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# NATIONAL FAMILY HEALTH SURVEY BULLETIN

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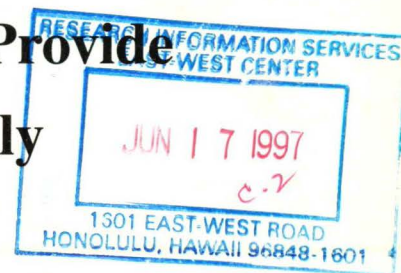
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*The NFHS BULLETIN summarizes findings from the 1992-93 National Family Health Survey. The NFHS collected information from nearly 90,000 Indian women on a range of demographic and health topics. The survey was conducted under the auspices of the Indian Ministry of Health and Family Welfare to provide national and state-level estimates of fertility, infant and child mortality, family planning practice, maternal and child health, and the utilization of services available to mothers and children.*

*The International Institute for Population Sciences (IIPS), Mumbai, conducted the NFHS in cooperation with various consulting organizations and 18 population research centres throughout India and with the East-West Center in Honolulu, Hawaii, and Macro International in Calverton, Maryland. The U.S. Agency for International Development provided funding for the NFHS and for this publication.*

## State-Level Variations in Wanted and Unwanted Fertility Provide a Guide for India's Family Planning Programmes



Although women in less-developed, traditional societies tend to have large families, do they really want so many children? And if they want fewer children, what prevents them from translating what they want into reality? Is it possible to identify specific groups of women who are likely to have more children than they want? And if so, what can be done to help these women have fewer children? These issues are of great concern to policymakers and programme administrators in India.

The 1992-93 National Family Health Survey provides a unique opportunity to seek answers to some of these questions. This issue of the *NFHS Bulletin* presents contrasting findings on wanted and unwanted fertility from eight of India's states. Four of these states—Uttar Pradesh, Bihar, Madhya Pradesh, and Rajasthan—are large and relatively underdeveloped, with married women having an average of four children or more. These four states accounted for nearly 40% of India's total population growth between 1981 and 1991. They have been identified as "problem" states where population programmes need special attention.

At the other extreme is the small, socially advanced state of Kerala, where fertility has already reached the replacement level of approximately two children per woman. In the remaining three states covered here, women have on average about three children each. Among these, Maharashtra is the most advanced state in India in terms of industrialization, while Himachal Pradesh and Punjab are ahead of other states in agricultural development.

### Wanted and unwanted components of marital fertility

This analysis begins with a calculation of total marital fertility rates (TMFR), which indicate the average number of children a woman will bear, at current fertility rates, if she stays married throughout her reproductive years. There are many ways to calculate total marital fertility. Here, it is calculated from period parity progression

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ratios for the three-year period before the survey. Each ratio is the fraction of women of a specific parity (defined as the number of children a woman has ever born) who go on to have another child (Feeney 1987).

In addition to asking married women about births in the past, the NFHS asked women whether they wanted to have another birth. From their responses, it is possible to calculate a wanted total marital fertility rate (WTMFR). This indicates what the total level of fertility would be if all the women who want another child go on to have one, while the women who do not want any more children do not have any more. The difference between the TMFR and WTMFR is defined as the unwanted total marital fertility rate (UTMFR), which is a measure of excess fertility. Kulkarni and Choe (1997) discuss the calculation of these measures in more detail.

## Levels of wanted and unwanted fertility

In terms of wanted fertility, the eight states discussed in this report fall into three categories (Table 1). In Uttar Pradesh and Bihar, women want on average between three and four children. In Madhya Pradesh and Rajasthan, women want about three children on average. In the other four states, wanted fertility is at about replacement level.

Uttar Pradesh shows the highest level of unwanted marital fertility, with actual fertility averaging 1.4 children above wanted fertility. Kerala shows a relatively low level of unwanted fertility—total marital fertility is less than half of a child above the level wanted. In the remaining states, levels of unwanted fertility are similar, with total fertility about one child higher than wanted fertility. Differences in total fertility are much greater than dif-

**Table 1. Total marital and wanted and unwanted marital fertility rates, expressed as number of children per currently married woman, and percentage of total fertility that is unwanted: Selected states of India**

State	Total marital fertility	Wanted marital fertility	Unwanted marital fertility	Percentage unwanted
Uttar Pradesh	5.2	3.8	1.4	27
Bihar	4.3	3.4	0.9	20
Madhya Pradesh	4.2	3.0	1.1	28
Rajasthan	3.9	3.0	0.9	24
Himachal Pradesh	3.4	2.2	1.1	34
Punjab	3.4	2.2	1.1	33
Maharashtra	3.3	2.3	1.0	31
Kerala	2.4	2.0	0.4	16

ferences in wanted fertility. Wanted fertility is 1.4 children higher in Bihar and 1.8 children higher in Uttar Pradesh than in Kerala, but total fertility is two to three children higher.

If India's family planning programme could help the women in these states have only the children they want, then total marital fertility would be reduced by 20 to 28% in Uttar Pradesh, Bihar, Madhya Pradesh, and Rajasthan and by

31 to 34% in Himachal Pradesh, Punjab, and Maharashtra. The percentage unwanted is highest in Himachal Pradesh, Punjab, and Maharashtra because contraceptive use, although increasing, has lagged behind the decline in wanted family size. In Kerala, where the fertility transition is more advanced, the lag in contraceptive use has been reduced. As a result, the percentage unwanted is low.

**Table 2. Total marital fertility and percentage unwanted by women's education: Selected states in India**

State	Total marital fertility			% of marital fertility unwanted		
	Illiterate	Primary only	More than primary	Illiterate	Primary only	More than primary
States with total marital fertility rates $\geq 3.5$						
Uttar Pradesh	5.7	4.3	3.3	26	27	23
Bihar	4.5	4.3	2.9	18	30	15
Madhya Pradesh	4.7	4.1	2.9	28	33	22
Rajasthan	4.0	3.9	2.8	22	33	22
States with total marital fertility rates $< 3.5$						
Himachal Pradesh	3.8	3.3	2.7	36	33	24
Punjab	3.9	3.1	2.6	36	29	24
Maharashtra	3.6	3.2	2.7	29	29	28
Kerala	2.5	2.5	2.2	32	19	8

## Fertility and women's education

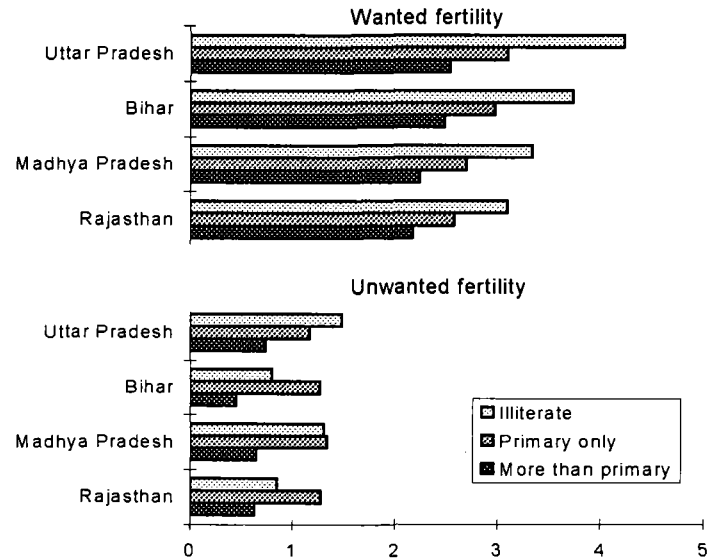
In India, differences in women's education are generally associated with substantial differences in fertility. Based on data for the three-year period before the NFHS, total marital fertility is 4.1 for illiterate women, compared with only 2.6 for women with more than a primary education.

Table 2 shows total marital fertility and the proportion that is unwanted according to three levels of women's education. In every case, the TMFR declines with education. The percentage of marital fertility that is unwanted varies irregularly, however, among different educational groups.

Figures 1 and 2 help explain this variation. They show wanted and unwanted marital fertility rates for the three levels of women's education. In the four "problem" states with high total fertility (Figure 1), there are large and consistent differences in wanted fertility among the three education groups, with illiterate women wanting more children than women with a primary or greater education. The pattern for unwanted fertility is more complicated. In Uttar Pradesh, unwanted fertility is highest among illiterate women, whereas in Bihar, Madhya Pradesh, and Rajasthan, it is highest among women with a primary education. In these states, it may be that many women with a primary education would like fewer children but are not yet controlling their fertility effectively—thus the relatively high levels of unwanted fertility for this group. Many illiterate women in these states may not wish to lower their fertility, or not by very much.

In the four states with moderate or low fertility (Figure 2), the differences among educational groups are small for wanted fertility. Except in Maharashtra, they are larger for unwanted fertility. Less-educated women tend to have more children than women with more education, and a

**Figure 1. Wanted and unwanted marital fertility rates by women's level of education: Selected states with high total marital fertility**

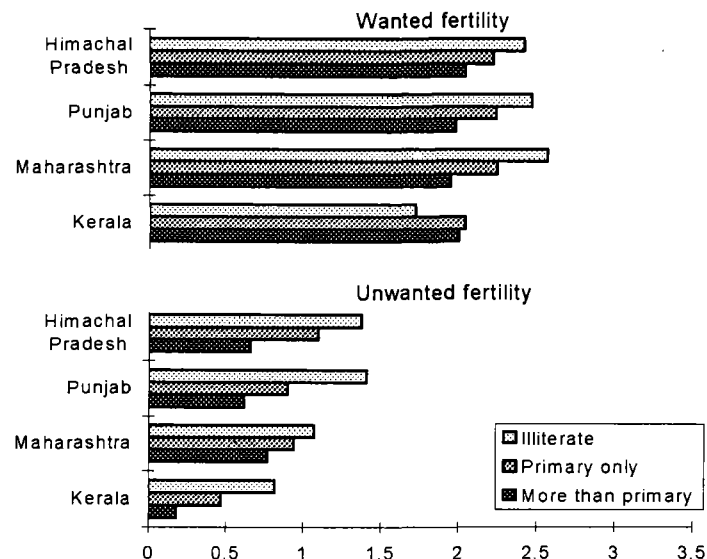


higher proportion of these children tend to be unwanted. In Kerala, the state with the lowest total marital fertility, unwanted fertility is highest for illiterate women partly because wanted fertility is lowest for this group.

These patterns suggest that when fertility begins to decline, the characteristics of individual women—such as education—are strongly related to their fer-

tility preferences. For women who want small families but do not control their family size very effectively, levels of unwanted fertility tend to be high, for example among women with a primary education in Bihar and Rajasthan. As total fertility declines further, the differences among educational groups in wanted fertility tend to narrow (Figure 2). The level of unwanted fertility declines as a whole,

**Figure 2. Wanted and unwanted marital fertility rates by women's level of education: Selected states with moderate or low total marital fertility**



but large differences in unwanted fertility persist among educational groups, presumably because women with little education have limited capacity to bring their fertility down to the level they would prefer.

## Policy implications

The findings reported here suggest that two types of effort are needed if India is to achieve replacement-level fertility: first, to promote the advantages of small families, and second, to help women who want small families achieve their desired family size. The national family planning programme needs to set priorities according to the stage of the fertility transition that has been reached in each state, rather than following a single approach throughout the country. One way to identify stages of fertility transition is to examine the levels of wanted and unwanted fertility. Such an examination would indicate whether the programme mainly needs (1) to encourage small family size or (2) to help couples achieve the family size they want.

A programme to reduce unwanted fertility could be very effective. In the three states described here with moderate levels of fertility—Himachal Pradesh, Punjab, and Maharashtra—a successful

programme to eliminate unwanted fertility would bring total fertility down to the replacement level. Such a programme would involve improvement in the quality and accessibility of family planning services as well as efforts to help women make better use of these services so they can translate their desire for a smaller family into reality. In India, unwanted fertility is generally highest among women with the lowest level of education, which suggests that a programme to improve family planning services should concentrate on this segment of the population. The exceptions to this pattern are Bihar, Madhya Pradesh, and Rajasthan, where unwanted fertility is highest among women with a primary education.

Developing information, education, and communications programmes aimed at reducing wanted fertility levels is a more complex task since the objective is to change attitudes that are deeply rooted in culture and to some extent derived from socioeconomic conditions. Such efforts go well beyond the traditional activities of a family planning programme. Statistical analyses have found that education, child mortality, exposure to family planning messages through mass media, and son preference are all important determinants of women's desire for

more children and use of contraception (Kulkarni and Choe 1997).

A programme that emphasizes child survival, formal and informal education for women, and more imaginative use of the mass media may help promote small family size. It will not be possible to increase women's level of education in a short time, however. This suggests the potential importance of the mass media in exposing women to the advantages of small families, projecting a positive image of girl children, and providing information on contraceptive services. Such a programme would be particularly relevant in states where wanted fertility is well above the replacement level, including Uttar Pradesh, Bihar, Madhya Pradesh, and Rajasthan.

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