the maternity cases handled in government hospitals. The minister was speaking during a reception at a Nairobi hotel for supporters of the Family Planning International Assistance, who were in **Kenya** for a week-long official visit. Professor Ongeri said the government was implementing women-oriented reproductive health measures to control unwanted pregnancies and the spread of HIV and AIDS. "AIDS, unsafe abortions, and pregnancies among the youth have reached an alarming level," he said. The meeting was attended by ambassadors from Nigeria, Sudan, Uganda, Ethiopia, and the US. The president of Planned Parenthood Federation of America, Ms. Gloria Feldt, said Africa faced a big challenge in educating the people about reproductive health. She said her organization was working with various government departments and NGOs (nongovernmental organizations) to check AIDS and to create awareness on reproductive health. (full text)

**URL:**

**Publication Date:** 2001

**Making VCT more youth-friendly. Designing services to reach young people.**

**Author:** MacQuarrie K

**Source:** Horizons Report. 2001 Spring;:5-7.

**Abstract:**

A study using focus groups, in-depth interviews and surveys was undertaken by researchers from Makerere University, the AIDS Information Centre, and the University of Nairobi. The study was conducted in **Kenya** and Uganda among youths, parents, service providers, community members, and policy-makers, and it aimed to find out about young people's experiences with and attitudes about voluntary counseling and testing (VCT). It also aimed to determine how VCT services can become more youth-friendly. The findings showed that most tested youths intend to practice safer sex, such as abstaining from sexual intercourse, practicing monogamy, using condoms, or reducing the number of sexual partners. It was noted that young people who received counseling greatly appreciated the information and advice. However, only half of the counselors received training on how to counsel youths, indicating that problems will likely arise due to the counselors' lack of training. Moreover, tested youths were seldom referred to any type of follow-up service for either prevention or support after they received their HIV test results. Affordability, privacy and confidentiality are criteria considered by youths in determining whether or where to go for testing.

**URL:**

**Publication Date:** 2001

**Youth in sub-Saharan Africa : a chartbook on sexual experience and reproductive health. [[Jeunesse d'Afrique sub-saharienne : cahier des expériences sexuelles et de santé reproductive]]**

**Author:** Carr D; Way A; Smith R

**Source:** Washington, D.C., Population Reference Bureau [PRB], 2001 Apr. 44 p.

**Abstract:**

This chartbook examines factors that are important to young people's healthy transition, including education and exposure to information, sexual experience and marriage, HIV/AIDS, child-bearing, contraception, and maternal health, using survey data collected through the global Demographic and Health Survey Program. The survey profiles adolescents aged 15-19 years in 11 sub-Saharan countries, namely, Cote d'Ivoire, Ghana, **Kenya**, Madagascar, Mali, Mozambique, Senegal, Tanzania, Uganda, Zambia, and Zimbabwe. Some of the key findings from this chartbook show that education levels have increased dramatically in most countries surveyed. In 9 out of 11 countries surveyed, at least one-third of young women marry before age 18 years and at least half have sex before age 18. In a number of settings teenage women are more vulnerable to AIDS/HIV than teenage men. Modern contraceptive use among single, sexually active women ranges from 5% in Mozambique to 23% in Ghana. In 8 out of 11 countries, at least 10% of 16-year-olds have started childbearing. Although many adolescent mothers received antenatal care, access to professional delivery care remains limited. In 10 out of 11 countries, less than 55% of young women reported receiving professional delivery care.

**URL:**

**Publication Date:** 2001

**The adolescent AIDS epidemic in Kenya: a briefing book.**

**Author:** Johnston T

**Source:** Nairobi, Kenya, Population Communication Africa, [2000]. 50 p. Population Communication Africa and Pathfinder International Briefing Book No. 1.

**Abstract:**

This briefing book provides a wider understanding of the nature and extent of the adolescent AIDS epidemic in **Kenya**. It emphasizes that at the millennium, some one-third of Kenyan teenage girls in AIDS high prevalence areas of **Kenya** are HIV-positive. This proportion is projected to steadily become more commonplace as the infection spreads. Another epidemic experienced by this group of people, while less deadly in terms of its consequences is much more prevalent, is that of accidental mostly premarital pregnancy. Estimates show that nearly 45% of Kenyan girls aged 19 years are already mothers or are pregnant. It is noted that the two epidemics are related: they both stem from the behavior of unprotected sexual intercourse too often perpetrated by older men and too frequently cash or gift induced or worse. To this effect, the need for a provision of youth relevant information, education and communication activities devised to prevent risk behavior and the provision of youth relevant health services to protect behavior from risk is highlighted.

**URL:**

**Publication Date:** 2000

**A review of adolescent high risk behaviour in Kenya: a briefing book.**

**Author:** Johnston T

**Source:** Nairobi, Kenya, Population Communication Africa, [2000]. 52 p. Population Communication Africa and Pathfinder International Briefing Book No. 2

**Abstract:**

This briefing book provides a review of adolescent high-risk behavior in **Kenya**. Based on the findings from adolescent reproductive health surveys undertaken in **Kenya**, a large proportion of Kenyan Adolescents in the 13-19 age group are sexually active and that some 80% of these have a past or prior experience of sexual intercourse that was unprotected. Some of the predisposing variables to adolescent high-risk behaviors in **Kenya** include child abuse, domestic violence, dysfunctional families, HIV/AIDS afflicted households, schooling, and culture/tradition. It is noted that of all the behaviors that adolescents engage in, unprotected sexual intercourse carries the highest risk and the most serious consequences, including accidental premarital pregnancy and **HIV infection**. To this effect, the society is called upon to address the issue and reduce the prevalence of the high-risk behaviors, which generate the epidemics of teenage pregnancy and HIV/AIDS infections.

**URL:**

**Publication Date:** 2000

**Teenagers worldwide need access to better, safer sexual and reproductive health information and services.**

**Source:** Journal of Advanced Nursing. 2000 Jun;31(6):1280.

**Abstract:**

In Africa's most affected regions, as many as one person in four are estimated to carry HIV, the virus that causes AIDS. About half of **HIV infections** occur before the age of 25, and these young men and women typically die of AIDS before they reach age 35. AIDS is now the leading killer in sub-Saharan Africa, where 23.3 million people have HIV/AIDS. 90% of the world's 11 million AIDS orphans are in Africa. About 1.7 million young people become infected with HIV every year in Africa alone. Wendy Thomas, Chief Executive of Population Concern, highlights the need to speak out on this life-threatening situation. "In Africa, infected women outnumber men by 2 million. No matter how sensitive this issue might be, keeping silent is costing lives". Populations Concern's 1999 annual review shows our commitment and that of our partners overseas towards alleviating and eradicating this avoidable predicament. One such example is a program set up in **Kenya** with the Africa Medical & Research Foundation which is funded by the National Lottery Charity Board (England) and Population Concern. Population Concern's Programme Officer for **Kenya** gives an insight into gains made by the innovative program. "2 years ago it was not accepted within some African communities that premarital sex took place. But now teachers and health workers are facing up to the reality and the open discussions on sexual health now take place in church groups, community centers and schools. Communities are accepting they must deal with the issues of AIDS, unsafe abortion and pregnancy--all of which pose a serious threat to the health of their adolescents. Each of us must act now to protect all young people everywhere. A future, which means equality for everyone, depends on helping each and every individual to have the human right of access to information and sexual reproductive health services. Giving help to the most vulnerable allows them the means to protect themselves". (full text)

**URL:**

**Publication Date: 2000**

**Adolescent boys and unsafe sex in Kenya. [[Les adolescents kenyans et les rapports sexuels peu sûrs]]**

**Source:** Progress in Reproductive Health Research. 2002;(58):4.

**Abstract:**

This paper presents the findings of a qualitative study that examined the dual risks of unwanted pregnancy and sexually transmitted infections (STIs)/HIV among young schoolboys aged 15-19 in **Kenya**. Data were drawn from eight focus group discussions with a total of 90 boys. Overall, findings provide rich insights into the perceptions, behaviors and motivations of young males with regard to sexual activity and vulnerability to STIs, including HIV infection. They highlight the fact that despite considerable awareness of sexual risks, modes of transmission of infection and protective value of condoms, young men continue to exhibit high-risk behaviors. Based on the findings, it points to the need to promote communication skills and sexual responsibility among adolescents and provide condoms to young people (free or at affordable prices) through outlets acceptable to them.

**URL:**

**Publication Date: 2002**

**Opportunity for prevention of HIV and sexually transmitted infections in Kenyan youth: results of a population-based survey.**

**Author:** Hawken MP; Melis RD; Ngombo DT; Mandaliya KN; Ng'ang'a LW

**Source:** JAIDS. Journal of Acquired Immune Deficiency Syndromes. 2002 Dec 15;31(5):529-535.

**Abstract:**

Background: Data from sentinel serosurveillance are useful to estimate HIV infection in populations but may not be representative of the general population. General population-based surveys attempt to avoid selection bias and are the most appropriate for tracking changes in exposure to risk of HIV infection over time and assessing changes in behavior following prevention campaigns. Objectives: To provide baseline data for targeted sexually transmitted infection (STI) and HIV infection prevention interventions by studying parameters of sexual behavior and knowledge of HIV infection and STIs, measuring health-seeking behavior related to STIs, and measuring gonorrhea, Chlamydia, syphilis, and HIV-1 prevalences. Design: Population-based survey with stratified sampling by age group from randomly selected households in a suburb of Mombasa, **Kenya**. Methods: A standard questionnaire was administered to 1497 consenting adults between the ages of 15 and 49 years who lived in randomly selected households. Urine and blood samples were obtained for the estimation of gonorrhea, chlamydial infection, syphilis, and HIV-1 infection prevalences. Results: Sexual activity in the past 12 months was limited to one partner in all age groups for most sexually active men (68%) and women (88%). More men than women reported two or more partners in the past 12 months (23% vs. 5%, respectively). Almost one half of those persons in the 15- to 19-year-old age group (56% of boys and 48% of girls) were sexually active. Condom use was low with all sexual partners, more so for women than for men. Reported STI symptoms in the past 12 months were high for both men and women. Knowledge of STI symptoms and HIV infection was present but incomplete. Overall HIV seroprevalence was 10.8%, with significantly higher rates among women (13.7%) than among men (8.0%). HIV seroprevalence in the 15- to 19-year-old age group was 3.2%. Female gender, Protestant religion, Catholic religion, and being divorced, separated, and widowed were significantly associated with HIV seroprevalence. Prevalences of gonorrhea, chlamydial infection, and syphilis were 0.9%, 1.5%, and 1.3%, respectively. Conclusions: This study emphasizes the vulnerability of young adults, in particular young women, to HIV infection and the need for intensive interventions in this group. The low use of condoms, incomplete knowledge of HIV infection and STIs, the high number of reported STIs, and the relatively low HIV-1 seroprevalence among the 15- to 19-year-old group indicate a large need for intensive STI and HIV infection prevention programs, especially for the 15- to 19-year-old age group. (author's)

**URL:**

**Publication Date:** 2002

**The effect of health education programmes on adolescent sexual behaviour: a case study of Nairobi city adolescents.**

**Author:** Ayiemba EH

**Source:** Etude de la Population Africaine / African Population Studies. 2001 Jun;16(1):87-103.

**Abstract:**

The aim of this study is to examine the effectiveness of health education programmes in **Kenya** by identifying the type of knowledge or awareness adolescents have regarding STDs/HIV/AIDS, their symptoms and prevention methods. It also aims at bringing out evidence of insufficient information or ignorance on matters relating to adolescent sexuality and showing whether adolescent sexual behaviour patterns are congruent with health education goals. The study is based on a pilot study of a randomly sampled 250 adolescents aged between 14-24 years in Nairobi City. The major findings are that adolescents are becoming more sexually active despite vigorous health education programmes launched in this country; and that some 25% of women aged between 12-24 years lost their virginity through forced sex (NASCOP, 1999). In other words, cases of sex abuse, harassment and violence on adolescent girls are increasing in educational institutions. The study also reveals that adolescents lack accurate information on key aspects of HIV/AIDS. It was further revealed that majority of adolescents lack accurate knowledge on symptoms of common STDs, rising to 98% for chlamydia. Knowledge of prevention methods was found to be grossly inadequate. Adolescents' beliefs and misconceptions on sexual matters are more perplexing. This suggests that either their knowledge of sex education is insufficient, or they harbour certain beliefs or misconceptions about sex. All these findings suggest that health education programmes on STDs/HIV/AIDS are making little impact on changes in sexual behaviour. There is need, therefore, to carry out more research to find the most rewarding approach. (author's)

**URL:**

**Publication Date:** 2001

**Female education, adolescent sexuality and the risk of sexually transmitted infection in Ariaal Rendille culture.**

**Author:** Roth EA; Fratkin EM; Ngugi EN; Glickman BW

**Source:** Culture Health and Sexuality. 2001 Jan-Mar;3(1):35-47.

**Abstract:**

For over 20 years, demographic analyses have shown female education associated with decreased fertility and infant/child mortality in sub-Saharan Africa. Far less studied are the pathways and overall effects of female education upon sexually transmitted infections (STIs). An earlier 1996 study of one community of Ariaal Rendille pastoralists in Marsabit District of northern **Kenya**, suggested that female education may reduce the risk of STIs by removing educated adolescent women from the cultural tradition of pre-marital sexual relationships featuring early sexual debut and frequent partner change. Log-linear analysis of a 1998 sample of 127 adolescent women supports this model, with female education being negatively associated with the nykeri tradition. However, the full potential of female education for lowering STI risk may be negated by traditional Ariaal cultural patterns of differentially sending boys rather than girls to school. (author's)

**URL:**

**Publication Date:** 2001

### **Health problems of street children in Eldoret, Kenya.**

**Author:** Ayaya SO; Esamai FO

**Source:** East African Medical Journal. 2001 Dec;78(12):624-9.

**Abstract:**

The street children phenomenon is an increasing problem in most cosmopolitan cities of the world, including Eldoret, **Kenya**. With the growth of the town comes an increasing number of street children. It is therefore important to have baseline data on their health problems. This prospective and descriptive study was conducted to determine the health problems of street children in Eldoret Town, **Kenya**. Study participants comprised Eldoret street children aged 5-21 years. Type 1 street children were the "on" the street children who spent most of their time on the streets but went home in the evenings. Type 2 were "of" the street children who spent all their time in the streets and had severed their links with their families and did not have a home to go to. Type 3 were abandoned children staying in a shelter and type 4 were normal primary school children. A total of 191 children were studied. There were 38, 47, 56 and 50 types 1, 2, 3 and 4 children, respectively. The most common symptom was cough (28.9%) while the most frequent diagnosis was upper respiratory tract infection (12.1%), followed by skin disease (50.9%) as the leading disease category. The common drug of addiction was cigarettes (37.6%), with none of the school children taking any drugs of addiction. The prevalence of disease was 467/1000 children. Type 2 street children had the highest prevalence of disease (833/1000). Shelter children had the least disease prevalence (474/1000). Factors determining prevalence of disease were the same as in normal children. The malnutrition rate was high, with 31.1% and 41.9% of the children being stunted and underweight, respectively. Type 3 children had the highest rate of malnutrition, with 51.8% being stunted and 64.3% underweight. In conclusion, street children have a high incidence of childhood diseases. Factors determining occurrence of disease among street children are as in normal children. Respiratory and skin diseases were the leading causes of morbidity. Drug abuse was rampant among the street children but none of the school children abused any drug. Sexually transmitted infections were not prevalent. Most of the shelter children were malnourished. The authors recommended that the government of **Kenya** should provide free health care for street children in public hospitals. Further studies should be carried out on the prevalence of **sexually transmitted diseases** based on laboratory testing and on the causes of the injuries suffered by the street children. The reasons for the poor nutritional status of the shelter children should be analyzed and appropriate measures taken. (author's)

**URL:**

**Publication Date:** 2001

### **Perspectives of adolescent boys on the risks of unwanted pregnancy and sexually transmitted infections: Kenya.**

**Author:** Nzioka C

**Source:** Reproductive Health Matters. 2001 May;9(17):108-17.

**Abstract:**

Sexual debut for boys in **Kenya** occurs mostly by mid-adolescence. This study looks at the perspectives of adolescent boys aged 15-19 attending schools in rural, eastern **Kenya** on the dual risks of unwanted pregnancy, **sexually transmitted diseases** (STDs) and HIV, based on qualitative data from eight focus group discussions with 90 boys. Despite a high knowledge of sexual risks, fear of HIV and awareness of the protective value of condoms, the young men exhibit high risk behavior. They feel the need to conform to social prescriptions of male prowess, early sexual experience, and having more than one partner, yet their feelings about this behavior are ambiguous and contradictory. They consider getting girls pregnant and having had a treatable STD as marks of masculinity, blame girls for not protecting themselves (and girls' parents), and want to boast about their sexual conquests to their peers. Yet they feel embarrassed and reticent about discussing sexual issues with adults, and are unwilling to get condoms from places where anonymity is not assured as they know their sexual activity is not sanctioned. There is a clear need for educational programs that confront male sexual norms, address issues of gender power relations, promote communication skills, informed choice and sexual responsibility among boys as well as girls, and provide a consistent supply of good quality condoms free or at affordable prices. (author's)

**URL:**

**Publication Date:** 2001

**The feasibility of computer-assisted survey interviewing in Africa: experience from two rural districts in**

**Kenya.**

**Author:** Hewett PC; Erulkar AS; Mensch BS

**Source:** New York, New York, Population Council, 2003. 33 p. Policy Research Division Working Paper No. 168

**Abstract:**

This paper explores the use of an audio computer-assisted self-interviewing (audio-CASI) methodology in a household survey of **adolescents** in two districts of **Kenya**. Computer software was developed as part of a research project comparing audio-CASI with traditional methods of interviewing about sensitive behaviors, including sexual initiation, risky sexual behavior, coerced sex, and drug and alcohol use. The paper describes the experience of carrying out a household-based study using computers and explores the technical challenges faced by the data collection teams. Few problems emerged with the computer hardware and software, despite the difficult interviewing conditions. The **adolescent** respondents easily adapted to the computerized interview and were able to complete the survey with minimal assistance from the interviewing staff. However, the computers were not a completely neutral part of the data collection process and added to problems encountered during the fieldwork in one of the districts. Unexpected findings regarding respondents' perceptions of privacy and confidentiality were also observed. (author's)

**URL:**

**Publication Date:** 2003

**Malaria is related to decreased nutritional status among male adolescents and adults in the setting of intense perennial transmission.**

**Author:** Friedman JF; Kurtis JD; Mtalib R; Opollo M; Lanar DE

**Source:** Journal of Infectious Disease. 2003 Aug 1;188(3):449-457.

**Abstract:**

We studied the impact of Plasmodium falciparum on nutritional status in a longitudinal cohort of 147 young men in western **Kenya**, where malaria transmission is intense and perennial. All volunteers received treatment to eradicate parasitemia and then provided weekly blood smears during a 16-week transmission season. We measured body mass index (BMI), pubertal development, frequency and density of parasitemia, and tumor necrosis factor (TNF)- $\alpha$  production by peripheral blood mononuclear cells. During early puberty, mean parasitemia density had a strong negative effect on the natural increase in BMI. Among older individuals, TNF- $\alpha$  production in response to malarial antigen predicted a significantly lower BMI ( $P < .03$ ), equal to 4.6 kg for a man of average height. Our data indicate that burden of parasitemia has a detrimental effect on the nutritional status of early **adolescents** and that malaria may continue to influence nutritional status among older **adolescents** and adults via host elaboration of proinflammatory cytokines. These effects of malaria may have pervasive health and socioeconomic consequences in areas where malaria is endemic. (author's)

**URL:**

**Publication Date:** 2003

**Nutrition status, education participation, and school, achievement among Kenyan middle-school children.**

**Author:** Mukudi E

**Source:** Nutrition. 2003 Jul-Aug;19(7-8):612-616.

**Abstract:**

**OBJECTIVE:** The intervening effects of nutrition status on school attendance rates among Kenyan middle school pupils were assessed. The study also examined the effects of nutrition status on primary school achievement scores for the eighth-grade class of 1997. **METHODS:** Data were obtained on 851 pupils enrolled in the five indexed schools. Anthropometric measures included weight for age, height for age, and relative weight for height, and the values were derived from the raw data. Percentage of attendance rates derived from daily school attendance and raw scores on the **Kenya** Certificate of Primary Education were the measures of educational participation and achievement. Statistical analysis included descriptive statistics, analyses of variance, correlation, and linear regression analyses. **RESULTS:** Twenty-nine percent of the children fell below the 90% cutoff value for acceptable relative weight for height. The percentages of the population falling below -2 standard deviations on indices for height for age and weight for age were 16.64 and 3.78, respectively. Univariate analyses showed that anthropometric assessment varied by school and sex. School attendance rates varied by school and grade. Achievement scores on the **Kenya** Certificate of Primary Education varied by school and the interaction of sex by school. Regression analysis showed attendance rate to be the strongest predictor of achievement, followed by relative weight for height. **CONCLUSION:** Prevalence of nutritional stress is a significant educational problem in this population. The association between attendance rate and nutrition status is a function of socioeconomic status. The predictive effect of nutrition status on educational achievement is more evident for girls with poor socioeconomic status. (author's)

**URL:**

**Publication Date:** 2003

**Nyeri Youth Health Project. Impact of a community-driven reproductive health programme for young people and community members in Kenya.**

**Author:** Erulkar AS; Ettyang LI; Onoka C; Nyagah FK; Muyonga A

**Source:** Nairobi, Kenya, Family Planning Association of Kenya [FPAK], 2003 Jan. v, 29 p.

**Abstract:**

The Nyeri Youth Health Project (NYHP) is a locally designed, culturally consistent sexual and reproductive health (SRH) programme for young people. The programme employed respected parents to give young people SRH information and to promote an improved environment that is responsive to their SRH information and service needs. The NYHP trained a network of collaborating service providers, mostly from the private sector, on SRH and youth friendly services. Youth in need of services were given a coupon that entitled them to subsidized SRH services at participating service providers. The three-year intervention was evaluated using a quasi-experimental research design in which baseline and endline surveys were conducted in both experimental and control sites. After controlling for external changes, changes in the experimental site, Nyeri, are considered attributable to the intervention. Descriptive and multivariate analysis was used to assess the impact of the project on unmarried young people aged 10 to 24. Overall, the project did not promote experimentation with sex or promiscuity, a fear that many policymakers have regarding family life education. For all indicators measured, the status of Nyeri **adolescents** improved during the project period, while those of the control worsened in many respects. The NYHP made significant impacts on a number of behavioural indicators, including condom use, secondary virginity, and reduction in the number of sex partners. The extent to which the project impacted on young people differed for girls compared to boys. The most ambitious objective of the project was to delay the age of sexual initiation among youth in the project area. The NYHP had a marginal impact on boys' initiation of sex, with the project site variable being predictive of delayed sexual initiation at the level of  $p < 0.1$ . The same analysis conducted on an expanded age group age 10 to 26 revealed that the project did have a significant impact on delaying sexual initiation for boys. It is likely that a project of three years duration is too short a time period to make a significant impact on this variable. The NYHP made considerable impact in preventing young people from experiencing negative consequences of sexual activity. We used intermediary behaviours associated with safer sex practices to measure the prevention of negative SRH outcomes: abstinence during the last six months, condom use at last sex, and reduction in the number of sex partners. Girls in the experimental site were significantly more likely to abstain from sex and to reduce the number of sex partners, compared to girls in the control site. Boys were significantly more likely to have used a condom at last sex. The fact that the NYHP did not impact upon girls' condom use is probably a reflection of the fact that they traditionally have little control over use of this method, and that the boys or men they have sex with are often older than the boys targeted in this intervention. The project also improved the environment for young people in terms of communication on reproductive health issues. The NYHP impacted positively on girls' discussion with both parents and other adults and influenced boys to discuss SRH issues with adults. Teachers, with whom the FOYs had worked, and the FOYs themselves were the most common adults with whom young people discussed SRH issues. The NYHP is a unique project in that it was designed and managed by the local community. A quasi-experimental design was used to measure the impact of the three-year project on **adolescents** in the project area. The project demonstrated that a programme that is well-designed and well-implemented can make important impacts on improving the reproductive health status for young people in sub-Saharan Africa. (excerpt)

**URL:**

**Publication Date:** 2003

**Adolescent boys and unsafe sex in Kenya. [[Les adolescents kenyans et les rapports sexuels peu sûrs]]**

**Source:** Progress in Reproductive Health Research. 2002;(58):4.

**Abstract:**

This paper presents the findings of a qualitative study that examined the dual risks of unwanted pregnancy and sexually transmitted infections (STIs)/HIV among young schoolboys aged 15-19 in **Kenya**. Data were drawn from eight focus group discussions with a total of 90 boys. Overall, findings provide rich insights into the perceptions, behaviors and motivations of young males with regard to sexual activity and vulnerability to STIs, including HIV infection. They highlight the fact that despite considerable awareness of sexual risks, modes of transmission of infection and protective value of condoms, young men continue to exhibit high-risk behaviors. Based on the findings, it points to the need to promote communication skills and sexual responsibility among **adolescents** and provide condoms to young people (free or at affordable prices) through outlets acceptable to them.

**URL:**

**Publication Date:** 2002

**Adolescent fertility and reproductive health in four sub-Saharan African countries. [[Fertilité des adolescents et santé reproductive dans quatre pays africain sub-sahariens]]**

**Author:** Tawiah EO

**Source:** Etude de la Population Africaine / African Population Studies. 2002 Oct;17(2):81-98.

**Abstract:**

Using Demographic and Health Survey (DHS) data for Ghana (1998), **Kenya** (1998), Tanzania (1996), and Zambia (1996), the paper has examined **adolescent** fertility and reproductive health in the four sub-Saharan African countries. **Adolescent** fertility is highest in Zambia and lowest in Ghana. Age specific fertility rate for **adolescent** females (15-19 years) ranges from 90% Ghanaian female **adolescents** to 158% Zambia **adolescent** females. **Adolescent** females' contribution to total births ranges from 10% in Ghana to 13% in Zambia. At age 19 years, the percentages of **adolescent** females who have started childbearing were 61 in Tanzania, 59 in Zambia, 45 in **Kenya** and 32 in Ghana. In Ghana and Tanzania, a larger percentage of **adolescent** females than males have had sexual intercourse, while the reverse holds for **Kenya** and Zambia. Contraceptive knowledge is high but its use is low among **adolescent** males and females. **Adolescent** females have low levels of knowledge about some aspects of reproductive health. The proportions of **adolescent** females who correctly mentioned that a woman who is most likely to conceive in the middle of ovulatory cycle were 6.9% in Tanzania, 7.4% in Zambia and 13.4% in **Kenya**. The knowledge base in reproductive physiology of in and out-of-school **adolescents** should be strengthened. Sexuality education and other emerging issues such as human rights, harmful practices and violence should be integrated into population education and reproductive health programmes. (author's)

**URL:**

**Publication Date:** 2002

**Kenya: postabortion care / adolescent reproductive health. Linking PAC with FP. Successful scale-up at the primary level. Results review.**

**Author:** Nelson D

**Source:** Chapel Hill, North Carolina, University of North Carolina at Chapel Hill, Program for International Training in Health [INTRAH], PRIME Project, 2002 Oct. [2] p. PRIME Pages RR-1; USAID Grant No. HRN-A-00-99-00022-00

**Abstract:**

PRIME II scaled-up a primary-level postabortion care (PAC) program in three of **Kenya's** seven provinces, demonstrating on a broad scale that trained private-sector nurse-midwives can provide quality PAC services and handle a wide variety of complications and emergencies. A high percentage of the PAC clients receive family planning counseling and services, linking PAC with FP as an effective strategy to reduce unwanted pregnancies and prevent unsafe abortion. (excerpt)

**URL:**

**Publication Date:** 2002

**Postabortion care (PAC) programs for adolescents. [[Programas de atención postaborto para adolescentes (PAC, postabortion care)]]**

**Author:** Herrick J

**Source:** [Washington, D.C.], Pathfinder International, FOCUS on Young Adults, [2002]. [2]  
p. FOCUS YARH Briefs No. 5

**Abstract:**

The needs and life situations of female **adolescents** seeking postabortion care (PAC) and contraceptive counseling vary greatly depending on their age, marital status, and the circumstances of their pregnancies. For all young women who have had an abortion, making postabortion contraceptive services available is critical for preventing repeat abortions. Few **adolescent**-specific PAC programs exist anywhere in the world. Two of the first such programs in **Kenya** and Brazil are described and PAC recommendations are included.

**URL:**

**Publication Date:** 2002

**Pregnancy among Kenyan adolescents: implications for social development.**

**Author:** Pratt CB; Okigbo C

**Source:** Journal of Development Communication. 2002 Jun;13(1):1-14.

**Abstract:**

This study was undertaken to assess Kenyan **adolescents'** familiarity with teenage pregnancy, contraception, and similar issues associated with sexual behavior. An important question addressed the **adolescents'** recommendations on teenage pregnancies. The results showed that many of the respondents were familiar with teenage pregnancy because they knew classmates who had become pregnancy. Many of such unfortunate girls usually resorted to abortion. (excerpt).

**URL:**

**Publication Date:** 2002

**Sexual and reproductive health of adolescents.**

**Source:** Progress in Reproductive Health Research. 2002;(58):1.

**Abstract:**

Since the late 1980s, the UN Development Program/UN Population Fund, World Bank Special Program of Research, Development and Research Training in Human Reproduction has supported social science research on the needs and perceptions of young people. The initiative aimed to support research that addresses factors that contribute to positive sexual and reproductive health outcomes, especially those that can be influenced by appropriate interventions in developing countries. This editorial introduces issue 58 of "Progress in Reproductive Health Research" is based on research supported under this special research initiative on **adolescents** and constitutes summaries of papers published in Reproductive Health Matters (May 2001). While focused on the situation of young people in different settings (China, **Kenya**, Nigeria), these studies highlight that **adolescents** engage in unsafe sex and are frequently victims of coercion and few use contraceptives. In addition, these studies highlight the need for reliable information, counseling and reproductive health services. There is also a need to identify best practices and develop evidence-based youth friendly policies and programs.

**URL:**

**Publication Date:** 2002

### **Violence and internally displaced women and adolescent girls [letter]**

**Author:** LaMont-Gregory E; Matenge MN

**Source:** Lancet. 2002 May 18;359:1782.

**Abstract:**

This letter to the editor states that internally displaced women and children face increased dangers, including rape, sexual abuse, and attacks by wild animals, when gathering fuel. Cases are reported in Angola, Colombia, Burma, and **Kenya**. These examples show that provision of fuel would lower the incidence of such attacks by decreasing the number of necessary unprotected excursions.

**URL:**

**Publication Date:** 2002

### **Adolescent reproductive health programme in urban slums: the National Christian Council of Kenya (NCCCK)**

**Author:** Tan S

**Source:** Feedback. 2001;26(3):10-1.

**Abstract:**

The National Christian Council of **Kenya** (NCCCK) initially aimed to unite all members of Protestant churches in **Kenya** to enhance Christianity and champion the rights and freedom of locals. It expanded to cover more people to improve the health status of the slum dwellers. Since the largest part of the targeted slum population comprises youths, a youth RH intervention component was initiated by the NCCCK in 1999. Peer educators conduct community education sessions through street dramas and puppetry shows at schools as well as provide information to their peers. Each peer educator has motivated two or more youths to become active in youth center activities over a 6-month period. The project underwent two phases in its implementation: Phase I strengthened the capacity of the NCCCK Community Health Project in response to youth issues and Phase II targeted the institutionalization of the youth component. Overall, the experience shows that comprehensive youth development programs are needed in urban slums. Thus, **adolescent** RH will continue to be an integral part of Mathare Community Health Project. However, NCCCK faces the challenge of mobilizing financial resources to further strengthen its programs.

**URL:**

**Publication Date:** 2001

### **Assessing differential item validity of the AIDS-Related Social Skills questionnaire among African adolescents.**

**Author:** Masse LC; Ross MW

**Source:** Social Science Research. 2001;30(1):50-61.

**Abstract:**

Using differential item validity (DIV) methodology, this study investigated whether the items of the AIDS-Related Social Skills (ASAS) questionnaire had the same interpretation by gender and country. Polytomous logistic regression was used to test if the coefficients for individual items were the same by gender and country. The subjects (n = 1133) were Black Anglophone African 10th-grade students from Nigeria (n = 396), **Kenya** (n = 280), Zimbabwe (n = 319), and Sierra Leone (n = 138). The analyses showed that many items had significant DIV. Because 12 of the 30 test items (i.e., 40%) showed significant DIV, it suggested that the ASAS may not be internally valid by gender and across countries. Further qualitative work is needed to understand the extensive DIV that was statistically found in this study. (author's)

**URL:**

**Publication Date:** 2001

**Dealing with the risks of unwanted pregnancy and sexually transmitted infections among adolescents: some experiences from Kenya.**

**Author:** Nzioka C

**Source:** African Journal of Reproductive Health / Revue Africaine de la Sante Reproductive. 2001 Dec;5(3):132-49.

**Abstract:**

Studies have suggested the persistence of risky sexual practices among **adolescents in Kenya** but relatively less is known about the perceptions, norms, and gender relations that govern the sexual behavior of **adolescent** females and males, or the strategies they use to deal with the twin risks of unwanted pregnancy and sexually transmitted infection/HIV infection. This study was, therefore, conducted to explore these issues through data drawn from 16 focus group discussions among 184 rural male and female **adolescents** aged 15-19 years in Makueni District of eastern **Kenya**. Findings suggest that **adolescents** are quite aware of risky behaviors and the protective role of abstinence, faithfulness to one uninfected partner, and condom use. However, **adolescents** face a number of obstacles in translating this knowledge into safer sex practices. Misinformation concerning ways to protect themselves abound. Both females and males report reticence in communicating about sexual matters and contraception with their partners. At the same time, they are reluctant to seek condoms in public places for fear of disclosure and reproach. Females face difficulties in negotiating safe sex, in reconciling the desire for condom use with norms demanding submissiveness and lack of assertiveness in contraceptive decision-making. Findings suggest the need for programs that promote communication skills among young male and especially female **adolescents**, and that seek to change masculine and feminine gender ideologies and redress gender double standards. (author's)

**URL:**

**Publication Date:** 2001

**The effect of health education programmes on adolescent sexual behaviour: a case study of Nairobi city adolescents.**

**Author:** Ayiemba EH

**Source:** Etude de la Population Africaine / African Population Studies. 2001 Jun;16(1):87-103.

**Abstract:**

The aim of this study is to examine the effectiveness of health education programmes in **Kenya** by identifying the type of knowledge or awareness **adolescents** have regarding STDs/HIV/AIDS, their symptoms and prevention methods. It also aims at bringing out evidence of insufficient information or ignorance on matters relating to **adolescent** sexuality and showing whether **adolescent** sexual behaviour patterns are congruent with health education goals. The study is based on a pilot study of a randomly sampled 250 **adolescents** aged between 14-24 years in Nairobi City. The major findings are that **adolescents** are becoming more sexually active despite vigorous health education programmes launched in this country; and that some 25% of women aged between 12-24 years lost their virginity through forced sex (NASCO, 1999). In other words, cases of sex abuse, harassment and violence on **adolescent** girls are increasing in educational institutions. The study also reveals that **adolescents** lack accurate information on key aspects of HIV/AIDS. It was further revealed that majority of **adolescents** lack accurate knowledge on symptoms of common STDs, rising to 98% for chlamydia. Knowledge of prevention methods was found to be grossly inadequate. **Adolescents'** beliefs and misconceptions on sexual matters are more perplexing. This suggests that either their knowledge of sex education is insufficient, or they harbour certain beliefs or misconceptions about sex. All these findings suggest that health education programmes on STDs/HIV/AIDS are making little impact on changes in sexual behaviour. There is need, therefore, to carry out more research to find the most rewarding approach. (author's)

**URL:**

**Publication Date:** 2001

**Factors related to condom use among young people in Kenya.**

**Author:** Stoskopf CH; Kim YK; Richter DL

**Source:** International Quarterly of Community Health Education. 2001;20(2):193-208.

**Abstract:**

Survey questionnaires were provided to a convenience sample of 197 students in four educational settings. When regressing the knowledge score on the independent variables, it was found that the knowledge score increased with years of education, the practice of Islam, getting HIV/AIDS information from a radio, worrying about contracting HIV/AIDS, and receiving AIDS education or family life education in school. The knowledge score was negatively related with age. When regressing condom use on the independent variables, including the knowledge score, the likelihood that a respondent would use a condom significantly increased when the respondent was willing to use a condom, when a sexual partner requested it, when the respondent knew where to purchase condoms, and when the respondent had received education in school on FP and AIDS education. The likelihood of using condoms was negatively related with age and the statement "real men do not wear condoms". (author's)

**URL:**

**Publication Date:** 2001

**Female education, adolescent sexuality and the risk of sexually transmitted infection in Ariaal Rendille culture.**

**Author:** Roth EA; Fratkin EM; Ngugi EN; Glickman BW

**Source:** Culture Health and Sexuality. 2001 Jan-Mar;3(1):35-47.

**Abstract:**

For over 20 years, demographic analyses have shown female education associated with decreased fertility and infant/child mortality in sub-Saharan Africa. Far less studied are the pathways and overall effects of female education upon sexually transmitted infections (STIs). An earlier 1996 study of one community of Ariaal Rendille pastoralists in Marsabit District of northern **Kenya**, suggested that female education may reduce the risk of STIs by removing educated **adolescent** women from the cultural tradition of pre-marital sexual relationships featuring early sexual debut and frequent partner change. Log-linear analysis of a 1998 sample of 127 **adolescent** women supports this model, with female education being negatively associated with the nykeri tradition. However, the full potential of female education for lowering STI risk may be negated by traditional Ariaal cultural patterns of differentially sending boys rather than girls to school. (author's)

**URL:**

**Publication Date:** 2001

**Kenya: postabortion care (PAC), adolescent reproductive health. PAC on the primary level: successfully scaling up quality PAC services. Results review.**

**Author:** Blyth K; Nelson D; Yumkella F

**Source:** Chapel Hill, North Carolina, University of North Carolina at Chapel Hill, Program for International Training in Health [INTRAH], PRIME Project, 2001 Nov. [2] p.  
PRIME PAGES RR-; USAID Grant No. HRN-A-00-99-00022-00

**Abstract:**

An analysis of client tracking forms over three months shows that women seeking services from PAC-trained nurse-midwives are receiving appropriate treatment and care, contributing to improved health outcomes. The analysis found that 78% of patients received counseling for FP and about half accepted a short- or long-term FP method of their choice. As a result of PRIME's supplemental training, FP choices include Norplantr at 21 of the facilities. Community outreach is being conducted at 70 of the facilities to raise awareness about contraceptive methods and prevention of unplanned pregnancies. The analysis also shows the providers meeting other RH needs of PAC clients. Over half of all PAC patients received counseling for prevention of HIV/STIs, and 19 women were referred to hospitals for other RH services. At the 94 facilities analyzed, 690 women who presented with complications of spontaneous or induced abortion needed uterine evacuation and were successfully treated by a nurse-midwife using MVA. Young women between the ages of 15 and 25 made up more than half of the clients seeking emergency PAC services. No one was denied access because of age, and in fact 22% of the PAC patients who were managed using MVA were teenagers. (excerpt)

**URL:**

**Publication Date:** 2001

**The multicentre study on factors determining the differential spread of HIV in four African cities : summary and conclusions. [[Etude multi-centrée sur les facteurs déterminants de la diffusion différentielle du VIH dans quatre villes africaines : résumé et conclusions]]**

**Author:** Buve A; Carael M; Hayes RJ; Auvert B; Ferry B

**Source:** AIDS. 2001 Aug;15 Suppl 4:S127-31.

**Abstract:**

In all regions of sub-Saharan Africa, the predominant mode of transmission of HIV is through heterosexual intercourse, however, there are large variations in the rate and extent of the spread of HIV in different populations. This study was conducted to identify the factors that influence the rapid spread of HIV in four African cities, namely Cotonou (Benin), Yaounde (Cameroon), Kisumu (Kenya), and Ndola (Zambia). Results demonstrated that high rates of partner change and being married are risk factors for HIV infection in men in at least one city but are risk factors for women in all four cities. In addition, condom use among sex workers did not show a difference between the low and high prevalence cities. Furthermore, no evidence of changes towards safer sexual behavior was identified in the high HIV prevalence cities. The only factors that were more common in the two high HIV prevalence cities than in the two low HIV prevalence cities were young age at first intercourse for women, young age at first marriage, and large age difference between the spouses. It was also noted that the high levels of HIV infection among young people, especially among female **adolescents** in Kisumu and Ndola highlight the importance of interventions targeted at young people and their partners.

**URL:**

**Publication Date:** 2001

**Premarital sex, schoolgirl pregnancy, and school quality in rural Kenya.**

**Author:** Mensch BS; Clark WH; Lloyd CB; Erulkar AS

**Source:** Studies in Family Planning. 2001 Dec;32(4):285-301.

**Abstract:**

Using data from nearly 600 **adolescents** aged 12-19 in combination with data collected from 33 primary schools that the **adolescents** attended, this report explores whether certain aspects of the school environment affect the initiation of premarital sex among girls and boys in three districts of **Kenya**. The results suggest that, although neither the school nor the home appears to influence whether boys engage in sex prior to marriage, for girls, a school characterized by a gender-neutral atmosphere appears to reduce the risk of their engaging in premarital sex. Furthermore, although policy-makers in **Kenya** are clearly concerned with the problem of "schoolgirl pregnancy," the data indicate that in this sample, pregnancy is not the primary reason that girls leave school. (author's)

**URL:**

**Publication Date:** 2001

**The reporting of sensitive behavior among adolescents: a methodological experiment in Kenya.**

**Author:** Mensch BS; Hewett PC; Erulkar A

**Source:** New York, New York, Population Council, 2001. 34 p. Policy Research Division Working Papers No. 151

**Abstract:**

This paper assesses whether audio computer-assisted self-interviewing (audio- CASI), a technique designed in the US to collect data on sensitive behaviors, is a feasible method of survey data collection in a developing-country setting and whether it produces more valid reporting of sexual activity and related behaviors than traditional survey methods. The analysis is based on interviews with nearly 4400 unmarried **adolescents** aged 15-21 in Nyeri, a rural district of **Kenya** that was selected because previous research had indicated a wide discrepancy in the reporting of premarital sexual behavior between boys and girls. The study was based on a quasi-experimental design in which respondents were randomly allocated to one of three interviewing modes--face-to-face interviews, paper and pencil self-administered interviews, and audio-CASI--with the presupposition that increased privacy would elicit more reliable responses. The interview context was found to have a substantial effect on responses to sensitive questions about sexual and other risky behaviors among young people. Results indicate substantial and significant differences in reported rates of premarital sex across interview modes. For boys, who the authors suspect exaggerate sexual experience in face-to-face-interviews, the effect is in the expected direction, with a 23% drop in reported sexual activity in the audio- CASI mode. For girls, who the authors speculate underreport sexual activity when interviewed face-to-face, there is also a large difference by mode, but the effect is not in the hypothesized direction, with respondents reporting twice as much sexual activity in the interviewer mode as in the audio-CASI mode. While the audio-CASI technology performed well, with minimal mechanical problems, and while respondents were able to complete the survey with limited training, some members of the community reacted adversely to the survey, especially to the use of the computer. The authors consider whether this may have had an effect on the response patterns of **adolescents**. (author's)

**URL:**

**Publication Date:** 2001

**Second ASRH seminar.**

**Source:** JOICFP NEWS. 2001 May;(323):4.

**Abstract:**

This paper documents the proceedings of the second Japan International Cooperation Agency seminar on **adolescent** reproductive health (ARH) held from February 19 to March 2001. A total of 13 participants from the countries of Bangladesh, Brazil, Ecuador, Ghana, **Kenya**, Myanmar, Mexico, Paraguay, the Philippines, Tanzania, Thailand, Zambia and Zimbabwe took part in the training held in Tokyo and Tochigi Prefecture. In the first week, the participants received lectures on the ARH world situation and ARH activities in Japan, as well as discussions on innovative approaches for the youth. In the second week, trainees visited the Tochigi Society for **Adolescent** Health, observed sex education classes for elementary and high school students, observed an **adolescent** peer education session, went to a field trip, were introduced to the Sex Education Tree, and formulated action plans for use in their own countries. Comments from the Filipino and Zambian participants about the seminar are also presented.

**URL:**

**Publication Date:** 2001

**Knowledge and belief: information that guides young people's sexual relations.**

**Source:** PROGRESS IN REPRODUCTIVE HEALTH RESEARCH. 2000;(53):4-6.

**Abstract:**

This paper presents findings of case studies that examined the levels of sexual reproductive knowledge among the youth in developing countries and the source of such knowledge. Results suggest that while youth are generally well informed, in-depth knowledge, particularly of conception and fertility, tends to be poor, and misconceptions are widespread. A study in **Kenya** reports that, while most were aware of condoms, the misperceptions that they were porous and often came off or were ineffective dissuade the youth from using them. Furthermore, the studies indicate that although majority were aware of AIDS, only a few young people reported working knowledge of modes of transmission, and many believed that infected persons reveal outward evidence of their condition. Only among rural youth in North and Northeast Thailand did most respondents recognize the asymptomatic nature of sexually transmitted infections (STIs), and only 5% of male students in Illorin, Nigeria, and 7-12% of students in Vietnam knew that carriers of STIs and HIV show no outward evidence of their condition. A further misperception is that STI symptoms go away of their own accord, and that women are responsible for transmitting STIs and HIV. A number of case studies highlight how young people underestimate their risks for contracting AIDS. Teachers, health professionals or parents rarely impart information on sexuality, conception, pregnancy, contraception, and disease. The main sources of information are friends and the media.

**URL:**

**Publication Date:**

**A review of adolescent high risk behaviour in Kenya: a briefing book.**

**Author:** Johnston T

**Source:** Nairobi, Kenya, Population Communication Africa, [2000]. 52 p. Population Communication Africa and Pathfinder International Briefing Book No. 2

**Abstract:**

This briefing book provides a review of **adolescent** high-risk behavior in **Kenya**. Based on the findings from **adolescent** reproductive health surveys undertaken in **Kenya**, a large proportion of Kenyan **Adolescents** in the 13-19 age group are sexually active and that some 80% of these have a past or prior experience of sexual intercourse that was unprotected. Some of the predisposing variables to **adolescent** high-risk behaviors in **Kenya** include child abuse, domestic violence, dysfunctional families, HIV/AIDS afflicted households, schooling, and culture/tradition. It is noted that of all the behaviors that **adolescents** engage in, unprotected sexual intercourse carries the highest risk and the most serious consequences, including accidental premarital pregnancy and HIV infection. To this effect, the society is called upon to address the issue and reduce the prevalence of the high-risk behaviors, which generate the epidemics of teenage pregnancy and HIV/AIDS infections.

**URL:**

**Publication Date:** 2000

**Talking about sex: contemporary construction of sexuality in rural Kenya.**

**Author:** Prazak M

**Source:** Africa Today. 2000 Summer-Autumn;47(3-4):83-97.

**Abstract:**

Discussion of sexuality in Kuria District in rural **Kenya** is constrained by relationships of respect between parents and children. Grandparents and peers were, and continue to be, the main sources of knowledge and information on the subject. As the arbiters of norms and values, grandparents convey reproduction as the goal of sexual activity, carried out within the context of marital responsibilities. Peers provide a more practice-oriented perspective, as well as form the community of peers which ultimately enforces the norms, based on cultural notions of appropriate and inappropriate behavior. The growing importance of education, mandated by shifting economic, political, and social contexts is helping redefine roles and expectations, but has not yet become fully integrated into the discourse of processes needed to define guidelines for regulating **adolescent** sexuality to reflect more closely the contemporary situation within which **adolescents** learn about the practice appropriate sexual behaviors. (author's)

**URL:**

**Publication Date: 2000**

**Teenagers worldwide need access to better, safer sexual and reproductive health information and services.**

**Source:** Journal of Advanced Nursing. 2000 Jun;31(6):1280.

**Abstract:**

In Africa's most affected regions, as many as one person in four are estimated to carry HIV, the virus that causes AIDS. About half of HIV infections occur before the age of 25, and these young men and women typically die of AIDS before they reach age 35. AIDS is now the leading killer in sub-Saharan Africa, where 23.3 million people have HIV/AIDS. 90% of the world's 11 million AIDS orphans are in Africa. About 1.7 million young people become infected with HIV every year in Africa alone. Wendy Thomas, Chief Executive of Population Concern, highlights the need to speak out on this life-threatening situation. "In Africa, infected women outnumber men by 2 million. No matter how sensitive this issue might be, keeping silent is costing lives". Population Concern's 1999 annual review shows our commitment and that of our partners overseas towards alleviating and eradicating this avoidable predicament. One such example is a program set up in **Kenya** with the Africa Medical & Research Foundation which is funded by the National Lottery Charity Board (England) and Population Concern. Population Concern's Programme Officer for **Kenya** gives an insight into gains made by the innovative program. "2 years ago it was not accepted within some African communities that premarital sex took place. But now teachers and health workers are facing up to the reality and the open discussions on sexual health now take place in church groups, community centers and schools. Communities are accepting they must deal with the issues of AIDS, unsafe abortion and pregnancy--all of which pose a serious threat to the health of their **adolescents**. Each of us must act now to protect all young people everywhere. A future, which means equality for everyone, depends on helping each and every individual to have the human right of access to information and sexual reproductive health services. Giving help to the most vulnerable allows them the means to protect themselves". (full text)

**URL:**

**Publication Date: 2000**

**Kenyan youth take the stage to challenge HIV / AIDS myths and stigma.**

**Author:** Kimani P; Obanyi G

**Source:** IMPACT ON HIV. 2000 Jun;2(1):19-23.

**Abstract:**

In 1994 a group of young actors based at Nairobi's National Theater created Artnet Waves, an outreach program to promote HIV/AIDS awareness. The initial idea for the program was to hold an annual youth theater festival with an HIV/AIDS theme that would coincide with World AIDS Day. Artnet's National Youth AIDS Theater Outreach Program covers the regions of Rift Valley, Nyanza, Western, Nairobi, Mt. **Kenya** and Coast provinces, where 72% of **Kenya's** total population resides. Coordinators for the program train youth group leaders in organizing outreach events, attend rehearsals, and ensure that each group organizes at least four performances a month. They also assist group leaders in maintaining the accuracy of the HIV/AIDS messages and the quality of the productions. As of 1998, Artnet's outreach events have reached at least 400,000 people and this figure is projected to swell in the next few years. Some of the challenges faced by the program include gaining the trust of communities, and ensuring the groups have the capacity to provide accurate information and are able to adapt to changing informational needs.

**URL:**

**Publication Date:** 2000

## **CANCERS OF REPRODUCTIVE HEALTH SYSTEMS AND INFERTILITY**

### **Cervical cancer can be controlled [editorial]**

**Author:** Rogo KO

**Source:** East African Medical Journal. 2001 Feb;78(2):53-4.

**Abstract:**

Globally, cervical cancer is the third most common malignancy and the leading cause of cancer deaths among women in the developing countries, accounting for an estimated 231,000 deaths annually. After many years of debate it is generally agreed that human papillomavirus (HPV), a sexually transmitted agent, is a major cause of cervical cancer. The 1990 research conducted in **Kenya**, Uganda, and Tanzania confirmed heavy presence of several "onco-genic" types of HPV in cervical cancer biopsies. Preventing cervical cancer requires barrier **contraception** and reduction of sexual partners, as well as Papanicolaou (Pap) screening, visual inspection of the cervix, and treatment of precancerous lesions. Overall, increasing women's awareness and increasingly providing knowledge and skills are the two most important steps to prevent cervical cancer. It is noted that a National Cervical Cancer Screening Programme was instituted in South Africa to propose a 10-year service of Pap smears for women aged 35 years and above.

**URL:**

**Publication Date:** 2001

### **Impact of HIV infection on invasive cervical cancer in Kenyan women.**

**Author:** Gichangi PB; Bwayo J; Estambale B; De Vuyst H; Ojwang S

**Source:** AIDS. 2003 Sep;17(13):1963-1968.

**Abstract:**

**Objectives:** To determine the association between invasive cervical cancer (ICC) and **HIV infection** in Kenyan women. **Study design:** Case-control, with ICC patients as cases, and women with uterine fibroids as controls. **Methods:** Medical and socio-demographic data were collected from 367 ICC patients, and 226 women with fibroids. After informed consent, HIV testing was done. **Results:** ICC patients were older than fibroid patients (48 versus 41 years;  $P < 0.001$ ), with an HIV seroprevalence of 15% and 12% respectively ( $P > 0.05$ ). However, cases younger than 35 years were 2.6-times more likely to be HIV positive than controls of similar age [35% versus 17%; odds ratio (OR), 2.6;  $P = 0.043$ ]. ICC HIV-seropositive patients were, on average, 10 years younger than HIV-seronegative patients (40 versus 50 years;  $P < 0.001$ ). Eighty per cent of HIV-seropositive and 77% of HIV-seronegative ICC patients were in FIGO stage IIb or above. However, the odds of having poorly differentiated tumours was three times higher for HIV-seropositive than for HIV-seronegative ICC patients (77% versus 52%; OR, 3.1;  $P = 0.038$ ) after adjusting for histological cell type and clinical stage. Mean CD4 cell count was  $833 \times 10^6$  cells/l in ICC and  $1025 \times 10^6$  cells/l in fibroid patients ( $P = 0.001$ ). **Conclusion:** Young women with ICC were more often HIV infected than women with fibroids of the same age groups. **HIV infection** was associated with poor histological differentiation of the tumours. These findings suggest an accelerated clinical progression of premalignant cervical lesions to ICC in HIV-infected women. (author's)

**URL:**

**Publication Date:** 2003

### **Association between cervical shedding of herpes simplex virus and HIV-1.**

**Author:** McClelland RS; Wang CC; Overbaugh J; Richardson BA; Corey L

**Source:** AIDS. 2002 Dec 6;16(18):2425-2430.

**Abstract:**

Objective: To investigate the association between the cervical shedding of herpes simplex virus (HSV) and HIV-1. Design: A cross-sectional study on 200 women seropositive for both HSV-2 and HIV-1 was conducted in a family planning clinic at the Coast Provincial General Hospital, Mombasa, **Kenya**. Main outcome measures: Quantities of HSV DNA (types 1 and 2) and HIV-1 RNA as well as the presence or absence of HIV-1 proviral DNA in cervical secretions were determined and compared. Results: There was a significant correlation between the quantities of HSV DNA and HIV-1 RNA in the cervical secretions of HSV-shedding women (Pearson's  $r=0.24$ ,  $P=0.05$ ). A 10-fold increase in the quantity of cervical HSV DNA was associated with 1.35-fold higher cervical HIV-1-RNA levels (95% CI 1.00-1.81;  $P=0.05$ ), and with 1.36-fold greater odds of detection of HIV-1 proviral DNA (95% CI 1.05-1.75;  $P=0.02$ ). Conclusion: Higher levels of cervical HSV were associated with higher levels of expressed HIV-1 and with the more frequent detection of HIV-1-infected cells in cervical secretions. Prospective studies are needed to explore further the association between non-ulcerative cervical HSV reactivation and HIV-1 shedding. Such a relationship may have important implications for interventions designed to slow the spread of HIV-1. (author's)

**URL:**

**Publication Date:** 2002

### **Correlates of human herpesvirus 8 seropositivity among heterosexual men in Kenya.**

**Author:** Baeten JM; Chohan BH; Lavreys L; Rakwar JP; Ashley R

**Source:** AIDS. 2002 Oct 18;16(15):2073-2078.

**Abstract:**

Background: Several studies have suggested that sexual transmission of human herpesvirus 8 (HHV-8) occurs among homosexual men in developed countries. However, few studies have examined heterosexual HHV-8 transmission, especially among African populations in which HHV-8 is endemic. Objectives: To determine the seroprevalence and correlates of HHV-8 infection among heterosexual African men. Design: Cross-sectional study. Methods: Participants were 1061 men enrolled in a prospective cohort study of risk factors for HIV-1 acquisition among trucking company employees in Mombasa, **Kenya**. Stored frozen sera from the study baseline visit were tested for antibodies to HHV-8 by whole-virus lysate ELISA. Results: HHV-8 seroprevalence was 43%. In multivariate logistic regression analysis, HHV-8 infection was independently associated with older age [for men aged 30-39 years: odds ratio (OR), 1.5; 95% confidence interval (CI), 1.1-2.0; for men aged  $\geq 40$  years: OR, 1.7; 95% CI, 1.1-2.7, compared with men aged  $<30$  years], Christian religion (OR, 1.6; 95% CI, 1.2-2.1), being uncircumcised (OR, 1.5; 95% CI, 1.0-2.2), and ever having syphilis (OR, 2.2; 95% CI, 1.4-3.5). Ever having used condoms was associated with decreased likelihood of infection (OR, 0.7; 95% CI, 0.6-1.0). Seropositivity was not significantly related to other sexual behaviors characterized or to HIV-1 status. Conclusions: HHV-8 seropositivity is common in this population and increases with age, suggesting on-going transmission during adulthood. Infection was more common among men who were uncircumcised or who had ever had syphilis and was less common among those who had ever used condoms, suggesting that sexual factors may play a role in HHV-8 transmission. Prospective studies of HHV-8 acquisition in heterosexual African populations are needed to demonstrate whether safer sexual practices can reduce transmission. (author's)

**URL:**

**Publication Date:** 2002

**HIV and cervical cancer in Kenya. [[VIH et cancer du col de l'utérus au Kenya]]**

**Author:** Gichangi P; De Vuyst H; Estambale B; Rogo K; Bwayo J

**Source:** International Journal of Gynecology and Obstetrics. 2002;76:55-63.

**Abstract:**

The aim was to determine the effect of the HIV epidemic on invasive cervical cancer in **Kenya**. Of the 3902 women who were diagnosed with reproductive tract malignancies at Kenyatta National Hospital (KNH) from 1989-98, 85% had invasive cervical cancer. Age at presentation and severity of cervical cancer were studied for a 9-year period when national HIV prevalence went from 5% to 5-10%, to 10-15%. There was no significant change in either age at presentation or severity of cervical cancer. Of 118 (5%) women who were tested for HIV, 36 (31%) were seropositive. These women were 5 years younger at presentation than HIV-negative women. A two to three-fold increase in HIV prevalence in **Kenya** did not seem to have a proportional effect on the incidence of cervical cancer. Yet, HIV-positive women who presented with cervical cancer were significantly younger than HIV-negative women. (author's)

**URL:**

**Publication Date:** 2002

**Kenya: reproductive tract infections. Identifying RTIs remains problematic: prevention is essential.**

**Author:** Population Council. Frontiers in Reproductive Health

**Source:** Washington, D.C., Population Council, Frontiers in Reproductive Health, 2000 Mar. [2] p. OR Summary ; USAID Contract No. CCP-3030-C-00-3008-0; USAID Cooperative Agreement No. HRN-A-00-98-00012-0; USAID Cooperative Agreement No. CCP-3050-A-00-4013-00

**Abstract:**

Since 1990, the Nakuru Municipal Council has implemented a multifaceted program to reduce the incidence of reproductive tract infections (RTIs), especially those that are transmitted sexually, including HIV/AIDS. Its approach includes the use of syndromic management guidelines, based on client's reported symptoms and clinical signs, to identify clients with RTIs. In 1998, the Population Council conducted a study to assess the accuracy of syndromic management and determine the best ways to integrate RTI management into existing antenatal and family planning services. After an assessment of the existing RTI services, 18 nurses from 5 municipal clinics attended a 3-day refresher course in syndromic management. It was found that more than one-half of the family planning and antenatal clinic clients in Nakuru, **Kenya** had 1 or more RTIs, of which roughly one-third were sexually transmitted. Using syndromic management algorithms based on the woman's reported symptoms, providers correctly identified only 5-16% of women who later tested positive with laboratory results. Given the limitations of syndromic management, programs need to stress prevention of sexually transmitted infections.

**URL:**

**Publication Date:** 2000

### **Validity of the vaginal discharge algorithm among pregnant and non-pregnant women in Nairobi, Kenya.**

**Author:** Fonck K; Kidula N; Jaoko W; Estambale B; Claeys P

**Source:** Sexually Transmitted Infections. 2000;76(1):33-38.

**Abstract:**

Objective: To evaluate the validity of different algorithms for the diagnosis of gonococcal and chlamydial infections among pregnant and non-pregnant women consulting health services for vaginal discharge in Nairobi, **Kenya**. Methods: Cross sectional study among 621 women with complaints of vaginal discharge in three city council clinics between April and August 1997. Women were interviewed and examined for symptoms and signs of sexually transmitted infections (STIs). Specimens were obtained for laboratory diagnosis of genital **infections, HIV**, and syphilis. The data were used to evaluate the Kenyan flow chart as well as several other generated algorithms. Results: The mean age was 24 years and 334 (54%) were pregnant. The overall prevalence rates were: 50% candidiasis, 23% trichomoniasis, 9% bacterial vaginosis, 7% gonorrhoea, 9% chlamydia, 7% syphilis, and 22% HIV. In non-pregnant women, gonococcal and chlamydial infection was significantly associated with (1) demographic and behavioral risk markers such as being single, younger than 20 years, multiple sex partners in the previous 3 months; (2) symptom fever; and (3) signs including presence of yellow or bloody vaginal discharge, cervical mucopus, cervical erythema, and friability. Among pregnant women only young age, dysuria, and fever were significantly associated with cervical infection. However, none of these variables was either sensitive or specific enough for the diagnosis of cervical infection. Several algorithms were generated and applied to the study data. The algorithm including risk markers performed slightly better than the current Kenyan algorithm. Conclusion: STIs form a major problem in the Nairobi area and should be addressed accordingly. None of the tested algorithms for the treatment of vaginal discharge would constitute a marked improvement of the existing flow chart. Hence, better detection tools for the specific etiology of vaginal discharge are urgently needed. (author's)

**URL:**

**Publication Date:** 2000

### **Distribution of human papillomavirus in a family planning population in Nairobi, Kenya.**

**Author:** De Vuyst H; Steyaert S; Van Renterghem L; Claeys P; Muchiri L

**Source:** Sexually Transmitted Diseases. 2003 Feb;30(2):137-142.

**Abstract:**

Background: In sub-Saharan Africa, cervical **cancer** is the leading **cancer** among women. The causative role of different human papillomavirus (HPV) types in cervical **cancer** is established, but the distribution of HPV types within this region is largely unknown. Goal: The goal was to study the distribution of HPV among family planning clinic attendees in Nairobi, **Kenya**. Study Design: This was a cross-sectional study of persons attending a family planning center in Nairobi, **Kenya**. Results: HPV data of 429 women were analyzed; 7.0% had low-grade intraepithelial lesions, 6.8% had high-grade intraepithelial lesions, and 0.23% had invasive **cancer**. One hundred ninety samples (44.3%) were HPV-positive (28.4% were positive for multiple types). The most common HPV types were HPV 52 (17.9% of positive samples), HPV 16 (14.7%), HPV 35 (11.6%), and HPV 66 (9.0%). The risk of high-grade squamous intraepithelial lesions (HSIL) was 88.5 times higher (95% CI, 8.5-1.4 x 10<sup>(5)</sup>) in HPV 16-positive women than in HPV-negative women. Relative risks were 54.3 (95% CI, 4.0 -1.4 x 10<sup>(5)</sup>) for HPV 35, 49.2 (95% CI, 3.6 -9.5 x 10<sup>(4)</sup>) for HPV 52, and 21.7 (95% CI, 0.0-1.9 x 10<sup>(5)</sup>) for HPV 18. The prevalence of HSIL was not increased in association with HIV-positivity, yet HIV-1 was significantly associated with high-risk HPV types (P < 0.00001). Conclusion: The pattern of HPV distribution in this population was different from that in other regions in the world, which has important consequences for HPV vaccine development. (author's)

**URL:**

**Publication Date:** 2003

### **Integration of cervical screening in family planning clinics.**

**Author:** Claeyes P; De Vuyst H; Mzenge G; Sande J; Dhondt V; Temmerman M

**Source:** International Journal of Gynecology and Obstetrics. 2003 Apr;81(1):103-108.

**Abstract:**

Objectives: To assess the suitability of cervical **cancer** screening in family planning (FP) clinics and the relevance for women's health. Methods: A survey was done on clients visiting the clinics of the Family Planning Association of **Kenya** (FPAK). Client characteristics, age, screening status and PAP smear results were registered. In-depth interviews were held with a limited number of staff and clients. Results: In 1999, 38 052 clients visited FPAK clinics, 43.5% were younger than 30 years old. More than 10 000 cervical smears were taken. A total of 4.5% of the smears were abnormal, including 1.5% high-grade squamous intraepithelial lesions (HSIL) and 0.2% invasive **cancers**. The clinics were well prepared to provide high quality screening services. Patients and staff had a positive view on screening. Conclusions: Providing cervical **cancer** screening in FP clinics is beneficial for the clients but is unlikely to have an impact on the epidemiology of cervical **cancer** morbidity as FP services reach only a small percentage of the women who are most at risk. Measures to reach more and older women could assure a larger impact. (author's)

**URL:**

**Publication Date:** 2003

### **Estimated cervical cancer mortality in selected countries, 2000.**

**Source:** Journal of the National Cancer Institute. 2002 Feb 20;94(4):246.

**Abstract:**

Cervical **cancer** is the most common form of **cancer** among women in developing countries. This chart presents estimated cervical **cancer** mortality rates in selected countries for 2000.

**URL:**

**Publication Date:**

### **HIV and cervical cancer in Kenya. [[VIH et cancer du col de l'utérus au Kenya]]**

**Author:** Gichangi P; De Vuyst H; Estambale B; Rogo K; Bwayo J

**Source:** International Journal of Gynecology and Obstetrics. 2002;76:55-63.

**Abstract:**

The aim was to determine the effect of the HIV epidemic on invasive cervical **cancer** in **Kenya**. Of the 3902 women who were diagnosed with reproductive tract malignancies at Kenyatta National Hospital (KNH) from 1989-98, 85% had invasive cervical **cancer**. Age at presentation and severity of cervical **cancer** were studied for a 9-year period when national HIV prevalence went from 5% to 5-10%, to 10-15%. There was no significant change in either age at presentation or severity of cervical **cancer**. Of 118 (5%) women who were tested for HIV, 36 (31%) were seropositive. These women were 5 years younger at presentation than HIV-negative women. A two to three-fold increase in HIV prevalence in **Kenya** did not seem to have a proportional effect on the incidence of cervical **cancer**. Yet, HIV-positive women who presented with cervical **cancer** were significantly younger than HIV-negative women. (author's)

**URL:**

**Publication Date:** 2002

**Presentation and health care seeking behaviour of patients with cervical cancer seen at Moi Teaching and Referral Hospital, Eldoret, Kenya.**

**Author:** Were EO; Buziba NG

**Source:** East African Medical Journal. 2001 Feb;78(2):55-9.

**Abstract:**

This prospective cross-sectional study determined the clinicopathological characteristics and health-care seeking behavior of cervical **cancer** patients admitted at Moi Teaching and Referral Hospital, Eldoret, **Kenya** between May 1998 and November 1999. A total of 42 consecutive cervical **cancer** patients were interviewed and clinical evaluations were conducted. Findings revealed a strong causal relationship identified with poor socioeconomic status, high parity, multiple sex partners, early age at sex debut, and persistent infection with human papilloma virus types 16 and 18. The study showed that 76.2% of cervical **cancer** cases had had at least five pregnancies and 78% had never used a contraceptive. The mean duration of symptoms at presentation was 8.2 months, which is considered a substantial delay in seeking health care. Moreover, more than 41% of the patients reported informing their female relatives of their symptoms, while 48.8% first told their husbands. With regard to seeking health care, patients first visited peripheral public health facilities such as a dispensary or health center (39%); a private medical practitioner (26.8%); and hospitals (24.4%). Histologically, 80.9% of the tumors were squamous cell carcinomas, 11.9% were adenocarcinomas, while the rest were anaplastic.

**URL:**

**Publication Date: 2001**

**Testicular cancer at Kenyatta National Hospital, Nairobi.**

**Author:** Opot EN; Magoha GA

**Source:** East African Medical Journal. 2000 Feb;77(2):80-5.

**Abstract:**

This retrospective study was undertaken to determine the prevalence, clinical characteristics, management methods and prognosis of testicular **cancer** at Kenyatta National Hospital, Nairobi. All histologically confirmed testicular **cancer** patients recorded at the Histopathology Department between 1993 and 1997 were analyzed. The mean age was 34.8 years with a peak incidence in the 30-44 year age group. About 10.26% of patients had history of cryptorchidism. The clinical symptoms presented were painless testicular swelling (n = 31, 79.49%), testicular pain (n = 11, 28.08%), scrotal heaviness (n = 9, 23.08%), abdominal swelling (n = 6, 15.38%), gynecomastia (n = 1, 2.56%), and eye swelling (n = 1, 2.56%). On examination, 32 patients (82.05%) had testicular masses, 10 (25.64%) had abdominal masses, 7 (17.91%) had supraclavicular and cervical lymphadenopathy, 1 had gynecomastia, and 1 had an orbital mass. More than 89% of patients had germ cell **cancers** with seminoma accounting for 67.35%, teratoma for 12.24%, embryonal carcinoma for 8.16%, rhabdomyosarcoma for 6.12%, and malignant germ cell tumor, orchidblastoma, and dysgerminoma each accounting for 2.04%. The various methods of treatment include orchidectomy and radiotherapy and chemotherapy in 3 patients (7.7%), orchidectomy and radiotherapy in 16 patients (41.03%), orchidectomy and chemotherapy in 6 patients (15.38%), and radiotherapy and chemotherapy in 10 patients (25.64%). No cisplatin-based chemotherapy was used. 18 patients were followed up, of whom 7 were alive after 5 years. Prognosis with current regimens was poor, with a 38.89% survival ratio in 5 years. Hence, cisplatin-based chemotherapy with up to 90% cure rates should be included in the testicular **cancer** management in this hospital.

**URL:**

**Publication Date: 2000**

**Gossypol blood levels and inhibition of spermatogenesis in men taking gossypol as a contraceptive. A multicenter, international, dose-finding study.**

**Author:** Coutinho EM; Athayde C; Atta G; Gu ZP; Chen ZW; Sang GW; Emuveyan E; Adekunle AO; Mati J; Otubu J

**Source:** Contraception. 2000 Jan;61(1):61-7.

**Abstract:**

The safety and efficacy of gossypol continues to be controversial. The aim of this study was to evaluate gossypol as a contraceptive pill for men at doses lower than those previously prescribed and in men from various ethnic origin. A total of 151 men from Brazil, Nigeria, **Kenya**, and China were divided into two groups. Both groups received 15 mg gossypol/day for 12 or 16 weeks to reach spermatogenesis suppression. Subjects were then randomized to either 7.5 or 10 mg/day for 40 weeks. In addition, 51 men were enrolled as a control group. In all, 81 subjects attained spermatogenesis suppression. Only 1 man discontinued treatment because of tiredness. Potassium levels fluctuated within the normal range. FSH increased consistently. Testicular volume decreased, but after discontinuation, values returned to levels not statistically different from admission. Of 19 subjects in the 7.5 mg/day dose group, 12 recovered sperm counts higher than 20 million/ml within 12 months of discontinuing gossypol. In the 10 mg/day group, sperm counts recovered in only 10 of 24 subjects. 8 of the 43 patients remained azoospermic 1 year after stopping gossypol. All men diagnosed with varicocele failed to reverse spermatogenesis suppression. Gossypol blood levels indicated that sperm suppression occurs independently of concentration, whereas spermatogenesis recovery appears to be concentration-dependent. Gossypol may become a medical alternative to surgical vasectomy when the delay in onset of **infertility** is acceptable. When taken for 1 year, gossypol causes no reduction in sexual desire or frequency of intercourse. The possibility of reversal, occurring in 51% of the men on this regimen within 1 year after stopping gossypol, is an advantage of this compound as compared with surgical sterilization in many parts of the world. (author's)

**URL:**

**Publication Date:** 2000

## **CHALLENGES ENCOUNTERED IN SECOND DRAFT**

There have been several unanticipated challenges in carrying out this assignment:

### **Unpublished studies**

Unfortunately many of the local researchers approached to share the research work they have undertaken since 2000, were not willing or were reluctant to disclose this information.

A lot of unpublished studies have been done by postgraduate students of the Dept. of OBS/GYN, University of Nairobi. Access to this data proved to be very bureaucratic and required my sitting at the departmental library when it was convenient and accessible.

The other factor contributing to lack of support on this assignment from the department of OBS/GYN could be attributed to the fact that students and staff were engaged in end of year examinations at this time.

### **Research in institutions out of Nairobi**

Access to this information depended on telephone conversations but the actual availability of the studies done or on going, was not easy to obtain. However, some of this research published in international journals was picked up in the *popline/medline* search method.

Further documentation of information of institutions outside Nairobi need to be assigned to an on-site person to be able to capture all the data.

### **Popline/Medline update**

This system of search for research work is updated early in the coming year hence the research for 2004, will not be available until early next year.

This method of search for information on studies done in Kenya proved to be the most efficient and useful way to gather data on reproductive health research. Many of the studies done included partners from other countries and it was evident that these studies were published in international journals vis-à-vis local publications.

### **On-going research**

As pointed out many of the researchers were reluctant to share or discuss their work. It is evident that a lot of research in reproductive health is going on in Kenya. However, access to this information proved to be very challenging.

As the Division of Reproductive Health, MOH continues to update this initial annotated bibliography, it is possible to include the on going research as this information becomes more readily available.

## **RECOMMENDATION**

*My proposal is that FHI organise a meeting/workshop of all local researchers in reproductive health in Kenya, to share their work, impact and way forward on these research findings. The researchers need a forum to be able to share and learn from the work of others. Through such a forum, collection of data on unpublished and on going research can be collected.*