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Abstract

This paper examines women's covert use of contraceptives, that is, use without the knowledge of their husbands. Covert use may highlight conflict between husbands and wives about family planning, or it may reflect behaviors that spouses find difficult to discuss together. This study addresses three questions: 1) How is covert use measured in different settings? 2) How prevalent is it? and 3) What are the factors underlying covert use? We examine these questions by drawing on existing studies and on detailed survey and qualitative data collected in 1997 in an urban setting in Zambia from married women and a subsample of their husbands. The prevalence of women's covert use of contraceptives is estimated to account for between 6 and 20 percent of all current contraceptive use and is more widespread in settings where contraceptive prevalence is low. A multivariate analysis of women's covert use based on the Zambia survey data indicates that difficult spousal communication about contraception is the strongest determinant of covert use. The positive effect of husbands' disapproval of contraception on covert use works through spousal communication rather than as a direct influence. Husbands' pronatalism had no significant effect on covert use. The paper concludes with a discussion of the implications of covert use for policies and programs addressing reproductive health issues and gender relations, especially the extent and nature of partner involvement that should be encouraged.

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Family planning programs and research are undergoing a fundamental shift from a focus on women only to an interest in both partners in a sexual relationship. This shift has encouraged a growing literature on men's roles in reproductive decisionmaking and on differences between the reproductive attitudes and behaviors of wives and husbands (Bankole and Singh 1998; Becker 1996; Greene and Biddlecom 1997; Stycos 1996). This paper examines a family planning behavior that raises difficult questions about these research and program developments, which often replace the individual with the marital couple as the decisionmaking unit. This behavior is the covert use of contraception.¹ While the husband may have an influence, perhaps even the dominant influence, in reproductive decisions, covert use highlights the frequent discrepancy between husbands' and wives' contraceptive needs and intentions and serves as a strong reminder that spouses should not be assumed to act together as a unit.

One factor driving an emphasis on the couple over the individual has been the increasing number of studies that demonstrate the influence of men's preferences and power, especially in sub-Saharan African countries, on reproductive outcomes such as contraceptive use (Mbizvo and Adamchak 1991), childbearing (Bankole 1995; Isiugo-Abanihe 1994), and views about family planning (Ezeh 1993). Based on these studies, one could argue that family planning programs which attempt to reach women will have a higher probability of success if they also involve the husband or at least encourage such involvement (Becker 1996); hence, an emphasis on spousal communication in both research and programmatic activities. However, reproductive decisions made by men do not necessarily reflect their wives' reproductive preferences and may even be directly opposed to those preferences.

Covert contraceptive use stands as a warning to the wholehearted adoption of education and communication strategies that are targeted at the couple

as the decisionmaking unit. For example, the positive relationship between spousal communication and contraceptive use found in many studies—leaving aside problems of causality—is often used to support increased efforts to bring husbands directly into the contraceptive decisionmaking process in clinics or to stress in client counseling and even media messages the importance of discussing contraceptive use with husbands. If these changes that focus on the couple are fully embraced, a number of women who do not wish to have their husbands involved in the decision to use contraceptives will be left in an unsupportive if not hostile environment for adopting or switching methods. This strategy may also lead a number of women to decide *not* to use contraceptives despite their desire to delay or avoid pregnancy. The question remains, how many women are in this situation? Furthermore, which women are most likely to use a method secretly, and will the prevalence of secret use change as contraceptive use in general increases?

There have been some references to secret use of contraception, mainly in Latin America and sub-Saharan Africa (Beckman 1983; Blanc et al. 1996; Bledsoe and Hanks 1998; Renne 1993; Rutenberg and Watkins 1997; Shedlin and Hollerbach 1981; Watkins, Rutenberg, and Wilkinson 1997). This paper provides a summary of what is known about covert use and an empirical analysis of covert use among married women. We address three main questions:

1. How is covert use measured in different settings?
2. How prevalent is the covert use of contraceptives?
3. What are the main determinants of covert use?

We draw on published studies in a number of countries and on recently collected survey and qualitative data from Zambia. Questions in the survey and focus group discussions in Zambia were designed in part to investigate the topic of covert use.

The paper begins with a brief description of the survey and qualitative data from the study setting in Zambia. We then move to a critical review of how covert use is measured, estimates of the prevalence of covert use in the literature, and consideration of how our estimates from Zambia compare. We make extensive use of the few studies that have addressed this phenomenon in describing the motivations for using contraceptives secretly. The main explanations examined are that covert use is due to 1) perceived spousal opposition to contraceptive use, 2) spousal conflict over fertility preferences, and 3) problems with communication about family planning. These explanations are empirically examined using the data from the Zambia study. The paper concludes by discussing the implications of covert use for policy and programmatic designs intended to address gender and reproductive health issues.

QUANTITATIVE AND QUALITATIVE DATA ON COVERT USE FROM ZAMBIA

The survey and qualitative data used in this study were collected in urban Ndola district, Copperbelt province, Zambia and are part of a larger four-country project on the determinants of unmet need for contraception. The population-based survey and focus group discussions were designed and conducted by the Tropical Diseases Research Centre [Ndola] in collaboration with the Policy Research Division of the Population Council [New York]. We draw on six focus group discussions (three with married women and three with married men) and survey data from married women and their husbands. Focus group discussions were held in December 1996 and survey data were collected May through July 1997.

The focus group discussions, held in convenient community locations suggested when respondents were selected, were led by one moderator (a

female nurse) and one rapporteur (a female assistant). The selection procedure was as follows: The moderator and rapporteur visited nurses at clinics in the selected communities and explained the purpose of the data collection. The nurses then met with relevant community leaders: traditional healers, community-based distributors of contraceptives, and welfare officials. These leaders in turn invited women and men who were using contraceptives (known by the clinic nurses) and those who were not using contraceptives to participate in the discussions. The focus groups contained between eight and eleven participants, and discussions lasted two to three hours on average. All discussions were tape recorded with the permission of the respondents, and were then transcribed, translated from Bemba into English, and checked against the tapes. We selectively draw on the focus group transcripts to illustrate particular explanations and findings about covert contraceptive use.

The population survey was a two-stage, self-weighting probability sample of married women and their husbands living in urban Ndola district. From the 21 townships that comprise urban Ndola district, 14 were purposively selected to reflect variation in family planning service provision. The sample consists of 1,860 married women aged 15–44 years and 1,056 husbands.² The response rate was 90.1 percent for eligible women and 75.6 percent for husbands. Questionnaires collected detailed information about fertility preferences, contraceptive behavior, different “costs” of contraceptive methods, and the nature of spousal decisionmaking.

Ndola is a major urban center in Copperbelt province of Zambia, a country where nearly half of the population resides in urban areas. Fertility has been slowly declining in Zambia from 7.2 births per woman in 1980 to

6.1 in 1996 (Central Statistical Office et al. 1997). The total fertility rate in 1996 for Copperbelt province was 5.6 children (ibid.). Knowledge of modern contraceptive methods among men and women (at least as measured by the broad indicator of having heard of a method) is very high: among 97 percent of married couples both the husband and wife know of at least one modern method (ibid.). Thirty percent of married women and 40 percent of married men in Copperbelt province are currently using contraception; more than two-thirds of this use consists of modern methods. Spousal discussion about family planning is becoming more frequent: the proportion of married women who had *not* talked about family planning with their husbands in the year preceding the survey declined from 42 percent in 1992 to 36 percent in 1996 (ibid.; University of Zambia et al. 1993). Yet there remain substantial discrepancies between women's reproductive desires and contraceptive behavior, as 28 percent of married women in the Copperbelt were identified as wanting to delay or stop childbearing but were not practicing contraception (Central Statistical Office et al. 1997).

DEFINITIONS AND PREVALENCE OF COVERT USE

The common definition of covert use in the literature is contraceptive use without the knowledge of the spouse. Women and men could also be concerned about keeping their contraceptive use secret from extended family members (see Koenig et al. 1984) or even field researchers (Bleek 1987; Phillips et al. 1997), circumstances that present measurement problems for assessing contraceptive behavior. Covert use has rarely been mentioned for unmarried people and their sexual partners, but the associated problems with communication and reproductive decisionmaking would still apply. Hiding use from family members and

broader social circles rather than sex partners probably best characterizes covert use among unmarried young adults and adolescents.

A number of modern methods available to women can be used covertly: oral contraceptives (including emergency contraception), injectables, the IUD, and subdermal implants (see Brown et al. 1990). Abortion can also be used secretly, although often with more severe health consequences than contraceptive methods. For men, the only modern method that can be used surreptitiously is vasectomy. Of course, men could use contraceptives with other women, where both the extramarital relationship *and* contraceptive use are kept secret from the wife. In this sense, covert use of contraceptives (usually condoms) for men would be more accurately defined as involving contraceptive use with women outside the marital union.³ Given the very different meanings of covert contraceptive use for women and men, we focus only on women's covert use in this study.

The level of covert use is difficult to determine since the behavior itself is hidden and there can be costs associated with reporting it to a survey interviewer or family planning provider. In the literature we reviewed, a number of accounts of women's covert contraceptive use were evident in studies based on qualitative data from sub-Saharan Africa and Latin America. However, these studies cannot provide empirical estimates of the prevalence of covert use. Among studies using survey data, either secret use was inferred from discordant responses between husbands and wives about current contraceptive use, or direct attempts were made to measure secret use by asking the respondent whether the spouse knew about current contraceptive use.

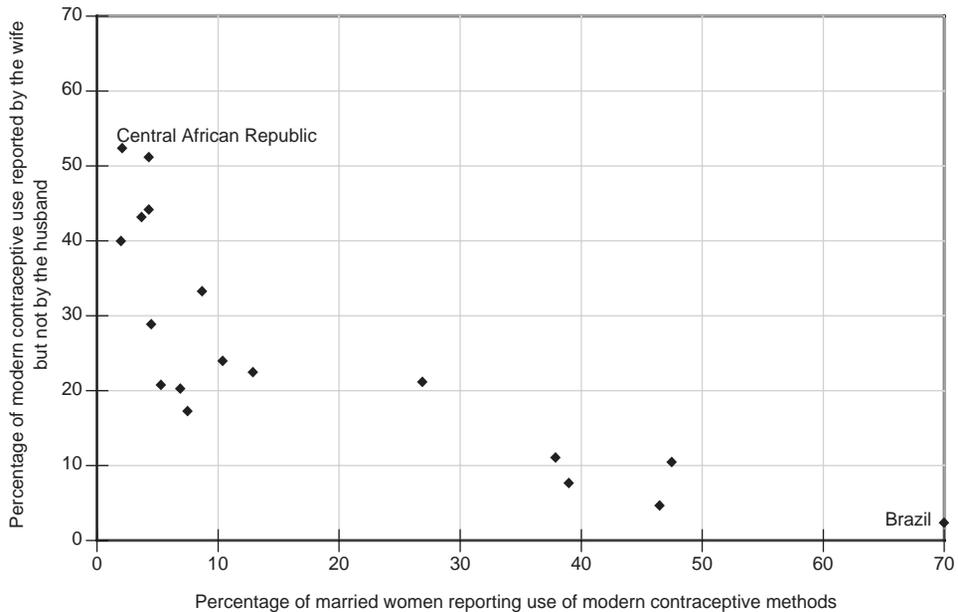
Studies of spousal differences in reports of current contraceptive use have shown large discrepancies between what wives and what husbands report. In general, 15 to 20 percent of couples give discrepant responses to

questions about current contraceptive use, and in most cases husbands more often report contraceptive use than wives (see Becker 1996; Ezeh and Mboup 1997; Koenig, Simmons, and Misra 1984). One review of couple data from DHS surveys in 18 countries shows large discrepancies between spouses' reports of current use of modern methods, especially in sub-Saharan Africa; and in all countries except Pakistan, husbands are again more likely to report use than are wives (Bankole and Singh 1998).

Figure 1 illustrates the relationship between discordant reports between spouses of modern contraceptive use, specifically where the wife reports use and the husband does not, and the overall prevalence of modern method use among married women. If we assume that covert use occurs when the wife reports contraceptive use and the husband does not, then estimates of women's covert use of modern methods (as shown in the figure) vary from a low of 2 percent in Brazil to 52 percent in the Central African Republic. Figure 1 also shows a negative relationship between this indirect measure of women's covert use and the prevalence of modern method use. In those countries where the prevalence of modern method use among married women is less than 10 percent, covert use likely comprises a substantial proportion of contraceptive use. Among countries characterized by a relatively high prevalence of modern method use, covert use likely characterizes a minority of women who use contraceptives.

A study in Navrongo, Ghana (a rural setting) had a unique opportunity to compare family planning service records on contraceptive use to survey interview data from the same women and their spouses (survey interviews were conducted by interviewers who were not aware of the contraceptive status of the respondent). Among 57 percent of the couples where the wife was a known contraceptive user, the wife reported in the survey interview

Figure 1 Relationship between discrepant reports of modern contraceptive use among married couples and overall prevalence of modern contraceptive use among married women in developing countries



Source: Calculations of numbers presented in table 5 of Bankole and Singh (1998).

that she was using contraceptives and her husband reported that she was not (Phillips et al. 1997). Again assuming that discordant responses indicate covert use, this finding suggests that more than half of contraceptive use in this rural area consists of secret use.

These studies of discordant reports of contraceptive use among couples provide speculative upper bounds for the prevalence of covert use. Differences in reporting contraceptive use are explained by numerous factors other than one spouse's intention to hide contraceptive use. Shyness in reporting contraceptive use to an interviewer, confusion about which spouse contraceptive use refers to for those in polygamous marriages, and gender differ-

ences in the interpretation of questions about contraception all may produce differential reporting of use by spouses. It is difficult then to make firm conclusions about the prevalence of secret use by simply comparing differences in spouses' reports of contraceptive use.

Table 1 shows estimates of covert use from three studies that asked directly about secret use, all of them in sub-Saharan Africa. The question about covert use was specifically phrased as "Does your husband/partner know that you are using a method now?" The study in Uganda found that over 15 percent of women who were using contraceptives said they were doing so without their partners' knowledge (Blanc et al. 1996). This fraction was much higher in rural areas than in urban areas (18 percent versus 7 percent). The studies in a rural Kenyan setting showed that 20 percent of contraceptive users admitted to using without their husbands' knowledge (Rutenberg and Watkins 1997; Watkins, Rutenberg, and Wilkinson 1997). In the present study of an urban area in Zambia, 7 percent of women using contraceptives said they were covertly using, a figure similar to that for urban areas in the Uganda study. Lastly, a study in rural Gambia traced the prevalence of covert use across different stages in the birth interval (we do not include this study in Table 1 for the sake of comparability). The authors found that the proportion of modern contraceptive use that is done covertly increases as the birth interval lengthens: few women using do so covertly when they are fully breastfeeding, but 22 percent of women using are doing so covertly once their children are weaned (Bledsoe and Hanks 1998).

The level of covert use is also negatively related to overall contraceptive prevalence, as seen earlier in Figure 1. Although the number of studies here is small, the evidence suggests that covert use is mainly a problem when

Table 1 Prevalence of women's covert contraceptive use,^a studies conducted in developing countries

Site (Author[s])	Sample	Percentage of women using contraceptives	Percentage of contraceptive use that is covert
<i>Lira & Masaka districts, Uganda</i> (Blanc et al. 1996)	Women age 20–44, married or in a consensual union (n = 1,660)	(urban) = 29.1 (rural) = 14.0	(urban) = 6.5 (rural) = 18.2
<i>South Nyanza district, Kenya</i> (Rutenberg and Watkins 1997; Watkins, Rutenberg, and Wilkinson 1997)	Women age 15–49, ever-married (n = 850)	(rural) = 12	(rural) = 20
<i>Urban Ndola district, Zambia</i> (Present study)	Women age 15–44, married or in a consensual union (n = 1,860)	(urban) = 43.9	(urban) = 6.9

^aCovert use is measured by women's reports in a survey that their husbands/partners do not know they are using contraceptives.

contraceptive use is a relatively new or uncommon practice. As more women and men use contraceptives in a given setting, covert use may characterize a smaller and smaller proportion of women (see mention of this relationship in Beckman 1983).

Secret use has been linked to the predominant use of specific contraceptive methods, an issue that is germane for the design of family planning programs. Table 2 indicates that most women who say they are using without their husbands' knowledge are indeed using methods that can be hidden easily from a husband: the pill, injectables, and natural methods such as periodic abstinence. The difference in method choice between secret users and women who are using with their husbands' knowledge is most pronounced for injections and natural methods, methods that secret users employ more often. Natural methods may not seem to be methods that can easily be hidden. However, we suspect that methods like periodic abstinence resemble "sporadic abstinence," a method mentioned by respondents in the Uganda

Table 2 Percent distribution of married women's contraceptive use by method and type of use, urban Ndola, Zambia, 1997

Method	Covert use		Open use	
	%	(n)	%	(n)
Pill	29	(16)	37	(279)
Injection	25	(14)	8	(57)
Rhythm/periodic abstinence/ lactational amenorrhea	39	(22)	19	(143)
Other ^a	7	(4)	36	(281)
Total	100	(56)	100	(760)

^aThe category "other" includes withdrawal, IUD, condom, male and female sterilization, traditional string ("impimpi"), and other unspecified methods.

study as a way to avoid pregnancy without the spouse knowing (Blanc et al. 1996). “Sporadic abstinence” was described in terms of the strategies one could employ to avoid risky sex, such as “pretending to be ill, spending nights away from home, or ‘facing the wall’” (ibid.: 35).

One might ask “how covert” is covert use? As with most studies using couple data, one spouse’s perception of the other’s attitudes or behavior may be quite different from what the other spouse actually reports. Table 3 shows reported contraceptive use for couples. Among covert users (the second row), more than half of their husbands (57 percent) contradicted this perception of secrecy and reported that they were indeed using contraceptives with their wives (note: questions about contraceptive use were specific to use with one’s spouse, and multiple methods were recorded). This would seem to indicate that contraceptive use is, in fact, not truly hidden; however, most of those husbands reporting use did *not* name the same method as their wives. There are a number of explanations for this: 1) women’s use is indeed covert and husbands are simply guessing; 2) husbands may have given their responses based on what they thought the interviewer wanted to hear or because they wanted to appear “modern”; 3) husbands may have used the methods they mentioned in contexts other than within their regular relationships (though the survey question was specific to the marital union);⁴ or 4) the discrepancies may be due to gender differences in what husbands and wives describe as contraceptive practice (e.g., men are more likely to identify natural methods, while women are more likely to identify modern method use). We cannot ascertain which one of these possibilities is the dominant explanation.

The level of spousal disagreement about contraceptive practice is 23 percent for women who use openly and 42 percent for nonusers. This pro-

Table 3 Percent distribution of married women’s contraceptive use by husband’s reported contraceptive use with his wife,^a urban Ndola, Zambia, 1997

Wife’s reported contraceptive use	Husband’s reported contraceptive use		Total	n
	Using	Not using		
Using openly	77.3	22.7	100.0	374
Using secretly	57.1 ^b	42.9	100.0	28
Not using	41.6	58.4	100.0	190

^aSample is of matched, monogamous couples where the wife is fecund, not pregnant, and wants to delay or stop childbearing.

^bOf the 16 husbands who said they were using a method with their wives, only 3 named the same method as their wives (all were pill users). Multiple methods were allowed.

vides further evidence that men and women often report contraceptive use differently for a variety of reasons and that these differences should not be assumed to indicate secret use. Differences we find here are “net” of the fact that some women reported hiding their contraceptive use from their husbands. Ultimately, those women who say they are secretly using contraceptives are indeed doing so for the most part without their husband’s knowledge of any use or with their husband’s ignorance of the specific method, according to the Zambian data. The question remains as to why women are motivated to use contraceptives without their husband’s knowledge.

MOTIVATIONS FOR COVERT USE OF CONTRACEPTION

Numerous motivations are described in the literature to explain women’s covert use of contraception as opposed to open use or no use at all. The three

main motivations we discuss below are 1) the husband's disapproval of contraception; 2) the pronatalism of the husband; and 3) the difficulties associated with couple communication about contraceptive use. The last motivation may be related either to the husband's opposition to contraceptive use (e.g., he will become angry or violent about the subject of contraceptive use) or to the fact that the topic is embarrassing or uncomfortable for the husband and wife to discuss.

Women do not undertake covert use easily, and such behavior needs normatively acceptable justifications since it involves a wife acting outside of or directly against her husband's authority. A husband's inadequate economic support of his children is cited by both women and men in a number of studies as persuasive justification for a woman taking independent action, though this justification may be more characteristic of sub-Saharan Africa than of other regions (Renne 1993; Watkins, Rutenberg, and Wilkinson 1997). In the Zambia study women and men justify secret use on the basis of the health and economic welfare of the children rather than the wife's right to act on her preferences independently. This is illustrated by the following quotes from women and men:

Focus group of women who do not use contraceptives

“Usually when a man in the home starts neglecting the family, that is when a woman is pressed to stop having children because she sees how the other children are suffering, and end up with malnutrition. That is the main reason why a woman starts a method of family planning to avoid ill treating innocent children. So even if the husband refuses, you just go ahead and start family planning. You just continue taking the pill at the usual time secretly.”

“What has been said is true. You just observe what is happening at home, if there is no support, you start a pill secretly. The children looked miserable and not cared for, no clothes, they move about aimlessly, no food and start begging from the streets. As a woman this breaks your heart, therefore you have no choice but just to stop bearing children.”

Focus group of men who use contraceptives

“Sometimes we don’t even know that your wife has started family planning, some husbands stop their wives from taking any method and yet they can’t control their sexual desires....If you like meeting your wife quite often again you will cause problems for her, she will conceive before time. It is better she uses a method she is comfortable with especially if her husband is not understanding. She has the right to take a pill secretly.”

While children’s welfare is one of the most pervasive publicly offered justifications given for covert use, the husband’s opposition to contraceptive use can be argued to be the driving force behind women’s individual decisions to use contraceptives secretly rather than openly. In the next sections we explore the three motivations for secret use described above.

Husband opposes contraceptive use

In general, survey data indicate extraordinarily high levels of approval of contraception among men in most developing countries, and differences between men’s and women’s approval of contraceptive use tend to be small (Ezeh, Seroussi, and Raggars 1996). But in DHS surveys, the question usu-

ally asked of men and women is phrased with respect to contraceptive use in general: “Would you say you approve or disapprove of couples using a method to avoid getting pregnant?” (Central Statistical Office et al. 1997). While such a question measures a general attitude toward family planning, it is inadequate for understanding whether men approve of contraceptive use for their own wives, a matter directly related to secret use (see Bledsoe and Hanks 1998).

Based on their qualitative work in four rural communities in Kenya, Watkins, Rutenberg, and Wilkinson (1997) identified three main reasons for male opposition to contraceptive use: 1) the concern that family planning will encourage infidelity among wives; 2) that it will interfere with men’s desire to raise large numbers of children as compensations for bride payments; and 3) that it will weaken control of husbands over their wives. Thus, in contrast to what the general approval statistics indicate, many men may be uncomfortable with the idea that their wives use contraceptives for fear that it may jeopardize their control over their wives, whether this be sexual or reproductive control.

In a hypothetical question posed in the Zambian survey, women were asked what they would do if their husbands disapproved of their using contraceptives (see Table 4). The majority of women (57 percent) said they would use contraceptives without their husband’s knowledge. Another 20 percent said they would not use a method but would try to convince their husbands, thus providing some indication that husbands’ disapproval is the barrier rather than spousal communication per se. Sixteen percent said they would just not use at all, a group of women who appear simply to acquiesce to their husbands’ wishes. Very few said they would use contraception *with* the knowl-

Table 4 Percent distribution of attitudes toward covert use among married women, urban Ndola, Zambia, 1997

If your husband/partner disapproved of your using family planning methods, would you:

Use without his knowledge	56.5
Not use but try to convince him	20.2
Just not use	16.3
Use with his knowledge	7.2
Total	100.0
n	1,860

edge of their husbands (only 7 percent), a course of action that may be viewed as challenging the husband's authority.

Husband is pronatalist

A longstanding assumption about men's fertility preferences is that they want more children than do women, because men do not suffer the physical or economic costs of repeated childbearing imposed on women. In general, studies of couples (not men and women in the aggregate) support this gender difference: "husbands tend to want more children than their wives and to want the next child sooner" (Bankole and Singh 1998: 15). The evidence is more mixed with respect to the effect of husband's pronatalism on different reproductive outcomes. A study in Nigeria based on longitudinal data found that the influence of a man's fertility preferences depended on the number of living children (Bankole 1995). If there were four or fewer children, a subsequent birth was likely if the husband wanted it, but if there were five or more children, another birth was likely if the wife wanted it. The

author argued that a woman was better able to defend her desires (and, conversely, a man was less likely to press for his desires) once she amply demonstrated her ability to bear children. In other countries, much less support is found for a strong influence of men's fertility desires (versus those of their wives) on contraceptive use (Bankole and Singh 1998). Under the latter circumstances, we would expect a weak relationship between a husband's pronatalism per se and his wife's likelihood of surreptitiously using contraceptives.

Problematic spousal communication

Another motivation for covert use is that it is the only way a woman can meet her own reproductive needs while avoiding problematic communication with her husband. Numerous studies show a positive association between the frequency of spousal communication and contraceptive use in general (open and covert), though this association involves problems of causality when cross-sectional data are used (Omondi-Odhiambo 1997; Salway 1994). Spouses who disagree with each other about whether or not to use contraception may also be less likely to discuss family planning, and the wife may thus be more likely to use contraceptives secretly. For example, women in the Uganda study felt that open disagreement with their husbands had high social costs (divorce being one extreme), and covert use was a way of circumventing both an unwanted pregnancy and the social costs of directly opposing a husband's wishes (Blanc et al. 1996).

Empirical evidence from Zambia

We use multinomial logistic regression models to estimate the effects of these three motivations for covert use. The sample is limited to fecund,

non-pregnant women who want to delay the next birth at least two years or who want to stop childbearing altogether. In other words, we are looking at the determinants of contraceptive use for women who have already expressed a desire to prevent or delay pregnancy.

The three outcomes of the dependent variable are open use of contraceptives, covert use of contraceptives, and no use (the reference category). Open use represents a decision by a woman alone or with her husband. Covert use represents a decision by a woman alone. Nonuse represents either acquiescence in the face of husband's opposition or a woman's decision not to use because of her own perceived costs of contraception.

The following indicators represent the motivations for covert use that we examine:

- 1) wife's perception of husband's disapproval of contraceptive use,
- 2) wife's perception of husband's preference for another birth,
- 3) wife's report of discussion about contraceptives with husband, and
- 4) wife's perception of the ease of discussing contraceptives with husband.

The first variable is based on a question about whether or not women think their husbands approve of contraception ("In general, do you think he approves or disapproves of using ways to delay/avoid getting pregnant?"). Unfortunately, this may reflect men's approval in general, and not necessarily with respect to use with or by his wife. The second variable, husband's pronatalism, is coded "1" if wives perceive that their husbands want to have a child soon while they want to delay or stop, *or* if their husbands want to have a child soon or delay the next birth while they want to stop childbearing altogether ("0" if otherwise). We next examine two aspects of the quality of

spoken communication about contraceptive use between spouses: first, a broad assessment of whether contraceptives are appropriate to discuss (signified by ever discussed or never discussed with husband); and second, the relative ease of approaching the husband about the topic of contraceptive use (coded “1” if difficult and “0” if easy or have to wait for husband to initiate discussion). We use number of living children and the wife’s education level (8 years or more versus other) as controls. The percent distributions of all variables are presented in Appendix Table A1.

We now assess the amount of agreement between women’s perceptions of what their husbands think and what their husbands actually say in the survey interview on the key indicators of motivations for covert use.⁵ In this sense, we examine the role false information or misperception plays in the decision to use contraceptives surreptitiously. Percentage distributions of women’s and men’s perspectives, overall levels of agreement, and statistical tests for whether agreement is more than what would be expected by chance are shown in Table 5.⁶

The overall levels of agreement for each of the variables included in Table 5 indicate high congruence between husbands’ and wives’ views. Wives’ perceptions of their husbands’ desire for another birth and their husbands’ own views match 64 percent of the time. The level of agreement on husbands’ approval of contraception and spousal communication about family planning (incidence and comfort) are much higher. Agreement is highest when wives’ responses reaffirm husbands’ positive views: for example, when wives think that their husbands approve of family planning (94 percent), that they have ever discussed family planning methods (90 percent), or that husbands can be approached easily about family planning (85 percent).

Table 5 Percent distribution of wives' perceptions of husbands' views according to husbands' stated views on approval of contraception, desire for another birth, and spousal communication, urban Ndola, Zambia, 1997

Wife's perceptions	Husband's views			% total	n	% overall agreement	Kappa index
Husband's approval of contraception	Approves	Disapproves	Does not know				
He approves	94.0	5.8	0.2	100.0	518		
He disapproves	80.0	16.7	3.3	100.0	60	84.0	0.13*
Does not know ^a	85.7	14.3	0.0	100.0	14		
Husband's desire for another birth	Wants soon	Wait	Does not want				
He wants a birth soon	32.4	51.4	16.2	100.0	74		
He wants to wait 2+ years	14.4	65.2	20.4	100.0	333	64.4	0.40*
He does not want another birth	4.3	20.0	75.7	100.0	185		
Ever discussed contraception	Ever discussed	Never discussed					
Ever discussed	89.7	10.2		100.0	497		
Never discussed	68.4	31.6		100.0	95	80.4	0.23*
Ease of discussing contraception	Easy	Difficult	Initiates				
Easy	85.4	3.4	11.2	100.0	499		
Difficult	79.7	11.9	8.5	100.0	59	74.3	0.08*
Wait for husband to initiate	73.5	5.9	20.6	100.0	34		

* p < .01

^aThe category "Does not know" includes instances where the wife does not know what the husband thinks and where the wife perceives the husband does not know.

Our findings on spousal agreement on husbands' approval of contraception mirror those from an analysis of matched couples in the 1996 Zambia DHS (Central Statistical Office et al. 1997: 68). One figure that stands out is that 80 percent of women who think their husbands disapprove of contraception are married to men who say that they actually approve of contraception. Discrepant findings like this often spur researchers to assert that spouses misperceive each other's views and that this is most likely due to lack of communication about family planning. The argument continues that if communication would occur, then these misperceptions could be corrected, contraceptive use would become a less problematic decision, and contraceptive use (presumably *open* use) would be more likely to result. However, one could also argue that some men intentionally misrepresent their views or behavior—a social desirability bias often found with interviewer-administered questions (Tourangeau and Smith 1996)—in order to show supportive and congenial, not controversial, views about family planning to the interviewer. It is difficult to confirm one explanation over the other. In either case, it is the wife's perception of her husband's views—accurate in most cases—that theoretically drives her to surreptitious use.

The results from the multinomial logit models are presented in Table 6 as relative risk ratios. Model 1 shows the effect of women's perceptions of husbands' disapproval of contraception on secret use and open use (versus non-use), controlling for number of living children and women's education. Women are 3.7 times more likely to use contraceptives surreptitiously and half as likely to use openly than not to use contraceptives if they think that their husbands disapprove of family planning. Neither women's education nor family size has any significant effects on secret use, but higher education does increase the odds that a woman will use openly rather than not use.

Table 6 Effects of various determinants of covert contraceptive use among currently married women, urban Ndola, Zambia, 1997

Determinants	Model 1		Model 2		Model 3	
	Covert use	Open use	Covert use	Open use	Covert use	Open use
Number of living children	1.01	1.02	1.00	1.03	1.00	1.01
Education 8 years and higher (ref: education less than 8 years)	1.68	1.47**	1.66	1.47**	2.06*	1.28
Perceived disapproval of contraception						
Husband disapproves of contraception (ref: Approves/OK)	3.66**	0.44**	3.35**	0.47**	1.71	0.67
Conflicting fertility preferences						
Husband more pronatalist (ref: same preferences/less pronatalist)	—	—	1.41	0.77	1.20	0.81
Problematic communication						
Never discussed contraception (ref: ever discussed)	—	—	—	—	1.57	0.36**
Husband difficult to approach (ref: easy / wait for husband to initiate)	—	—	—	—	3.72**	0.68
n		1,229		1,229		1,229
Model Chi-square (degrees of freedom)		58.78 (6)		63.66 (8)		139.66 (12)
Pseudo R2		0.030		0.032		0.071

* .01 ≤ p ≤ .05

** p ≤ .01

^aSample is fecund, non-pregnant women who want to delay or stop childbearing. Reference category for outcome is no contraceptive use.

Model 2 shows the effect of spousal differences in fertility preferences. Husbands' pronatalism has no significant effect on secret or open use compared to nonuse, while the strong effects of husbands' perceived disapproval remain. This suggests that it is not conflicting fertility preferences per se that motivate covert use. Comparing the model chi-square statistics, the addition of the measure of husbands' pronatalism barely improves the fit of the model.

Model 3 shows the effects of the nature of spousal communication about family planning. The strong positive effect of husbands' disapproval on covert use is substantially diminished once the two measures of problematic spousal communication are included in the model. Women who find it difficult to approach their husbands about the topic of contraceptive use are nearly four times as likely to use surreptitiously than not to use contraceptives. The incidence of spousal discussion has little effect on covert use versus nonuse; however, consistent with other studies, women are significantly less likely to use contraceptives openly if they have never discussed family planning with their husbands. Discordant spousal fertility preferences still have little effect on the likelihood of covert or open use versus nonuse. The perception of husbands' opposition to contraceptive use also continues to have a positive (but not statistically significant) effect on secret use, and this effect appears to work through the nature of communication with the husband (i.e., he is difficult to approach about contraceptive use).

POLICY AND PROGRAMMATIC IMPLICATIONS OF COVERT USE

Covert use of contraception challenges many assumptions about the dominant influence of men's views and decisionmaking authority on women's

reproductive behavior (Watkins, Rutenberg, and Wilkinson 1997), and, while not cost-free, such use is a “practical strategy” to subvert male authority (Renne 1993). It is usually justified by both women *and* men on the grounds of protecting the welfare of living children rather than as a woman’s right to make reproductive decisions on her own. Our study was an attempt to provide an empirical picture of this phenomenon that highlights problematic gender issues in reproductive decisionmaking.

Secret use by no means constitutes the majority of contraceptive use. The extent to which women are secretly using contraceptives is estimated to account for between 6 and 20 percent of contraceptive use in sub-Saharan Africa in the few studies that have attempted to measure it directly. It is much more widespread in rural areas than in urban areas. This rural-urban differential is partly accounted for by lower overall contraceptive use in rural areas, suggesting that where contraceptive use, especially of modern methods, is relatively new or not generally socially acceptable, more women who use will try to hide use from their husbands. The prevalence of covert use will certainly decline as contraceptive use continues to rise in many countries. However, the challenge that secret use poses to policy and programs oriented toward promoting women’s reproductive health is sizable, since nearly two-thirds of sub-Saharan Africans reside in rural areas (Population Reference Bureau 1997).

Our analysis of motivations for covert use indicates that the inability to approach husbands about the topic of contraceptive use is a major contribution. In societies where men have the right to control their wives’ reproductive decisionmaking, open use, when husbands have not given their permission, could produce a major conflict within the home. Secret use may be

the better option to avoid open confrontation with the husband. The prevalence of this problem is demonstrated by women's responses to a hypothetical situation in the *Zambian survey* regarding what they would do if their husbands disapproved of their using contraceptives. A majority of the women said that they would use secretly. Only a few women were prepared to disregard their husbands' views and use contraceptives openly.

Our multivariate analysis indicates that of the three factors examined, difficult spousal communication was the strongest determinant of covert use. Other factors—discordant fertility preferences and perceived husbands' disapproval of contraception—had no significant effects on secret use versus nonuse once the nature of spousal communication was introduced into the model. However, the non-significance of husbands' disapproval should not be taken to mean a lack of importance of spousal opposition in the determination of secret use. It appears that the strength of the husband's opposition to contraceptive use makes it difficult for the wife to broach such matters with him. These findings have several implications for those programs that are strongly oriented toward promoting couple communication and for the kinds of methods programs highlight. We conclude by briefly discussing these policy and program implications.

Health side effects, method choice, and discontinuation

The fear that a husband may detect contraceptive use (especially if health side effects occur) is a significant problem for surreptitious users. In one study on method choice, women expressed concern about health side effects, "not because of physical discomfort or danger, but because 'it will show'" (Brown et al. 1990: 46). Covert use presents problems with respect

to side effects of methods in two ways. First, a woman may not seek treatment or switch methods for fear of being discovered, thus prolonging and perhaps intensifying her health problems. Second, even if she decides to seek treatment, she may not be able to do so effectively or quickly because her husband may withhold help: a version of “you brought this on yourself, you bear the costs alone.” This is more likely for women who depend heavily on their husbands’ income for getting access to health care and treatment. The following quote from a Zambian focus group of women who do not use contraceptives illustrates this point:

“There are times, in the home, when some men refuse their wives to start using family planning. Therefore once you decide to use family planning, you have to know what to do. So, some women are afraid and that is why they use traditional medicine or even a pill privately. And she has to choose a method that has no side effects because if she suffers...the husband will be furious and tell her to count him out of that problem, so they fear to get permission from the husband. She will continue taking the method privately.”

A study in Nigeria found that some women would rather risk a one-time approach like abortion than face the continual possibility of detection that such methods as the pill and IUD present (Renne 1993). Of course, the health consequences can be much more severe for abortion, especially with the complications that usually result from home-based attempts, and the husband might be more likely to find out about efforts that have led to postabortion complications and hospitalization (a more financially costly consequence).

Covert use is also associated with issues of method choice and discontinuation because of side effects, health-related or otherwise, that reveal use to the husband. For instance, a covert user may stop using a method because a side effect (e.g., changes in menstrual bleeding patterns) threatens to reveal contraceptive use. The implications for contraceptive development and delivery are that methods that can be easily hidden and that do not trigger visible changes will allow women to meet their fertility desires while avoiding conflict with their husbands.

A cautionary note about couple-based approaches to family planning services

Undoubtedly men need to be better informed and educated about the family planning and reproductive health concerns that both they and their wives and sex partners face. One approach is individual-oriented, where men are encouraged to be supportive of their wives and partners but are independently targeted in media and outreach activities. Many community-based service providers adopt this approach to increase men's access to family planning (such as condom distribution at work sites), create greater awareness of family planning, and encourage spousal communication and by so doing weaken the existing barriers to contraceptive use by men and women. An example of such an approach is the Work Place Motivators project in Kenya (Toure 1996). Work place motivators are regular male workers who receive basic IEC and family planning training and are paid for their family planning activities among male co-workers.

Another approach is couple-oriented, where men's active involvement in decisions about contraceptive use is encouraged. As we cautioned at the

beginning of this paper, covert use indicates that some women are in marriages where formal efforts to encourage joint contraceptive decisions are neither desired nor helpful. Covert use does *not* mean that couple-oriented approaches are wrong or should not be implemented at all. For many couple-based interventions, the outcomes are significantly better if the husband is also involved; for example, less discontinuation of method use if both the husband and the wife are given family planning education (see Becker 1996 for a review). Covert use simply signals that for some women—roughly one in every ten contraceptive users—emphasis should not be placed on involving the husband. Therefore, the drive in policy and program circles to “bring men back in” should not preclude the option of explicitly *not* involving husbands if women so desire.

Appendix Table A1 Characteristics of married women in study sample, urban Ndola, Zambia, 1997

Characteristics	Secret users	Open users	Non-users	Total sample
Number of living children ^a	3.5	3.6	3.7	3.6
Sample size	56	760	413	1,229
	Percentage			
Education				
Grade 7 or less	58.9	60.9	69.7	63.8
Grade 8 or higher	41.1	39.1	30.3	36.2
Perceived approval of contraception by husband				
Husband disapproves	39.3	7.2	15.3	11.4
Husband approves/don't know	60.7	92.8	84.7	88.6
Conflicting fertility preferences				
Husband more pronatalist	33.9	15.9	21.3	18.5
Same preferences/husband less pronatalist	66.1	84.1	78.7	81.5
Problematic communication				
Never discussed contraception	46.4	9.5	26.4	16.8
Ever discussed contraception	53.6	90.5	73.6	83.2
Husband difficult to approach about contraception	46.4	6.1	14.0	10.6
Easy to approach / wait for husband to initiate	53.6	93.9	86.0	89.4

^aVariable mean

Note: Sample is fecund, non-pregnant women who want to space or stop their next birth.

Notes

1. We use the terms “covert use,” “secret use” and “surreptitious use” interchangeably throughout the paper.
2. Of the 1,056 husbands who were successfully interviewed, 1,035 (98 percent) were in monogamous marriages. And of the 1,035 monogamous men, we were able to correctly match 901 (87 percent) to their wives’ interview records. We use this sample of 901 couples for part of the descriptive analysis.
3. Sixteen percent of the married men in the Zambian study reported that they were sexually involved with a woman apart from their current wife or partner. Nine percent said they were involved in an extramarital relationship *and* were using methods to prevent pregnancy or disease. The vast majority of this method use consisted of condoms. Based on these findings, 9 percent of all married men are covertly using contraceptives, though we cannot definitively say that their wives did not know about this use.
4. Among women covertly using contraceptives, only two of their husbands reported using a method with a woman outside the marriage, in both cases condoms.
5. Husbands and wives in the Zambia study were interviewed separately as a rule. Given the difficulties in the field of arranging for survey interviews with husbands, wives and husbands were rarely interviewed simultaneously. Thus, there was some chance for discussion to occur

between spouses following the interview with the first spouse, usually the wife.

6. The Kappa index takes account of the level of agreement expected by chance alone. Kappa ranges from 0.0 to 1.0, with 0.0 indicating that agreement is no greater than would be expected by chance and 1.0 indicating perfect agreement. A statistically significant Kappa indicates that spouses agree to a larger extent than would be the case by chance alone.

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