

Meeting Contraceptive Needs: Long-Term Associations Of the PRACHAR Project with Married Women's Awareness and Behavior in Bihar

CONTEXT: Although interventions such as the PRACHAR project in Bihar, India, have been associated with increased contraceptive knowledge and use in the short term, less is known about whether such gains are sustained years later.

METHODS: Survey data, collected in 2013 from 2,846 married women aged 15–34, were used to compare contraceptive awareness and use between those who lived in areas where the PRACHAR project had been implemented in 2002–2009 and those who lived in matched comparison areas. Multivariate analyses assessed whether, after adjustment for covariates, outcomes differed between women in comparison and intervention areas, as well as between women directly exposed to the program and those who lived in intervention areas but had been only indirectly exposed.

RESULTS: Compared with women in comparison areas, those in intervention areas were more likely to have method-specific knowledge of oral contraceptives, IUDs, condoms and the Standard Days Method (odds ratios, 1.4–1.7); to know that oral contraceptives and condoms are appropriate for delaying first pregnancy (2.3 for each) and IUDs and injectables are appropriate for spacing births (1.4 for each); to have ever used contraceptives (2.1) or be using a modern method (1.5); and to have initiated contraception within three months of their first birth (1.8). Levels of awareness and use were elevated not only among women directly exposed to the intervention but also, for many measures, among indirectly exposed women.

CONCLUSIONS: The association of multipronged reproductive health programs like PRACHAR with contraceptive awareness and practices may last for years beyond the project's conclusion.

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Many programs have been implemented in India and elsewhere that aimed to help young people (especially young women) to delay marriage and first pregnancy and to space subsequent pregnancies, while empowering them to choose the timing of pregnancies and ensure that every pregnancy is wanted and planned. Evaluations have shown that many of these projects, which typically last 2–5 years, have led to increases in reproductive health awareness, positive attitudes toward birth spacing and even contraceptive prevalence at low parities. Several such interventions, including Pathfinder International's Promoting Change in Reproductive Behavior (PRACHAR) project, have been conducted in India.^{1–5} Although positive changes have been documented at the conclusion of these interventions, the extent to which the changes are sustained over time—and whether they reflect the spread of new community norms concerning contraception and reproductive health—remain unexplored.

This article presents findings from an evaluation that sought to shed light on whether the improvements in contraceptive awareness and use observed following the implementation of the PRACHAR project were still evident four to eight years after its completion. Specifically, we examined whether women who were building families

in areas where the PRACHAR project had been implemented—many of whom had not been directly exposed to the intervention—reported different contraceptive experiences than did those in comparison areas where the program had not been implemented.

METHODS

Setting

The PRACHAR project was implemented in rural areas of selected districts of Bihar, one of the least developed states in India. Bihar accounts for only 2.5% of the national gross domestic product,⁶ and just one-tenth of its population lives in urban areas; 53% of females aged seven or older are literate in Bihar, compared with 66% in India as a whole.⁷ According to the 2005–2006 National Family Health Survey (NFHS-3), the state's infant mortality rate was higher than the national average (62 vs. 57 per 1,000 live births), and its total fertility rate (4.0) was the highest of any state in India.⁸ Child marriages are common: In 2005–2006, 69% of women aged 20–24 reported having married before age 18. Moreover, childbearing is initiated early and continues at a rapid pace; the NFHS-3 found that about one-third (31%) of married women aged 20–24 had had their first birth before they turned 18, and 16% of married

women aged 15–24 had three or more children at the time of the survey.⁹ At the same time, young people's knowledge of sexual and reproductive health matters is limited,^{8,10} as is their contraceptive use: Just 13% of married women aged 15–24 were practicing contraception in 2005–2006, and 31% had an unmet need for contraception.

This context provided a strong rationale for implementing the PRACHAR program. The project had three major goals: delaying marriage until the bride was aged 18 or older and the groom 21 or older; delaying the birth of a first child until the mother was 21 or older; and initiating contraception within three months of marrying or (to ensure appropriate birthspacing) giving birth. The main target audience was youth aged 15–24 and, to a lesser extent, older women; however, to address community needs more generally and to help foster changes in community norms, programs were held for individuals at all stages of the life cycle.

The program encompassed a wide range of activities. Locally based female change agents, who were specially recruited and trained for the program, provided information and one-on-one counseling during visits to young women's homes, and invited the women to participate in group discussions of sexual and reproductive health issues. Male change agents, also based locally, periodically conducted group meetings with married men, with fathers and fathers-in-law, and with influential men in the community (all separately), and counseled married young men individually.^{4,5,11} Other key PRACHAR activities included programs on reproductive and sexual health for adolescents; infotainment programs for newlywed couples; and cultural programs for the community at large. In addition, to sensitize the community, the project displayed wall paintings in intervention villages. In all of these activities, the program emphasized the benefits, appropriateness and correct use of different contraceptive methods. In addition, special efforts were made to improve access to services: Auxiliary nurse midwives, rural health practitioners and other health care providers were oriented about reproductive health matters and sensitized about how to engage with and serve the young; and women (particularly young women) were encouraged to seek appropriate services. In addition to advocating delaying marriage, delaying the birth of a first child and spacing subsequent births, the project aimed to convey that the pill and condoms are generally most appropriate for delaying first births, because they are easy to discontinue and allow a rapid return to fertility when pregnancy is desired, and that the IUD and injectable are generally most appropriate for spacing subsequent births, because they are reliable and are effective for a long period of time. The project team made efforts not only to raise awareness about the health benefits of new practices, but also to change norms about the acceptability of delayed marriage and childbearing, about contraception and about communicating with partners and family members about contraception and family size preferences.

The PRACHAR program was implemented in three

phases. In this article, we focus on areas served by the first two phases, implemented in 2002–2005 (phase I) and 2005–2009 (phase II). Those time frames include preparatory and evaluation activities and staged implementation; at each intervention site, phase I was fielded for three years and phase II for two years. Phase I was implemented in 17 blocks (subdistricts) of three districts (Nalanda, Nawada and Patna), and phase II in 13 blocks of five districts (Gaya, Nalanda, Nawada, Patna and Sheikhpura). Noncontiguous blocks of three districts (Gaya, Nalanda and Sheikhpura) served as control sites in earlier PRACHAR evaluations.

Pathfinder International conducted evaluations at the conclusion of phases I and II using a quasi-experimental research design. Findings showed that the interventions had significant effects on age at first marriage, age at first birth and the spacing of subsequent births, and that they raised awareness of contraception and other reproductive health topics, increased contact with the health system and led to more positive attitudes toward reproductive health matters.^{4,5,11}

Study Design

The study designs and sampling strategies used in the previous evaluations differed considerably from those of the current, longer term assessment. In the earlier evaluations, samples were selected independently for women of different parities (0, 1 and 2), and independently for phases I and II. In contrast, the present assessment used a simpler approach, as the sample was selected only on the basis of marital status and age. Hence, it is difficult to compare the findings of the previous evaluations with those of the current analysis.

We adopted a posttest-only design. A cross-sectional survey of women aged 15–34 was undertaken in 10 blocks from the five districts where one or both phases of the PRACHAR project had been implemented (Gaya, Nalanda, Nawada, Patna and Sheikhpura), and in six blocks from one of the three districts (Gaya) that had served as the comparison areas in earlier evaluations conducted by Pathfinder International. (The use of a single district was for reasons of economy). The intervention areas thus included areas with differing periods of exposure: 2002–2005, 2005–2009 and 2002–2009 (i.e., phase I, phase II and both phases, respectively).

Our evaluation design rests on two assumptions: that the social and demographic characteristics of intervention and control communities were similar before the intervention began; and that the messages and information of the PRACHAR program diffused both to nonparticipants who resided in the intervention districts during the intervention period and to individuals who moved to the community afterward. Available block-level indicators, drawn from the 2001 census,⁷ suggest that residents of intervention blocks and those of comparison blocks indeed had similar characteristics; for example, 33% and 35% of females in the two groups were literate, respectively, and 24% and 22% were from socially excluded castes and tribes. Similarly,

other survey data show that the social and demographic characteristics of residents of the intervention districts resembled those of residents of the control district (Appendix Table 1, page 124).

To our knowledge, no sexual and reproductive health interventions were initiated in either the intervention or the control district after PRACHAR ended, other than standard government programs. It is likely, however, that following the PRACHAR project, the quality of care offered in the public sector in intervention areas remained superior to what was offered in control sites.

A total of 36 primary sampling units—namely, villages, segments of large villages or (in the case of small villages) two-village groupings—were randomly selected from intervention and comparison blocks using the probability proportional to size sampling technique. Overall, 27 primary sampling units were selected from the intervention areas—nine each from areas in which the intervention was carried out for three years, areas in which it was carried out for two years and areas in which it was carried out for five years—and nine from the comparison areas. In all, 30 villages were included in the intervention blocks and 11 in the comparison blocks.

Within each selected village, a household mapping exercise was conducted and a short household questionnaire administered. Married women aged 15–34 of various parities were identified from the household listing and selected for interview according to a sampling scheme designed to obtain a predetermined number of married women of different parities. In total, 2,846 married women were interviewed—716 from comparison areas and 2,130 from the intervention areas. Data collection took place during March–April 2013.

Variables

• **Outcomes.** We focus on four broad sets of outcomes: contraceptive awareness, age at marriage, childbearing patterns and contraceptive use.

We measured three types of contraceptive awareness. First, we assessed general contraceptive awareness: whether respondents were aware of any method, any modern method, any nonterminal modern method and any traditional method. Second, in accordance with the messages conveyed by the PRACHAR project, we assessed whether respondents knew that some methods are more suited than others for women of particular parities. In particular, we asked whether women were aware that oral contraceptive pills and condoms are generally most appropriate for delaying first births, and that IUDs and the injectable are most appropriate for spacing subsequent births.

Third, we assessed method-specific knowledge of five contraceptive methods, using a series of questions concerning each method. In the case of oral contraceptives, we assessed whether women knew at least one of the following: that a woman should take the pill beginning on the fifth day of her menstrual cycle; that if a woman forgets to take a pill on any day, she should take two pills on the

following day; and that if a woman finishes using a 28-day packet of pills, she should initiate use of the next packet on the following day. For IUDs, we assessed whether women knew at least two of the following: that the IUD is placed in the uterus; that it should be inserted during the first seven days of the menstrual cycle; that it should be inserted by a doctor or nurse; and that its status may be checked by feeling the thread periodically. For the injectable, we assessed whether women knew at least one of the following: that the first injection should be given within five days of menstruation; that the injection should be administered by a doctor or nurse; and that injections are given every three months. Knowledge of condoms was defined as knowing at least one of the following: that condoms should be used during each sexual act; that a condom may be used only once; and that a man must put on the condom before penetration. Finally, method-specific knowledge of the Standard Days Method referred to knowing the safe and unsafe days in the menstrual cycle.

In addition, we created a summary measure, the comprehensive awareness of contraception index, that summed correct responses on the 18 items concerning appropriate methods for women of different parities and those concerning method-specific knowledge, as well as four additional items: whether women were aware that the Standard Days Method is appropriate for delaying a first pregnancy, and that the pill, condoms and the Standard Days Method may be used to space subsequent pregnancies. Correct responses were summed to yield a score ranging from 0 to 22. Women who were unaware of any method of contraception were assigned a score of 0.

We included two indicators of age at marriage, both of which were restricted to women who had married in the four years preceding the survey. The first measure was simply mean age at marriage; the second was the proportion of women aged 18–24 who had married at age 18 or older.

Our analyses also included four indicators of fertility behaviors: mean age at first birth, among women who had a first birth in the four years preceding the survey; the proportion of parous women aged 21 or older whose first birth occurred in the four years preceding the survey and who were 21 or older at the time; the mean open birth interval* among women whose last birth or marriage took place in the 48 months preceding the survey; and the proportion of women who had an open birth interval of at least 24 months, among the same sample of women.

To assess contraceptive use patterns, we used indicators that focused not only on ever and current use of contraceptives, but also on modern method use and the timing of contraceptive initiation following marriage and first birth. Two measures referred to the full sample: whether the respondent had ever used a contraceptive method, and whether she was using a method at the time of the

*Open birth interval is defined as the number of completed months between the date of a woman's last birth (or the date of her marriage) and the survey date.

interview. A third indicator assessed whether the respondent had initiated contraceptive use within three months of marriage, and was restricted to women at parities 0 or 1 who had been married for 6–48 months at the time of survey. Finally, we assessed whether the respondent had initiated contraceptive use within three months of her first birth; this indicator was restricted to women at parity 1 or greater who had had their first birth 3–48 months before the survey.

• **Independent variables.** Our key independent variables were whether the respondent resided in the intervention areas or the comparison areas and, among those who lived in intervention areas, whether they had been exposed to the PRACHAR program. Some women would have been directly exposed to the program components described earlier. Others, including those who migrated to intervention sites following marriage, may not have been exposed directly; we consider these women to have been indirectly exposed—for example, to the prominent wall paintings and other public messages displayed by the PRACHAR project and visible for some years following its completion, to messages conveyed through family members or others who had been directly exposed to the program, or simply to the new practices adopted by a sensitized community. We categorized respondents as directly exposed if they reported that they (or their husband) had participated in program activities, and as indirectly exposed if they did not report such participation. Because PRACHAR did not have a campaign brand, some women may not have been able to recall whether an activity they had attended had been organized by the program; however, we note that the PRACHAR program and its staff were closely engaged in community activities, and that even at the time of the follow-up survey, many women in intervention sites were familiar with the PRACHAR project.

• **Covariates.** Other variables included in our analyses were the respondent's age, educational attainment (in years), work status (whether she had worked for pay in the past 12 months), caste (whether she belonged to socially excluded groups, specifically scheduled castes or tribes), religion (classified as Hindu or other), household economic status (categorized as wealth quintiles), duration of residence in the place of interview and number of surviving children. We also included husband's educational attainment as a covariate, and present descriptive data on husband's age and economic activity (paid or unpaid work) to provide a more complete profile of our sample.

Analyses

We assessed whether the outcomes described above differed between women in comparison areas and those in intervention areas, and between women in intervention areas who were directly exposed to the PRACHAR project and those in intervention areas who were indirectly exposed.

Bivariate analyses (t tests) and multivariate analyses (multiple or logistic regression models) that adjusted for

potentially confounding covariates were used to test for differences between groups. Four multivariate models are presented; three compared women in comparison areas with either all women residing in intervention areas, those residing in intervention areas who had been directly exposed to the intervention and those residing in intervention areas who had been indirectly exposed, while the fourth compared women had been directly exposed with those who had been indirectly exposed. For most indicators, we used logistic regression models and present the results as odds ratios; the exception is the contraceptive awareness index score, for which we used a multiple linear regression model and present the results as regression coefficients.

The longer-term effects we are measuring in intervention areas concern two groups of women. We hypothesize that better outcomes among women indirectly exposed to the intervention than among those in comparison areas would indicate that community-level effects of the program diffused to young people who had not been directly exposed to the intervention and that these effects were sustained over time. Moreover, better outcomes among those directly exposed to the intervention than among those in comparison areas would suggest that the messages conveyed by the program were retained by participants over time and as they made transitions into new phases of reproductive life. Finally, better outcomes among those directly exposed to the intervention than among those indirectly exposed would suggest that direct exposure to the program was indeed more beneficial than indirect exposure in terms of enhancing women's knowledge and levels of health-promoting behaviors.

RESULTS

Intervention Exposure

Of the 2,130 women interviewed from the intervention areas, 25% had been directly exposed to one or more intervention activities in 2002–2009 (Table 1). Of those who had been exposed, a majority (61%) had attended cultural programs that promoted reproductive health messages. In addition, nearly one-third had attended group meetings in

TABLE 1. Percentage of married women aged 15–34 in intervention areas who reported having been exposed to PRACHAR activities, Bihar, India, 2013

| Measure | % (N=2,130) |
|---|----------------|
| All women | |
| Exposed to at least one PRACHAR project activity | 24.8 |
| Women exposed to at least one PRACHAR activity | |
| Attended cultural program on reproductive health issues | 61.3 |
| Participated in group meeting on reproductive health issues | 31.8 |
| Participated in reproductive and sexual health training for adolescents | 30.9 |
| Counseled by change agent during home visit | 29.3 |
| Participated in infotainment program for newlywed couples | 7.7 |

Notes: Percentages include women who did not participate in the specified activity, but whose husband did. PRACHAR=Promoting Change in Reproductive Behavior.

which such messages were communicated (32%), and a similar proportion had participated in training programs for youth (31%). Home visits in which change agents provided respondents (or their husbands) with counseling and information about reproductive health matters were reported by 29%; just 8% had participated in infotainment programs conducted for newlyweds.

Sample Characteristics

Similarities were evident in most social and demographic characteristics between respondents from comparison areas and those from intervention areas, and between those who had been directly exposed to the program and those who had been indirectly exposed (Table 2). For example, on average, respondents in all groups were aged 25–26 and had eight years of education. They were also similar in terms of religion (93–96% were Hindu), duration of residence in study village (median, 8–9 years)* and number of surviving children (1.5–1.6). Husbands' characteristics (age, educational attainment, economic activity) were also similar across groups. Differences were observed in a few indicators: Women in intervention areas were more likely than those in comparison areas to come from wealthier households (39% vs. 35%) and to have engaged in unpaid work (27% vs. 21%), and less likely to come from socially excluded castes (30% vs. 35%). Comparisons between women who had been directly exposed to the intervention and those who had been indirectly exposed revealed that the former were more likely than the latter to have engaged in wage work (33% vs. 25%) and in any economic activity (51% vs. 44%).

Contraceptive Awareness

Awareness of any method of contraception, any modern method, and any permanent method was universal among women, irrespective of site and level of exposure to the intervention (Table 3). The proportion who were aware of a nonpermanent modern method was somewhat lower, and was greater among women who had been directly exposed to the intervention (97%) than among both those in the comparison group (91%) and those indirectly exposed to the intervention (90%).

Method-specific awareness differed substantially by study group. Women in intervention areas were more likely than those in comparison areas to report awareness of condoms (74% vs. 64%), the injectable (68% vs. 62%), emergency contraceptive pills (12% vs. 5%), the Standard Days Method (57% vs. 50%) and withdrawal (54% vs. 30%). Moreover, in the intervention area, awareness of any nonpermanent modern or traditional method was greater among women who had been directly exposed to the

*Women had varying periods of exposure to the intervention; some were married into study villages during the period in which the PRACHAR intervention was implemented, while others may have migrated into these villages after the intervention ended and were indirectly exposed. Thus, while the intervention was fielded 5–12 years before the survey, women's residence in intervention villages may not have covered this entire period.

TABLE 2. Selected characteristics of married women aged 15–34 and their husbands, by study group, Bihar, India, 2013

| Characteristic | Comparison group (N=716) | Intervention group | | |
|--|--------------------------|--------------------|--------------------------|------------------------------|
| | | All (N=2,130) | Directly exposed (N=529) | Indirectly exposed (N=1,601) |
| Median age | 25 | 25 | 26 | 25 |
| Median age at marriage | 15 | 15 | 15 | 15 |
| Median yrs. of schooling completed | 8 | 8 | 8 | 8 |
| % belonging to two wealthiest quintiles | 34.7 | 39.3 ^a | 37.9 | 39.8 |
| % Hindu | 95.6 | 93.4 | 94.6 | 92.9 |
| % belonging to socially excluded caste | 35.4 | 29.5 ^b | 30.3 | 29.2 ^b |
| % engaged in economic activity in past 12 mos. | 43.8 | 45.5 | 50.9 ^a | 43.6 ^c |
| % engaged in unpaid work in past 12 mos. | 20.5 | 26.8 ^b | 27.0 ^b | 26.7 ^b |
| % engaged in paid work in past 12 mos. | 29.6 | 27.3 | 33.2 | 25.2 ^c |
| Median no. of yrs. residing in study village | 8 | 8 | 9 | 8 |
| Mean no. of surviving children | 1.5 | 1.5 | 1.6 | 1.5 |
| Median age of husband | 28 | 30 | 30 | 29 |
| Median age of husband at marriage | 19 | 19 | 19 | 19 |
| Median yrs. of schooling completed by husband | 9 | 10 | 9 | 10 |
| % of husbands engaged in economic activity in past 12 mos. | 97.6 | 97.6 | 98.0 | 97.4 |

^aDifferent from comparison group at $p < .05$. ^bDifferent from comparison group at $p < .01$. ^cDifferent from directly exposed group at $p < .01$. Note: Husbands' characteristics are as reported by women.

intervention than among those who had been indirectly exposed. More notable, however, is that women who had been indirectly exposed to the intervention were significantly more likely to report awareness of several methods (condoms, emergency contraceptive pills, Standard Days Method and withdrawal) than were women in comparison areas.

Among women who were aware of the pill, a significantly larger proportion of those in intervention areas than in comparison areas were aware that the method is appropriate for delaying a first birth (56% vs. 35%; Table 4, page 120); similarly, among women who were aware

TABLE 3. Percentage of married women aged 15–34 aware of specific contraceptive methods, by study group

| Method | Comparison group | Intervention group | | |
|---------------------------------------|------------------|--------------------|-------------------|---------------------|
| | | All | Directly exposed | Indirectly exposed |
| Any method | 99.9 | 99.9 | 100.0 | 99.8 |
| Any modern method | 99.9 | 99.9 | 100.0 | 99.8 |
| Pill | 82.6 | 83.3 | 90.4 ^b | 80.8 ^e |
| IUD | 77.7 | 77.0 | 88.7 ^c | 72.9 ^{a,e} |
| Condom | 64.2 | 73.9 ^c | 86.8 ^c | 69.3 ^{a,e} |
| Injectable | 62.1 | 67.8 ^b | 78.6 ^c | 63.9 ^e |
| Emergency contraceptive pill | 5.3 | 12.0 ^c | 14.8 ^c | 11.0 ^d |
| Female sterilization | 99.9 | 99.9 | 100.0 | 99.8 |
| Male sterilization | 89.4 | 88.5 | 92.8 ^b | 87.0 ^d |
| Any nonpermanent modern method | 91.4 | 91.6 | 96.6 ^b | 89.8 ^e |
| Any permanent method | 99.9 | 99.9 | 100.0 | 99.8 |
| Any traditional method | 54.0 | 66.4 ^c | 77.5 ^c | 62.4 ^{c,e} |
| Standard Days Method | 50.1 | 56.9 ^b | 68.2 ^c | 52.9 ^{a,e} |
| Withdrawal | 29.9 | 54.2 ^c | 68.8 ^c | 49.0 ^{c,e} |

^aDifferent from comparison group at $p < .05$. ^bDifferent from comparison group at $p < .01$. ^cDifferent from comparison group at $p < .001$. ^dDifferent from directly exposed group at $p < .01$. ^eDifferent from directly exposed group at $p < .001$.

TABLE 4. Percentage of married women aged 15–34 with specified knowledge of contraceptive methods, by study group

| Indicator | Comparison group | Intervention group | | |
|--|------------------|--------------------|-------------------|--------------------|
| | | All | Directly exposed | Indirectly exposed |
| Aware that method is appropriate for delaying first birth† | | | | |
| Pill | 35.3 | 55.8 ^c | 65.3 ^c | 52.1 ^{ce} |
| Condom | 52.8 | 72.2 ^c | 79.6 ^c | 68.9 ^{ce} |
| Aware that method is appropriate for spacing subsequent births† | | | | |
| IUD | 78.4 | 84.5 ^b | 85.6 ^b | 84.0 ^b |
| Injectable | 83.3 | 87.7 ^a | 89.9 ^b | 86.7 |
| Awareness of correct method use | | | | |
| Knows at least one correct way of using pill† | 21.4 | 33.0 ^c | 45.1 ^c | 28.2 ^{be} |
| Knows at least two correct ways of using IUD† | 45.6 | 55.1 ^b | 62.2 ^c | 52.0 ^{ae} |
| Knows at least one correct way of using injectable† | 80.5 | 84.8 ^a | 86.9 ^b | 83.8 |
| Knows at least one correct way of using condoms† | 61.5 | 71.2 ^c | 75.3 ^c | 69.3 ^{bd} |
| Knows safe days in menstrual cycle | 34.9 | 50.3 ^c | 63.9 ^c | 45.5 ^{ce} |
| Mean contraceptive awareness score (range, 0–22)‡ | 6.7 | 8.8 ^c | 11.2 ^c | 8.0 ^{ce} |

^aDifferent from comparison group at $p < .05$. ^bDifferent from comparison group at $p < .01$. ^cDifferent from comparison group at $p < .001$. ^dDifferent from directly exposed group at $p < .01$. ^eDifferent from directly exposed group at $p < .001$. †Among those who were aware of the method. ‡Among all women; those unaware of any method were assigned a score of 0.

of condoms, the proportion who knew that they are suitable for delaying first births was greater in intervention areas than in comparison areas (72% vs. 53%). Likewise, among women who had heard of IUDs and the injectable, respectively, awareness that each method is appropriate for spacing births was greater in intervention areas than in comparison areas (85% vs. 78% for IUDs; 88% vs. 83% for the injectable). Even women who had been only indirectly exposed to the PRACHAR program were more likely than those in comparison areas to be aware that oral contraceptives and condoms are appropriate methods to delay a first birth, and that the IUD is an appropriate method for delaying subsequent births. In addition, directly exposed women were more likely than their indirectly exposed peers to report knowing that the pill and condoms are appropriate for delaying first births, though the two groups were equally well informed about methods appropriate for spacing.

Moreover, for each of the five methods for which we measured specific knowledge, women who were aware of the method were more likely to have such knowledge if they resided in intervention areas rather than in comparison areas. For example, among women who were aware of the pill, 33% of those in intervention areas correctly answered at least one of the three questions about the method, compared with just 21% of those in comparison

*Although the samples are not entirely comparable to those of the current analysis, we note that at the end of phases I and II of the PRACHAR project, mean age at marriage among women married for three years or less was 18 in intervention areas and 17–18 in control areas.

†Again, although the samples are not entirely comparable, at the end of phases I and II of the PRACHAR project, mean age at first birth among women married for three years or less ranged from 17.8 to 18.3 in intervention areas and from 15.8 to 17.9 in control areas.

areas; among women who were aware of the Standard Days Method, 50% of those in intervention areas, but just 35% of those in comparison areas, knew the safe days of the menstrual cycle. As expected, women who had been directly exposed to the PRACHAR intervention were better informed about every method but the injectable than were those who had been indirectly exposed; more noteworthy, however, is that for every method but the injectable, women who had been indirectly exposed were better informed than were those in comparison areas.

Mean scores on the comprehensive awareness index among women who were aware of at least one contraceptive method were only 7–11 out of a possible score of 22, suggesting that detailed knowledge of contraception was limited. Even so, women in intervention areas had higher scores than did those in comparison areas (8.8 vs. 6.7). Although women who had been directly exposed to the intervention scored highest (11.2), those who had been indirectly exposed also had higher scores (8.0) than did those in comparison areas.

Marriage Age

Although the PRACHAR project focused on delaying marriage until at least age 18, mean age at marriage among women who had no more than one child and had married in the 48 months preceding the survey remained below 18 in both intervention and control areas (Table 5, page 121). However, the median age at marriage among all women aged 15–34 was only 15 (not shown), suggesting that age at marriage has recently increased. Moreover, while the differences are small, mean age at marriage was significantly higher among women in intervention areas than among those in comparison areas (17.4 vs. 16.9), and higher among both directly exposed (17.6) and indirectly exposed (17.3) women than among women in comparison areas.*

Although the number of eligible respondents was small, we were also able to assess, among women aged 18–24 who had married in the 48 months preceding the interview, the proportion who had delayed marriage until age 18 or older. Again, the percentage of such women was significantly greater in intervention areas than in comparison areas (62% vs. 49%); it was also greater among indirectly exposed women than among women in the comparison areas (61% vs. 49%). The proportion did not significantly differ between women who had been indirectly exposed to the intervention and those who had been directly exposed.

Childbearing Patterns

Differences between women in the comparison and intervention areas in the four childbearing indicators generally were small in magnitude and not statistically significant. The most notable difference was that women in intervention areas who had been directly exposed to the program began childbearing at an older age (20.4 years) than did those in comparison areas (19.7) and those who had been indirectly exposed to the intervention (19.6 years).†

Contraceptive Use

Women in intervention areas were far more likely to practice contraception than were women in comparison areas, and differences were apparent for all measures. For example, 49% of women in intervention areas had ever used contraceptives, compared with 34% of those in comparison areas; for current use, the proportions were 38% and 29%, respectively.* Although contraceptive prevalence was higher among women who had been directly exposed to the intervention than among women who had been indirectly exposed, a significantly greater proportion of indirectly exposed women reported ever use and current use of contraceptives (46% and 36%, respectively) than did women in comparison areas (34% and 29%, respectively).

Method-specific use patterns indicate that women in intervention areas were more likely than those in comparison areas to be using a modern method of contraception (32% vs. 26%) or a traditional method (6% vs. 3%). Women directly exposed to the intervention were more likely to have used modern or traditional methods than were women in the comparison areas and more likely to have used a modern method than those indirectly exposed to the intervention; the latter were more likely than those in comparison areas to report traditional method use (5% vs. 3%).

Only a small proportion of women had practiced contraception to delay their first birth. Among women who had been married† for 6–48 months at the time of interview, the proportion who had adopted contraception within three months of marriage ranged from 0.4% among women in comparison areas to 2.5% among indirectly exposed women in intervention areas, though none of the differences between groups were statistically significant.

Likewise, initiation of contraception within three months of a first birth was limited among women who had experienced a first birth between 2009 and 2013. Even so, women residing in intervention areas were more likely than those in comparison areas to have initiated contraception during this time frame (13% vs. 7%), and levels of initiation were higher among both women who had been directly exposed to the intervention (16%) and those who had been indirectly exposed (12%) than among those in comparison areas.

Multivariate Analysis

The associations between many of the variables discussed above and our outcome variables remained statistically significant even after adjustment for age, educational attainment and other potentially confounding covariates (Table 6, page 122). Although awareness of nonpermanent modern methods did not differ between women in intervention areas and those in comparison areas, detailed knowledge and awareness was clearly greater among those in intervention areas. For example, compared with women in comparison areas, those in intervention areas were more likely to have specific knowledge about oral contraceptives (odds ratio, 1.7), IUDs (1.4), condoms (1.4) and the Stan-

TABLE 5. Indicators of marriage, fertility and contraceptive use among married women aged 15–34, by study group

| Indicator | Comparison group | Intervention group | | |
|---|------------------|--------------------|-------------------|---------------------|
| | | All | Directly exposed | Indirectly exposed |
| AGE AT MARRIAGE | | | | |
| Mean age at first marriage† | 16.9 | 17.4 ^a | 17.6 ^a | 17.3 ^a |
| No. of women | 174 | 478 | 88 | 390 |
| % aged 18 or older at first marriage‡ | 48.6 | 61.8 ^a | 66.1 | 60.8 ^a |
| No. of women | 127 | 354 | 68 | 286 |
| CHILDBEARING | | | | |
| Mean age at first births | 19.7 | 19.8 | 20.4 ^b | 19.6 ^d |
| No. of women | 355 | 1077 | 246 | 831 |
| % aged 21 or older at first birth†† | 61.7 | 60.7 | 64.6 | 59.2 ^d |
| No. of women | 217 | 707 | 186 | 521 |
| Mean length of open birth interval (mos.) †† | 26.1 | 25.1 | 27.9 | 24.3 ^d |
| No. of women | 424 | 1246 | 281 | 965 |
| % of open birth intervals that were ≥24 mos. †† | 50.6 | 48.1 | 55.8 | 45.7 ^d |
| No. of women | 424 | 1,246 | 281 | 965 |
| CONTRACEPTIVE USE | | | | |
| % ever used contraceptives | 34.2 | 49.1 ^c | 57.1 ^c | 46.3 ^{c,e} |
| No. of women | 716 | 2,130 | 529 | 1,601 |
| % currently using contraceptives | 29.1 | 37.9 ^c | 43.4 ^c | 36.0 ^{b,d} |
| No. of women | 716 | 2,130 | 529 | 1,601 |
| % currently using any modern method | 26.2 | 32.1 ^a | 36.0 ^b | 30.6 ^d |
| No. of women | 716 | 2,130 | 529 | 1,601 |
| % currently using any traditional method | 2.9 | 5.9 ^b | 7.4 ^b | 5.3 ^b |
| No. of women | 716 | 2,130 | 529 | 1,601 |
| % used contraceptives within three mos. of marriage‡ | 0.4 | 2.4 | 1.9 | 2.5 |
| No. of women | 157 | 437 | 84 | 353 |
| % used contraceptives within three mos. of first birth†§ | 7.0 | 13.0 ^b | 15.5 ^b | 12.2 ^a |
| No. of women | 355 | 1,077 | 246 | 831 |

^aDifferent from comparison group at $p < .05$. ^bDifferent from comparison group at $p < .01$. ^cDifferent from comparison group at $p < .001$. ^dDifferent from directly exposed group at $p < .001$. ^eDifferent from directly exposed group at $p < .01$. †Among women who married in the 48 months preceding the survey. ‡Among women aged 18–24 who married in the 48 months preceding the survey. §Among women who had their first birth during the 48 months preceding the survey. ††Among women aged 21 or older with one or more births who had their first birth during the 48 months preceding the survey. †††Among women whose last birth or marriage occurred in the 48 months preceding the survey. ††††Among women at parities 0 or 1 who married during the 48 months preceding the survey and had been married for at least six months. †††††Among women who married during the 48 months preceding the survey and who had had a birth at least three months earlier but not more than 48 months preceding the survey.

dard Days Method (1.7). Women who resided in intervention areas also had greater odds of being aware that oral contraceptives and condoms are appropriate methods for delaying a first birth (2.3 for each), and that IUDs and injectables are appropriate for spacing subsequent births (1.4 for each). Scores on the comprehensive awareness in-

*At the end of phases I and II of the PRACHAR project, the proportion of women who were using contraceptives ranged from 13% to 21% in intervention areas and 8% to 11% in control areas.

†In this analysis, *married* refers to women who were married and had begun cohabiting with their husband; traditionally, in settings such as Bihar, a bride continues to reside with her natal family through marriage and the *gauna* ceremony, and moves to her marital home only after this ceremony has been performed.

TABLE 6. Odds ratios or coefficients (and 95% confidence intervals) from regression analyses showing associations between exposure of married women aged 15–34 to the PRACHAR program and selected indicators of marriage, fertility, women's contraceptive awareness and contraceptive use, by study group

| Indicator | Intervention vs. comparison† | Directly exposed vs. comparison† | Indirectly exposed vs. comparison† | Indirectly exposed vs. directly exposed‡ |
|---|------------------------------|----------------------------------|------------------------------------|--|
| CONTRACEPTIVE AWARENESS | | | | |
| Aware of nonpermanent modern methods | 0.84 (0.60–1.18) | 2.97 (1.45–6.08)** | 0.96 (0.66–1.40) | 0.36 (0.19–0.70)** |
| Knows at least one correct way of using pill | 1.69 (1.33–2.13)*** | 2.95 (2.20–3.98)*** | 1.36 (1.05–1.77)* | 0.47 (0.37–0.60)*** |
| Knows at least two correct ways of using IUD | 1.40 (1.15–1.72)** | 2.04 (1.54–2.68)*** | 1.32 (1.06–1.65)* | 0.68 (0.53–0.86)*** |
| Knows at least one correct way of using injectable | 1.27 (0.95–1.69) | 1.57 (1.06–2.33)* | 1.29 (0.95–1.76) | 0.87 (0.61–1.25) |
| Knows at least one correct way of using condom | 1.44 (1.15–1.82)** | 1.85 (1.36–2.53)*** | 1.39 (1.08–1.79)** | 0.72 (0.54–0.95)* |
| Knows safe days in menstrual cycle | 1.71 (1.42–2.06)*** | 3.08 (2.38–4.02)*** | 1.55 (1.27–1.90)*** | 0.49 (0.39–0.62)*** |
| Mean contraceptive awareness score | 1.62 (2.13–2.02)*** | 3.74 (3.22–4.25)*** | 1.11 (0.71–1.52)*** | –2.60 (–3.00 to –2.08)*** |
| Aware that method is appropriate for delaying first birth | | | | |
| Pill | 2.28 (1.87–2.78)*** | 3.54 (2.72–4.61)*** | 1.95 (1.59–2.40)*** | 0.57 (0.45–0.71)*** |
| Condom | 2.25 (1.81–2.80)*** | 3.68 (2.71–5.00)*** | 1.89 (1.50–2.38)*** | 0.54 (0.41–0.71)*** |
| Aware that method is appropriate for spacing subsequent births | | | | |
| IUD | 1.42 (1.11–1.83)** | 1.55 (1.10–2.18)* | 1.39 (1.06–1.81)* | 0.88 (0.64–1.21) |
| Injectable | 1.42 (1.05–1.92)* | 1.81 (1.18–2.76)** | 1.29 (0.94–1.78) | 0.72 (0.49–1.06) |
| CONTRACEPTIVE USE | | | | |
| Ever use | 2.11 (1.71–2.61)*** | 2.63 (1.97–3.52)*** | 1.96 (1.56–2.46)*** | 0.77 (0.60–0.99)* |
| Current use | 1.66 (1.33–2.07)*** | 1.87 (1.40–2.50)*** | 1.49 (1.17–1.89)** | 0.86 (0.67–1.10) |
| Current use of modern method | 1.49 (1.19–1.88)*** | 1.68 (1.26–2.25)*** | 1.44 (1.14–1.83)** | 0.88 (0.69–1.12) |
| Used method within three months of marriages | 4.76 (0.24–94.5) | 5.45 (0.08–362.5) | 8.28 (0.35–197.0) | 2.08 (0.30–14.6) |
| Used method within three months of first birth†† | 1.84 (1.09–3.09)* | 2.12 (1.12–4.01)* | 1.78 (1.04–3.08)* | 0.82 (0.51–1.33) |
| MARRIAGE AND FERTILITY†† | | | | |
| Married at age 18 or older | 1.76 (0.96–3.26) | 1.33 (0.52–3.46) | 1.72 (0.91–3.25) | 0.77 (0.31–1.92) |
| Had first birth at age 21 or older | 0.99 (0.63–1.56) | 1.00 (0.52–1.91) | 0.99 (0.62–1.60) | 0.95 (0.55–1.62) |
| Had open birth interval of ≥24 months | 0.81 (0.62–1.06) | 0.90 (0.61–1.31) | 0.78 (0.59–1.03) | 0.79 (0.57–1.09) |

*p<.05. **p<.001. ***p<.001. †Women in comparison areas are the reference group. ‡Women directly exposed to the intervention are the reference group. §Models do not adjust for wealth, caste and number of surviving children because of small sample sizes in some subcategories. ††Models do not adjust for number of surviving children. Notes: For all indicators other than mean contraceptive score, logistic regression models were used and results are presented as odds ratios; model for mean contraceptive awareness score used multiple linear regression, and results are presented as regression coefficients. Unless otherwise indicated, all models adjust for age, women's and husbands' educational attainment, women's work status, caste, religion, household wealth, duration of residence in study village and number of surviving children.

dex showed a similar picture: Assuming other factors are constant, women in intervention areas scored 1.6 points higher than did those in the comparison areas.

Comparisons between women exposed to the intervention and those in comparison areas revealed that awareness was greater among the former than among the latter for every indicator of contraceptive awareness. Moreover, for several methods—oral contraceptives, IUDs, condoms and the Standard Days Method—the odds of method-specific knowledge were elevated (relative to the comparison group) even among women who had been only indirectly exposed to the intervention (odds ratios, 1.3–1.6).

Similar patterns were evident for indicators of contraceptive use. Relative to women who resided in comparison areas, those in intervention areas had greater odds of having ever practiced contraception (odds ratios, 2.1), currently using contraceptives (1.7), currently using a modern method (1.5) and having initiated contraception within three months of a recent birth (1.8). Odds ratios were even greater in comparisons between women directly exposed to the intervention and those in comparison areas (1.7–2.6), but were also elevated (relative to women in the comparison area) among those who had been only indirectly exposed to the intervention (1.4–2.0).

In contrast, residence in intervention areas was not associated with measures of marriage age or childbearing ex-

periences among women who had married or experienced pregnancy in the four years preceding the interview.

In regression analyses comparing women who had been directly exposed to the intervention with those who had been indirectly exposed, most indicators of contraceptive awareness showed an advantage for directly exposed women, even though intervention activities had ceased four to eight years prior to the interviews. The odds that a woman had in-depth awareness of specific methods were lower among those who had been indirectly exposed than among those who had been directly exposed (odds ratios, 0.4–0.7), except for the injectable. However, there was no evidence that indirectly exposed women were less likely than directly exposed women to be practicing contraception at the time of the interview or to have initiated contraception within three months of a recent birth. Nor did age at marriage or childbearing practices differ between these two groups.

DISCUSSION

Our findings underscore that among young women in Bihar, comprehensive awareness of contraception remains far from universal, contraceptive practice is limited, child marriage persists, and childbearing is initiated early and is rapidly repeated. Although the PRACHAR project did not succeed in raising the marriage age to 18 or the initiation

of childbearing to age 21, its achievements must be noted in the context of the patriarchal and gender-stratified social context prevailing in Bihar, where, according to the NFHS-3, 69% of rural women aged 18–29 had married before age 18 and 33% of those aged 20–24 had married before age 15.⁸

Even so, evaluations of the PRACHAR program have consistently shown that this multifaceted intervention focused on enhancing women's reproductive health and choice had huge positive effects on contraceptive practice, not only among exposed women in the short term¹ but also among largely new cohorts 4–8 years after the program's withdrawal.

A number of programs in developing countries have succeeded in delaying marriage, meeting young people's contraceptive needs or affecting birth spacing. All of these, to our knowledge, have assessed changes in awareness, attitudes and practices between the intervention's initiation and its completion, and compared these changes with those observed in similar settings where the intervention had not been implemented. Previous evaluation of the PRACHAR intervention found that by the end of the program, females who had been exposed to intervention activities were far more likely than other women to know about sexual and reproductive health matters, notably methods of contraception and how they are used; similar findings have been documented in studies of other interventions, including those in India^{1–3} and elsewhere.^{12–16} Our results expand on these findings and suggest that the advantage observed at the conclusion of the PRACHAR intervention was sustained for years afterward, and that awareness of contraceptive methods remained elevated not only among those who had been directly exposed to the intervention, but also among those who resided in intervention communities at the time of our survey but had not been directly exposed to program activities.

More important, only a few prior intervention studies have documented significant changes in reproductive health practices among married youth and young adults. In India, these have included evaluations of the *First Time Parents* study² and the PRACHAR project,¹ both of which found increases in contraceptive uptake among the young. Likewise, an evaluation of a six-year community-based intervention in Ghana found an increase in contraceptive uptake among married women in general.¹⁷ Our findings suggest that changes in some behaviors, notably those surrounding contraception—including use of a modern method and initiation of contraception within three months of a first birth—were sustained even four to eight years after the project's conclusion.

Our study has several limitations. The most important is that it relies on a posttest-only design; hence, we cannot assume causal relationships between exposure to the implementation and the outcome indicators, and findings must be considered illustrative rather than conclusive. Second, while the PRACHAR project was well known at community level, some women may not have recalled

their association with the project, or may have confused PRACHAR staff with regular government health workers, and thus may not have been correctly classified as directly or indirectly exposed to the intervention. Moreover, while our analyses took into account key background variables, the associations between study group and our outcomes of interest may have been confounded by unmeasured factors, such as the sociocultural contexts of study communities, the availability of contraceptive supplies, the extent of women's communication with their husband and in-laws, and the degree to which perceptions of the quality of care provided by government health workers remained more favorable in intervention areas than in control areas.

Nevertheless, our findings show that even in a traditional social context such as that of Bihar, multipronged programs that permeate rural communities and engage a wide range of individuals—adolescents, newlyweds, family gatekeepers, health care providers and community leaders—hold promise. The PRACHAR intervention appears not only to have raised awareness and changed practices in the short run, but also to have fundamentally changed reproductive norms in study communities, such that the gains observed at the conclusion of the project were sustained among new cohorts for four to eight years. Indeed, we conclude that norms were modified at the community level, such that a supportive environment was built for new cohorts of youth to be informed about traditionally taboo topics such as sex and contraception, and to adopt modern contraception and birth spacing, although we acknowledge that similarly sustained effects with regard to delaying marriage and first births were not observed.

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RESUMEN

Contexto: Aunque algunas intervenciones como el proyecto PRACHAR en Bihar, India, han estado asociadas con un mayor conocimiento y uso de anticonceptivos en el corto plazo, se sabe menos acerca de la sostenibilidad de esos logros años después.

Métodos: Se utilizaron datos de encuestas recolectados en 2013 sobre 2,846 mujeres casadas en edades de 15 a 34 años para comparar los conocimientos acerca de los anticonceptivos y su uso entre mujeres que vivían en áreas en donde el proyec-

to PRACHAR había sido implementado en el período 2002 a 2009, y aquellas que vivían en áreas que se determinaron para propósitos de comparación. Los análisis multivariados evaluaron si, después de ajustes por covariables, los resultados difirieron entre las mujeres en las áreas de comparación e intervención, así como entre mujeres directamente expuestas al programa y quienes vivían en las áreas de intervención, pero que solamente habían estado expuestas indirectamente al programa.

Resultados: En contraste con las mujeres en las áreas de comparación, aquellas que vivían en las áreas de intervención tuvieron una mayor probabilidad de tener un conocimiento específico sobre los métodos anticonceptivos orales, DIU, condones y el método de días estándar (razones de probabilidades, 1.4–1.7); de saber que los anticonceptivos orales y los condones son apropiados para retrasar el primer embarazo (2.3 para cada uno) y que los DIU e inyectables son apropiados para espaciar los nacimientos (1.4 para cada uno); de haber usado alguna vez anticonceptivos (2.1) o de estar usando un método moderno (1.5); y de haber iniciado un método anticonceptivo dentro de los tres meses posteriores a un parto reciente (1.8). Los niveles de conciencia y uso fueron elevados no solamente entre las mujeres directamente expuestas a la intervención sino también, para muchas de las medidas, entre las mujeres expuestas indirectamente.

Conclusión: Los efectos aparentes de los programas de salud reproductiva de múltiples vías como PRACHAR sobre la concientización y las prácticas relativas a los anticonceptivos pueden durar por años luego de la conclusión del proyecto.

RÉSUMÉ

Contexte: Bien que les interventions telles que le projet PRACHAR au Bihar (Inde) aient été associées à une connaissance et à un usage accru de la contraception à brève échéance, la durabilité de ces acquis à plus long terme n'est guère documentée.

Méthodes: Des données d'enquête collectées en 2013 auprès de 2.846 femmes mariées âgées de 15 à 34 ans ont servi à comparer la sensibilisation à la contraception et sa pratique entre les répondantes vivant dans les zones de mise en œuvre du projet PRACHAR en 2002–2009 et les résidentes de zones de comparaison correspondantes. Après correction des covariables, la différence éventuelle des résultats entre les femmes des zones de comparaison et d'intervention, de même qu'entre les femmes directement exposées au programme et celles des zones d'intervention exposées indirectement seulement, est évaluée par analyses multivariées.

Résultats: Par rapport aux femmes des zones de comparaison, celles des zones d'intervention s'avèrent plus susceptibles de connaître spécifiquement les méthodes de la contraception orale, du stérilet, du préservatif et de «Standard Days» (RC, 1,4–1,7); de savoir que la contraception orale et le préservatif conviennent pour différer une première grossesse (2,3 chacun) et que le stérilet et l'injectable conviennent pour l'espacement des naissances (1,4 chacun); d'avoir jamais pratiqué la contraception (2,1) ou de pratiquer une méthode moderne (1,5); et

APPENDIX TABLE 1. Selected social and demographic characteristics of married women aged 15–34 residing in PRACHAR study intervention and comparison districts, Bihar, District Level Household Survey Round 2, 2002–2004

| Indicator | Intervention areas (N=2,472) | Comparison areas (N=484) |
|--|------------------------------|--------------------------|
| Educational attainment (%) | | |
| Nonliterate | 64.4 | 62.8 |
| 0–9 yrs. | 22.7 | 23.9 |
| ≥10 yrs. | 12.8 | 13.3 |
| Missing data | 0.1 | 0.0 |
| Mean yrs. of schooling | 7.6 | 7.6 |
| Median yrs. of schooling | 8.0 | 8.0 |
| Caste (%) | | |
| Scheduled castes and tribes | 28.0 | 26.4 |
| Other socially excluded castes | 52.6 | 61.3 |
| Other | 19.4 | 12.3 |
| % married before age 18‡ | 70.6 | 75.1 |
| Mean no. of surviving children | 2.7 | 2.8 |
| Median no. of surviving children | 3.0 | 3.0 |
| % currently using a contraceptive method§ | 20.1 | 20.7 |

‡Among married women aged 18–24. §Excluding pregnant women. Notes: The intervention areas comprised selected villages from subdistricts of Gaya, Nalanda, Nawada, Patna and Sheikhpura; the comparison areas consisted of selected villages from subdistricts of Nalanda that were not contiguous with those that were part of the intervention area. Source: Special tabulations of data from the 2002–2004 District Level Household Survey.

d'avoir entrepris la contraception dans les trois mois suivant une naissance récente (1,8). Les niveaux de sensibilisation et de pratique sont élevés non seulement parmi les femmes directement exposées à l'intervention mais aussi, pour de nombreuses mesures, parmi celles indirectement exposées.

Conclusion: Les associations de programmes de santé reproductive multidimensionnels tels que PRACHAR à la sensibilisation à la contraception et les pratiques contraceptives peuvent persister pendant des années au-delà de la conclusion du projet.

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