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Condom use within marriage: a neglected HIV intervention

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Objective To assess the contraceptive effectiveness of condoms versus oral contraceptive pills and estimate the reproductive consequences of a major shift from pill to condom use.

Methods Secondary analysis was performed on nationally representative cross-sectional surveys of women in 16 developing countries.

Findings In the 16 countries, the median per cent of married couples currently using condoms was 2%, compared with 13% for the pill. Condom users reported a higher 12-month failure and higher method-related discontinuation rates than pill users (9% and 44% vs 6% and 30%, respectively). Condom users were more likely to report subsequent abortion following failure (21% vs 14%), and also more likely to switch rapidly to another method (76% vs 58%). The reproductive consequences, in terms of abortion and unwanted births, of a hypothetical reversal of the relative prevalence of condom and pill were estimated to be minor. The main reason for this unexpected result is that the majority of abortions and unwanted births arise from non-use of any contraceptive method.

Conclusion A massive shift from the more effective oral contraceptive pills to the less effective condom would not jeopardize policy goals of reducing abortions and unwanted births. However, such a shift would potentially have an added benefit of preventing human immunodeficiency virus (HIV) infections, especially in countries with generalized HIV epidemics.

Keywords Condoms/utilization; Contraceptives, Oral/utilization; Marriage; Contraception behavior; Pregnancy, Unwanted; Abortion, Induced; HIV infections/prevention and control; Comparative study; Developing countries (*source: MeSH, NLM*).

Mots clés Préservatifs/utilisation; Contraceptifs oraux/utilisation; Mariage; Comportement contraception; Grossesse non désirée; Avortement provoqué; HIV, Infection/prévention et contrôle; Etude comparative; Pays en développement (*source: MeSH, INSERM*).

Palabras clave Condomes/utilización; Anticonceptivos orales/utilización; Matrimonio; Conducta anticonceptiva; Embarazo no deseado; Aborto inducido; Infecciones por VIH/prevenición y control; Estudio comparativo; Países en desarrollo (*fuentes: DeCS, BIREME*).

Arabic

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Voir page 185 le résumé en français. En la página 185 figura un resumen en español.

Introduction

Greater condom use remains one of the most effective ways of checking the human immunodeficiency virus (HIV) pandemic in developing countries. Over the past decade huge efforts have been made to make condoms more widely accessible and acceptable. The major emphasis has been on their use outside marriage and some success has been achieved in this regard (1). In countries with low-level or concentrated HIV epidemics, this preventive strategy makes good sense. However, in countries with generalized heterosexual epidemics, the number of which has grown from 25 in 1990 to 55 in 2000 (2), the almost exclusive emphasis on condom use for non-marital sexual contacts is no longer adequate and may even be counterproductive by reinforcing its association with illicit sex. In such settings, marriage and cohabitation cannot be regarded as a safe haven. Many individuals acquire HIV because of prior infection or infidelity. In rural areas of the United Republic of Tanzania, for instance, the seroincidence rate for men in stable sexual partnerships was found to be 0.45 per 100 person-years and

the rate for women with an infected partner was 10 per 100 person-years (3).

The promotion of condoms for use within marriage for explicit disease-prevention purposes is most unlikely to succeed because of its direct imputation of mistrust. Its promotion as a method of family planning, with an implicit, even unspoken, recognition of its dual protection properties is more feasible. Greater use of condoms within marriage would bring direct benefits in terms of reduced interspousal HIV transmission. The indirect benefits of a renewed emphasis on condoms as contraceptives might be greater, because it is much easier for sexually active never-married persons to discuss, negotiate, and adopt the condom as a contraceptive than as a disease-prevention measure.

Over the past 30 years, contraceptive use among married or cohabiting couples in developing countries has risen from 9% to 60% (4, 5). Countries in east and southern Africa that are most severely affected by HIV now also record high levels of contraception. Typically, highly effective methods have been promoted at the expense of less-effective barrier methods. In 30

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countries with generalized HIV epidemics, the percentage of contraceptive couples using condoms remained static at about 8% between 1983 and 1997 (5). The reasons for this unpopularity within stable relationships are well understood (6–9). Some would no doubt argue that the barriers to condom use within marriage are so severe that condom promotion in this context would be a lost cause. However, there is a danger of exaggeration. The family-planning literature of the 1960s and 1970s contains many warnings that contraception would be unacceptable for cultural and social reasons. Events of the past 30 years have shown these pessimistic prognostications to be largely unwarranted. Similarly, the admittedly strong resistance to condom use within marriage in many societies may not be immutable. After all, condoms are commonly used by married couples in a wide range of societies, accounting for 20% or more of users in at least 16 countries, including Costa Rica, Jamaica, Japan, Pakistan, Singapore and the United Kingdom (5). Moreover, extreme circumstances, an apt description of many HIV epidemics, can force radical changes in behaviour, including greater condom use within marriage.

The potential contribution that family-planning services can make to HIV control has not gone unnoticed (10); however, little evidence exists that family-planning staff have made serious and sustained attempts to legitimize and promote condoms. One understandable reason for this reluctance no doubt stems from a fear that widespread switching from highly effective hormonal and other contraceptive methods to less-effective condoms would lead to a deluge of unintended pregnancies and fuel the demand for induced abortion. The purpose of this paper is to assess whether these concerns are justified. This assessment involves a comparison of the characteristics of condom use in developing countries with those of oral pill use, the most common alternative reversible method in the majority of countries.

Methods and data

The data for the analysis come from 16 countries where one or more nationally representative surveys of women of reproductive age (15–49 years) have included detailed retrospective histories of contraceptive use. Only the most recent survey data set for each country was used for this paper. All surveys were conducted under the auspices of the Demographic and Health Survey project (11). The Joint United Nations Programme on HIV/AIDS (UNAIDS) classifies four of the 16 countries as having generalized HIV epidemics (Dominican Republic, Guatemala, Kenya, and Zimbabwe). A further five have concentrated epidemics (Brazil, Colombia, Nicaragua, Paraguay, and Peru), while the remaining seven (Bangladesh, Bolivia, Egypt, Indonesia, Morocco, Philippines, and Turkey) are currently classified as having low-level epidemics (2).

The percentage of married or cohabiting couples using any contraceptive method at the time of the survey ranges from 38% in Guatemala to 77% in Brazil, with a median value of 51%. The percentage of all couples using the pill varies widely, with a median value of 13%. Condom use is much lower, with a median value of 2%. These 16 countries cannot be claimed to be representative of all developing countries with high levels of contraceptive use. Nevertheless, their geographical spread is sufficient to warrant cautious generalization of main results to low-income countries where contraceptive practice is now widespread.

The characteristics of the contraceptive histories have been described elsewhere (12–13). In brief, they comprise month-by-month data on episodes of use for the 5-year period preceding the interview, together with reported reasons for stopping use. Abortions are also recorded but no distinction is made between induced and spontaneous events. Dates of live births, together with their planning status (wanted at time of conception, unwanted, mistimed), are ascertained earlier in the interview but are entered into the calendar.

The analysis is episode- not woman-based. An episode is defined as a period of uninterrupted use that may or may not have ended at the time of the survey. Attention was restricted to episodes of contraceptive use that started between months 4 and 39 prior to the interview date. The most recent 3 months of the calendar were truncated to avoid the problem of severe under-reporting of first trimester pregnancies (14). This restriction has a related important implication in that current pregnancies reported in the analysis can be interpreted as impending live births (assuming no second-trimester abortions or stillbirths), because they are all in the second or third trimester. The upper boundary of 39 months was chosen because the planning status of births was ascertained in some surveys only for children born in the past 3 years. In addition, all episodes starting before first marriage or cohabitation were omitted.

After these exclusions a total of 20 875 pill- and 4786 condom-use episodes contributed by 21 791 women were available for analysis. The comparison of the two methods in terms of discontinuation was performed by single-decrement life-table analysis, which yields cause-specific probabilities in the absence of competing reasons. Reasons for stopping were grouped into three categories: (1) failure, or accidental pregnancy, while the method was being used; (2) method-related reasons that imply dissatisfaction, typically side-effects and health concerns for the pill, and inconvenience plus desire to switch to a more effective method in the case of the condom; and (3) other reasons that imply no immediate further need for protection, predominantly desire for another child, and sexual abstinence because of illness or spouse's absence. In exploratory work, summary measures from the 16 survey-specific data sets were compared with estimates from the pooled data. Similar results were obtained and, in this paper, pooled results are used. Adjusted relative risks of discontinuation (for all causes and specific causes) were estimated using discrete-time piecewise constant logit models (15).

The reproductive consequences of method- or user-failure were established by simple tabulation of the four possible outcomes of the pregnancy: live birth (or current pregnancy) reported as (1) wanted, (2) mistimed, (3) unwanted, or (4) abortion. To assess the consequences of other types of discontinuation, outcomes in the 12-month period following discontinuation were assessed by multiple-decrement life-table analysis to estimate the "true" proportions of episodes that ended in each of these events (16). In addition to the four possible outcomes applicable to failure, two further outcomes were estimated: switching to another method before becoming pregnant; and no conception in the 12-month period despite no re-adoption of any contraceptive method (still at risk). These estimates of the reproductive consequences of failure and discontinuation were standardized for educational and rural–urban composition of both types of users.

The final part of the analysis addressed the hypothetical question "What would be the probable consequences in terms

of unwanted births and abortions if the numbers of condom- and pill- episodes were reversed?" The observed number of condom episodes ($n = 4786$) was replaced by the observed number of pill episodes ($n = 20\ 875$). The standardized multiple-decrement life-table estimates of 36-month discontinuation probabilities for the condom and the standardized estimates of the reproductive consequences of condom discontinuation were then applied to the hypothetical number of condom episodes. For the pill, the observed number of episodes was replaced by the observed number of condom episodes and pill cause-specific discontinuation probabilities and consequences were applied to the hypothetical number of episodes.

Results

The top two rows in Table 1 show the probabilities of overall and cause-specific discontinuation in the first 12 months of initiating use per 100 episodes. Compared with pill users, condom users were more likely to stop for any reason (56% vs 43%), they experienced higher failure rates (9% vs 6%), and were more likely to abandon their method because of dissatisfaction (44% vs 30%). Note that other reasons are distinguished from method-related discontinuation — the latter reflecting dissatisfaction with the method. The third row of Table 2 shows these same estimates in terms of unadjusted and adjusted relative risks. The main effect of controlling for the differing characteristics of the two types of user is to narrow the divergence in method-related discontinuation but to widen it in failure rates.

The reproductive consequences of method failure and discontinuation are presented in Table 2. Following method failure, the most common outcome was an unwanted or mistimed birth (or current pregnancy): 67% for the condom and 69% for the pill. Abortions were more commonly reported in connection with condom failure than with pill failure (21% vs 14%). The remaining events were reported as wanted births. In the 12 months following discontinuation for method-related reasons, condom users were more likely than pill users to switch to another method (76% vs 58%), less likely to experience an unwanted or mistimed pregnancy (10% vs 17%), and also less likely to experience a wanted pregnancy (4% vs 10%). For both types of user, small percentages report abortions (4%) and small percentages remain non-pregnant after 12 months of discontinuation.

Table 2 also shows outcomes following discontinuation for other reasons. Standardization of condom-related estimates to the educational and rural–urban composition of pill users made relatively little difference to these results.

Finally, we estimated the probable consequences in terms of unwanted births and abortions of a hypothetical reversal in the prevalence of pills and condoms. The left-hand column of Table 3 shows the number of unwanted, mistimed, and wanted births plus abortions in all 16 surveys observed in months 4–39 preceding each survey. Each type of reproductive event is disaggregated by its behavioural antecedent or proximate cause: failure or discontinuation of pill, condom, and other methods, or no contraceptive use for at least 12 months prior to conception. For instance, the left-hand column in the top panel of the table shows that a total of 11 554 unwanted births (or current pregnancies) were recorded in the 16 surveys. Of these, 961 were attributable to failure or discontinuation of the pill, 158 similarly to the condom and 1799 to other methods. However, the majority (8636) were preceded by non-use of any method. The middle column shows the expected number of events under the hypothetical scenario and the right-hand column gives the ratio of hypothetical to observed events. The hypothetical scenario involves switching of numbers of pill and condom episodes only, so the number of events attributable to failure or discontinuation of other methods and to non-use remains unchanged. The key message of the table lies in the comparison of total observed and hypothetical numbers of births and abortions. Under the hypothetical scenario, the number of abortions rise by 3% from 7274 to 7473, but the numbers of unwanted, mistimed, and wanted births remain virtually unchanged.

Discussion

As expected, condom users were more likely to experience method- or user-failure than pill users. In the absence of competing risks, the 12-month failure probability for condom users was about 9%, lower than the estimate of 14% that has been reported by Trussell for "typical use" (17). This difference may reflect coital frequency. The mean days elapsed since last intercourse reported by the wives of condom users in the 16 study countries imply an annual coital frequency of about 70 acts, appreciably lower than estimates from the USA (18), the country that provides much of the data used by Trussell.

Table 1. Cause-specific probabilities of stopping use of condom/pill within 12 months and relative risks per 100 episodes of initiating use: pooled data

Cause-specific probabilities	All causes		Failure		Method-related reasons		Other reasons	
	%	95% CI ^a	%	95% CI	%	95% CI	%	95% CI
Pill	43.2	(42.46 43.94)	6.3	(5.83 6.69)	29.8	(29.06 30.48)	13.0	(12.47 13.61)
Condom	56.3	(54.71 57.89)	9.1	(7.85 10.25)	44.1	(42.41 45.71)	12.8	(11.48 14.14)
Relative risks (RRs) condom vs pill	RR	95% CI	RR	95% CI	RR	95% CI	RR	95% CI
Unadjusted RRs	1.63	(1.51 1.76)	1.49	(1.24 1.78)	1.84	(1.68 2.02)	1.05	(0.90 1.23)
Adjusted RRs ^b	1.42	(1.31 1.53)	1.59	(1.31 1.94)	1.47	(1.33 1.61)	1.09	(0.92 1.30)

^a Confidence interval.

^b Adjusted for residence, education, number of living children and desire for more children.

Table 2. Reproductive consequences of discontinuation of use of condom/pill: pooled data

Status	Reason for discontinuation								
	Failure			Method-related			No need		
	Pill	Condom		Pill	Condom		Pill	Condom	
		Observed	Standardized ^a		Observed	Standardized ^a		Observed	Standardized ^a
%	%	%	%	%	%	%	%	%	
At risk	–	–	–	10.9	6.2	7.4	21.2	18.7	18.8
Switched to another method	–	–	–	58.0	76.2	73.5	15.1	11.9	12.2
Unwanted current pregnancy/live birth	33.1	23.3	26.5	7.1	3.0	3.4	2.4	2.9	3.2
Mistimed current pregnancy/live birth	35.8	43.2	39.1	10.1	6.9	7.3	4.7	4.2	5.7
Wanted current pregnancy/live birth	17.3	12.7	13.4	10.4	3.7	4.2	50.3	56.5	54.8
Abortion	13.8	20.8	20.8	3.5	3.9	4.3	6.4	5.8	5.3
Total number of episodes	1379	388		7593	2389		3061	597	

^a Standardized by schooling attainment of wife, within rural–urban strata.

Alternatively, the difference in condom failure rates may reflect the fact that married condom users in the study countries were a small atypical minority, most of whom want no more children. Failure rates are known to be lower among couples that wish to limit family size than among spacers (19).

The implications of a 9% failure rate for the HIV/sexually transmitted infection (STI) prevention properties of male condoms are unclear. While a recent National Institutes of Health (NIH) study panel concluded that correct and consistent use of male latex condoms effectively reduces transmission of HIV in men and women, incorrect use, inconsistent use, breakage, and slippage inevitably reduce effectiveness (20). There is little evidence that intermittent condom use is protective against HIV at the individual level (21). Nevertheless, at the population level, it is indisputable that condom use, albeit imperfect, can make a huge contribution to the containment of HIV epidemics.

In addition to their higher failure rate than the pill, condoms were much more likely to be discontinued for reasons other than failure. The major stated reasons for stopping condom use were: desire to switch to a more effective method; husband's objections; and inconvenience. Given the public health need for vastly increased condom use in countries with generalized HIV epidemics, these results are disappointing. Condom use is not only a rarely used method but also one that is abandoned within 12 months by over half of married couples who try it. The fact that desire for a more effective method is a commonly stated reason for discontinuation argues in favour of a "double-method" approach to protection: simultaneous use of condoms together with another method such as the pill or injectables. However, this strategy is expensive for low-income countries.

The reproductive consequences of pill and condom failure and discontinuation were assessed in terms of abortion and unwanted or mistimed births. In 11 of the 16 study countries, induced abortion is highly restricted and permitted only to save

a woman's life. As a result, induced abortions will inevitably be underreported in surveys. Spontaneous abortions are also known to be underreported in surveys (22). In the 16 surveys, the median percentage of all reported pregnancies that ended in abortion or miscarriage was 11.2%, well below the expected level of recognizable miscarriage and also well below indirect estimates of the ratio of induced abortions to total births (23, 24). Clearly, the abortion data have severe limitations, and the abortion probabilities in Table 2 and Table 3 should be regarded as lower-bound estimates.

In terms of HIV/STI prevention, abandoning condom use carries severe implications. In terms of fertility regulation, however, the consequences depend on whether couples resort to abortion or switch to another method of contraception. Despite the limitations of the abortion data and the inherent difficulties of measuring the planning status of births, the results strongly suggest that condom users were better able to mitigate those consequences than pill users, either by a higher probability of switching to another method or by seeking an abortion. The reasons for these differences cannot be ascertained. Condom users may differ from pill users in characteristics that are not captured by education of the wife and rural–urban residence, the controls used in the analysis. Alternatively, the experience of using a method that requires the husband's commitment and a spousal cooperation may facilitate effective birth-control decisions when the method fails or is abandoned.

Finally, this paper assesses the probable consequences in terms of reproductive consequences of a massive shift in the relative prevalence of the pill and the condom. The hypothetical scenario is extreme, requiring that the percentage of couples using the pill will drop from 13% to 2% and condom use will rise from 2% to 13%. Such a change in method-mix would be unprecedented; abrupt changes in contraceptive choices are typically only found when new methods are introduced into a society, but, of course, neither the pill nor the condom is a

Table 3. Observed and hypothetical numbers of reproductive events

Reproductive events and their proximate causes	Observed number	Hypothetical number	Ratio hypothetical/observed
Unwanted births or pregnancies			
Failure/discontinuation of:			
Pill	961	194	0.20
Condom	158	786	4.98
Other methods	1 799	1 799	1.00
Non-use	8 636	8 636	1.00
Total	11 554	11 415	0.99
Mistimed births or pregnancies			
Failure/discontinuation of:			
Pill	1 249	275	0.22
Condom	317	1 388	4.38
Other methods	2 255	2 255	1.00
Non-use	7 916	7 916	1.00
Total	11 737	11 834	1.01
Wanted births or pregnancies			
Failure/discontinuation of:			
Pill	2 327	514	0.22
Condom	441	2 058	4.67
Other methods	2 993	2 993	1.00
Non-use	31 643	31 643	1.00
Total	37 404	37 208	0.99
Abortion			
Failure/discontinuation of:			
Pill	593	142	0.24
Condom	190	840	4.42
Other methods	972	972	1.00
Non-use	5 519	5 519	1.00
Total	7 274	7 473	1.03
Total	67 969	67 930	

new method. It is thus unrealistic to expect condoms to replace hormonal methods in the short term but, in the longer term, the severity of HIV epidemics may force such a radical change in contraceptive behaviour. Furthermore, more vigorous promotion of condom use within marriage by a reorientation of marketing strategies and counselling by health staff might well accelerate the change. Such adaptation of family-planning policies and programmes in countries with severe generalized HIV epidemics is surely a public-health priority.

A key finding of this paper is that the reproductive consequences of the extreme hypothetical scenario were estimated to be trivial. The number of unwanted and mistimed births hardly changed and the projected increase in number of abortions was only 3%. One reason for this unexpected result is that the high risks of condom abandonment are offset by high probabilities of switching to another method or abortion. However, the more important reason is that a large majority of unplanned births and abortions in these 16 countries stem from contraceptive avoidance, or non-use, rather than method failure or discontinuation. The hypothetical shift in the relative numbers of couples who adopt the use of pills and condoms does not affect the number of unplanned births and abortions that stem from an absence of any contraceptive precautions. The clear policy implication is that reluctance or inability of couples who wish to delay childbearing, or avoid further childbearing altogether,

to use contraceptives still remains the dominant direct cause of unwelcome conceptions even in these 16 study countries with relatively high levels of contraception. By comparison, a hypothetical shift of users from a more-effective to a less-effective method of protection has a trivial effect.

The main conclusions of the paper include strongly positive and negative components. From the fertility-regulation viewpoint, vigorous promotion of condoms as a method of family planning within marriage does not represent a serious threat to the overall long-term goal of reducing unwanted childbearing and abortion. Moreover, huge disease-prevention benefits, both direct and indirect, could accrue from legitimizing the condom as a method of family planning within marriage.

From the HIV-prevention perspective, however, the results are not encouraging because of the short durations for which many couples in these societies are willing and able to use condoms. One major reason for abandoning condom use is the desire to switch to a more effective contraceptive method. If short episodes are an irreversible feature of condom use within marriage, then this method's potential to stem HIV transmission is very limited. However, it should be borne in mind that most couples in this analysis were using condoms solely for family-planning purposes. When the motive for condom use includes HIV prevention, prolonged use may be more acceptable. It is

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also possible that introduction of less restrictive abortion laws, accompanied by improved access to safe abortion services, might encourage couples to persist with condom use by ameliorating the consequences of method failure.

The practical aspects of promoting condoms as a means of dual protection within marriage will not be discussed in detail here. Clearly, closer collaboration between HIV-prevention and family-planning agencies would be a prerequisite. The association of condoms with illicit and commercial sex, currently reinforced by much HIV-related publicity, would need to be replaced by a more inclusive image for condoms. Finally, frontline providers of family planning would need to be reoriented so that condoms become the top priority rather than the low priority method. ■

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Note

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Résumé

L'utilisation du préservatif chez les couples mariés : une intervention anti-VIH reléguée à l'arrière plan

Objectif Evaluer l'efficacité contraceptive du préservatif par rapport à la pilule et déterminer les conséquences qu'aurait sur le plan génésique l'abandon généralisé de la pilule au profit du préservatif.

Méthodes On a procédé à l'analyse secondaire d'enquêtes transversales nationalement représentatives faites parmi des femmes de 16 pays en développement.

Résultats Dans les 16 pays, le pourcentage médian de couples mariés qui utilisent le préservatif était de 2 %, contre 13 % pour la pilule. Les couples utilisant le préservatif ont signalé un taux d'échec plus élevé sur 12 mois et un taux d'arrêt de la méthode plus élevé que ceux qui utilisaient la pilule (9 % et 44 % contre 6 % et 30 %, respectivement). Chez les couples qui utilisaient le préservatif, la probabilité d'un avortement après un échec contraceptif était plus forte (21 % contre 14 %), de même que la probabilité du passage rapide à une autre méthode (76 %

contre 58 %). Dans l'hypothèse d'un inversement de la prévalence relative du préservatif et de la pilule, les conséquences sur le plan génésique, qu'il s'agisse d'avortements ou de grossesses non désirées, ont été jugées mineures. Ce résultat inattendu s'explique essentiellement par le fait que la majorité des avortements et des grossesses non désirées résulte de la non-utilisation d'une méthode contraceptive, quelle qu'elle soit.

Conclusion L'abandon généralisé de la pilule contraceptive, très efficace, au profit du préservatif, qui l'est moins, ne compromettrait pas les buts fixés en matière de réduction des avortements et des grossesses non désirées. Cependant, une telle évolution pourrait avoir pour avantage supplémentaire de prévenir les cas d'infection par le virus de l'immunodéficience humaine (VIH), particulièrement dans les pays où l'infection à VIH a pris des proportions épidémiques.

Resumen

Uso del preservativo en los matrimonios: una intervención descuidada contra el VIH

Objetivo Evaluar la eficacia del preservativo en comparación con los anticonceptivos orales y estimar las consecuencias reproductivas de una sustitución masiva de la píldora por el preservativo.

Métodos Se ha realizado un análisis secundario sobre encuestas transversales nacionalmente representativas de mujeres en 16 países en desarrollo.

Resultados En los 16 países estudiados, el porcentaje mediano de parejas casadas que usaban a la sazón el preservativo era del 2%, frente a un 13% para la píldora. Las usuarias de preservativos refirieron mayores índices de fracaso en 12 meses y mayores tasas de interrupción relacionadas con el método que las usuarias de la píldora (9% y 44%, frente a 6% y 30%, respectivamente). Entre las usuarias de preservativos se dio con más frecuencia el recurso al aborto en caso de fracaso del método (21% frente a 14%),

así como la decisión de cambiar rápidamente de método (76% frente a 58%). Se estimó que las consecuencias reproductivas, en términos de abortos y nacimientos no deseados, de una hipotética inversión de la prevalencia relativa del preservativo y la píldora serían escasas. La razón principal de este resultado inesperado es que la mayoría de los abortos y los nacimientos no deseados se deben a que no se ha utilizado ningún método anticonceptivo.

Conclusión Un desplazamiento masivo de la píldora anticonceptiva oral, más eficaz, al condón, menos eficaz, no pondría en peligro las metas de política de reducir los abortos y los nacimientos no deseados. Sin embargo, dicho cambio puede conllevar como beneficio añadido la prevención de la infección por el virus de la inmunodeficiencia humana (VIH), especialmente en los países con epidemia generalizada de VIH.

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