

# Condom Use in Marital and Nonmarital Relationships In Zimbabwe

By Jacob Adetunji

**Context:** Zimbabwe is one of the few Sub-Saharan African countries that have made substantial efforts to involve men in contraceptive use, and also has one of the highest HIV prevalence rates. Therefore, it is worthwhile to examine men's patterns of condom use in marital and nonmarital relationships.

**Data:** Differences in the pattern of condom use by sexually active single and married men were investigated using data from the 1994 Zimbabwe Demographic and Health Survey. Multivariate logistic regression models were used to isolate the effects of various determinants of male condom use.

**Results:** Condoms were used primarily for nonmarital sexual relations. Sexually active single men were more than seven times as likely to use condoms (50%) as to have relied on the pill (7%). Likewise, 50% of sexually active single men were currently using condoms, more than eight times the level among married men (6%). In contrast, while 47% of married men said their spouse relied on the pill, only 7% of unmarried men reported pill use by their partner. In a multivariate logistic regression analysis, marital status had the largest and most statistically significant effect on condom use. Region of residence also had a significant impact on men's condom use: Sexually active men in the more ethnically diverse Midlands province tended to use condoms more than men in other regions.

**Conclusions:** The condom is the method of choice among single, sexually active men in Zimbabwe, while the pill seems to be the preferred method for use within marital unions. In Zimbabwe, men appear to be heeding advice to use condoms in nonmarital relationships.

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Until the recent introduction of the female condom in some developing countries, condoms were essentially a male contraceptive method. However, because most fertility surveys conducted in developing countries obtain data on childbearing and contraceptive use from female respondents, prevalence rates for condom use are usually based on reports by married women. Such rates would reflect the extent of condom use among men in general only if the level of condom use within unions were similar to the level in nonmarital relationships. This article investigates the level of condom use in marital and nonmarital relationships among men in Zimbabwe, highlighting the differences (if any) and examining whether such differences would disappear if the effects of social and demographic variables were taken into account.

Various factors have led to renewed attention to condom use. First, condoms have the dual advantage of both serving as a contraceptive device and protecting against sexually transmitted diseases (STDs), including HIV. The World Health Organization (WHO) encourages those working in the area of STD prevention to make in-

creased condom use an important goal.

Before the arrival and increased prevalence of these reproductive health problems, condoms—the major nonpermanent male method—were promoted mainly as contraceptive devices. Now, they are promoted as both contraceptives and prophylactics. Some see greater use of condoms as leading to increased male participation in family planning. This is why it is necessary to be sure that the methods assessing the prevalence of condom use reflect the true extent of men's use.

Zimbabwe was chosen for this analysis for several reasons. First, Zimbabwe has one of the highest contraceptive prevalence rates in all of Sub-Saharan Africa.<sup>1</sup> Moreover, with a total fertility rate of 4.3 lifetime births per woman in 1994, it is one of the few Sub-Saharan African countries that have begun the long-awaited fertility transition. Such success is usually linked to high contraceptive prevalence.

Moreover, the prevalence of HIV in Zimbabwe is high, and seems to have increased in recent years.<sup>2</sup> The United Nations Joint Program on HIV and AIDS (UNAIDS) estimated that by the end of 1997, about 26% of Zimbabweans aged

15–49 were HIV-positive—one of the highest HIV prevalence rates worldwide.<sup>3</sup> This high rate has been a source of concern to the government of Zimbabwe, and efforts are being made to reduce the spread of HIV there. Thus, it is important to understand condom use patterns among men in this country.

Condom use has been promoted in Zimbabwe as part of the country's family planning program since at least 1976, when a family planning program initiated a community-based effort to distribute condoms and pills to women in their homes.<sup>4</sup> Of these two methods, the pill emerged as the cornerstone of contraceptive use in Zimbabwe. For example, in 1994, 33% of currently married women reported that they were using the pill, compared with 2% who used condoms. Even at that time, evidence suggested that married women used condoms as a temporary method: An analysis of contraceptive discontinuation in Zimbabwe showed that condoms had the highest 12-month discontinuation rate—44%, compared with about 15% for pills and injectables.<sup>5</sup>

In a bid to increase male participation in contraceptive use, at least two major male motivation projects have been conducted in Zimbabwe,<sup>6</sup> the first in 1988 and the second in 1993. Both campaigns used mass media, live dramas, football matches and the print media to reach men. They seem to have reached a sizable proportion of the intended audience, but their impact on condom use is difficult to ascertain. For example, the 1988 program was believed to have reached more than half of men aged 18–55. Demographic and Health Survey (DHS) reports indicate a slight increase in male contraceptive use, although the level was still low: In 1988, about 24% of women were using the pill and 1% were using the condom; by 1994, these rates had risen to 33% and 2%, respectively.<sup>7</sup> While these results imply to some that Zimbabwean men are not strongly involved in

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family planning,<sup>8</sup> the pattern of condom use among married women and men seems different from the pattern among those who are single but are sexually active. Data from the male questionnaire of the Zimbabwe DHS conducted in 1994 were used to investigate this issue.

## Methods

Although Zimbabwe has now been surveyed three times in the DHS project (in 1988, 1994 and 1999), the data analyzed here are taken from the 1994 Zimbabwe DHS. (The first survey did not collect information from men, while data from the 1999 DHS were not yet available for analysis when this research was conducted.) The 1994 Zimbabwe DHS was conducted by the Central Statistical Office from July to November 1994. The area-sampling frame for the survey was based on the 1992 Zimbabwe Master Sample developed by the Central Statistical Office following the 1992 census. Sample selection was done in two stages: First, 230 enumeration areas were selected with equal probability; second, within each of these 230 enumeration areas, a complete listing was done of all residents in sampled households, from which male and female respondents were interviewed. For men, selection was based on a 40% systematic sampling for all men aged 15–54.

All respondents without completed questionnaires were excluded. Similarly, only respondents who spent the night preceding the interview in the household were included. Sample weights were applied to correct for oversampling. In total, the data file for the males contains 2,141 de facto residents with completed interviews out of 2,339 eligible men—i.e., 92% of eligible men. The analysis in this article begins by comparing current contraceptive method use among men and women, then focuses mainly on condom use among men. Therefore, 464 men who had never had sex were excluded.

During the survey, interviewers assessed respondents' knowledge of contraceptive methods by asking them to name methods or ways by which a couple could avoid or delay a pregnancy. For every method the respondents identified, they were also asked whether they had ever used that method at any time in the past. If the respondent had never used any method, he was recorded as a never-user and was asked no further questions on contraception relevant to those who have used contraceptives. All other respondents were then asked if they were currently using a contraceptive method. Eli-

gible respondents were asked what method they now used. That question is the source of information on current contraceptive methods, including condoms.

Respondents also were asked when they last had had sexual intercourse. Sexually active men are defined here as those who had had intercourse in the past four weeks (or less than 30 days before the survey). As a result of this definition, 50% of all men in the survey were categorized as being sexually active. Of these, 20% were single (i.e., never married).

The major background and demographic variables used in this article are education (years of schooling), rural-urban residence, media access, region, religion, current age and marital status. (These variables were recoded or recomputed where necessary.) Logistic regression is used here to test for the effect of socioeconomic and demographic variables on condom use.\* The ease of interpretation of the odds ratios produced by logistic regression is one of the appeals for using such models.<sup>9</sup>

## Results

Table 1 reveals that contrary to expectation, a higher proportion of sexually active men (41%) than of sexually active women (35%) reported current use of a contraceptive method. (Polygyny and differences in the understanding of the purpose of contraception are important explanations of such a difference.<sup>10</sup>) The pill and the condom together accounted for 86% of contraceptive use among Zimbabwe men in 1994, while these methods accounted for 74% of all contraceptive use among women.

However, focusing on all men and all women conceals the major difference in the choice of contraception between those (both male and female) who are single but sexually active and their married counterparts. Sexually active married men were about eight times as likely to have a partner who relies on the pill as they were to use condoms (47% compared with 6%). In comparison, sexually active single men were more than seven times as likely to use condoms (50%) as to have a partner who used the pill (7%).

**Table 1. Percentage distribution of all survey respondents and of sexually active survey respondents, by current contraceptive use, according to sex and marital status, Zimbabwe, 1994**

Method	Male			Female		
	All (N=2,141)	Sexually active		All (N=6,128)	Sexually active	
		Single (N=212)	Married (N=851)		Single (N=284)	Married (N=2,961)
None	58.6	42.5	36.1	64.9	43.5	46.7
Pill	21.3	6.5	46.8	23.6	32.1	37.2
IUD	0.6	0.5	1.2	0.6	0.2	1.1
Injectable	1.5	0.0	3.2	2.4	4.5	3.3
Condom	14.1	49.6	5.8	2.4	13.8	2.6
Sterilization	0.9	0.0	1.8	1.8	2.5	2.7
Female	0.7	0.0	1.5	1.7	2.5	2.5
Male	0.2	0.0	0.3	0.1	0.0	0.2
Rhythm	0.4	0.0	0.4	0.2	1.8	0.1
Withdrawal	1.6	0.9	3.0	2.6	0.8	4.4
Other	1.2	0.0	1.8	1.2	0.9	1.7
Implant	0.0	0.0	0.0	0.1	0.0	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Thus, the proportion of sexually active single men currently using condoms (50%) was more than eight times the proportion of married men using condoms (6%). The same pattern can be seen for the pill: This method seems to be the predominant one among partners of married men, but is rarely used among partners of sexually active single men.

As shown in Table 1, the pattern of contraceptive use among women shows that single, sexually active women were about five times as likely as married women to report condom use (14% vs. 3%). However, the difference in pill prevalence among sexually active single women and married women was small. This finding suggests that the pill is the contraceptive method of choice for both married men and women, while it is the preferred method among single, sexually active women. The proportion of sexually active single women who reported the pill to be their current method was about five times the proportion of sexually active single men who said they relied on the pill. It is possible that single men may not know whether their partner is using the pill.

Since the condom is largely the method of choice for single, sexually active men, this analysis focuses specifically on that method, by investigating some socioeconomic and demographic factors that could

\*The logistic regression has the form  $\ln(p/q) = B_0 + B_1X_1 + \dots + B_nX_n$ , where  $p$  is the probability that an event would occur (i.e., that a man would use condom);  $q$  is the probability that the event would not occur (or  $1-p$ );  $B_0, B_1, \dots, B_n$  are regression coefficients; and  $X_1, X_2, \dots, X_n$  are factors. From the coefficients of the parameter estimates ( $B_i$ ), it is possible to obtain the odds ratios in the logistic regression models by exponentiating the  $B_i$ —i.e., odds ratio =  $\exp(B_i)$ .

**Table 2. Percentage of sexually active men using the condom or with a partner relying on the pill, by marital status, according to current age and educational attainment**

Characteristic	Single			Married		
	Condom	Pill	N	Condom	Pill	N
<b>Age</b>						
15–19	48.0	2.2	54	12.4	*	7
20–24	54.5	2.7	81	7.2	45.8	83
25–29	53.4	10.9	43	7.0	57.3	147
30–34	63.3	*	19	6.1	53.8	176
35	21.7	*	23	5.8	40.9	443
<b>Education</b>						
None	*	*	4	7.2	29.4	43
Primary	39.7	8.7	76	6.4	36.1	379
Secondary/higher	56.9	5.1	139	5.9	58.3	416

\*Percentage is not shown because it is based on fewer than 25 cases.

account for its high prevalence among single men. The objective is to examine whether the popularity of condoms among single men is explained by marital status only or whether age, educational attainment or other factors are important.

Age and education tend to influence the level of condom and pill use (Table 2), but there is a sharp distinction between patterns of use of sexually active single men and those of married men. For example, the proportion of single men relying on condom or the pill tends to increase with age, although the proportion using condoms is much larger than the proportion using the pill in all age-groups.

In addition, the proportion of sexually active single men aged 15–34 who used condoms ranged from 48% to 63% and tended to increase with age. However, among married men, this proportion decreased with age, and was usually below 10%.

The association with education is not very clear. Condom use decreased slightly as the education of sexually active married men increased—the opposite of what was seen among sexually active single men. Sexually active single men with a secondary or higher education were more than 10 times as likely to use condoms as their married counterparts.

A logistic regression approach was used to provide a clearer perspective on the effects of the relationship between men’s condom use and their social and demographic characteristics (Table 3). Three separate models were fitted. Model 1, the main-effects model, contains the total effects of each factor without any controls. It shows that sexually active single men were about 15 times as likely as married men to use condoms. This model also shows that the odds of using condoms decreased with age: Younger men aged 15–19 were about 11 times as likely to use condoms as were those aged 35–54. The

odds of condom use increased with years of schooling. Region of residence was a significant predictor of condom use, with condom use in the Midlands region being about twice the level in a more urbanized region such as Bulawayo. Rural-urban residence, media access and religion did not have a statistically significant effect on condom use in Zimbabwe.

Because of the strong effect of marital status, its effects are taken into account in Model 2, to see which other factors exert a significant effect on condom use. Once the effects of marital status were controlled, age and education were no longer statistically significant. In other words, the prevalence of condom use was higher among younger and better-educated men because they are more likely to be single. However, region of residence remained significant.

Finally, in Model 3, when all four variables that were significant in Model 1 were included, we can see that none of the variables shown could narrow the gap in patterns of condom use among married men and sexually active single men. Moreover, other than marital status, only region of residence had a statistically significant impact on men’s condom use: Sexually active men in Midlands province were about twice as likely as those in Bulawayo to use condoms, a difference that is statistically significant at  $p < .05$ .

It is not clear why men in this mainly rural province should have high condom prevalence rates. Such a high rate might be connected with the presence of some iron and asbestos mining in the province. Workers in these mines are predominantly male and may have high levels of education. Thus, those who are sexually active among them may be more motivated to use condoms than are men in other provinces. For example, men in Midlands households had the third highest median number of years of schooling and the third lowest proportion with no schooling (after Harare and Bulawayo provinces). Similarly, respondents from Midlands had the third highest level of exposure to the mass media in Zimbabwe.

### Discussion and Conclusions

The male condom, the oldest reliable male contraceptive method, is receiving new attention today because of its usefulness as

a prophylactic against STDs. Until recently, because of the nature of available data, our knowledge of its prevalence has been based on data collected from women. The findings in this article suggest that the level of condom use reported by men far exceeds that reported by women.

Although a previous study concluded that a higher level of contraceptive use reported by men may not reflect use in extramarital relationships, the researchers arrived at that conclusion because they limited their analysis to married couples.<sup>11</sup> This analysis suggests that condom use patterns vary widely between married and single people in Zimbabwe.

The condom-pill divide between married and single men could be interpreted in several ways. First, it could imply that men do not use condoms as the major means of contraception in marital relationships; rather, they use them mainly in relationships that are not enduring (both premarital and extramarital). The preference for oral contraceptives in marital unions seems logical: The pill is a more effective contraceptive method than the condom, is more suited for long-term relationships and does not carry the stigma often associated with condoms. The preference for condoms among the single men in this study suggests that they use the method for preventing unwanted pregnancies as well as preventing STDs. This interpretation seems plausible, given the high prevalence of HIV and AIDS in Zimbabwe.

As indicated earlier, the level of HIV prevalence among adults in Zimbabwe is one of the highest in the world. HIV prevalence seems to be higher among younger people than among older people. Between 1989 and 1993, for example, a total of 18,410 AIDS cases were reported in Zimbabwe; the majority (61%) were among those aged 20–39.<sup>12</sup> There is no difference between the proportion of AIDS cases among those aged 20–29 (31%) and the proportion among those aged 30–39 (31%). Only 3% of those with AIDS were aged 5–19. (This is understandable, given HIV’s long incubation period and the large proportion of teenagers who would not be sexually experienced.)

There is some evidence that the majority of men who use condoms in Zimbabwe use it for pregnancy prevention outside of a stable marital relationship. For example, a study in Manicaland region of Zimbabwe found that women in unions thought that condoms were not appropriate in stable unions, except where one partner has an STD or in sexual relations

in the period immediately following a birth.<sup>13</sup> Another report based on Zimbabwe data found the same proportion of both married and never-married men (61%) used condoms if they reported sex with someone other than a spouse in the four weeks before the survey.<sup>14</sup>

A previous analysis of couple data from Zimbabwe<sup>15</sup> showed a low correspondence (16%) between husbands' and wives' reporting of condoms as their current contraceptive method. This suggests that many wives are not aware of their husbands' condom use. Given that condoms are visible and that a husband would rarely put one on without the spouse knowing it, this lack of correspondence suggests that the method is used largely with outside partners.\* In fact, 53% of the wives of men who reported currently using condoms said they were using no method to prevent pregnancy.

In many traditional societies with low levels of contraceptive use, sexual activity among the never-married tended to herald the beginning of a reproductive career, since it might result in pregnancies. Therefore, men who were not ready to marry tended to avoid sexual relations with never-married women. The availability of the condom and the pill seems to provide an opportunity for never-married men to be sexually active without suffering the fertility or health consequences, and without necessarily making a longer-term commitment to their sexual partners.

In a sense, condom use may be a creative, modern means to escape an unattractive traditional imperative. This line of reasoning concurs with the conclusion of a study in North Bank region of the Gambia in West Africa.<sup>16</sup> In that study, researchers described ways in which women adapted modern contraceptive means to serve their traditional reproductive goals. In particular, they noted that modern contraceptive methods were seen as a way of circumventing the traditionally prescribed postpartum abstinence period. By using modern contraceptives, couples are able to resume sexual relations soon after giving birth while maintaining "decent" birth intervals and breastfeeding duration.

From the analysis presented in this article, a few points are clear. First, the prevalence of condom use reported by men exceeds the prevalence reported by women. Second, the prevalence of condom use among sexually active single men exceeds that among married men. The pill seems to be the preferred method for use in mar-

**Table 3. Multivariate coefficient and odds ratio (and standard error) from three logistic regression models of the effects of selected characteristics on condom use among men in Zimbabwe**

Characteristic	Model 1		Model 2		Model 3	
	Coefficient	Odds ratio	Coefficient	Odds ratio	Coefficient	Odds ratio
<b>Marital status</b>		<b>p&lt;.001</b>		<b>na</b>		<b>p&lt;.001</b>
Single	2.706	14.97 (0.196)	na	na	2.694	14.80 (0.250)
Married	0.000	1.00	na	na	0.000	1.00
<b>Age</b>		<b>p&lt;.001</b>		<b>ns</b>		<b>ns</b>
15-19	2.436	11.43 (0.321)	0.407	1.50 (0.379)	-0.136	0.87 (0.420)
20-24	1.851	6.37 (0.254)	0.592	1.81 (0.306)	0.053	1.05 (0.348)
25-29	1.122	3.07 (0.268)	0.501	1.65 (0.301)	0.044	1.04 (0.340)
30-34	0.636	1.89 (0.293)	0.467	1.59 (0.314)	-0.401	0.67 (0.326)
35-54 (ref)	0.000	1.00	0.000	1.00	0.000	1.00
<b>Years of schooling</b>		<b>p&lt;.05</b>		<b>ns</b>		<b>ns</b>
0-6 (ref)	0.000	1.00	0.000	1.00	0.000	1.00
7-10	0.557	1.75 (0.233)	0.125	1.13 (0.263)	-0.047	0.95 (0.285)
11	0.712	2.04 (0.239)	0.344	1.41 (0.270)	0.061	1.06 (0.318)
<b>Access to media</b>		<b>ns</b>		<b>ns</b>		<b>na</b>
None (ref)	0.000	1.00	0.000	1.00	na	na
TV only	1.037	2.82 (0.444)	0.834	2.30 (0.524)	na	na
Newspaper only	0.343	1.41 (0.332)	0.296	1.34 (0.377)	na	na
Radio only	-0.192	0.83 (0.403)	-0.011	0.99 (0.449)	na	na
Any two	0.512	1.67 (0.264)	0.660	1.94 (0.301)	na	na
All media	0.373	1.45 (0.263)	0.627	1.87 (0.300)	na	na
<b>Region</b>		<b>p&lt;.001</b>		<b>p&lt;.05</b>		<b>p&lt;.01</b>
Manicaland	-0.402	0.67 (0.423)	-0.052	0.95 (0.484)	-0.095	0.90 (0.490)
Mashonaland						
Central	0.191	1.21 (0.413)	0.344	1.41 (0.483)	0.347	1.42 (0.491)
East	-0.550	0.58 (0.477)	-0.299	0.74 (0.541)	-0.304	0.74 (0.545)
West	0.219	1.24 (0.375)	0.160	1.17 (0.438)	0.165	1.18 (0.443)
Matabeleland						
North	-0.604	0.55 (0.570)	-1.337	0.26 (0.623)	-1.294	0.27 (0.628)
South	-0.343	0.71 (0.592)	-1.127	0.32 (0.651)	-1.064	0.35 (0.660)
Midlands	0.809	2.25 (0.347)	0.825	2.28 (0.409)	0.823	2.28 (0.414)
Masvingo	-0.535	0.59 (0.507)	-0.519	0.59 (0.573)	-0.532	0.59 (0.580)
Harare/Chitungwiza	-0.086	0.92 (0.349)	0.065	1.07 (0.404)	0.030	1.03 (0.411)
Bulawayo (ref)	0.000	1.00	0.000	1.00	0.000	1.00
<b>Residence</b>		<b>ns</b>		<b>ns</b>		<b>na</b>
Urban	-0.058	0.94 (0.173)	0.169	1.18 (0.199)	na	na
Rural (ref)	0.000	1.00	0.000	1.00	na	na
<b>Religion</b>		<b>ns</b>		<b>ns</b>		<b>na</b>
Traditional (ref)	0.000	1.00	0.000	1.00	na	na
Spiritual	-0.239	0.79 (0.277)	-0.125	0.88 (0.315)	na	na
Christian	0.019	1.02 (0.236)	0.065	1.07 (0.270)	na	na
Other	0.500	1.65 (0.318)	0.460	1.58 (0.371)	na	na

Notes: Model 1 is the main effects model; no controls were added. Model 2 controls for the effects of marital status on each of the variables in Model 1. Model 3 controls for the effects of all variables that were significant in Model 1, to see if they would reduce the gap between married and single men. In all of these models, the level of statistical significance is not shown for variables that were not significant. ref=reference group. na=not applicable. ns=not statistically significant.

ital unions, while condoms are reserved for nonmarital relationships.

That a high proportion of sexually active single men reported the use of condoms is a good sign that some behavioral changes are taking place in Zimbabwe. However, it must be noted that only about half of sexually active men reported condoms as their current method; the other half of such men use no condoms. Besides, we know that for condoms to be effective as a prophylactic against HIV infection and other STDs, they need to be used consistently in high-risk sexual relations.<sup>17</sup> Although this article does not focus on con-

sistency of condom use, the high prevalence of HIV among adults in the country means that it is necessary for all those who engage in high-risk sexual relationships to use condoms consistently. Until this goal is reached, more efforts need to be made to spread the message among those who need to change their sexual behaviors, to curtail the growth of HIV prevalence in Zimbabwe.

\*The same analysis found a high correspondence (80%) in couples' reporting of the pill as their current contraceptive method, although it is possible for a spouse to use this method secretly.

**References**

1. Central Statistical Office (CSO), *Zimbabwe Demographic and Health Survey 1994*, Calverton, MD, USA: Macro International; and Harare, Zimbabwe: CSO, 1995.
2. Ray S et al., Acceptability of the female condom in Zimbabwe: positive but male-centered responses, *Reproductive Health Matters*, 3(5):68-79, 1995; and UNAIDS and World Health Organization (WHO), *The Current Global Situation of AIDS*, Geneva: WHO, June 30, 1996.
3. UNAIDS, *Zimbabwe: Epidemiological Fact Sheet on HIV/AIDS and Sexually Transmitted Diseases*, Geneva: UNAIDS/WHO, 1998.
4. Boohene E and Dow T, Contraceptive prevalence and family planning program effort in Zimbabwe, *International Family Planning Perspectives*, 1987, 13(1):1-6; and Way A, Cross A and Kumar S, Family planning in Botswana, Kenya and Zimbabwe, *International Family Planning Perspectives*, 1987, 13(1):7-11.
5. Sambisa W, *Contraceptive Use Dynamics in Zimbabwe: Discontinuation, Switching and Failure*, Zimbabwe Further Analysis, Calverton, MD, USA: Macro International, 1996.
6. Kim YM, Marangwanda C and Kols A, *Involving Men in Family Planning: The Zimbabwe Male Motivation and Family Planning Method Expansion Project, 1993-94*, IEC Field Report Series, No. 3, Baltimore MD, USA: Johns Hopkins School of Public Health, 1996.
7. CSO, 1995, op. cit. (see reference 1).
8. Tinarwo G, The Zimbabwean experience: Zimbabwe National Family Planning Council, in: Hawkins K, ed., *Male Participation in Family Planning: A Review of Programme Approaches in Africa*, London: International Planning Parenthood Federation, 1992, pp. 9-17.
9. Hosmer DW and Lemeshow S, *Applied Logistic Regression*, New York: John Wiley, 1989.
10. Ezeh A and Mboup G, Estimates and explanations of gender differentials in contraceptive prevalence rates, *Studies in Family Planning*, 1997, 28(2):104-121.
11. Ibid.
12. Mhloyi GD and Mhloyi MM, Socio-cultural determinants of HIV infection in Zimbabwe, in: Wijeyaratne P et al., eds., *Gender, Health, and Sustainable Development*, Ottawa, Canada: International Development Research Centre, 1994, pp. 9-21.
13. Gregson S et al., Is there evidence for behaviour change in response to AIDS in rural Zimbabwe? *Social Science and Medicine*, 1998, 46(3):321-330.
14. Leepoy P, Men, sexual behavior and HIV/AIDS in Zimbabwe, paper presented at the WHO/Demographic and Health Surveys (DHS) Regional Analysis Workshop, Dakar, Senegal, Apr. 15-June 7, 1996.
15. Adetunji JA, Knowledge, use and agreement between spouses on use of contraception in Zimbabwe, paper presented at the WHO/DHS Regional Analysis Workshop, Dakar, Senegal, Apr. 15-June 7, 1996.
16. Bledsoe CH et al., Constructing natural fertility: the use of Western contraceptive technologies in rural Gambia, *Population and Development Review*, 1994, 20(1):81-113.
17. Centers for Disease Control and Prevention, Update: barrier protection against HIV infection and other sexually transmitted diseases, *Morbidity and Mortality Weekly Report*, 1993, 42(30):589-591 & 597.

**Resumen**

**Contexto:** Zimbabwe es uno de los pocos países del Africa Subsahariana que ha realizado un empeño significativo para involucrar al

hombre en la práctica de la anticoncepción, y al mismo tiempo, presenta una de las tasas de prevalencia del VIH más elevadas del continente africano. En consecuencia, es útil examinar las tendencias del uso del condón por parte del hombre en sus relaciones maritales y fuera del matrimonio.

**Métodos:** Se hizo una investigación sobre las diferentes tendencias del uso del condón por parte de hombres solteros y casados, sexualmente activos, mediante el uso de los datos recopilados en la Encuesta Demográfica y de Salud de Zimbabwe, de 1994. Se utilizaron modelos de regresión logística de multivariantes para aislar los efectos de los diversos determinantes del uso del condón por parte del hombre.

**Resultados:** El uso del condón, por lo general, se practicaba en las relaciones no-maritales. Los hombres solteros sexualmente activos eran más de siete veces más proclives a usar condones (50%) que a recurrir al método de la píldora (7%). De igual manera, el 50% de los hombres solteros sexualmente activos usaban condones, más de ocho veces encima del nivel que presentaron los hombres casados (6%). En forma inversa, en tanto que el 47% de los hombres casados indicaron que sus parejas utilizaban la píldora, sólo el 7% de los hombres solteros indicaron que ese era el método utilizado por su pareja. Mediante un análisis de regresión logística de multivariantes, el estado civil de las personas resultó ser el factor más relevante y de mayor significación estadística relacionado con el uso del condón. El lugar de residencia también tuvo un impacto significativo con respecto al uso del condón por parte de los hombres.

**Conclusiones:** El condón es el método preferido de los hombres solteros y sexualmente activos de Zimbabwe. En cambio, entre las parejas casadas, el método preferido es el de la píldora. Parecería que los hombres de Zimbabwe, están prestando atención a los consejos de usar el condón en las relaciones no-maritales.

**Résumé**

**Contexte:** Le Zimbabwe est l'un des rares pays d'Afrique subsaharienne ayant déployé un effort considérable en vue d'intéresser les hommes à la pratique contraceptive. Le pays présente aussi l'un des plus hauts taux de prévalence du VIH enregistrés en Afrique. Il est dès lors utile d'examiner les tendances masculines d'usage du préservatif dans le cadre des relations conjugales et en dehors du mariage.

**Méthodes:** Les différences d'usage du préservatif par les hommes célibataires sexuellement actifs et leurs homologues mariés ont été examinées sur la base des données de l'Enquête démographique et de santé menée en 1994 au Zimbabwe. Des modèles de régression logis-

tique à plusieurs variables ont permis d'isoler les déterminants de l'usage masculin du préservatif.

**Résultats:** Le préservatif était utilisé principalement dans les rapports sexuels non matrimoniaux. Les hommes célibataires sexuellement actifs se sont révélés plus de six fois plus susceptibles d'utiliser le préservatif (50%) que de recourir à la pilule (7%). De même, 50% des hommes célibataires sexuellement actifs utilisaient le préservatif au moment de l'enquête, soit plus de huit fois la proportion relevée parmi les hommes mariés (6%). Au contraire, 47% des hommes mariés ont déclaré que leur partenaire utilisait la pilule, soit six fois plus que parmi les hommes célibataires (7%). Selon l'analyse de régression logistique multidimensionnelle, l'état matrimonial produisait l'effet le plus important et le plus significatif, statistiquement parlant, sur l'usage du préservatif. La région de résidence avait aussi une incidence significative sur l'usage masculin du préservatif.

**Conclusions:** Le préservatif est la méthode de prédilection des hommes célibataires sexuellement actifs du Zimbabwe, tandis que la pilule semble la méthode préférée dans les unions matrimoniales. Au Zimbabwe, les hommes semblent suivre les conseils d'usage du préservatif dans les relations non conjugales.

**Correction**

In the update item "Use of Antiretroviral Treatment Pays" [2000, 26(3):98], the three projections of costs of antiretroviral therapy were described incorrectly. The third sentence of the item should read as follows (with corrections italicized): "Assuming that treatment reduces the risk of vertical transmission by 40%, this number [the number of HIV-positive infants] would decline to 248,000 if 25% of HIV-positive pregnant women were treated, 193,000 if 75% of HIV-positive pregnant women were treated and 166,000 if all pregnant women were treated."