

RZHRG Abstracts Accepted to AIDS 2006 XVI International AIDS Conference, Toronto, Canada

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Risk Reduction within Discordant Couples due to Couples Voluntary Testing and Counselling.

J. Atkinson, E. Karita, S. Allen, Rwanda Zambia HIV Research Group

Background

Sexual behaviour prior and post couples voluntary counselling and testing (CVCT) is analysed for 793 cohabiting heterosexual discordant couples. The influence on risk behaviour of prior testing and the sex of the positive partner is also assessed.

Methods

Discordant cohabiting couples from one of three same-day CVCT centres within Kigali, Rwanda were invited to enrol in a prospective study of heterosexual transmission of HIV. Self-reported sexual behaviour was recorded at baseline for the previous 3 months prior to CVCT and at 3-monthly intervals thereafter; in addition, seroconversion and pregnancy were recorded. Risk (the percentage of reported sexual acts between couples without a condom) was compared pre and post CVCT. The influence of pre testing or sex of positive partner was assessed.

Results

Overall risk behaviour reduced from 70.2% pre CVCT to 2.1% after CVCT ($p < 0.0001$). Couples where both partners have been previously tested were still at considerable risk pre CVCT (risk = 53.3%). When only the positive partner had been previously tested the risk pre CVCT was lower when this partner was the male compared to female (risk 68% to 42%; $p = 0.096$). Reported risk post CVCT was higher in discordant couples where the positive partner was female (risk 3.4% to 0.6%). This is also shown in the higher rate of incident infections in the male partner than the female partner (15 vs 4). Pregnancies rate in couples with female positive partner compared to male 60 vs. 45.

Conclusions

Discordant couples previously tested using traditional practices of individual testing remain at significant risk for HIV transmission, however CVCT can drastically reduce this risk by giving counselling to the couple together. Previous testing appears less effective at reducing risk behaviour when the female is the positive partner. The reported risk behaviour after CVCT is higher when the male partner is the negative partner.

HSV-2 HIV co-infection within HIV discordant couples in Kigali

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Background

HSV-2 infection, has been associated with transmission and acquisition of HIV and a more rapid progression of HIV disease. HSV-2 is highly prevalent in sub-Saharan Africa, though it is often asymptomatic. New HIV infections frequently occur within discordant couples who remain a high risk group and need the most comprehensive and efficient prevention strategies.

Methods

At Projet San Francisco (PSF) in Kigali, we conducted a cross-sectional study to establish the prevalence of HSV-2 in 729 discordant couples using HSV-2 Focus ELISA. We considered an Index Value of >3.5 positive and presumptive for the presence of IgG antibodies to HSV-2, an Index Value of <0.90 negative, and an Index Value of ≥ 0.90 but ≤ 3.5 equivocal. Equivocal results were not included in this analysis.

Results

Our primary data shows that HIV positive individuals have a higher prevalence of HSV-2 (79%) compared to HIV negative (59%) with an odds ratio of 2.6 (95% CI 1.5-4.6). In addition, the HIV negative partners of HIV/HSV-2 co-infected individuals have higher risk for HSV-2 infection compared to partners of HIV-infected individuals not HSV-2 infected (OR 4.4, 95% CI 1.8-10). We also looked at CD4 count as a measure of HIV disease progression. The mean CD4 count was lower among HIV/HSV-2 co-infected individuals (480 cells/ μ l) compared to HIV positive HSV-2 negative individuals (505 cells/ μ l), but this difference was not statistically significant. HIV positive females have a significantly higher risk of being HSV-2 co-infected compared to males OR= 2.0 (95% CI 1.3-3.0).

Conclusion

Given the high prevalence of HSV-2 co-infection among discordant couples, HSV-2 testing should be advocated as a standard of care for those couples. Along with other HIV prevention methods, proper counseling about both diseases should be provided to them in order to decrease disease transmission.

Integrating QA/QC in laboratory capacity building for HIV vaccine trials - Kigali, Rwanda
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Background

Successful development of an AIDS vaccine requires quality assured data that are pivotal for evaluating inclusion/exclusion criteria, vaccine safety, and trial endpoints. Where capacity does not already exist, capacity building will ensure compliance with Good Clinical Laboratory Practice (GCLP) standards (1), an essential element for laboratories analyzing clinical trial samples.

Methods

In preparation for a phase I HIV vaccine trial, our site, Projet San Francisco in Kigali, Rwanda, developed an immunology and clinical laboratory. The process entailed the recruitment and training of qualified staff, installation of equipment and enrolment into accreditation and QA/QC programs. One of the QA/QC programs was a cross-validation of samples with a South African reference laboratory. We analyzed 60 Chemistry and Hematology samples using Percentage Similarity (2), linear regression and both Spearman and Pearson's correlations with graphic illustrations of frequency plotting using Percent Similarity data with a fitted normal curve.

Results

The Chemistry analysis showed a less than 10% Coefficient of Variation (CV), indicating a good agreement for parameters tested. Some hematology parameters (WCC, RBC, MCV) were slightly over-estimated by the Rwandan site while RDW and platelet count were significantly under-estimated compared to the reference values. However, the % CV for all parameters except RDW (12%) was lower than 6%, indicating a good similarity.

Conclusions

Our site demonstrated that it is capable of operating in accordance to standards that assure reliability, quality and integrity of results generated. Comprehensive site development should be a prerequisite for HIV vaccine trials in Africa. Site participation in external QA/QC programs should be integral to site development.

Drinking patterns and condom use among discordant couples in Rwanda and Zambia

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Background

Alcohol use is a predictor of HIV incidence, but little is known about its effect on behavioral interventions aimed at reducing transmission in Africa. To develop effective interventions, it is important to take into account alcohol's effects on high-risk sexual behaviors.

Methods

After couples' VCT in Lusaka and Kigali, cohabiting heterosexual couples with one HIV positive and one HIV negative partner ('discordant couples') were enrolled in follow-up studies. At CVCT and after enrollment, couples were given counseling on preventing transmission that included condom use. Men's alcohol drinking patterns in the year prior to enrollment and condom use (reported by females) in the three months following VCT are described for 1557 discordant couples from 2002 to 2004. The data were analyzed using descriptive statistics and cross-tabulations.

Results

'Drinking' was quantified by frequency of drinking, binge drinking (>6 drinks in one session), and self-described "being drunk". Among discordant couples where the woman reported not using a condom at least once in the three previous months because of her partner's drinking (n=46 in Lusaka, n=34 in Kigali), a positive relationship was seen between frequency of drinking episodes and not using condoms (p for trend 0.03 in Lusaka, 0.01 in Kigali). A similar positive relationship was seen between frequency of being drunk and not using condoms (p for trend 0.01 in Lusaka, 0.04 in Kigali). Although a trend was seen, the relationship between binge drinking and lack of condom use was not statistically significant.

Conclusions

Frequent and excessive alcohol use is an impediment to condom use, even among discordant couples who have received extensive counseling about protecting the negative partner. Male self-description as "being drunk" is a stronger predictor of risky sexual behavior than simply heavy drinking. Appropriate counseling and prevention messages should be used in discordant couples where heavy alcohol use is present.

A comprehensive approach to a process evaluation of couples' voluntary counseling and testing (CVCT)

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Issues

Couples' Voluntary Counseling and Testing (CVCT) is the only HIV prevention intervention to target heterosexual couples, the largest risk group in Sub-Saharan Africa. CVCT is based on the premise that counseling and testing couples together will alleviate the problem of disclosure and assist couples in making decisions together based on their results. CVCT is highly effective in decreasing the rate of HIV transmission and increasing condom use. However, less than 1% of African couples have been tested together, and few resources exist to help organizations build, monitor, and evaluate CVCT programs.

Description

Four tools were developed to assess counselor knowledge of HIV/AIDS and couples' counseling protocol, counselor adherence to protocol, and protocol effectiveness at Project San Francisco in Kigali, Rwanda. A written exam and interview assessed counselor knowledge, an observation checklist determined level of adherence to protocol during counseling sessions, semi-structured counselor interviews gathered counselor feedback, and open-ended client exit interviews determined protocol effectiveness.

Lessons learned

This qualitative/quantitative, triangulated approach was highly effective. Written exams following didactic trainings and direct observation of counseling sessions are necessary to accurately assess the quality of services and design "refresher" trainings. Counselors showed a high level of knowledge of HIV/AIDS and counselor protocol, but sometimes had difficulty with more subtle aspects of helping couples communicate with the counselor and with each other. Clients were highly satisfied with services. Counselors expressed a variety of needs, including additional training in technical areas like ARV therapy, requiring CVCT providers to decide whether to invest in in-depth trainings for counselors or refer couples to other sources.

Recommendations

CVCT is an effective intervention that should be widely replicated, and this study provides a useful evaluation model specific to couples' VCT. Further research should focus on developing additional and more time-efficient tools to assess and document the protocols, quality, and impact of CVCT services.

The Impact of ART on HIV Transmission Among HIV Serodiscordant Couples

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Introduction

Scaling-up of Antiretroviral Treatment (ART) started in Kigali in the year 2003. Recent studies have shown that ART reduces sexual transmission of HIV-1. At Project San Francisco (PSF) in Kigali, a case control study was conducted to assess the impact of that treatment on HIV-1 transmission within HIV discordant couples, and to confirm whether or not it is legitimate to forecast a meaningful reduction in HIV transmission based on provision of ART.

Methods

All infected individuals who had a CD4 count < 200cells/ μ L or/and a clinical stage III/IV (according to the WHO classification) were eligible for ART. We reviewed the clinical charts and analyzed the data of HIV discordant couples followed in Kigali. Self-reported condom use was adjusted for and included in the analysis.

Results

Of the 1034 couples followed at PSF, 248 have the HIV positive partner on ART. Only 2 (5%) of the 42 seroconversions observed since 2003 occurred in couples in which the positive partner was on ART. HIV negative individuals whose partners are on ART are less likely to seroconvert compared to those whose partners are not on ART, OR=0.19 (95% CI 0.05-0.80). After adjusting for the confounding effect of condom use, the result remains statistically significant with an OR of 0.21 (95% CI 0.05-0.89).

Conclusion

Our analysis confirms that the benefit of ART goes beyond the expected effect on disease progression and life prolongation, with a protective effect on the negative partners. The ongoing up-scaling of ART could result in a considerable decrease in HIV incidence in the population when part of a comprehensive effort for treatment and prevention.

However since most discordant couples have HIV+ partners who do not qualify for ARV (based on current guidelines), therefore from an epidemiologic standpoint ART will not significantly impact the spread of the epidemic.

Discordance, disclosure, barriers and motivations to testing in Lusaka, Zambia: Knowledge and attitudes about couples' VCT

A. Kelley, Rwanda Zambia HIV Research Group

Background

In sub-Saharan Africa where over 60% of new infections are acquired from a cohabiting partner, a better understanding of knowledge and attitudes about couples' voluntary counseling and testing (CVCT) is needed. This study describes results from a Zambian household survey assessing knowledge and attitudes about couples' VCT.

Methods

In 2004, a household survey was conducted in four neighborhoods in Lusaka, Zambia. One adult per household was selected. In total, 804 Zambians were surveyed, specifically 400 men and 404 women.

Results

Ninety-two percent surveyed agreed that an HIV infected person can look healthy, 68% knew of a place to test for HIV, 70% had heard of couples being tested *together* for HIV, and only 45% agreed that it is possible for a couple to be discordant. Women surveyed were more likely than men to know about discordance in couples (51% vs. 41%, $p=.0029$). Seventy-nine percent believed married persons should disclose their HIV status with their spouse, with women more likely than men to agree that partners should disclose their status (84% vs. 76%, $p=.0033$). Seventy-three percent believed that married couples testing together for HIV is good and, of these, 73% agreed to the idea of testing with their partner. Zambians reported psychosocial barriers to HIV testing more than logistic barriers. Sixty-two percent cited partner reaction, 60% stigma, 13% the taking of blood, 12% distance to testing center and 4% the cost. Motivations to test included knowing one's status (91%), future family planning (39%), treatment possibilities (25%), and preventing transmission between partners (14%).

Conclusions

In Lusaka, while majority of those surveyed believe CVCT is good and agree to the idea of testing with their partner, the community lacks information regarding the possibility of couple HIV discordance. Integration of CVCT with existing VCT programs and antenatal programs is recommended.

Prior testing, exposure to family planning and antenatal services, and HIV status among women attending couples' VCT centers in Lusaka, Zambia

A. Kelley, Rwanda Zambia HIV Research Group

Background

Couples' voluntary counseling and testing (CVCT) is an effective intervention to reduce the transmission of HIV among couples in sub-Saharan Africa, where heterosexual transmission is the predominant mode of transmission. Using data from 3 CVCT centers in Lusaka, Zambia, this analysis examines the associations of prior HIV testing and exposure to family planning and antenatal services with HIV seropositivity among female CVCT clients.

Methods

CVCT centers offer same day VCT and syphilis testing and treatment to cohabiting couples. Data collected from 6336 cohabiting couples between January 2004 and February 2006 were analyzed.

Results

Of the 6336 cohabiting couples tested, 44% of women and 42% of men were HIV seropositive, 48% of couples were concordant negative, 35% concordant positive, and 17% discordant. HIV+ women were less likely than HIV- women to have previously tested for HIV (24% vs. 47%, $p<.0001$) and to have partners who previously tested for HIV (17% vs. 30%, $p<.0001$). HIV+ women had fewer children than HIV- women (1.45 vs. 2.46, $p<.0001$) and were less likely to be pregnant at the time of testing (11% vs. 14%, $p=.0014$). Use of contraceptives was significantly different between HIV+ and HIV- women ($p<.0001$), with HIV+ women less likely to report use of oral contraceptives (14% vs. 23%) and injection (6% vs. 9%) and more likely to report contraceptive method of none or condom (79% vs. 67%).

Conclusions

Women who previously tested for HIV and whose partner previously tested were less likely to be HIV+, suggesting that prior testing and counselling for HIV, which provides risk reduction counselling and behavior change skills, is associated with decreased risk of HIV infection. The data also indicate that greater exposure to health services, such as family planning and antenatal care, may result in decreased risk of HIV infection.

Recruitment of Discordant Couples for a Phase III Clinical trial in the Copperbelt, Zambia

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Background

Cohabiting couples are the largest risk group for HIV in Africa with over 60% of new HIV infections acquired within stable relationships. However, since less than 1% of African couples have been tested together, recruiting discordant couples for a clinical trial poses many challenges.

Methods

In June 2004, the Zambia-Emory HIV Research Project in Kitwe and Ndola, Zambia (ZEHRP) opened for couples' voluntary counseling and testing (CVCT). Between June 2004 and February 2006, several approaches – the Influence Network Agent (INA) model (developed by the Rwanda Zambia HIV Research Group), radio programs, billboards, referral systems, brochures and community outreach – were employed to recruit potential study participants for CVCT.

Results

From July 2004 to mid-February 2005, 6,185 couples came to ZEHRP CVCT centers in the Copperbelt and 4,506 (72.9%) couples chose to test. 650 (14%) of the couples tested were HIV

discordant. Out of these discordant couples, 170 (26%) were eligible to be enrolled in the clinical trial.

Of the recruitment strategies utilized by the ZEHRP-Copperbelt sites, the INA model was reported by 5,066 (82.1%) of the couples that visited the site. 1,315 (24.3%) of the couples heard of the site through radio programs and 142 (2.3%) couples heard of the site from community outreach. Brochures were reported by 51 (<1%) of couples while billboards were reported by 100 couples (3.7%). Once referral networks were established at the Kitwe site in August of 2005, 11.2% of discordant couples were referred from outside organizations.

Conclusions

The recruitment of HIV discordant couples for a clinical trial poses many challenges. The INA model is the most successful means of recruiting couples to be tested in the Copperbelt of Zambia where there is little infrastructure for CVCT clinics. However, this means of recruitment is expensive and requires a commitment of financial resources to be effective.

The potential effect of low or no cost antiretroviral therapy on family planning needs of concordant HIV-positive couples in Lusaka, Zambia

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Background

Many countries in sub-Saharan Africa have begun to offer ARV treatment at low or no cost to those who qualify. With more individuals living with HIV on ARV therapy and living longer, little has been explored on how ARV treatment can potentially influence lifestyle choices. At our project in Lusaka, Zambia, over 800 concordant HIV-positive couples have been followed in a randomized control trial of family planning interventions. This study seeks to determine the potential effect of free or low cost ARV treatment on the use of family planning methods among HIV concordant positive couples.

Methods

HIV concordant positive couples were recruited through couples' voluntary counseling and testing centers in Lusaka, Zambia. The couples were enrolled into a randomized trial of two video interventions: family planning methods and motivational planning for the future. Couples were also randomized to a control arm (video describing non-reproductive health practices promoting hygiene and sanitation), as well as a group that watched both methods and motivational videos. At the end of the study, couples were given an exit interview, in which they were asked about benefits of the study, contraceptive knowledge, influence of study enrollment on family planning practices, knowledge of ARVs, and the potential influence of ARVs on family planning practices.

Results

Among 894 individuals in HIV concordant positive couples (435 couples, 16 individual women, and 8 individual men), 5.6% (n=50) reported the opinion that use of family planning would decrease with health-improving ARV treatment, 41.8% (n=374) reported that use of family planning would increase, and 52.6% (n=470) reported no change in family planning use. Data indicate no significant difference in responses based on sex, randomization tool, number of existing children, or income.

Conclusions

In Lusaka, free or low cost ARVs do not appear to influence decisions concerning family planning among individuals in concordant HIV-positive relationships.

What makes HIV status disclosure possible among couples in Kigali, Rwanda?

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Background

Disclosure among couples is essential for CVCT to be an effective tool for HIV prevention in couples. In comparison to recent years, Kigali has experienced an increase in the number of couples coming for CVCT thus disclosing their status to each other. The knowledge of what make HIV status disclosure possible among couples should be considered essential to improving couple's effective access to prevention and treatment.

Methods

Couples begin the CVCT process with a group education session. After individual couple's counseling, the CVCT center records demographic information, referral source, and previous testing information. In addition, HIV and syphilis test results are recorded for couples who decide to be tested.

Results

From January 2003 to June 2006, 21300 couples attended CVCT at Projet San Francisco. Of the 2823 (13%) who decided not to be tested, 85% were previously tested. Among 18561 couples who elected to be tested at PSF, 12% women and 14% men have been tested before at PSF while 35% of woman and 26% of men were tested before in government clinics. However, of the 2087 couples with both partners reporting previous testing at another center, only 36% were tested and counseled together. Both females and males are less likely to be HIV positive at CVCT when they already know their status, with equal OR = 0.6 (0.5-0.6). Nevertheless, 13% of couples tested at CVCT are HIV discordant.

Conclusion

Political commitment, endorsement of CVCT by local authorities, and support of the local media have led to an increase in demand for CVCT in Kigali. CVCT is an effective prevention tool for horizontal and vertical transmission and can act as an efficient entry port for treatment. CVCT should be prioritized in centers which offer counseling and testing since couples can be prepared for disclosure through proper education and counseling.

HIV-1 positive Rwandan women have a high frequency of long-term survival: 20-year follow-up from a prospective cohort study

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Background

Despite its devastating impact, detailed data on the natural history of HIV in Africa, essential to both clinicians and policy makers, remains inadequate. We evaluated rates of survival and causes of mortality in the longest prospective HIV cohort in Africa.

Methods

548 HIV positive (subtype-A) Rwandan women (27% with known seroconversion dates) were recruited from prenatal and pediatric clinics in Kigali in 1986 and were followed at 3-6 month intervals through February 2006 with over 90% retention. ARV therapy has been provided since

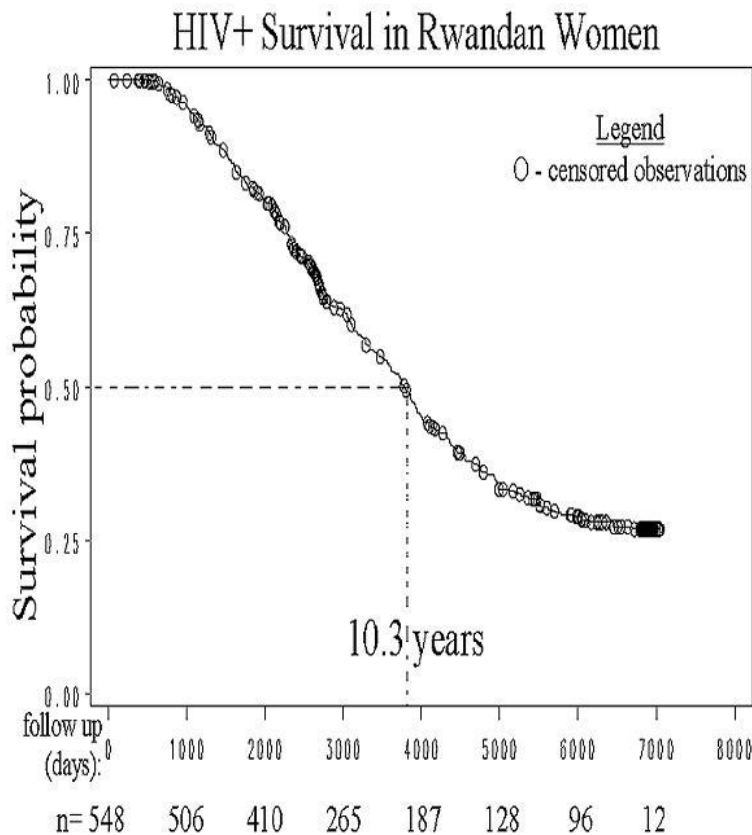
mid-2003. Kaplan-Meier survival methods were used to calculate survival times. Cause of death was ascertained by verbal autopsy, chart review, and death certificate.

Results

After 20 years and 5279 person-years of follow-up, 109 women (20%) remain alive in the cohort. Despite this high frequency of long-term survivors, only 22% of survivors met virologic and CD4 criteria for long-term non-progression. The median CD4 count of survivors declined from 447 cells/ μ L in 1998 to 268 cells/ μ L in 2003. Among these survivors, 57 women (52%) have met treatment criteria and initiated ARVs. There have been 393 deaths, including 64 genocide-related deaths, and only 46 women (8%) were lost to follow-up. Period-specific mortality rates were 46 (prewar: 1986-93), 312 (genocide: 1994), 103 (early postwar: 1995-99), 77.5 (late postwar: 2000-04) and 20.7 (ARV era: 2004-06) per 1000 person-years. Time to 50% non-war related mortality (graph#1) was 10.3 years (95% CI: 9.6-10.9 years) and time to 50% all-cause mortality was 8.4 years.

Conclusions

HIV positive Rwandan women have higher rates of long-term survival than predicted by current natural history models of HIV infection in Africa. The majority of these long-term survivors, however, still have evidence of disease progression.



Predictors of Decision to Test for HIV at Three Couples' VCT Centers in Lusaka, Zambia *S.T. Roberts, Rwanda Zambia HIV Research Group*

Background

The Zambia-Emory HIV Research Project (ZEHRP) has operated Couples' Voluntary Counseling and Testing (CVCT) Centers in Lusaka since 1994. Not all couples who come to the day-long workshop offered by ZEHRP elect to get tested. This analysis aims to determine what factors are significant in predicting whether or not couples attending ZEHRP centers decide to get tested for HIV.

Methods

Data was collected on all couples attending a ZEHRP center from July 2004 through December 2005. Variables included male's and female's age, whether each of them worked, number of months dating/cohabiting, months at current address, number of kids, and whether they had been invited to the CVCT center by an Influence Network Agent (INA), a community member trained by ZEHRP to promote CVCT. Data were analyzed using logistic regression to determine which of these variables predicted whether a couple decided to test.

Results

7339 couples attended ZEHRP centers in the 18-month period. 5144 (70%) tested and 2195 (30%) did not test. Results indicated that couples were more likely to test the older the woman was [Odds Ratio (OR)=1.028 95% CI: (1.020-1.036)], and less likely to test if they were INA-invited [OR=0.350 (0.305-0.403)] or if they had come to one of the two satellite centers instead of the flagship CVCT center [Site 1 vs. Site 0 OR=0.506 (0.444-0.576); Site 2 vs. Site 0 OR=0.663 (0.581-0.757)].

Conclusions

The results indicate that promotional activities, and especially the INA program, should focus on encouraging couples not only to attend VCT but also to test once they are there. Promotions should also focus on younger women, who may feel more afraid of the consequences of a positive HIV test result. Further research should investigate why couples are more likely to test at some VCT centers than at others. Community as well as center characteristics are likely to play a role.

Is the Occurrence of STI Related to Seroconversion Among HIV Discordant Couples?

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Introduction

Sexually Transmitted Infections (STI) are known to be associated with HIV transmission. In Africa, discordant couples are among the highest risk group for HIV transmission. Effective treatment of an STI may be integral in the reduction of HIV transmission within discordant couples.

Methods

Using multivariate analysis, we analyzed data on 1076 HIV discordant couples for whom we recorded quarterly information on male and female health status including clinically and laboratory diagnosed STIs (syphilis, genital ulcer disease, trichomonas, and male Urethral Discharge), and seroconversions that occurred. We distinguished individuals who have experienced STIs prior to seroconversion from those of individuals who did not experience an STI and did not seroconvert.

Results

Out of a cohort of 1076, 42 individuals seroconverted (25 males, 17 females). 56% of males and 41% of females had reported an STI prior to seroconversion. Negative partners who have been infected in discordant couples are more likely to have experienced a STI, with a crude OR=3.88 (2.08-7.23), compared to those who have not seroconverted. They are also more likely to have reported inconsistent condom use, with a crude OR=3.29 (1.69-6.40). After adjustment, the OR for STI was 3.49 (1.86-6.55), and the OR for inconsistent condom use was 2.94 (1.50-5.77).

Conclusion

Early diagnosis and treatment of STI can significantly reduce HIV transmission among discordant couples. When clinically indicated, treatment can serve as an effective tool for HIV prevention in addition to condom use and behavioral interventions. With proper education and counseling, discordant couples may be more inclined to report STI symptoms to their doctors or local health centers, thereby decreasing their risk of HIV transmission. In addition, policymakers should prioritize STI management on the public health agenda in order to make a substantial impact on HIV incidence in their communities.

To test or not to test: a predictor of INA success

H. Shah, B. Lambdin, F. Wong, C. Vwalika, Rwanda Zambia HIV Research Group

Background

Couples' VCT (CVCT) has been shown to decrease transmission of HIV between partners by more than 50%, yet less than 1% of African couples have been tested together. One strategy being used to increase CVCT uptake in the Zambian setting is the Influence Network Agent (INA) model. With the INA model, influential community members (known as influential network agents or INAs) learn how to invite couples within their sphere of influence (health, religion, CBOs and the private sector) to CVCT. As part of their training, INAs are encouraged to go through HIV testing at CVCT, either alone or with their partner. The question of interest is whether INAs who choose to test on this day are better able to convince couples to be tested at CVCT than INAs who choose not to test.

Methods

SAS 9.1 was used to analyze data. INAs were stratified into two groups: those that choose to test as a part of their training and those that did not choose to test. Overall success rate for each group was calculated. Success rate was defined as the number of invited couples who tested at ZEHRP CVCT as a proportion of the overall number of invitations distributed by each INA group.

Results

INAs who chose to test (N=314) had a success rate of 5% (1585/26586) in inviting couples, while those who did not test (N=413) had a success rate of 1% (1465/73304).

Conclusions

When taken as a group, the overall success rate of INAs that chose to test was higher success than INAs who chose not to test. Although testing for HIV should be strictly voluntary, it should be strongly encouraged among individuals who are involved in community based recruitment efforts to increase uptake of CVCT in the Zambian setting.

Quantifying the Contribution of Transmission within Cohabiting Couples to the HIV Epidemic in Sub-Saharan African Cities

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Background

HIV prevalence is known to be high among the general population in sub-Saharan African cities. However, the extent to which the epidemic is driven by transmission within cohabiting couples remains unknown. Given that condom use is lower among cohabiting couples and that prevention messages rarely target this group, it is essential to understand the magnitude of risk among cohabiting couples in order to shape future interventions.

Methods

Drawing on a combination of demographic data from Demographic and Health Surveys and other population based sero-prevalence studies from selected African cities and biological data on incident infections within sero-discordant cohabiting couples; we estimate the proportion of incident HIV infections that occur within cohabiting couples during a 12 month period. Our methodology takes into account the distribution of the population on several characteristics: union status, typical numbers of sexual partners, and proportion of sexual contacts with main and non-main partners. The study examines the contribution of transmission within cohabiting couples to the HIV epidemic in Kigali (Rwanda), Lusaka (Zambia), Nairobi (Kenya), Dar-es-Salaam (Tanzania), Accra (Ghana) and Johannesburg (South Africa).

Results

We find that cohabiting couples contribute a significant proportion of incident HIV infections in the cities studied. Taking into account the distributional characteristics of the population, transmissions within cohabiting couples can account for the majority of new HIV infections, although this varies by demographic characteristics and study setting.

Conclusions

Cohabiting couples are an important yet neglected risk group for HIV transmission. Increasing preventive interventions, including joint couples voluntary counseling and testing (CVCT), should be promoted as an important element of national HIV prevention programs.

Couples' Voluntary HIV Counseling and Testing in Africa: sustaining a successful CVCT model

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Background

HIV prevalence is high among the general population in sub-Saharan African cities, where most adults are in cohabiting unions. Couples' VCT is an effective risk reduction strategy that is not widely implemented.

Methods

A three-pronged approach was used to overcome structural obstacles to CVCT in two capital cities: Kigali, Rwanda, and Lusaka, Zambia. Consensus conferences were launched by the President of Rwanda and First Lady of Zambia in 2003. High level participants from each conference were interviewed 18-24 months later to assess the impact of the conference. Experienced VCT service providers developed a training program for CVCT. Three-armed neighborhood randomized control trials (RCT) were conducted in Kigali and Lusaka, comparing promotional strategies using Influence Network Agents (INA) and mobile units in a cross-over

design. INAs from the health, faith-based, private, and NGO sectors were recruited, trained, and monitored using structured modules.

Jan 2003- Dec 2005	INAs	Invitations	Couples attending	INA-invited Couples attending	Couples tested	Couples concordant HIV+	Couples discordant
Kigali	237	51,115	28,968	9,660	25,522	1,811	3,176
Lusaka	891	118,057	15,524	9,021	11,416	3,635	2,082

Results

More than 200 participants from 7 African countries participated in each consensus conference. A draft CVCT procedure manual including didactic and practicum modules was developed in English and French and used to train HIV counselors in the RCT. INAs distributed written invitations to men, women, and couples using networks of family, friends, colleagues, congregation members, and neighbors as well as door to door efforts.

Most couples attending CVCT in Kigali had heard about it from previously tested couples, while most in Lusaka had been invited by an INA.

Conclusions

Policymakers, funding agency representatives, and VCT providers retained the importance of CVCT and had taken steps to support it in the 18-24 months after the consensus conferences. Development funding has been obtained to continue and further extend CVCT.
