

New Survey Finds Fertility Decline in India

Asia-Pacific Population & Policy summarizes research on population and reproductive health for policymakers and others concerned with the Asia-Pacific region.

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Writer:
Sidney B. Westley

Managing Editor:
Sidney B. Westley

Graphic Artist:
Russell Fujita

Editorial Committee:
Philip Estermann
Andrew Kantner
Karen Oppenheim Mason
James Palmore
Robert D. Retherford
Sandra E. Ward

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Correspondence address:
East-West Center
Program on Population
1777 East-West Road
Honolulu, HI 96848, USA
Telephone: (808) 944-7482
Fax: (808) 944-7490
E-mail: POPPUBS@EWC.BITNET

The first results are available from the National Family Health Survey (NFHS), one of the most complete of its kind ever conducted in India. Responses from nearly 90,000 women provide convincing evidence that fertility has declined throughout the country. Yet there are striking differences among regions and individual states.

The stakes are high. The 1991 census reported a total population of 846.3 million, up by nearly 24 percent from 1981. This implies an average annual population growth of 2.11 percent, based on roughly 27 million births a year. At this rate, India will overtake China early in the next century, becoming the most populous country in the world.

Given the importance of information on fertility and family health, the Ministry of Health and Family Welfare (MOHFW) launched a project in 1991 to strengthen the survey capabilities of 18 population research centers around the country. The NFHS is a component of this project, coordinated by the International Institute for Population Sciences (IIPS) in Bombay. The East-West Center and a U.S.-based consulting firm, Macro International, have provided technical assistance for the survey. The project is funded by the United States Agency for International Development (USAID).

Between April 1992 and September 1993, survey teams visited 88,562 households in 24 states plus the National Capital Territory of Delhi. Using uniform sam-

pling designs, field procedures, and questionnaires, they interviewed 89,777 ever-married women between the ages of 13 and 49. The survey sample represented 99 percent of such women in the Indian population. Women answered questions on reproduction, knowledge and use of contraception, maternal and child health, and knowledge of AIDS.

This issue of *Asia-Pacific Population & Policy* presents new information from the survey on fertility trends and family planning practices in India. The discussion focuses on the 17 most populous states plus Delhi. The next issue will highlight important new results from the NFHS on maternal and child health and women's knowledge of AIDS.



Nearly 40 percent of household members covered by the National Family Health Survey were under 15 years old.

Table 1 Total fertility rates for women aged 15–49 in the more populous states of India

State	Total population (million)	Total fertility rate (TFR)		
		Rural	Urban	Total
Low-fertility states				
Kerala	29.1	2.09	1.77	2.00
Tamil Nadu	55.9	2.54	2.38	2.48
Andhra Pradesh	66.5	2.67	2.35	2.59
Karnataka	45.0	3.09	2.39	2.85
Maharashtra	78.9	3.12	2.54	2.86
Medium-fertility states				
Punjab	20.3	3.09	2.46	2.91
West Bengal	68.1	3.26	2.14	2.92
Orissa	31.7	3.00	2.53	2.92
Himachal Pradesh	5.2	3.07	2.01	2.97
Gujarat	41.3	3.17	2.69	2.99
N.C.T. Delhi	9.4	3.19	3.00	3.02
Jammu Region	7.7	3.36	2.13	3.13
High-fertility states				
Assam	22.4	3.68	2.53	3.53
Rajasthan	44.0	3.87	2.77	3.63
Madhya Pradesh	66.2	4.11	3.27	3.90
Haryana	16.5	4.32	3.13	3.99
Bihar	86.4	4.15	3.26	4.00
Uttar Pradesh	139.1	5.19	3.58	4.82
All India	843.6	3.67	2.70	3.39

Source: Population from the 1991 Census of India. Total fertility rates from the National Family Health Survey.

DEMOGRAPHIC HIGHLIGHTS

The households covered in the survey included 500,492 individuals. The young age structure of this representative sample shows the magnitude of the task ahead: 38 percent of household members were under 15 years old, with their reproductive years still in the future.

The overall sex ratio was 944 females to 1,000 males, slightly higher than the 927:1,000 ratio estimated by the 1991 population census. In the survey house-

holds, 54 percent of all females over age 5 were currently married; another 10 percent were widowed, divorced, or separated.

Among these women and girls, 43 percent were literate, and 9 percent had a secondary education or higher. Literacy rates and education levels were much higher in cities than in rural areas: female literacy was 67 percent in towns but only 34 percent in the countryside. Female literacy also varied widely among states—from 82 percent in Kerala to less than 30 percent in Rajasthan, Bihar, Uttar Pradesh, and Madhya Pradesh.

FERTILITY

Fertility estimates were based on complete birth histories collected from each respondent. Crude birth rates (CBR) were calculated from all the live births that occurred during the three-year period before the interview. Total fertility rates (TFR) were also calculated—the number of children a woman would bear throughout her reproductive years at current age-specific fertility rates.

Current rates. The NFHS estimated an annual crude birth rate of 28.9 per 1,000 population, based roughly on the period from 1990 to 1992. This was very close to the recent estimates from India's Sample Registration System (SRS). The total fertility rate was 3.4 for women aged 15–49 (Table 1), slightly lower than the SRS estimate of 3.6 for 1991. According to these results, India has the second lowest fertility rate in South Asia (after Sri Lanka), though still much higher than rates in several other Asian countries (Figure 1).

Fertility peaked in the 20–24 year age group and declined sharply after age 30—women in their 20s were responsible for almost 60 percent of total fertility. Women in rural areas had on average one more child (TFR 3.7) than women in the cities (TFR 2.7), and there were wide variations among regions and states. In general, fertility in South and West India was considerably below the national average. Kerala and Goa had achieved below-replacement levels, and fertility was close to replacement level in Tamil Nadu. At the other end of the spectrum, the TFR in the populous state of Uttar Pradesh was 4.8—more than 40 percent above the national average.

Fertility preferences. Thirty-one percent of the women interviewed reported that they or their husbands had been sterilized.

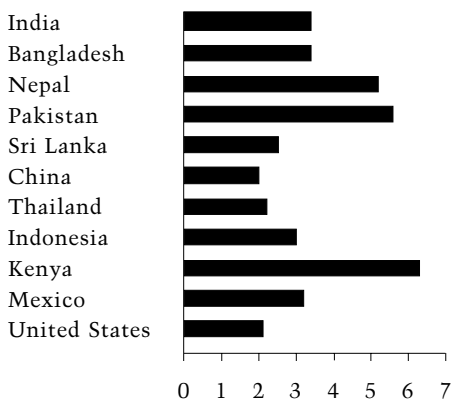


Figure 1 Total fertility rate for India and selected countries

Source: For South Asia, latest demographic and health surveys. For other countries, Population Reference Bureau, 1994 *World Population Data Sheet*, Washington, D.C.

Another 26 percent said they did not want any more children. As expected, the desire for more children declined rapidly as the number of living children increased. Only 6 percent of women with four or more children said they wanted another child, compared with 85 percent of women with no children.

Many young married women expressed a desire to space their children. More than one-third of those with no children said they wanted to wait at least two years before having their first child, and nearly half of those with one child said they would like to wait at least two years before having their second. This widely expressed desire for child spacing has important policy implications for India's family welfare program, which tended in the past to focus primarily on sterilization.

KNOWLEDGE AND USE OF CONTRACEPTION

In 1951, India was the first country in Asia to introduce a national population program. More than 40 years later, the

NFHS found nearly universal knowledge of family planning: 96 percent of all respondents knew about at least one modern or traditional contraceptive method. Although knowledge was slightly higher in urban areas (99 percent), even in rural areas 95 percent of respondents were familiar with at least one method. Knowledge of contraceptives was high everywhere in the country except in the small northeastern states.

Among modern methods, women were most familiar with female sterilization, closely followed by male sterilization (Table 2). About 60 percent were familiar with birth-control pills, IUDs (intrauterine devices), or condoms; a much smaller number knew about injectable contraceptives.

Although knowledge of family planning was nearly universal, fewer than one-half (47 percent) of the women interviewed had ever used a contraceptive method: 42 percent had used a modern method, and 12 percent had used a traditional method such as periodic abstinence or withdrawal. Still fewer (41 percent) were using family planning at the time of the survey: 36 percent were using a modern method and 4 percent were using a traditional method.

Table 2 Knowledge of modern contraceptives among currently married women aged 13–49

Method	Respondents familiar with method (%)		
	Urban	Rural	Total
Female sterilization	93.0	84.1	86.4
Male sterilization	85.0	72.0	75.4
Any modern temporary method	83.3	56.9	63.7
Pill	75.1	46.2	53.7
IUD	73.8	42.7	50.8
Condom	70.2	84.1	86.4
Injection	20.3	12.8	14.7
Any modern method	95.4	86.4	88.8

Table 3 shows that more women were using modern contraception in the cities (45 percent) than in the rural areas (33 percent). States reporting the highest use of modern contraceptives were Kerala, Himachal Pradesh, Maharashtra, and Punjab, as well as Delhi—all at over 50 percent. At the other extreme, current use rates were less than 25 percent in Uttar Pradesh and Bihar (the two most populous states in India), as well as Assam and several small northeastern states.

Female sterilization was by far the most widely used method of contraception reported. Of all women using a modern method, 75 percent had been sterilized, and another 9 percent reported that their husbands had been sterilized. Only 6 percent were using a modern spacing method—12 percent in urban areas and 3 percent in the countryside. The major exception was Delhi, where condoms were used by slightly more couples than female sterilization.

Among five-year age groups, women aged 35–39 reported the highest current use of contraception (61 percent). The current use rate was much lower for the two highest-fertility age groups—21 percent for women aged 20–24 and 42 percent for women aged 25–29.

Table 3 Current use of modern contraceptives among currently married women aged 13–49

Method	Respondents currently using method (%)		
	Urban	Rural	Total
Any modern method	45.3	33.1	36.3
Female sterilization	30.4	26.3	27.3
Male sterilization	3.2	3.5	3.4
Pill	1.9	0.9	1.2
IUD	3.9	1.2	1.9
Condom	5.8	1.2	2.4
Injection	0.0	0.0	0.0
Any traditional method	5.7	3.7	4.3

Contraceptive use increased dramatically with education. Only 34 percent of illiterate women were using any contraceptive method, compared with 49–55 percent for all other education groups. This trend was particularly strong in Uttar Pradesh, where only 16 percent of illiterate women used any method, compared with 40 percent of women who had completed secondary school. In general, women with more education tended to use modern or traditional spacing methods rather than sterilization.

Current use of contraception was also strongly linked to number of living children. The prevalence rate increased from 4 percent among women with no living children to 59 percent among women with three. Nearly half of all couples with two living children were using some method of contraception; for more than 30 percent, either the wife or the husband had been sterilized.

SOURCES OF FAMILY PLANNING SERVICES

Family planning methods and services are provided through primary health centers and subcenters in rural areas and through

a network of government hospitals and family welfare centers in towns. Many private hospitals and clinics and nongovernmental organizations also provide contraceptives.

Among the women using modern methods at the time of the survey, 79 percent obtained contraceptives from government sources. The private medical sector—private hospitals and clinics, private doctors, and pharmacies—supplied 15 percent of users, and another 5 percent obtained contraceptives from such sources as shops, friends, or relatives.

In general, rural residents were more dependent on government sources for family planning than were city dwellers. However, the mix of public- and private-sector sources varied according to the method used. The government was by far the most important source of sterilization: 86 percent of female and 93 percent of male sterilizations had been performed at a government facility. The government was also the major source of IUDs (63 percent).

Among respondents who used birth-control pills, only 31 percent obtained them from the public medical sector. The majority obtained pills from the private medical sector (42 percent) or from shops, friends, or relatives (27 percent). The pri-

private sector had an even greater role in the provision of condoms: the private medical sector supplied 20 percent of condom users, and other private-sector sources supplied a further 61 percent.

EARLY CONCLUSIONS

Detailed information on fertility and family planning practices will help family welfare organizations and the Indian government target their program efforts in the years ahead. For example, results from the NFHS on contraceptive use show a strong demand for temporary spacing methods, which is now met primarily by the private sector. Greater government involvement in providing these temporary spacing methods would bring more young women into the family welfare program and provide substantial health benefits to women and their children.

The NFHS also obtained information on maternal and child health topics, such as breast-feeding practices and infant and child nutrition, never before collected in India on a national scale. The next issue of *Asia-Pacific Population & Policy* will discuss these important results.

This issue of *Asia-Pacific Population & Policy* is based on:

National Family Health Survey (MCH and Family Planning), India 1992–93: Introductory report. 1994. Bombay: International Institute for Population Sciences.

This introductory report will be followed by a summary and a full report of national results and results from each of India's 24 states.

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