NATIONAL FAMILY HEALTH SURVEY

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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.

Accelerating India's Fertility Decline: The Role of Temporary Contraceptive Methods

In 1992–93, India's National Family Health Survey (NFHS) estimated a total fertility rate (TFR) of 3.4 children per woman. This indicates the average number of children a woman would bear if she experienced current fertility rates throughout her reproductive years. While this figure represents a drop of about two children per woman over the past 20 years, it is still much higher than replacement level, which is generally put at 2.1 children per women. It is also higher than 2.9, the average number of children that ever-married women age 13–49 said that they wanted when they were interviewed by the NFHS. There is, thus, an urgent need to continue—even to accelerate—India's fertility decline.

For decades now, the Indian family welfare programme has been dominated by a reliance on female sterilization. Indeed, the widespread use of sterilization has enabled India to achieve considerable fertility reduction. It would be unwise to rely entirely on sterilization for future fertility decline, however, because most Indian women who become sterilized have the operation only after bearing a large number of children. To help the country slow down population growth and to help Indian women achieve their desired family size, the family welfare programme needs to place greater emphasis on alternative contraceptive methods—temporary methods such as pills, intrauterine devices (IUDs), injections, and condoms—that will help women control their fertility before they have large families.

Sterilization plays a dominant role

The disproportionate role of sterilization in India's family welfare programme, in itself, suggests a need to expand the use of alternative methods. Among the 41% of women who use any contraception, 76% rely on sterilization. This total includes 27% of currently married women of reproductive age who are sterilized and another 3% who have husbands who are sterilized. It represents more than five times the median share of sterilization among contraceptive users in 27 other developing countries. The median level of current contraceptive use is 29% in these other countries, compared with 41% reported by the NFHS for India, but the median share of sterilization in these countries is only 14% of total contraceptive use (Pathak, Feeney, and Luther 1998).

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The relative importance of sterilization varies widely among India's states (Table 1). The proportion of current contraceptive users who rely on sterilization ranges from a high of 95% in Andhra Pradesh to a low of 34% in Assam. Other states with a particularly high reliance on sterilization include Karnataka (87% of all contraceptive users), Rajasthan (87%), Orissa (87%), Madhya Pradesh (86%), Maharashtra (86%), Gujarat (83%), Mizoram (83%), and Bihar (81%).

Use of temporary methods is very low in India, both in absolute and relative terms. Among currently married women age 13–49, only 10% use a temporary method, and only 6% use a modern temporary method. Women using any temporary method—modern or traditional—comprise 24% of all contraceptive users. Use of specific modern temporary methods is extremely low—only 1% of all currently married women use pills, 2% use IUDs, and 2% use condoms. NFHS results show also that knowledge of temporary methods is substantially lower than knowledge of female sterilization—only 76% of survey respondents know about temporary methods, compared with 95% who know about sterilization.

Can sterilization reduce fertility further?

Because sterilization is irreversible, only women who are certain that they do not want any more children are likely to use it. NFHS results show that Indian women feel certain enough to undergo sterilization only after giving birth to many children. Table 2 shows the average number of children ever born to women according to age and contraceptive use. Sterilized women have 4.0 children, on average, compared with 3.1 children for all married women of reproductive age. By contrast, woman who are not using any method of contraception average 2.7 children, women using traditional methods average 2.8 children, and woman using modern temporary methods average 2.6 children.

Sterilized women tend to be substantially older than other women, but age alone does not account for their large family size. In every age group, sterilized women have substantially more children than women who use temporary methods. The difference is particularly pronounced among young women.

The large number of children born to all but the youngest sterilized women casts doubt on how effective sterilization can be in reducing fertility much below the levels already reached. Sterilized women age 15–19 and 20–24 years have modest-sized families, to be sure. Few women are sterilized at these young ages, however—only 1.4% of 15–19-year-olds and 10.9% of 20–24-year-olds. Sterilized women age 25 and over have substantially more children than the total fertility rate of 3.4 children per woman.

The results in Table 2 should not be construed to mean that sterilization has not helped to reduce the level of fertility in India. Sterilized women tend to have many children because women with many children are likely to become sterilized. These women would doubtless have had even more children had they not been sterilized. Nonetheless, the large number of children born to all but the youngest sterilized women casts doubt on how effective sterilization can be in reducing fertility much below the levels already achieved.

Table 1 Percentage of currently married women age 15–49 using contraception, median birth interval, and total fertility rate in India's most populous states

	Contraceptive use (%)					Median	
State	Any method	Modern temporary	Traditional	Sterilization	Sterilization share (%)	birth interval (months)	Total fertility rate
India	40.6	5.5	4.3	30.7	76	31.6	3.4
Andhra Pradesh	47.0	1.8	0.5	44.7	95	33.4	2.6
Assam	42.8	5.4	22.9	14.4	34	29.8	3.5
Bihar	23.1	2.9	1.5	18.6	81	33.9	4.0
Delhi	60.3	31.3	5.7	23.2	38	30.6	3.0
Goa	47.8	7.3	9.9	30.5	64	35.2	1.9
Gujarat	49.3	5.9	2.4	41.0	83	30.0	3.0
Haryana	49.7	9.6	5.3	34.7	70	28.1	4.0
Himachal Pradesh	58.4	8.6	4.0	45.8	78	28.3	3.0
Jammu Region	49.4	10.0	9.7	29.7	60	30.9	3.1
Karnataka	49.1	4.8	1.8	42.5	87	29.9	2.9
Kerala	63.3	6.1	8.9	48.3	76	34.9	2.0
Madhya Pradesh	36.5	4.0	1.0	31.5	86	32.1	3.9
Maharashtra	53.7	6.4	1.2	46.2	86	28.7	2.9
Orissa	36.3	3.0	1.6	31.6	87	32.7	2.9
Punjab	58.7	17.3	7.4	34.0	58	29.3	2.9
Rajasthan	31.8	3.3	0.9	27.7	87	32.5	3.6
Tamil Nadu	49.8	5.7	4.6	39.5	79	31.6	2.5
Uttar Pradesh	19.8	5.5	1.3	13.1	66	32.1	4.8
West Bengal	57.4	6.7	20.1	30.6	53	31.7	2.9

Source: NFHS national and state reports.

Table 2 Average number of children ever born by woman's age and use of contraception

	Contraceptive method used			
Age	None	Sterilized	Traditional	Modern temporary
All ages	2.7	4.0	2.8	2.6
15–19	0.6	2.2	0.6	1.0
20–24	1.5	2.7	1.5	1.6
25–29	2.7	3.3	2.4	2.3
30–34	3.9	3.8	3.2	3.1
35–39	4.6	4.2	3.9	3.8
40–44	5.1	4.7	4.1	4.2
45–49	5.3	5.2	4.6	4.4

Source: Tabulated from NFHS data.

What role for temporary methods?

Temporary contraceptive methods allow women who may want children in the future to control their fertility now. In a country such as India with high infant and child mortality rates, women who already have children may wish to keep the option open to have more until they feel confident that the children they already have will survive. In such situations, temporary contraceptive methods can play an important role in helping women achieve their goals for completed family size.

Women who are not using contraception but who want to delay their next birth or stop having children altogether are identified as having 'unmet need' for family planning. If all women classified by the NFHS as having unmet need were to begin using a contraceptive method, then contraceptive use in India would rise from 41% to 60%. Based on the general relationship between contraceptive prevalence and total fertility, as suggested by international comparisons, increasing contraceptive use in India to 60% would result in a drop in the total fertility rate from the current rate of 3.4 to 2.3 children per woman. Given current mortality levels in India, this is only slightly above population replacement level.

While this figure provides a useful benchmark, assessing the fertility decline likely to result from changes in contraceptive prevalence is fraught with difficulties. In particular, 56% of the women identified by the NFHS as having unmet need say that they want another child after an interval of two or more years. If these women begin using contraception today but then go on to have another child, will increased contraceptive use merely result in longer birth intervals without changing the level of fertility?

Except in very high-fertility populations, there is not necessarily any relationship between length of birth intervals and fertility level. Whether we look at the 25 NFHS states of India or the 27 countries for which data are available from Demographic and Health Surveys (DHS), even substantial increases in the length of birth intervals correspond to changes of only a few tenths of a child per woman in the total fertility rate.

At the same time, data from 26 DHS countries show very little overall relationship between use of temporary contraception and length of birth intervals. An association with longer birth intervals is observed only when temporary contraceptive use rises above 30%, and even then, the magnitude of the relationship is modest. In fact, there is remarkably little variation above or below a median birth interval of about 30 months in both developed and developing countries around the world.

Data for the 25 states of India covered by the NFHS also show no relationship between temporary contraceptive use and length of birth intervals. NFHS results indicate a median last closed birth interval of 31.6 months for India as a whole, which is close to the international median value. Why is there so little relationship between contraceptive use and length of birth intervals? The explanation appears to be that women in most countries use contraception, including temporary methods, not to space births, but rather to stop having children altogether.

According to the NFHS, 64% of all women who are currently using temporary methods say they want no more children. Table 3 shows the percentages who want to stop having children or to space their next birth among all users of temporary methods as well as users of specific methods. The percentage wanting no more children is similar for each method except injection and 'other' methods, categories that are too small to provide reliable results.

Most of the remaining women who are currently using temporary methods say they want another child. Many will go on to have another, but some will change their minds and have no more children. These women are, in effect, using temporary methods to stop childbearing. Thus, while we may expect increased use of temporary contraceptives to lower fertility, the decline will result mainly from the use of these methods to limit, rather than to space, births.

Strong demand

NFHS results show a substantial demand for temporary methods among women who are not currently using contraception. According to the NFHS, 20% of currently married women have an unmet need for family planning. This group comprises

Table 3 Current use of temporary contraceptive methods and desire for additional children

Contraceptive use	Desire for more children				Number of respondents
	Want more	Want no more	Other	Total	
All temporary methods	32	65	3	100	8,300
Pill	35	63	2	100	1,013
IUD	31	64	5	100	1,590
Injection	19	78	3	100	32
Condom	32	64	4	100	2,054
Abstinence	32	66	2	100	2,224
Withdrawal	36	62	3	100	1,202
Other	9	83	9	100	185

Source: Tabulated from NFHS data.

11% who say they want more children but only after an interval of two or more years (unmet need for spacing) and 9% who wish to stop having children altogether (unmet need for limiting). Women categorized as having an unmet need for spacing include pregnant women whose pregnancy was mistimed or unwanted and amenorrhoeic women whose last pregnancy was mistimed or unwanted.

The NFHS asked women who are not currently using family planning but intend to use contraception in the future what method they prefer. Among this group, 59% prefer sterilization, 36% prefer a temporary method, and 5% are undecided about methods. The proportion of women in this group who would prefer to use a temporary method in the future (36%) is larger by half than the proportion of current contraceptive users who are using a temporary method today (24%). Thus there is considerable evidence that contraceptive use could increase substantially if the demand for temporary methods were met.

Conclusions

As in the past, sterilization will continue to play an important role in India's family welfare programme. It would be unwise, however, to rely entirely on sterilization to promote continued fertility decline. Because sterilization is irreversible, it is acceptable only to women who are certain they will not want any more children in the future. The NFHS shows that in India this means mainly women who already have large families. Efforts to continue reducing fertility below current levels will have to reach women before they have large numbers of children. To be successful, such efforts should include a strong emphasis on temporary contraceptive methods.

NFHS results show considerable demand for temporary methods among currently married women of reproductive age. Making such methods more widely known and readily available will undoubtedly increase their use. Women who begin using contraception early in their married life in order to space births will acquire knowledge, attitudes, and habits conducive to a long-term reduction in family size.

Thus, the current Indian government programme to promote the use of temporary contraceptive methods is particularly important if fertility levels are to continue to decline. Private-sector efforts in this area should be encouraged as well, for the private sector is responsible for approximately half of all the supply of modern temporary methods.

Reference

Pathak, K. B., Griffith Feeney, and Norman Luther. 1998. *Permanent methods, temporary methods, and fertility decline in India.* National Family Health Survey Subject Reports No. 7. Mumbai: International Institute for Population Sciences; Honolulu: East-West Center.

The **International Institute for Population Sciences** was established at Mumbai in 1956 as the regional institute for training and research in population studies for the Asia and Pacific region of the United Nations. Now also a deemed university, it is an autonomous institution sponsored jointly by the Government of India, the United Nations Population Fund, and the Sir Dorabji Tata Trust.

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