Can Women's Childbearing and Contraceptive Intentions Predict Contraceptive Demand? Findings from A Longitudinal Study in Central India

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CONTEXT: *To predict the need for contraceptive services, family planning program managers often rely on levels of unmet need derived from measures of childbearing intentions. However, women's intention to use a method has not received as much attention as a measure of contraceptive demand.*

METHODS: *A survey was conducted in 1999 in rural Madhya Pradesh, India, among a subsample of women who had participated in the 1992–1993 National Family Health Survey (NFHS). The women's childbearing and contraceptive behaviors were compared with the intentions they had stated in the NFHS, and logistic regression was performed to analyze the association between socioeconomic and demographic variables and inconsistent behavior.*

RESULTS: *Among women who were fecund and married in 1992–1993, 29% of those who intended to have children and 61% of those who intended not to have children failed to adhere to their intentions by 1999. Furthermore, 51% of women who were not practicing contraception at the time of the NFHS but planned to do so acted against their intention by 1999, as did 29% of those who planned not to use a method. NFHS respondents who intended both not to have children and to use a method were more likely than others to have used a method by 1999 (63% vs. 25–41%). Age and history of child death were key factors associated with inconsistency between women's intentions and behavior.*

CONCLUSIONS: *In India, use of both contraceptive and childbearing intentions predicts contraceptive demand better than use of either indicator alone, and may thus help program planners estimate future demand for contraceptive services.*

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Gauging the potential demand for contraceptive services is an important component of family planning program management. By using measures of women's childbearing intentions, program administrators can estimate unmet need and hence demand for contraception; by looking at women's intention to use contraceptives, they may be able to forecast contraceptive demand more directly. Both types of information are available from large-scale surveys on fertility and family planning, such as the Demographic and Health Survey (DHS) series. In this study, we examine the usefulness of women's stated childbearing and contraceptive intentions as predictors of contraceptive demand in central India.

The most common means of predicting potential demand for contraceptive services is the analysis of data on women's childbearing intentions and current contraceptive use to estimate the level of unmet need. The DHS definition of unmet need includes nonpregnant, nonamenorrheic women who wish to limit family size or to space births but are not using contraceptives, as well as women who are pregnant or amenorrheic and who report their pregnancy as unwanted or mistimed at conception.[1] However, the use of this definition to predict contraceptive demand has two disadvantages. First, data collected from pregnant or amenorrheic women reflect their attitude toward their current or most recent pregnancy rather than their childbearing intentions. Second, the need for contraception to space births is assessed by considering only women who do not want to have a child for at least two years. This limitation tends to weaken the ability of unmet need to predict the demand for a spacing method, because many women who want a child within two years may intend to use a contraceptive method within that period.

John Ross and William Winfrey emphasized the need to consider women's intention to use contraceptives instead of or in addition to assessing unmet need.[2] Intention to practice contraception may be a more valid indicator of the demand for family planning than unmet need, even after adjustment for women who state that they will use contraceptives but might fail to do so.[3] When using either indicator, however, one must remember that childbearing intentions and behavior are dynamic—not static—concepts that can depend on multiple factors. For example, women may not adhere to their intention of not having another child or of not having one soon because of the sudden death of a child, a change in the economic condition of the household or the lack of good-quality family planning services. In India, son preference is also an important factor: Comparing family planning intentions of rural Indian women in 1975 with actual outcomes in 1987, Vlassoff[4] found that women usually stopped having children when they reached or approached their ideal number of sons. Hence, in predicting contraceptive demand, family planning program

planners need to determine how well women's childbearing behavior adheres to intentions.

DATA AND METHODS

Between December 1998 and March 1999, we conducted a survey among women who had been interviewed during the 1992–1993 NFHS to compare their childbearing and contraceptive behaviors with the intentions they had expressed in the NFHS.* The NFHS covered various topics on family health, such as the use of antenatal services, breastfeeding and food supplementation practices, and infant and child mortality. It also explored socioeconomic and demographic determinants of fertility, family planning, and maternal and child health. In the 1999 study, fertility and family planning were reexplored, using the same NFHS questions; some new questions were added to investigate contraceptive and reproductive behavior during the intersurvey period, as well as reasons for nonadherence to stated contraceptive and childbearing intentions.

Given that the average birth interval in India is about three years, conducting a follow-up survey after 6–7 years should provide information on whether and how women realize their intentions to have or not to have children. In the case of intention to use contraceptives, such a long intersurvey period may reduce the reliability of respondents' recall of short episodes of reversible contraceptive use. In India, however, most women rely on sterilization, and switching between methods is infrequent; therefore, the problem of memory recall is minimal.

The 1999 survey was conducted in rural Madhya Pradesh, central India, which is in the high-fertility zone of the country. The age at marriage, level of female literacy and contraceptive prevalence in the state are somewhat lower than the national averages, whereas the level of infant mortality and the extent of preference for additional children, especially sons, are slightly higher.

For the NFHS, Madhya Pradesh was subdivided into five regions,[5] but because of limited resources, we randomly selected three regions for the second survey. In addition, we randomly chose eight of 12 NFHS districts in one region and six each of 11 and 10 NFHS districts in the other two regions. Within these 20 districts, we included all of the 49 villages in which the NFHS was conducted. Although this design marginally upsets the self-weighting nature of the sample, a potentially greater bias is nonresponse. However, the overall nonresponse rate was similar in the three selected regions; thus, we assumed that the follow-up survey was also self-weighting.

In rural settings, households are identified by the name of the household head rather than by a house number. Because many names are common, the follow-up survey matched not only names of the heads of the households, but also names of the women who took part in the NFHS and those of their children. Of the NFHS sample of 6,254 ever-married women aged 13–49 living in 5,857 households in Madhya Pradesh, 4,778 women were from 4,398 households in rural areas. Among the latter group, 1,333 women lived in the regions that were selected for the second survey, and of these women, 56% were reinterviewed. The follow-up survey did not include the remaining 44% of women because they were not at home (19%), they had been visitors during the NFHS (13%), they had moved (7%), they had died (2%), they could not be found (2%) or they refused or were mentally unfit (1%).

Measures

The NFHS assessed women's reproductive intentions by asking currently married, fecund women whose husbands had not been sterilized whether they would like to have children (or another child), using five possible answers: "yes," "no," "cannot get pregnant," "it is up to God" and "unsure." We considered those who said no to have an unmet need for contraception.† The respondents who said that childbearing is up to God or that they were unsure were considered to have a positive attitude toward reproduction; hence, they were categorized as intending to have children. Women who said they could not get pregnant (e.g., they had reached menopause by the time of the NFHS) were excluded from follow-up.

In the follow-up survey, we collected women's birth histories up to the survey date. By comparing histories with those given in the NFHS, we obtained information on childbearing that resulted in live births in the intersurvey period. We asked women who had intended to have children but actually had not and those who had intended not to have children but nevertheless had done so to give one reason for not adhering to their intentions.

The NFHS asked currently married women if they or their husband were currently using a contraceptive method. Women who were not using a method (including those who were currently pregnant) were asked about their intentions to use a method and about their intended method. Methods were defined as modern and reversible (i.e., the pill, IUD, injectable and condom), modern and permanent (i.e., female and male sterilization) and traditional (i.e., periodic abstinence and withdrawal). The 1999 survey also asked women if they or their husband were using a method at the time of the survey and, if so, which one. Neither the NFHS nor the follow-up survey specified a reference period for current use.

The follow-up survey asked women who had intended to practice contraception but actually had not, "In the last survey, you mentioned that you intended to use family planning. What is the reason that you could not use it?" The question was suitably modified for those who had not intended to use a method but had nevertheless done so during the intersurvey period. The women were asked to give one main reason.

*For ease of presentation, we will refer to the survey dates as 1999 and 1992.

†The definition of unmet need in the NFHS included the need for contraception to limit family size and to space births; in the 1999 study, unmet need referred only to the desire to limit family size among women who were not practicing contraception, because the majority of women in India who use a method choose sterilization—the mainstay of India's family planning program.

Statistical Analyses

We used chi-square tests to compare proportions of women categorized by their characteristics, intentions and behaviors. Logistic regression analyses were used to examine the effect of women's characteristics on the likelihood of inconsistency in childbearing and contraceptive behavior. Statistical analyses were performed using SPSS version 10.0.

Sample

NFHS respondents from rural Madhya Pradesh had characteristics similar to those of women who lived in areas chosen for the follow-up study (Table 1). Thus, women in the selected areas were representative of the original sample. Furthermore, distributions of resurveyed women by educational level, religion and caste or tribe were similar to those of women in the selected areas; hence, nonresponse did not affect the representativeness of the sample interviewed.

In the areas of Madhya Pradesh covered in both surveys, the proportion of participating women who were married decreased, whereas the proportion who were widowed increased (Table 1). Compared with the NFHS, the follow-up survey found a longer mean duration of marriage (21 vs. 15 years) and a higher mean number of living children (3.4 vs. 2.5; not shown). Fifty-four percent of women were housewives at the time of the NFHS, compared with 27% at follow-up; in contrast, the proportion of respondents engaged in farming activities increased substantially, from 31% to 57%.

In 1992, 38% of women living in the areas covered by both surveys were using a modern method of contraception, including 36% who had been sterilized; hence, the vast majority of users of modern contraceptives relied on sterilization (96%). By 1999, the prevalence of modern method use had increased to 61%, with 98% of users relying on sterilization.

RESULTS

Among the 744 reinterviewed women, 721 were married at the time of the NFHS; of these, 289 women reported in the NFHS that they had been sterilized and 11 that they were using reversible contraceptive methods. Therefore, 432 of the 744 women were asked the NFHS question on childbearing intentions, and 421 were asked the question on contraceptive intentions. The childbearing and contraceptive behavior of these women during the intersurvey period were examined to determine how well their stated intentions predicted their actual behavior.

Childbearing

• *Intentions and behavior.* Of the 432 women who were asked the NFHS question on fertility intentions, 287 said they intended to have children; 71% of these women subsequently did so during the intersurvey period, whereas 29% did not.

*Given that the women who had not wanted additional children were considerably older than those who had (mean ages of 33 and 23, respectively), this difference would be even smaller if adjusted for women's likelihood of conception.

TABLE 1. Percentage distribution of ever-married women aged 13–49 living in rural Madhya Pradesh, India, who participated in the 1992–1993 National Family Health Survey (NFHS), according to region, and in the 1999 follow-up survey; all by social and demographic characteristics

Characteristic	NFHS		Follow-up survey (N=744)
	All regions (N=4,863)†	Selected regions‡ (N=1,333)	
Age			
≤29	56.6	55.4	26.1***
30–44	36.0	36.8	47.7
≥45	7.4	7.9	26.6
Literacy/education			
Illiterate	83.9	83.4	80.6
Literate	16.1	16.6	19.3
<primary	11.0	11.7	14.9
Complete primary school	2.9	2.4	2.0
≥complete middle school	2.2	2.5	2.4
Religion			
Hindu	95.8	97.2	97.2
Muslim	2.6	1.8	1.6
Other	1.6	0.9	1.2
Caste/tribe			
Scheduled§	37.9	39.2	41.6
Other	62.1	60.8	58.3
Marital status			
Married	95.7	96.4	92.6***
Widowed	1.5	1.3	5.8
Separated	2.4	2.1	1.5
Divorced	0.4	0.2	0.1
Duration of marriage (yrs.)			
0–9	31.8	32.0	4.3***
10–19	33.5	31.8	35.6
≥20	34.5	36.0	60.1
Data missing	0.1	0.2	0.0
Children ever born			
0	14.7	13.8	2.6***
1	14.6	13.9	3.6
2	14.8	13.8	12.5
3	16.0	15.9	18.1
≥4	39.8	42.6	63.2
Occupation			
Housewife	63.1	54.3	26.7***
Service††	0.3	0.3	1.9
Farming	25.1	30.9	57.1
Manual labor	10.4	13.6	13.6
Other	1.1	0.9	0.6
Current contraceptive method‡‡			
None	66.6	62.0	38.9***
Modern	32.5	37.6	61.1
Permanent	30.7	36.0	59.9
Reversible	1.8	1.6	1.2
Traditional	0.9	0.4	0.0
Total	100.0	100.0	100.0

***p<.001 for overall comparison with NFHS respondents from selected regions. †Weighted N. ‡NFHS regions of Madhya Pradesh selected for the 1999 follow-up survey. §Scheduled castes and tribes are officially recognized by the government of India as socioeconomically disadvantaged and in need of special protection from injustice and exploitation. ††Work other than farming or manual labor. ‡‡Includes only women who were married at the time of the NFHS (4,654 for all regions, 1,285 for selected regions and 721 for the follow-up survey).

Of the 145 women who said in the NFHS that they wanted no (or no more) children, 61% nevertheless had children. Thus, the likelihood of having another child did not differ significantly between the two groups.* Therefore, childbearing intentions do not predict behavior and are a poor indicator of unmet need for means of limiting births.

TABLE 2. Percentage distribution of women whose childbearing behavior during the intersurvey period did not follow their stated intention in the NFHS, by reason, according to intention and behavior

Intention, behavior and reason	%
Intended not to have children, but did	(N=89)
Woman wanted more children	32.5
Birth of children up to God	14.6
Husband/in-laws wanted more children	13.4
Contraception not effective	6.7
Fear of side effects	6.7
No contraceptive knowledge	4.5
Sterilization failure	6.8
Do not know	5.6
Death of child	4.5
Changed mind	3.4
Other	1.1
Intended to have children, but did not	(N=84)
Health problem	40.4
Changed mind	23.8
Did not give serious answer	7.1
Do not know	4.8
Death of husband	8.3
Migration of husband	2.4
Menopause/subfecundity	3.6
Convinced to adopt contraception	3.6
NFHS response guided by husband/in-laws	3.6
Worsened finances	2.4
Total	100.0

• *Reasons for inconsistency.* The 89 women who had said at the time of the NFHS that they did not intend to have children but nevertheless had one or more during the intersurvey period were asked why their behavior had differed from their intentions. As Table 2 shows, 33% explained that they had desired additional children. The mean number of children born to women in this subgroup at the time of their NFHS interview was 3.3 and the mean number of sons was 1.2. Furthermore, 79% of these women said that they had had a child because they wanted a son. Hence, these respondents may not have been satisfied with the sex composition of their families. This finding is similar to that of Arnold,[6] who argues that couples who have an abiding preference for sons or for a balanced number of sons and daughters will continue bearing children despite having reached their ideal family size until they are satisfied with the sex composition of their family.

More than one-fourth of women indicated that the decision to have children was not theirs—15% said it was "up to God" (the average family size of these women was 5.7), and 13% had conceded to the childbearing desire of their husband or in-laws. Nearly one in five women gave program-related reasons for unintended childbearing: They considered the available methods ineffective (7%), were afraid of side effects (7%) or did not have family planning knowledge (5%). Surprisingly, a further 7% of respondents cited sterilization failure. Furthermore, 6% said they did not know, 5% had wanted to replace a child who had died and 3% said they had changed their mind since the NFHS; 1% gave a variety of other reasons.

Of the 84 women who had not fulfilled their earlier desire to have children, 40% cited health problems (Table 2). Others said they had changed their mind (24%), had not answered the question on intention seriously (7%) or did not know the reason (5%). Furthermore, one in 10 reported that their husbands had died (8%) or migrated (2%), and 4% said they were subfecund or had reached menopause. Other reasons were that women had been influenced by health care workers or others to accept family planning (4%), had been advised by their husband or in-laws not to have another child (4%) or lacked money (2%).

Contraceptive Use

• *Intentions and behavior.* Of the 421 women who were asked the NFHS question on contraceptive intentions, 127 stated that they would use a method in the future. More than half (51%) of these women, however, did not do so during the intersurvey period. Twenty-nine percent of the 294 respondents who had said they would not practice family planning actually did so. Thus, those who had intended to use contraceptives were significantly more likely to use a method than were those who had not planned to do so ($p<.01$).

Because respondents who had said they intended to use a family planning method within 12 months of the NFHS had given a more explicit time frame than those who had said they would use one later, we expected that they would be more likely to realize their intention. However, the difference between the two groups in the proportions of women who subsequently used a method—53% and 45%, respectively—was statistically nonsignificant.

Of the 127 women who expressed an intention to use a contraceptive method, 68% said they would use a permanent method, 25% a reversible method and 9% a traditional method. Among women who had said they preferred to use a permanent method, 48% were subsequently sterilized, whereas 3% adopted a reversible method. In contrast, of those who had intended to use a reversible method, 3% actually did so and 44% chose to be sterilized. Despite similar overall contraceptive prevalence rates among these two groups of respondents, such high sterilization rates reflect women's continued preference for sterilization after reaching their desired family size, as well as the continued emphasis on sterilization in India's family planning program. Therefore, women seem to be decisive when expressing their intention to use a family planning method, especially those intending to use a permanent method.

• *Reasons for inconsistency.* Fifty-nine of the 65 women who had not adhered to their intention to practice contraception gave a reason at the follow-up survey (Table 3). Some 36% of these respondents said that they had not used a method because they wanted to have children; two-thirds of these had been childless or had had only one child at the time of the NFHS. Hence, these women may have intended to use contraceptives only after reaching their desired family size.

Some respondents had not responded to the NFHS question on contraceptive intention with conviction: 12% could not give a specific reason and 5% said that they had changed

their mind since the first survey. Nineteen percent of women said that their fear of side effects (14%) or lack of knowledge about methods (5%) had prevented contraceptive use. A further 12% cited health problems as obstacles—for example, they had become too weak to withstand the sterilization procedure (they probably thought sterilization was the only option available), had become subfecund or had lost their libido and therefore did not need contraception. The last two reasons were usually cited by older respondents. Ten percent of women reported that they had failed to realize their intention to use a method because of opposition from family members (including husbands). In addition, small percentages had reached menopause, had become widowed or gave other reasons.

In contrast, the majority (72%) of the 93 respondents who practiced contraception despite having not intended to said they had reached their desired family size; about three-fourths of this subgroup had had children since the NFHS. Nine percent of respondents said that their husband had wanted to use a method, whereas 7% said they had changed their mind or had not answered seriously in the original survey. Small proportions had used a method because they had gotten married since the first survey, had lacked family planning knowledge or had been influenced by health care workers or other individuals to practice family planning. Other reasons for contraceptive use among women who had wanted to be nonusers (8%) included ambivalence and subsequent sterilization to receive the financial incentive provided by government.

TABLE 3. Percentage distribution of women whose contraceptive behavior during the intersurvey period did not follow their stated intentions in the NFHS, by reason, according to intention and behavior

Intention, behavior and reason	%
Intended to use method, but did not	(N=59)
Woman wanted more children	35.6
Do not know	11.9
Changed mind	5.1
Fear of side effects	13.6
No contraceptive knowledge	5.1
Health problem	11.9
Opposition from family	10.2
Menopause	1.7
Death of husband	1.7
Other	3.2
Intended not to use method, but did	(N=93)†
Reached desired family size	72.0
Husband wanted to use method	8.6
Changed mind/did not give serious answer	6.5
Newly married/no contraceptive knowledge	3.3
Convinced to use method by health care worker/ friend/relative/neighbor	2.2
Other	7.5
Total	100.0

†Includes eight women who became widowed.

Contraception and Childbearing

The preceding analyses indicate that a gap exists between childbearing and contraceptive intentions and their realization. Contraceptive intentions, however, appear to be better predictors of behavior than are childbearing intentions. By expressing the intention to practice contraception, women are able to better visualize their future need for family planning and, therefore, more likely to translate it into actual use than when they respond to a question on whether or not they intend to have a child.

To determine if the desire for additional children is associated with intention to practice contraception, we categorized respondents who had intended to use or not to use contraceptives according to their stated childbearing intention (not shown). The proportion of women who intended to practice contraception did not vary significantly between those who wanted children and those who did not (29% and 33%, respectively). The inconsistency between responses to the questions on childbearing desire and contraceptive intention is not unique to Madhya Pradesh, but is characteristic of India as a whole, because women do not necessarily relate their desire to stop childbearing to the need to deliberately regulate their fertility through contraception. The fatalistic attitude that childbirth is beyond a woman's control is still prevalent in the country and is an important influence on both intentions.

Women who had intended both to use a method and to not have children were significantly more likely than others to have used a method in the intersurvey period: Of 46 such women, 63% actually practiced contraception, compared with 41% of women who had intended to use a method but also had wanted more children, 25% of women who had not intended to use a method but had wanted no more children and 31% of women who had not intended to use a method and wanted more children ($p<.001$).

Influences on Consistency of Behavior

We conducted logistic regression analyses to understand what factors influence women's adherence to their stated reproductive intentions. The four models tested for associations between women's characteristics and the likelihood of inconsistent behavior among women who intended to have children, those who intended not to have children, those who intended to use a contraceptive method and those who intended not to use a method (Table 4, page 30). In addition to selected socioeconomic and demographic characteristics, we included two other explanatory variables: whether a woman had lost a child during the intersurvey period, and whether a woman's ideal family size exceeded her actual family size at the time of the NFHS. Both of these variables are likely to have a direct influence on consistency between intentions and behavior.

The fertility behavior of women aged 30 or older was less likely than that of younger women to be inconsistent with their stated fertility intention, whether or not they had planned to have children (odds ratios, 0.1–0.3). Women who had planned to have children had reduced odds of inconsistency if they had a history of child loss (0.3); in contrast, women with such a history who had not intended to have children had elevated odds of inconsistency (2.7). Furthermore, women with at least four children were less like-

ly than others to have children when they had planned not to (0.2), and women with no surviving sons were less likely than those with living sons to fail to have children when they had intended to have them (0.2).

A woman's age was significantly related to her adherence to her contraceptive intentions: Respondents aged 30 or older were more likely than younger women to be inconsistent (odds ratios, 5.9–6.2), whether or not they had intended to use a method. In addition, child loss was associated with the likelihood of deviation from stated contraceptive intention: Among women who had intended to use a method, those who had experienced child loss were more likely than those who had not to subsequently not use a method (2.6). In contrast, the odds that women had used a method despite having intended not to were reduced for women with a history of child loss (0.2).

Among women who had planned to use contraceptives, the odds of not using a method were reduced for those whose ideal family size exceeded their actual family size (0.99) and for those who lived in better-quality (pucca and semi-pucca) houses (0.3). Among women who had intended to remain nonusers, those who were not members of scheduled castes or tribes had decreased odds of using a method (0.5), and those who were literate had increased odds of doing so (2.3).

TABLE 4. Odds ratios from logistic regression analyses examining the effect of selected characteristics on the likelihood of inconsistency between childbearing and contraceptive intentions and behavior

Characteristic	Childbearing intention		Contraceptive intention	
	To have children (N=287)	Not to have children (N=145)	To use method (N=124)†	Not to use method (N=294)
Age				
<30 (ref)	1.00	1.00	1.00	1.00
≥30	0.25**	0.08**	6.22**	5.89**
No. of child deaths, 1992–1999				
0 (ref)	1.00	1.00	1.00	1.00
≥1	0.27**	2.66**	2.56*	0.19**
No. of living children				
<4 (ref)	1.00	1.00	1.00	1.00
≥4	0.79	0.20**	0.39	1.39
No. of surviving sons				
≥1 (ref)	1.00	1.00	1.00	1.00
0	0.18**	1.97	1.42	0.83
Ideal vs. actual family size				
Ideal≤actual (ref)	1.00	1.00	1.00	1.00
Ideal>actual	1.17	0.99	0.99*	1.16
Residence‡				
Kachcha (ref)	1.00	1.00	1.00	1.00
Pucca/semi-pucca	2.39	0.71	0.30*	0.32
Caste/tribe				
Scheduled§ (ref)	1.00	1.00	1.00	1.00
Other	1.30	0.72	1.04	0.49*
Literate				
No (ref)	1.00	1.00	1.00	1.00
Yes	1.89	1.41	1.58	2.33*
Constant	*0.216*	*15.635*	*2.969*	*0.437*

*p<.05. **p<.01. †Among respondents who intended to use a contraceptive method, three had already reached menopause at the time of NFHS. ‡On the basis of construction materials, a house is classified as kachcha (made with mud, thatch or other low-quality materials), pucca (made with high-quality materials) or semi-pucca (made with low- and high-quality materials). §Scheduled castes and tribes are officially recognized by the government of India as socioeconomically disadvantaged and in need of special protection from injustice and exploitation. *Note:* ref=reference group.

DISCUSSION AND CONCLUSION

This study is an attempt to compare women's actual behavior with their stated intentions regarding fertility and family planning. We investigated women's intentions to have or not to have children (i.e., their need to limit family size, which is the core component of unmet need in India) and their desire to practice family planning in the future. Our findings suggest that women's intentions about contraceptive use are more definite than their plans about childbearing: Women who intend to practice contraception are more likely to use a method than are those who do not. On the other hand, women who intend to have one or more children are about as likely as those who do not to subsequently have children.

The assessment of contraceptive intentions may help in the development of family planning programs, because program activities can target nonusers who intend to use a method, thereby reducing unmet need in this group. However, placing excessive emphasis on women who intend to practice contraception without giving sufficient attention to women who do not may be detrimental to a program's success, because a sizable proportion of women not intending to use a method actually do so.

An examination of both childbearing and contraceptive desires may predict women's behaviors (and hence contraceptive demand) more accurately than use of either indicator alone. For example, among women who do not want to have a child and who intend to practice family planning, 63% actually use a method—a proportion much higher than that among the other groups studied.

This study was conducted in a country with a family planning program that emphasizes sterilization of women to limit family size, and it examined women's contraceptive and childbearing behavior after a long intersurvey period of 6–7 years. The special context of this study has certain implications in understanding the linkage between reproductive intentions and their realization.

First, some women who have not yet reached their desired family size or the desired sex composition of their family may say initially that they want another child and do not intend to use a contraceptive method. They may subsequently have one or more children and then decide to become sterilized. Such women will thus appear to have failed to adhere to their stated intention. Second, emphasis on sterilization can increase the consistency between reproductive intention and outcome. Women who say they want no more children and intend to practice contraception will, of course, remain faithful to both contraceptive and fertility intentions if they adopt a permanent method.

In conclusion, reproductive intentions and actual behavior among women in rural Madhya Pradesh show considerable discrepancies and are influenced not only by cer-

tain background factors, but also by programmatic factors. A better-quality program that emphasizes expanded and informed choice of methods may reduce the discrepancy. In this respect, measurement of unmet need in India may be supplemented by measurement of contraceptive intention to predict future demand for family planning services.

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RESUMEN

Contexto: *Para hacer una predicción sobre las necesidades de servicios de anticonceptivos, los administradores de los programas de planificación familiar con frecuencia recurren a los niveles de la necesidad insatisfecha obtenidos de conformidad con las intenciones de reproducción. No obstante, no se ha prestado suficiente atención a las intenciones de las mujeres con respecto al usar un método como medida adecuada para establecer el nivel de demanda de la anticoncepción.*

Métodos: *Se realizó una encuesta en 1999, en una zona rural de Madhya Pradesh, India, entre una submuestra de mujeres que habían participado en la National Family Health Survey (NFHS) de 1992–1993. Se comparó las conductas reproductivas y del uso de anticonceptivos de las mujeres con sus intenciones que habían manifestado en la NFHS, y se realizaron análisis de regresión logística para estudiar la relación entre las variables socioeconómicas y demográficas y la incongruencia de la conducta demostrada.*

Resultados: *Entre las mujeres que eran fecundas y casadas en 1992–1993, el 29% de aquellas que tenían intenciones de tener hijos y el 61% de las que habían manifestado que no tenían intenciones de tenerlos, en 1999 no habían cumplido con sus intenciones. Además, el 51% de las mujeres que no se encontraban practicando la anticoncepción en el momento de la NFHS pero que planeaban hacerlo, en 1999 no habían cumplido con sus intenciones, y el 29% tampoco cumplieron con su intención de no usar un método anticonceptivo. Las entrevistadas que habían manifestado que tenían intenciones de no tener hijos y de usar un método anticonceptivo resultaron más proclives que las otras a utilizar un método en 1999 (63% contra 25–41%). La edad de la mujer y el historial de muerte infantil fueron factores claves relacionados con la congruencia entre las intenciones de las mujeres y sus conductas observadas.*

Conclusiones: *En la India, el uso de ambas, las intenciones en materia de anticonceptivos y en la reproducción, es un mejor variable predictiva de la demanda anticonceptiva que el uso de cada uno en forma independiente. Así, el uso de ambos probablemente resulte beneficioso a los planificadores de programas para poder calcular la demanda futura de servicios anticonceptivos.*

RÉSUMÉ

Contexte: *Pour prédire le besoin de services de contraception, les gestionnaires des programmes de planning familial se réfèrent souvent aux niveaux de besoin non satisfait dérivés de la mesure des intentions génésiques. L'intention qu'ont les femmes de pratiquer une méthode n'a toutefois guère reçu d'attention en tant que mesure de la demande contraceptive.*

Méthodes: *Une enquête a été menée en 1999 dans la région rurale de Madhya Pradesh, en Inde, parmi un sous-échantillon des femmes qui avaient participé à l'Enquête nationale sur la santé familiale (NFHS) de 1992–1993. Les comportements génésiques et contraceptifs des femmes ont été comparés à leurs intentions déclarées lors de l'enquête NFHS et l'association entre les variables socio-économiques et démographiques et les comportements non conformes a été analysée par régression logistique.*

Résultats: *Parmi les femmes fécondes et mariées en 1992–1993, 29% de celles qui avaient l'intention d'avoir des enfants et 61% de celles qui n'en avaient pas l'intention n'avaient pas respecté leurs intentions en 1999. De plus, 51% des femmes qui ne pratiquaient pas la contraception au moment de l'enquête NFHS mais qui en avaient l'intention avaient également manqué à cette intention en 1999, de même que 29% de celles qui n'entendaient pas utiliser de méthode. Les répondantes à l'enquête NFHS dont les intentions étaient, à la fois, de ne pas avoir d'enfants et de pratiquer une méthode étaient plus susceptibles que les autres d'avoir pratiqué une méthode en 1999 (63% par rapport à 25-41%). L'âge et les antécédents de mortalité infantile se sont révélés les facteurs clés de conformité entre les intentions des femmes et leur comportement.*

Conclusions: *En Inde, les intentions contraceptives et génésiques sont, ensemble, de meilleurs prédicteurs de la demande contraceptive que l'un ou l'autre indicateur considéré seul. Leur analyse combinée pourrait dès lors aider les planificateurs de programme à estimer la demande future de services de contraception.*

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